

# PeopleSoft FSCM 9.2: PeopleSoft Maintenance Management

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Contents

## **Preface**

## **Understanding the PeopleSoft Online Help and PeopleBooks**

The PeopleSoft Online Help is a website that enables you to view all help content for PeopleSoft applications and PeopleTools. The help provides standard navigation and full-text searching, as well as context-sensitive online help for PeopleSoft users.

#### **Hosted PeopleSoft Online Help**

You can access the hosted PeopleSoft Online Help on the <u>Oracle Help Center</u>. The hosted PeopleSoft Online Help is updated on a regular schedule, ensuring that you have access to the most current documentation. This reduces the need to view separate documentation posts for application maintenance on My Oracle Support. The hosted PeopleSoft Online Help is available in English only.

To configure the context-sensitive help for your PeopleSoft applications to use the Oracle Help Center, see <u>Configuring Context-Sensitive Help Using the Hosted Online Help Website</u>.

#### **Locally Installed PeopleSoft Online Help**

If you're setting up an on-premises PeopleSoft environment, and your organization has firewall restrictions that prevent you from using the hosted PeopleSoft Online Help, you can install the online help locally. Installable PeopleSoft Online Help is made available with selected PeopleSoft Update Images and with PeopleTools releases for on-premises installations, through the <u>Oracle Software Delivery Cloud</u>.

Your installation documentation includes a chapter with instructions for how to install the online help for your business environment, and the documentation zip file may contain a README.txt file with additional installation instructions. See *PeopleSoft 9.2 Application Installation* for your database platform, "Installing PeopleSoft Online Help."

To configure the context-sensitive help for your PeopleSoft applications to use a locally installed online help website, see <u>Configuring Context-Sensitive Help Using a Locally Installed Online Help Website</u>.

## Downloadable PeopleBook PDF Files

You can access downloadable PDF versions of the help content in the traditional PeopleBook format on the <u>Oracle Help Center</u>. The content in the PeopleBook PDFs is the same as the content in the PeopleSoft Online Help, but it has a different structure and it does not include the interactive navigation features that are available in the online help.

#### **Common Help Documentation**

Common help documentation contains information that applies to multiple applications. The two main types of common help are:

Application Fundamentals

#### • Using PeopleSoft Applications

Most product families provide a set of application fundamentals help topics that discuss essential information about the setup and design of your system. This information applies to many or all applications in the PeopleSoft product family. Whether you are implementing a single application, some combination of applications within the product family, or the entire product family, you should be familiar with the contents of the appropriate application fundamentals help. They provide the starting points for fundamental implementation tasks.

In addition, the *PeopleTools: Applications User's Guide* introduces you to the various elements of the PeopleSoft Pure Internet Architecture. It also explains how to use the navigational hierarchy, components, and pages to perform basic functions as you navigate through the system. While your application or implementation may differ, the topics in this user's guide provide general information about using PeopleSoft applications.

#### **Field and Control Definitions**

PeopleSoft documentation includes definitions for most fields and controls that appear on application pages. These definitions describe how to use a field or control, where populated values come from, the effects of selecting certain values, and so on. If a field or control is not defined, then it either requires no additional explanation or is documented in a common elements section earlier in the documentation. For example, the Date field rarely requires additional explanation and may not be defined in the documentation for some pages.

#### **Typographical Conventions**

The following table describes the typographical conventions that are used in the online help.

Typographical Convention	Description	
Key+Key	Indicates a key combination action. For example, a plus sign (+) between keys means that you must hold down the first ke while you press the second key. For <b>Alt+W</b> , hold down the <b>A</b> key while you press the <b>W</b> key.	
(ellipses)	Indicate that the preceding item or series can be repeated any number of times in PeopleCode syntax.	
{ } (curly braces)	Indicate a choice between two options in PeopleCode syntax.  Options are separated by a pipe ( ).	
[] (square brackets)	Indicate optional items in PeopleCode syntax.	
& (ampersand)	When placed before a parameter in PeopleCode syntax, an ampersand indicates that the parameter is an already instantiated object.  Ampersands also precede all PeopleCode variables.	

Typographical Convention	Description
⇒	This continuation character has been inserted at the end of a line of code that has been wrapped at the page margin. The code should be viewed or entered as a single, continuous line of code without the continuation character.

### **ISO Country and Currency Codes**

PeopleSoft Online Help topics use International Organization for Standardization (ISO) country and currency codes to identify country-specific information and monetary amounts.

ISO country codes may appear as country identifiers, and ISO currency codes may appear as currency identifiers in your PeopleSoft documentation. Reference to an ISO country code in your documentation does not imply that your application includes every ISO country code. The following example is a country-specific heading: "(FRA) Hiring an Employee."

The PeopleSoft Currency Code table (CURRENCY\_CD\_TBL) contains sample currency code data. The Currency Code table is based on ISO Standard 4217, "Codes for the representation of currencies," and also relies on ISO country codes in the Country table (COUNTRY\_TBL). The navigation to the pages where you maintain currency code and country information depends on which PeopleSoft applications you are using. To access the pages for maintaining the Currency Code and Country tables, consult the online help for your applications for more information.

### Region and Industry Identifiers

Information that applies only to a specific region or industry is preceded by a standard identifier in parentheses. This identifier typically appears at the beginning of a section heading, but it may also appear at the beginning of a note or other text.

Example of a region-specific heading: "(Latin America) Setting Up Depreciation"

#### **Region Identifiers**

Regions are identified by the region name. The following region identifiers may appear in the PeopleSoft Online Help:

- Asia Pacific
- Europe
- Latin America
- North America

#### **Industry Identifiers**

Industries are identified by the industry name or by an abbreviation for that industry. The following industry identifiers may appear in the PeopleSoft Online Help:

• USF (U.S. Federal)

• E&G (Education and Government)

#### **Translations and Embedded Help**

PeopleSoft 9.2 software applications include translated embedded help. With the 9.2 release, PeopleSoft aligns with the other Oracle applications by focusing our translation efforts on embedded help. We are not planning to translate our traditional online help and PeopleBooks documentation. Instead we offer very direct translated help at crucial spots within our application through our embedded help widgets. Additionally, we have a one-to-one mapping of application and help translations, meaning that the software and embedded help translation footprint is identical—something we were never able to accomplish in the past.

## **Using and Managing the PeopleSoft Online Help**

Select About This Help in the left navigation panel on any page in the PeopleSoft Online Help to see information on the following topics:

- Using the PeopleSoft Online Help.
- Managing hosted Online Help.
- Managing locally installed PeopleSoft Online Help.

## **PeopleSoft FSCM Related Links**

Oracle Help Center

Hosted Online Help

**PeopleSoft Information Portal** 

My Oracle Support

Financial and Supply Chain Management information for Search Framework search engine can be found in PeopleSoft Application Fundamentals documentation. For application specific information, see the "Understanding Keyword Search within Components" (Application Fundamentals) topic.

PeopleSoft Training from Oracle University

PeopleSoft Video Feature Overviews on YouTube

PeopleSoft Business Process Maps (Microsoft Visio format)

PeopleSoft Spotlight Series

### **Contact Us**

Send your suggestions to psoft-infodev us@oracle.com.

Please include the applications update image or PeopleTools release that you're using.

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	Read PeopleSoft Blogs
in	Connect with PeopleSoft on LinkedIn

#### **Chapter 1**

# Getting Started with PeopleSoft Maintenance Management

#### **Related Product Documentation**

The *PeopleSoft Maintenance Management Documentation* provides you with implementation and processing information for the PeopleSoft Maintenance Management application. However, additional essential information describing the setup and design of your system resides in companion documentation. This companion documentation consists of important topics that apply to many or all PeopleSoft applications across the Financials, Enterprise Service Automation, and Supply Chain Management product lines. You should be familiar with the contents of this documentation.

The following companion documentation apply specifically to PeopleSoft Maintenance Management.

- PeopleSoft Application Fundamentals Documentation.
- PeopleSoft Asset Lifecycle Management Fundamentals Documentation
- PeopleSoft Asset Management Documentation
- PeopleSoft Global Options and Reports Documentation.
- PeopleSoft Inventory Documentation
- PeopleSoft Project Costing Documentation
- PeopleSoft Purchasing Documentation
- PeopleSoft eProcurement Documentation
- PeopleSoft Payables Documentation
- PeopleSoft Program Management Documentation
- PeopleSoft CRM Documentation
- PeopleSoft Resource Management Documentation
- PeopleSoft Expenses Documentation
- PeopleSoft Time and Labor Documentation
- PeopleSoft Payroll for North America Documentation
- PeopleSoft General Ledger Documentation
- PeopleSoft HRMS Documentation

## **PeopleSoft Maintenance Management Overview**

PeopleSoft Maintenance Management serves a key role in the Plan to Retire business process by enabling your organization to plan, construct, maintain, and replace assets in accordance with your organization's strategic goals.

With this application, you can:

- Create an online self-service service request to obtain either service or repair on an asset.
  - If the agent receiving the service request needs additional help in completing the request, then the agent can create a work order based on the service request.
- Create and approve a work order to serve as the primary vehicle for planning, scheduling, executing, and costing the maintenance, repair, upgrade, and construction of assets.
  - You can define and track the failure of an asset associated with the work order or work order task directly from the Work Order, Work Order Completion and Technician Workbench components. This enables you to analyze this data to discover trends and relationships affecting future failure occurrence, asset reliability, and maintenance and repair effectiveness measures.
- Initiate work orders from the PeopleSoft CRM Help Desk application, PeopleSoft Project Costing, and PeopleSoft Program Management, PeopleSoft Purchasing, PeopleSoft eProcurement, and PeopleSoft Payables,

You can use PepoleSoft Purchasing, eProcurement, and Payables to tie back to an existing work order.

- Create and manage express work orders, standard work orders, and preventive maintenance work orders.
- Create condition-based work orders.

Using Web Services functionality, an external system monitors the condition of an asset and issues an alert to PeopleSoft Maintenance Management when the condition of the asset is abnormal and needs maintenance or repair. A planner/scheduler then creates a condition-based work order.

- Integrate with PeopleSoft Asset Management to:
  - Change out component assets via work order tasks, as well as manage and track the retirement, replacement, and disposal of assets.
  - Manage warranties and generate warranty claims for assets associated with work order tasks.
- Integrate with ESRI ArcGIS Online to:
  - Click a button from the Work Order, Technician Workbench, and Work Order Workbench components in PeopleSoft Maintenance Management to locate work orders on an ESRI GIS map and displays the details of each work order.
  - Click a button from the Basic Add, Define Asset Operational Information, and Asset Map
    Dashboard components in PeopleSoft Asset Management to view details about one or more assets
    and create an Express Work Order for an asset.

- Integrate PeopleSoft Maintenance Management Web Services with a third-party mobile device, which is capable of adding and updating work orders and work order task information.
- Set up work order job templates and work order task templates to predefine work order task requirements.

Templates define combinations of resources that you can apply to work orders and work order tasks, reducing the amount of data entry needed to define work orders and lowering the potential for errors.

- Create work order tasks within the work order that specifically define all aspects of each activity needed to complete a work order.
- Optionally assign each work order task to a problem group, problem, cause, and resolution to facilitate tracking and analysis of issues and failures and standardize resolutions to problems.
- Plan and identify labor, inventory, purchasing, and tool resource requirements and determine estimated costs for each work order task that is needed to complete a work order.

Equipment Parts List (EPL) templates are set up for an asset category (asset type, subtype, manufacturer's ID, model) in PeopleSoft asset management. When you select an asset for a work order task that has one or more EPL templates associated with it, you can select and copy one or more inventory items from the EPL templates to rows on the Inventory Requirements grid. You can also select and copy one or more non-inventory and other procurable materials and services from one or more EPL templates to rows on the Purchase/On-Hand Requirements grid in a work order.

If the selected asset for a work order task has one or more EPL templates associated with it, an authorized user can select inventory, non-inventory, and other procurable materials and services from the work order task rows in the Inventory Requirements grid and the Purchase/On-Hand Requirements grid, and add these inventory, non-inventory, and procurable materials and services to one or more EPL templates.

#### Schedule labor resources to:

- Determine the availability and qualification of individual labor resources in order to schedule them appropriately to work order tasks.
- Establish crew capacity and availability to schedule a crew in the Crew Scheduling Workbench for a specified period of time.
- Use the Labor Assignment Workbench to assign individuals and members of crews to multiple work orders and work order tasks.
- Use crew metrics to measure crew performance, which includes scheduled hours, unplanned hours, carryover hours, and completed hours, to plan for crew scheduling in future periods.

#### • Schedule Inventory parts:

- Specify inventoried parts, check the availability, commit the parts, and reserve the parts in inventory to schedule their use for each work order task.
- If the asset selected for the work order task has one or more EPL templates defined, you can select inventory items set up on any of the templates and copy these items to the work order task row on

the Inventory Schedules grid. An authorized user can also select inventory items for one or more task rows and add them to one or more EPL templates associated with the selected task's asset.

**Note:** Use of Inventory is optional.

- Schedule the purchase of non-inventoried items, tools, and labor services, as well items that are on-hand in the shop using PeopleSoft Purchasing or PeopleSoft eProcurement.
  - Check for the availability of selected non-inventory rows.
  - Create purchase orders or requisitions for selected rows.
  - If the asset selected for the work order task is associated with one or more EPL templates, you
    can select non-inventory and other procurable materials and services defined on any of the EPL
    templates and copy these items to the work order task row on the Purchase/On-Hand Schedules
    grid. An authorized user can also select non-inventory and other procurable materials for one or
    more task rows and add them to one or more EPL templates associated with the selected task's
    asset.

**Note:** Installation of PeopleSoft Purchasing is required for PeopleSoft Maintenance Management, and the installation of PeopleSoft eProcurement is only required if you intend to create requisitions for a work order using PeopleSoft eProcurement.

Schedule tools:

Check tool availability.

• Create time-driven and/or meter-driven preventive maintenance schedules that enable the application to calculate the next maintenance due date and automatically generate work orders.

Each preventive maintenance schedule is associated with a work order job template, which defines the resource requirements and task steps for the work order. Users run the Preventive Maintenance (WM\_PM) process to generate work orders. They can also run the Preventive Maintenance Projection process to generate projections that can be viewed online or loaded into Microsoft Project.

• Export work orders and preventive maintenance projections from PeopleSoft Maintenance Management into Microsoft Project 2007 for workload balancing, planning, and tracking.

Import updated work orders from Microsoft Project 2007 into PeopleSoft Maintenance Management.

- Enable assigned schedulers to manage their work order schedules using the Work Order Workbench.
- Execute and complete work orders:
  - Enable technicians, or an authorized user, to access the Technician Workbench, where they can enter both time spent on a work order task and non-work order personal time for individuals and crews, as well as report and update usage of materials and tools.

A technician can also print out assigned tasks, change the status of work order tasks, update actual dates and times, add problem, cause, and resolution data, enter meter readings, identify causal parts, view and add work order task notes, update specific asset information, including asset downtime, view work order task instructions, update work order task checklists, and work with file attachments. This feature also has powerful and flexible task searching capabilities.

- Use the Work Order Completion component to expedite the entry of labor time, material and tool usage, enter causal parts, complete the checklist, update meter readings, review and add notes, enter asset downtime, and change the status for tasks associated with a single work order.
- Set up work order inspection templates to predefine asset inspection activities.
  - Work Order Inspection Plans allow you to define and organize various inspection codes that are used to capture data while inspecting assets.
- Optionally create work order inspections for tasks using the work order component and execute work order inspection process.
- Execute and complete work order asset inspections:
  - Use the Work Order Inspection component, where maintenance technicians can capture asset attribute data values and then evaluate them to determine the asset's overall condition or operability.
  - Use the Technician Workbench and Work Order Completion components to quickly identify and complete work order inspections before setting the associated work order status to Complete.
- Integrate with PeopleSoft Project Costing and PeopleSoft Asset Management to capture actual work order costs, calculate asset capitalization, and generate chargeback accounting entries based on work performed on an asset.
- Automatically close the work order and update and track all costs in PeopleSoft Maintenance Management.
- Review inquiries, which include the Asset Maintenance Cost Inquiry, Asset Maintenance History, Work Order History, Work Progress Tracking, Purchasing and Pegging, Chargeback, Capitalization, Crew Schedule, Crew Schedule Metrics, Crew Capacity Plan, Preventive Maintenance, and Preventive Maintenance Projections.
- Generate reports, which include the Crew Capacity Report, Crew Schedule and Assignment Report, Crew Unscheduled Work Report, Crew Carryover Work Report, Schedule Completion Report, Material Readiness Report, Preventive Maintenance Reports, Labor Assignment Report, Material Assignment Report, Procurement/On-Hand Report, Tool Assignment Report, Instruction Report, Checklist Report, Work Order Notes Report, Work Order Task Notes Report, and Equipment Parts List.

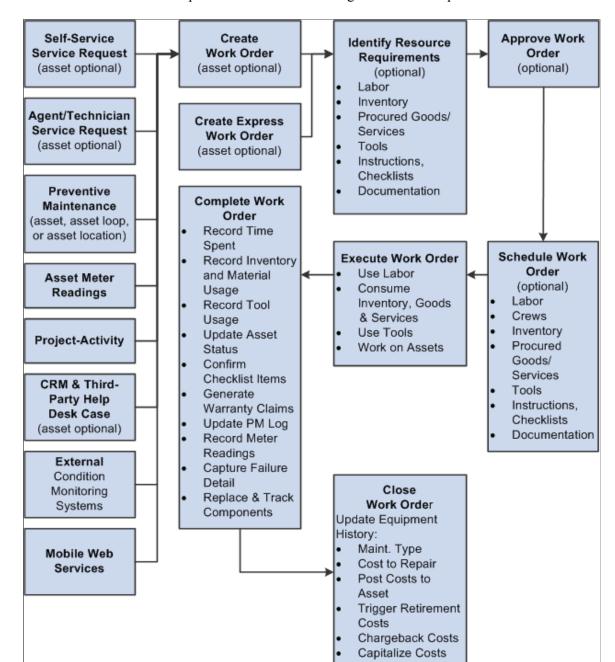
## **PeopleSoft Maintenance Management Business Processes**

The business process topics of this documentation discusses these business processes.

- Creating a service request.
- Creating a work order.
- Approving a work order.
- Defining labor, inventory, non-inventory, and tool resource requirements.

- Scheduling labor, inventory, non-inventory, and tool resources for a work order.
- · Performing crew scheduling.
- Executing a work order, recording and capturing costs, and updating the PeopleSoft Maintenance Management transactions in the appropriate subsystems.
- Generating a work order using the Preventive Maintenance process (WM PM).
- Generating projections using the Preventive Maintenance Projection process.
- Closing a work order and updating PeopleSoft Maintenance Management costs.
- Extracting and summarizing asset maintenance costs in order to perform asset maintenance cost analyses.
- Tracking and analyzing PeopleSoft Maintenance Management asset maintenance costs.
- Performing PeopleSoft Maintenance Management inquiries.
- Generating PeopleSoft Maintenance Management reports.

The following process flow introduces PeopleSoft Maintenance Management business processes. Service Requests, Preventive Maintenance schedules, Project Costing projects and activities, and CRM and other Help Desk Applications, condition-based monitoring systems, and ESRI GIS map asset locations are used to create a work order or an express work order. Once a work order is created, users identify labor, inventory, purchased and on-hand, and tool resources on the work order. Next the work order requires approval or is pre-approved, then the resources are scheduled. Once scheduled, the work is initiated and the work order is executed with the entry of actual labor, materials, and tool amounts. The work order is completed once all details have been updated and processed and then closed.



Process flow introduces PeopleSoft Maintenance Management business processes

## **PeopleSoft Maintenance Management Integration Touchpoints**

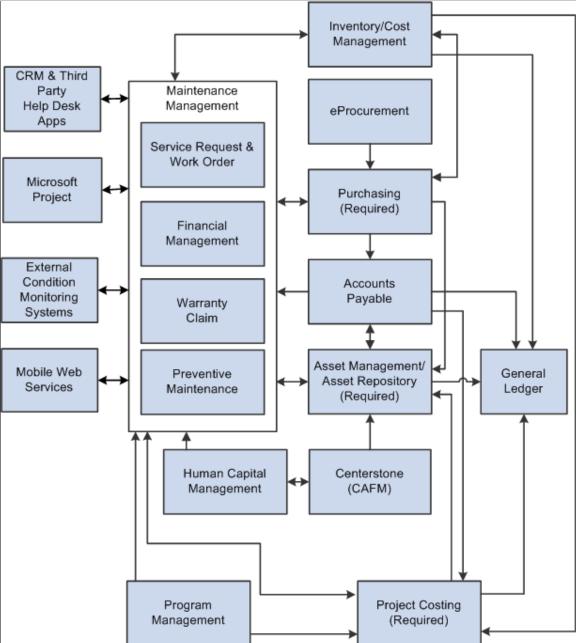
PeopleSoft Maintenance Management integrates with these PeopleSoft applications.

- PeopleSoft Asset Management.
- PeopleSoft Project Costing.
- PeopleSoft Purchasing.

- PeopleSoft Expenses.
- PeopleSoft General Ledger.
- PeopleSoft Inventory.
- PeopleSoft IT Asset Management.
- PeopleSoft Payables.
- PeopleSoft eProcurement
- PeopleSoft Lease Administration.
- PeopleSoft Resource Management.
- PeopleSoft Program Management.
- PeopleSoft CRM.
- PeopleSoft Time and Labor.
- PeopleSoft Northern Payroll.
- PeopleSoft Global Payroll.

The following diagram illustrates how PeopleSoft CRM and third part help desk applications, Microsoft Project, external condition monitoring systems, Mobile Web Services, PeopleSoft Expenses, PeopleSoft Inventory and Cost Management, PeopleSoft eProcurement and Purchasing, PeopleSoft Accounts Payable, PeopleSoft Asset Management, Centerstone CAFM, PeopleSoft HCM, PeopleSoft Program Management, and PeopleSoft Project Costing integrate with Maintenance Management. Ultimately the Maintenance Management and subsystem accounting entries are posted in PeopleSoft General Ledger.

How PeopleSoft CRM and third part help desk applications along with several services integrate with Maintenance Management



The integration considerations are discussed in the implementation topics of this documentation.

Supplemental information about third-party application integrations is located on Oracle's My Oracle Support web site. Third-party products that are used by PeopleSoft Maintenance Management are:

- Microsoft Project 2007.
- Search Framework search engine.

## **PeopleSoft Maintenance Management Implementation**

PeopleSoft Setup Manager enables you to generate a list of setup tasks for your organization based on the features that you are implementing. The setup tasks include the components that you must set up, listed in the order in which you must enter data into the component tables, and links to the corresponding documentation.

#### Other Sources of Information

In the planning phase of your implementation, take advantage of all PeopleSoft sources of information, including the installation guides, table-loading sequences, data models, and business process maps. A complete list of these resources appears in the preface in the documentation *PeopleSoft Application Fundamentals* with information about where to find the most current version of each.

See the product documentation for *PeopleTools: Setup Manager* 

#### **Chapter 2**

## Navigating in PeopleSoft Maintenance Management

## **Navigating in PeopleSoft Maintenance Management**

PeopleSoft Maintenance Management provides custom navigation pages that contain groupings of folders that support a specific business process, task, or user role.

**Note:** In addition to the PeopleSoft Maintenance Management custom navigation pages, the PeopleSoft system provides menu navigation and standard navigation pages.

See the product documentation for PeopleTools: Applications User's Guide

#### Pages Used to Navigate in PeopleSoft Maintenance Management

This table lists the custom navigation pages that are used to navigate in PeopleSoft Maintenance Management.

#### **Maintenance Management Center**

The Maintenance Management Center custom navigation pages are geared to the person in your organization who is focused on all aspects of maintenance management, including business processes and data setup. This table lists the custom pages that are used to navigate in PeopleSoft Maintenance Management:

Page Name	Navigation	Usage
Maintenance Management Center	Maintenance Management > Maintenance Management Center	Access primary Maintenance Management menu options and activities.
Asset Administration	Click the <b>Asset Administration</b> link on the Maintenance Management Center page.	Access the Asset Administration page to access the Asset Definitions Center to set up asset and component information, define asset hierarchy, establish equipment parts lists, and define other asset operations and maintenance data.
Condition Based Monitoring	Click the Condition Based Monitoring link on the Maintenance Management Center page.	Perform condition-based maintenance setup and create alerts.

Page Name	Navigation	Usage
Crew Scheduling	Click the <b>Crew Scheduling</b> link on the Maintenance Management Center page.	Access the Crew Scheduling Workbench and the Labor Assignment Workbench.  Define crew capacity plans, review and analyze metrics, and run the reschedule history.
Inquiries and Reports	Click the <b>Inquiries and Reports</b> link on the Maintenance Management Center page.	Review asset maintenance history and work order history, track work progress, review work order procurement, review chargebacks, review capitalization, review crew schedules, and print and review the Material Readiness Report.
Labor Administration	Click the <b>Labor Administration</b> link on the Maintenance Management Center page.	Manage employee data, set up labor programs and groups, maintain eligibilities, map employees to crafts, and edit profiles.
Maintenance Management Setup	Click the Maintenance Management Setup link on the Maintenance Management Center page.	Access options for setting up PeopleSoft Maintenance Management.
Portal Setup	Click the <b>Portal Setup</b> link on the Maintenance Management Center page.	Refresh portal pagelet metrics for work order related and asset related metrics.
Preventive Maintenance	Click the <b>Preventive Maintenance</b> link on the Maintenance Management Center page.	Run the Preventive Maintenance process and review preventive maintenance logs, due dates, and work order information. Run the Projection process, review summary and detailed projection information, and access the PM Schedule Management Setup page.
Schedule Management	Click the <b>Schedule Management</b> link on the Maintenance Management Center page.	View and update labor resource and asset schedules.
Service Request Management	Click the Service Request Management link on the Maintenance Management Center page.	Create, update, and review service requests.
Warranty Claim	Click the <b>Warranty Claim</b> link on the Maintenance Management Center page.	View or update warranty claims, and generate a new cost recovery claim.

Page Name	Navigation	Usage
Work Order Management	Click the Work Order Management link on the Maintenance Management Center page.	Define and edit work orders, create and update express work orders, update task accounting and approvals, manage integration with Microsoft Project, enter work order completion time entries and data, enter and review asset downtime, print a work order, and access Work Order Processing page.
Workbenches	Click the <b>Workbenches</b> link on the Maintenance Management Center page.	Access the Work Order Workbench, Crew Scheduling Workbench, Technician Workbench, PM Schedule Workbench, and Labor Assignment Workbench.

### **Chapter 3**

# Understanding PeopleSoft Maintenance Management

### **PeopleSoft Maintenance Management System Overview**

Proper maintenance of an organization's asset infrastructure is essential to ensuring safety, complying with regulations, and achieving the financial and operational targets that are established by the organization's management. PeopleSoft Maintenance Management enables organizations to create work orders, schedule the resources to perform the tasks that are identified on the work orders, and track the costs that are associated with the maintenance and repair of these assets. In addition, the employees of an organization, as well as non-employees, can create a service request using an online self-service form to request that an agent arrange for the performance of maintenance, repair, or facility move activities. If necessary, the agent can create a work order based on a service request. In PeopleSoft Maintenance Management, a work order can consist of one or more work order tasks. A work order can address a single asset, multiple assets, or a general service that is not associated with a particular asset. Each task specifies the work that is required and optionally, the asset that requires repair or maintenance.

#### This section discusses:

- PeopleSoft Maintenance Management process flow.
- PeopleSoft Maintenance Management integrations.
- PeopleSoft Maintenance Management integration with PeopleSoft Asset Management.
- PeopleSoft Maintenance Management integration with PeopleSoft Project Costing.
- PeopleSoft Maintenance Management integration with PeopleSoft Purchasing and PeopleSoft Payables.
- PeopleSoft Maintenance Management integration with PeopleSoft eProcurement.
- PeopleSoft Maintenance Management integration with PeopleSoft Inventory.
- PeopleSoft Maintenance Management integration with PeopleSoft ALM Portal Pack.
- PeopleSoft Maintenance Management integration with PeopleSoft Program Management.
- PeopleSoft Maintenance Management integration with PeopleSoft CRM and third-party help desk applications.
- PeopleSoft Maintenance Management integration with condition-based monitoring systems.
- PeopleSoft Maintenance Management integration with PeopleSoft Resource Management.
- PeopleSoft Maintenance Management integration with PeopleSoft Expenses.

- PeopleSoft Maintenance Management integration with Microsoft Project.
- PeopleSoft Maintenance Management integration with ESRI.
- PeopleSoft Maintenance Management integration with Mobile Web Services.

#### Users can:

- Determine labor, inventory, non-inventoried materials and services, and tool resource requirements for each task.
- Calculate the estimated costs.
- Assign and schedule the resources for each task.
- Update the usage of resources when the task is carried out to generate cost transactions in the subsystems.

The Work Order Workbench offers an efficient user interface for planners, supervisors, and schedulers to rapidly schedule each work order task. To reduce the burden of scheduling each technician, the Crew Scheduling Workbench provides an efficient means for scheduling labor resources at a crew level in specific periods and establishes the scheduled hours metrics by crew and craft for future schedule completion and compliance analysis. Once crew scheduling is completed for the next period, the craft supervisor can use the Labor Assignment Workbench to assign each technician to the scheduled tasks. This workbench enables the supervisor to view the daily availability of all crew members at one time and allocate the workload appropriately. When the work is performed, the Technician Workbench enables technicians to access key work order task information, print the work order and associated documentation, and record the details of the performed work. If an organization wants to expedite time and resource entry based on the tasks that are associated with one work order, they can use the Work Order Completion component.

You can also create preventive (recurring) maintenance schedules from which the system can automatically generate work orders based on the passage of time or meter readings. Users can generate work forecasts and load the detail into Microsoft Project to plan workloads.

Each work order task is associated with one project activity. Project activities track the costs that are incurred by each work order task and the work order. Depending on your setup, work order costs can flow from PeopleSoft Maintenance Management, PeopleSoft Inventory, PeopleSoft Purchasing, PeopleSoft eProcurement, PeopleSoft Payables, and PeopleSoft Expenses into PeopleSoft Project Costing. PeopleSoft Project Costing can also capitalize and charge back the costs of each work order task based on the eligibility of the task for these transactions. After the close of an individual work order task, PeopleSoft Project Costing performs any capitalization calculations to increase the value of an asset in PeopleSoft Asset Management. Users can indicate that they want PeopleSoft Project Costing to charge back work order costs to another organization. Chargebacks occur upon the close of a work order. Work order tasks can also trigger the retirement of financial assets.

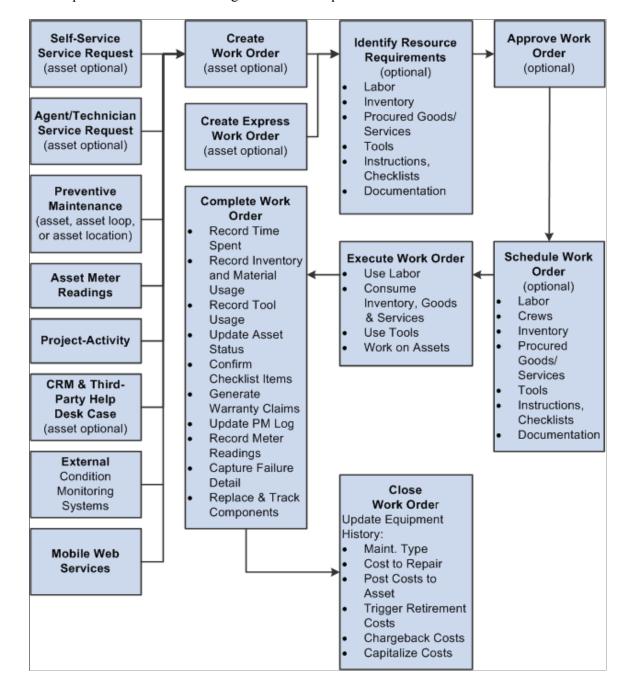
For equipment and all other types of assets, PeopleSoft Maintenance Management can provide warnings that warranties are in effect and lets users create warranty claims based on the detail that is captured on work orders

Although the application is called PeopleSoft Maintenance Management, it is tightly integrated with other applications to facilitate the management of project-oriented initiatives. With PeopleSoft Project Costing and PeopleSoft Maintenance Management, you can manage demolition, large-scale maintenance

expenses, and capital projects, and if you need more advanced project scheduling, monitoring, and reporting, you can use PeopleSoft Program Management.

### **PeopleSoft Maintenance Management Process Flow**

The following diagram illustrates the PeopleSoft Maintenance Management business process flow. Self-service service requests, agent/technician service requests, preventive maintenance schedules, PeopleSoft Project Costing, CRM and third party help desk applications, external condition monitoring and ESRI GIS asset mapping systems can all be used to create standard or express work orders in PeopleSoft Maintenance Management. Project Costing also provides projects and activities for work orders, and asset meter readings are collected and used in the Preventive Maintenance process to enable the generation of preventive maintenance work orders. Once work orders are created, you can identify labor, inventory, procured goods and services, and tool resource requirements for the work orders, as well as add instructions, checklists and attachments. You can set the work order up as pre-approved or set up Enterprise Components workflow approval. After approving a work order, you schedule the resources. The assigned technicians execute the work order and can enter labor and personal time, materials and tool usage, and asset meter information. Once the work is complete, the work order task status is changed to complete, which records the actual labor time, inventory and material usage, updates the asset status, confirms the checklist items, generates any warranty claims, updates the preventive maintenance log, record meter readings, captures failure detail, and the replacement and tracking of asset components. Once all tasks are complete, the work order is closed, and Asset Maintenance History is updated, chargebacks and asset capitalization and retirement costs are calculated, and the actual costs are updated in the work order. The asset maintenance costs are now available for analysis by management.



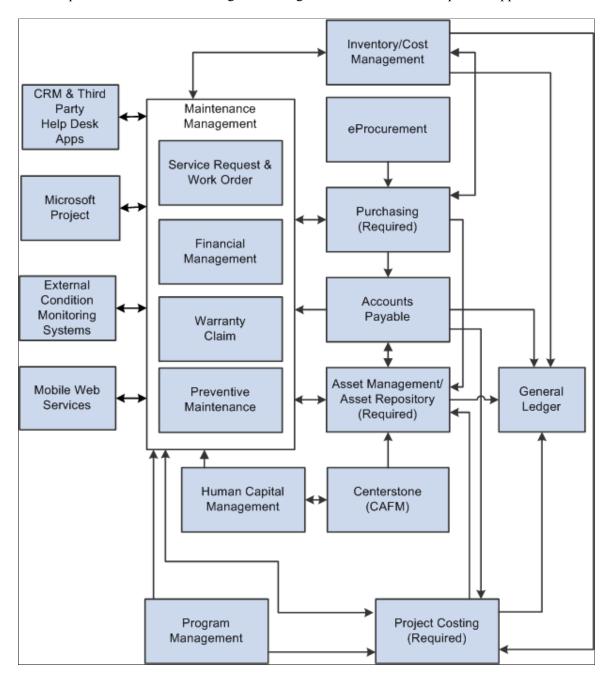
#### the PeopleSoft Maintenance Management business process flow

### **PeopleSoft Maintenance Management Integrations**

The following diagram illustrates how PeopleSoft Maintenance Management integrates with numerous PeopleSoft applications: Applications that integrate directly with Maintenance Management are PeopleSoft CRM and third party help desk applications, Microsoft Project, external condition monitoring systems, PeopleSoft Inventory and Cost Management, PeopleSoft Purchasing, PeopleSoft eProcurement, PeopleSoft Accounts Payable, PeopleSoft Asset Management, PeopleSoft Human Capital Management (HCM), PeopleSoft Program Management, PeopleSoft Project Costing, PeopleSoft Expenses, ESRI ArcGIS Online and Mobile Web Services. Products that indirectly integrate with PeopleSoft Maintenance Management are Centerstone (CAFM) by way of PeopleSoft HCM, and PeopleSoft General Ledger,

which is used to update all accounting values coming from Inventory, Purchasing, Accounts Payable, and PeopleSoft Maintenance Management and PeopleSoft Project Costing

how PeopleSoft Maintenance Management integrates with numerous PeopleSoft applications



You are required to install three PeopleSoft applications to use PeopleSoft Maintenance Management, which include:

- PeopleSoft Asset Management
- PeopleSoft Project Costing
- PeopleSoft Purchasing

Other PeopleSoft applications that are normally used, but are not required, with PeopleSoft Maintenance Management are:

- PeopleSoft Inventory.
- PeopleSoft ALM (Asset Lifecycle Management) Portal Pack.
- PeopleSoft Program Management.
- PeopleSoft CRM (Customer Response Management) and Third-party Help Desk Applications.
- PeopleSoft eProcurement.
- PeopleSoft Expenses.
- PeopleSoft Time and Labor.
- PeopleSoft North American Payroll.
- External Condition-based Monitoring Systems
- Mobile Web Services.
- ESRI ArcGIS Online

You have access to much of the functionality of PeopleSoft Resource Management and some of the time reporting functionality of the PeopleSoft Expenses module in PeopleSoft Maintenance Management. However, all of this functionality exists in PeopleSoft Maintenance Management, which means that you do not need to install PeopleSoft Resource Management and PeopleSoft Expenses to use PeopleSoft Maintenance Management. If you choose to enter personal time (non-work order related) time on the Technician Workbench and you want to track these expenses, then you must set up PeopleSoft Time and Labor. You can also set up PeopleSoft Northern Payroll so that PeopleSoft Time and Labor can send these expenses to payroll for processing and posting.

External Condition Monitoring Systems can also integrate with PeopleSoft Maintenance Management to enable the creation of condition-based work orders.

You can integrate with PeopleSoft Help Desk and other third-party help desk applications to create a corresponding work order and receive automatic updates as the work order progresses. In addition, you can locate a work order or asset on a map based on the integration between PeopleSoft Maintenance Management and ESRI ArcGIS Online.

PeopleSoft Maintenance Management provides a set of dedicated web services that enable mobile device integration with any third party suppliers or any system that supports web services integration. An integrated mobile device enables a maintenance technician to effectively and efficiently record and complete work order assignments.

# **PeopleSoft Maintenance Management Integration with PeopleSoft Asset Management**

The purpose of PeopleSoft Maintenance Management is to enable users to create work orders to maintain and repair assets. Therefore, users must select the assets that require work directly in PeopleSoft Maintenance Management. To accomplish this, PeopleSoft Maintenance Management integrates with the PeopleSoft Asset Management asset repository.

#### Users can:

- Search for an asset based on the asset tag number, serial ID, asset ID, Asset Management business unit, asset description, asset location, asset area ID, asset criticality, asset type, asset subtype, manufacturer ID, model, asset status, asset component hierarchy, and whether the asset is a linear asset directly from the work order.
  - You can also refine your search when you select the asset type, asset subtype, manufacturer ID, and model by clicking a **Supplemental Data Criteria** link, which uses the selected asset characteristics and displays associated supplemental data information such as Maintenance Information, Hardware Information, and Machinery Information, depending on the selected characteristics.
- Indicate whether they want to identify an asset by serial number, asset ID, tag number, or vehicle identification number (VIN) in the work order business unit.
- Access any warranties that are associated with an asset that you identify in the work order and create warranty claims, when applicable, directly from the work order.
- Access Asset Maintenance History from the work order for the selected asset.
- Access the asset repository to identify tools by their asset characteristics (asset type, asset subtype, manufacturing ID, model) for use in completing work order tasks.
- Optionally select inventory, non-inventory, and other procurable materials from one or more Equipment Parts List (EPL) templates, which are set up in PeopleSoft Asset Management, and copy your selections to the work order task or work order ask template.
- Optionally select inventory, non-inventory, and other procurable materials select work order task and add them, if authorized, to one or more EPL templates defined for the asset selected for the work order task or the Work Order Task Template.
- Optionally define common problems, the cause of problems, and the resolution of problems, and create various combinations of these features into problem groups.
  - When you create a problem group, you can associate it with an asset type, subtype, manufacturer, and model to help users quickly sort through the list of possible solutions to an asset's problems.
- Enter and track the downtime of an asset at the work order task level.
- Automatically track component changeouts, which means that you can remove, replace, and retire a capital asset that belongs to a parent asset.
  - You can retire all kinds of assets, as well as install a capital asset component in a parent asset, using a work order in PeopleSoft Maintenance Management.
- Use the Asset Cost Maintenance Inquiry to analyze work order and non-work order related asset maintenance costs for assets based on a specified time frame.

When you create preventive maintenance schedules to generate preventive maintenance work orders for an asset, a group of assets (loop), or an asset location, you can determine the maintenance that is due based on meter-based readings and the passage of time. The Preventive Maintenance process (WM\_PM) and the Preventive Maintenance Projection process calculate the next date due for preventive maintenance work orders or projections based on the scheduled recurrence pattern of the Preventive Maintenance schedule or the meter reading values that are found in the PeopleSoft Asset Management Meter Reading table and PeopleSoft Asset Management Meter History.

You can set up capitalization filters in PeopleSoft Maintenance Management to control which costs are sent to PeopleSoft Asset Management for capitalization or for inclusion in the cost of removal when retiring an asset. Although the costs to capitalize or to consider as costs of removal are attributable to work orders that are created in PeopleSoft Maintenance Management, PeopleSoft Project Costing collects the costs, summarizes them, and transmits them to PeopleSoft Asset Management for the appropriate accounting treatment.

# **PeopleSoft Maintenance Management Integration with PeopleSoft Project Costing**

When you create a work order, you must associate it with a project. Each work order task is associated with one project activity. You must install PeopleSoft Project Costing before you can use PeopleSoft Maintenance Management. You can generate work order transactions in PeopleSoft Purchasing, PeopleSoft Expenses, and PeopleSoft Inventory. These feeder systems then send work order costs to PeopleSoft Project Costing. Labor time entries are staged either manually or automatically depending on how they are entered in the PeopleSoft Expenses staging tables. Tool usage is calculated in PeopleSoft Maintenance Management and sent directly to PeopleSoft Project Costing. When the Cost Collection process is run in PeopleSoft Project Costing for PeopleSoft Purchasing, PeopleSoft Payables, PeopleSoft Inventory, PeopleSoft Expenses, and PeopleSoft Maintenance Management (tools), these costs are stored in the PROJ\_RESOURCE table of PeopleSoft Project Costing where they are priced. They remain in the PROJ\_RESOURCE table until PeopleSoft Project Costing accesses these costs to perform asset capitalization, calculate costs for retirement for assets that are being retired through a work order, and calculate chargebacks, which are forwarded to the General Ledger. The costs are updated in PeopleSoft Maintenance Management by the Cost Summarization process and appear on the Cost page of the Work Order component. They are used for cost tracking, analysis, and reporting.

The two types of projects that you can associate with a work order are:

- A Project Costing-managed project.
- A work order-managed project.

See <u>Integrated Product Setup Considerations</u>

See Understanding Overall System Setup Parameters for PeopleSoft Maintenance Management.

#### **Work Order Creation for Project Costing-Managed Projects**

A Project Costing-managed project is any project that is set up and managed in PeopleSoft Project Costing along with its activities. You can create a work order directly from Project Costing in which one of the project's activities is associated with a work order task.

For example, a utility company sets up Project 001 - Maintain and Repair Power Lines and Equipment on Park Avenue in New York City in Project Costing. Activity 001 for this project is to Maintain Power Equipment from 40th St. N. to 51st St. N. The project manager creates two work orders from PeopleSoft Project Costing in PeopleSoft Maintenance Management for this Project Costing-managed project:

Work Order 001 - Maintain power lines.

- Work Order Task 001 Replace transformer (Asset 001 Transformer) For Project 001 Activity 001
  - Task resource transaction 001 Labor cost to replace transformer.

- Task resource transaction 002 Material cost for new transformer.
- Work Order Task 002 Galvanize lines (Asset 002 Lines) For Project 001 Activity 001
  - Task resource transaction 001 Labor cost to galvanize lines.
  - Task resource transaction 002 Galvanizing material cost.

Work Order 002 - Add to power lines.

Work Order task 001 - Add lines (Asset 002 - Lines) - For Project 001 - Activity 001

- Task resource transaction 001 Labor cost to install new lines.
- Task resource transaction 002 Material cost of new poles.

For Project Costing-managed projects, if PeopleSoft Program Management (PGM) is installed, Project Costing uses the Resources by Activity page, which appears in PeopleSoft Program Management and Project Costing, to plan a project activity and assign specific or generic labor, material, and asset (tool) resources. If PeopleSoft Program Management is installed, you can create a work order from PeopleSoft Program Management or Project Costing, and select the resources that you want to add to the work order. You can access these pages by clicking a link in the Work Order, Express Work Order, PM Schedule, Loop Schedule, and Location Schedule components.

When doing project planning, project managers need to see the project demand for all of the resources. In some cases, project managers plan for resources by using placeholder resources, which are called generic resources. They will replace these generic resources later with named resources. To accomplish this, project managers use PeopleSoft Program Management to capture budget and resource needs for projects. In turn, they create work orders to manage individual activities at a more detailed level. You can assign generic labor and asset (tool) resources to an activity associated with a work order created from Project Costing and copy those resources to the Requirements page of the task associated with the activity. You specify the craft code for a generic labor resource and specify the asset type, subtype, manufacturer ID (optional), and model (optional) for generic tool resources.

Users select Other or Material as a Resource Class to add generic Purchase/On-Hand materials. You must select specific values for PeopleSoft Inventory items and Purchase/On-Hand items that appear on the item list and are not considered generic resources. An icon appears next to the resources that you already added to one or more work orders that were created for the activity to help avoid duplication. When you create the work order, the selected items are copied to the **Labor, Inventory, Purchase/On-Hand,** or **Tools Schedules** grids on the Schedules page of the work order. Labor and tools are also copied to the Requirements page of the work order.

This table describes the resource data that is copied to the work order:

Resource Class	Named or Generic	Resource Category in Work Order	Fields Passed to the Work Order
Labor	Named	Labor	Specified Resource Name **Cost /Bill Rates, Currency, and Craft. If UOM is in Days, then must convert Assigned Work to hours.
Labor	Generic	Labor	Craft, **Cost /Bill Rates, Currency, Sched. Start/ End Dates, Units (Assigned Work). If UOM is in Days, then must convert Assigned Work to hours.
Asset	Named	Tools	Asset Type, Asset Subtype, Manufacturer ID, Model, **Cost / Bill Rates, Currency, UOM, Units.
Asset	Generic	Tools	Asset Type, Asset Subtype, Manufacturer ID, Model, **Cost / Bill Rates, Currency, UOM, Units.
Material	Named (Inventoried)	Inventory	Specified Inventory Item **Cost Rate, Currency, UOM, Units
Material	Named (Non-inventoried)	Purchase/On-Hand	Specified Non-inventoried Item, **Cost Rate, Currency, UOM, Units
Material	Generic	Purchase/On-Hand	Resource Name, **Cost Rate, Currency, UOM, Units
Other	Generic	Purchase/On-Hand	Resource Name, **Cost Rate, Currency, UOM, Units

**Important!** \*\* All rates must be converted to the Work Order Business Unit base currency when being passed to the WO Component Interface.

PeopleSoft Program Management also enables the creation of resource pools to associate with projects and activities. Resource pools are set up in PeopleSoft Resource Management for use in PeopleSoft Program Management and Project Costing. The resources that are assigned to resource pools must be set

up as resources in both PeopleSoft Resource Management and PeopleSoft Maintenance Management. These resource pools establish a limit on the resources that can be assigned to a project. You must indicate that you want to enforce the use of resource pools either at the project level or at the project activity level in the Project Costing business unit options or on the Project Costing General Information page. PeopleSoft Maintenance Management users can indicate in the work order business unit that they want to establish work order access security using resource pools. When you associate either a Project Costingmanaged or work order-managed work order with a project or activity that has resource pools set up, the system allows the resources that are assigned to a resource pool to access a work order and the associated work order tasks in the Work Order, Express Work Order, and Technician Workbench components.

See "Understanding Integration with PeopleSoft Maintenance Management" (PeopleSoft Project Costing)

If PeopleSoft Program Management is not installed, Project Costing uses the **Project Costing** > **Activity Definitions** > **Team** > **Team Detail** page to plan a project activity and assign only labor resources, because Project Costing does not allow the assignment of materials and tools. When you create a Project Costing-managed work order in Project Costing, you can copy these labor resources to one or more work orders in PeopleSoft Maintenance Management. The labor resources that you copy must already be set up as resources in PeopleSoft Maintenance Management. You select the resources that you want to copy to the work order and click the **Create Work Order** button on the **Project Costing** > **Activity Definitions** > **Team** > **Team Detail** page. You select the resource rows that you want to copy to the work order, identify some basic information about the work order, and click OK. The system copies any labor resources that you select in Project Costing to the labor resource fields of the work order task.

**Important!** Resources can be copied only from PeopleSoft Program Management or Project Costing to a work order that is associated with a Project Costing-managed work order. You cannot copy resources that are set up in Project Costing to a work order that is associated with a work order-managed project.

When you create a work order from Project Costing, you must select a work order business unit, work order type, service group, and shop. The number of work order business units that are available for selection is based on how many of the work order business units are mapped to the Project Costing business unit that is associated with this project. Other attributes that are brought over to the work order include the Project Costing business unit, the project ID, the activity ID, the selected labor resources, and the activity start and end dates. You can associate a work order task with only one project and one activity. However, the same project and activity combination can be applied to many different task lines on many different work orders.

You can also associate an existing Project Costing-managed project activity to a newly created work order task. In this case, only the project ID and the activity ID for the project are used from Project Costing. You cannot bring over resources from Project Costing using this method. You can associate a work order with only one project at a time.

**Note:** All accounting rules that are set up in PeopleSoft Project Costing and work orders that are associated with a Project Costing-managed project are not affected by the work order Close process.

See "Creating Work Orders and Work Order-Managed Projects in PeopleSoft Project Costing" (PeopleSoft Project Costing).

See <u>Integrated Product Setup Considerations</u>.

#### Work Order Creation for Work Order-Managed Projects

A work order-managed project is a behind-the-scenes project that enables PeopleSoft Project Costing to collect, report, track, and account for costs that are incurred for work orders and work order tasks.

The important difference here is that work order-managed projects are not actively managed in Project Costing. Instead, the work order drives the processing for a work order-managed project by dictating the accounting rules (capitalization and chargebacks) for these projects. Typically, users create work orders in PeopleSoft Maintenance Management in response to emergency, reactive, or preventive maintenance needs, and PeopleSoft Maintenance Management and Project Costing work together to automatically associate each new work order with a work order-managed project and the project's activities. To facilitate this process, you establish in Project Costing a very basic work order-managed project that you do not intend to actively plan and manage using Project Costing. To establish that this is a work order-managed project, you select the **Work Order Managed** check box on the Project Costing Definition General Information page. All of the planning for a work order-managed project occurs in the work order.

With work order-managed projects, PeopleSoft Maintenance Management automatically generates activities to collect, pool, and account for the costs of each work order task. You can associate a work order task only with one work order-managed project and activity. When you create a work order, a default value for the project ID appears in the work order and for each work order task that you create. PeopleSoft Project Costing generates a new activity automatically if the project is work order-managed.

See "Understanding Projects" (PeopleSoft Project Costing).

# Work Order Processing for Work Orders Associated with Project Costing Projects or Work Order-Managed Projects

Whether you intend to create work orders that are based on Project Costing-managed projects, work order-managed projects, or both, you must set up the following features in Project Costing:

- A Project Costing business unit.
- Project Costing rate sets and rate plans from which the Project Costing Pricing process creates cost, billing, and revenue rows.

You select existing rate sets and rate plans for work order-managed projects. A rate plan is a collection of rate sets that the system applies in a specified order. Use rate plans to link rate sets so that priced rows from one rate set are used to create additional priced rows from the next rate set. For example, you can add additional expenses, such as administrative costs or overhead, to cost transactions before they are priced for billing or revenue.

- PeopleSoft Project Costing accounting rules if you want to process chargebacks for selected tasks.
- PeopleSoft Project Costing express asset filters if you intend to perform asset capitalizations and retirements.

In addition, you set up capitalization rules in PeopleSoft Maintenance Management to define a minimum capitalization limit. The minimum capitalization limit is processed before Project Costing can capitalize the selected costs to an asset. You also select a project's default adjustment filter and retirement filter to apply to work order costs. These two filters are originally set up in Project Costing.

In PeopleSoft Maintenance Management, you define a Project Costing ChartField mapping to enable Project Costing ChartField default values to appear in the distribution line for a work order task. You can override these values at the work order task distribution line level before completing a work order task. These Project Costing ChartFields, along with the accounting ChartFields, are carried over to the points of cost entry and feeder systems, which are labor time entry and tools usage entry in PeopleSoft Maintenance Management, and the PeopleSoft Inventory, PeopleSoft Payables, and PeopleSoft Purchasing systems.

Once you create a work order for either a Project Costing-managed project or a work order-managed project, you can schedule labor, material, and tool resources in PeopleSoft Maintenance Management. Technicians can perform the work, and authorized users can record labor, tools, and material usage in the Technician Workbench. These PeopleSoft Maintenance Management transactions are sent to each of the feeder systems, which may include PeopleSoft Purchasing for material resources out of stock and contracted labor resources, and PeopleSoft Inventory for inventoried material resources. The labor transactions share the PeopleSoft Expenses time capture tables and processes, and the tools transactions are staged to go directly from PeopleSoft Maintenance Management to Project Costing. Project Costing contains cost collection application engines to pull the transaction records from the various feeder systems through to Project Costing. Actual costs are gathered from PeopleSoft Inventory, PeopleSoft Purchasing, PeopleSoft Expenses, PeopleSoft Payables, and PeopleSoft Maintenance Management for the Tools costs. Committed costs can be pulled from any requisitions or purchase orders into Project Costing. These application engines are used to collect these costs:

- PC EX TO PC collects labor cost from PeopleSoft Expenses.
- PC AP TO PC collects material costs from PeopleSoft Payables.
- PC IN TO PC collects material costs from PeopleSoft Inventory.
- PC PO TO PC collects material costs from PeopleSoft Purchasing.
- PC WM TO PC collects tool usage costs from PeopleSoft Maintenance Management.

The project pricing engine reads the project activity rate set and rate plan and each transaction from the feeder system, and inserts the target priced transaction into the PS\_PROJ\_RESOURCE table along with the work order business unit, work order ID, work order task ID, work order resource type, and work order line number. The rate set and rate plan for a work order that is associated with a work ordermanaged project is selected at the work order business unit level or the shop level and can be overridden from the work order on the work order task accounting page.

For the labor hours that are entered in the Technician Workbench for work orders that are associated with a work order-managed project, PeopleSoft Maintenance Management defines hourly rates for each work order task labor resource line. Project Costing has two labor rate options specifically for work orders, which are *WBI* (work order labor bill rate) and *WCO* (work order labor cost rate). An analysis is performed by Project Costing, and the Project Costing Pricing engine reads the Project Costing activity rate set and finds the rate option. If the rate option is set to *WBI* or *WCO*, the pricing engine gets the billing rate or cost rate, respectively, for the resources from rates that you set up in PeopleSoft Maintenance Management.

For the tools usage hours that are entered in the Technician Workbench for work orders that are associated with a work order-managed project, PeopleSoft Maintenance Management defines tool rates for each work order task tool resource line. Project costing has two tool rate options, which are *TCO* (tools cost rate) and *TBI* (tools bill rate). An analysis is performed by Project Costing, and the Project Costing pricing engine reads the Project Costing activity rate set and finds the rate options *TBI* or *TCO*. The pricing engine gets the billing rate or cost rate, respectively, for the tools usage data from the rates that you set up in PeopleSoft Maintenance Management.

For work order managed projects, after pricing the work order transaction, the Pricing engine sets the GL distribution status (GL\_DISTRIB\_STATUS) to *hold* until the work order task is closed in PeopleSoft Maintenance Management. Once the work order task is closed, the GL distribution status is set to *costed* so that the accounting engine can process each transaction row.

The difference between processing a work order that is associated with a work order-managed project versus a Project Costing-managed project occurs when a work order task is closed. In a work order that is associated with a Project Costing-managed project, asset capitalization and chargeback amounts are updated for the project on a continuous basis until the work order task is closed. However, for a work order that is associated with a work order-managed project, the asset capitalization and chargebacks are not updated in PeopleSoft Project Costing until the work order task that is associated with the work order-managed project is closed.

**Note:** A Project Costing-managed project cannot switch to a work order-managed project, and a work order-managed project cannot switch to a Project Costing-managed project.

# PeopleSoft Maintenance Management Integration with PeopleSoft Purchasing and PeopleSoft Payables

PeopleSoft Maintenance Management integrates with PeopleSoft Purchasing and PeopleSoft Payables to enable you to:

- Set up requirements and determine estimated costs based on materials and services that you need to purchase.
- Copy these requirements to a schedule and add other materials and services that you want to purchase to the schedule.
- Select each row in the schedule and load it directly into the requisition or purchase order staging processes.
- Select non-inventory parts from an equipment parts list (EPL) template, if available for the asset that is selected for the work order task asset.

You can also update an existing EPL with non-inventory parts and quantities selected for the task.

- Determine the availability of non-inventory parts based on pegged purchase orders or requisitions.
- Access PeopleSoft Purchasing to create a purchase order or a requisition and tie it back to the
  associated work order using the work order key values (business unit, work order ID, task, and
  resource line).
- Track the procurement transaction's progress by reviewing the status, which appears in the work order's schedule, as well as reviewing the Purchasing and Pegging inquiry.
- Run and analyze a Work Order Task Material Readiness report to resolve any delays in material availability of non-inventory materials between the scheduling and the start of work.
- Identify non-inventory or open description resources within the requirements or schedules that are already *on-hand*, including items that you have already purchased and have at your disposal for use on a work order.

The parts that you identify as *on-hand* in the requirements and schedules inform the technician who is performing the work on the asset that the one or more on-hand parts are readily available for use on the task.

In addition, you can enter requisitions and purchase orders directly in PeopleSoft Purchasing, and enter vouchers in PeopleSoft Payables that can reference a work order business unit, work order ID, and

resource type if the resource was not originally scheduled in the work order. Costs for these items are pulled back into the work order and flow down to the actual resource row.

# PeopleSoft Maintenance Management Integration with PeopleSoft eProcurement

PeopleSoft Maintenance Management enables users who have PeopleSoft eProcurement (ePro) to create eProcurement requisitions directly from the work order and load eProcurement requisitions for scheduled Purchase/On-Hand items for work order tasks to the PeopleSoft Purchasing staging tables for processing.

See PeopleSoft eProcurement Setup Considerations.

### **PeopleSoft Maintenance Management Integration with PeopleSoft Inventory**

You can integrate PeopleSoft Inventory with PeopleSoft Maintenance Management when you want to use inventoried items to maintain or repair an asset. If you do not install PeopleSoft Inventory, the PeopleSoft Inventory-related fields do not appear in the work order. If you choose to install PeopleSoft Inventory, you can determine the inventory item requirements and estimated costs for materials that are required to complete a work order task.

A scheduler can copy these requirements to a schedule, as well as select additional items to schedule for each work order task. You can select from two item types, *inventory* and *floor stock*. An inventory item type indicates that the item is available from Inventory. Floor stock typically indicates that a shop has a low-cost, often-used part or item that shop supervisors keep in their shop, which can be added to the work order if needed. Floor stock items are not rolled up into the task or work order estimated costs and scheduled costs because these items were already procured through a normal purchase order outside of the work order.

After selecting an inventory item for a task, a scheduler can select an **Item Availability** button to determine whether an inventory item is available on a specified future date, and to determine the quantity that is available. If the item is unavailable, the system indicates the reason that it is unavailable. A scheduler can also access the Availability inquiry, the Item Balance inquiry, or both to determine whether enough quantity is on hand based on the demand by the work order. If the quantity of an item does not meet the demand of the work order, the scheduler can determine the earliest date that the item will be available. This information enables the scheduler to determine the best dates on which to start and end the work order task.

The scheduler can also go to the Pegging Workbench to determine whether any incoming supply exists for the particular item, which, at the time that the work order is being scheduled, might not have sufficient quantities to fulfill the work order. The work order places demand on this incoming supply, which assures that the items are received for the work order based on this demand.

A scheduler can commit and reserve quantities of inventory items from the work order task to ensure that the inventory quantity is available on the scheduled start date of a work order. You must set up a combination of commit and reservation rules at the business unit level, the shop level, or the work order type level in the shop. You must commit all items before they can be reserved. However, based on the way that you set up these rules, you can perform both activities at the same time if your commit and reservation rules dictate. In addition, an authorized user can override these rules to immediately reserve an inventory item by selecting the Reserve button.

The PeopleSoft Inventory commit rules are:

- Commit at Reserve.
- Parts List Creation.
- Pick Plan Creation.
- Work Order Status Change.

The work order reservation rules are:

- Batch Reserve only.
- Parts List Creation.
- Pick Plan Creation
- Work Order Status Change.

The various combinations of these rules determine when you can reserve the item. These combinations are described in the description of the Integrations page of the work order business unit.

See Work Order Business Unit Integration Options.

Once the scheduler selects the items to use for the work order task, the commit and reservation rules are enforced in the PeopleSoft Inventory system based on either the generation of the parts list (when the work order is saved), the generation of a pick plan, or a change of the work order to a specified status. The commit method is identified in the work order business unit, shop definition, and shop/type levels. The scheduler can track the commitment status of an item, whether an item was generated on a pick plan, any quantities of an item that were issued to the work order, the current quantity of the item that is available in inventory, and the pegging status of an item.

If an EPL is available in PeopleSoft Asset Management, you can select the items that are associated with the asset that is being maintained or repaired from the list when defining the inventory requirements or scheduling the inventory in the work order task. You can also add selected inventory items to an EPL associated with the asset selected for a task.

You can also provide the PeopleSoft Inventory system with delivery instructions when you define the requirements or the scheduler schedules the items for the work order task. During work order execution, the technician gathers inventory items based on the delivery specifications, orders additional items (if necessary), returns any unused items, and records used quantities in the Technician Workbench.

Because a variety of events can occur that may negatively affect the availability of inventory items between the scheduling and the actual start of work, a planner or scheduler can check the availability of specific items that are selected for a work order task by clicking the Item Availability button on the Schedules page of the work order. To manage and track the availability of items that are selected for a number of work orders, the planner or scheduler can run the Work Order Task Material Readiness report frequently. Based on this report, the planner or scheduler can return to a specific work order and research and resolve individual availability issues.

All of the costs for the items that are used and returned to stock for the work order are processed in PeopleSoft Inventory, sent to the Project Costing system, and updated for tracking purposes in PeopleSoft Maintenance Management.

Inventory personnel can also issue inventory directly to a work order by using the inventory issues command in the **Inventory** > **Fulfill Work Orders** > **Issue to Work Orders** component. The

system directly issues inventory items to a work order without setting up and defining requirements and schedules in the work order. This is applicable for urgent work orders or in a situation in which a work order is not scheduled. In addition, users can also generate a pick plan or schedule the Pick Plan process to run as needed or on a scheduled basis, such as every four hours, nightly, and so on. The Pick Plan process that is available in the PeopleSoft Inventory system provides more options to enable you to request pick plans for a batch of work orders. A technician, with the proper authorization, can also generate a pick plan and issue inventory from the Technician Workbench in PeopleSoft Maintenance Management.

**Important!** Direct inventory issues to a work order are not calculated into Scheduled Costs of the work order. They are considered actual costs once the batch costing processes are run.

See "WO Issue Search Page" (PeopleSoft Inventory).

See "Work Order Pick Plan Page" (PeopleSoft Inventory).

# PeopleSoft Maintenance Management Integration with PeopleSoft ALM Portal Pack

PeopleSoft Maintenance Management provides pagelets that enable operation managers, planners or schedulers, and technicians easy access to the data that is needed to effectively manage service requests, work orders, and work order tasks.

# PeopleSoft Maintenance Management Integration with PeopleSoft Program Management

If you use PeopleSoft Program Management along with Project Costing, you can create a work order that is associated with a Project Costing-managed project from PeopleSoft Program Management. Once you create the work order, you can create work order tasks, define resource requirements, schedule resources, and execute the work order similar to any other work order.

If PeopleSoft Program Management is installed and a work order is created from PeopleSoft Program Management or Project Costing, users can assign generic and named labor, materials, and tool resources to a work order that are established for a project in PeopleSoft Program Management. PeopleSoft Program Management also enables users to create resource pools, which consist of specific employee IDs, and associate one or more resource pools with a project and a project's activities. The employees in a resource pool can charge time against the project and its activities. Because activities are tied to work order tasks, resource pools that are set up in PeopleSoft Program Management enable you to set up work order access security to allow the members of a resource pool to access work orders and work order tasks in the Work Order, Express Work Order, and Technician Workbench components in PeopleSoft Maintenance Management. In other words, only employees who are specified in a resource pool for a project and project activity can access and charge time to the associated PeopleSoft Project Costing managed work order task. Work order access security for resource pools can work together with work order access security for shops to determine the technicians who can charge time to a work order task in the Technician Workbench. You set up the type of work order access security that you want to use in the work order business unit.

See <u>Understanding Work Order Business Unit Setup</u>.

# PeopleSoft Maintenance Management Integration with PeopleSoft CRM and Third-Party Help Desk Applications

The Asset Repository Manager (ARM) stores the asset data for all ALM products. This asset data can be shared across PeopleSoft CRM, FMS (Financial Management System), SCM (Supply Chain Management), and PeopleSoft HCM (Human Capital Management) suites and with third-party applications. PeopleSoft Maintenance Management uses PeopleTools Integration Broker to integrate with PeopleSoft CRM Help Desk and third-party help desk applications. When a help desk agent receives a call or a self-service notification that involves a problem that the agent cannot resolve without the intervention of one or more technicians, the agent can create a work order directly from the help desk application. The help desk application can access the assets in PeopleSoft Asset Management and the problems in PeopleSoft Maintenance Management to create a work order with the appropriate shop, type, service group, and priority that are set up in PeopleSoft Maintenance Management. The help desk application maintains a history of all transactions that are sent to PeopleSoft Maintenance Management.

See PeopleSoft CRM Help Desk and Third-Party Help Desk Application Setup Considerations.

See Work Order Creation from Help Desk Applications.

# **PeopleSoft Maintenance Management Integration with Condition-Based Monitoring Systems**

External condition monitoring systems measure and analyze current readings on equipment and determine whether the condition of the equipment is outside of normal operating parameters. When the condition is outside normal operating parameters, an alert, which is created manually or in real time, triggers a Web Service request from the condition monitoring system to PeopleSoft Maintenance Management. When PeopleSoft Maintenance Management receives the condition-based alert from the external condition monitoring system, it notifies a condition-based maintenance coordinator, who investigates the problem and creates a standard or preventive maintenance work order. PeopleSoft Maintenance Management tracks the life-cycle status of the alerts for an asset.

See <u>Understanding Condition-based Maintenance</u>

# **PeopleSoft Maintenance Management Integration with PeopleSoft Resource Management**

PeopleSoft Maintenance Management shares pages and tables with PeopleSoft Resource Management, an application that provides calendars and profiles for labor resources, schedule management for labor and tool resources, and a search engine to help identify the most qualified or applicable labor and tool resources to perform work. You are not required to install PeopleSoft Resource Management to use PeopleSoft Maintenance Management. Three primary methods are available to enter person data into the software from which to create resources in PeopleSoft Maintenance Management. These methods include:

• Synchronizing the PeopleSoft Human Resources Management System (HRMS) database, which provides key employee data, with your Financials Supply Chain Management database using the PeopleTools Integration Broker technology and the standard application messages that are delivered with the two databases.

You must install PeopleSoft HRMS to use this method.

- Entering employees directly in the Financials Supply Chain Management (FSCM) database using the Manage Employee Data component in PeopleSoft Maintenance Management.
- Using the PeopleTools Integration Broker technology and the standard subscription application messages that are delivered with the FSCM database to receive data in XML publications from a third-party human resources database.

This requires some custom development work to extract data from the third-party human resource management system and publish the data in the XML format that is required by the subscribing message in the FSCM database.

Regardless of which path you select, you must identify in PeopleSoft Maintenance Management the subset of labor resources that you are going to use as technicians to perform the work order tasks. In PeopleSoft Maintenance Management, you:

- Must assign each technician to one or more shops.
- Can optionally make a technician a member of a crew
- Can individually identify the primary and secondary crafts for each technician.
- Can specify the detailed qualifications of each technician.

The shop controls many of the default values that appear in the work order. You can define labor requirements based on the craft and determine estimated costs for each labor resource in the work order task. The scheduler can copy these requirements, if desired, to perform detailed scheduling and assign named resources to a work order task. The scheduler has four different methods to assign a labor resource or tool to a work order task, which include:

- Clicking the **Recommend Labor** button or the **Recommend Tools** button to use a Search engine that recommends both qualified and available resources.
- Performing a manual search through labor resources and tools to identify an appropriate available resource.
- Directly specifying the employee ID of the resource or asset ID on the task line.
- Directly specifying the employee ID or performing the Assign Resource action on the Labor Assignment Workbench.

Optionally, you can set up an approval process for labor resources that requires a technician's supervisor to approve an assignment before the technician is officially assigned to a work order task. Such approvals are usually required for technicians who are assigned to one shop, but are selected to work on a work order that is associated with a different shop. Approval is normally required by the supervisor of the technician's assigned shop.

When labor resources and tools are assigned and scheduled, the system updates the calendar of the technician or the tool. If you indicate that you want to update the resource calendar in the shop that is associated with the work order, then the calendar is updated to reflect the actual end date for the assigned task when the work order task status is changed to *complete* ahead of schedule. Technicians can access their own calendars, which identify work order task assignments and non-work order appointments, by clicking a link on the Technician Workbench. As work order tasks are performed, the technician can use the Technician Workbench to enter the exact time that the resource worked on each work order task. If a resource completes a task early or the task is canceled, the resource becomes available for assignment to other tasks.

# **PeopleSoft Maintenance Management Integration with PeopleSoft Expenses Functionality**

PeopleSoft Maintenance Management shares pages and tables with PeopleSoft Expenses, an application that enables you to record actual time that is worked by technicians. You are not required to install PeopleSoft Expenses to use PeopleSoft Maintenance Management. Technicians or administrators can record the actual time that was expended on a work order task on behalf of technicians using the Technician Workbench. They can enter time on a daily, biweekly, weekly, and semimonthly basis. The time entry records that technicians enter, which are preapproved and include a sequence number that is associated with the total hours that are spent or the start and end times per work order, task and date, and reporting period, are staged within PeopleSoft Maintenance Management and then loaded into the tables that are shared with the PeopleSoft Expenses system at save or submit time. The user runs two application engine programs. The first one packages the time records into a PeopleSoft Expenses staging table, and the second one sends the data to Project Costing, where the labor costs are calculated by multiplying the quantity of hours by the labor cost rate and labor bill rate that are associated with the business unit, shop, or craft that is set up in PeopleSoft Maintenance Management.

You can also choose to enter personal time (non-work order time) for technicians on the Time Entry page of the Technician Workbench. You enable this option on the Business Unit 2 Definition page of the Expenses business unit. As with work order time entry, PeopleSoft Expenses shares this functionality with PeopleSoft Maintenance Management, which eliminates the need to install PeopleSoft Expenses.

After selecting the Stage Time Entries component in PeopleSoft Maintenance Management, you select the option to publish elapsed time. PeopleSoft Expenses publishes the elapsed time reporting data (non-work order time entered in the Technician Workbench) to PeopleSoft Time and Labor. PeopleSoft Time and Labor calculates the actual time to pay the employee or bill another organization. Typically, this payable time is sent to PeopleSoft Payroll for processing. If you do not install PeopleSoft Time and Labor and PeopleSoft Payroll, the collected data is only used for informational purposes.

See "Integrating with PeopleSoft North American Payroll" (PeopleSoft Expenses).

See "Understanding Setting Up Approvals and Audit Rules" (PeopleSoft Expenses).

## **PeopleSoft Maintenance Management Integration with Microsoft Project**

Users can export work order schedule data, with the exception of crew schedules, and preventive maintenance projection data to Microsoft Project for further analysis and scheduling.

Users can import work order data that was exported to Microsoft Project from PeopleSoft Maintenance Management. However, this data does not include preventive maintenance projection data or crew schedule data.

**Important!** PeopleSoft Maintenance Management 9.1 integrates with Microsoft Project 2007.

See Search & Export Work Orders/PM Projections Page.

**Note:** As of FSCM Update Image 48, the integration with Microsoft Projects and PeopleSoft Maintenance Management for importing preventive maintenance projections and work order data is no longer supported. The Microsoft Integrator, in its current state, is still available, and customer can continue to use the functionality at their own discretion.

Please note that all menu options (CREFs), objects, and source code remain on your system. As of FSCM Update Image 48 PeopleSoft does not support the integration with Microsoft Projects with all past, current, or future PeopleSoft Update Image.

### **PeopleSoft Maintenance Management Integration with ESRI**

PeopleSoft Maintenance Management and PeopleSoft Asset Management integrate with ESRI ArcGIS Online to enable users to view the description and location of one or more assets directly on a map. You can access the map either from PeopleSoft Asset Management or from a work order in PeopleSoft Maintenance Management. When you access the map from PeopleSoft Asset Management, the AM business unit and the asset ID appear as a marker to identify the asset's location on the map. You can click this marker to display details about the asset. You can create a work order from the map based on the selected asset. When you access the map from PeopleSoft Maintenance Management for a work order associated with an asset, the work order business unit and work order ID appear as a marker to identify the work order's location on the map. You can click this location to display details about the work order.

### **Mobile Web Services Integration**

With the increased availability and capability of wireless networks and mobile technologies, mobile devices are becoming more prominent and common in the workplace. Mobile devices can be equipped with various user interfaces that enable a user to enter and retrieve data using their mobile device and interface that data with the PeopleSoft Maintenance Management application. The user interfaces on mobile devices are often simplified versions of existing user interfaces in Maintenance Management, which provide key data elements and enterable fields that can be either real-time or right-time synchronized. Mobile devices are valuable in managing the assets of an organization by providing a simple process for capturing data and enabling the support and execution of maintenance activities. This encourages preventive maintenance, streamlines data acquisition and accounting, and promotes an increase in overall data accuracy and a decrease in costs.

It is important that you understand the following terminology in order to interface a mobile device of your choice with Maintenance Management web services.

Term	Definition
Web Service API (Application Interface)	For mobile web services integration, these are Web Service APIs that can be accessed over a network such as the Internet, and executed on a remote PeopleSoft Integration Broker server that hosts the requested services.

Term	Definition
Mobile Device	With respect to this mobile web services integration feature, a mobile device is a small form-factor wireless device, typically carried by a technician, which enables that technician to perform various PeopleSoft Maintenance Management system data acquisition, capture, and entry tasks using a smaller and more manageable device with a simplified user interface tailored to that device. For example, a Personal Digital Assistant (PDA).
Real-Time	Computer systems that update information at the same time they receive the information. A mobile device is directly connected to a computer system and does immediate synchronization.
Right-Time	A mobile device is disconnected from a computer system.  Data is collected in the mobile device when the device is disconnected from a computer system. Once a connection is made between the device and the computer system, synchronization with that computer system can occur.
Synchronous	A method of communication in which the request for data and response to that request for data occur as a single transaction. The system waits for a response to the request. This method is superior when reasonable amounts of data are contained in the response and an immediate response is necessary. which occurs in a real-time connection.

There are a number of mobile device suppliers exist that provide user interfaces that can be set up to integrate with web services. PeopleSoft Maintenance Management provides a set of dedicated web services (APIs) that enable integration with mobile devices which are designed for use by technicians and are purchased from third party suppliers.

PeopleSoft Maintenance Management supports these capabilities and transactions for mobile technician devices:

- The capability to retrieve work order task details using Task Search Views set up on the Technician Workbench. Using a mobile device, a technician can access:
  - The work order header.
  - · Work order tasks.
  - Valid task status transitions.
  - Checklists.
  - Instructions.
  - Materials.
  - Purchase orders.
  - Tools.

- Task notes.
- Asset downtime.
- Scheduled labor.
- A technician using a mobile device can add or update this work order information:
  - The work order header. (add only)
  - Work order tasks, such as failure reporting using the problem, cause, and resolution hierarchy, and completing work orders.
  - Work order task status (update only).
  - Check lists.
  - Inventory materials.
  - Purchased and on-hand materials.
  - Tool asset actuals (update only).
  - Task notes. (add only)
  - Asset downtime.
  - Unscheduled labor. (add only)
  - Update labor actuals.
- A technician using a mobile device can access an Inventory issue to work order.
- A technician using a mobile device can retrieve this asset information.
  - Assets.
  - Meter readings.
  - Meter types.
  - · Hazardous codes.
  - Comments.
- A technician using a mobile device can enter new meter readings.
- A technician using a mobile device can download all necessary prompting and supporting tables to support the above capabilities.

**Note:** These web services were developed to be generic and standards-based to enable easy integration with PeopleSoft Maintenance Management. While the focus of the integration is with mobile handheld devices, you can use the developed web services to integrate with any external system of any type (not just mobile) that supports the necessary web service integration standards.

#### Mobile Device PeopleSoft Maintenance Management Integration Functionality

You set up web services integration between PeopleSoft Maintenance Management and a third party mobile device. To activate this integration for a business unit in PeopleSoft Maintenance Management, you must select the Mobile Integration Enabled check box on the Integration page in the Work Order Definition component of a work order business unit. Selection of this check box enables the Mobile Updates Pending link to appear on the Work Order page of the Work Order component, Work Order Completion page of the Work Order Completion component, and the Express Work Order page of the Express Work Order component, and enables the Mobile Public check box to appear on the Task Search page associated with the Technician Workbench.

You can select the Mobile Public check box on a Task Search view. Selection of this check box determines whether the saved Search View can be used by all other technicians on their mobile devices. When you select this check box, an Assigned to Current Technician check box replaces the Assigned To field. If you select this check box, the system searches for and displays only tasks to which the technician who is executing the Search View is assigned as a scheduled labor resource.

When task or task level data, such as materials, checklists, and more is sent to a mobile device via web services and you have not received an update since the date and time the information was sent, a Mobile Updates Pending link appears for the task in the Work Order, Work Order Completion, and Express Work Order components. When you click the link, a Mobile Task Updates Pending page displays, which lists the task ID and description, the last date and time sent, and the last date and time updated (if any) for any mobile task updates that are pending. This page only applies to tasks being updated from a mobile device.

Should any errors occur during the web service update of work order tasks and task details, meter readings, or in the inventory issue to work order process, the system writes the errors to the Enterprise Components Notifications Dashboard (Enterprise Components > Events and Notifications > Notifications Framework > Notifications Dashboard). The Enterprise Components Notifications Framework overrides also enable the system to notify a specified user about any errors using email.

### **PeopleSoft Maintenance Management Setup**

Setup for PeopleSoft Maintenance Management includes not only the setup of data that you use specifically for PeopleSoft Maintenance Management, but also the setup of data for other products, such as PeopleSoft Asset Management, PeopleSoft Project Costing, PeopleSoft Purchasing, PeopleSoft Expenses, and PeopleSoft Inventory. You must use the appropriate documentation to perform those setups.

The setup procedures that you perform specifically for PeopleSoft Maintenance Management include:

Installation options.

Installation options enable you to indicate that you want to install PeopleSoft Maintenance Management and other integrated products.

• User preferences.

User preferences determine the access and privileges that you want to provide to specific user roles and not to others.

**Note:** You must also set up the roles in PeopleTools along with any additional security.

#### • SetIDs.

SetIDs segregate control data that can apply to more than one work order business unit.

#### Work order business unit.

Work order business units control the functionality, default data and hierarchies, and product integration information that is needed to create and generate work orders.

#### • Service request business units.

If you use service requests in your organization, define the default data that you require to create service requests.

#### • Work order types.

You must apply one work order type to a work order when you create it. Work order types enable the segregation of work orders into specific categories, such as preventive maintenance, corrective maintenance, and capital improvements, based on your organization's approach to classifying work.

#### • Service groups.

You must apply one service group to a work order when you create it. Service groups enable the grouping of work orders based on the grouping of the assets on which work is being performed, such as facilities, ITAM (information technology equipment in PeopleSoft Asset Management), and fleets.

#### Shop.

The system requires shop information when you create a work order. Shops group and manage the labor and tool resources that are defined in the work order.

#### Priority.

The system administrator determines the number and names of priority codes. You must set the priority when you create a work order, which enables you to sort and track work orders based on their level of importance.

#### Status.

You must set up statuses separately for service requests and work orders. Statuses are necessary for determining the functionality that users can perform at various stages in the progression of a service request or work order. Users define their own statuses based on their organization. However, when they set up these statuses, they associate them with system-defined statuses:

- Service request internal statuses include *canceled*, *closed*, *complete*, *open*, *work in progress*, and *work order created*.
- Work order internal statuses include *awaiting schedule, canceled, closed, complete, on hold, open, scheduled,* and *work in progress* and can apply to both work orders and work order tasks.

#### Maintenance type.

Maintenance types are user-defined and are used to divide service maintenance procedures into specific categories, such as MAJOR, MINOR, REBUILD, and TUNEUP. They are set up in PeopleSoft Asset Management. However, in PeopleSoft Maintenance Management, you associate

maintenance types with a specific asset type and asset subtype. This is necessary because when a user adds a new PM Schedule and selects a Maintenance Type for the schedule, the asset type and subtype that are specified in the Maintenance Type definition must match the asset type and subtype that are associated with the asset that is specified when a user creates a PM Schedule. In addition, when a user adds a new PM Loop Schedule and selects a maintenance type, the asset type and subtype in the maintenance type must match the asset type and subtype that are specified in the Maintenance Loop definition.

**Note:** Setting up maintenance types by asset subtype is optional.

#### Downtime reason.

Users can set up reasons for an asset being down based on a work order. They enter the downtime for the asset in the Downtime Entry component and select a downtime reason. Users can access the Downtime Entry component from a link in the Technician Workbench on the Task Actuals Dates/ Times tab and a link in the **Asset Information** group box on the Requirements page and Schedules page of the Work Order component.

#### • CBM rule setup.

Users set up the rules to enable the creation of condition-based maintenance (CBM) work orders based on alerts that are sent from a condition-based monitoring system, which monitors the condition of an asset.

Other data setup categories for PeopleSoft Maintenance Management include:

- Labor resource data:
  - Task categories
  - Crafts
  - Shifts
  - Crews
  - Schedule patterns and periods
  - Crew rescheduling reason codes
  - Options

You set up these categories under the PeopleSoft Maintenance Management business unit category if you want to set up labor resource approval workflow.

- Common resource setup and data:
  - Competencies
  - Holidays
  - Competency types
  - Degrees

- Holidays
- Honors/awards
- Languages
- Licenses/certifications
- Majors
- Memberships
- Rating model
- Job codes
- Schools
- Tests
- Resource Search Configuration for resource cache administration.
- PCR (problem, cause, and resolution) data:
  - Problem codes
  - Cause codes
  - Resolution codes
  - Problem groups
  - Problem trees, which are related only to service request and help desk data, and not to work orders.
- Failure tracking data:
  - Failure Severity codes.
  - Failure Impact codes.
- Accounting and cost data:
  - Work order business unit, which enables you to define the Project Default Order and the Accounting Default Order based on weighting calculations.
  - Associate projects

You can associate both work order-managed and Project Costing-managed projects with a work order business unit and the Project Costing business unit that is defined in the work order business unit. The Project Default Order that is specified in the work order business unit determines the default project in the work order.

Capitalization rules.

You set up a capitalization minimum for asset categories and assign the asset capitalization filter for assets that are used in a work order.

• Default PC (Project Costing) ChartFields.

Map Project Costing ChartFields to each integration module.

The Project Default Order that is set up in the work order business unit determines which Project Costing ChartFields appear as default values in the work order.

Distribution templates.

Distribution templates specify the ChartField distribution combinations for each type of cost that can be incurred by a work order. The ChartField combinations are identified for each combination of integrated PeopleSoft application and resource type.

Distribution template rules.

Distribution template rules identify which distribution template that the system uses when loading default ChartField values to a work order task. You can specify the rules regarding how the system selects a distribution template by associating the distribution template with a combination of eight key criteria. You set up the Accounting Default Profile in the work order business unit, which determines the values that are supplied by default in the work order.

#### • Work order template data:

#### • Work order task templates

These templates enable you to predefine craft, inventory item, purchased and on-hand items, and tools resource requirements that are needed to complete a work order task. In addition, this template can contain instructions, checklists, notes, and attachments that help the technician perform the task. These templates are set up by SetID and can be shared across business units. You can associate them with asset classifications (asset type, subtype, manufacturer ID, and model) and identify effective dates to enable data changes over time. If an asset classification has an EPL (Equipment Parts List) associated with it, you can select inventory and non-inventory resources associated with the asset to the Inventory and Purchase/On-Hand requirements on the template. You can also associate a template with a resolution code to streamline the search for templates that are applicable to a particular problem/cause/resolution group. Setting up these templates and applying them to a work order for common work order tasks can reduce significantly the time that you spend creating work orders.

#### • Work order job templates

These templates are defined for work orders and are attached to preventive maintenance work order schedules. They consist of one or more job steps that are associated with work order task templates. Work order job templates are also set up by SetID to enable sharing across business units. You can associate them with asset classifications (asset type, subtype, manufacturer's ID, and model). They are also effective-dated to enable data changes over time. You can associate them with a resolution code to streamline searches.

#### • Supplemental data.

Because every organization has different data requirements for work orders based upon unique business processes and regulatory issues, PeopleSoft Maintenance Management includes the Supplemental Data component to provide a way to define additional work-order related data.

See <u>Understanding Supplemental Data</u>

#### **Additional Labor Setup Considerations**

Before you can assign work to your technicians, you must create them as resources and perform other labor administration activities using the Labor Administration options in PeopleSoft Maintenance Management. This is where you can update person information and qualification profiles, but most importantly, you activate certain people, which may be based on a list of employees from PeopleSoft HRMS or on non-employees and employees whom you establish in the PeopleSoft FSCM database directly from PeopleSoft Maintenance Management as resources using the Create Resources process. You can run this process for individuals or for a group of people. Once you have activated these individuals as resources and run the Cache Administration process to refresh the resource eligibility cache table as necessary, you can assign them to resource groups to enable you to use the search engine when you are scheduling resources for a work order. (The search engine determines resource availability and qualification with respect to each work order task.) Once you have set up labor resources, you can maintain their eligibility, assign them to a craft, and manage their profiles using the Labor Administration menu in PeopleSoft Maintenance Management.

#### **Tools Setup Considerations**

You can also create resource groups for the assets that are used as tools and use the search engine to identify available and appropriate tools for specific work order tasks. You specify certain assets as tools in PeopleSoft Asset Management. You must set up the shop and identify the Asset Management business unit and asset classification parameters for assets, which are selected as tools in the work order task, where you can access the asset's calendar. The system uses shop information of the asset to determine the asset's availability based on the operating hours of the shop. The operating hours of the shop determine the availability of the tools.

#### **PeopleSoft Inventory Setup Considerations**

If you intend to use the PeopleSoft Inventory system to identify items that are required to perform a work order task, item setup in PeopleSoft Inventory is very important for PeopleSoft Maintenance Management. You must set up items and their attributes, as well as the relationship between items and the PeopleSoft Inventory business units. Item setup involves such things as units of measure, identifying floor stock items, and so on.

You identify the default PeopleSoft Inventory business unit on the Integrations page of the work order business unit. You also set up commit and reservation rules on this page.

See PeopleSoft Inventory Setup Considerations.

See "Defining Items at the Business Unit Level" (PeopleSoft Managing Items).

See "Establishing a PeopleSoft Inventory Business Unit Structure" (PeopleSoft Inventory).

#### PeopleSoft Purchasing and eProcurement Setup Considerations

To use PeopleSoft Purchasing or PeopleSoft eProcurement to procure non-inventory and open description items, you must define the requisition and purchase order defaults that are required for loading requisitions and purchase orders from PeopleSoft Maintenance Management. For each work order business unit for which you intend to procure non-inventory and open description items, you must set up the appropriate requisition loader defaults, purchase order loader defaults, or both to indicate which requisition or purchase order business unit should be used when the work order pushes to the requisition or Purchase Order. (Set Up Financials/Supply Chain > Product Related > Procurement Options > Purchasing > Requisition Loader Defaults and PO Loader Defaults.) You also set up other default values in the PeopleSoft Purchasing business unit setup (Set Up Financials/Supply Chain > Business Unit Related > Purchasing > Purchasing Definition.) The documentation PeopleSoft Maintenance Management set of topics, "Understanding Integrated and Shared Product Setup Considerations" contains additional Purchasing and eProcurement integration information.

See <u>PeopleSoft eProcurement Setup Considerations</u>.

See PeopleSoft Purchasing Setup Considerations.

See "Configuring Requisition Defaults" (PeopleSoft Purchasing).

See "Purchase Order Defaults" (PeopleSoft Purchasing).

### **PeopleSoft Maintenance Management Work Order Creation**

After setting up PeopleSoft Maintenance Management and other products that integrate with PeopleSoft Maintenance Management, you are ready to create work orders. You can use the following methods to create work orders.

- Work order creation from Service Request components.
- Work order creation from PeopleSoft CRM Help Desk, and third-party help desk applications.
- Work order creation from PeopleSoft Project Costing.
- Work order creation from PeopleSoft Program Management.
- Work order creation using the Express Work Order component.
- Work order creation using the Preventive Maintenance and Preventive Maintenance Projection processes.
- Work order creation using the CBM Alert component.
- Work order creation for an Asset based on an ESRI map location.
- Work order creation using the Work Order component.

### The PeopleSoft Service Request Components

Employees and non-employees can create a service request using either the PeopleSoft Employee Self-Service, Service Request wizard component or the Service Request component. Use service requests to log problems concerning a specific asset or a request for service. For example, an employee in

an organization can create a service request for something as simple as replacing a light bulb in the employee's office or moving a piece of furniture. An employee can also create a more complex service request, such as requesting that a technician repair the hard drive on a computer. To enter a self-service service request, an individual needs a user ID, but does not need to be an employee.

When a person creates a service request, an agent is typically responsible for reviewing the request and determining the best method of solving the problem. If the agent or a technician can solve the problem with minimal effort, or if the organization does not want to schedule the resources and track the costs of performing the work, the agent or a technician can process the service request and close the service request when the work is complete. However, if the service request problem requires more complex planning, scheduling, and tracking, and needs to capture the costs, then the agent can create a work order to engage the maintenance organization.

A user can create a service request using one of two different methods:

#### Service requests

This method of entering a service request consists of a one-page form in which requesters enter the required type of service, how they prefer to be contacted, and optionally, the asset that needs repair. A manager or another individual can create a service request on behalf of the individual who is having the problem.

The required types of service and the descriptive fields for the asset that needs repair depend on how you set up a problem tree. For example, if the problem tree is set up with a service type of *Repair a computer* and the asset field is set to *Serial ID*, an employee can create a service request to repair a computer and the system prompts the employee to enter the serial ID of the computer. The requester might also search for the asset by clicking the lookup icon, which displays a list of assets that meet the asset classification (asset type, subtype, manufacturer ID, and model) that are set up on the problem tree. In addition, you can set up each level of a problem tree with a smart tag number code, where each part of the code represents an attribute of an asset. This is used to narrow the list of eligible assets on the service request. A requester can optionally enter other relevant information, including any attachments that would be useful in solving the problem. You can also configure supplemental data fields for a specific service type, such as adding a field to record the odometer reading of an automobile that needs repair to more thoroughly describe the service request.

#### Service request wizard

This method of entering a service request is basically the same as the service request that was described previously except that the system guides you through a series of pages with one or two pieces of information in each page, rather than presenting the information in a one-page format. A summary page of the information that you entered is presented as the final page of the service request to ensure that you are ready to submit the request.

A user can review the status of a service request by accessing a My Requests component, which lists any service requests that are created by that individual. The user can access the actual service request, modify the contact information and add notes to the request, or review public notes that were added by an agent or technician.

After a user submits a service request, the service request is sent to the Service Request Inbox component in PeopleSoft Maintenance Management, where the agent, who must be a resource set up in Maintenance Management, can review the service request and request more information from the requester, if necessary.

The agent then performs one of these activities:

• Solves the problem and completes the service request.

The service request is not officially closed until the system automatically notifies the requester that the work is complete and sends instructions for closing the service request. If the requester does not close the service request or notify the agent that a problem still exists, the service request is automatically closed after a configurable number of days.

• Assigns the service request to a technician to solve it.

The agent can assign a service request to a technician, and the service request is reflected in the service request count link that appears on the Technician Workbench. The technician can then link to the service request, dialogue with the user, and indicate when the service request is complete.

• Creates a PeopleSoft Maintenance Management work order because the service request problem requires planning, scheduling, tracking of resources and costs, or the intervention of a maintenance technician to solve the problem.

In this situation, after the agent creates a work order, a planner or scheduler can assign technicians to complete the work order tasks that are related to the service request problem. A technician can request more information from the requester, if necessary. After the work order is complete, the service request status is automatically set to *Complete*, and the system notifies the requester. If the requester is not satisfied with the work, the agent can create another service request and another work order. The service request is not officially closed until the system notifies the requester that the work is complete and sends instructions for closing the service request. If the requester does not close the service request or notify the agent that a problem still exists, both the service request and the work order are automatically closed after a configurable number of days.

**Note:** Even if a work order is open, an agent can manually close the service request that is associated with the work order. Closing the service request has no effect on the work order. Maintenance personnel can still complete the work and close the work order.

As long as a work order still has the status that was set initially when it was created, the agent or technician can cancel the work order directly from the Service Request page. Once the status changes to a non-initial status such as *Work in Progress* (WIP), the agent cannot cancel the work order from the service request. However, you can request that maintenance personnel cancel the work order. Canceling the work order automatically cancels the service request and notifies the requester.

An agent or technician can also create a service request in PeopleSoft Maintenance Management using the Agent Service Request component. An agent or technician might create this type of service request based on known problems that might affect many employees. For example, an agent might create a request to move the furnishings from one office to another for several employees. The agent can also create a service request for one person using this component.

Details for the implementation of the work order are described later in the Work Order Component section.

See Work Order Creation Using the Work Order Component.

# Work Order Creation from PeopleSoft CRM and Third-Party Help Desk Applications

You can use PeopleSoft CRM and third-party help desk applications to create a work order. When a help desk agent receives a call or a self-service notification that involves a problem that the agent

cannot resolve without the intervention of one or more technicians, the agent can create a PeopleSoft Maintenance Management work order directly from the help desk application. The help desk can access the assets in PeopleSoft Asset Management and the problem tree, shops, and work order priorities in PeopleSoft Maintenance Management using the PeopleSoft Integration Broker. In addition, the help desk application maintains a history of all transactions that are sent to PeopleSoft Maintenance Management. When a help desk agent creates a work order, the system sends a series of messages between PeopleSoft Maintenance Management and the help desk application using the Integration Broker. The help desk initiates the first message to create a work order to PeopleSoft Maintenance Management. Then, PeopleSoft Maintenance Management responds by sending a message that contains the new work order number and the status. If the system fails to create a work order, then the response message contains the errors that are relevant to the failure.

Once PeopleSoft Maintenance Management creates the work order, the system notifies the help desk of key events, which include a change in the work order header status, a change in the work order description, or a request for additional information. A request for information is usually sent to the agent in an email containing an embedded URL. The Technician Workbench in PeopleSoft Maintenance Management indicates that the technician is awaiting a reply to this request. If the agent responds to the email through the URL, the Technician Workbench indicates that the agent replied to the email. A work order technician can also add a note and the agent can respond to the note within the work order without using email. After the work order is completed, the system updates the help desk application with the status change and notifies the agent of this status. If nothing else is necessary to complete the work order, the agent indicates that the problem is resolved and notifies the requester. If the requester is satisfied with the solution, then no further action is required. The agent can close a case without affecting the work order. The technician can manually close the work order or the work order will close automatically within a given time period. However, if the solution was not satisfactory, the requester can instruct the agent to keep the help desk case open. The agent might then respond by creating a new work order.

### Work Order Creation from PeopleSoft Project Costing

You can create a work order directly from PeopleSoft Project Costing for any work orders that you want to associate with a Project Costing-managed project. Once you create the work order, you can create work order tasks, define resource requirements, schedule resources, and execute the work order the same as any other work order. However, all accounting rules are set up in the PeopleSoft Project Costing system and work orders that are associated with a Project Costing-managed project are not affected by the work order close process.

See "Creating Work Orders and Work Order-Managed Projects in PeopleSoft Project Costing" (PeopleSoft Project Costing).

### Work Order Creation from PeopleSoft Program Management

You can create a Project Costing-managed work order from PeopleSoft Program Management. You can copy labor, material, and tool resources to a Project Costing-managed work order when PeopleSoft Program Management is installed. Material resources can include inventory resources, as well as non-inventory and open-text descriptions for Purchase/On-Hand resources. You can add named and generic resources. You can also set up work order access security for resources that are set up in resource pools in PeopleSoft Program Management and are used by PeopleSoft Project Costing.

See "General Information Page" (PeopleSoft Program Management).

### Work Order Creation Using the Express Work Order Component

PeopleSoft Maintenance Management enables you to create a basic work order quickly using the Express Work Order component. The Express Work Order component requires these key pieces of information:

- Work order business unit.
- Work order ID.
- Work order type.
- Service group.
- Shop.
- Priority code.
- Description.
- Project ID.
- · Activity ID.

Beyond these basic data elements, you can identify the asset to repair or maintain, its location, and the maintenance type. The default scheduler's name and ID are derived from the selected shop. When you identify an asset, you can access any work orders that were created for the asset and view any asset warranties that exist for the asset to ensure that you are applying the appropriate amount of maintenance to an asset that is covered by an active warranty. You can add attachments and record supplemental data values for the work order and, if desired, you can identify material resources to issue from PeopleSoft Inventory, to purchase, or to obtain from on-hand, non-inventoried stock piles.

This Express Work Order component is especially useful for technicians who need to create a corrective work order in response to a preventive maintenance work order and for shops that perform very little detailed estimating and scheduling work. In fact, the system specifically provides the **Originating Work Order** field on the Express Work Order to identify the work order that triggered the work order from the user. The **Show Resources** button on the Express Work Order displays a grid for entering the material requirements and procurement and on-hand requirements because technicians often are the closest to the repair and know which materials are necessary to perform a particular repair.

If you set up work order access security in the business unit, only technicians who are assigned to shops that are specified on the Work Order Access page, which is accessed by clicking the **Technician Work Order Access** link on the Miscellaneous page of the work order, can search for and access express work orders.

# **Work Order Creation Using the Preventive Maintenance and Preventive Maintenance Projection Processes**

Preventive maintenance work orders are a common type of work order that are created for an organization. In PeopleSoft Maintenance Management, you set up a preventive maintenance schedule to maintain or repair an individual asset, a group of assets that you want to maintain or repair together (loop), or a location. You attach a work order job template to the schedule, which consists of a list of work order task templates. These templates define the work order tasks and the resource requirements for each task. You also set up the method that you want to use for scheduling the preventive maintenance and determining the preventive maintenance next-due date. These methods are set up as date-based, meter-

based, or both. The meter-based readings can be based on a specific type of meter and a defined interval on calculations that are based on the number of sample days or sample readings using the PeopleSoft Asset Management Meter Reading History, or on calculations using the average reading from the PeopleSoft Asset Management Meter table. To reduce equipment downtime and lessen the performance of unnecessary maintenances, you can link related secondary schedules to a primary schedule for a single asset, asset loop, or a location. The PM Schedule Workbench lets you manage and edit PM schedules for each asset.

When you run the Preventive Maintenance process, it generates work orders depending on the way that you set up your preventive maintenance schedules. Once the work orders are created, you can access them using the Work Order component. The work order job template that you associated with the preventive maintenance schedule copies the data into each new preventive maintenance work order that the Preventive Maintenance process generates. If work order access security is set up for the business unit, the preventive maintenance process updates the shop on the Work Order Access page in the work order component. You can use the work order component to access the work order, add requirements, and schedule resources, if you want. If you indicate a scheduler on the work order, the work order appears by default in that individual's view of the Work Order Workbench. If you assign specific technicians to the work order tasks, when a specified technician accesses the Technician Workbench and searches for their tasks, the work order tasks that are assigned to that technician appear in the workbench. You can review all records that are generated by the PM and PM Projection Processes in the PM Workbench.

When you run the Preventive Maintenance Projection process, the system generates preventive maintenance work orders and next due dates. If you are satisfied with the next due dates, click the **Create Work Order** button, run the process again, and generate the actual work orders. The Preventive Maintenance Projection process will also create work orders based on a predetermined list of projections, which have their own due dates. If your organization schedules crews to perform work order tasks, you can click a link in the Crew Scheduling Workbench to access the PM Projection Summary page, which displays all projections for a selected crew and period.

You can export projections, along with existing work orders, to Microsoft Project for analysis and scheduling.

**Note:** The Preventive Maintenance process generates work orders that you can view and edit from the Work Order component.

# Work Order Creation Using the CBM Component

A condition-based monitoring system monitors the condition of an asset. When the asset condition exceeds specified limits, it issues an alert to PeopleSoft Maintenance Management that the asset needs repair. An individual can also create an alert manually. The CBM coordinator reviews the situation and can create a work order to repair the asset. If the asset is associated with a PM Schedule, the coordinator updates the PM Schedule that is associated with the asset and the Preventive Maintenance process generates a work order.

See <u>Understanding Condition-based Maintenance</u>.

# Work Order Creation for an Asset Based on an ESRI Map Location

If you access an asset in the Basic Add or the Define Asset Operational Information components in PeopleSoft Asset Management and you click the Map It button on the Location/Comments/Attributes pages, the asset displays as a marker on an ESRI GIS map. You can click the asset ID on the map and

access a link that enables you to create an express work order for this asset. The worksheet can be personalized to display only the specific fields needed for data entry.

# Work Order Creation Using the Work Order Component

You can create a new work order or maintain an existing work order using the Work Order component in PeopleSoft Maintenance Management. The Work Order component is the vehicle that enables you to access any work orders that were created using any of the previously listed methods. When you create a work order, you must enter the work order business unit, the work order type, the service group, the shop, and the work order priority. The business unit and shop control many of the default values that appear in the work order. You can override most of these values. The work order consists of these pages:

- Work Order page.
- Requirements page.
- Schedules page.
- · Actuals page.
- Cost page.
- Miscellaneous page.

#### **Work Order Page**

The Work Order page contains the header information that applies to the entire work order. Some of the information is optional and is more often entered at the task level. The Work Order page includes:

 Overall header information, which consists of the estimated start and ending dates of the work order, the work order duration, and service request information if the service request was used to create the work order.

You can also see the current status of the work order. PeopleSoft Maintenance Management enables you to define statuses that are unique to your organization. However, you must match these unique values to internal system status values. These internal values dictate the activities that you can perform in a work order.

The approval status also appears in the header information. You can set up workflow to arrange for levels of management to approve the work order. The status of this approval process appears in the work order. You indicate in the setup of the work order business unit, work order type, and shop whether to enforce workflow approval or let the system automatically approve work orders.

You can attach information, such as diagrams, schematics, and other files that are relevant to the work order. In addition, you can enter values for supplemental data elements on the work order. Organizations often have specific information, such as additional fields, to describe hazardous waste data that they want to include in a work order. PeopleSoft Maintenance Management enables you to set up supplemental data elements and display them on a work order page without changing the underlying data model.

Asset information.

You can select the asset to maintain or repair or leave this field blank, because some maintenance and repairs do not involve assets. You can omit the asset information on the Work Order (header) page

and specify an asset at the work order task level. If you select an asset on the Work Order (header) page, the system populates the work order tasks with that asset information. You can override the asset information on work order tasks if necessary.

Select the Display Asset Detailed Description check box on the Installation Options - Maintenance Management page (Set Up Financials/Supply Chain, Install, Installation Options, Maintenance Management) to view detailed description of the assets on the work order pages.

When you set up the work order business unit that is used to create a work order, the Definition page contains an Asset Lookup Field. You select the type of asset identification that you want to appear on the work order. You can select either asset ID, vehicle identification number (VIN), tag number, or serial ID. The asset lookup field that you select in the business unit will appear as the field name in the work order. Other asset information includes the asset location, the asset area ID, the asset criticality, and the parent asset, which you can select for assets that are components of other assets.

If the asset that you select has any warranties with which it is associated, a visual indicator displays a message that at least one active warranty exists. You can click a link to view those warranties to verify that you are not over servicing or under servicing an asset.

Any asset that is identified as hazardous appears with an alert on the work order to caution the user before beginning work. You can also access a **Downtime** link to enter the amount of time that the asset will be down. This information is updated in PeopleSoft Asset Management. An **Asset Details** link appears on the page, which provides additional information about the asset. You can also click links to view the Work Order Maintenance History and the PeopleSoft Asset Management Asset Maintenance History for the asset.

You can also define data that describes, quantifies, and qualifies asset failure events from various
perspectives from the Work Order, Work Order Completion, Technician Workbench components, or
directly on the Work Order Failure Tracking component.

See Understanding Work Order Failure Tracking and Analysis.

• Job template.

When you identify an asset, you can search for and access the appropriate job template and copy the requirements data that is specified in the work order tasks and associated with the job template to the work order. This helps to streamline the data entry for complex or frequently occurring jobs. You can create additional tasks for the work order over and above the tasks that were created by the job template.

Work order tasks.

You can add work order tasks from this page. However, if you plan to define resources and other requirements for a task, you normally create and define each task on the Requirements page. Each task that you create is listed in this grid at the bottom of the Work Order page.

#### **Requirements Page**

The Requirements page enables you to define each work order task for planning and estimating purposes. You can optionally define the resource requirements for each task in this page. The information in the Requirements page includes:

• The required start and end dates and times of the task and the duration of the task.

You can also manually change the status of a task. If the task depends on another task, you can identify that task and indicate the percentage of overlap between the two tasks.

#### Additional task data.

If you are a user with access to modify work order accounting information, you can click a link to access the Work Order Task Accounting page and select the appropriate capitalization/retirement filter, enter a minimum capitalization amount, and select a rate set or rate plan, which is set up in the Project Costing system. The Project Costing system uses this information to calculate chargeback costs for this work order task.

A default project activity value appears as read-only if this is a work order-managed project. You must select an activity if this work order is associated with a Project Costing-managed project.

If the shop that is associated with the work order allows crew scheduling, a default preferred crew ID is derived from the shop. You can override this crew, as well as change the shop for the crew for the task.

This is also where you can identify the name of a supervisor who is responsible for the work order, the task scheduler, and a contact. When you enter a scheduler's name, this task automatically appears in the Work Order Workbench for this scheduler.

#### Asset Information

If you identified an asset in the header on the Work Order page, this information is copied to each task. You can override this default data with another asset. If you specified that you want to use multiple assets in a work order in the work order business unit, you can identify different assets for each task. If ESRI mapping is installed, you can click a Map It button to view the location of this work order task on an ESRI map.

#### • Problem reporting.

The problem group, problem, cause, and resolution (PCR) fields enable you to associate the asset in the work order task with a specific problem. You define these codes in advance and create a problem group, which creates a hierarchical relationship between a particular problem, its associated causes, and possible resolutions that are associated with the cause. You can also associate a problem group with a classification of assets. When you select a problem group for a work order task, the problem, cause, and resolution field value choices are narrowed based on the way that you set up the problem group. You can use this information to track a recurring problem that is associated with an asset to determine whether you want to continue to repair the asset. You can associate the resolution codes with work order task templates and work order job templates so that when you find an appropriate resolution to a problem, you can select a template and automatically copy the necessary resources to a work order. This step can save you time and improve accuracy.

See <u>Understanding Work Order Templates</u>.

#### Resource requirements for a work order task.

You can define resource requirements for labor, inventory, purchased items, on-hand materials, and tools for each work order task. You can also create work order task templates and predefine some of this requirement information. When you associate the template with the task, the requirements are copied to the task. You can define requirements for:

#### Labor resources.

The craft that is identified in each work order task defines the labor resource requirements. You can enter the number of labor resources that you will need for this craft and the total number of hours that each resource will work. You can view the qualifications for resources that are associated with this craft and add to or modify those qualifications based on the qualifications that you need to complete the work order task. You can also enter the required start and end dates and times for the resources to work. If you indicate in the work order business unit that you want to record estimated costs for these labor resources, then the labor requirements display the estimated cost and billing amounts. These amounts are calculated based on the total number of hours times the number of craft persons that are required for the task times the labor cost rate and billing rate. The system derives the labor cost rate and billing rate from either the work order business unit or the shop.

If your organization intends to assign crews to work order task requirements, you can use the Crew Scheduling Workbench to allocate the crew to work orders. The requirements for each work order task are automatically updated based on the crew assignments. Before performing the crew assignment activities for a given crew schedule period, you would need to first define the Crew Capacity Plan for that period.

#### Inventory resources.

You must install PeopleSoft Inventory to display the **Inventory Requirements** grid. From the PeopleSoft Inventory Item table, you can select the items that you plan to use to repair or maintain the asset that is identified on the work order task. If one or more EPLs is set up for the asset and inventory parts are defined, then you can select the parts from multiple applicable EPL templates. You can also add selected inventory items to an EPL. In each item row, you enter the planned quantity and the unit of measure for each item, which the system uses to calculate the estimated cost per unit and the estimated cost for the planned quantity. You control whether you want to calculate estimated costs in the work order business unit. You can enter any delivery instructions for the material, and when you identify the item and the quantity, the PeopleSoft Inventory system indicates whether the items are committed and displays the item SetID, the Inventory business unit, and the GL business unit that the system uses to post the amounts to the GL from PeopleSoft Inventory.

**Note:** You can identify some items as floor stock. This means that the system does not include these items in the calculation of the costs for a work order. Floor stock refers to high volume, low cost items that are used regularly in a shop and that are of insignificant value to warrant the effort of charging them directly to every work order. Typical floor stock items are bolts, nuts, belts, and certain fluids, such as antifreeze, oil, and more.

#### Purchase/On-hand resources.

You can define the non-inventory items and open description items that do not require an item ID. Open description resources can be for a specific part that is not defined in the item table, a tool that is required for the completion of the work order, or a contract labor resource. For contract resources, you can optionally elect to set up a non-inventory item ID for that resource and use the item ID instead of an open description. You can also identify the materials that are on-hand in the shop and are therefore not calculated in the work order costs. If an EPL is set up for the asset and non-inventory, open description items and tools are defined in the EPL, then you can directly select the materials and tools that are defined in the list for the asset from the EPL. Similar to inventory items, you enter the planned quantity that you need for the work order task, the unit of measure, and any delivery instructions. If the item is a non-inventory item, the system displays the item SetID and GL business unit. If you indicate in the work order business unit that you

want to calculate estimated costs, then the system multiples quantity based on the unit of measure times the unit cost of the selected type of resource and displays the estimated cost for each type of resource that you need to purchase. You determine in the work order business unit whether you want to purchase these resources using a purchase order or requisition created from PeopleSoft Purchasing, or a requisition created from PeopleSoft eProcurement. You can define requirements and copy these requirements to the Schedules — Purchase/On-Hand grid. When you access the Schedules - Purchase/On-Hand grids for the work order task, depending on which option you selected in the business unit, you can create a purchase order or requisition directly from the work order in PeopleSoft Purchasing or Peoplesoft eProcurement. You can also schedule the rows for the task and load the staging tables where they are converted into requisitions. Once requisitions are created, PeopleSoft Security controls whether the requisition can be accessed in PeopleSoft Purchasing or PeopleSoft eProcurement.

#### • Tool resources.

Tools are assets that are used to perform work order tasks and are located in the asset repository. Tool requirements are based on selecting one or more asset classifications (asset type, subtype, manufacturer ID, and model). You enter quantity of a given type of tool that you need to complete the work order task and the number of hours that the one or more tools are needed. For tools, you can also enter the estimated usage based on the unit of measure that is appropriate to that tool. For example, you might need to use only one cement mixer for four hours to repair a wall. However, the cement mixer costs eight dollars per day to use. In this case, you would enter an estimated usage of one day. The cost per day is multiplied times this estimated usage figure and the required quantity to determine the estimated cost for the cement mixer. You can also enter estimated start and end dates and times for each tool.

• Instructions, a checklist, attachments, and supplemental data with each work order task.

You can enter step-by-step instructions on how to perform the task and create a checklist of information to guide the technician in completing the task. When you identify the checklist *after task* steps as *required*, the system prevents you from changing the status of the task to *complete* until the technician digitally signs off on all of the required steps. If the checklist step is identified as *before task*, you cannot transition the task's status to a *work in progress* user-defined status until the step is completed.

If the system calculated the estimated costs for each type of resource requirement, then these costs are totaled and compared to the scheduled costs and actual costs in the Costs page of the work order.

**Note:** Selecting an existing work order task template copies the requirements that are defined in the template to each of the grids (labor, inventory, purchase/on-hand, and tools) for the work order task.

#### Schedules Page

You enter the scheduled start and end dates and times for a task on the Schedules page. You can override the duration of the task, change the status of the task, select a dependent task and overlap percentage, if applicable, and a contact on this page. The default asset information is normally derived from the Requirements page or from the Work Order page. However, if no asset information was entered on the Requirements page or the Work Order page, you can select an asset for the task on this page if this task applies to an asset. If ESRI mapping is enabled, you can click the Map It button to access an ESRI map for this work order from this page. The same links that are on the Requirements page are available on this page.

If you defined resource requirements on the Requirements page, you can copy these requirements to the Schedules page for labor, inventory, purchase/on-hand, and tool resources.

The resource schedules include:

#### Labor.

PeopleSoft Maintenance Management enables schedulers to schedule labor resources individually or based on a crew. Labor resources, whether individual or within a crew, are selected based on craft code. When scheduling individual resources, you can select a button that initiates the searching process, which matches the pool of resources that are set up as a resource group in PeopleSoft Maintenance Management with the labor resource requirements for the work order task, and then recommends labor resources with the qualification and availability percentages. These percentages function as a guide in scheduling the resources to the work order tasks.

You can overbook a labor resource if necessary. You can also check the individual employee's calendar for availability. The system recommends labor resources based on the continuous scheduling flag, which means that you can schedule the resource only for a continuous block of time. If no employees are available to perform the task, you can create a purchase order or purchase requisition to hire someone from outside of the organization.

You can establish the schedule costs for each labor resource by entering the number of hours that the resource will work on the task. The default labor cost and bill rates are derived from the work order business unit or shop. The shops that are associated with scheduled labor resources are automatically added to the shop list on the Work Order Access page, which enables the resources to access the work order tasks in the Technician Workbench or to search for and access express work orders. You can also override the associated ChartField distribution for each resource. All accounting for labor resource charges is set up in PeopleSoft Maintenance Management and in PeopleSoft Expenses (which share their time-entry infrastructure), and the time data load to PeopleSoft Project Costing, which calculates actual costs and chargeback amounts.

#### PeopleSoft Inventory.

You must install PeopleSoft Inventory to use this feature, which results in the display of a link to the **Inventory Schedules** grid on the Schedules page of the work order. You can copy the Inventory requirements to the **Inventory Schedules** grids.

You can determine the parts that are required to repair or maintain the asset by selecting from the EPL if they are defined for the asset in PeopleSoft Asset Management. The EPL contains a list of the inventory and non-inventory parts that you need to repair and maintain the asset. PeopleSoft Maintenance Management enables you to select from multiple applicable EPL templates from the Schedules page. You can also select an inventory item for a row and add the item to the EPL, if applicable.

You can manually select an item from PeopleSoft Inventory and add it to a row in the Inventory - Schedules grid.

You can check the availability of an item based on a specific date by clicking the **Item Availability** button, which indicates on the **Inventory Schedules Availability** grid whether the item is available. If the item is not available, you can click a link to determine the reason or reasons that it is unavailable and view the earliest date that it will become available. You can also click the **Item Availability** and **Balance** inquiry links on the **Inventory Schedules** grid to review the current status of a selected item. You can determine item availability based on future dates for a batch of inventory items by generating the Work Order Task Material Readiness Report. You can enter delivery instructions, calculate the

scheduled costs, and override the ChartField distribution values for each item. You must enter a date when you need the inventory item for the work order.

You indicate in the work order business unit, shop, or work order type level whether to commit and reserve each item or a batch of items that are specified in a work order based on a combination of commit rules and reservation rules. Items are committed based on the creation of the parts list, the creation of a pick plan, or a change in the work order task status, or you can commit the parts at the time that you want to reserve them. You select a commit rule and then select a reservation rule that reserves parts based on the creation of a parts list, pick plan, change in the work order status, or batch reserve. The scheduling row for the item indicates whether an item was committed and reserved. Authorized schedulers can also click the **Reserve** button in the work order to override the reservation rules and reserve an item on the spot.

You can also unreserve an item if a quantity is needed for a work order task with a higher priority. Planners and schedulers can also click the **Shortage Workbench** button on the Schedules page to move demand from one work order to another and to notify the primary work order contact that a quantity of an item is no longer reserved. When a work order task is closed, canceled, or completed, the system verifies that you want to perform this process, including the returning of excess demand to PeopleSoft Inventory. If you indicate that you want to continue, the system automatically handles removal of the excess demand from the work order task.

You can click the link to the pegging workbench to reserve incoming supply to your work order or view the pegging status of the item in the pegging inquiry. If you have been granted user access on the User Preferences, Maintenance Management page, you can select the pick plan processing options, as well as generate a pick plan. Depending on how you set up the pick plan, the technician can either print out the pick plan and hand it to the inventory clerk, or the system can route the pick plan to the inventory clerk. PeopleSoft Inventory provides additional options for the pick plan batch process that you can set up to run at various times that are appropriate to your organization.

See "Understanding Pegging" (PeopleSoft Supply Chain Management Common Information).

#### • Purchase/On-hand.

To complete a work order task, you can identify items that require procurement, such as contracted labor, tools, non-inventory items, and open description resources in the **Purchase/On-hand** grid. You can also identify one or more resources that you might already have on-hand. These resources do not require procurement, but are required to complete the work order. Costs are not taken into consideration for any resources that are marked as on hand. If an EPL is available for the asset that is associated with this work order task, you can select the non-inventory parts that you need to purchase from multiple applicable EPL templates. You can also add non-inventory parts to an existing EPL.

You can inquire on any existing requisitions or purchase orders that were created for work orders by clicking the **Procurement Inquiry** button. You specify supplier information for the purchase, select each resource line that you want to purchase, and load those lines into staging tables. PeopleSoft Purchasing creates either PeopleSoft Purchasing purchase orders, PeopleSoft Purchasing requisitions, or PeopleSoft eProcurement requisitions depending on how you configure the work order business unit. If you have proper authority, you can click the **Add Requisition** or the **Add Purchase Order** button to navigate to the Procurement maintenance page and add a new requisition or purchase order.

The **Purchase/On-hand Schedules** grid also identifies whether a resource has been pegged and provides access to the Pegging Inquiry component in PeopleSoft Inventory. Once the resource is pegged, you can click the **Item Availability** button to determine availability of the selected item based on the scheduled due date. The **Purchase/On-Hand Schedules Availability** grid displays whether the resource is available. If it is not available, you can click the link to view the reasons that it is not

available. You can also determine item availability based on future dates for a batch of procured items by generating the Work Order Task Material Readiness Report.

#### Tools

Tools are assets that are used to maintain and repair other assets. You can identify them based on their asset characteristics (asset type, subtype, manufacturer ID, and model), as well as assign specific assets, which are identified by asset ID and the Asset Management business unit, if necessary. You can set up resource groups for tool resources, just as you can for labor resources, and perform searches for appropriate tools. The search compares the resource requirements of the tools with the tools that are set up in the specified resource group. The system recommends specific tool resources and determines their availability.

You can also check the availability of a tool by reviewing the asset calendar that is associated with the tool. You can overbook a tool if necessary. Searches for tools can take into account the continuous scheduling flag, which enables you to indicate whether you need the tool to be available for a continuous block of time. If you decide that you need to purchase a tool resource, you can copy the tool from the **Tool Schedules** grid into the **Purchase/On hand** grid by clicking the **Move Selected to Purchase** button.

Similar to the other resources, you can override the ChartField distributions for each tool resource. The cost and bill rate for tools are based on the asset type and subtype and are defined at the shop level. You can calculate the scheduled tool costs based on the amount of scheduled usage, such as 2 days at ten dollars per day, that you expect to use a tool on a job. PeopleSoft Maintenance Management stores these actual costs of tools and sends them to PeopleSoft Project Costing.

#### • Warranty claim.

From the Schedules page, you can generate a warranty claim for the costs of a work order. Use this feature if your organization has warranties from suppliers or suppliers who allow you to recover the cost of work that you perform on the assets. The feature automatically copies all of the costs from the work order task into a warranty claim. You can then modify the claim and submit it to the supplier or supplier for the recovery of costs.

#### **Actuals Page**

The Actuals page in a work order displays the work order task with the scheduled start and end dates and times and the actual dates and times that the work order task started and ended. Actual values that appear in this page are usually entered on the Technician Workbench. In addition, the page has four grids:

#### · Labor actuals

This grid displays the scheduled start and end dates and times and the actual start and end dates and times, as well as the actual hours that were worked for each labor resource who was assigned to the task.

#### Inventory actuals

This grid displays each item and its quantity scheduled and quantity required. It also displays the quantity issued and the quantity used for each scheduled item. If you want, you can enter the quantity used for each item.

#### Purchasing actuals

This grid displays the resource, the resource type, and its unit of measure.

#### Tools actuals

This grid displays the scheduled start and end dates and times and the actual start and end dates and times, as well as the actual hours that each tool was used, the actual quantity of usage units consumed, and the unit of measure for usage of the tool.

#### **Costs Page**

This page presents the total estimated, scheduled, and actual costs of labor, inventory, procurements, and tools for the entire work order. It also displays the variance between the estimated costs and the actual costs.

The page contains a sum of the totals that represents the total estimated, scheduled, and actual costs, along with the variance, for both the work order and each work order task. Another grid further delineates the total actual costs of each resource by category (labor, inventory, purchasing, and tools). You can click the **Capitalize** and **Charge Back** buttons for a work order task to view the actual capitalized costs and chargeback transactions. You can display the actual work order task costs before a work order task is closed by running the Cost Summarization process in PeopleSoft Maintenance Management. When you close a work order, the Cost Summarization process runs automatically and updates this page. The system automatically updates the tools costs when a technician enters them on the technician's workbench.

**Note:** On-hand items are not calculated and rolled into the Costs page.

#### Miscellaneous Page

The Miscellaneous page of a work order contains much of the work order header information, along with when and who last modified the work order, the work order's source, such as service request, and the project ID that is associated with the work order. If this is a preventive maintenance work order, the system specifies the maintenance type. You can select a parent work order if the work order is a child of another work order. If this is a parent work order, the system lists the child work orders. If you created the work order based on another work order, then you can select the originating work order, which is informational only. You can also indicate whether this is a standing work order that always remains open or is reused multiple times.

You can set up work order access security to limit resources' access to work orders and work order tasks on the Work Order, Express Work Order, and Technician Workbench components.

The type of access you apply depends on the Technician WO Security option you choose on the Definition page of a business unit. You can apply full access (default), shop access, resource pool access, or shop and resource pool access.

You must also select Apply WO Security on the User Preferences – Maintenance Management page for each user who is a resource assigned to a shop or resource pool to which you apply work order access security depending on your selection in the work order business unit. For example, if you select Shop on the Definition page of the work order business unit, you would select this option for users assigned to the shops that are listed on the Work Order Access page.

If you selected one of the Technician WO Security "Shop" options on the Definition page of the work order business unit, you must select the Allow Access to WO Security check box on the User Preferences – Maintenance Management page to enable specific users to add shops and remove shops on the Work Order Access page in the Work Order component. The shop specified on the Work Order is automatically added to the shop list on the Work Order Access page and cannot be removed. In addition, if a resource who is assigned to a shop other than this work order's primary shop is selected for a task in the work

order, this cross shop automatically appears on the Work Order Access page. Once these shops are listed in the work order, then only resources who have Apply WO Security selected in User Preferences and are assigned to one of the shops on the shop list can access work orders and work order tasks in the Work Order, Express Work Order, and Technician Workbench components.

The same principle holds true if you select Resource Pool in the Definition page of the work order business unit. Only resources who have Apply WO Security selected in User Preferences and are assigned to a resource pool associated with a project and activity in the work order that was created with the business unit with Resource Pool selected can access the work orders and work order tasks in the Work Order, Express Work Order, and Technician Workbench components that are created with this same business unit.

See "User Preferences - Maintenance Management Page" (Application Fundamentals).

See Using the Work Order Miscellaneous Page.

# **PeopleSoft Maintenance Management Workbenches**

PeopleSoft Maintenance Management workbenches enable specific users to access and manage work order data. These workbenches include the:

- Work Order Workbench
- Crew Scheduling Workbench
- Technician Workbench
- PM Schedule Workbench
- Labor Assignment Workbench

#### **Work Order Workbench**

You identify the scheduler for a work order task on the Requirements page of the work order. This scheduler can schedule resources on the Schedules page of the work order. Once the resources are scheduled, the assigned scheduler can access all assigned tasks that are associated with one or more work orders on the Work Order Workbench. The Work Order Workbench enables a scheduler to manage tasks on more than one work order throughout the life of the work order. Schedulers can create and save views by specifying work order data. These views enable the scheduler to easily access specific tasks. For example, you can create a view for all work order tasks with a specific status or all work order tasks that apply to the same asset.

The Work Order Workbench displays the tabs, which include the:

Task Overview.

You can access the actual work order, a task description, asset information, and notes from this tab. You can also view the task number, work order type, priority, status, and work location description of each task

· Schedules.

You can view the required start and end dates and duration and add or modify the scheduled start and end dates and times.

Resources.

You can click the **Labor**, **Inventory**, **Purchase/On-Hand**, or **Tools** link to access the specific task resource schedule on the Schedules page of the work order.

Asset Information.

You can click the **Warranty** link to view any warranties that are associated with the task's asset and add new warranty information. You can also review the Work Order History for the asset and access the asset's monthly calendar. A hazardous waste warning icon may appear if hazardous waste is associated with the asset.

• Full Description tab.

The complete work order and work order task descriptions appear on this tab.

You can also change the status of more than one task at the same time on the Work Order Workbench and, if ESRI GIS integration is set up, you can click on the Map Selected Tasks icon to view the location of one or more work order tasks on an ESRI map.

See <u>Understanding Resource Scheduling</u>.

#### **Crew Scheduling Workbench**

The Crew Scheduling Workbench enables schedulers to schedule crews, rather than individuals, to work orders in specific periods and establishes the scheduled hours metrics by crew and craft for future schedule completion and compliance analysis. You can load up a crew based on the availability of the crew by craft. As you allocate each work order task to a craft, you can immediately compare the results against the target load percentage.

Using this workbench, you can determine and schedule backlog work and carryover work. You can also unschedule work and track the reason for unscheduling the work. You can save the schedules in draft mode or freeze them and save the summary totals to the Crew Schedule Metrics. Users can view crew assignments on the Requirements page of the work order, but they cannot modify them.

The Crew Scheduling Workbench also enables you to set up search views that display work orders and tasks that you need to access multiple times. For example, you may want to set up views based on Scheduling Status such as scheduled tasks, unscheduled tasks, carryover tasks, and more.

The top section of the work bench displays the crew capacity data, which is set up based on the establishment of a crew capacity plan. The lower section of the workbench includes these tabs:

You can select actions to perform on one or more selected rows using the Actions field, which appears between the crew capacity grid and the workbench. This actions include:

- Assign Crew.
- Change Crew End Date/Time.
- Change Crew Start Date/Time.
- Change Period.
- · Change Status.
- Confirm Metrics.

- Create Labor Schedules.
- Go to Labor Assignment WB (workbench).
- Go to PM Projections.
- Remove from Schedule.
- Report Completed Date.
- Update Carryover Hours.
- Update Completed Man Hours.
- Update Scheduled Hours.
- Crew Assignments tab.

This tab displays the information that is most relevant to assign rows to crews, which includes the work order, the task, the task status, the craft, and the estimated hours. This information is derived from the work order task. The fields for the crew, scheduled hours, carryover hours, completed hours, and completed schedule status are normally updated for each row based on the action data selected for the Action field.

#### Resources tab.

This tab enables you to review **Labor**, **Inventory**, **Purchase/On-Hand**, and **Tool** resource data for each work order task. This enables a scheduler to review scheduled resources in order to make an informed decision about each task when scheduling a crew to a task. You can also assign a crew from another shop to a single row or select the Assign Crew action to change the crew and shop for multiple selected rows.

#### Schedules tab.

This tab displays the required start and end dates and times for each row based on information derived from the task. The required dates provide information that enables the scheduler to determine the best dates and times to schedule the crew.

#### Rescheduling tab.

This tab displays information regarding any rescheduling actions performed in the past and updated in the rescheduling history. You can manually enter a rescheduling reason code for a single row that has been rescheduled. If you reschedule multiple rows by selecting an action (change period, change start date and time, change end date and time, and more), a reason and description field appear as fields associated with the selected action.

#### Asset Information tab.

You can review the asset business unit, location, area, and criticality of the asset that is associated with each task. You can also view the asset's calendar, the Work Order Task History, and the Asset Maintenance History. The scheduler can determine the availability, location, and importance of the asset in order to schedule the crew appropriately.

#### • Full Description tab.

The complete work order and work order task descriptions appear on this tab.

• Messages tab.

When you perform an action, the system may display an error, warning, or informational icon on one or more rows, and a Messages tab appears. This tab describes the error, warning, or information based on the icon that appears on the Workbench.

After the scheduler completes the scheduling of crews for the next period using the Crew Scheduling Workbench, the craft supervisor can access the Labor Assignment Workbench to assign each technician within the crew. Supervisors can view the daily workload of the crew members all at once and allocate the workload appropriately. A supervisor can also reschedule work to a different resource, remove resource assignments, and display the daily capacity, load, and tasks of each assigned resource. Craft supervisors and schedulers can also make individual assignments outside the crew using the Labor Assignment Workbench.

See <u>Understanding Crew Scheduling</u>.

#### **Technician Workbench**

The Technician Workbench enables technicians or authorized employees to access their assigned tasks and enter their work order and personal (non-work order) time, inventory and non-inventory materials used on each task, and the tools that were used on each task. If the task is associated with a preventive maintenance work order that determines maintenance based on meter readings, the technician can enter a meter reading for the asset, view instructions and complete checklists, view attachments, enter any parts that caused the problem, and access the employee's calendar. Icons appear for any task assets that have warranties or hazardous codes associated to them. The technician can also change the status of more than one selected work order tasks at the same time. If a crew was assigned to work order tasks, you can also report carryover hours, completed hours, and completed dates. If ESRI GIS integration is set up, you can click the Map Selected Tasks icon and locate one or more work order tasks on an ESRI map.

The tabs on the Technician Workbench include:

Details tab.

You can view details of the work order, access a selected task on the Schedules page of the work order, review the asset information, scheduled task start and end dates, priority, and task status, and view or add notes and supplemental data.

Details 2 and 3 tabs.

You can view the scheduled start and end times, the required start and end dates and times, the asset business unit and location, the project ID and activity number, and the shop, lead person, supervisor, and scheduler for each task

• Full Description tab.

The complete work order and work order task descriptions appear on this tab.

Task Actual Dates/Times tab.

You can enter the actual start and end dates and times for the task and enter any downtime for the asset

Failure Reporting tab.

You can select a problem group and the associated problem, cause, and resolution codes for each task, which enables easier searching and tracking of work order tasks.

See <u>Understanding Work Order Task Completion</u>.

#### PM Schedule Workbench

The PM Schedule workbench enables a scheduler to manage multiple PM Schedules. You can search for PM Schedules to appear based on the asset, the asset location, or the work location. The Preventive Maintenance Schedule Workbench page displays a list of PM Schedules and includes these tabs:

• PM Schedule Info. (information) tab.

You can click the **Edit** button for a schedule to access the selected PM schedule. This grid also displays the schedule ID and description, the asset business unit, the maintenance type, whether it is associated with a meter, whether any blackout periods exist, the threshold percentage, and the basis date for the schedule.

• PM Loop Info. (information) tab.

If a schedule is associated with loop, you can view the loop ID and loop definition.

• Work Order Info. (information) tab.

You can review the work order business unit, the work order template ID, and the shop, work type, service group, priority code, approval status, internal status, and description of the work order that will be or has been generated for this schedule.

• Date Options tab.

You can review the schedule type, interval, week, date of the month, day, and whether the date is generated from the last completion of the previous work order.

• Scheduling Option tab.

You can view the selected scheduling option for each PM schedule.

• Project tab.

You can view the project ID, activity number, and whether the project is a work order-managed project.

CBM Alert tab.

You can view override options that are set up for the CBM alert and the source of the CBM alert.

Last Reviewed tab.

You can view the name of the person who last reviewed a PM Schedule and the date that it was reviewed.

See Understanding the Preventive Maintenance Process.

#### **Labor Assignment Workbench**

After the scheduler completes the scheduling of crews for a period using the Crew Scheduling Workbench, the craft supervisor can access the Labor Assignment Workbench to assign each technician within the crew. Supervisors can view the daily workload of the crew members all at once and allocate the workload appropriately. A supervisor can also reschedule work to a different resource, remove resource assignments, and display the daily capacity, load, and tasks of each assigned resource. Craft supervisors and schedulers can also make individual assignments outside the crew using the Labor Assignment Workbench.

You can search for work orders that are either crew scheduled or non-crew scheduled. When you search for crew-scheduled work orders, you must select a shop, crew, and period. An **Availability** grid displays the availability of the crew members for the selected period. You assign employees to the crew based on this availability. You can search for resources and display their capacity, load, and tasks assigned each day. You can also reassign and unassign resources. When you create these assignments, they are updated on the work order task's labor schedule rows and on the Technician Workbench.

The tabs on the Labor Assignment Workbench include:

Assignments.

You can select the employee ID and change the hours that are required for the task. You can also indicate whether overbooking is allowed.

Schedules.

You can change the scheduled start and end dates and times.

Asset Information.

Review information about the asset and access any warranties, the Work Order History, and the asset's calendar.

• Full Description tab.

The complete work order and work order task descriptions appear on this tab.

Distributions.

Access and modify ChartField distribution for PeopleSoft Expenses.

Messages.

If error messages, warnings, or information exist about the row, this tab appears and contains a description of the error, warning, or information.

# **Work Order Processing**

This section discusses:

- Work order execution.
- Work order close.

• Work order inquiries and reports.

# **Work Order Completion**

There are two components in PeopleSoft Maintenance Management that you can use to enter data to complete a work order. These components are:

• The Technician Workbench.

This component enables technicians and authorized personnel to enter labor time, materials, tools and other actuals data that pertain to one or more work orders.

• The Work Order Completion component.

This component enables, typically supervisors, to enter labor time, materials, and tool usage actuals for the tasks associated with a single work order.

#### Work Order Task Completion Using the Technician Workbench

Technicians and authorized users can access the Technician Workbench to search for and view a list of all of their assigned work orders and tasks. The workbench, as described previously, provides detailed information about each task assigned to a specific technician. The technician can:

- Change the status of one or more selected work order tasks.
- Review the work order data and the task data, including required start and end dates and times, scheduled start and end dates, project information, supplemental data, and notes that are associated with the task.
- Access the work order task, if authorized, where they can schedule resources and perform additional updates.
- Enter the actual start and end dates and times of the task.
- Classify the issue that caused the task by a problem group, problem, cause, and resolution.

In addition, links are available from the workbench, which include:

- The capability to view the work order header details.
- The capability to update the asset's offline status and enter a new asset location, area, and effective date.
- Asset downtime entry.
- Task note entry.
- Supplemental data entry.
- The capability to complete the pre-task and post-task checklist.
- Service requests, which indicate the number of active service requests that are assigned to a specific
  technician and transfer the technician to the Service Request Inbox. Technicians can address the
  service requests to which they are assigned.
- My Calendar, where technicians can view their assigned tasks on a daily, weekly, and monthly basis.

- Time Entry, which enables technicians to enter the elapsed time or punched time that they took to perform the work order task, as well as personal (non-work order) time.
- Materials, which enable the technicians to view a detailed list of all materials (inventory, floor stock, on-hand, and purchased) that are assigned to a work order task, see the delivery instructions for the material, and generate and print a PeopleSoft Inventory pick list.
  - The technician can later enter the quantity of each item that is used to perform the work order task.
- Tools Usage, which enables technicians to enter the actual start and end dates and times for each tool
  (asset) that they use to perform a work order task. Technicians can also enter unscheduled tools and
  their usage here.
- Meter Reading, which enables the technicians to enter the current meter reading information for the asset that is being maintained or repaired.
  - You can click an icon next to the **Advanced Options** link to access a user-driven Meter Reading Trend Chart and access the Meter Reading History table.
- Procedures, which enable the technicians to view and complete the checklist, view the instructions, and view and print attachments that are associated with the work order task.
  - The technician can also click a link to access the actual work order and work order task, where the technician can make modifications or changes to the task and the work order, if authorized to do so.
- Causal Parts, which enables the technician to enter the parts that caused an equipment failure that resulted in the necessity of the work order task. This serves as additional reference information or you can use it when filing a warranty claim based on a work order task.
- Report Crew Assignment Time, which enables a technician to report carryover hours, completed hours, and completed dates.

You can click a **Mass Change** button that enables you to update the selected work order tasks with actual completion dates and times and PCR (problem, cause, and resolution) codes.

You can also click a **Print** button that enables you to access the Work Order Task Detail Report page, from which you can print resource assignment reports and reference reports with a bar code.

#### Work Order Task Completion Using the Work Order Completion Component

The Work Order Completion component enables you to update completion data for the tasks associated with a single work order. The Work Order Completion component has many of the same capabilities as the Technician Workbench. The differences between using the Work Order Completion component rather than the Technician Workbench are:

- You enter data for tasks associated with a single work order and it's tasks, rather than multiple work order tasks.
- You must enter labor actuals using the Elapsed Time Entry method for each employee that worked
  on a task. When you submit these transactions, they are automatically staged for cost collection by
  Project Costing. The Technician Workbench requires that the transactions be staged separately by a
  batch process in Time and Expenses.

**Note:** The system will prevent you from entering labor time entries for a task row in the Work Order Completion component if you have already entered them on the Technician Workbench. It will also prevent you from entering labor time entries on the Technician Workbench if you have already entered them on the Work Order Completion component.

- You cannot enter actual data for crew scheduling on the Work Order Completion component.
- The remaining fields and links are identical to the fields on the Technician Workbench.

For each task associated with the work order, you can:

- Enter an actual start and end date and time.
- Enter problem, cause, and resolution data.
- Enter labor actuals.
- Enter tools usage.
- Enter materials used.
- Causal parts.
- Complete checklists.
- Add notes.
- Report asset downtime.
- Enter supplemental data.
- Perform mass changes of actual start and end dates and times and PCR codes for all of the work orders.

#### **Work Order Close**

Once work order tasks are executed, the actual costs of labor transactions, materials issuances and returns to stock in PeopleSoft Inventory, procured items from PeopleSoft Purchasing and PeopleSoft Payables, and tool costs are collected and loaded to the PeopleSoft Project Costing system. You can indicate in the work order business unit or the work order type the grace period between when a work order task is marked complete and when it is closed.

These activities are performed when you close a work order task:

- The costs for an asset that is associated with a work order task, along with asset downtime, are updated in the asset's Maintenance History in PeopleSoft Asset Management, and currency conversions are performed from the currency that is specified in the work order business unit.
- For work order tasks that are associated with work order-managed projects, the capitalization limit rules that are set up in PeopleSoft Maintenance Management are validated, and the capitalization information is updated in PeopleSoft Project Costing.

Also, the retirement of an asset is validated in PeopleSoft Maintenance Management and the retirement rules are updated in PeopleSoft Project Costing.

- For chargeback costs for work order tasks that are associated with a work order-managed project, the chargeback information in the work order is validated and the work order transaction is priced in PeopleSoft Project Costing. The Pricing engine then sets the GL distribution status (GL\_DISTRIB\_STATUS) to *hold* until the work order task is closed in PeopleSoft Maintenance Management. Once the work order task is closed, the GL distribution status is set to *costed* so that the accounting engine can process each transaction row.
- The Work Order Task Status History and the Work Order History are updated.
- The Cost Summarization process is automatically run, which updates the actual costs in the Costs page of the work order.

Once all of the work order tasks are closed, the work order is automatically closed.

# **Work Order Inquiries and Reports**

Several inquiries and reports are available in PeopleSoft Maintenance Management. A brief description of each of these reports appears in the Reports troubleshooting. When you click the **Print** button in the Technician Workbench, you print the Work Order Task Detail report. You can also print this report from a run control page.

Additional reports include:

- Warranty Claim report.
- Preventive Maintenance report.
- Preventive Maintenance by Process Instance report.
- Preventive Maintenance Projection by Process Instance report.
- Crew Availability report.
- Crew Schedule (Assignment) report.

This report provides the user an option to include detail at run time. The individual technician assignment is included when the **Include Detail** check box is selected.

- Crew Carryover Work report.
- Crew Unscheduled Work report.
- Work Order Task Material Readiness report.
- Schedule Maintenance Completion Report.

The inquiries include:

- Asset Maintenance Cost Inquiry, which enables users to analyze work order and non-work order related asset maintenance costs at a summary and detail level for a selected time frame.
- Asset Maintenance History inquiry, which displays the estimated versus the actual costs of maintaining an asset.
- Work Order History inquiry, which displays a summary of the estimated versus the actual costs for each work order.

- Work Progress Tracking inquiry, which displays a list of work order tasks that are behind schedule based on the scheduled start date, end date, or both and the percentage that are behind.
  - You can set up search criteria, which you can save, to display a list of work order tasks that are behind schedule.
- Purchasing and Pegging inquiry, which displays a list of purchase orders or requisitions that were created for a work order, along with the quantity pegged.
- Chargeback inquiry, which displays the list of chargeback debit and credit totals for a work order business unit, shop, and GL business unit.
- Capitalization inquiry, which displays the amount capitalized and the actual cost of maintaining an asset based on the work order business unit, shop, and work order type. This inquiry also lists the Asset Management business unit, the asset classifications, the work order ID, the capitalization amount, and the actual costs.
- Crew Schedule inquiry, which enables users to search and view schedules across schedule periods, all future schedules for a given crew, and past schedules.
- Crew Schedule Metrics, which enables schedulers to measure how well the crews comply with the
  schedule for the scheduling period and to determine a better target load percent, which is a target
  value that is used to reduce the expected availability of the crew to allow for unscheduled events, for
  future periods.
- Crew Rescheduling Metrics component, which enables users to review the reasons for rescheduling crews. Users can update the rescheduling reason or add and update any comments.
- Asset Downtime Review inquiry, which enables users to review the dates and reasons for the downtime of assets that are associated with a work order.
- Failure Analysis inquiry, which provides users the capability to select, group and analyze stored failure tracking data for a variety of useful metrics.

# **Chapter 4**

# Understanding Integrated and Shared Products Setup Considerations

# **Integrated Product Setup Considerations**

Oracle's PeopleSoft Maintenance Management integrates with a large number of PeopleSoft products. Some of these products are key to the planning, scheduling, execution, and processing of work orders and may have unique or required setup considerations based on their integration with PeopleSoft Maintenance Management.

#### This section discusses:

- PeopleSoft Asset Management setup considerations.
- PeopleSoft Project Costing setup considerations.
- PeopleSoft Purchasing setup considerations.
- PeopleSoft Inventory setup considerations.
- PeopleSoft eProcurement setup considerations.
- PeopleSoft CRM Help Desk and third-party help desk application setup considerations.
- Condition-based monitoring system setup considerations.
- ESRI GIS setup considerations.
- Mobile integration setup considerations.

# **PeopleSoft Asset Management Setup Considerations**

In order to maintain assets using a service request or work order, you must set up assets in PeopleSoft Asset Management's asset repository prior to setting up PeopleSoft Maintenance Management. In addition to the setup required for financial PeopleSoft Asset Management, PeopleSoft Maintenance Management recommends that your PeopleSoft Asset Management setup include:

- Installation options.
- Asset locations.
- Asset area –Set Up Financials/Supply Chain > Product Related > Asset Management > Service and Repair > Area Definition.
- Asset type, asset subtype, manufacturer ID, and model.

The only place that the manufacturer ID and model are associated with the asset type and subtype is in the equipment parts list (EPL) in PeopleSoft Asset Management. You set the manufacturer ID and model up in Set Up Financials/Supply Chain > Product Related > Procurement Options > Purchasing > Manufacturers and Manufacturer Model Relation. You associate them with an asset in PeopleSoft Maintenance Management task and template setup.

- Chargeback information at the asset level.
- Component changeout rule definitions at the Asset Management business unit, asset type, asset subtype, and asset levels.
- Maintenance types (Set Up Financials/Supply Chain/Product Related > Asset Management > Service and Repair).

**Note:** Users define maintenance types in PeopleSoft Asset Management and associate them with an asset type and subtype in PeopleSoft Maintenance Management.

- EPL. (This is optional and is located at **Set Up Financials/Supply Chain** > **Product Related** > **Asset Management** > **Service and Repair.)**
- Insurance types (Set Up Financials/Supply Chain > Product Related > Asset Management > Service and Repair).
- Standard warranties (Set Up Financials/Supply Chain > Product Related > Asset Management > Service and Repair).
- Warranty templates Set Up Financials/Supply Chain > Product Related > Asset Management > Service and Repair.
- Interunit transfer definition Set Up Financials/Supply Chain > Product Related > Asset Management > Profiles > Asset Profiles
- Meter types Set Up Financials/Supply Chain > Product Related > Asset Management > Service and Repair.
- Assets set up as tools Set Up Financials/Supply Chain > Product Related > Asset
   Management > Profiles > Asset Profiles

See "Understanding the PeopleSoft Asset Management Lifecycle" (Asset Lifecycle Management Fundamentals).

# **PeopleSoft Project Costing Setup Considerations**

You must install and set up PeopleSoft Project Costing prior to the installation and set up of PeopleSoft Maintenance Management. PeopleSoft Maintenance Management uses PeopleSoft Project Costing to:

- Collect work order costs that are generated by PeopleSoft Inventory, PeopleSoft Purchasing, PeopleSoft Payables, PeopleSoft Expenses, and PeopleSoft Maintenance Management.
- Capitalize costs incurred by a work order.
- Use costs incurred by a work order to determine the cost of removal when disposing of an asset.
- Calculate chargebacks and send them to the General Ledger.

- Create work order-managed and Project Costing-managed work orders.
- Copy labor resources set up in Project Costing as labor resources for a Project Costing managed work order
- Copy generic labor, tools, and purchase/on-hand resources specified for a project and project activity in PeopleSoft Program Management to a work order created from PeopleSoft Program Management. (Program Management must be installed along with Project Costing to use this functionality.)
- Copy specific labor, tools, purchase/on-hand, and inventory resources associated with a project and project activity to a work order created from PeopleSoft Program Management. (Program Management must be installed along with Project Costing to use this functionality.)
- Apply resource pools created in PeopleSoft Resource Management to projects and project activities using PeopleSoft Program Management.

You associate resource pools to projects and project activities in PeopleSoft Program Management. This enables PeopleSoft Maintenance Management to apply work order access security for resource pools. If this type of security is enforced in a work order business unit, then work order access security is enforced for all of the work orders that are created using this business unit and associated with a project that uses resource pools. Only resources that are members of one of these resource pools can search for express work orders and access the Technician Workbench if work order access security is established. This applies to both Project Costing-managed work orders and work ordermanaged work orders.

You must set up specific tables and features in Project Costing, which include:

- Selecting **Enable Organization** on the Installation Options Project Costing page to calculate chargebacks.
- Following the Project Costing setup requirements, which include the setup of Project Costing ChartFields, transaction options, pricing structure, and more.
- Creating rate sets and rate plans in Project Costing that apply to PeopleSoft Maintenance Management and includes the rate options, WBI (work order labor bill rate), WCO (work order labor cost rate), TBI (tool billing rate), and TCO (tool cost rate) in Set Up Financials/Supply Chain > Product Related > Project Costing > Pricing Structure.
- Select the TUG (Tools Usage) analysis type on the Installation Options, Project Costing Integration page.
- Establishing one or more default work order-managed projects in Project Costing to automatically associate with any new work orders that you create directly in PeopleSoft Maintenance Management.
- Creating a project in Project Costing and clicking the Create Work Order button on the Project
   Costing > Activity Definition > Team > Resources by Activity page to generate a Project
   Costing project-managed work order.

You can also create a work order in PeopleSoft Maintenance Management and associate it with an existing project.

**Note:** You may only need to create one work order-managed project that you associate with most of your work orders depending on the needs of your organization.

When you set up one or more work order business units in the PeopleSoft Maintenance Management work order business unit's Integration page, you must enter the Project Costing business unit that you want to use with each work order business unit to collect work order costs. You also select a default rate plan or rate set, rate, and analysis type, which are based on the user-defined template in Project Costing to use for calculating chargebacks.

In PeopleSoft Maintenance Management, you:

- Associate projects with a work order type and service group in PeopleSoft Maintenance Management, using Associate Projects for work order-managed projects.
- Set up the default Project Costing ChartField values to use for each combination of work order business unit, service group, work order type, project, application, and resource type.
- Set up capitalization filters that specify the minimum amount that it costs to repair or maintain an asset with a work order before capitalizing costs in Project Costing.
- Indicate in the work order business unit that you want to enforce work order access security for resource pools associated with a project and project activity.

See "Understanding Project ChartFields" (PeopleSoft Project Costing).

See <u>Understanding Overall System Setup Parameters for PeopleSoft Maintenance Management</u>.

# **PeopleSoft Purchasing Setup Considerations**

PeopleSoft Maintenance Management integrates with PeopleSoft Purchasing to enable users to create purchase orders or requisitions for materials, tools, and labor directly from the work order. You must install PeopleSoft Purchasing before setting up PeopleSoft Maintenance Management to create and process work orders. There are specific setup requirements related to the integration of PeopleSoft Purchasing and PeopleSoft Maintenance Management that you must perform, which include:

- Setting up the PO/Requisition Loader Defaults for PeopleSoft Maintenance Management in PeopleSoft Purchasing.
- Indicating whether you want to create a purchase order or a requisition in the work order business unit and in the User Preferences Maintenance Management page, depending on the needs of your organization.

The value that you select determines whether you can stage purchase orders or requisitions from the work order. You can also indicate that you do not want to select either option, in which case neither option is available for staging from the work order.

See "Understanding the Purchasing Requisition Loader Application Engine Process (PO REQLOAD)" (PeopleSoft Purchasing).

See Understanding Overall System Setup Parameters for PeopleSoft Maintenance Management.

See "User Preferences - Maintenance Management Page" (Application Fundamentals).

# **PeopleSoft Inventory Setup Considerations**

While PeopleSoft Inventory is not required to implement PeopleSoft Maintenance Management, it is highly recommended in order to keep track of materials used in performing work order tasks. Before you

can use the PeopleSoft Inventory functionality in PeopleSoft Maintenance Management, the information that you must set up includes:

Following PeopleSoft Inventory set up procedures and reading the topics in the PeopleSoft Inventory
documentation: "Fulfilling Work Orders from PeopleSoft Maintenance Management, which describes
the way PeopleSoft Inventory handles inventory fulfillment of work orders from the PeopleSoft
Inventory point of view.

See "Understanding Work Order Item Fulfillment from PeopleSoft Inventory" (PeopleSoft Inventory).

• Mapping the Inventory business unit to one or more work order business units and selecting the Inventory Commit rule and the Inventory Reservation rule in the work order business unit Integration page.

You can also define the Inventory Commit rule and Reservation rule by shop and work order type. You can specify different combinations of commit rules and reservation rules for different shops or work order types, if applicable. The system will look at the setup at the business unit, shop, and shop type levels and determine the options to use for the commit and reservation rules.

Setting up the debit/credit pair for inventory transactions using preestablished transaction groups that
are delivered with your system.

PeopleSoft Maintenance Management recommends setting up a generic accounting rule for transaction group 231, which means that the debit side of the accounting entry is driven from the work order.

• Configuring the ChartField selection using the Inventory transaction accounting rules and PeopleSoft Maintenance Management transaction group 231.

**Note:** If users do not perform this configuration and only set up transaction group 231, then this transaction accounting rule will be used every time an Inventory issuance occurs.

See "Understanding Work Order Item Fulfillment from PeopleSoft Inventory" (PeopleSoft Inventory).

See "Establishing a PeopleSoft Inventory Business Unit Structure" (PeopleSoft Inventory).

See Understanding Overall System Setup Parameters for PeopleSoft Maintenance Management.

See "Understanding the Accounting Structure" (PeopleSoft Cost Management).

# **PeopleSoft eProcurement Setup Considerations**

You can indicate that you want to create PeopleSoft eProcurement requisitions in the work order business unit. You can add and create ePro requisitions from the Purchase/On-Hand Schedules page of the work order to procure non-inventory and open description items. Once these PeopleSoft eProcurement requisitions are loaded to the PeopleSoft Purchasing staging tables from the work order, you process them as you would any other PeopleSoft Purchasing requisition. You can also create a requisition in PeopleSoft eProcurement and enter data that links it to a work order before it is processed.

These are some important activities that you must perform in order to add or create PeopleSoft eProcurement requisitions in a work order work order:

For each work order business unit for which you intend to procure non-inventory and open description items, you must set up the appropriate requisition loader defaults, purchase order loader defaults, or

both to indicate which requisition or purchase order business unit should be used when the work order pushes to a requisition or purchase order.

(Set Up Financials/Supply Chain > Product Related > Procurement Options > Purchasing > Requisition Loader Defaults and PO Loader Defaults)

- You also set up other default values in the PeopleSoft Purchasing business unit setup. (Set Up Financials/Supply Chain > Business Unit Related > Purchasing > Purchasing Definition.)
- You must set up appropriate roles with the ePRO role action CANLINKWO.

Only User ID's that have the role name listed in the CANLINKWO action will see the work order related prompts in ePRO's req creation/maint pages.

- Before you enter requisitions into the system, you must be authorized to process requisitions on the User Preferences page. Also, the user ID must be identified as a requester on the Requester Setup page, where you add defaults for requisitions.
- Follow the technical and functional setup options in the PeopleSoft eProcurement documentation to correctly set up PeopleSoft eProcurement to integrate with PeopleSoft Maintenance Management work orders.

See "Determining Technical Implementation Options" topics in the documentation *PeopleSoft eProcurement* 

# PeopleSoft CRM Help Desk and Third-Party Help Desk Application Setup Considerations

You can integrate PeopleSoft CRM Help Desk and third-party help desk applications with PeopleSoft Maintenance Management using the Integration Broker. You must perform the normal setup procedures for PeopleSoft Maintenance Management, as well as set up assets in the PeopleSoft Asset Management asset repository. This provides the foundation to enable you to create work orders from help desk applications.

Additional activities that you must perform include:

- Setting up Integration Broker and activating application messages from PeopleSoft Maintenance Management to the help desk application on both the help desk application and PeopleSoft Maintenance Management databases, which include:
  - COPY\_PROBLEM\_TREE

This message copies the problem tree to the help desk application for all problems that have the publish data flag selected. These are the problems available to the help desk agent when creating a work order.

COPY SHOP LOC

This message copies all shop locations to the help desk application. These are the shops (service locations) available to the help desk agent when creating a work order.

COPY WM PRIORITY

This message copies priorities to the help desk application. These are the priorities available to the help desk agent when creating a work order.

COPY WO STATUS

This message copies the work order statuses to the help desk application. These are the work order statuses returned to the help desk from PeopleSoft Maintenance Management when a work order is added or updated.

SYNC REQ WORK ORDER

This message enables the help desk agent to add or update work orders. This message creates a work order in PeopleSoft Maintenance Management when the help desk agent invokes the Create Work Order related action on a case. The message updates a work order in PeopleSoft Maintenance Management when the agent changes the contact information on the case.

SYNC RSP WORK ORDER

This message returns an Add or Update status to the help desk application. If the Add work order is successful, this message returns the new work order number and its initial status. If unsuccessful, this message returns the errors encountered trying to create the work order.

• SYNC WM WO KEY EVENT

Send work order key events to the help desk application. Key events include: work order status change, work order description change, and request for more information from the work order technician.

Setting up Integration Broker and activating all application messages from PeopleSoft Asset
Management to the help desk application on both the help desk application and PeopleSoft Asset
Management databases.

See documentation PeopleTools PeopleSoft Integration Broker

See PeopleSoft Asset Management Setup Considerations.

- Setting up problems in the problem tree.
- Selecting the Publish Data flag for the problems you want to be available to the help desk application.
- Entering work order default values (business unit, service group, type, and priority) for all problems to be published to the help desk application.
- Executing the COPY \* messages to populate the corresponding tables in the help desk application.

See PeopleSoft Maintenance Management System Overview.

# **Condition-Based Monitoring System Setup Considerations**

Web Services are used to enable external condition-based monitoring systems to notify a condition-based maintenance (CBM) coordinator in PeopleSoft Maintenance Management that an asset requires maintenance or repair using a work order based on its condition. The external systems send the alert to

PeopleSoft Maintenance Management. When the alert is saved, PeopleSoft Maintenance Management sends back the alert identification to the external systems.

If an error occurs in PeopleSoft Maintenance Management, Integration Broker sends the error back to the CBM system through Web Services that the:

- Asset business unit is not valid.
- Asset ID is not valid.
- Asset level is not valid.
- Duplicate alert.
- Request Message: WM\_ALERT\_REQ
   urn:oracle.enterprise.fscm.data.cbm.AlertRequest.V1
- Response message: WM\_ALERT\_RES
   urn:oracle.enterprise.fscm.data.cbm.AlertResponse.V1
- Service Operation: WM\_ALERT\_ADD
   Synchronous Operation
- Service: WM\_ALERT
   urn:oracle.enterprise.fscm.service.cbm.Alert

See documentation PeopleSoft PeopleTools Integration Broker

# **ESRI GIS Setup Considerations**

There are specific setup requirements to enable PeopleSoft Maintenance Management and PeopleSoft Asset Management to integrate with ESRI:

- Installation of the Adobe Flash Player that matches the browser of each user's computer.
- Setup of GIS integration on PeopleSoft Installation Options, Options page. (Set Up Financials/Supply Chain, Install, Installation Options, Overall page.)
- Setup of GIS integration in the Asset Management (AM) business unit. (Set Up Financials/Supply Chain, Business Unit Related, Assets, Asset Management Definition, Interface Options page.)
- Setup of GIS integration in the work order business unit for PeopleSoft Maintenance Management. (Set Up Financials/Supply Chain, Business Unit Related, Maintenance Management, Work Order Definition, Integration page.)

# **Mobile Integration Setup Considerations**

Mobile devices can be equipped with various user interfaces that enable a technician to enter and retrieve data using their mobile device. PeopleSoft Maintenance Management provides a set of PeopleSoft Integration Broker Web Services to serve as the API (application programming interface) for mobile device integration. The web services are detailed in the Web Service Implementation Guide spreadsheet.

Once you have established this integration using a third party supplier, the only setup that you must perform in PeopleSoft Maintenance Management is to select the Enable Mobile Integration check box on the Integration page of the work order business unit for each business unit to which you want the mobile integration to apply.

See Understanding Overall System Setup Parameters for PeopleSoft Maintenance Management.

# **Shared Products Setup Considerations**

PeopleSoft Maintenance Management shares the functionality of specific PeopleSoft products instead of integrating with these products. This means that you are not required to install these products to benefit from their functionality. However, since these products share certain functionality, you must set up common components that are used by each product.

This section discusses:

- PeopleSoft Expenses setup considerations.
- PeopleSoft Resource Management setup considerations.
- PeopleSoft HRMS setup considerations.

# **PeopleSoft Expenses Setup Considerations**

PeopleSoft Maintenance Management provides a time entry user interface front-end that leverages a PeopleSoft Expenses component interface, which enables you to use the PeopleSoft Expenses existing time entry processing functionality from within PeopleSoft Maintenance Management. You do not have to install PeopleSoft Expenses to use this functionality in PeopleSoft Maintenance Management. However, there are specific setup requirements, which include the:

- PeopleSoft Expenses business unit definition. (Business Unit Related, Expenses, Expenses Definition)
  - You select an Expenses business unit from a list of GL business units. The GL business unit selected for the Expenses business unit must match the GL business unit identified in the work order business unit in PeopleSoft Maintenance Management.
  - Enter the Time Reporting Options and select the appropriate Time Grid display on the Expenses Definition Business Unit 2 page.
    - To enable personal time entry, you must select the Policy Time grid. Normally you select Both Grids. Personal Time Entry is discussed in more detail in the next subtopic section.
  - Ensure that the GL business unit defined for each employee in PeopleSoft Expenses is consistent
    with the GL business unit defined for the work order business unit in PeopleSoft Maintenance
    Management.
    - See "Configuring Business Units for PeopleSoft Expenses" (PeopleSoft Expenses).
- PeopleSoft Expenses employee profile. (Expenses > Manage Employee Information > Update Profile)

- Set up an employee profile in PeopleSoft Expenses for each employee that enters time in PeopleSoft Maintenance Management.
- Select *Billable* as the billing type on the User Defaults page.

This enables Project Costing to send the expense to Billing and create a chargeback if the project organization is set up in Project Costing for chargebacks. Selecting this field marks the expense lines and time lines with the billing code. The system carries the billing code through to Project Costing as an indicator for billable expenses or billable hours. The system charges the expense lines to the General Ledger. When the customer is billed, the payment is usually reflected as revenue offset to the expenses.

- Indicate that the employee status is *Active* on the User Defaults page.
- Enter the hire date, if not already entered on the User Defaults page.
- Select the **Default Profile** check box, if not selected, on the User Defaults page.

**Important!** Do not enter values for Project Defaults for Time in the Manage Profile, User Defaults page for PeopleSoft Expenses. PeopleSoft Maintenance Management uses the project defined for the work order instead.

See "Understanding User Defaults" (PeopleSoft Expenses).

• Timekeeper authorization.(Expenses > Manage Expenses Security > Authorize Expense Users)

To authorize a specific timekeeper to enter time for a list of employees, the user ID of the timekeeper must be added to the Authorize Users page for each employee on the list. For example, if John Majors (user ID = DVP1) will be entering time for Gina Angelini (user ID = MM1) in PeopleSoft Maintenance Management, you would access the Authorize Users page for Gina Angelini and add the user ID DVP1 for John Majors to the list of people authorized to enter time (create PeopleSoft Expenses transactions) for Gina Angelini. If the list of employees for whom John Majors is entering time consists of 100 employees, you would access the Authorize Users page for each of the 100 employees and add the User ID for John Majors to the page. You only have to set this up one time or for as long as John Majors is assigned as timekeeper. To enter time in PeopleSoft Maintenance Management, both the employees on the list and the timekeeper must also be set up as resources in PeopleSoft Maintenance Management.

• PeopleSoft Maintenance Management resources - PeopleSoft Maintenance Management > Labor Administration > Create Resources.

Set up employees as valid maintenance resources who are authorized to work on work orders and enter time in the Technician Workbench.

• Maintenance Management User Preferences.

Identify the time report method for this user as either *Punch Time* or *Elapsed Time*.

You must select the time reporting method of either Punch Time or Elapsed Time for users who enter time for themselves or enter time for someone else. Each of these users must be set up as a resource in PeopleSoft Maintenance Management. The time reporting method that you select for a user (timekeeper) who is allowed to enter time for someone else must be the same as the time reporting method of all the users for whom the timekeeper is entering time.

For example, if John Majors (DVP1) is authorized to enter time for a list of 100 employees in Expenses, and the time reporting method for each employee is Punch Time, then you must select Punch Time as the time reporting method on the User Preferences - Maintenance Management page for user ID DVP1 and for the user IDs of each of the 100 employees on the list. The time reporting method for the timekeeper identified in User Preferences must match the time reporting method in User Preferences for each of the 100 employees on the list.

**Important!** Based on this example, be careful not to associate the individual who enters time with a user profile where the time entry method is different from the time-entry method associated with the resources for whom time is entered.

In User Preferences - Maintenance Management, you would also want to make sure that the Allow Access to Others Tasks and the Allow Submit Time for Posting check boxes are selected for the timekeeper's user ID (DVP1). These check boxes must be selected to enable the timekeeper to enter time on the Technician Workbench or the Work Order Completion component.

• Project Costing integration template (Set Up Financials/Supply Chain, Product Related, Project Costing, Project Options, Integration Templates).

The sample data for PeopleSoft Maintenance Management predefines the Project Costing Integration Template for Project Costing business unit US001, and is set up to accept data from several GL business units including GL business unit US001.

**Important!** A timekeeper who enters time for employees assigned to a work order using the Work Order Completion component instead of the Technician Workbench does not have to be set up in PeopleSoft Expenses and does not have to be granted authorization in PeopleSoft Expenses using Authorize Expense Users. The time reporting method indicated in User Preferences for the user ID of the timekeeper and the user IDs of the employees for whom the timekeeper enters time is also irrelevant when the time keeper enters time using the Work Order Completion component. However, both the timekeeper and all employees must be set up in PeopleSoft Maintenance Management as resources regardless of the type of entry.

See "Understanding User Defaults" (PeopleSoft Expenses).

## Setup for Personal Time Entry on the Technician Workbench

You have the option to enter personal time on the Technician Workbench on a separate grid that displays with the work order elapsed or punch time entry grid. You must select a Time Grid Display option on the Expenses Business Unit 2 Definition page if you want the personal time entry grid to display in the Technician Workbench.

Before you enter personal time in the Time Entry component of the Technician Workbench, you should install:

- PeopleSoft Time and Labor.
- PeopleSoft Payroll.

The installation of these two products is not required. If you do not install these products, however, the collected data will only be used for information purposes and is not processed through the system.

You must refer to the PeopleSoft Time and Labor documentation and the PeopleSoft Payroll documentation to install and use these two products.

See "Integrating With PeopleSoft Time and Labor" (PeopleSoft Expenses).

# **PeopleSoft Resource Management Setup Considerations**

PeopleSoft Maintenance Management leverages the PeopleSoft Resource Management data model functionality to assign and schedule resources. This means that you do not have to install PeopleSoft Resource Management to use the product's resource functionality in PeopleSoft Maintenance Management. Many of the setup requirements in PeopleSoft Resource Management now reside in the Set Up Financials/Supply Chain > Common Definitions > Resource Data component. PeopleSoft Maintenance Management also leverages the capability to set up employees and their qualifications and add them as resources. You access these resource features directly in the PeopleSoft Maintenance Management menu under Labor Administration. Even if you install PeopleSoft Resource Management, you still must set up this data in PeopleSoft Maintenance Management because the requirements are slightly different. The information that you need to set up this resource data is described in detail in the set of topics Setting Up Labor and Tools Resources.

To set up work order access security for resource pools associated with a project and project activity in PeopleSoft Program Management, you first must set up the resource pools in PeopleSoft Program Management.

See PeopleSoft Maintenance Management Integration with PeopleSoft Program Management.

See <u>Understanding Labor and Tools Resource Setup and Maintenance</u>.

### **Employee and Non-Employee Source Data**

PeopleSoft Maintenance Management applies the same principles regarding employee and non-employee source data as PeopleSoft Resource Management.

See "Understanding PeopleSoft Resource Management and PeopleSoft HCM" (PeopleSoft Resource Management)

#### HRMS Business Unit Generation Without PeopleSoft HRMS

Every employee either in the PeopleSoft HRMS database or the Financials database must be associated with a business unit. If you do not use PeopleSoft HRMS, you must generate HRMS business units by setting up the PeopleSoft Resource Management business unit. Before you set up the PeopleSoft Resource Management business unit, you must set up the Project Costing business units that you intend to add as a default value in each of the work order business units that you set up. You can enter only one Project Costing business unit in a work order business unit. You then select this Project Costing business unit when you set up the Resource Management business unit.

If you do not integrate with PeopleSoft HRMS, when you create the Resource Management business unit, it populates the HR Business Unit table (BUS\_UNIT\_TBL\_HR) behind the scenes.

If you use PeopleSoft HRMS, the HR business units that you set up in PeopleSoft HRMS are available to PeopleSoft Maintenance Management.

See "Understanding PeopleSoft Resource Management" topics in the documentation *PeopleSoft Resource Management* 

See "Understanding PeopleSoft Resource Management Without PeopleSoft HRMS" topics in the documentation *PeopleSoft Resource Management* 

# **PeopleSoft HRMS Setup Considerations**

You can use PeopleSoft HRMS as your employee source database. Selected data that is used to populate PeopleSoft Maintenance Management employee records and resource profiles is imported from PeopleSoft HRMS using application messages and the Integration Broker.

#### PeopleSoft HRMS and PeopleSoft Maintenance Management Implementation

When you implement PeopleSoft Maintenance Management with PeopleSoft HRMS, you create a system of business unit and SetID functionality that matches the way you manage processes related to both resources and HR. The system must also handle the integration issues of using multiple applications.

If your organization uses PeopleSoft HRMS to manage employee data, you also must set up the Resource Management business unit. Consider using the same business units in the PeopleSoft Resource Management database and the PeopleSoft HRMS database. A one-to-one correlation between PeopleSoft HRMS and PeopleSoft Resource Management business units simplifies organizational structure, business rules, and processing.

See documentation PeopleSoft HRMS Application Fundamentals

#### PeopleSoft 7.x HRMS or Third-Party HRMS

If your organization uses a PeopleSoft 7.x HRMS or earlier, or a third-party HRMS application, you can create a bridge between your HRMS application and PeopleSoft Maintenance Management. You use PeopleSoft Integration Broker to map your data to PeopleSoft Maintenance Management. Although you can use other HRMS applications and PeopleSoft Maintenance Management together, a third-party HRMS application may not support the full functionality of PeopleSoft Maintenance Management.

See documentation PeopleSoft PeopleTools Integration Broker

## **Chapter 5**

# Setting Up PeopleSoft Maintenance Management System Parameters

## **Understanding Overall System Setup Parameters for PeopleSoft Maintenance Management**

This section discusses:

- PeopleSoft Maintenance Management setup considerations.
- PeopleSoft Maintenance Management installation options.
- SetID considerations in PeopleSoft Maintenance Management.
- Permission lists, roles, and user profiles.
- PeopleSoft Maintenance Management user preferences.

## **PeopleSoft Maintenance Management Setup Considerations**

In addition to the integrated product setup, setting up PeopleSoft Maintenance Management includes:

- Installation options.
- SetID.
- Security.
- User preferences.
- Service request business unit.
- Work order business unit.
- Work order types.
- Service groups.
- Work order priority codes.
- Maintenance types.
- Asset downtime reasons.
- Problem, cause, and resolution data and problem trees.
- Service request statuses.

- Work order statuses.
- Labor and tool resources.
- Work order templates.
- Preventive maintenance loops and schedules.
- Work order workflow approval.

## **SetID Considerations in PeopleSoft Maintenance Management**

PeopleSoft Maintenance Management uses system data, which is set up in PeopleSoft Asset Management, Project Costing, PeopleSoft Purchasing, PeopleSoft Expenses, PeopleSoft Inventory, PeopleSoft Resource Management, and other subsystems to create and process work orders. Much of the data that is set up in these subsystems is organized by SetID.

It is important to understand the difference between business units, SetIDs, and records:

Name	Description	
Business units	A business unit enables you to track specific business information for reporting and other data consolidation.  A business unit may be, but is not required to be, a legal entity. You define and implement business units to suit the organizational needs of the company. The data from one business unit is segregated from the data of other business units in the organization, although it exists in the same physical database table. The entire organization may have on one business unit if every department uses the same processir rules. Multinational or otherwise diversified companies, such as those that contain multiple cost centers, divisions, or subsidiaries, may have multiple business units.	
SetIDs	The accounting structure and processing rules for each PeopleSoft application are defined in a series of control tables, or tablesets. A tableset is a group of rows across control tables, identified by the same SetID, that allow sharing of control data among business units. Many business units may share the same set of data on the physical tables in the PeopleSoft HRMS or Financials system. In order for a business unit to process transactions, it must have an associated tableset. In simple terms, the business unit contains the actual data; the tableset contains the rules by which the data is processed. A SetID identifies each tableset. You must create at least one SetID even if you are not taking advantage of tableset sharing. You can have as many SetIDs as necessary, but tableset sharing becomes more complex with multiple SetIDs. Define tablesets when you implement any PeopleSoft application.	

Name	Description
Record Groups	A record group is a set of logically and functionally related control tables and views. Record groups save time by enabling tableset sharing to be accomplished quickly without the burden of redundant data entry. Record groups also ensure that tableset sharing is applied consistently across all related tables and views in the system. The PeopleSoft TableSet Record Group control table associates a business unit or SetID value with a SetID value for each record group. One business unit or SetID can be associated with different SetIDs by record group. Group the record definitions for the tables that you want to share, as well as any dependent record definitions. If a new table is added to a PeopleSoft application, the appropriate record group may already be defined. However, if tables are added for a new business function, a new record group may also be required.

SetID mapping is used to coordinate the various set control record groups. For example in PeopleSoft Maintenance Management, work order task and work order job templates reference SetIDs from various subsystems. You must set these templates to copy labor, PeopleSoft Inventory, purchase/on hand materials, and tool task requirement values, which are derived from various subsystems, to a work order task. These requirements must be compatible with the various work order business units used for each work order. To accomplish this, you set up the SetIDs as set control values using SetID mapping:

The following table lists some of the record groups used in PeopleSoft Maintenance Management:

Record Group	Records within Record Group	
WM_01	<ul> <li>Work order job and task templates</li> <li>PCR codes, Problem Group, and Problem Trees</li> <li>Work Management</li> </ul>	
WM02	Work order service group	
WM03	Work order type	
WM05	Work order priority	
WM06	WM business unit options	
WM07	Work order management status	
WM08	Work management crew schedule	
FS_18	Item Master     Manufacturer - Model Relationship	

Record Group	Records within Record Group
RS_02	Labor Crafts
AM_13	Downtime Reason     Maintenance Type
Ma AM_15	Asset Subtypes

You must follow one rule and guideline to perform SetID mapping for work order job and work order task templates.

See <u>Understanding Work Order Templates</u>.

## **PeopleSoft Maintenance Management Installation Options**

Select the **PeopleSoft Maintenance Management** check box on the Installation Options - Products page to enable you to install PeopleSoft Maintenance Management. You must install PeopleSoft Asset Management, Project Costing, and PeopleSoft Purchasing prior to installing PeopleSoft Maintenance Management.

If your organization intends to obtain items from PeopleSoft Inventory to use in the repair and maintenance of assets via PeopleSoft Maintenance Management, you must. install PeopleSoft Inventory.

If you want to create requisitions in eProcurement to purchase non-inventory and open description labor, materials, and tools for a work order task, you must install PeopleSoft eProcurement. You may want to also install PeopleSoft Payables to continue processing the purchase orders and requisitions.

If you want technicians to enter personal time on the Technician Workbench and process that time through PeopleSoft Time and Labor and PeopleSoft Payroll, you must install those products.

Finally, to process and post accounting data that is generated based on work order transactions in the general ledger, you normally install PeopleSoft General Ledger.

See "Setting Up Application-Specific Installation Options" (Application Fundamentals).

## Permission Lists, Roles and User Profiles

You must set up permission lists using PeopleTools Security. You then define roles and select permission lists to apply to these roles. Once the roles are set up, you select the roles that apply to specific user profile.

For example, the sample data contains the following permission lists:

- EPPC2100 Project/Activity Team
- EPPG4000 Detailed Project Planning

· Work Order Management

The PeopleSoft Maintenance Management sample also has these roles defined:

- Project Manager
- Maintenance Technician
- Maintenance Planner
- Maintenance Supervisor
- Warehouse Clerk
- System Administrator
- Self-Service User

Examples of user profiles are:

- SRVP Senior Vice Presidents
- SRMGR Senior Managers

See documentation PeopleTools: Security Administration

## **PeopleSoft Maintenance Management User Preferences**

Your organization may enable specific users to perform selected service request and work order functionality by accessing the User Preferences, Maintenance Management page.

You can read about each option on the User Preferences, Maintenance Management page in the PeopleSoft Application Fundamentals documentation by clicking on the link below.

**Important!** User Preferences is where you determine the time reporting method (Punch Time or Elapsed Time) that applies to the work order labor hours that apply to this user or for the labor hours entered by this user for other users.

See "User Preferences - Maintenance Management Page" (Application Fundamentals).

## **Prerequisites**

Set up the following products prior to setting up PeopleSoft Maintenance Management:

- PeopleSoft Asset Management
- Project Costing
- PeopleSoft Purchasing
- (Optional) PeopleSoft Inventory
- (Optional) PeopleSoft eProcurement

- (Optional) PeopleSoft Time and Labor
- (Optional) PeopleSoft Payroll

## **Defining a Service Request Business Unit**

To set up a service request business unit, use the Service Request (BUS UNIT TBL WR) component.

This section provides an overview of service request business units and discusses how to set up the service request business unit Definition page and select service request fields for audit control.

## Pages Used to Set Up a Service Request Business Unit

Page Name	Definition Name	Usage
Definition Page	BUS_UNIT_TBL_WR	Define service request default values.
Audit Control Page	WM_AUDIT_CNTRL	Specify fields in a service request to audit.

## **Understanding Service Request Business Units**

The primary purpose of the service request business unit is to separate service requests by request center. The service request business unit consists of two separate pages:

Definition page.

Service Request Options, which enable you to set up a default service center and service request priority value of critical, urgent, standard, or low. You also indicate the number of days between completion of a service request and the actual automatic closing of a service request. A requester is notified when a service request is complete and can respond within the number of days entered here if the work was not performed satisfactorily or something more needs to be done. The system also tracks the number of the last service request issued for this service request business unit.

Audit Control page.

This page enables you to select the service request fields to audit for changes.

There is no direct correlation between service request business units and work order business units. If an agent creates a work order from a service request, the work order business unit is derived from the problem definition and the service center (location) on the service request. For example, if you create a service request indicating that there is a malfunctioning desktop computer in Pleasanton for the HQ-IT agent, the agent can create a work order using work order business unit US001, which is the business unit for which this problem and service center were defined.

**Note:** The system does not use the service request business unit to process any accounting transactions.

## **Audit Control Page**

Use the Audit Control page (WM\_AUDIT\_CNTRL) to specify fields in a service request to audit.

Navigation:

Select the Audit Control tab.

This example illustrates the fields and controls on the Audit Control page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Service Request Audit Fields	Select the service request fields in which you want to audit changes. The fields include:  • Asset Identification.  • Assigned By.  • Assigned To.  • Location Code.  • Service Request Center.  • Service Request Priority.  • Service Request Status.

## **Setting Up a Work Order Business Unit**

To set up a work order business unit use the Work Order Definition (BUS UNIT TBL WM) component.

This section provides an overview of work order business unit setup and discusses how to define the work order business unit, set up integration parameters for a work order business unit, and enter preventive maintenance parameters for a work order business unit.

## Pages Used to Set Up a Work Order Business Unit

Page Name	Definition Name	Usage
Work Order - Definition Page	BUS_UNIT_TBL_WM1	Enables users to define a work order business unit as a work center for an organization, set up accounting parameters including integration with the GL business unit, identify specific PeopleSoft Maintenance Management setup options, establish default values for the work order and work order task, and set up auto-numbering of work orders.
Warranty Claim Information Page	WM_BU_CLAIM_SEC	Enter the contact information required to file a warranty claim for work orders associated with this business unit.
Work Order - Integration Page	BUS_UNIT_TBL_WM2	Identify Project Costing, Inventory, and PeopleSoft Purchasing integration parameters.
PM Options Page	BUS_UNIT_TBL_WM3	Identify parameters specific to Preventative Maintenance Work Orders.

## **Understanding Work Order Business Unit Setup**

Work order business units are synonymous with work centers. You can set up as many work order business units as necessary to support your business requirements. The business unit represents the highest level of the default hierarchy within PeopleSoft Maintenance Management, which means that the values specified in a work order business unit are used as default values and controls throughout PeopleSoft Maintenance Management.

The work order business unit consists of three parts, which include:

- The Definition page in which you define information unique to this business unit, set up work order workflow approval and work order access security, select specific set up options and warranty claim information, define default values and default hierarchies, specify work order numbering characteristics, and track last Warranty Claim and Failure Tracking IDs.
  - The required fields on this page are Location, GL Business Unit, Base Currency, Rate Type, Service Group, and Accounting Default Order.
- The Integration page in which you identify specific options that enable a business unit to integrate with Project Costing, PeopleSoft Inventory, PeopleSoft Purchasing, and PeopleSoft eProcurement, define default labor rates for resources, and enable mobile integration.

The Project Costing Business Unit is a required field.

**Note:** The Inventory business unit and commit rule are only required if you plan to integrate and use PeopleSoft Inventory with PeopleSoft Maintenance Management.

• The PM Options page defines specific options that enable you to use this business unit to enter and process preventive maintenance work orders.

The required fields on this page are Priority Code, Work Order Type, and Task Status.

See <u>Integrated Product Setup Considerations</u>.

#### **GL Business Unit**

You must identify a GL business unit for each work order business unit that you set up. This GL business unit serves as the default GL business unit in each of the distribution templates that you set up (Project Costing, PeopleSoft Expenses, PeopleSoft Inventory, and PeopleSoft Purchasing). However, the default GL business unit value only appears in the PeopleSoft Purchasing distribution template, because PeopleSoft Purchasing is the only product in which you can override this value.

To process labor costs, you must set up a GL business unit in PeopleSoft Expenses that matches the GL business unit that you specify in the work order business unit.

To process inventory costs, you must set up a GL business unit in PeopleSoft Inventory that matches the GL business unit that you specify in the work order business unit.

## **Currency Conversion**

You must set up a base currency in each work order business unit, which establishes the base currency in the work order. You cannot override this value in the work order. When you create and schedule resources for a work order, the transactions generated in the subsystems based on the work order for PeopleSoft Inventory, PeopleSoft Purchasing, PeopleSoft eProcurement, PeopleSoft Payables, PeopleSoft Expenses, PeopleSoft Time and Labor, PeopleSoft Payroll, and PeopleSoft Asset Management (based on tool rates defined at the shop level) can undergo currency conversions if the base currency in the subsystem differs from the base currency in the work order business unit. When a user closes a work order task or runs the Cost Summarization process in PeopleSoft Maintenance Management to return the actual costs from Project Costing to PeopleSoft Maintenance Management, the costs are converted back to the base currency in the work order.

**Note:** Currency conversions do not apply to labor costs.

This section discusses:

- Currency conversion for labor costs.
- Currency conversion for inventory costs.
- Currency conversion for purchasing/on-hand costs.
- Currency conversion for tool costs.

#### **Currency Conversion for Labor Costs**

You enter time entries for employees based on labor rates set up in PeopleSoft Maintenance Management. These entries use the base currency in the work order. No currency conversion is performed for work order time recorded. Only the hours and labor rates are provided to Project Costing's cost collection process for the calculation of labor cost.

You enter time for personal time entries and you set up PeopleSoft Time and Labor and PeopleSoft Payroll, the system uses the currency code set up in PeopleSoft Time and Labor to calculate estimated payable time. PeopleSoft Payroll has currency codes set up to calculate the actual payable time and sends this actual payable time back to update PeopleSoft Time and Labor.

See documentation PeopleSoft Time and Labor: "Publishing Estimated and Actual Payable Time"

#### **Currency Conversion for Inventory Costs**

When you enter or select an inventory item in the **Inventory Requirements** and/or **Inventory Schedules** grids of a work order, PeopleSoft Inventory returns the cost of the item using the base currency in the Inventory business unit. If the base currency for the work order differs from the Inventory base currency, PeopleSoft Maintenance Management converts the cost of the item to the base currency in the work order. When the transactions are sent to PeopleSoft Inventory for processing, they are converted back to the Inventory base currency, which sends them to Project Costing. After Project Costing processes the actual costs and chargebacks in the Inventory base currency, then it sends the actual costs back to the work order, where the PeopleSoft Maintenance Management Cost Summarization process converts the currency back to the base currency in the work order business unit.

#### For example:

- Work Order Business Unit base currency = EUR
- Inventory Business Unit base currency = USD

Work Order Task Inventory Scenario	Conversion Activity	
1. Schedule Inventory for Work Order Task	1. You select an inventory item ID in the Inventory Schedules grid. The item's cost comes from the setup of the item in Inventory using the Inventory business unit base currency USD. However, the cost of the item is converted to the base currency in the work order business unit (EUR), which appears in the work order Inventory Schedules row.	
	2. When you enter an Inventory row in the work order, the system converts the cost from the work order base currency (EUR) to the Inventory business unit base currency (USD).	
	3. PeopleSoft Inventory sends the actual cost of the item to Project Costing in the Inventory business unit base currency (USD).	
	4. Project Costing calculates any additional costs and performs an necessary pricing (including chargebacks and capitalization) in the Inventory business unit base currency (USD).	
	5. When you run the Cost Summarization process or close the work order task in PeopleSoft Maintenance Management, the costs appear in the Costs page of the Work Order component and the summary costs in the Chargeback and Capitalization inquiries in the base currency of the work order (EUR).	

## **Currency Conversion for Purchasing/On-Hand Costs**

There are several ways to capture purchase/on-hand costs in PeopleSoft Maintenance Management. The currency conversions are based on whether the work order task transaction uses a purchase order or a requisition in Purchasing, eProcurement, or whether the work order transaction came from PeopleSoft Payables.

An example of currency conversions based on Purchasing:

- Work Order Business Unit base currency = EUR
- Purchasing base currency = USD

Work Order Task Purchasing Scenarios	Conversion Activities	
Scenario #1: You create a Purchase Order or Requisition from the Purchase On-hand/Scheduling grid in the work order. The work order currency = EUR.	When the transaction is generated in PeopleSoft     Purchasing, it is converted to the base currency for     PeopleSoft Purchasing (USD).	
	2. The actual cost is then sent to Project Costing in the base currency for PeopleSoft Purchasing (USD).	
	3. Project Costing calculates any additional costs and performs an necessary pricing (including chargebacks and capitalization) in the PeopleSoft Purchasing base currency (USD).	
	4. When you run the Cost Summarization process or close the work order task in PeopleSoft Maintenance Management, the costs appear in the Costs page of the Work Order component and the summary costs in the Chargeback and Capitalization inquiries in the base currency of the work order (EUR).	
Scenario #2: You create either a purchase order, requisition, or procurement card directly in PeopleSoft Purchasing and link it to a scheduling row in the work order task. The transaction initiated in PeopleSoft Purchasing uses the base currency for PeopleSoft Purchasing of USD. However, PeopleSoft Maintenance Management converts the costs from the PeopleSoft Purchasing base currency (USD) to the work	Since the transactions are created in PeopleSoft     Purchasing, they are generated in the based currency for     PeopleSoft Purchasing (USD). However, the rows that     appear in the Purchase/On-hand Schedules grid of the     work order task are converted to the base currency for the     work order (EUR).	
order task schedule.	2. The actual cost generated from the transaction in PeopleSoft Purchasing is sent to Project Costing in the base currency for PeopleSoft Purchasing (USD).	
	3. Project Costing calculates any additional costs and performs an necessary pricing (including chargebacks and capitalization) in the PeopleSoft Purchasing base currency (USD).	
	4. When you run the Cost Summarization process or close the work order task in PeopleSoft Maintenance Management, the total actual costs appear in the Cost page of the work order or the Chargeback or Capitalization inquiries in the base currency of the work order (EUR).	

An example of PeopleSoft Payables currency conversions:

- Work Order Business Unit base currency = EUR
- PeopleSoft Purchasing base currency = USD
- PeopleSoft Payables base currency = AUD

Work Order Task/PeopleSoft Payables Scenarios	Conversion Activities	
Scenario #1: You copy a purchase order associated with a work order to a voucher in PeopleSoft Payables.	In this scenario the voucher inherits the characteristics of the requisition or purchase order. If the system converted the scheduled costs in the base currency of the work order (EUR) to the base currency in PeopleSoft Purchasing (USD) when the purchase order or requisition was created, then the voucher takes on the base currency of the requisition or purchase order (USD).	
	The actual costs are sent to Project Costing from     PeopleSoft Payables in the base currency inherited in the     voucher from PeopleSoft Purchasing (USD).	
	3. Project Costing calculates any additional costs and performs a necessary pricing (including chargebacks and capitalization) in the PeopleSoft Purchasing base currency (USD).	
	4. When the Cost Summarization process is run or the work order task is closed in PeopleSoft Maintenance Management, then total actual Purchase/On-hand costs in the work order appear in the work order base currency (EUR) in the Costs page of the Work Order component or the summary costs in the Chargeback and Capitalization inquiries.	
Scenario #2: You copy a requisition or purchase order associated with a work order to a quick invoice in PeopleSoft Payables.	Scenario #1 conversion activity rules apply. The base currency for the quick invoice is the same as the requisition or purchase order (USD).	
	The actual costs are sent to Project Costing in the base currency inherited in the quick invoice from PeopleSoft Purchasing (USD).	
	3. Project Costing calculates any additional costs and performs an necessary pricing (including chargebacks and capitalization) in the PeopleSoft Purchasing base currency, (USD).	
	4. When the Cost Summarization process is run or the work order task is closed in PeopleSoft Maintenance Management, then total actual Purchase/On-hand costs in the work order appear in the work order base currency (EUR) in the Costs page of the Work Order component and the summary costs in the Chargeback and Capitalization inquiries.	

Work Order Task/PeopleSoft Payables Scenarios	Conversion Activities
Scenario #3: Manually associate a voucher or a quick invoice in PeopleSoft Payables to a work order where the PeopleSoft Payables base currency is AUD and the work order base currency is EUR.	1. This creates a row in the <b>Purchase On-hand Schedule</b> grid in the work order and displays the costs in the base currency for the work order (EUR). The voucher or express invoice transaction is still (AUD).
	The actual costs are sent to Project Costing in the base currency (AUD) of the voucher or express invoice.
	3. Project Costing calculates any additional costs and performs an necessary pricing (including chargebacks and capitalization) in the PeopleSoft Payables base currency (AUD).
	4. When the Cost Summarization process is run or the work order task is closed in PeopleSoft Maintenance Management, then total actual Purchase/On-hand costs in the work order appear in the work order base currency (EUR) in the Costs page of the Work Order component and the summary costs in the Chargeback and Capitalization inquiries.

#### **Currency Conversion for Tool Costs**

Tools are set up as assets in PeopleSoft Asset Management's asset repository and normally have a cost rate assigned to them indirectly through the asset type/subtype association. A default currency is set up in the Asset Management business unit. However, you can also specify a default currency, as well as a cost and billing rate for an asset subtype. The default values for currency, cost rate, and billing rate that appear in the work order task schedule line, depend on your selection. When you schedule a tool for a work order task, the system converts the base currency for the asset to the base currency for the work order, which is established in the work order business unit. When a user enters tool usages in the technician workbench, PeopleSoft Maintenance Management calculates the cost of the tools and updates the total actual costs in the Costs page of the work order using the base currency in the work order. Because these costs do not update PeopleSoft Asset Management or Project Costing, they are not converted back to the base currency in PeopleSoft Asset Management.

## **Business Unit Setup Options**

When you select the check box associated with each of the options listed in the work order business unit, you can:

- Use multiple assets when you create a work order with this business unit.
- Generate chargebacks when you set up the Task Accounting for a work order associated with this business unit.
- Edit ChartFields enables ChartField combination editing in the Inventory, PeopleSoft Purchasing/On-Hand, and Tools distribution rows for each work order task.

- Enter labor requirements, inventory requirements, and tool usage requirements on the Requirements page of a work order.
- Schedule labor, inventory, and tools for a work order.
- Record Actuals tool usage costs, which display in the Cost page of the work order.
- Update assigned tasks in an employee's resource calendar and assigned tools in the tools calendar to enable a scheduler to determine if either type of resource may be available for another assignment.

#### **Work Order Approval**

You determine whether a work order requires approval or is pre-approved in the work order business unit. You can override this selection for a specific shop or for a work order type. If you indicate that you want work orders set up with this business unit approved, then you must first perform the setup described in the Configuring Work Order Approval Workflow topics. Once you have set up work order approval, refer to the Approving Work Orders topics for details on how to approve each work order.

See <u>Understanding the Work Order Approval Process</u>.

#### **Warranty Claim Information**

You can generate warranty claims in PeopleSoft Maintenance Management based on assets that are selected for repair or maintenance in a work order. You can identify the contact information that will appear on warranty claims generated based on assets identified in work orders that are created with this business unit.

See <u>Understanding Warranty Claim Management in PeopleSoft Maintenance Management</u>.

#### **Technician WO Security**

Select one of these options to apply work order access security to any work orders created with this business unit. Work order access security restricts access for users with the Apply WO Access Security check box selected on the User Preferences – Maintenance Management page to a work order, work order tasks, and an express work order created with this business unit depending on which of these options you select.

#### Full Access

When you select the Full Access option in the work order business unit, any PeopleSoft Maintenance Management resource can access any work order and work order task on the Work Order, Technician Workbench, and the Express Work Order components created with this business unit, depending on the user's PeopleSoft Security setup for these components.

#### Shop

Selecting this option enables a user with the Allow Access to WO Security check box selected on the User Preferences – Maintenance Management page to click the Technician Work Order Access link on the Work Order component's Miscellaneous page of any work order created with this business unit and access the Work Order Access page.

The Work Order Access page lists, at a minimum, the shop used to create the work order. If a resource is selected for a work order task and is assigned to a shop that is different from the shop used to create the work order (cross-shop), then this shop is automatically added to the list on the Work Order

Access page. The authorized user can add or remove any shops to and from this list except for the shop that was used to create the work order.

Resources, who have Apply WO Access Security selected on the User Preferences – Maintenance Management page and are assigned to one of the shops listed on the Work Order Access page can access the work order and work order tasks from the Work Order, Technician Workbench, and the Express Work Order components.

**Note:** Shop security applies to work order-managed work orders and Project Costing-managed work orders.

#### Resource Pool

Resource pools are set up in PeopleSoft Resource Management for use in PeopleSoft Program Management and Project Costing. A resource pool consists of a specific group of resources that you can assign to a project from PeopleSoft Program Management. If you select this option and create a work order using this business unit and a project and activity that is associated with a resource pool, then only the members of that resource pool, who have the Apply WO Access Security check box selected in the User Preferences – Maintenance Management page, can access the work order and work order tasks created with this business unit and the project and activity associated with the resource pool on the Work Order, Technician Workbench, and Express Work Order components.

For example, you set up a resource pool (Pool A with the resources John Jones, Earl Green, Regina Smith, and Eric Lasser) and assign the pool to a project (MM001) and activity (0001) in PeopleSoft Program Management. You select the Apply WO Access Security check box on the User Preferences – Maintenance Management page for each of the resources in the pool. You select the Resource Pool option for work order business unit US001. You create five work orders using work order business unit US001. Each work order has 3 tasks associated with Project MM001 and activity 0001. Only resources John Jones, Earl Green, Regina Smith, and Eric Lasser can access the five work orders and their associated tasks that were created with this work order business unit, project, and activity in the Work Order, Express Work Order, and Technician Workbench components.

**Note:** You can assign generic resources to resource pools in PeopleSoft Resource Management. Generic resources are resources that do not have an employee ID associated with them. Generic resources serve as role-oriented placeholder descriptions for resources during the project planning phase. Typically, in the planning stage, project managers use generic resources instead of named resources. After the project is approved, project managers create resource requests and replace generic resources with the specific available resources.

Important! The resource pools associated with projects and activities must be up to date in order to use resource pool security in PeopleSoft Maintenance Management. You typically set up projects and activities associated with Project Costing-managed work orders ahead of time, which remain stable over the life of the associated work orders. The pool cache table stores data at the project, activity, and resource level. However, since the activities for work orders associated with work order-managed projects are created when the work order task is created, the pool cache table will not reflect the latest valid combinations of resource, project, and activity unless you run the pool cache Refresh process using the Program Management > Program Tools > Enforce Team Pool Refresh process to enable resource pool security.

#### • Shop and Resource Pool

Selecting this option enables only authorized users to access work orders and work order tasks in the Work Order, Express Work Order, and Technician Workbench components who are assigned to one

of the shops listed on the Work Order Access page of a work order created with this business unit, or who are assigned to a resource pool set up for the project and activity that is associated with this work order and work order tasks created with this business unit.

See "Establishing Resource Pool Security" (PeopleSoft Program Management).

See "User Preferences - Maintenance Management Page" (Application Fundamentals).

See PeopleSoft Maintenance Management Integration with PeopleSoft Project Costing.

#### Work Order Business Unit Defaults and Default Hierarchies

You can set up specific values in the work order business unit that you want to display as default values in the work order. You can also set up different default hierarchies that use a weighting formula (algorithm) to determine which setup data to use as default data in the work order.

#### **Work Order Business Unit Default Values**

You can enter the default field values in the work order business unit that you want to display in fields in the work order. These fields include:

#### Service Group

When you create a work order using this business unit, the service group value that you enter in the work order business unit becomes the default value for the service group field in the work order header

You can override this value in the work order.

#### Shop

When you create a work order using this business unit, the shop value that you enter in the work order business unit becomes the default value for the shop field in the work order header.

You can override this value in the work order

**Important!** When you add a new work order business unit you have not set up your shop(s) for that business unit. Therefore, you bypass this field when creating a new business unit and return to it after creating the shops that you want to associate with this business unit.

#### Close Days

When you complete a work order task in a work order that was created with this business unit, the system uses the default value that you enter here in the work order business unit to determine the number of days between the completion and the close of a work order task.

You can override this value for a specific work order type.

#### Asset Lookup Field

When you create a work order with this business unit, the lookup field value (Asset ID, Serial ID, Tag Number, or Vehicle ID Number) that you select for this business unit displays as part of the asset specifications on the work order and work order tasks.

#### Maintenance Type

This value displays in the Maintenance Type field on the Miscellaneous page of the work order. You can override this value in the work order. If you use this business unit to create preventive maintenance work orders, you must specify a maintenance type in the work order in order to close the work order. Entering a default value in this field for the business unit helps prevent any problems at closing.

See Setting Up PeopleSoft Maintenance Management Work Order Parameters.

#### Work Order Business Unit Default Hierarchies

You can also set up default hierarchies in a work order business unit to determine the various types of data that you want to display in a work order. The default hierarchies include:

- Control Default Order
- Project Default Order
- Accounting Default Order

#### **Control Default Order**

**Control Default Order** is used to determine the default data that you want to use for work order control procedures such as work order close and work order approvals. You can choose from two different default hierarchies:

Unit, WO Type, Shop.

In this hierarchy, the system checks the default values for a work order created with this business unit based on the following order:

- 1. Shop.
- 2. Work order type.
- 3. WO business unit.
- Unit, Shop, WO Type.

In this hierarchy, the system checks the default values for a work order created with this business unit based on the following order:

- 1. Work order type.
- 2. Shop.
- 3. WO business unit.

**Important!** There must be a specified value in a level for one level to override another level. For example, if you specified at the shop level that you want the work order approved, and you either do not specify a value or select default for the work order type, the system ignores the work order type and looks at the default value specified in the work order business unit. If the value specified in the work order business unit is Pre-Approved, since the shop's value takes precedence over the value in the business unit based on the default hierarchy, then the system applies the shop's value, which requires work order approval to any work order created with the specific business unit and shop.

#### **Project Default Order**

**Project Default Order** is used to determine the default project to use in a work order created with this business unit using values specified in the Associate Projects component, as well as values specified in the Project Costing ChartField distribution template. Both the Associate Projects component and the Default PC ChartFields component are set up based on the value specified for the business unit, service group, and work order type. In this case, a formula is applied to these values to determine the default level. You can choose from two different hierarchies:

- Unit, Service Group, Type.
- Unit, Type, Service Group.

You can set up the Default PC ChartFields component based on various combinations of service group and work order type. For example, you could set up the Default PC ChartFields component with these values:

- WO BU 01, Service Group %, Work Order Type %
- WO BU 01, Service Group MAINT, Work Order Type %
- WO BU 01, Service Group MAINT, Work Order Type CAPT

Since there can be numerous combinations, the system needs some method to determine which Project Costing ChartFields to use as default values in the work order. It determines the default values based on the following formula and based on the combination that you select in the work order business unit. This is also the way the default project is determined based on the setup of the Associate Projects component.

The formula to determine the default project ID in the work order is:

1x1 + 2x2 = Default Row Value

Where:

For: x1 If value is % (wildcard) then x1 = 0 Or: If value is not % (wildcard) then x1 = 1

Where:

For 2x2 If value is % (wildcard) then x2 = 0 or If value is not % (wildcard) then x2 = 1

For example, if you select the Project Default Order in the work order business unit as Unit, Service Group, Type, and the rows that you set up in Associate Projects contain the information in the following table. Based on your selection in the work order business unit, the Service Group value is  $1x_1$  and the Work Order Type value is  $2x_2$  in the formula. When the system applies the formula, the default Project ID in the work order would be PC002, because the sum of the values in Row #2 = 2, which is greater than the sum in Row #1 (0) or Row #3 (1).

Row #	WO BU	WO Type Value for 2x <sub>2</sub>	Service Group Value for1x <sub>1</sub>	Default Project ID Specified in Associate Projects
1	WO BU1	% = 0	% = 0	PC001
		2 x 0= 0	1 x 0= 0	Formula applied:
				0 + 0 = 0
				SUM = 0
2	WO BU1	ADHOC = 1	% = 0	PC002
		2 x 1= 2	1 x 0= 0	Formula applied:
				2 + 0 = 2
				SUM = 2
3	WO BU1	% =0	Maintenance = 1	PC003
		2 x 0= 0	1 x 1= 1	Formula applies:
				0 + 1 = 1
				SUM = 1

If you select the Project Default Order as Unit, Type, Service Group, then the Service Group = 2x2 and the Work Order Type = 1x1, then when you apply the formula to the same rows, then Row #1 = 0, Row #2 = 1, and Row #3 = 2.

Therefore, the default Project ID based on Unit, Type, Service Group in the work order is PC003 in Row #3, which is the row with the greatest value.

Once the default Project ID is selected, the system uses the Project Default Order that you select in the work order business unit and applies the formula again to the PC Default ChartFields component to determine which row containing default Project Costing ChartField values for the default project ID has the highest calculated value. This row contains the defaulting Project Costing ChartField values that display in the work order task when you click the Distribution link for a work order task.

See Understanding Project Defaulting and Capitalization Rules in PeopleSoft Maintenance Management.

SeeSetting Up Rules and Data Related to PeopleSoft Project Costing.

#### **Accounting Default Order**

Accounting Default Order is used to determine the default ChartField distribution template to use in the work order based on the values set up in the Distribution Template Rules component. There are seven values to which you can assign default attribute levels from 1 to 7, where 1 is the lowest and 7 is the highest. These default attributes include:

- Service Group.
- Work Order Type.
- Asset Type.
- Asset Subtype.
- Asset Location.
- Asset ID.
- Asset Unit.

**Important!** You must assign a numeric value to each of the seven attributes, with no duplicate values allowed. For example, you cannot assign a numerical value of 2 to Asset Type and Asset Location. The values must each be different. You cannot save the work order business unit unless you assign these values.

The formula to determine the default ChartField Distribution Template in a work order works basically the same way as the Project Order Default.

The formula to apply to the default values for the Accounting Default Order is:

```
1x1 + 2x2 + 3x3 + 4x4 + 5x5 + 6x6 + 7x7 = Default Row Value

1x1 + 2x2 = Default Row Value
```

Where:

For x1: If value is % (wildcard) then x1 = 0 Or:If value is not % then x1 = 1

Where:

For x2: If value is % (wildcard) then x2 = 0 Or: If value is not % then x1 = 1

Where:

For x3: If value is % (wildcard) then x3 = 0 Or: If value is not % then x1 = 1

Where:

For x4: If value is % (wildcard) then x4 = 0 Or: If value is not % then x1 = 1

Where:

For x5: If value is % (wildcard) then x5 = 0 Or: If value is not % then x1 = 1

Where:

For x6: If value is % (wildcard) then x6 = 0 Or: If value is not % then x1 = 1

Where:

For x7: If value is % (wildcard) then x7 = 0 Or: If value is not % then x1 = 1

For example, if you set up the values in the work order business unit and sequence them in the following order:

1. Service Group =

x1

2. Work Order Type =

x2

3. Asset ID =

x3

4. Asset Subtype =

x4

5. Asset Type =

x5

6. Asset Location.

x6

7. Asset Unit =

x7

The rows that you set up in the Distribution Template Rules contain the following values and the formula calculated for each value. In this example the default Distribution Template in the work order would be FLEET because the sum of the values = 13.

Serv Grp x 1	WO Type x <sub>2</sub>	Asset Type	Asset Subtype x₄	AM BU x <sub>7</sub>	Asset ID.x <sub>3</sub>	Loc. x <sub>6</sub>	Dist. Temp.
%	%	%	0	%	%	%	MAIN
1 x 0= 0	2 x 0= 0	5 x 0= 0		7 x 0=0	3 x 0= 0	$6 \times 0 = 0$	SUM = 0
MAINT	%	Fleet	0	%	%	%	FLEET
1 x 1 = 1	2 x 0= 0	5 x 1= 5		7 x 1= 7	$3 \times 0 = 0$	$6 \times 0 = 0$	SUM = 13
%	CAPT	IT HW	0	%	%	%	ITAM
$1 \times 0 = 1$	2 x 0= 0	5 x 1= 5		$7 \times 0 = 0$	$3 \times 0 = 0$	$6 \times 0 = 0$	SUM = 6

See <u>Understanding ChartField Distribution Setup in PeopleSoft Maintenance Management</u>.

## **Work Order Business Unit Integration Options**

You set up specific options in the Integration page of the work order business unit for Project Costing, PeopleSoft Inventory, and PeopleSoft Purchasing.

You can also set up labor cost and bill rates that serve as default values in the labor requirements or labor schedule for a work order created with this business unit. You can override these labor rates in the shop.

#### **Work Order Business Unit and Project Costing Integration Options**

You must indicate the Project Costing business unit that will be used to create both work order managed and project costing projects in Project Costing. This business unit serves as the default value in the work order, the Associate Projects component, and the Work Order Task Accounting page.

You also indicate whether you plan to use a rate plan or rate sets for calculating chargebacks and other costs.

Rate sets enable you to create transaction rows for use in costing, billing, revenue recognition, or reporting, from incoming or existing transactions in the Project Transaction table. Rate sets have two parts: The source criteria that the Pricing process uses to compare against cost transactions coming in from feeder systems. The target definition of the cost, billing, or revenue recognition row that the Pricing process creates. When an incoming cost transaction matches the source criteria, the Pricing process creates a new transaction row for every target row on the rate set. You can assign the same rate set to multiple rate plans.

A rate plan is a collection of rate sets that the system executes in a specified order. Use rate plans to link rate sets so that priced rows from one rate set are used to create additional priced rows from the next rate set. For example, you can add additional expenses, such as administrative costs or overhead, to cost transactions before they are priced for billing or revenue. The Pricing process uses the rate plan to determine which rate sets to run and in what sequence to run them. When setting up the rate plan, you can assign rate sets in any combination of rate definition types—cost, billing, and revenue.

You select the analysis group from PeopleSoft Project Costing that is used by the Cost Collection process in PeopleSoft Maintenance Management to gather costs from PeopleSoft Project Costing into PeopleSoft Maintenance Management. The analysis group delivered for Maintenance Management in the Project Costing sample data is MMCST.

#### Work Order Business Unit and PeopleSoft Inventory Integration Options

You set up the Inventory business unit, the Inventory Commit rule, and the Work Order Reservation rule in the Integration page of the work order business unit.

The Inventory business unit serves as the default value when you select an item in the Inventory Requirements and Inventory Schedules grids. The SetID associated with the Inventory business unit must match the SetID associated with this work order business unit.

You specify a Commit rule to determine the point when you want to commit (recognize work order demand) the selected items to PeopleSoft Inventory, which means the point at which you want PeopleSoft Inventory to recognize the work order task demand for the item. Commit rules can be set up at the business unit level, the shop level, and the shop/work order type level within a shop. The rule you select applies to all work orders created with this business unit, shop, or shop/type. You can select one of the following Commitment rules, which include:

#### Commit at Reserve

Selecting this Commit rule enables you to defer committing the item(s) to PeopleSoft Inventory until the time you choose to reserve the item(s).

Parts List

The addition of an inventory item to the parts list, which means that Items are committed when they have been added to the Inventory Schedules grid and a save has been issued. Each subsequent part that is added and saved on the work order task will commit the item to PeopleSoft Inventory.

#### Picking Plan

Items are committed when a Picking Plan is created. A picking plan consists of the parts or inventory items that are added to a list, which direct inventory personnel to the storage locations for the items that they need to pick for the work order task. This option delays committing of the inventory items until you are ready to have them picked and available to begin working the work order.

#### Work Order Status Change

Items are committed when the work order task status is changed to an internal status of *Awaiting Schedule*, *Scheduled*, *or Work in Progress*.

You can also reserve inventory items, which are selected for a work order task, based upon your selection of a Work Order Reservation rule, which works in combination with the selected Commit rule. Work Order Reservation rules can be set up at the business unit level, the shop level, and the shop/work order type within the shop level. Inventory items must be committed before or at the same as they are reserved. The system will verify the valid combinations that can be set up for the commit and reservation rules that are chosen. The available values to select from for both commit and reservation rules will be filtered down to the applicable/acceptable valid values to ensure that you cannot establish invalid combinations of commit and reservation rules. The Work Order Reservation rules include:

#### Batch Reserve Only

When the batch process is run, the rows will be reserved.

#### Parts List Creation

When the parts (items) in the work order task are saved, the parts (items) are reserved.

#### Pick Plan Creation

When the picking plan is created, the part (item) is reserved.

#### Work Order Status Change

When the status of the work order task is changed to *Awaiting Schedule, Scheduled, or Work in Progress*, the parts (items) are reserved.

You also specify a priority number between 1 and 999 for work order reservations. PeopleSoft Inventory uses this number to sort demand and prioritize it accordingly, with 1 being the highest or most important priority and 999 being the lowest or least important priority. This number displays as a default value in the Inventory Schedules grid.

The selected Commit rule and the Work Order Reservation rule combination must be valid.

The values that display on the Reserve Rule/Status dropdown list depend on the value(s) that you selected for the Commit Rule/Status. If you change the Commit Rule/Status or change the default flag from *Specify* to *Default* on the shop header or shop/type pages and the current Reserve Rule/Status becomes invalid, the Reserve Rule/Status field is blanked out and a message is issued instructing you to specify a new Reserve Rule/Status from the updated list of valid choices.

**Note:** Depending on the changes you make, other restrictions may apply to limit work order business unit rule/status values from invalidating a lower-level shop header or shop/type definition that depend on the current work order business unit values.

#### Valid edit combinations are:

1. Commit rule = Parts List

Reservation rule = Parts List.

- 2. Commit rule = Parts List
  - Reservation rule = Status Change = any 3 statuses
  - Reservation rule = Pick Plan
  - Reservation rule = Batch Only
- 3. Commit rule = Status Change = Awaiting Schedule
  - Reservation rule = Awaiting Schedule or Scheduled or Work in Progress
  - Reservation rule = Pick Plan
  - Reservation rule = Batch Only
- 4. Commit rule = Status Change = Scheduled
  - Reservation rule = Scheduled, Work in Progress
  - Reservation rule = Pick Plan
  - Reservation rule = Batch Only
- 5. Commit rule = Status Change = Work in Progress
  - Reservation rule = Work in Progress
  - Reservation rule = Pick Plan
  - Reservation rule = Batch Only
- 6. Commit rule = Pick Plan

Reservation rule = Pick Plan

7. Commit rule = Commit at Reserve

Reservation rule = All rules

then this indicates that there is at least one lower-level Shop or Shop/Type definition associated with (keyed by) this WO BU that depends on the current WO BU rule settings. The User may have to first reset the dependent Shop-level definition(s), before making the desired rule change to the WO BU.

**Important!** The edit ensures that the commit of items occurs prior to or at the same time as execution of the reservation rule. If the WO Status Change option is selected for both the commit and the reserve rule, then the reserve rule's internal status must be later than or the same as the commit rule's internal status.

If fewer values appear than usual on the commit rule dropdown list (less than 3 for commit rule, 4 for internal status), or the reserve rule dropdown list (fewer internal statuses based on Important rule above), then at least one shop or shop/type level setting depends on the current work order business unit setting. You may need to reset Inventory/Commit Rule Reservation at the shop or shop/type level before you can make changes to the rules at the work order business unit level.

**Note:** The batch reservation process will only reserve committed work order rows. If a reservation rule implies on-line reserve and the row(s) could not be reserved, a status TBD (to be determined) by Inventory will dictate if the batch reservation process will pick up the row(s).

#### Work Order Business Unit and Work Order Procurement Integration Options

You determine in the work order business unit whether you want to use purchase orders to purchase labor, non-inventory and open description materials, and tools for a work order, or whether you want to use Purchasing or eProcurement requisitions. When you set up requirements and scheduling for a work order created with this business unit, you can purchase items based only on the option you choose for this business unit.

If you do not want to use purchase orders or requisitions, you can select the blank space to leave the field blank or select *None*. Selecting this option hides the Load Purchase Order/Load Requisition button on Purchase/On-hand Schedules section of the Schedules page.

See <u>PeopleSoft Maintenance Management Integration with PeopleSoft Purchasing and PeopleSoft Payables</u>.

#### **GIS** Integration

If you indicate that you want to use ESRI GIS maps in the installation options for PeopleSoft Maintenance Management, a check box appears on the Integration page of the work order business unit. You select this check box if you want to enable the Map It buttons in the work order, Work Order Workbench, and Technician Workbench. Clicking one of these buttons enables you to view the asset associated with a work order task on an ESRI map. The check box is disabled if the GIS integration has not been setup and enabled by the system administrator.

#### **Mobile Integration**

If you are planning to integrate a mobile device supplied by a third party organization with PeopleSoft Maintenance Management Mobile Web Services, you must enable this Mobile Integration option for the Mobile Tasks Updated Pending links to appear on the Work Order, Express Work Order or Work Order Completion components, and the Mobile Public link to appear on the Task Search page associated with the Technician Workbench.

See Mobile Web Services Integration.

## **Work Order - Definition Page**

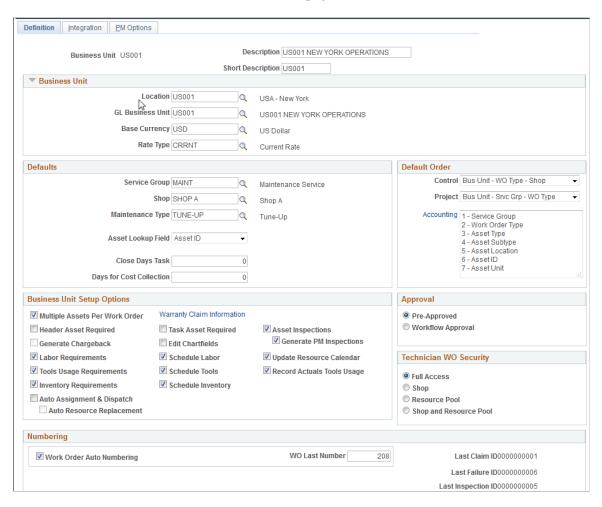
Use the Work Order - Definition page (BUS\_UNIT\_TBL\_WM1) to enables users to define a work order business unit as a work center for an organization, set up accounting parameters including integration

with the GL business unit, identify specific PeopleSoft Maintenance Management setup options, establish default values for the work order and work order task, and set up auto-numbering of work orders.

Navigation:

## Set Up Financials/Supply Chain > Business Unit Related > Maintenance Management > Work Order Definition > Definition

This example illustrates the fields and controls on the Work Order - Definition page. You can find definitions for the fields and controls later on this page.



When you set up a new work order business unit, you enter the new business unit number in the Add a New Value page and, when you access the Definition page, you describe this new business unit, associate a SetID, and create the business unit.

#### **Business Unit**

Field or Control	Description
Location	Select the location of this work order business unit. This is a required field.

Field or Control	Description
GL Business Unit	Select the General Ledger business unit, which serves as a default value for the GL business units set up in the PeopleSoft Maintenance Management ChartField distribution templates that you set up later in this topic. This is a required field.
	Note: You can change this default GL business unit for PeopleSoft Purchasing rows only on the distribution template. You cannot change this default GL business unit for PeopleSoft Inventory, PeopleSoft Expenses, Project Costing integration module rows on the distribution templates. This default GL business unit displays in the distribution page accessed from the labor, inventory, purchasing/on-hand, and tools Distribution tab in the work order schedule grids.
Base Currency	Select the work order business unit base currency to use for currency conversions in work order transactions. Work order costs always display this currency in PeopleSoft Maintenance Management, even if the costs are calculated in another currency by an integrated product or Project Costing. This is a required field.
Rate Type	Select the type of rate to use to calculate conversions to the base currency for work order transactions. This is a required field.

See <u>Currency Conversion</u>.

See <u>Understanding Overall System Setup Parameters for PeopleSoft Maintenance Management</u>.

## **Business Unit Setup Options**

Select the options that you want to apply to your work order transactions.

Field or Control	Description
Multiple Assets Per Work Order	Select this check box to enable you to enter a different asset from task to task. If you leave this check box blank, you can only enter an asset identification value at the work order header level. The fields for asset identification, Asset Management business unit, location, and others will not appear on the tasks. The system applies the asset defined in the work order header to each work order task.
	In you intend to create work orders to perform the changeout of an asset's component, then you must select this check box.  This is because you must identify more than one asset to perform a component changeout.
	Important! This rule concerning multiple assets per work order does not apply to preventive maintenance work orders. You can create a preventive maintenance work order for a loop composed of multiple assets regardless of whether or not this check box is selected.
	See <u>Component Changeout in PeopleSoft Maintenance</u> <u>Management</u> .
Header Asset Required	Select this check box to define the asset as a required entry when creating or updating a Work Order.
Task Asset Required	Select this check box to define the asset as a required entry when creating or updating a Work Order Task.
Generate Chargeback	Select this option to enable chargebacks, which is the recovery of costs from another organization, such as the business unit, operating unit, department, fund, and more, for any work orders associated with this business unit. Selecting this option enables the chargeback check box on the Task Accounting page.
	Note: To activate the chargeback check box on the Work Order Task Accounting page, you must select this option and select the Organization option in the Installation Options component.
	<b>Note:</b> You can override this specification for a shop at the shop level and for a work order type at the work order type level.

Field or Control	Description
Edit ChartFields	Select this check box to enable users to edit ChartField distribution values in the work order task.
Labor Requirements	Select this check box to enable users to access the <b>Labor Requirements</b> grid in a work order that you created using this business unit, and calculate the estimated costs for the Labor resource requirements for each work order task. If you deselect the check box, you cannot access the <b>Labor Requirements</b> grid in the Work Order component.
	Note: You can override this field at the shop level.
	See <u>Labor Requirements</u> .
Inventory Requirements	Select this check box to enable users to access the Inventory Requirements grid in the work order created using this business unit and calculate the estimated costs for the inventory resource requirements for each work order task. If you deselect the check box, you cannot access the Inventory Requirements grid in the Work Order component.
	Note: You can override this field at the shop level.
	See Inventory Requirements.
Auto Assignment & Dispatch	Select this check box to automatically assign labor and procurement resources (employee and supplier) to a Work Order when it is created and for Preventive Maintenance Work Order as well.
Tools Usage Requirements	Select this check box to enable users to access the <b>Tool Requirements</b> grid in the work order created using this business unit and calculate the estimated costs for the Tool resource requirements for each work order task. If you deselect the check box, you cannot access the <b>Tool Requirements</b> grid in the Work Order component.
	Note: You can override this field at the shop level.
	See <u>Tool Resource Requirements</u> .

Field or Control	Description		
Schedule Labor, Schedule Inventory, and Schedule Tools	Select the applicable check boxes based on your business needs to enable a scheduler to schedule the various resources for labor, inventory, and tool transactions in the Schedules page of the Work Order component.		
	Note: You can override these selections at the shop level.		
	See <u>Understanding Resource Scheduling</u> .		
Asset Inspections	Select this option to allow maintenance technicians to create asset inspections for this business unit from work orders and related components.		
Generate PM Inspections	Select this option to generate asset inspections for Preventive Maintenance work orders created as a result of PM batch processing for this business unit. To generate asset inspection transactions, an inspection plan must be associated to the particular work order task.		
Record Actuals Tools Usage	Select this option to process actual tools usage costs for any work orders using this business unit. These actual costs are generated in PeopleSoft Project Costing and display in the Cost page of the work order		
	Note: The requirement for recording tools actuals is optional because some organizations do not record the use of tools that are involved in repairing an asset. However, all labor and material actuals are always recorded if used for a work order task. You can override this selection for a shop at the shop level.		
	See <u>Tool Usage</u> .		
Update Resource Calendar	Select this option to enable a user to update the employee and tool resource calendars to free resources to perform other work if they have completed these work assignments earlier than scheduled.		
	Note: This option is only available for selection if the Schedule Labor and Schedule Tools check boxes above are selected. You can override this selection for a shop at the shop level.		
	See <u>Understanding Resource Scheduling</u> .		

Field or Control	Description
Approval	Select:
	Pre-Approved if the work orders that you create using this business unit do not require further workflow approval.
	Workflow Approval if the work orders that you create using this business unit require approval by one or more parties. You must also set up work order approval workflow.
	Note: You can override this selection at the shop level and the work order type level.
	See <u>Understanding the Work Order Approval Workflow</u> <u>Architecture</u> .
	See <u>Understanding the Work Order Approval Process</u> .

## Field or Control Description Technician WO Security (technician work order security) Select one of the following options to enable resources to have access to express work orders and work orders in the Technician Workbench: **Full Access** Select the Full Access option in for this work order business unit so that any PeopleSoft Maintenance Management resource can access any work order and work order task on the Work Order, Technician Workbench, and the Express Work Order components created with this business unit, depending on the user's PeopleSoft Security setup for these components. Shop Select this option to enable a user with the Allow Access to WO Security check box selected on the User Preferences – Maintenance Management page to click the Technician Work Order Access link on the Work Order component's Miscellaneous page of any work order created with this business unit and access the Work Order Access page. The Work Order Access page lists, at a minimum, the shop used to create the work order. If a resource is selected for a work order task and is assigned to a shop that is different from the shop used to create the work order (cross-shop), then this shop is automatically added to the list on the Work Order Access page. The authorized user can add or remove any shops to and from this list except for the shop that was used to create the work order. Only resources who have Apply WO Access Security selected on the User Preferences - Maintenance Management page and are assigned to one of the shops listed on the Work Order Access page can access work order and work order tasks on the Work Order, Technician Workbench, and the Express Work Order components. Resource Pool Selecting this option enables only the members of a resource pool, who have the Apply WO Access Security check box selected in the User Preferences – Maintenance Management page, access to the work order and work order tasks created with this business unit and the project and activity associated with a resource pool on the Work Order, Technician Workbench, and Express Work Order

components.

Field or Control	Description	
	Resource pools are set up in PeopleSoft Resource Management for use in PeopleSoft Program Management and Project Costing. A resource pool consists of a specific group of resources that you can assign to a project and/or activity from PeopleSoft Program Management.  • Shop and Resource Pool  Select this option to enable only authorized users to access work orders and work order tasks in the Work Order, Express Work Order, and Technician Workbench components who are assigned to one of the shops listed on the Work Order Access page of a work order created with this business unit, or who are assigned to a resource pool set up for the project and activity that is associated with this work order and work order tasks created with this business unit.	
Warranty Claim Information	Click this link to access the Warranty Claim Information page, where you can identify the business unit's contact information that will appear on warranty claims generated from work orders created with this business unit.  See <u>Understanding Warranty Claim Management in PeopleSoft Maintenance Management</u> .	

#### **Defaults**

Define each of these fields to use as default fields on a work order associated with this business unit. You can override these values when you enter a work order.

Field or Control	Description
Service Group	Select the service group that you want to appear as the default value in any work order associated with this business unit.  This is the only level in which you can set up <b>Service Group</b> as a default value.
	You can use the service group value to set up your own supplemental data that further describes the service group. For example, if you select <i>ITAM</i> as the default service group value, you can create additional supplemental data fields related to peripheral devices that accompany a computer such as an external hard drive, mouse, and keyboard. When you select the ITAM service group to create a work order, then these supplemental fields will also display in the work order.  This is a required field to enable a service group default value
	to appear in a preventive maintenance work order.
	See <u>Understanding Supplemental Data</u> .
Shop	Select the shop value that you want to display as the default value on the search page when you create a work order. You can override this value in the work order.
	Note: You must set up the business unit first and then set up shops using this business unit. Once your shops are set up, you should return to the business unit and enter a default shop value.
	See <u>Understanding Shifts, Schedule Patterns and Periods,</u> <u>Shops, and Crews</u> .
Close Days Task	Enter the interim number of days between the completion of a work order task and the automatic closure of the task.
	Note: You can override this value at the Work Order Type level. In addition, you can manually close a work order task before this time interval expires.
	See Setting Up PeopleSoft Maintenance Management Work Order Parameters.

Field or Control	Description		
Asset Lookup Field	Select one of the values listed below for this field. The selected value displays as the field name from which you select an asset's specific value in the Asset Information section of the work order header and the work order task for any work order associated with this business unit.  • Asset ID  • Serial ID  • Tag Number  • Vehicle ID Number		
Control Default Order	Select the order in which the system checks for specified data.  • Unit, Shop, Type  • Unit, Type, Shop		
Project Default Order	Select the order in which the system checks for ChartField distribution and project ID default values. The changes in this hierarchy are based on the order of the service group and the work order type:  • Unit, Service Group, Type  • Unit, Type, Service Group		
Days for Cost Collection	Enter the number of days that you want the collection of costs to continue after the work order is closed.		
Maintenance Type	Select a default maintenance type value to display in the Maintenance Type field on the Miscellaneous page of the Work Order component. If you generate preventive maintenance work orders, a maintenance type is required on the work order in order to close the work order.		

Field or Control	Description
Accounting Default Order	Select a sequence number for each of the values listed to establish the default order for each value, which includes:  • Service Type.
	Work Order Type.
	Asset Type.
	Asset Subtype.
	Asset Location.
	Asset ID.
	Asset Unit.

See Work Order Business Unit Defaults and Default Hierarchies.

## Numbering

Field or Control	Description
Work Order Auto Numbering (work order automatic numbering)	Select this check box to automatically generate work order numbers for each work order created. If you do not enter a number, the system creates <i>NEXT</i> as the default WO ID value. When the work order is saved, a number displays for the Work Order ID, which is the <b>WO Last Number</b> plus one.  Even if you select this check box, you can still enter a work order number manually in the search page WO ID field. However, if you do not select this check box, the system does not generate a WO ID automatically.
WO Last Number (work order last number)	Stores the number of the last work order ID number that was created for this business unit if you selected the Work Order Auto Numbering check box.
Last Claim ID(last claim identification)	Identifies the last warranty claim ID number generated for work orders associated with this business unit.

Field or Control	Description
Last Failure ID (last failure identification)	Identifies the last failure ID number associated with a failure event.
	When you create a failure event from the Work Order, the Work Order Completion, or the Technician Workbench components, the system automatically assigns the next Failure ID in the system to the failure event. You cannot override this value. When you save the Work Order Failure Tracking page, the system updates this failure ID number that is associated with the failure event in this <b>Last Failure ID</b> field on the Definition page of the work order business.
	If you create a failure event from the Work Order Failure Tracking component, you can accept NEXT as the default for the Failure ID and the system assigns the next failure ID to the failure event This number is tracked in this <b>Last Failure ID</b> field. You can also override NEXT with a unique failure ID. A unique failure ID is <i>not</i> tracked in this <b>Last Failure ID</b> field on the Definition page of the work order business unit.
	If you entered a unique failure ID for one failure event, and created the next failure event from the work order, which automatically assigns a failure ID number, when you save the Work Order Failure Tracking page, the number generated is automatically updated in this <b>Last Failure ID</b> field on the Definition page of the work order.
Last Inspection ID	Identifies the last sequential inspection ID generated for the inspection instance for this business unit.

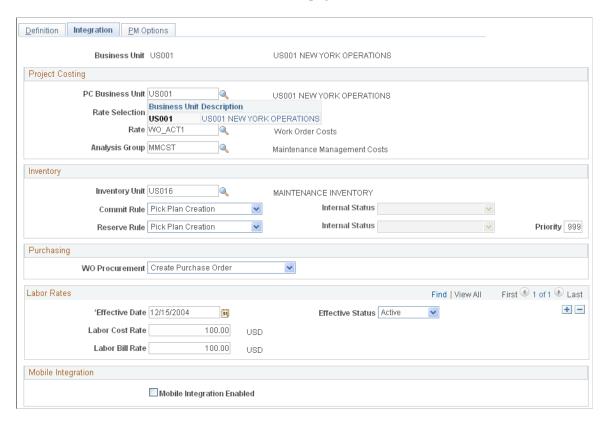
## **Work Order - Integration Page**

Use the Integration page (BUS\_UNIT\_TBL\_WM2) to identify Project Costing, Inventory, and PeopleSoft Purchasing integration parameters.

Navigation:

Select the Integration tab.

This example illustrates the fields and controls on the Work Order - Integration page. You can find definitions for the fields and controls later on this page.



### **Project Costing**

This section links any work order associated with this business unit to PeopleSoft Project Costing so that PeopleSoft Project Costing can serve as the cost repository for all work order costs, which includes the calculation and capitalization costs of assets. PeopleSoft Project Costing also calculates chargebacks and sends them to the appropriate GL business unit.

Field or Control	Description
PC Business Unit (Project Costing business unit)	Enter or select the Project Costing business unit that you want to use to track costs incurred for work orders associated with this work order business unit. This is a required field.
	Note: You can use this Project Costing business unit to set up the Resource Management business unit that is required for setting up resources in PeopleSoft Maintenance Management.

Field or Control	Description
Rate Selection	Select one of the following values:  • Rate Plan  A rate plan is a collection of rate sets that the system executes in a specified order. Use rate plans to link rate sets so that priced rows from one rate set are used to create additional priced rows from the next rate set.  • Rate Set  Rate sets enable you to create transaction rows for use in costing, billing, revenue recognition, or reporting, from incoming or existing transactions in the Project Transaction table.
Rate	Select a rate plan or a rate set from PeopleSoft Project Costing to use as the default value in the work order task for calculating chargebacks. If you select Rate Set, select from a list of values, which are user-defined in PeopleSoft Project Costing.  For example:  • ACT (Actual Cost)  • TUG_ACT (Tool Usage Actual Costs)  • TUG_BIL (Tool Usage Billing)  If you select Rate Plan, select from a list of values, which are user-defined in PeopleSoft Project Costing.  For example:  • PM_BIL_CST (Program Management Bill and Cost)  • PM_BIL_ONLY (Program Management Bill Only)  • PM_CST_ONLY (Program Management Cost Only)
Analysis Group	Defines the PeopleSoft Project Costing analysis group that is used by the Cost Collection process in PeopleSoft Maintenance Management to gather costs from PeopleSoft Project Costing into PeopleSoft Maintenance Management.  Note: Analysis Groups are set up in PeopleSoft Project Costing.

See "Analysis Groups" (PeopleSoft Project Costing).

## Inventory

These fields only display if Inventory is installed.

Field or Control	Description
Inventory Unit	Enter or select an Inventory business unit if you plan to issue parts from PeopleSoft Inventory to work orders. This business unit appears in the Inventory Requirements - Default Settings and in the Inventory Schedules - Default Settings fields of the work order. This is the only Inventory business unit that can issue parts directly to the work order. The SetID for the work order business unit must match the SetID for the Inventory business unit. The system runs an edit to ensure that these SetIDs match. In addition, you can only use an Inventory business unit in which the GL business unit is the same as the GL business unit in the work order.  Note: You should enter this field if you plan to use PeopleSoft Inventory with PeopleSoft Maintenance Management.

Field or Control	Description
Inventory Commit Rule	Select the rule that describes when to place demand on inventory for inventoried items. This selection serves as an indicator to the scheduler and to PeopleSoft Inventory that items specified in a work order associated with this business unit will place demand on inventory based on your selection of one of these rules. Select one of the following:  • Commit at Reserve  This rule commits work order rows at the same time that the reservation rule applies For example, if you select Commit at Reserve as the commit rule and Parts List as the reservation rule, then the item(s) are committed and reserved when the Parts List is created.  • Parts List  This rule dictates that the parts on a parts list are automatically committed in PeopleSoft Inventory when the parts list is created and saved.  • Pick Plan  This rule dictates that whenever you click the Pick Plan button in the work order, the items in the pick plan will be automatically committed in PeopleSoft Inventory.  Note: You can also run a Pick Plan from PeopleSoft Inventory or from the Materials page of the Technician Workbench.
	Work Order Status Change  Select this value to enable you to select a internal status for the Internal Status field. When the status in the work order matches the status defined here for the commit rule, the items on the work order are committed to PeopleSoft Inventory.
	Note: This is a required field if you enter an Inventory business unit in the <b>Inventory Unit</b> field.

Field or Control	Description
Internal Status	If you selected Work Order Status Change, select one of the internal work order statuses that triggers the commitment of items in PeopleSoft Inventory, which include:  • Awaiting Schedule  • Scheduled  • Work in Progress  See Work Order Business Unit Integration Options.
Work Order Reservation Rule	Select one of these reservation rules to reserve inventory parts (items). Inventory parts (items) must be committed before they can be reserved.  Important! The system edits the commit and reservation rule combination to ensure that the items are committed at the same time or before they are reserved. The system also filters the values that apply to the work order based on the setup of these values in the work order business unit, shop, or shop/type.  • Batch Reserve Only  When you run the Batch Reservation process the parts (items) in the rows are reserved.  • Parts List Creation  When you save the parts (items) in the work order task, reserve the parts (items).  • Pick Plan Creation  When you run the Picking Plan for a work order task, reserve the parts (items).  • Work Order Status Change  When you change the status of a work order task to Awaiting Schedule, Scheduled, or Work in Progress, the

Field or Control	Description
Internal Status	If you selected Work Order Status Change, select one of the internal work order statuses that triggers reservation of items in PeopleSoft Inventory for the work order, which include:  • Awaiting Schedule  • Scheduled  • Work in Progress
Priority	Enter a number from 1- 999 for PeopleSoft Inventory to use to sort and prioritize demand. The number you enter here serves as a default value in the Inventory Schedules grid.

### **Purchasing**

PeopleSoft Maintenance Management requires the installation of PeopleSoft Purchasing to enable users to obtain materials, tools, labor, and other goods and services by creating either a requisition or a purchase order directly from the work order or work order workbench. You can also create a requisition or purchase order in PeopleSoft Purchasing and link it to a work order. If you prefer to use PeopleSoft eProcurement, you can create a requisition directly in PeopleSoft eProcurement from the work order or you can load and stage scheduled rows and create requisitions, which can be accessed in PeopleSoft eProcurement.

Field or Control	Description
Work Order Procurement Option	Select one of these values:
	• the "blank" field or <i>None</i>
	Select this value to indicate that you do not intend to procure materials directly from a work order created with this business unit. When you select this option, no buttons appear on the work order and work order template grids.
	Create Purchase Order
	Select this value to enable you to generate only purchase orders from a work order created with this business unit.
	Create Requisition
	Select this value to enable you to generate requistions in PeopleSoft Purchasing from a work order created with this business unit.
	Create ePro Requisition
	Select this value to enable you to generate requisitions in PeopleSoft eProcurement from a work order created with this business unit.

### **Labor Rates**

Field or Control	Description
Effective Date and Status	Enter or select the date from which you consider these labor rate values either <i>Active</i> or <i>Inactive</i> .
Labor Bill Rate	Enter the hourly bill rate for labor to use to calculate the billable labor amount based on the labor hours entered at the work order task level.
Labor Cost Rate	Enter the hourly cost rate for labor to use to calculate the actual labor costs for any labor performed and tracked via a work order.

**Note:** You can override these rates for a specific shop at the shop level, as well as associate specific crafts and craft labor rates with a shop.

### **GIS Integration**

Field or Control	Description
GIS Integration Enabled(Geographic Information System integration)	Select this check box to enable integration with ESRI GIS for a selected business unit. You can view the location of a work order task on an ESRI map by clicking a Map It button on the Work Order, Requirements and Schedules pages of the work order, the Work Order Workbench, and the Technician Workbench.

### **Mobile Integration**

Field or Control	Description
Mobile Integration Enabled	Select this check box to display Mobile Tasks Updated Pending links appears on the above Work Order, Express Work Order or Work Order Completion components, and to display the Mobile Public check box on the Task Search page associated with the Technician Workbench.

See Mobile Web Services Integration.

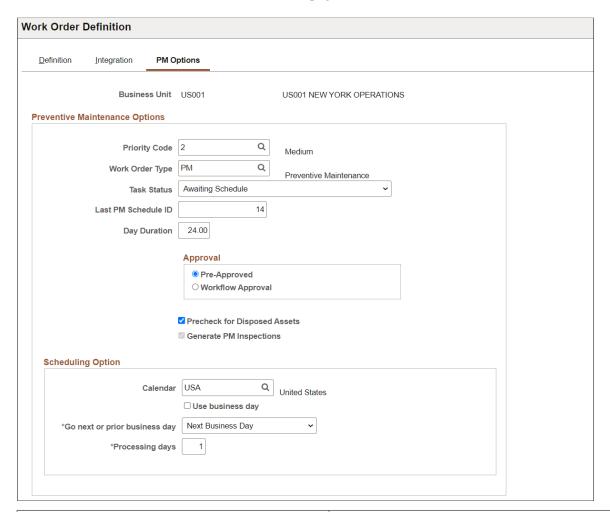
## **PM Options Page**

Use the PM Options page (BUS\_UNIT\_TBL\_WM3) to identify parameters specific to Preventative Maintenance Work Orders.

Navigation:

Select the PM Options tab.

This example illustrates the fields and controls on the Work Order - PM Options page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Priority Code	Select $H$ (High), $M$ (Medium), or $L$ (Low) to appear as the default priority in any preventive maintenance work order that the application automatically creates for this business unit. This is a required field.
	Important! This default value appears for all work orders except for work orders that you create for a project for a Project Costing-managed project.
	See <u>Setup and Processing of Preventive Maintenance Work Orders.</u>
Work Order Type	Select the work order type that you want to use as the default value in any preventive maintenance work orders that the application generates for this business unit. This is a required field.

Field or Control	Description
Task Status	Select the work order task status for a work order task that you want to appear as the default value for any preventive maintenance work orders created during Preventive Maintenance processing that are associated with this business unit.
	You can select any user-defined work order task status except for those that you defined for the internal statuses of complete, closed, and canceled.
	This is a required field.
	See <u>Understanding Work Order Statuses</u> .
Last PM Schedule ID	This identifies the last number used to create a preventive maintenance schedule and automatically increments each time a new preventive maintenance schedule is created.  See Setup and Processing of Preventive Maintenance Work Orders.
Day Duration	Enter a duration value in hours. This value should not be greater than twenty four. For example, if the day duration is eight hours, the PM work order duration is forty eight hours, and if the start date is 04/05/2012, the period is calculated as forty eight divided by eight, which is six. Hence, end date would be 04/11/2012.
Enable Workflow Approval	Click the Workflow Approval radio button to enable the workflow approval process.
Precheck for Disposed Assets	Select to deactivate any active PM Schedules and Maintenance Loop structures corresponding to assets in 'Disposed' status.

## **Scheduling Option**

Field or Control	Description
Calendar	Select a business calendar to use in determining valid business days for preventive maintenance work orders that are generated for this business unit. Selecting this option enables you to avoid scheduling preventive maintenance work orders on holidays or weekends.

Field or Control	Description
Use business day	Select the check box to consider only business days for scheduling and skip weekends and holidays.
	Note: In the Business Calendar page you can configure the days in a week that you want to be considered as normal business days.
Go next or prior business day	Select day for the next update. There are two options:  Next Business Day  Prior Business Day  If the calculated date falls on weekend or holiday then based on the option selected the next or prior business date will be considered for scheduling.
Processing days	Enter number of days to increase or decrease from the calculated due date.

# **Setting Up Resource Assignment Approval Options in PeopleSoft Maintenance Management**

To set up resource assignment approval options use the Work Order Options (WM\_BUS\_UNIT\_OPT) component.

This section provides an overview of labor resource assignment approval workflow and discusses how to define resource assignment approval options.

## Page Used to Set Up Resource Assignment Approvals

Page Name	Definition Name	Usage
Work Order Options Page	WM_BUS_UNIT_OPT	Define E-mail options for resource assignment approval.

## **Understanding Labor Resource Assignment Approval Workflow**

For a work order task, you have the option of approving the assignment of labor resources who are associated with a shop that is different from the shop associated with the work order. The employee data, regardless of the source, identifies the supervisor of each employee. You can also set up employee data and identify the supervisor of an employee using the Manage Employee Data component in PeopleSoft

Maintenance Management. When you set up the Work Order Options component to indicate that assignment approval is required, this automatically activates the assignment approval workflow. Once this approval workflow is activated, then when you create a work order task and assign a labor resource who works for a shop other than the shop in the work order, the system sets the assignment to Pending Approval status and sends the assignment to the worklist of the supervisor of the resource for approval. The supervisor is identified in the resource's Employee Data. The supervisor can approve or reject the assignment. If the supervisor approves the assignment, the system sets the assignment approval status to Assigned. If the supervisor does not approve the assignment, the system sets the assignment approval status to Rejected. Only the supervisor of the resource can save an assignment with a status of Assigned.

In addition, you can set up E-mail notifications to the manager of a resource and to the resource being assigned. You can select one or more assignment statuses that trigger an E-mail notification to the manager of the resource and to the resource.

For example, Jim Dobson is identified in Jill Stanton's Employee Data as her supervisor and Jill is assigned to Shop A. Tyler Jones is identified as the manager of Jill Stanton. You set up the Work Order Options page to require assignment approval and you indicate that you want to notify Jill's manager, Tyler Jones, when Jill is Assigned to the task. You also indicate that you want to notify Jill when the assignment is either Pending Approval, Assigned, or Rejected.

When you create a work order with Shop B and assign Jill Stanton as the technician on a task, then the worklist for Jill's supervisor, Jim Dobson, is updated to indicate that the assignment of Jill Stanton is Pending Approval. Based on the notification setup, Jill also receives an E-mail notifying her that the assignment is Pending Approval. When Jim Dobson approves the assignment, a E-mail is sent to Jill notifying her that the assignment is Approved, and an E-mail is sent to Jill's supervisor, Jim Dobson, indicating that the assignment is Approved.

### Sample Supervisor/Manager Notification

The following information is an example of the notification sent to the manager designated in the Options page:

Assignment # 0000000263 has been created for Ng, Edward

Work Order Business Unit: US001

Work Order ID: 0000000001

Requestor: Edward Ng

Assignment Description: Replace tires on dump-truck.

Required Start Date: 07-01-2005 Required End Date: 07-01-2005

Project: Truck Maint - QTR 3

Work Order Task Scheduler: Jon Renquist

Work Location: US001 - San Francisco

Assignment Detail:

Schedule Start Date: 07:01:2005 Time: 8 a.m., End Date: 07-01-2005 Time: 5 p.m. for 8 hours

### **Sample Resource Notification**

The following information is an example of the notification sent to the resource designated in the Options page:

Your assignment # 0000000263 has been created for:

Work Order Business Unit: US001

Work Order ID: 0000000001

Requestor: Edward Ng

Assignment Description: Replace tires on dump-truck.

Required Start Date: 07-01-2005 Required End Date: 07-01-2005

Project: Truck Maint - QTR 3

Work Order Task Scheduler: Jon Renquist

Contact Name: George Jacobson

Telephone: 415 454–2315

Email ID: gjacobson@california.com

AM Business Unit: US001

Asset ID: TR114423

Asset Description: 1997 40 Ton Ford Dump Truck

Asset Location: US001 – San Francisco

Work Location: US001 - San Francisco

Assignment Detail:

Schedule Start Date: 07:01:2005 Time: 8 a.m., End Date: 07-01-2005 Time: 5 p.m. for 8 hours

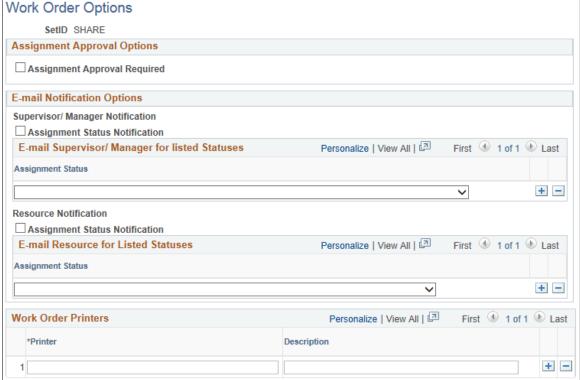
## **Work Order Options Page**

Use the Work Order Options page (WM\_BUS\_UNIT\_OPT) to define e-mail options for resource assignment approval.

Navigation:

Set Up Financials/Supply Chain > Business Unit Related > Maintenance Management > Work Order Options

This example illustrates the fields and controls on the Work Order Options page. Work Order Options SetID SHARE



## Setting Up PeopleSoft Maintenance Management Work Order **Parameters**

To set up:

- Work order types use the Work Order Type (WM WO TYPE) component.
- Service groups use the Service Group (WM SRVC GRP) component.
- Work order priorities use the Work Order Priority (WM PRIORITY) component.
- Maintenance types use the Maintenance Type (WM MAINT TYPE) component.
- Downtime reasons use the Downtime Reason (WM DWNTIME RSN) component
- Failure impact codes use the Failure Impact (WM FAILURE IMPACT) component.
- Failure severity codes use the Failure Severity (WM FAILURE SEVRTY) component.
- Work order alert uses the Work Order Alert (WM WO ALERT) component.
- Auto assign labor and procurement resources using the Auto Assignment & Dispatch Setup (WM AUTOASSIG SETUP) component.

This section provides an overview of work order types, service groups, priorities, maintenance types, and downtime reasons and discusses how to create work order types, create work order service groups, establish work order priority codes, set up asset maintenance types, define asset downtime reasons, define failure impact codes, set up failure severity codes, and set up work order alert.

## Pages Used to Set Up Work Order Types, Service Groups, and Priorities

Page Name	Definition Name	Usage
Work Order Type Page	WM_WO_TYPE	Defines the basic kinds of work that performed in a work order.
Work Order Service Group Page	WM_SRVC_GRP	Identifies specific behaviors in a work order.
Work Order Priority Page	WM_PRIORITY	Indicates the urgency for completing a specific work order.
Associate Maintenance Type With Asset Subtype Page	WM_MAINT_TYPE	Defines the category of maintenance needed for a selected asset type and subtype.
Downtime Reason Page	WM_DWNTIME_RSN	Describes the reason that an asset is not available for use.
Failure Severity Page	WM_FAILURE_SEVRTY	Describes the seriousness of the asset failure to an organization and is required in order to track failure events.
Failure Impact Page	WM_FAILURE_IMPACT	Identifies how the failure of an asset will affect specific organization circumstances or requirements such as hazardous conditions or materials, health issues, safety issues, and more.
Work Order Alert Page	WM_WO_ALERT_STS	Configures work order alert setup, such as the list of statuses of the WO for the alert and the group of people that are interested in the alert notification.
Auto Assignment & Dispatch Setup Page	WM_AUTOASSIG_SETUP	Define criteria and setup parameters to automatically assign labor and supplier for a Work Order.

# **Understanding PeopleSoft Maintenance Management Work Order Parameters**

Work order types and service groups are used to categorize work orders, work order data, and work order behavior. Maintenance types and downtime reasons are attributes describing the selected asset.

#### **Work Order Types**

Work order types are user-defined and specify in general terms the kind of work performed within the work order. Work order type is an element in each of the default hierarchies defined in the work order business unit. It is used to identify some of the basic functionality of the work order, which includes:

- The distribution accounting template that the work order uses.
- The distribution template rules setup.
- The associate projects setup.
- The grace period for closing a work order and work order task.
- The use or non-use of chargebacks in a work order.
- The default commitment rule for inventoried materials.
- The display of project-related fields in the work order.
- The work order workflow approval options.

### Service Groups

Service groups are used to group work orders by major categories such as Fleet, IT, and Facilities. A service group is required when you create a work order. While a work order business unit is not specifically associated with a service group, it may be used in conjunction with several service groups. A default service group may be set up in a work order business unit. Service groups help define certain work order behaviors, such as:

- Triggering the relevant data that displays in the work order at both the task level and the asset lookup level
- Identifying the defaulting ChartField distribution templates in the work order for each of the resource types: labor, parts, materials, and tools.

**Note:** You set up ChartField distributions to enable you to perform manual allocations to GL to generate accounting entries.

- Applying the ChartField distribution template rules to the work order.
- Enabling the Project ID default value in the work order based on the setup of the Associate Projects component.

#### **Priorities**

You set up priorities for work orders to identify each work order's level of urgency or importance to a scheduler or technician. Examples of priorities are high, medium, and low.

**Note:** Service request priorities are system-defined values (Critical, Urgent, Standard, and Low). Users cannot define them.

#### **Maintenance Types**

Maintenance types are defined in PeopleSoft Asset Management. They identify the type of maintenance and maintenance procedures that should be followed for a particular asset. For example, you might establish a Tune Up maintenance code that specifies routine maintenance for an automobile. In PeopleSoft Maintenance Management, you must associate one or more maintenance types with an asset type and subtype in order to define a preventive maintenance loop. You can set up a maintenance type as a default value in the work order business unit, which displays in the Maintenance Type field on the Miscellaneous page of the work order. This field must be entered before you can close preventive maintenance work orders.

#### **Downtime Reasons**

You can enter the downtime for an asset and select a reason for the asset downtime for each work order task. When a work order is closed, the Work Order Close process updates the total of downtime hours in the asset maintenance history using the data that you entered on the work order. Work order close does not, however, update the start and end downtimes in PeopleSoft Asset Management.

**Note:** There is a link to enter downtime on the Actual Task Dates tab of the Technician Workbench.

### **Failure Tracking Setup**

You define failure severity and failure impact codes based on the requirements of your organization. When you perform a failure analysis, you can select failure severity and failure impact codes to search for specific failure events to analyze on the Failure Analysis page. PeopleSoft Maintenance Management delivers sample data that contains examples of these two types of failure codes. You can use this sample data to help you define your own failure codes.

You must set up failure severity codes for your organization before you can track failure events in PeopleSoft Maintenance Management. Each code describes the seriousness of the asset failure to your organization. For example, you could define failure severity codes as critical, high, medium, low, or none or with numerical values. You are required to select a failure severity code on the Work Order Failure Tracking page.

Failure impact codes are useful for identifying how the failure of an asset will affect specific organization circumstances or requirements such as hazardous conditions or materials, health issues, safety issues, and more. You can assign more than one failure impact code to a failure event on the Work Order Failure Tracking page. However, you are not required to set up failure impact codes to complete the Work Order Failure Tracking page.

### **Work Order Alert Setup**

Work Order Alert set up is useful to configure work order alert setup, such as the list of statuses of the WO for the alert and the group of people that are interested in the alert notification depending on the work order type, maintenance type, asset type and sub type, wo priority, asset criticality, problem group and code.

## Work Order Service Group Page

Use the Work Order Service Group page (WM\_SRVC\_GRP) to identifies specific behaviors in a work order.

Navigation:

## Set Up Financials/Supply Chain > Product Related > Maintenance Management > Setup > MM Service Group

This example illustrates the fields and controls on the Work Order Service Group page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Service Group	Enter and describe each type of service group, such as IT and Facilities, to use for defining specific work order behaviors.
	See <u>Understanding Work Order Business Unit Setup</u> .

## **Work Order Priority Page**

Use the Work Order Priority page (WM\_PRIORITY) to indicates the urgency for completing a specific work order.

Navigation:

## Set Up Financials/Supply Chain > Product Related > Maintenance Management > Setup > MM Work Order Priority

This example illustrates the fields and controls on the Work Order Priority page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Priority Code	Enter a level of priority such as High, Medium or Low or whatever values are meaningful to your organization. When you create a work order, you select its level of priority in relation to other work orders.

### **Associate Maintenance Type With Asset Subtype Page**

Use the Associate Maintenance Type with Asset Subtype page (WM\_MAINT\_TYPE) to defines the category of maintenance needed for a selected asset type and subtype.

Navigation:

Set Up Financials/Supply Chain > Product Related > Maintenance Management > Setup > MM Maintenance Type > Associate Maintenance Type with Asset Subtype

This example illustrates the fields and controls on the Associated Maintenance Type with Asset Subtype page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
SetID and Asset Type and Asset Subtype and Description and Short Description	Access the Maintenance Type component, enter the SetID and select the Asset Type and Subtype.
Maintenance Type	Add one or more rows of maintenance types to associate with the selected Asset Type and Asset Subtype.

## **Downtime Reason Page**

Use the Downtime Reason page (WM\_DWNTIME\_RSN) to describes the reason that an asset is not available for use.

Navigation:

Set Up Financials/Supply Chain, Product Related, Maintenance Management, Setup, Downtime Reason

This example illustrates the fields and controls on the Downtime Reason page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Downtime Reason	Enter the abbreviated reason that an asset is unavailable for use.
Description	Provide a longer description of the reason for the asset downtime.

### **Failure Impact Page**

Use the Failure Impact page (WM\_FAILURE\_IMPACT) to identifies how the failure of an asset will affect specific organization circumstances or requirements such as hazardous conditions or materials, health issues, safety issues, and more.

Navigation:

Set Up Finanicals/Supply Chain, Product Related, Maintenance Management, Setup, Failure Impact, Failure Impact

This example illustrates the fields and controls on the Failure Impact page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
SetID and Failure Impact	Select a SetID and enter an identifiable code to define a circumstance or requirement that can be impacted by a failure event on the Failure Impact Codes - Add a New Value page such as ASST to represent Asset Life Cycle.

Field or Control	Description
Description and Short Description	Enter a long and a short meaningful description of the entered failure impact code such as Asset Life Cycle impact. If you choose to define a failure impact code, these are both required fields.

## **Failure Severity Page**

Use the Failure Severity page (WM\_FAILURE\_SEVRTY) to describes the seriousness of the asset failure to an organization and is required in order to track failure events.

Navigation:

Set Up Finanicals/Supply Chain, Product Related, Maintenance Management, Setup, Failure Severity, Failure Severity

This example illustrates the fields and controls on the Failure Severity page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
SetID and Failure Severity	Select a SetID and enter a code up to five characters that best represents a level of the severity on an asset failure to your organization on the Add a New Value page. For example 1, 2, 3.
Description and Short Description	Enter a meaningful long and short description of this failure severity code such as Critical, High, Medium or a definition of a numerical failure severity code, if you used numbers to define these codes. These are both required fields.

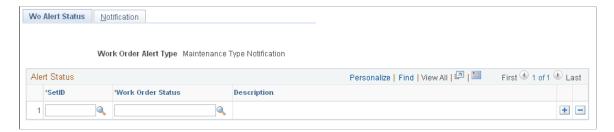
## **Work Order Alert Page**

Use the Work Order Alert page (WM\_WO\_ALERT\_STS) to configure work order alert setup, such as the list of statuses of the WO for the alert and the group of people that are interested in the alert notification.

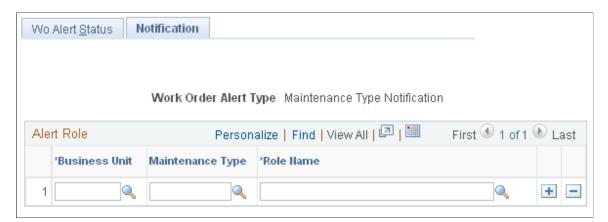
Navigation:

## Set Up Financials/Supply Chain > Product Related > Maintenance Management > Setup > MM Work Order Alert > Work Order Alert

This example illustrates the fields and controls on the Work Order Alert page: WO Alert Status tab. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Work Order Alert page: Alert Notification tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
WO Alert Type	Select the work order alert type from the following options:  • Actual Cost Notification  Total Actual Work Order Task Cost exceeds Total Scheduled Work Order Task Cost for a Work Order.  • Labor Hours Notification  Total Actual Labor Hours exceeds Total Scheduled Labor Hours for a Work Order.  • Maintenance Type Notification  A Work Order is created for a particular Maintenance Type Alert.  • Priority Notification  User configurable WO Priority/Asset Criticality Alert.  • Problem Notification  User configurable Problem Type Alert.  • Warranty Notification  Asset under Warranty is placed on a Work Order Task Alert.  • Work Order Type Notification  User configurable Work Order Type Alert.

Field or Control	Description
SetID	Select the desired ID to set the work order alert status.

Field or Control	Description
Work Order Status	Select the desired work order status. If WO Status is present, it means the WO Alert type = Maintenance Type. For the other alert types you see the WO task status.

Field or Control	Description
Role Name	View list of users that are interested in receiving the e-mail notification.

Field or Control	Description
Maintenance Type	Select the desired type of maintenance. This selection is only available when alert type is <i>Maintenance type</i> .
Field or Control	Description
Business unit	Select the desired business unit for the required work order alert's notification. This is the business unit in the work order which the user is an interested party.
Field or Control	Description
WO Type	Select the desired work order type. This field is only available when alert type is <i>WO type</i> .
Field or Control	Description
Asset Type	Select the desired asset type. This field is only available when alert type is <i>WO type</i> .
Field or Control	Description
Asset SubType	Select the desired asset sub type. This field is only available when alert type is <i>WO type</i> .
Field or Control	Description
Asset Criticality	Select the desired asset criticality. This field is only available when alert type is <i>Priority</i> .
Field or Control	Description
Priority	Select the desired priority of work orders. This field is only available when alert type is <i>Priority</i> .
Field or Control	Description
Problem Group and Code	Select the desired problem group and code. These fields are only available when alert type is <i>Problem</i> .

**Note:** The warranty alert query is run automatically, by the time you save the work order, to notify the proper users (defined in the setup) if the asset is under warranty.

### **Auto Assignment & Dispatch Setup Page**

Use the Auto Assignment & Dispatch Setup page (WM\_AUTOASSIG\_SETUP) to define criteria and setup parameters to automatically assign labor and supplier for a new Work Order.

During auto assignment if any error occurs then it will be displayed on the PM Exception page. User can click the *Go to Work Order Workbench* link to access the Work Order Workbench and manually assign the Work Order.

Navigation:

## Set Up Financials/Supply Chain > Product Related > Maintenance Management > Setup > MM Auto Assignment

This example illustrates the fields and controls on the Auto Assignment & Dispatch Setup - Criteria page. You can find definitions for the fields and controls later on this page.



### Auto Assignment — Criteria

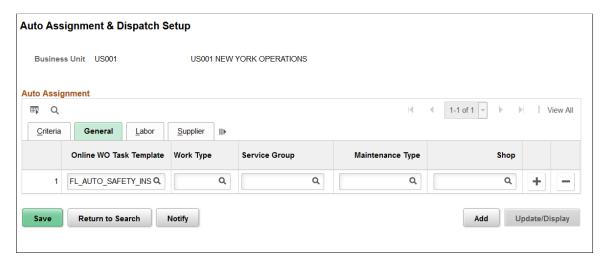
Define values for the given parameters such as AM Unit, Asset Type, Area ID, Priority, and Shop to find employee/supplier matching the criteria to auto assign employee/supplier for the Work Order created. You can use % instead of specific value for the given criteria.

The WO Source field lists the different source options such as Preventive Maintenance, Work Order component, and Service Request that you can use for creating a work order. If you want to create an auto assignment criteria for a particular work order, you need to select the specific work order source.

Based on the criteria setup information system will get the best matched resources for the Work Order created.

### Auto Assignment — General

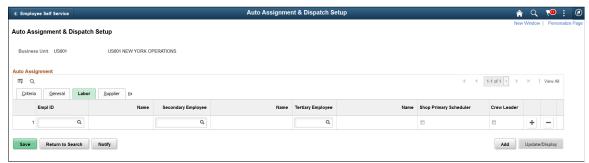
This example illustrates the fields and controls on the Auto Assignment & Dispatch Setup - General page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Online WO Task Template	Select the default Work Order task template that will be used to automatically populate the task requirements based on the criteria defined. This field is applicable only for Work Order created online.
Work Type	Select appropriate Work Type. This field is applicable only for those Work Orders that are created through a component interface.
Service Group	Select appropriate Service Group. This field is applicable only for those Work Orders that are created through a component interface.
Maintenance Type	Select appropriate Maintenance Type. This field is applicable only for those Work Orders that are created through a component interface.
Shop	Select appropriate value for Shop. This field is applicable only for those Work Orders that are created through a component interface.

### Auto Assignment — Labor

This example illustrates the fields and controls on the Auto Assignment & Dispatch Setup - Labor page. You can find definitions for the fields and controls later on this page.



Description
Select employee ID for the system to automatically assign Work Order based on the criteria defined.
Select required employee to assign the Work Order. You can select secondary employee if the selected primary Employee ID is not valid.
Select required employee to assign the Work Order. You can select tertiary employee if the selected primary Employee ID is not valid.
Select the Shop Primary Scheduler check box to automatically assign the work order to the primary shop scheduler defined on the Define Shop - Resources page. When you create a new work order, the Work Order- Schedules page automatically displays the shop scheduler's details, who is the primary scheduler.  If you select this check box, all other fields become disabled.
Select the Crew Leader check box to automatically assign the work order to the crew leader defined for the shop on the Define Crew page. When you create a new work order, the Work Order- Schedules page automatically displays the crew leader's details.

### Auto Assignment — Supplier

This example illustrates the fields and controls on the Auto Assignment & Dispatch Setup - Supplier page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Supplier ID	Select Supplier ID for the system to automatically assign and dispatch Work Orders based on the criteria defined.
Secondary Supplier	Select required supplier to assign and dispatch the Work Order. You can select secondary supplier if the selected primary Supplier ID is not valid.
Tertiary Supplier	Select required supplier to assign and dispatch the Work Order. You can select tertiary supplier if the selected primary Supplier ID is not valid.
Ship To Location	Select the Ship To Location to automatically dispatch the Work Order.
Supplier Location	Select the Supplier Location to automatically dispatch the Work Order.
Category	Select required Category. This value will be considered only if item ID is not specified for the Work Order.

# Setting Up PeopleSoft Maintenance Management Asset Inspection Parameters

Use the following components to set up the Maintenance Management Asset Inspection parameters:

- Measuring Instrument Type (WM\_INSTRMT\_TYPE) component.
- Inspection Measurements (WM\_INSP\_MEASMT) component.
- Inspection Observations (WM INSP OBSRVN) component.

- Inspection Calculations (WM INSP CALCLT) component.
- Inspection Alert Roles (WM INSP ALERT ROLE) component.
- Inspection Alert Messages (WM INSP ALERT MSG) component.
- Work Order Inspection Plans (WM WO INSP PLAN) component.

This section provides an overview of asset inspection codes, inspection plans, and alert messages and discusses how to set up them to collect the information to evaluate the current condition and operability of assets.

# Pages Used to Set Up Asset Inspection Codes, Alert Messages, and Inspection Plans

Page Name	Definition Name	Usage
Measuring Instrument Type Page	WM_INSTRMT_TYPE	Define measuring instruments used for asset inspections.
Inspection Measurement Page	WM_INSP_MEASMT	Establish inspection measurements collected during asset inspections.
Inspection Observation Page	WM_INSP_OBSRVN	Establish observation codes collected during asset inspections.
Inspection Calculation Page	WM_INSP_CALCLT	Establish formula-based calculations for asset inspection data.
Inspection Alert Role Page	WM_INSP_ALERT_ROLE	Define asset inspection alert roles.
Inspection Alert Message Page	WM_INSP_ALERT_MSG)	Define asset inspection alert messages.
Work Order Inspection Plan Page	WM_WO_INSPL_MAIN	Establish work order inspection plan templates.

## **Understanding PeopleSoft Maintenance Management Asset Inspections**

PeopleSoft Maintenance Management application allows maintenance technicians to conduct periodic asset inspections to gather both quantitative and qualitative information about the current condition of a particular asset, as well as to assess the asset's overall operability. The results of a single inspection or combination of inspections can frequently lead to a maintenance event to prevent asset failure. Through the inspection, analysis, and reporting, maintenance technicians identify the issues with the assets and provide specific recommendations to prevent outages and failures. The results can also be used in trend analysis, regulatory reporting, and resource planning to reduce the likelihood of inducing the same defect in the future.

The asset inspection process consists of various systematic inspection implementation phases such as defining and organizing inspection content, creating inspection instances associated with work order

tasks, collecting and evaluating inspection data, and taking appropriate maintenance actions. The inspection criteria will vary based on the parent task's target asset. To effectively plan and conduct the inspections, maintenance technicians need suitable and reusable inspection plans, which define and sequentially organize the asset data to be collected for each inspection activity.

After defining inspection plans, you have two options to create asset inspections:

- Initiate automatic generation of asset inspections as part of PM work order that is created for a particular PM Schedule.
- Initiate asset inspections manually by associating it to a parent task using the Job/Task Template Copy functionality of an existing work order.

A newly created asset inspection instance has its own status lifecycle, but one that is subordinate to the lifecycle of its parent work order task. To complete asset inspections, the assigned labor resources need to perform inspection activities as specified in the inspection plan. On the basis of the data collected, a follow-on maintenance event, if required, can be scheduled to prevent asset failure.

# **Understanding PeopleSoft Maintenance Management Asset Inspection Parameters**

You can define asset inspection contents based on the target asset characteristics and sequence them in reusable templates for effective asset inspection planning, execution, and tracking purposes. Asset inspection elements mainly include inspection codes, alert message definitions, and inspection plan templates.

### **Asset Inspection Codes**

Inspection codes are used to record and track various diagnostic values while conducting asset inspection activities. Inspection codes are organized by SetID and made applicable to target assets according to default asset classification parameters.

The asset inspection codes include:

- Inspection Measurements Identifies the unit of measure, decimal precision, and tolerance range (if any) for numeric values captured by an Asset Meter or a separate measuring instrument.
- Inspection Observations Identifies the data type, capture or display criteria, and/or set of predefined
  code values to be used when recording subjective (non-numeric) data values for a particular target
  asset attribute.
- Inspection Calculations Identifies the meta-SQL formula text used to return a single numeric or logical (True/False) value to be used in different inspection calculation activities.

### Asset Inspection Plans

An asset inspection plan is a template, which consists of one or more inspection activities, which in turn are composed of a series of steps using which inspection data is collected or evaluated. To conduct an asset inspection, maintenance technicians can leverage the inspection plan's content and sequence to assess the target asset's current condition and operability.

#### **Asset Inspection Activities**

An asset inspection instance includes certain activities to collect the target asset's data for evaluating the asset's health. The supported asset inspection activities include:

- Data Collection Supports the capture of one or more measurement, observation, and/or numeric type calculation code data points in a series of steps.
- Trigger Evaluation Supports the execution of one or more trigger type calculation code formulas (exception logic) in a series of steps for the activity.
- Other Logistics Refers to an activity without either Data Collection or Trigger Evaluation content. This activity consists solely of instructions, checklist, notes, and/or attachments data records.

Each activity involves collecting specific data using the asset inspection codes defined for it.

### **Measuring Instrument Type Page**

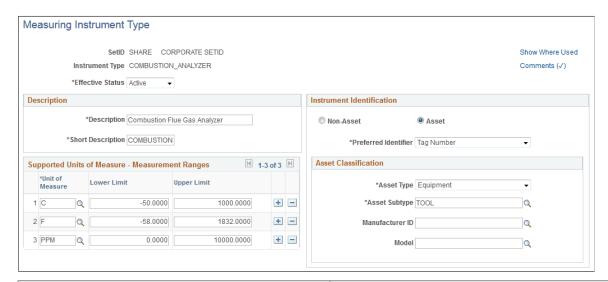
Use the Measuring Instrument Type page (WM\_INSTRMT\_TYPE) to define the types of measuring instruments and their attributes used during asset inspections. This is an alternative setup option, which can be used to support the capture of non-meter type measurement readings when:

- The measuring device is transportable (not part of the asset) and can be used on different target assets.
- Recording different measurements with more than a single UOM is possible.

Navigation:

## Set Up Financials/Supply Chain > Product Related > Maintenance Management > Asset Inspection > MM Measuring Instrument Types

This example illustrates the fields and controls on the Measuring Instrument Type page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Instrument Type	Displays the type of measuring instrument.

Field or Control	Description
Show Where Used	Click this link to view the existing measurement codes that use this instrument type.
Comments	Click this link to view or enter comments about the instrument type. A check mark indicates that the page contains comments.
Effective Status	Select the current status of the instrument type. Available options are Active and Inactive.
Description and Short Description	Enter long and short descriptions for the instrument type.
Unit of Measure	Enter at least one unit of measure that this instrument type supports.  A single measuring instrument can sometimes utilize multiple
	measurement units, which may describe different attributes of the target asset.
Lower Limit and Upper Limit	Enter the lowest and highest measurement values that this instrument can measure for the unit of measure specified.
Non-Asset and Asset	Select the Asset option if measuring devices sharing this instrument type are defined as assets in the Asset Management system. Otherwise, select the Non-Asset option.
	If you select the Asset option, the <b>Preferred Identifier</b> field and the <b>Asset Classification</b> parameter fields become editable.
Preferred Identifier	Select the option typically used to identify the asset:
	• Asset ID
	Serial ID     Tag Number
Asset Classification	Select the required parameter values.  For information, see <u>Asset Classification Page</u> .

## **Inspection Measurement Page**

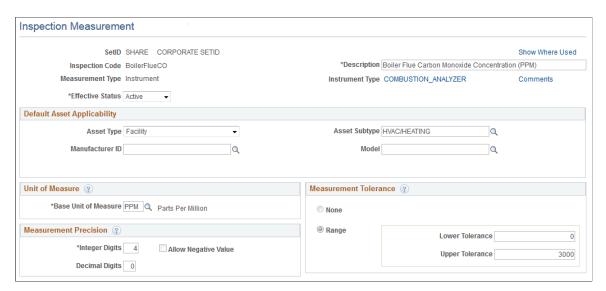
Use the Inspection Measurement page (WM\_INSP\_MEASMT) to define inspection measurement codes for physical properties such as temperature, pressure, and electrical charge during asset inspections. An appropriate unit of measure is used to describe the collected values. Measurement code definitions are organized by SetID and made applicable to target assets according to the default asset classification parameters that define how generically and specifically the code may be used.

When recording technical measurements, you must ensure the accuracy and basic validity of the numeric values. Different data for different asset attributes will be characterized by a wide range of magnitudes and decimal precision, often depending on the recording or display capabilities of the measuring devices used. The Inspection Measurement page allows to define reusable inspection measurement codes that identify the various measurements that can be collected during an Inspection, along with the parameters controlling how the data values they represent will be stored and displayed.

#### Navigation:

## Set Up Financials/Supply Chain > Product Related > Maintenance Management > Asset Inspection > MM Inspection Measurements

This example illustrates the fields and controls on the Inspection Measurement page. You can find definitions for the fields and controls later on this page.



For a new inspection measurement, values for UOM, measurement precision, and measurement tolerance are defaulted from the parent device type's definition and some of the default values are protected from further changes according to certain rules.

Field or Control	Description
Inspection Code	Displays the unique measurement code.

Field or Control	Description
Measurement Type	<ul> <li>Displays the measurement type that the user selected. The measurement types include:</li> <li>Asset Meter - Displays the name of the parent Asset Meter type selected for data capture. As with regular meter readings, the meter type must first be registered for the asset instances that use it.</li> <li>Instrument - Displays the name of the Instrument measuring device type selected for data capture.</li> <li>Non-Technical - Supports measurements from simple devices such as tape measures and weight scales, which do not require precise capture and display controls.</li> <li>For Asset Meter and Instrument measurement types, click the link labeled with the name of the parent Meter/Instrument</li> </ul>
Show Where Used	Type to review its definition.  Click this link to view the existing inspection calculation codes
	and/or inspection plans that use this measurement code.  See Inspection Calculation Page and Work Order Inspection Plan Page.
Description	Enter a description for the measurement code.
Instrument Type or Meter Type	Select this link to view the details of the parent device type.
	Note: Only Asset Meter and Instrument measurement types display this link. If you select the Asset Meter measurement type, then the label is Meter Type and if you select the Instrument measurement type, then the label is Instrument Type.
Comments	Click this link to view or enter comments about the measurement code. A check mark indicates that comments have been entered.
Effective Status	Select the status of the measurement code. Only active measurement codes can be used in an actual inspection.

Field or Control	Description
Default Asset Applicability group box	Select the following values:  Asset Type - Select the designated asset type that supports capture of data values for this measurement code.  Asset Subtype - Select the designated asset subtype (if any) for assets sharing this measurement code.  Manufacture ID - Select the designated manufacture ID (if any) for assets sharing this measurement code.  Model - Select the designated model (if any) for assets sharing this measurement code.
Base Unit of Measure	Enter the unit of measure used to represent the value.  Note: UOM is disabled and displays a default value if the parent Instrument Type definition contains either Asset Meter type or Instrument type, and only a single UOM.

#### **Measurement Precision**

Field or Control	Description
Integer Digits	Enter the maximum allowable number of numeric digits before the decimal point needed to capture and display measurement values.
<b>Decimal Digits</b>	Enter the number of numeric digits following the decimal point to capture and display measurement values.
Allow Negative Value	Select the check box when negative numeric values are allowed for this measurement.
	Note: This field is enabled or disabled based on any tolerance values specified.

#### **Measurement Tolerance**

Field or Control	Description
None	Select to indicate that tolerance limits are not applicable.

Field or Control	Description
Range	Select the option to enter the permissible measurement limits.
	Note: Tolerance values, if defined, will be used in error or warning edits when measurement values are collected during an actual inspection.
	Lower Tolerance - Enter the lowest tolerance value.
	Upper Tolerance - Enter the highest tolerance value.

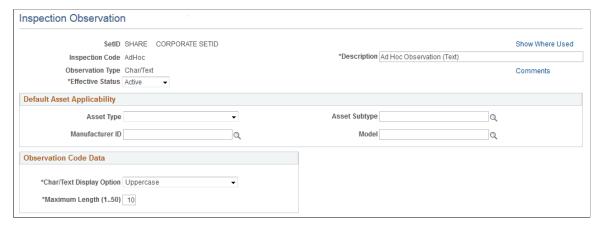
#### **Inspection Observation Page**

Use the Inspection Observation page (WM\_INSP\_OBSRVN) to establish subjective observation codes to be collected during asset inspections. For certain inspections, besides numeric measurements, it is often desirable to include qualitative data points in the form of subjective observations such as color, noise, and vibration. This descriptive, observational data are typically character or text-based. In some cases, limiting the set of possible responses to a small set of predefined values or codes can help streamline data entry and promote greater uniformity and trackability over time.

#### Navigation:

## **Set Up Financials/Supply Chain > Product Related > Maintenance Management > Asset Inspection > MM Inspection Observations**

This example illustrates the fields and controls on the Inspection Observations page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Inspection Code	Displays the unique observation code that defines a set of observation data to be captured for a target asset.

Field or Control	Description
Show Where Used	Click this link to view the existing calculation codes and/or inspections plans that use this inspection observation code.  See Inspection Calculation Page and Work Order Inspection Plan Page.
Inspection Result Code	Select the check box to use the list of code names to indicate the overall result of an inspection.  Note: If this check box is selected, then this observation code will be made available in drop-down lists for Inspection Result codes on inspection plan templates.
Description	Enter a description for the observation code.
Comments	Click this link to view or enter comments about the observation code. A check mark indicates that comments have been entered.
Observation Type	Displays the selected observation type. The observation types include:  Char/Text  Ranked CodeList  Toggle CodeList  Unranked CodeList
Effective Status	Select the inspection observation code status. Only active observation codes can be used in an actual inspection.
Observation Code Data group box	If the observation type is Char/Text, the group box label is Observation Code Data.  Char/Text Display Option - Select Uppercase or Mixed case option as desired to indicate the alphanumeric data captured.  Maximum Length - Enter a positive integer value (1-50) specifying the maximum number of characters to capture and display for this inspection code.

#### **CodeList Data**

For Ranked CodeList, Toggle CodeList, and Unranked CodeList, enter the required values in the CodeList Data group box.

Field or Control	Description
Code Rank	For Ranked CodeList type only, enter a unique numeric value (1-99) that signifies the relative rank, or sequence number of the indicated Code Name.
	Note: When entering data for this observation code in an actual inspection, the set of possible code name values will be listed in ranked order in a drop-down list box.
Code Name	Enter user-defined code names, which represent possible observation values for the inspection observation code.
Toggle Value Type	Prompts the user to enter either the Negative or Positive value in a pair of logically opposite code names. For example, On/Off and Pass/Fail.

#### **Inspection Calculation Page**

Use the Inspection Calculations page (WM\_INSP\_CALCLT) to establish user-defined calculations to create data points that can be used to describe and/or assess the condition of a target asset.

Inspection Calculation is the primary mechanism for customizing asset inspections functionality to your specific requirements. Calculations are of two types:

- Numeric
- Trigger

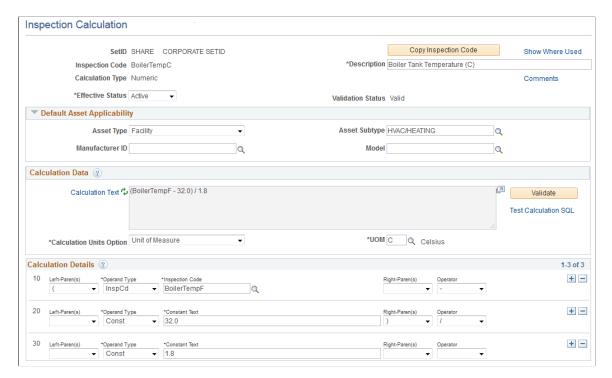
Numeric calculations are executed during an inspection's data collection activity. That is after all necessary input values have been collected first. Clculations are constructed by entering one or more calculation detail lines. The resultant Calculation Text itself represents a meta-SQL sring providing all necessary information for subsequent (Inspection-time) execution by the customer installation's SQL engine for their particular data base platform.

Trigger type calculations return a single logical (True/False) result. To ensure that user-defined calculation codes are properly constructed and can be executed successfully during actual Inspection events, validateand test execute them using the Validate button.

Navigation:

Set Up Financials/Supply Chain > Product Related > Maintenance Management > Asset Inspection > MM Inspection Calculations

This example illustrates the fields and controls on the Inspection Calculations page- Numeric Calculation Type. You can find definitions for the fields and controls later on this page.



Numeric calculations use one or more input values from the measurement and observation data to calculate the result such as key ratios, formulas, and unit conversions. The result of numeric calculation type is single numeric values, whereas trigger calculation type returns logical results. Trigger calculation uses both quantitative and qualitative data while inspecting an asset.

Field or Control	Description
Inspection Code	Displays the inspection calculation code.
Copy Inspection Code	Click this button to copy the current inspection code details to create a new inspection code definition.
Show Where Used	Click this link to view the existing inspection calculation codes and/or inspection plans that use this calculation inspection code.
	See <u>Inspection Calculation Page</u> and <u>Work Order Inspection Plan Page</u> .
Description	Enter a description for the calculation code.
Comments	Click this link to view or enter comments about the calculation code. A check mark indicates that comments have been entered.

Field or Control	Description
Effective Status	Select the status of the calculation code. Only active calculation codes can be used in an actual inspection.
Validation Status	Displays Valid or Invalid status when the <b>Validate</b> button is clicked. The status is based on the correctness and completeness of the calculation details entered.

#### **Calculation Data**

Field or Control	Description
Calculation Text	Click the link or the icon to refresh the calculation string displayed in the text box. This is read-only field. Calculation text is built up from the calculation lines entered in the Calculation Details.
Validate	Click this button to validate the calculation details for completeness and correctness. If the calculation is incorrect, a message displays and the Validation Status field displays the Invalid status.
	Validation process performs a two-pass validation of the current calculation text string. Initially, each calculation detail line will be separately edited (with a limited number of edit conditions) for correct syntax. Then, if the first pass completes without exception, the meta-SQL will be test executed using dummy parameter values substituted for any inspection codes and/or other variable tokens.
	The Validation Status field displays validation result as Valid or Invalid along with an appropriate icon indicating success or failure.
Test Calculation SQL	Click this link to check the correct execution of the calculation string displayed in the text box. You can execute the calculation in a new window to verify the correct execution with different test values. For incorrect executions, an error message displays.
Calculation Units Option	Select (or accept default for) an option from the drop-down list to indicate an appropriate qualifier (if any) to be associated with the calculated numeric value. The available options include None, Percent, and Unit of Measure.
	Only Numeric calculation type displays this field.

Field or Control	Description
UOM	Select a valid Unit of Measure from the prompt table list.
	Only Numeric calculation type displays this field.

#### **Calculation Details**

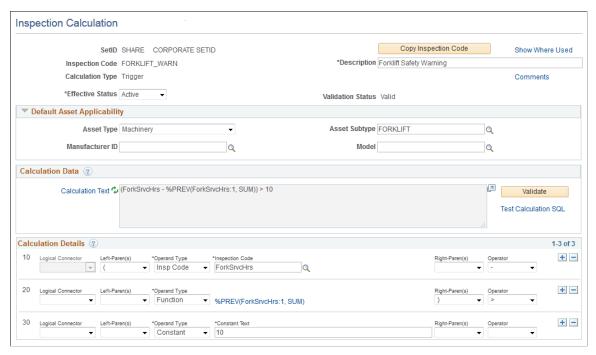
To construct the SQL calculation, enter the calculation details in one or more calculation rows. Each calculation row represents an operand-operator pair with additional parameter fields. You can use nested parentheses to ensure the correct execution order and readability of the calculation strings. The details that you enter in the calculation rows are automatically inserted into the Test Calculation SQL text box.

Field or Control	Description
Logical Connector	Select a value to connect two or more relational conditions.
	Note: This field is available only for Trigger type calculations.
Left-Paren(s)	Select the number of left parenthesis characters to insert into the calculation string.
Operand Type	<ul> <li>Select the basic type of operand value to use in the calculation.</li> <li>Constant Text: Enter a valid numeric string to insert into the Calculation Text string.</li> <li>Inspection Code: Enter a valid measurement code from the prompt list to insert into the Calculation Text string.</li> </ul>
Right-Paren(s)	Select the right parenthesis value.  Note: Use of parentheses must be balanced. The total number of left parenthesis characters used must be the same as the total number of right parenthesis characters.
Operator	Select the value indicating the arithmetic operator to insert into the Calculation Text string. The available options are multiplication (*), addition (+), subtraction (-), and division (/).

#### Inspection Calculations page- Trigger Calculation Type

The Trigger calculation type is more complex than the Numeric type. Its implementation includes two additional operand types CodeList and Function and likewise supports a robust set of relational operators in addition to the standard arithmetic operators.

This example illustrates the fields and controls on the Inspection Calculations page- Trigger Calculation Type. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Operand Type	Select a value from the drop-down list identifying the basic type of operand value to use in the calculation. The available options include CodeList, Constant, Function, and Inspection Code.  • CodeList: If selected, enter the Define CodeList Operand information. Click this link to access the Define CodeList Operand page where one or more CodeList code values can be selected. The Inspection Calculation page reflects a label change to the Define CodeList Operand link and also inserts this into the calculation text.  • Constant Text: Enter a valid numeric string to insert into the Calculation Text string.  • Function: If selected, enter the Define Function Operand information. Click this link to access the Define Function Operand page, where special function parameters can be specified. These parameters describe how to access an
	aggregate collection of past data values. The Inspection Calculation page reflects a label change to the Define Function Operand link and also inserts this into the calculation text.
	Inspection Code: Enter a valid measurement code from the prompt list to insert into the Calculation Text string.

Field or Control	Description
Operator	Select a value from the drop-down list indicating the arithmetic or relational operator to insert into the calculation text string. The available options are multiplication (*), addition (+), subtraction (-), and division (/), less than (<), less than or equal to (<=), not equal to (<>), equal to(=), greater than (>), greater than (>), greater than or equal to (>=), in list (IN), and NOT IN.

#### **Inspection Alert Role Page**

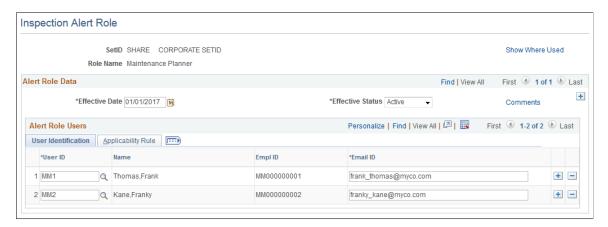
Use the Inspection Alert Role page (WM\_INSP\_ALERT\_ROLE) to define asset inspection alert role definitions. This component provides the capability to define a variable role definition that, via the applicability rule parameters, can be used to resolve to the single appropriate employee's email address when sending an alert message in an actual inspection instance.

The alert role definitions are organized by SetID and Role Name keys. The definitions will be effective dated to accommodate role assignment changes over time.

Navigation:

## Set Up Financials/Supply Chain > Product Related > Maintenance Management > Asset Inspection > MM Inspection Alert Roles

This example illustrates the fields and controls on the Inspection Alert Role page. You can find definitions for the fields and controls later on this page.



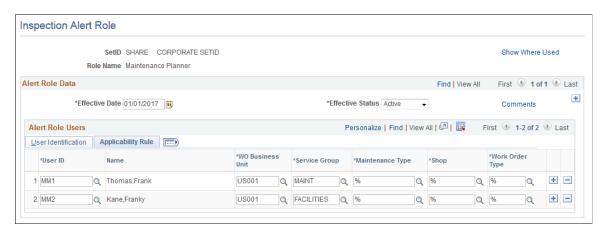
Field or Control	Description
Show Where Used	Click this link to view the existing alert message definitions that use this alert role.
Effective Date	Enter the start date from when this alert role is effective.

Field or Control	Description
Effective Status	Select the alert role definition status. Only alert roles with active status can be used in an actual inspection.
Comments	Click this link to view or enter the comments about the alert role. A check mark indicates that comments have been entered.
User ID	Select a user ID assigned to this role.
Email ID	Enter a valid Email address for the selected user.

#### Inspection Alert Role - Applicability Rule Tab

Applicability Rule tab contains various parameters specifying under what matching Work Order Task field values this particular User will be the designated recipient.

This example illustrates the fields and controls on the Inspection Alert Role page - Applicability Rule tab. You can find definitions for the fields and controls later on this page.



**Note:** The symbol % is used as a wildcard character denoting that any or all values for the parameter field will be considered a match when the rule is applied during an actual messaging event.

Field or Control	Description
WO Business Unit	Enter (or accept % wildcard default for) a matching WO BU value to be tested for when resolving the alert role definition in an actual message situation.
Service Group	Enter (or accept % wildcard default for) a matching service group value to be tested for.

Field or Control	Description
Maintenance Type	Enter a matching maintenance type to test for or accept the default % wild card value.
Shop	Enter a matching shop to test for or accept the default % wild card value.
Work Order type	Enter a matching work order type to test for or accept the default % wild card value.

#### **Inspection Alert Message Page**

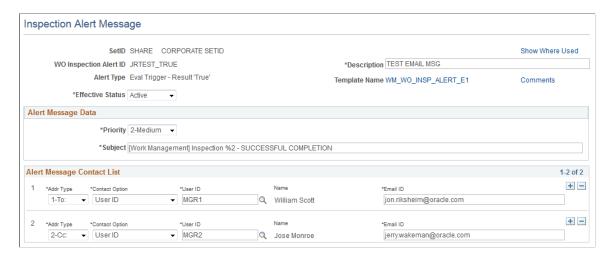
Use the Inspection Alert Message page (WM\_INSP\_ALERT\_MSG) to predefine asset inspection alert messages to address both critical and common exception conditions of assets. Alert messages can be sent in response to exceptional conditions and events that may occur during the course of an inspection.

Sending alert messages in response to inspection events and exceptions are optional. You can associate the messages with the inspection instances by referencing a particular alert message definition on an inspection plan template using the Send Alert Message trigger option. The alert message template typically describes the nature of the problem encountered. It should include a pre-planned distribution list addressed to appropriate decision makers and/or others who can either take action or otherwise should be aware of the problem.

#### Navigation:

## Set Up Financials/Supply Chain > Product Related > Maintenance Management > Asset Inspection > MM Inspection Alert Message

This example illustrates the fields and controls on the Inspection Alert Message page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Show Where Used	Click this link to view the existing inspection plans that use this alert message definition.
Alert Type	<ul> <li>Displays the alert message type that you selected. The alert types include:</li> <li>Eval Trigger – Result 'Error' - In the case of the Error result, the alert message will be sent in response to an exceptional SQL execution error that prevents the trigger logic from being evaluated correctly. Target recipients for this message would most naturally include system administrators and (possibly) analysts responsible for maintaining trigger calculation formulas.</li> <li>Eval Trigger – Result 'True' - In the case of the True result, the alert message will be sent in response to a routine or expected situation where the evaluation of the trigger logic returns a True result, indicating possible asset failure or some other out-of-tolerance condition. Target audience for this type of message will most likely include maintenance supervisors, asset custodians, and/or other operational personnel.</li> <li>Note: Typically, only a single alert message definition for each alert type need to be set up. However, as needed, system administrators can create several message variations for a particular alert type. That is, for different Inspection plans, alert messages with different priority values, subject lines, and contact list details can be set up.</li> </ul>
Description	Enter a description for the alert message.
Template Name	Click the template name link to view or modify the generic email template definition mapped to this alert type.
Comments	Click this link to view or enter the comments about the alert message. A check mark indicates that comments have been entered.
Effective Status	Select a status for the alert message. Only active alert message definitions can be used in an actual inspection.
Priority	Select the message's priority level. This value defaults from the generic template definition. You can modify the priority level appropriately.
Subject	Enter the subject line for the message. This value defaults from the generic template definition. you can modify the subject appropriately.

Field or Control	Description
Address Type	Select a value from the drop-down list indicating whether the addressee is a primary (To) recipient, or else a copied (Cc) or blind-copied (Bcc) recipient.
Contact option	Select a value from the drop-down list indicating the type of variable/fixed addressee definition to use. Available options include:  • Inspection Alert Role - If selected, enter the following
	<ul> <li>Role Name - Select a user role name from the drop-down list of applicable Inspection Alert Role definitions.</li> <li>Alert Role definition - Click the link to review selected user's associated inspection alert role definitions.</li> </ul>
	WO User Role - If selected, enter the WO Contact information. Select a value from the drop-down list of maintenance roles tracked for a Work Order Task. Available options include Scheduler, Supervisor, and Technical Lead.
	<ul> <li>User ID - If selected, enter the following information:</li> <li>User ID - Enter a valid User ID for a user to whom the alert message should always be sent.</li> <li>Name - Displays the user's name based on the selected user ID.</li> </ul>
	Email ID - Enter (or accept default for) a valid Email address for the selected user ID.
Email ID	Enter a valid email address for the recipient.

#### **Work Order Inspection Plan Page**

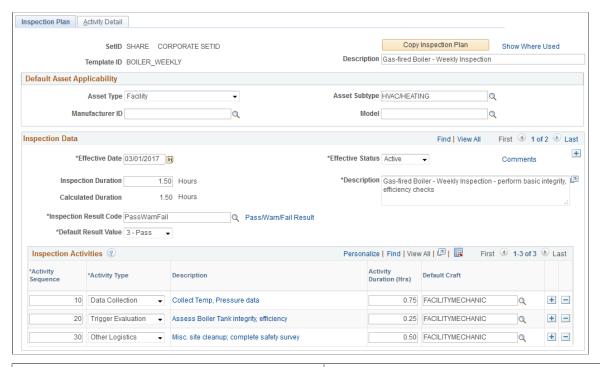
Use the Work Order Inspection Plan page (WM\_WO\_INSPL\_MAIN) to establish work order inspection plan templates to identify and define specific asset inspections.

Inspection plans, which is the main setup object for asset inspections utilize (in most cases optionally) all other inspection setup objects that are inspections codes, alert roles, and alert messages. It defines both the content and sequence of operations for the actual inspection instances that are generated from it. The key work subunits of inspection plans include inspection activities and inspection steps. The available inspection activities are Data Collection, Trigger Evaluation, and Other Logistics. An inspection plan must contain at least one activity regardless of the activity type.

Navigation:

## Set Up Financials/Supply Chain > Product Related > Maintenance Management > Asset Inspection > MM Work Order Inspection Plans

This example illustrates the fields and controls on the Work Order Inspection Plans page. You can find definitions for the fields and controls later on this page.

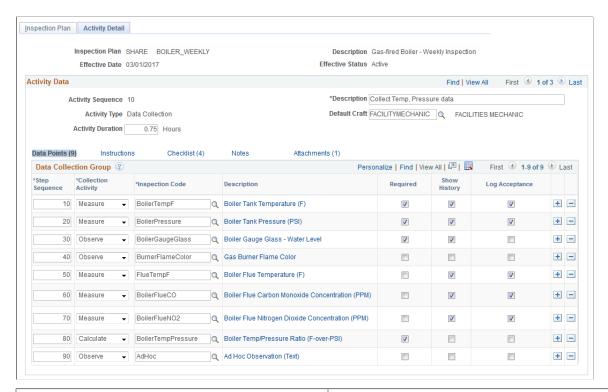


Field or Control	Description
Template ID	Displays the work order inspection plan template.
Copy Inspection Plan	Click this button to create a new inspection plan definition to which you can copy the selected details from the current inspection plan.
Show Where Used	Click this link to view the existing work order task templates that use this inspection plan.
Description	Enter a description for the inspection plan.
Effective Date	Enter the start date from when the inspection plan is effective. The default value is the current date.
Effective Status	Select the status of the inspection plan definition. Only active inspection plans can be used in an actual inspection.  If the status is inactive, the Inspection Activities fields become read-only.

Field or Control	Description
Comments	Click this link to view or enter any comments about the inspection plan. A check mark indicates that comments have been entered.
Inspection Duration	Enter the planned total hours required to complete all the inspection activities.
	Note: This value cannot be less than the Calculated Duration value.
Calculated Duration	Displays the total hours accumulated for all of the inspection activities.
Description	Enter a long description for this inspection plan.
Inspection Result Code	Select the appropriate observation code that indicates the possible results of inspections generated from this inspection plan. Click the inspection code link to view its details.
Default Result Value	Select the appropriate code name value that indicates the normal or expected result of the inspection activities created for this inspection plan.
	Note: If no other result values are set for this inspection instance by trigger evaluation activities, then this value is considered as the default value when the inspection is completed.
Activity Sequence	Enter a positive integer value that indicates the activity's relative order of execution among all other activity detail lines.
Activity Type	Select the type of inspection activity to be performed. This can be Data Collection, Trigger Evaluation, or Other Logistics.
Description	Click the link to enter or view the details of the particular activity.
Activity Duration	Enter the planned total hours required to complete the activity.
Default Craft	Enter the default labor craft to assign a matching labor resource to this activity.

#### Work Order Inspection Plans- Activity Detail Page

This example illustrates the fields and controls on the Work Order Inspection Plans—Activity Detail Page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Description	Enter a description for the particular activity.
Default Craft	Enter the default labor craft used to assign the matching labor resource, who will perform this activity.
Activity Duration	Enter the planned total number of hours required to complete this activity.

#### **Data Collection Group**

For the Data Collection activity type, the **Data Points** link displays the following fields in the Data Collection Groups grid:

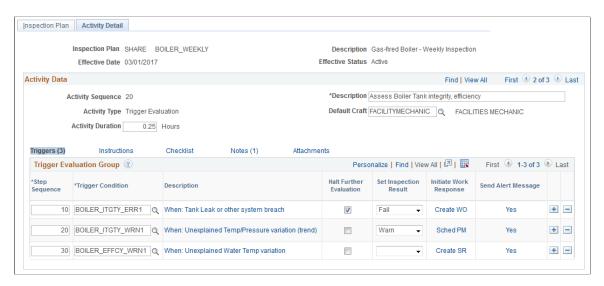
Field or Control	Description
Step Sequence	Enter a numeric value to indicate the relative execution order of the particular inspection step of the data collection activity.

Field or Control	Description
Collection Activity	Select the basic type of inspection activity to be performed by this inspection step. This can be:  Calculate - Capture data point derived from one or more measurement.  Measure - Capture a numeric value and UOM using an asset meter or a measuring device.  Observe - Capture qualitative data from physical assessment of asset.
Inspection Code	Enter a valid inspection code name representing the data value to be collected during the inspection.
Description	Click the link to view or modify the details of the inspection code.
Required	Select the check box to indicate that the user must collect the particular data value for the inspections generated from this inspection plan. This value is used as a parameter in subsequent numeric or trigger calculations.
Show History	Select the check box to allow the user to view a maximum of five data values previously collected for this inspection code while working on the inspection instance.

Field or Control	Description
Log Acceptance	Select to indicate that the values entered for this inspection code during an actual inspection need to be explicitly accepted or rejected.
	You can use log acceptance:
	To prompt to double-check values entered for critical data points before they are finally recorded and/or used as parameter values in subsequent Numeric or Trigger type calculations.
	To verify the user ID and date-time stamp for the Acceptance Status decision.
	To complete Data Collection activity even when out-of- tolerance or otherwise exceptional values are recorded.
	An Accepted status overrides any normal validation edits such as tolerance and zero-value checking and allow the value to be saved. Rejected values will be retained on the data base but will not be included in aggregations of past values when accessed for a particular Calculation Code function.

#### **Trigger Evaluation Activity**

This example illustrates the fields and controls on the Work Order Inspection Plans– Trigger Evaluation Activity Detail Page. You can find definitions for the fields and controls later on this page.



For the Trigger Evaluation activity type, the **Triggers** link displays the following fields:

Field or Control	Description	
Trigger Condition	Enter the trigger type calculation code name.	
Description	Click this link to view or modify the inspection calculation code details.	
Halt further Evaluation	Select the check box to indicate that when the specified trigger condition returns a True value for an inspection step, then any subsequent trigger steps of the activity will be skipped.	
Set Inspection Result	Select a value that indicates the overall inspection result when the specified trigger condition returns a True value.	
Initiate Work Response	Select to choose the work response action when the trigger condition returns a True result for an inspection step. The available options are:	
	Create Service Request: Enter service request data and problem definition details.	
	Create Work Order: Enter the work order data details.	
	Schedule 1-Time PM: Enter PM schedule search details.	
	For information, see <u>Initiating Work Response Actions</u> .	
	This option allows the particular roles to predetermine the type of work to be performed when any exception condition is triggered for an actual inspection.	
Send Alert Message	Select to enter the alert message data indicating the precise nature of the problem detected and the planned work response, if any.	

#### **Other Logistics Activity**

For Other Logistics activity type, you can check the activity instructions, checklist items, notes, and attachments and perform the required activity steps.

This example illustrates the fields and controls on the Work Order Inspection Plans- Other Logistics Activity Detail Page. You can find definitions for the fields and controls later on this page.



**Note:** Checklist items are key to Other Logistics type, as data entry for them are used to signal when the activity begins and ends.

#### Instructions

The Instructions link is available for all the activity types.

Field or Control	Description
Step	Enter the step sequence.
Instruction	Enter the activity instruction, if you have any instructions to be considered during the inspection.

#### Checklist

The Checklist link is available for all the activity types.

Field or Control	Description
Checklist Type	Select an option to indicate whether the particular checklist item needs to be performed before or after the activity.
Required	Select the check box to indicate that it is mandatory to perform the checklist item.
Checklist Description	Enter the description about the checklist item.

#### **Notes**

The Notes link is available for all the activity types.

Field or Control	Description
Title	Enter a title for the note pertaining to the activity.
Note	Enter any notes about the activity.

#### **Attachments**

The Attachments link is available for all the activity types.

Field or Control	Description
Description	Enter a brief description about the attachment.
File Name	Enter the attachment's file name.
Attach	Select to upload the required file.

See WO Inspection Page.

See Work Order Inspection-Activity Detail Page.

### Setting Up Rules and Data Related to PeopleSoft Project Costing

To set up:

- Associate projects use the Associate Projects (WM\_PC\_DFLT\_PRJ) component.
- PeopleSoft Project Costing ChartField mappings use the Default PC ChartFields (WM PC DFLT CFS) component.
- Capitalization rules use the Capitalization Rules (WM\_PC\_CAP\_INTGRTN) component.

This section provides an overview of PeopleSoft Project Costing related rules and data in PeopleSoft Maintenance Management and discusses how to associate projects with a work order business unit, work order type, and service group, set up default PeopleSoft Project Costing ChartFields, define work order capitalization limits, and associate capitalization filters with an asset.

#### Pages Used to Set Up Rules and Data Related to Project Defaulting

Page Name	Definition Name	Usage
Work Order - Projects Association Page	WM_PC_DFLT_PRJ	Maps project IDs and a Project Costing business unit to a work order business unit, work order type, and service group to establish default values in the work order.
Work Order Project ChartField Mapping Page	WM_PC_DFLT_CFS	Maps Project Costing ChartFields to other applications integrated with Maintenance Management and Resource Types associated with a work order business unit, work order type, and service group.
WO Capitalization Limit Page	WM_PC_CAP_INTGRTN	Sets the minimum amount of costs that must be exceeded to trigger capitalization of the costs to an asset.
WO Capitalization Filter Page	WM_PC_CAP_FLTR	Associates adjustment filter and a retirement filter with a PC business unit and applies them to an asset type and subtype.

## **Understanding Project Defaulting and Capitalization Rules in PeopleSoft Maintenance Management**

This section discusses:

- Project defaulting in work orders.
- Capitalization rules for work order-managed projects.

#### **Project Defaulting in Work Orders**

A project ID displays in the work order header and an activity ID displays in the work order task for work orders that are created from PeopleSoft Project Costing. To display this information in the work order and work order task, you must map the project IDs with the Project Costing business unit that is specified in Integrations page of the work order business unit, as well as map these values to a work order business unit, work order type, and service group.

#### **Default Project Costing ChartField Template**

PeopleSoft Project Costing has its own set of ChartFields that are used to sort costs for Projects. These ChartFields are different from ChartFields used for accounting entries in PeopleSoft General Ledger and do not impact the flow of costs into PeopleSoft General Ledger. You can edit everything except the Project Costing business unit, project ID, and activity ID.

This template is used to load defaulting Project ChartField values to each work order distribution row and applies to both work orders associated with work order managed projects and Project Costing managed projects. Users can override these ChartField values for each resource row, if desired. These ChartFields are carried over to PeopleSoft Purchasing, PeopleSoft Payables, the time entry infrastructure shared with PeopleSoft Expenses, and PeopleSoft Inventory along with the accounting ChartFields. Tools integrates directly with PeopleSoft Project Costing and uses this template. You can map a specific project to an integration module, resource type, source type, category and subcategory for a work order business unit, work order type and service group. You can enter wildcards for the work order type and service group values.

#### **Capitalization Limits for Work Order-Managed Projects**

You set up the capitalization limits to establish a minimum amount that it costs to repair or maintain an asset in a work order before PeopleSoft Project Costing capitalizes the costs. For example, if facility repairs have a capitalization limit of \$500, this means that you must spend a minimum of \$500 on a facility repair work order task before the costs of that repair are capitalized in PeopleSoft Project Costing and sent to PeopleSoft Asset Management. You must specify the Asset Business Unit and the asset currency code for which the capitalization of costs is calculated. This feature only applies to work orders associated with work order-managed projects and not work orders associated with Project Costing-managed projects.

The following table is an example of capitalization limit setup:

Asset type	Asset Subtype	Asset Business Unit	Currency	Capitalization Minimum
Fleet	180 HP Engine	US001	USD	10,000
Fleet	180 HP Engine	FRA01	FRF	20,000
Fleet	200 HP Engine	US001	USD	15,000
Fleet	200 HP Engine	CAN01	CAD	25,000

#### Capitalization Filters for Work Order-Managed Projects

PeopleSoft Project Costing uses capitalization filters to capitalize costs for work orders that are associated with Project Costing-managed projects. However, to enable PeopleSoft Project Costing to capitalize costs used in work orders associated with work order-managed projects, you must select an adjustment filter and a retirement filter, which are defined in Express Asset Criteria in PeopleSoft Project Costing, for an asset type and subtype in the WO Capitalization page in PeopleSoft Maintenance Management. You associate these filters with the Project Costing business unit that is specified in the work order business unit. The adjustment filter is user-defined, and you can set one up in PeopleSoft Project Costing, for example, so that PeopleSoft Project Costing only capitalizes the material costs to the asset. The retirement filter is used for PeopleSoft Project Costing to calculate the cost of removal for an asset.

**Note:** You must run the Cost Summarization process after the PeopleSoft Project Costing runs the Capitalization process to view the Capitalized Amount on the Capitalization inquiry in PeopleSoft Maintenance Management.

#### **Work Order Project ChartField Mapping Page**

Use the Work Order Project ChartField Mapping page (WM\_PC\_DFLT\_CFS) to maps Project Costing ChartFields to other applications integrated with Maintenance Management and Resource Types associated with a work order business unit, work order type, and service group.

Navigation:

Set Up Financials/Supply Chain > Product Related > Maintenance Management > Accounting Defaults > MM Default PC ChartFields > Work Order Project ChartField Mapping

This example illustrates the fields and controls on the Work Order Project ChartField Mapping page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Project	Select the project with which to associate these ChartFields.
Integration Module	Select either:  • Project Costing.  • Inventory.  • PO/AP.  • Expenses.
Resource Type	Select:  • Labor for PeopleSoft Expenses and PO/AP.  • Tools for PeopleSoft Project Costing.  • Material for PO/AP and PeopleSoft Inventory.

Field or Control	Description
Source Type	Select the PeopleSoft Project Costing source type ChartField value.
	See "Source Types" (PeopleSoft Project Costing).
Category and Subcategory	Select the category and subcategory to associate with this source type.
	See "Categories and Subcategories" (PeopleSoft Project Costing).

#### **WO Capitalization Limit Page**

Use the WO Capitalization Limit page (WM\_PC\_CAP\_INTGRTN) to sets the minimum amount of costs that must be exceeded to trigger capitalization of the costs to an asset.

Navigation:

## Set Up Financials/Supply Chain > Product Related > Maintenance Management > Accounting Defaults > MM Capitalization Rules

This example illustrates the fields and controls on the Capitalization Limit page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Effective Date	Enter the date that the information in this page becomes effective. The system checks this date against the work order start date.

Field or Control	Description
AM Business Unit (Asset Management business unit)	Select the Asset Management business unit to which this cost capitalization limit amount applies. A default book and currency code that are set up set up for this business unit in PeopleSoft Asset Management display.
Default Book	The default book associated with the Asset Management business unit displays for reference purposes.  See "Business Unit/Book Feature Page" (Asset Lifecycle Management Fundamentals).
Currency Code	Displays the currency code based on the currency code specified in the default book of the Asset Management business unit, which PeopleSoft Project Costing uses when capitalizing the asset This can be a different code from the code set up in the work order business unit.
Capitalization Minimum	Enter the minimum cost of repairing this asset in a work order task before the task become eligible for Capitalization. PeopleSoft Project Costing capitalizes the costs.

#### **WO Capitalization Filter Page**

Use the WO Capitalization Filter page (WM\_PC\_CAP\_FLTR) to associates adjustment filter and a retirement filter with a PC business unit and applies them to an asset type and subtype.

Navigation:

#### Select the Capitalization Filter tab.

This example illustrates the fields and controls on the WO Capitalization Filter page. You can find definitions for the fields and controls later on this page.



Field or Control	Description	
PC Business Unit (Project Costing business unit)	Select the PC business unit to which you want to associate specific PeopleSoft Project Costing filters that the system uses to determine which costs to capitalize or count as costs of removal for a work order.	
Adjustment Filter	Select a user-defined filter. This filter determines which of the asset repair or maintenance costs to capitalize.	
	Note: Filters are defined in the Express Asset Filter component in PeopleSoft Project Costing setup.	
Retirement Filter	This filter identifies the cost of removal of an asset that is being disposed using a work order task. The system uses this filter for asset gain and loss calculations.	

## **Setting Up ChartField Distributions for PeopleSoft Maintenance Management**

To set up PeopleSoft Maintenance Management ChartField distributions, use the Distribution Template (WM\_DIST\_TMPL) component.

This section provides an overview of ChartField distribution setup and discusses how to set up a distribution template and set up distribution template rules.

## Pages Used to Set Up ChartField Distributions for PeopleSoft Maintenance Management

Page Name	Definition Name	Usage
Distribution Template Page	WM_DIST_TMPL	Define default ChartField values for Inventory, PeopleSoft Purchasing/ PeopleSoft Payables, Expenses (labor only), and PeopleSoft Project Costing (tools) by work order business unit for actual transactions that are initiated via a work order.
Distribution Templates Defaulting Rules Page	WM_DIST_TMPL_BY_BU	Enables users to associate distribution templates with a combination of criteria, such as service group, work order type, asset location, asset type, and more.

## **Understanding ChartField Distribution Setup in PeopleSoft Maintenance Management**

PeopleSoft delivers financial identifiers referred to as ChartFields to group PeopleSoft Maintenance Management activities by their accounting treatments. Organizations must define ChartFields to account for and classify work order-related costs. Although work order ChartField distribution default values are set up prior to the creation of a work order, users can override them, if necessary, in the work order before the system passes them to the feeder systems, such as PeopleSoft Inventory, PeopleSoft Purchasing, and PeopleSoft Expenses with other work order data. Once the system passes these ChartFields to the feeder systems, it inserts them into the transaction documents of the feeder system, and they are then sent to PeopleSoft Project Costing for financial cost tracking, cost capitalization, and cost recovery, including markup and discount, if appropriate. The need to pass along ChartField values to distribution lines in different feeder systems requires slightly different data element requirements for each specific product. For example, PeopleSoft Purchasing and Accounts Payable require the same active ChartFields, while PeopleSoft Inventory requires a transaction group and distribution type codes along with the active ChartFields.

Work in process (WIP) accounting is handled in PeopleSoft Project Costing only for work orders associated with PeopleSoft Project Costing managed projects and not for work orders associated with work order managed projects.

PeopleSoft Inventory only supports one ChartField distribution row for materials. The cost element in PeopleSoft Maintenance Management is not part of this distribution row. For PeopleSoft Inventory stock items, there is always an Inventory distribution row even if the requested item is fully procured through PeopleSoft Purchasing. In this situation, distribution rows exist for both Inventory and PeopleSoft Purchasing in the Materials and Procurement distribution records, because all stock items eventually must have an issue transaction associated with them in order to decrease the PeopleSoft Inventory balance.

The accounting rules in PeopleSoft Project Costing handle the chargeback ChartField distribution setup for a work order business unit. To mark up or discount costs, the system books the costs to the work order organization then charges them to the recipient at the close of a WO task. Alternatively, you can override default ChartField values and charge the as-incurred costs (without discount or markup) directly to other organizations without having to process them via the accounting rules.

If PeopleSoft Maintenance Management integrates with PeopleSoft Expenses for the purpose of labor time entry, the system only allows one distribution row because the labor distribution data in PeopleSoft Expenses is embedded in the time entry structure. The distribution line is generated once you assign a resource to the work order task.

**Important!** You must set up the integrated modules that you know that you will be using to default distributions properly to the work order. If you do not use tools for a work order, then you do not need to define a value for PeopleSoft Project Costing. You also do not need to all the resource types in PeopleSoft Purchasing if you do not intend to associate or create purchase orders and vouchers with work orders.

Users create a distribution template in PeopleSoft Maintenance Management for a work order business unit, which contains the ChartField distributions and default values for integration with PeopleSoft Inventory, PeopleSoft Purchasing/PeopleSoft Payables, PeopleSoft Expenses, and PeopleSoft Project Costing (for tools) using the Distribution Template component. Tool transactions are sent directly to PeopleSoft Project Costing based on the ChartField combinations that you determine at the task row level.

#### **ChartField Distribution Template Rules**

After setting up a distribution template, users can define distribution template rules based on the work order business unit, service group, work order type, asset type, asset subtype, asset business unit, asset ID, and asset location combinations. Users can use wildcards (%) to apply the same template across more than one work order type, service group, and asset location. The accounting default order is set up in the work order business unit, where you can sequence the service group, work order type, asset type, asset subtype, asset location, asset ID, and asset business unit to determine the weighting of each option listed. Defaulting can also occur at the shop level. Users can specify default ChartFields at the shop level that override ChartField defaults brought over from the distribution template. Only the fields that are populated at the shop level override the default values specified in the template. The system does not change any other default template field values.

Users can override the ChartField defaults up to the point that an inventory issue or requisition/purchase order is created and labor and tools usage actuals are entered. In other words, the ChartFields are established from the PeopleSoft Maintenance Management side from the moment that a transaction containing the distributions is generated in any of the feeder systems. However, the feeder systems can override these ChartField values. If the values are overridden in the feeder system, these changes will be sent back to the work order.

ChartField template selection is based on the work order business unit, shop, work order type, service group, asset type, asset subtype, asset business unit, asset id and asset location. The first three are identified on the work order header, the remaining four are identified on the different work order tasks. Generally the system triggers default ChartField distributions at the point of scheduling. If requirements or assignments are not required, then the default distribution occurs when the actuals are recorded.

If assignments are not used, the ChartField distribution line defaulting occurs when you add actual hours or units of measure for labor and tools usage. Entry or update of labor hours in the Technician Workbench populates actuals on the work order. PeopleSoft Maintenance Management looks up the correct default ChartField templates and populates the time record for data integration into PeopleSoft Project Costing. However, if only actuals are recorded, the default values of the distribution lines are directed into the feeder system transaction.

See Work Order Business Unit Defaults and Default Hierarchies.

#### **ChartField Combination Editing**

Because other PeopleSoft products use and interface with ChartFields, PeopleSoft Maintenance Management supports combination editing based on transactions that originate from the work order. The groups that are attached to the GL business unit and the ledger group associated with the work order business unit are the combination groups that are used for PeopleSoft Maintenance Management. You can turn off combination editing at the work order business unit level. As long as you turn on combination editing at the work order business unit level, the system validates each row in the work order.

**Important!** Combination editing is not performed on the ChartField distributions for labor resources, because these ChartFields do not contain an account or alternate account.

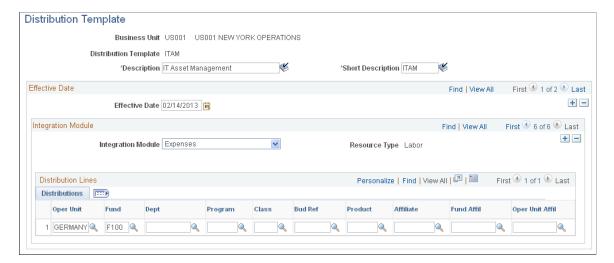
#### **Distribution Template Page**

Use the Distribution Template page (WM\_DIST\_TMPL) to define default ChartField values for Inventory, PeopleSoft Purchasing/PeopleSoft Payables, Expenses (labor only), and PeopleSoft Project Costing (tools) by work order business unit for actual transactions that are initiated via a work order.

#### Navigation:

## Set Up Financials/Supply Chain > Product Related > Maintenance Management > Accounting Defaults > MM Distribution Template

This example illustrates the fields and controls on the Distribution Template page. You can find definitions for the fields and controls later on this page.



#### **Integration Module**

Set up a template for each product (PeopleSoft Inventory, Payables/PeopleSoft Purchasing, and PeopleSoft Expenses), as well as a template for tools using the PeopleSoft Project Costing Integration Module.

Field or Control	Description	
Integration Module	Select either:  • Inventory.	
	<ul> <li>Payables/ Purchasing.</li> <li>Expenses.</li> <li>Project Costing, which is used for tools.</li> </ul>	
Resource Type	Select either <i>Labor</i> ; <i>Material</i> , or <i>Tools</i> for the resource type.  Note: You can only select a <b>Resource Type</b> field when the Integration Module selected is <i>Payables/Purchasing</i> . For all other integration modules, this field is read-only.	

Field or Control	Description
Distribute By	Select to distribute to the distribution rows by <i>Amount</i> or <i>Quantity</i> .
	Note: This field only displays if the integration module is Purchasing/Payables.
	Typically, you enter a purchase order or requisition for labor by <i>Amount</i> and for materials by <i>Quantity</i> .
	• You enter inventory materials that are being purchased by <i>Quantity</i> .
	• You enter non-inventory materials that are being purchased by <i>Quantity</i> or <i>Amount</i> .
Distribution Type	Select an Inventory distribution type to associate with this Inventory transaction group.
	Note: This field only displays if the integration module is PeopleSoft Inventory and is optional.

#### **Distribution Lines**

Configure the distribution lines for each integration module based on these rules:

- For PeopleSoft Inventory:
  - Users can configure only one distribution line.
  - The PeopleSoft Inventory transaction group associated with the ChartField distribution is not shown on the page because PeopleSoft Inventory uses transaction group 231 exclusively for Maintenance Management. This is the default value for all PeopleSoft Inventory transactions related to PeopleSoft Maintenance Management.
  - Users cannot blank out the default fields that were set up in the PeopleSoft Inventory Accounting Rules Template.

#### • For Payables/Purchasing:

Users can enter multiple distribution lines and specify the percentage of costs or quantity to allocate to each row. Your choice of *Quantity* or *Amount* determines the default values that appear in the PeopleSoft Purchasing schedule row of the work order task. You can modify these values prior to staging the purchase order or requisition schedule row.

#### **Distribution Templates Defaulting Rules Page**

Use the Distribution Templates Defaulting Rules page (WM\_DIST\_TMPL\_BY\_BU) to enables users to associate distribution templates with a combination of criteria, such as service group, work order type, asset location, asset type, and more.

Navigation:

## Set Up Financials/Supply Chain > Product Related > Maintenance Management > Accounting Defaults > MM Distribution Template Rules

This example illustrates the fields and controls on the Distribution Templates Defaulting Rules page. You can find definitions for the fields and controls later on this page.



You can add multiple rows containing different values.

Field or Control	Description	
Business Unit	Select a work order business unit for which you want to define these rules.	
	Note: The work order business unit that you select contains the accounting default order that applies to these rules.	
Service Group	Select a service group value or enter a % (wildcard) to represent all service group values.	
Work Order Types	Select a work order type value or enter a % (wildcard) to represent all work order type values.	
Asset Type	Select an asset type value or leave it blank to represent all asset type values.	
Asset Subtype	Select an asset subtype value or enter a % (wildcard) to represent all asset subtype values.	
AM Bus Unit (Asset Management business unit)	Select an AM business unit value or enter a % (wildcard) to represent all AM business unit values.	
Asset ID	Select an asset ID value or enter a % (wildcard) to represent all asset ID values.	

Field or Control	Description	
Location	Select an asset location value or enter a % (wildcard) to represent all asset location values.	
Distribution Template	Select the distribution template that you want to associate with the previously selected values.	
	Note: When you enter multiple rows of values, the system weights each value. The row with the highest value determines the default ChartField distribution template that displays in the work order. For a given work order, only the values in the templates that match the values in the work order or have a wildcard in the field are selected as the default ChartFields for the templates in the work order.  For example, if a work order is created with a work order type of CAPT, and there are three defaulting distribution rules that contain respectively: (1) WO Type = CAPT; (2) WO Type = CM; (3) WO Type = %, then the only default rules that will apply to the distribution templates in the work order are (1) and (3).	

#### **Chapter 6**

# Setting Up Problem Cause Resolution Data and Problem Trees

#### **Understanding PCR Setup and Tracking**

PCR tracking enables PeopleSoft Maintenance Management users to categorize their work order transactions using predefined problem, cause, and resolution codes. These codes are used to record:

- The problem or the nature of the maintenance or repair issue.
- The cause or underlying reason for a specific problem.
- The resolution or solution to the problem as reflected in the work task detail and overall job content of the work order.

You can link PCR codes in a hierarchy going from problem to cause to resolution and organize them under a user-defined problem group that describes the overall nature of the problem, such as *mechanical*, *electrical*, or *hardware*. After you have categorized work order tasks with PCR codes over a period of time, you can subsequently analyze these PCR code combinations to determine if there are repeatable patterns of occurrences. This information enables you to identify equipment prone to failure, as well as problems that occur frequently. Based on the frequency of the problem, you can decide if you want to set up reusable work order job templates, which predefine the resources needed to solve a problem.

The following table displays examples of user-defined problem group setups:

Problem Group	Problems	Causes	Resolutions
AUTOMOTIVE	Brakes Squeal  Problem Code =  BRAKESQUEAL	Brakeline - Bad, Contamination Cause Code = BRAKELINE)	Flush and fill brake fluid.  Resolution Code = FF_ BRAKEFLUID
NA	Oil Leak Problem Code = OILLEAK	Filter - Bad, Loose, Faulty, Worn  Cause Code = FILTER	Replace/ Repair Filter  Resolution Code = RR_ FILTER
NA	NA	Oil Pan - Bad or Worn  Cause Code = OILPAN	Replace/ Repair Oil Pan  Resolution Code = RR_ OILPAN

Problem Group	Problems	Causes	Resolutions
NA	Engine Sluggish  Problem Code = ENGSLUG	Dirty Oil  Cause Code = DIRTYOIL	Drain and Replace Engine Oil  Resolution Code =  OILCHANGE
NA	Overheats – Runs hot.  Problem Code = OVERHEAT	Bearings - Bad, Missing, or Worn. Cause Code = BEARINGS	Replace and Repack Bearings  Resolution Code = RR_ BEARINGS
NA	NA	Coolant - Loss, Contamination  Cause Code = Coolant	Flush and Fill Coolant  Resolution Code = FF_ COOLANT
NA	NA	Filter - Bad, Loose, Faulty, Worn Cause Code = FILTER	Replace/ Repair Filter  Resolution Code = RR_ FILTER
NA	NA	Hose - Bad, Loose, Warn, Connection Cause Code = HOSE	Replace/ Repair Hose  Resolution Code = RR_HOSE
NA	NA	Thermostat - Bad, Faulty, Calibration  Cause Code = THERMOSTAT	Replace/ Repair Thermostat  Resolution Code = RR_ THERMO
NA	Tire Wear and Tear Problem Code = TIREWEAR	Tire - Usage Cause Code = TIREUSE	Rotate Tires  Resolution Code = TIREROTATE
NA	NA	NA	Replace Tires  Resolution Code = TIREREPLACE
MECHANICAL	Runs Constantly/Won't Shut Off  Problem Code = CONSTANTRUN	Thermostat - Bad, Faulty, Calibration  Cause Code = THERMOSTAT	Replace/ Repair Thermostat  Resolution Code = RR_ THERMO

Problem Group	Problems	Causes	Resolutions
NA	Won't Start Problem Code = NOSTART	Thermostat - Bad, Faulty, Calibration  Cause Code = THERMOSTAT	Replace/ Repair Thermostat  Resolution Code = RR_ THERMO
NA	Overheats – Runs Hot Problem Code = OVERHEAT	Bearings - Bad, Missing, or Worn. Cause Code = BEARINGS	Replace and Repack Bearings  Resolutions Code = RR_ BEARINGS

Based on the some of the items in the Problem Group setup above, you can create these work order task and work order job templates:

Resolution Code	Work Order Task Template	Work Order Job Template	Work Order Job Template Job Steps (List of Task Templates)
Resolution Code = FF_ COOLANT Flush and Fill Coolant	Task Template ID = FL_AUTO_FF_COOLANT  Fleet - Auto: Flush/Fill Coolant	NA	NA
Resolution Code = OILCHANGE Drain and Replace Engine Oil	Task Template ID = FF_ AUTO_OILCHG Fleet - Auto: Oil Change	NA	NA
Rotate Tires  Resolution Code =  TIREROTATE	Task Template ID = FL_AUTO_TIREROTATE  Fleet - Auto: Rotate Tires	NA	NA

Resolution Code	Work Order Task Template	Work Order Job Template	Work Order Job Template Job Steps (List of Task Templates)
NA	NA	FL_AUTO_3KSERV Fleet - Auto: 3,000 Mile Service	Step 1:  Task Template ID = FL_ AUTO_FF_COOLANT  Fleet - Auto: Flush/Fill Coolant  Step 2:  Task Template ID = FF_ AUTO_OILCHG  Fleet - Auto: Oil Change  Step 3:
			Task Template ID = FL_AUTO_TIREROTATE  Fleet - Auto: Rotate Tires

The implementation of PCR tracking includes:

- Setting up PCR codes.
- Setting up one or more problem groups.
- Optionally associating a resolution code with a work order task and job template to facilitate template lookup.

A problem group consists of three nested scroll levels and is used to establish the logical relationships or links between problems, causes, and resolutions in a series of one-to-many associations. This means that each higher level PCR code can in turn be linked to one or many lower level codes. Specification of a complete chain of problem to cause to resolution codes is optional. If you choose to create a problem group chain:

- You can associate problem codes with a problem group.
- You can specify a lower level code only if you previously entered a corresponding higher level parent code.

You must enter these values consecutively with no gaps in between them. For example, a cause code must always have a parent problem code, and a resolution code must have a parent cause code.

- You can optionally link a problem code that you specified for a problem group to one or more individual cause codes.
- You can optionally link each cause code that you specified for a problem group to one or more individual resolution codes.
- You can link a problem group definition with one or more asset classification combinations.

When users identify a target asset for a task line on a work order, the system will use the defined type, subtype, manufacturer, and model information of the asset to determine which problem group or groups and subsequent problem, cause, and resolution data should be made available in the prompt lists for these fields.

If a problem group definition is not linked to at least one asset classification combination, it is considered a *standalone* definition. This occurs when you create a work order or a work order task that does not reference an asset as the object of the work being performed. For example, you can create preventive maintenance work orders based on a location, such as a shop, where the work order task is to take the inventory of a shop on a monthly basis. The problem group might be identified as *Other* to include miscellaneous problems.

**Note:** Problem trees are not required for PeopleSoft Maintenance Management unless your organization uses service requests.

#### PCR Tracking for Work Orders

Users can enter problem, cause, and resolution codes in a work order up to the point that the work order is closed, enabling them to track and analyze similar problems. For example, a planner or clerk might enter a problem group and problem when the work order is created. Later a technician may add the cause and recommend a resolution in the technician's workbench. Users may also use this functionality to search for an appropriate work order task template to resolve a particular maintenance or repair problem. They may optionally link problem group definitions with various asset classification combinations in order to facilitate their reuse or assignment when entering work orders.

Users may associate work order task template and job template definitions with a specific resolution code to streamline the search for templates that are applicable to a particular problem, cause, and resolution chain. When you want to select either a work order task or work order job template to associate with a work order or work order task, you can search for the template based on the problem group and problem, cause, and resolution codes associated with a template. This work order entry lookup capability is only possible if the resolution code referenced on a particular template definition is linked under a problem group definition as part of a complete problem, cause, and resolution chain.

You can select a problem group, and problem, cause, and resolution codes for work order tasks. It is not necessary to select all four values. However, the system does not permit gaps in the chain of codes. Prompt tables for the various codes ensure that specification of a lower-level code in the chain, such as resolution, is only possible if users enter all higher-level codes (problem group, problem, and cause).

# **Setting Up PCR Data**

To set up PCR data use the:

- Define Problem (WM PROBLEM DEFN) component.
- Define Cause (WM CAUSE DEFN) component.
- Define Resolution (WM RESOLUTION DEFN) component.
- Define Problem Group (WM PCR) component.

This section discusses how to set up a problem code, set up a cause code, set up a resolution code, define a problem group, and set up asset classification parameters for a problem group.

## Pages Used To Set Up PCR Data

Page Name	Definition Name	Usage
Define Problem Page	WM_PROBLEM_DEFN	Define a problem code to use for PCR tracking.
Define Cause Page	WM_CAUSE_DEFN	Define a cause code to use for PCR tracking.
Define Resolution Page	WM_RESOLUTION_DEFN	Define a resolution code to use for PCR tracking.
Define Problem Group Page	WM_PCR_DEFN	Define the overall problem group and its underlying hierarchy of problem, cause, and resolution codes, as well as optionally associate a problem group with one or more combinations of asset classification parameters.
Asset Classification Page	WM_GROUP_ASSET	Associate one or more combinations of asset classification parameters with a problem group for PCR tracking.

# **Define Problem Page**

Use the Define Problem page (WM\_PROBLEM\_DEFN) to define a problem code to use for PCR tracking.

Navigation:

Set Up Financials/Supply Chain, Product Related, Maintenance Management, Problem Cause Resolution Setup, Define Problem

This example illustrates the fields and controls on the Define Problem page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Problem Code	Set up each problem code by SetID so that you can apply them to all work orders and service requests. These codes should be understandable to users.
Status	Select either <i>Active</i> or <i>Inactive</i> . You can change this field from one value to the other at any time.
	Note: If you change the status of this code to <i>Inactive</i> , the code's branch, including any underlying codes, is disabled in the Problem Group hierarchy. At that point, the you can either delete the obsolete branch, or retain it in case you change the status of the code back to <i>Active</i> .
Description	Enter a description that is meaningful to users.

## **Define Cause Page**

Use the Define Cause page (WM\_CAUSE\_DEFN) to define a cause code to use for PCR tracking.

Navigation:

Set Up Financials/Supply Chain, Product Related, Maintenance Management, Problem Cause Resolution Setup, Define Cause

This example illustrates the fields and controls on the Define Cause page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Cause Code	Set up each cause code by SetID so that you can apply them to all work orders and service requests. Make sure the code is understandable to users.

Field or Control	Description
Status	Select either <i>Active</i> or <i>Inactive</i> . You can change this field from one value to the other at any time.
	<b>Note:</b> If you change the status of this code to <i>Inactive</i> , the code's branch, including any underlying codes, are disabled in the Problem Group hierarchy. At that point, you can either delete the obsolete branch, or retain it in case you change the status of the code back to <i>Active</i> .
Description	Enter a description that is meaningful to users.

## **Define Resolution Page**

Use the Define Resolution page (WM\_RESOLUTION\_DEFN) to define a resolution code to use for PCR tracking.

#### Navigation:

Set Up Financials/Supply Chain, Product Related, Maintenance Management, Problem Cause Resolution Setup, Define Resolution

This example illustrates the fields and controls on the Define Resolution page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Resolution Code	Set up each resolution code by SetID so that you can apply them to all work orders and service requests. Make sure the code is understandable to users.
Status	Select either <i>Active</i> or <i>Inactive</i> . You can change this field from one value to the other at any time.
	Note: If you change the status of this code to <i>Inactive</i> , the code's branch node is disabled in the Problem Group hierarchy. At that point, you can either delete the obsolete node, or retain it in case you change the status of the code back to <i>Active</i> .

Field or Control	Description
Description	Enter a description that is meaningful to users.

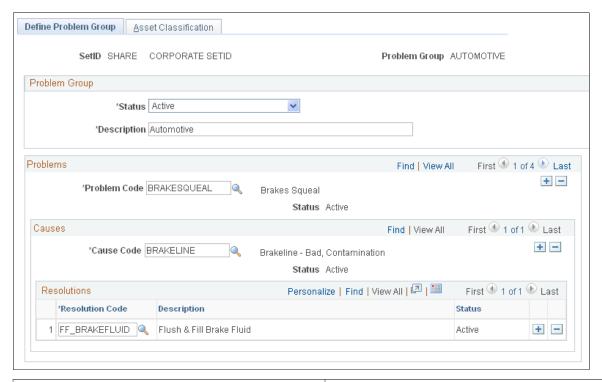
## **Define Problem Group Page**

Use the Define Problem Group page (WM\_PCR\_DEFN) to define the overall problem group and its underlying hierarchy of problem, cause, and resolution codes, as well as optionally associate a problem group with one or more combinations of asset classification parameters.

#### Navigation:

Set Up Financials/Supply Chain, Product Related, Maintenance Management, Problem Cause Resolution Setup, Define Problem Group

This example illustrates the fields and controls on the Define Problem Group page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Problem Group	Enter a value for a Problem Group in the Add a New Value page. Make sure that it is understandable to the user.
Status	Select this problem group status as <i>Active</i> or <i>Inactive</i> .
Description	Enter a description.

#### **Problems**

Field or Control	Description	
Problem Code	Select a code to associate with this group.	
	Note: When you select a problem code, you do not have to select a cause or a resolution code. You can add more than one problem code to a problem group.	
	See Understanding PCR Setup and Tracking.	
Cause Code	Select a possible cause for the problem. You can associate more than one cause with a problem.	
	Note: You do not have to enter a cause code.	
Resolution Code	Select a possible resolution for this problem. You can associate more than one resolution with a problem.	
	Note: You do not have to enter a resolution code.	

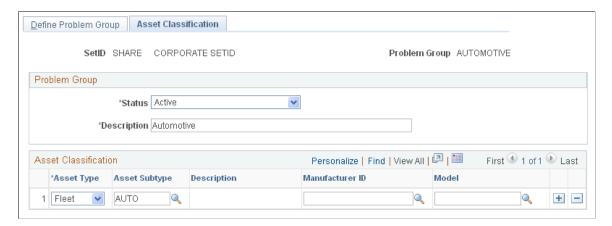
## **Asset Classification Page**

Use the Asset Classification page (WM\_GROUP\_ASSET) to associate one or more combinations of asset classification parameters with a problem group for PCR tracking.

Navigation:

Click the Asset Classification tab.

This example illustrates the fields and controls on the Asset Classification page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Asset Type	Select an asset type from the drop-down list.
Subtype	Select a subtype based on the selected asset type. Asset subtypes are set up in PeopleSoft Asset Management.  See "Defining Asset Attributes" (Asset Lifecycle Management Fundamentals).
Manufacturer and Model	Select a manufacturer and select a model.
	Note: Manufacturers are set up in the Procurement, PeopleSoft Purchasing set up options. You can link models to these manufacturers using the Manufacturer Model Relation in the same location.
Status	Select either <i>Active</i> or <i>Inactive</i> to control the status of the Problem Group, not just the asset classification.

# Creating a Problem Tree for Use in Service Requests

To set up a problem tree, use the Problem Tree (WM PROBLEM TREE) component.

This section discusses how to create a problem tree.

# Pages Used to Set Up a Problem Tree

Page Name	Definition Name	Usage
Problem Tree Page	WM_PROBLEM_TREE	Define each problem category and show the relationship between the problem category levels.

## **Understanding Problem Tree Setup for Use in Service Requests**

Service requests enable non-maintenance users to request service for an organization's assets without having to know how to enter work orders, as well as know to whom they should submit the service request. Of key importance is the user's ability to identify the problem. The service request guides the user, by means of a single page or a wizard through selecting the options that are necessary to complete the request. The user's selections lead to a specific problem identification. The specific problem is then linked to key work order definition parameters. The problem tree defines a hierarchy which organizes the problem group, asset search fields, location fields, roles, and work order default fields. For example, if the selected problem group is *Mechanical* at a top-level node, it applies to all lower-level nodes until the system encounters a new problem group at a lower level. If the requester selects a specific problem and the bottom-level problem group value is *Electrical*, the system overrides the *Mechanical* problem group

with this new value. The system performs an edit to ensure that most of the default fields were entered at some level in the tree. If you enter a bottom level node and no default field was specified at the current level or any level above it, an error displays. This ensures that when you create a service request, values appear in all of the required fields.

**Note:** You can have as many levels as you want in a problem tree; however, Oracle recommends 3 to 5 levels.

Problems are organized in a tree-like structure in order to prompt you for each problem category from general to specific. You do not see a tree graphic, but instead are prompted to make a series of decisions, each one representing a level in the tree on the Problem Tree page. The system stores the problem category tree structure in a single table with each problem or category pointing to its parent category.

You link problem groups to asset classifications directly in the Define Problem Group component. The Problem Tree component and work order-related components use this linkage. For example, if, while adding a problem category in the problem tree, you enter a problem group, then you can only enter asset classification fields in the Problem Tree page that are associated with the problem group. If you leave the problem group blank, you can enter any asset classifications. Furthermore, the system copies the problem group to a work order created from a service request, but the system does not copy the asset classification fields. Asset classification fields in the problem tree only drive the asset search when a user creates a service request.

A smart tag is a tag number, which is used to identify assets and is subdivided into groups of characters where each group represents a particular attribute of an asset. For example: C4BFGMTR0002 – where C4 represents "combustion turbine 4", BFG represents "boiler flue gas system", MTR represents "motor", and 0002 represents a sequential equipment number. In Maintenance Management, smart tag number coding (smart tags) can be used when selecting each level of a problem tree to narrow down the list of eligible service request assets.

As successive levels of the problem tree are selected when entering a service request, the string of codes that make up the tag number is narrowed down. Next, when the user invokes the asset search from the service request, the coded string is passed to the tag number search field and returns a small number of relevant assets. This allows users to quickly find the assets that are relevant to the problem being reported. While a method already exists to narrow down assets using the asset classification (asset type, subtype, manufacturer, model), smart tags allow for more flexibility and fine-tuning. Both methods are optional and may be used alone or together in combination. Unlike asset classification, which carries much functionality across service requests and work orders, smart tag functionality is restricted to service requests.

See Example: Setting Up Smart Tags in a Problem Tree.

See <u>Understanding Service Request Creation and Use</u>.

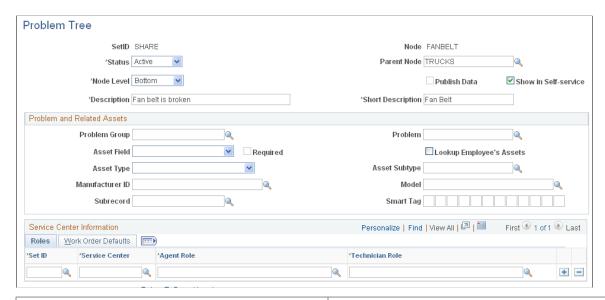
# **Problem Tree Page**

Use the Problem Tree page (WM\_PROBLEM\_TREE) to define each problem category and show the relationship between the problem category levels.

Navigation:

Set Up Financials/Supply Chain, Product Related, Maintenance Management, Problem Cause Resolution Setup, Problem Tree.

This example illustrates the fields and controls on the Problem Tree page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Status	Select a status of either <i>Active</i> or <i>Inactive</i> for this node and node level.
Parent Node	Displays the name of the parent node, if applicable.  Note: Normally you add child categories by selecting the Add Child Node button, which is only available from a parent node. Selecting the Add Child Node button copies the node value into the parent node of the new child record. This creates the link for you. However, you can change the parent node value of an existing record which effectively moves the child and all of the child's children to the new parent.

Field or Control	Description
Node Level	Defines the level in the tree in which the problem category resides.
	• Top
	• Middle
	• Bottom
	Top level categories display in the first Request Type page of the Service Request Wizard component and in the first Request Type field in the Request Detail group box of the single page Service Request page. Middle-level categories display in the subsequent Request Type pages of the wizard and in the subsequent Request Type field of the single page Service Request page. Bottom-level categories display in the last Request Type page of the wizard and in the last Request Type field of the single page Service Request page. You cannot change the node level for a middle node unless you delete all of its children first. You cannot change the node level for a top node level.  Note: You can have as many levels as you want in a problem
	tree; however, Oracle recommends 3 to 5 levels.
Show in Self-Service Component	Select this check box to display the problem category in the Service Request Wizard and the single Service Request page.
Publish Data	Select this check box when you want to publish this problem tree branch as a message using Integration Broker to third-party help desk products.
	Note: This check box should only be available for selection for a top-level node.
	See documentation PeopleTools: Integration Broker

#### **Problem and Related Assets**

Use this group box to identify a problem group and problem which are associated with the selected node and passed on to work orders created from service requests. You select the asset classification parameters which determine which fields appear in the Request Detail group box of a service request. You can also create Smart Tags by entering a tag number, which is used to identify assets and is subdivided into groups of characters where each group represents a particular attribute of an asset. The asset classification fields specified here help to refine the asset search on the service request so that users can quickly find the assets related to the specific problem selected.

Field or Control	Description
Problem Group	Select a problem group to associate with this node. If you select a problem group that is associated with specific asset classification parameters, then the asset classification parameters available for selection here are restricted only to those asset classification parameters that fall within the parameters specified for the problem group. If you do not select a problem group, then you can select any asset classification parameters that you want here. Problem group is also passed on to work orders created from service requests.
Problem	Optionally select a problem, if you selected a problem group to pass on to work orders created from service requests.
Asset Lookup Field	Select the type of field that you want to appear in the Service Request Wizard or single page Service Request from this drop-down list:  • Asset ID  • Do not display asset fields  • Serial Number  • Tag Number  • Vehicle ID Number
Required	Select this check box to define the asset as a required entry when creating or updating a service request.
Lookup Employee's Assets	Select this check box to display only the requester's assets when selecting assets in the Service Request wizard and Create Service Request pages.
Subrecord	You must enter the value WM_MOVE_SBR for any problem categories that handle a facilities move request. Otherwise, leave this field blank.

Field or Control	Description
Smart Tag	Enter the characters that represent a particular attribute of an asset at each node level for the tag value. This field is optional. A <b>Smart Tag</b> is a tag number, which is used to identify assets and is subdivided into groups of characters where each group represents a particular attribute of an asset. For example: For Smart Tag C4BFGMTR0002 where C4 represents "combustion turbine 4" and is entered in the Smart Tag field at the top node level, BFG represents "boiler flue gas system" and is entered at the middle node level, and MTR represents "motor" and is entered at the bottom node level, and 0002 represents a sequential equipment number. When you create a service request, you can search for an asset by selecting a Smart Tag.  See Example: Setting Up Smart Tags in a Problem Tree.

#### **Service Center Information - Roles**

Access the Roles tab.

Field or Control	Description
SetID	Select the appropriate SetID, which identifies the correct LOCATION_TBL to use for the service center.
Service Center	Select a service center. This defines the values that are selectable in the Service Center drop-down list when you create a service request.
Agent Role	Select a role for the agent assigned to a service request. This value appears when you access the Service Request Inbox. If the service request agent belongs to more than one agent role and those roles are entered on the problem tree, the agent must select one of the roles from the Agent Role field drop-down list on the Service Request Inbox page.
	Note: You use PeopleTools role definition functionality to set up agent and technician roles.
	See documentation <i>PeopleTools: Security Administration,</i> Setting Up Roles

Field or Control	Description
Technician Role	Select a role to apply to a technician assigned to a service request. In the Service Request Inbox, the prompt list for the Assigned To field prompt is populated with the user IDs that belong to the technician role identified here. The selected technician displays in the Assigned To field on the service request. If the agent also belongs to the technician role, the user ID of the agent appears as the default value in the Assigned To field. The agent can override this user ID and select a different technician from the list.  See documentation <i>PeopleTools: Security Administration, Setting Up Roles</i>

### **Service Center Information - Work Order Defaults**

Access the Work Order Defaults tab.

Field or Control	Description
SetID	Select the appropriate SetID, which identifies the correct LOCATION_TBL to use to enable you to select the service center.
	Note: This SetID value appears as the default value from the value you selected in the Roles grid.
Service Center	Select a service center. This defines the values that are selectable in the Service Center drop-down list when you create a service request.
	Note: If you select this service center value as the service center for a service request, it causes the values specified in this Work Order Defaults grid for the work order business unit, work order type, service group, and priority code to display as the default values in a work order that is created from the service request.
<b>Business Unit</b>	Select the work order business unit value that you want to populate the <b>Business Unit</b> field for a work order that is created from a service request.
Service Group	Select the service group value that you want to populate the <b>Service Group</b> field for a work order that an agent or technician creates from a service request.

Field or Control	Description
Work Type	Select the work type (work order type) value that you want to populate the <b>Work Type</b> field for a work order that an agent creates from a service request.
Priority	Select the priority code value that you want to populate the <b>Priority Code</b> field for a work order that an agent creates from a service request.

#### **Next Problem Level**

Displays the problem categories that are one node level down from the current problem category. This grid appears if the **Node Level** is *Top* or *Middle*.

**Note:** This grid does not appear if the **Node Level** value is *Bottom*.

Field or Control	Description
Child Node	Click this link to drill down to the child node or next problem level.
	Note: You can click the Return to Parent Level link to return to the Parent Node level.
Add Child Node	When accessing the Parent Node Level, click this button to access a blank version of the Problem Tree page where you can add a child node to the problem tree.

#### Chapter 7

# **Setting Up Statuses for Service Requests and Work Orders**

# **Understanding Service Request and Work Order Statuses**

PeopleSoft Maintenance Management uses system-defined internal statuses and user-defined statuses to control the functionality and flow of service requests and work orders as they progress through their life cycles in the system. Service request statuses and work order statuses are not related and are defined in separate components.

Service request statuses control the functionality and the flow of only the service request, which is created separately from a work order. Any user can create a service request from the self-service components. Using these components does not require access on the part of the requester to the work order or other components of PeopleSoft Maintenance Management. However, service requests are assigned to agents and technicians within PeopleSoft Maintenance Management. Agents can also create new service requests from within PeopleSoft Maintenance Management. Once a service request is created, the agent may choose to create a work order, depending on the problem reported. When a work order is created from a service request, the system uses the work order status definitions to control the behavior of the work order from creation through closure of the work order. The service request status definitions still control the service request, even if the agent created a work order from the service request.

Users can also create work orders from PeopleSoft CRM Help Desk and third party help desk applications, PeopleSoft Project Costing and PeopleSoft Program Management. However, the work order functionality is performed completely within PeopleSoft Maintenance Management. The statuses for a work order are set up separately to control the functionality and flow of work orders as they progress through PeopleSoft Maintenance Management. In both service requests and work orders, the status transitions are primarily performed manually by the user, with the exception of the service request close and the work order complete and close statuses.

See <u>Understanding Service Request Creation and Use</u>.

See Understanding Work Orders.

# **Defining Service Request Statuses**

To set up service request statuses use the Service Request Status (WM WR STATUS) component.

This section provides an overview of service request statuses and discusses how to set up service request statuses.

#### **Page Used To Define Service Request Statuses**

Page Name	Definition Name	Usage
Service Request Status Setup Page	WM_STATUS	Defines service request status values specific for an organization and matches them with the Maintenance Management required system-defined internal statuses.

## **Understanding Service Request Statuses**

To manage the processing of a service request, PeopleSoft Maintenance Management provides a set of system-defined internal statuses that have specific requirements. In addition, PeopleSoft Maintenance Management provides predefined statuses in the delivered data that correspond to the internal statuses. Your organization can use these statuses as defined or use them as a basis for setting up your own status definitions based on your organization's business logic and processes. You must map these user-defined statuses to the system-defined internal statuses. For example, you can create statuses such as open-new, in progress-assigned, and open-awaiting information, and map each of them to the required system-defined internal status, *open*.

This table describes how the system-defined internal statuses for a service request work in the system:

Service Request System-Defined Internal Status	Description
Closed	This status occurs when a requester clicks the <b>Close</b> button in the service request, the agent selects <i>Close</i> from the status drop-down list box, or the service request Close (WM_CLOSE _WR) process changes the status from <i>Complete</i> to <i>Closed</i> based on the expiration of a specific number of days specified in the service request business unit.
Complete	This status occurs when the agent selects <i>Complete</i> in the status drop-down list box or a user completes the work order associated with the service request.
Canceled	This status occurs when the agent selects Cancel in the status drop-down list box or the associated work order is cancelled.
Open	This status occurs when you create a service request.
Work in Progress	This status occurs when the agent selects it from the status drop-down list box.
Work Order Created	This status occurs when an agent creates a work order from a service request.

This table lists the statuses that PeopleSoft Maintenance Management predefines for service requests in the sample data for users and describes how they are mapped to PeopleSoft Maintenance Management

required system-defined internal statuses. You can use these sample data statuses as they are or modify them based on the needs of your organization:

PeopleSoft Maintenance Management Predefined Sample Data User Service Request Status	PeopleSoft Maintenance Management Required System-Defined Internal Status
Closed	Closed
Canceled	Canceled
Complete	Complete
In Progress — Assigned.	Work in Progress
In progress — Awaiting information	Work in Progress
New	Open
Work Order Created	Work Order Created

This table describes how a system-defined internal service request status affects the locking of the service request document:

System-Defined Internal Service Request Status	Is Service Request Document Locked?
Closed	Yes – All fields are read only.
Canceled	Yes – All fields are read only.
Complete	Yes – Service request is locked, but you can change the status back to an Open status to unlock the service request and make changes.
Open	No
Work In Progress	No
Work Order Created	Yes – Locks fields common to service request and work order.

#### **Service Request Status Transitions**

Service request status transitions are triggered by user interaction and automatic processing. An agent or administrator can change a status by selecting a status in the **Status** field on the service request. Automatic status transitions are triggered when a work order is created, completed or canceled. A requester can only close or reopen (change from complete back to open) a completed service request.

**Note:** The user-defined service request status values, which are used for the allowable status transitions, depend on how an organization sets up each service request status.

Setting up the service request statuses is required so that an agent or administrator can select allowable status transitions for each status. Users cannot select the WO Created status, because it is set by the PeopleSoft Maintenance Management program.

The following table describes the allowable internal status transitions for each service request status. It does not describe the allowable transitions as delivered in the sample data:

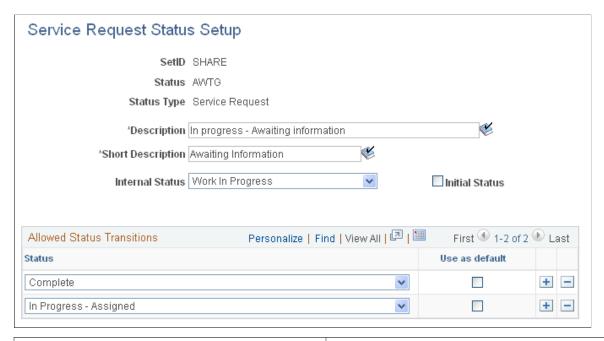
From Status/ To Status	Open	Work in Progress	Complete	Canceled	Closed	WO Created
Open	Yes	Yes	Yes	Yes	No	No
Work in Progress	No	Yes	Yes	No	No	No
Complete	Yes	Yes	No	No	Yes	No
Closed	No	No	No	No	No	No
Canceled	No	No	No	No	No	No
WO Created	No	No	Yes	No	Yes	N/A

# **Service Request Status Setup Page**

Use the Service Request Status Setup page (WM\_STATUS) to defines service request status values specific for an organization and matches them with the Maintenance Management required system-defined internal statuses.

Navigation:

Set Up Financials/Supply Chain > Product Related > Maintenance Management > Setup > MM Service Request Status > Service Request Status Setup This example illustrates the fields and controls on the Service Request Status Setup page. You can find definitions for the fields and controls later on this page.



Field or Control	Description				
Status	Enter a status code when you add a new value that is recognizable to your end users. This value is matched with one of the required system-defined internal status values.				
Status Type	Displays default value of Service Request.				
Internal Status	Select the Internal Status to match with this user-defined status. Internal statuses for service requests include:  • Canceled.  • Closed.  • Complete.  • Open.  • Work in Progress.  • Work Order Created.				
Initial Status	Select this check box if you want this value to be the initial status when a service request is created. You can only select one of the service request statuses at any given point in time.				

#### **Allowed Status Transitions**

Field or Control	Description
Status	Lists allowable status transitions based on the internal status transition you select and the number of defined statuses you created.
	Note: The Allowed Status Transitions group box appears only if you create a status with an internal status value of <i>Open, Work in Progress, Work Order Created,</i> and <i>Complete.</i> It does not display if the internal status value is <i>Canceled</i> or <i>Closed.</i>
Use as default	Select one or more of the <b>Use as Default</b> check boxes to indicate the new status of the service request when a user clicks the <b>Reopen</b> or <b>Close</b> buttons on the Service Request. If two or more transition statuses have the same internal status, then you can only check one of them. Oracle recommends that you do not change the status setup as delivered, but if you do, make sure the transition grid for the Complete status contains at least one transition status for <i>Work in Progress</i> and one for <i>Closed</i> selecting the <b>Use as Default</b> check box on each.  For example, the current status of a service request is <i>Complete</i> and you want to reopen the service request by changing the status back to <i>Assigned</i> . If you have multiple user defined assigned statuses, then you must identify which of these user defined assigned statuses is the default status that you want to display when you reopen a service request. This also applies when you close a service request.

# **Defining Work Order Statuses**

To set up work order statuses use the Work Order Status (WM\_WO\_STATUS) component.

This section provides an overview of work order statuses and discusses how to create work order statuses and set up work order statuses.

## **Page Used to Define Work Order Statuses**

Page Name	Definition Name	Usage
Work Order Status Setup Page	WM_STATUS	Defines work order status values specific to an organization and matches them with PeopleSoft Maintenance Management required system-defined internal statuses.

## **Understanding Work Order Statuses**

You must set up work order statuses separately for the work order header and the work order task. The work order header status reflects the state of the work order based on the current work order task statuses. You cannot modify this status. Like service request statuses, you can establish statuses that are applicable to their organization and map these statuses to PeopleSoft Maintenance Management system-defined internal statuses for work orders.

You are *not* required to set up user-defined statuses for each system-defined internal status for either work order header statuses or work order task statuses. However, you *must* set up at least one user-defined status for each of these internal statuses:

- Open
- Complete
- Closed

**Important!** When you set up work order header statuses, you can set up only *one* user-defined status for each of the system-defined internal statuses. However, for work order tasks, you may set up more than one user-defined status for each of the work order task system-defined internal statuses.

#### Work Order Header Statuses

The work order header status is a passive indicator of the state of all the work order tasks under this work order. Users may not directly modify the work order header status. The system reassesses and potentially changes the work order header status when you access or save the work order based on an internal calculation that determines which task status carries the most weight and should thus apply to the work order header.

The system-defined internal statuses are the same for the work order header and the work order task. To weight the task statuses to determine the status of the work order header, the internal statuses are prioritized from 1 to 8, with 1 being the highest priority. This is described in the following table:

Order	State	Description
1	Work in Progress	At least one work order task has been set to a Work In Progress status, typically meaning that work execution has begun on that task.
2	Awaiting Schedule	At least one work order task has been set to Awaiting Schedule and there are no tasks in Work in Progress. This status is typically encountered after a work order is approved.
3	Open	At least one work order task has been set to Open and there are no tasks in either Work in Progress or Awaiting Schedule status. This status would normally occur when a user creates a new work order and saves it with at least one work order task.
4	On Hold	At least one work order task has been set to On Hold and there are no tasks in Work in Progress, Awaiting Schedule or Open status. This status would normally occur when execution of a work order task has been interrupted due to a problem.  Note: You can only go back to the status prior to setting the status on hold, regardless of transitions defined for the On Hold status.
5	Scheduled	User changes to this status when at least one work order task has been Scheduled and there are no tasks in Work in Progress, Awaiting Schedule, Open, or On Hold status.

Order	State	Description
6	Complete	All tasks are complete or canceled, implying that the work associated with the work order task has been completed.
		Note: Standing work orders do not automatically move to a status of Closed, Canceled, or Complete. When all tasks are completed for a standing work order, the work order status stops immediately at the previous status instruction. You identify a standing work order by selecting a check box on the Miscellaneous page of the work order.
7	Closed	All tasks are closed or canceled. The work order is closed upon completion of all of the tasks and at the end of the grace period. No status transitions are permitted once a work order task is closed.
8	Canceled	All tasks are canceled. The work order task has been canceled. No status transitions are permitted for a work order task once it is canceled.
		Note: If you have not assigned resources to a task, you should delete the task instead of canceling it. You cannot uncancel a task.

The system updates and displays the work order header status based on all of the statuses of the work order tasks that fall under it. It uses the highest status priority as the work order header status. The following example shows the effect of different task statuses on the work order header for WO001:

Status of Task #1	Status of Task #2	Status of Task #3	Status of Task #4	Work Order Header Status	Notes
Open	Open	Open	Open	Open	Open is the most
Priority = 3	Priority = 3	Priority = 3	Priority = 3		outstanding status for all the tasks.

Status of Task #1	Status of Task #2	Status of Task #3	Status of Task #4	Work Order Header Status	Notes
Closed Priority = 7	Canceled Priority = 8	Canceled Priority = 8	Canceled Priority = 8	Closed	The Closed status in Task 1 has a priority of 7 which is higher than the Canceled status priority of 8 in the system.
Closed Priority = 7	Complete Priority = 6	Complete Priority = 6	Canceled Priority = 8	Complete	The Complete status has a priority of 6, which exceeds the Canceled priority of 8 and the Closed priority of 7 in the system.
Work in Progress Priority = 1	Open Priority = 3	Open Priority = 3	On Hold Priority = 4	Work in Progress	The Work in Progress has the highest priority (1) in the system.
Open Priority = 3	Scheduled Priority = 5	Closed Priority = 7	Complete Priority = 6	Open	Task #1 has a status of Open with a priority of 3, which is the highest priority in the system.

The relationship between the workflow approval statuses and the work order header statuses determines if and when you can add a task to a work order. The following table describes this relationship.

Workflow Statuses/ WO Header Statuses	Work in Progress	Awaiting Schedule	Open	On Hold	Scheduled	Complete	Closed	Cancelled
No Workflow Approval	Yes	Yes	Yes	Yes	Yes	No	No	No

Workflow Statuses/ WO Header Statuses	Work in Progress	Awaiting Schedule	Open	On Hold	Scheduled	Complete	Closed	Cancelled
Workflow Approval Initial, Canceled, Denied	No	No	Yes	Yes	No	No	No	No
Workflow Approval, Pending Approval	N/A	N/A	No	N/A	N/A	N/A	N/A	N/A
Workflow Approval, Approved	No	No	No	No	No	No	No	No

The work order header status level defines only the status display behavior at the work order header level. The work order task status display behavior is defined only by the work order task status. However, the work order header status does define whether you can insert a new task into the work order. The following table indicates the operations that you can and cannot perform based on each of the internal work order header status settings.

Work Order Activity / Internal Status	Open	Closed / Canceled	Awaiting Schedule	Scheduled	Complete	Work in Progress
Add notes.	Yes	No	Yes	Yes	Yes	Yes
Delete notes.	No	No	No	No	No	No
Add more tasks.	Yes	No	Yes, based on workflow rules.	Yes, based on workflow rules.	No	Yes, based on workflow rules.
Delete task.	Yes, as long as no assignments were made and based on workflow rules.	No	Yes, as long as no assignments were made and based on workflow rules.	No	No	No

Work Order Activity / Internal Status	Open	Closed / Canceled	Awaiting Schedule	Scheduled	Complete	Work in Progress
Add attachments.	Yes	No	Yes	Yes	Yes	Yes.
Modify attachments.	Yes	No	Yes	Yes	Yes.	Yes.
Delete attachments.	Yes	No	Yes	No	No	No
Add Job Templates.	Yes, based on workflow rules.	No	Yes, based on workflow rules.	Yes, based on workflow rules.	No	Yes, based on workflow rules.

#### **Work Order Task Statuses**

Users manually change the statuses for work order tasks. The work order task status reflects the true state of the work order task, assuming that there is no discrepancy between work order task status and the state of the actual work order task. For example, if the work order task status in the system is Work in Progress, but the work being performed in the field is actually On Hold due to a delay in the delivery of a part.

The following table indicates the operations that you can and cannot perform based on each of the internal work order task status settings:

Workflow Status = Pre- Approved (No Approval Required)								
Task Activity / Internal Task Status	(1) Work in Progress	(2) Awaiting Schedule	(3) Open	(4) On Hold	(5) Scheduled	(6) Complete	(7) Closed	(8) Canceled
Add Labor Requirement.	No	Yes	Yes	Depends on prior status.	No	No	No	No

Workflow Status = Pre- Approved (No Approval Required)								
Task Activity / Internal Task Status	(1) Work in Progress	(2) Awaiting Schedule	(3) Open	(4) On Hold	(5) Scheduled	(6) Complete	(7) Closed	(8) Canceled
Modify/ Delete Labor Requirement.	No	Yes, depending on if crew assigned to Requirement, or Requirement is being copied to Schedule.	or	or	No	No	No	No
Add Inventory Requirement.	No	Yes	Yes	Depends on prior status.	No	No	No	No
Modify/ Delete Inventory Requirement.	No	Yes, depending on Requirement being copied to Schedule.	Yes, depending on Requirement being copied to Schedule.	Depends on prior status.	No	No	No	No
Add Tools Requirement.	No	Yes	Yes	Depends on prior status.	No	No	No	No
Modify/ Delete Tools Requirement.	No	Yes, depending on Requirement being copied to Schedule.	Yes, depending on Requirement being copied to Schedule.	Depends on prior status.	No	No	No	No

Workflow Status = Pre- Approved (No Approval Required)								
Task Activity / Internal Task Status	(1) Work in Progress	(2) Awaiting Schedule	(3) Open	(4) On Hold	(5) Scheduled	(6) Complete	(7) Closed	(8) Canceled
Add Purchase/ On-Hand Requirement.	No	Yes	Yes	Depends on prior status.	No	No	No	No
Modify/ Delete Purchase/ On-Hand Requirement.	No	Yes, depending on Requirement being copied to Schedule.	Yes, depending on Requirement being copied to Schedule.	Depends on prior status.	No	No	No	No
Add Labor Schedule.	No	Yes	Yes	Depends on prior Status.	No	No	No	No
Modify/ Delete Labor Schedule.	No	Each row depends on Assignment Status.	Each row depends on Assignment Status.	Depends on prior status.	No	No	No	No
Add Tool Schedule.	No	Yes	Yes	Depends on prior status.	No	No	No	No
Modify/ Delete Tool Schedule.	No	Each row depends on Assignment Status.	Each row depends on Assignment Status.	Depends on prior status.	No	No	No	No
Add Inventory Schedule.	No	Yes	Yes	Depends on prior status.	No	No	No	No

Workflow Status = Pre- Approved (No Approval Required)								
Task Activity / Internal Task Status	(1) Work in Progress	(2) Awaiting Schedule	(3) Open	(4) On Hold	(5) Scheduled	(6) Complete	(7) Closed	(8) Canceled
Modify/ Delete Inventory Schedule.	No	Each row depends on Assignment Status.	Each row depends on Assignment Status.	Depends on prior status.	No	No	No	No
Add Purchase/ On-Hand Schedule.	No	Yes	Yes	Depends on prior status.	No	No	No	No
Modify/ Delete Purchase/ On-Hand Schedule.	No	Each row depends on Assignment Status.	Each row depends on Assignment Status.	Depends on prior status.	No	No	No	No
Modify Distribution.	No	Depends on assignments existing on Schedule rows.	Depends on assignments existing on Schedule rows.	Depends on prior status.	No	No	No	No
Modify Project Information.	No	Depends on assignments existing on Schedule rows.	Depends on assignments existing on Schedule rows.	Depends on prior status.	No	No	No	No
Modify Asset BU and Asset ID.	No	No	Yes	Depends on prior status.	No	No	No	No

Workflow Status = Pre- Approved (No Approval Required)								
Task Activity / Internal Task Status	(1) Work in Progress	(2) Awaiting Schedule	(3) Open	(4) On Hold	(5) Scheduled	(6) Complete	(7) Closed	(8) Canceled
Allow further status change.	Yes	Yes	Yes	Only to prior status or Initial if the user saved the task originally as On Hold.	Yes	Yes, depending on user preferences security feature that would allow users to set the status to complete or to manually close the task.	Yes, only to a Complete Internal Status. This must be a manual close and depends on security setup.	No
Update task level scheduled start and end dates.	No	Yes	Yes	Depends on prior status.	No	No	No	No
Record Actuals.	Yes	Yes	Yes	Yes	Yes	Yes, for everything but Inventory Issues, POs, and Requisitions.	No	No
Add task note.	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Modify task note.	Yes	Yes	Yes	Yes	Yes	Yes	No	No

Workflow Status = Pre- Approved (No Approval Required)								
Task Activity / Internal Task Status	(1) Work in Progress	(2) Awaiting Schedule	(3) Open	(4) On Hold	(5) Scheduled	(6) Complete	(7) Closed	(8) Canceled
Delete task note.	No	No	No	No	No	No	No	No
Add task instruction.	Yes	Yes	Yes	Yes	Yes	No	No	No
Modify task instructions.	Yes	Yes	Yes	Yes	Yes	No	No	No
Delete task instruction.	No	Yes	Yes	Depends on prior status.	No	No	No	No
Add checklist.	Yes	Yes	Yes	Yes	Yes	No	No	No
Modify checklist.	Yes	Yes	Yes	Yes	Yes	No	No	No
Delete checklist.	No	Yes	Yes	Yes	No	No	No	No
Add attachment.	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Modify attachment.	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Delete attachment.	No	Yes	Yes	Depends on prior status.	No	No	No	No

Workflow Status = Pre- Approved (No Approval Required)								
Task Activity / Internal Task Status	(1) Work in Progress	(2) Awaiting Schedule	(3) Open	(4) On Hold	(5) Scheduled	(6) Complete	(7) Closed	(8) Canceled
Delete task.	No	Depends on assignments existing on Schedule rows.	Depends on assignments existing on Schedule rows.	No	No	No	No	No
Assign task templates.	No	Yes	Yes	Depends on prior status.	No	No	No	No
Add Warranty Claim.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Modify/ Delete Warranty claim.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No

Task table continued.

Workflow Approval Status = Initial, Canceled, or Denied			
Task Activity / Internal Task Status	(3) Open	(4) On Hold	(8) Canceled
Modify Labor Requirements.	Yes	Depends on Open status.	No
Modify Inventory Requirements.	Yes	Depends on Open status.	No

Workflow Approval Status = Initial, Canceled, or Denied			
Task Activity / Internal Task Status	(3) Open	(4) On Hold	(8) Canceled
Modify Tools Requirements.	Yes	Depends on Open status.	No
Modify Purchase/ On-Hand Requirements.	Yes	Depends on Open status.	No
Modify Labor Schedule	Not available.	Not available.	No
Modify Tool Schedule	Not available.	Not available.	No
Modify Inventory Schedule	Not available.	Not available.	No
Modify Purchase/ On-Hand Schedule	Not available.	Not available.	No
Modify Accounting. Template	Not available.	Not available.	No
Modify Project Information	Yes	Depends on Open status.	No
Modify Asset BU and Asset ID.	Yes	Depends on Open status.	No
Allow further status change.	Only the ones listed here.	Depends on Open status.	No
Record Actuals.	No	Depends on Open status.	No
Modify task note.	Yes	Depends on Open status.	No
Modify task instruction.	Yes	Depends on Open status.	No
Modify check list.	Yes	Depends on Open status.	No
Modify attachment.	Yes	Depends on Open status.	No
Cancel task.	Yes	Depends on Open status.	No

Workflow Approval Status = Initial, Canceled, or Denied			
Task Activity / Internal Task Status	(3) Open	(4) On Hold	(8) Canceled
Delete task.	Yes	Depends on Open status.	No
Add Warranty Claim.	Yes	Yes	No
Modify/ Delete Warranty Claim.	Yes	Yes	No

#### Task statuses continued.

Workflow Approval Status = Pending Approval		
Task Activity / Internal Task Status	(3) Open	(4) On Hold
Modify Labor Requirement.	No	Depends on Open status.
Modify Inventory Requirement.	No	Depends on Open status.
Modify Tools Requirement.	No	Depends on Open status.
Modify Purchase/ On-Hand Requirement.	No	Depends on Open status.
Modify Labor Schedule.	Not available.	Not available.
Modify Tool Schedule.	Not available.	Not available.
Modify Inventory Schedule.	Not available.	Not available.
Modify Purchase/ On-Hand Schedule.	Not available.	Not available.
Modify Accounting. Template.	No	Not available.
Modify Project Information.	No	Depends on Open status.

Workflow Approval Status = Pending Approval		
Task Activity / Internal Task Status	(3) Open	(4) On Hold
Modify Asset BU and Asset ID.	No	Depends on Open status.
Allow further status change.	No	Depends on Open status.
Update task level scheduled start and end dates.	Not available.	Depends on Open status.
Record Actuals.	No	Depends on Open status.
Modify task note.	Yes	Depends on Open status.
Modify task instructions.	Yes	Depends on Open status.
Modify check list.	Yes	Depends on Open status.
Modify attachment.	Yes	Depends on Open status.
Cancel task.	No	Depends on Open status.
Delete task.	No	Depends on Open status.
Add Warranty Claim.	Yes	Yes
Modify/Delete Warranty Claim.	Yes	Yes

#### Task statuses continued.

Once a work order with workflow approval is approved, users cannot add tasks or enter requirements. However they can enter schedule rows to existing tasks, always depending on the current status of the task.

Workflow Status = Approved								
Task Activity / Internal Task Status	(1) Work in Progress	(2) Awaiting Schedule	(3) Open	(4) On Hold	(5) Scheduled	(6) Complete	(7) Closed	(8) Canceled
Modify Labor Requirement.	No	No	No	No	No	No	No	No
Modify Inventory Requirement.	No	No	No	No	No	No	No	No
Modify Tool Requirement.	No	No	No	No	No	No	No	No
Modify Purchase/ On-Hand.	No	No	No	No	No	No	No	No
Modify Labor Schedule.	No	Each row depends on Assignment status.	Each row depends on Assignment status.	Depends on prior status.	No	No	No	No
Modify Tool Schedule.	No	Each row depends on Assignment status.	Each row depends on Assignment status.	Depends on prior status.	No	No	No	No
Modify Inventory Schedule.	No	Each row depends on Assignment status.	Each row depends on Assignment status.	Depends on prior status.	No	No	No	No
Modify Purchase/ On-Hand Schedule.	No	Each row depends on Assignment status.	Each row depends on Assignment status.	Depends on prior status.	No	No	No	No

Workflow Status = Approved								
Task Activity / Internal Task Status	(1) Work in Progress	(2) Awaiting Schedule	(3) Open	(4) On Hold	(5) Scheduled	(6) Complete	(7) Closed	(8) Canceled
Modify Distribution.	No	Each row depends on Assignment status.	Each row depends on Assignment status.	Depends on prior status.	No	No	No	No
Modify Project Information.	No	No	No	No	No	No	No	No
Modify Asset BU and Asset ID.	No	No	No	No	No	No	No	No
Allow further status change.	Yes	Yes	Yes	Yes	Yes	Yes, depending on user preferences security setting to set status to Complete or Closed.	Yes, depending on user preferences security setting to set status to Complete or Closed.	No
Update task level scheduled start and end dates.	Yes	Yes	Yes	Only to prior status or Initial if the user saved the task originally as On Hold.	No	No	No	No

Workflow Status = Approved								
Task Activity / Internal Task Status	(1) Work in Progress	(2) Awaiting Schedule	(3) Open	(4) On Hold	(5) Scheduled	(6) Complete	(7) Closed	(8) Canceled
Record Actuals.	Yes	Yes	Yes	Yes	Yes	Yes for everything but Inventory Issues, POs and Requisitions.	No	No
Modify task note.	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Modify task instructions.	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Modify check list.	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Modify attachment.	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Cancel task.	No	Depends on Assignments existing on Schedule rows.	Depends on Assignments existing on Schedule rows.	Only to prior status or Initial if the user saved the task originally as On Hold.	Depends on Assignments existing on Schedule rows.	No	No	No
Delete task.	No	No	No	No	No	No	No	No
Add Warranty Claim.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No

Workflow Status = Approved								
Task Activity / Internal Task Status	(1) Work in Progress	(2) Awaiting Schedule	(3) Open	(4) On Hold	(5) Scheduled	(6) Complete	(7) Closed	(8) Canceled
Modify/ Delete Warranty Claim.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No

**Note:** The **Approval Status** field appears in the work order header. This field is controlled by workflow approval.

See <u>Understanding the Work Order Approval Process</u>.

#### **Status Transitions**

When you set up task statuses, with the exception of the *closed* and *canceled* statuses, you set up the transitions from one status to another that are allowed in the system. You cannot set up allowable status transitions for work order header statuses. Users can manually change the status based on the allowable transitions for a work order task. The work order header status is read-only.

When a work order task is created, the user selects the value in the **Status** field based on the allowable transitions for each status.

**Note:** Users can define more than one status transition based on an internal status. For example, you can set up the On Hold internal status as On Hold - Awaiting Information and On Hold - Resource shortage.

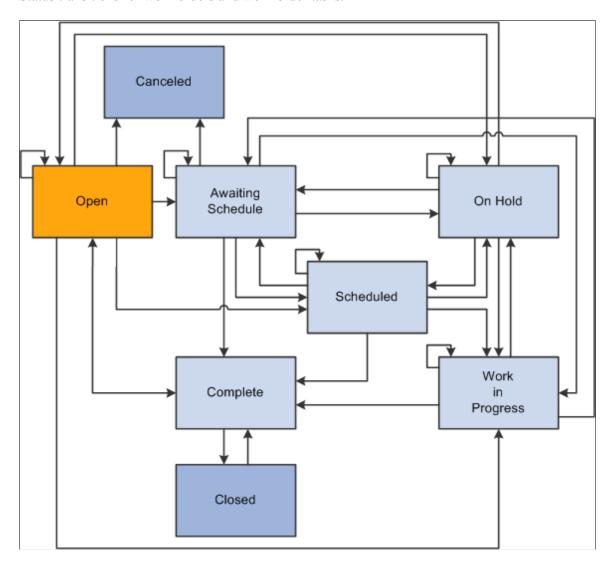
The following diagram illustrates status transitions for work orders and work order tasks. The status transitions are:

- Open, which can transition to the following statuses:
  - Open
  - Awaiting Schedule
  - On Hold
  - Scheduled
  - Work in Progress
  - Canceled
  - Complete

- Awaiting Schedule transitions to the following statuses:
  - Awaiting Schedule
  - Scheduled
  - · On Hold
  - Complete
  - Canceled
- On Hold transitions to the following statuses.
  - · On Hold
  - Open
  - Awaiting Schedule
  - Scheduled
  - Work in Progress
- Scheduled transitions to the following statuses:
  - Scheduled
  - Awaiting Schedule
  - On Hold
  - Work in Progress
  - Complete
- Work in Progress transitions to the following statuses:
  - Work in Progress
  - On Hold
  - Awaiting Schedule
  - Complete
- Complete transitions to the following statuses:
  - Closed
  - Open status description is Incomplete.
- Canceled does not transition to another status.

• Closed transitions to the Complete status.

Status transitions for work orders and work order tasks.



The following table describes the allowable work order task status transitions based on each internal status:

From Status/To Status	Open	Awaiting Schedule	Scheduled	Work in Progress	Complete	Closed	Canceled	On Hold
Open	Yes	Yes	Yes	Yes	Yes	No	Yes*  *Before you make any assignments.	Yes

From Status/To Status	Open	Awaiting Schedule	Scheduled	Work in Progress	Complete	Closed	Canceled	On Hold
Awaiting Schedule	No	Yes	Yes	Yes	Yes	No	Yes  *Before you make any assignments.	Yes
Scheduled	No	Yes	Yes	Yes	Yes	No	No	Yes
Work in Progress	No	Yes	No	Yes	Yes	No	No	Yes
Complete	Yes	No	No	No	No	Yes	No	No
Closed	No	No	No	No	Yes*  * Only when you close a task manually.	No	No	No
Canceled	No	No	No	No	No	No	No	No
On Hold	Yes*  * Can only return back to a status that has the same Internal Status as the one prior to On Hold. If the previous status is On Hold, then the system retrieves the status prior to any On Hold status.	Yes*  * Can only return back to a status that has the same Internal Status as the one prior to On Hold. If the previous status is On Hold, then the system retrieves the status prior to any On Hold status.	Yes*  * Can only return back to a status that has the same Internal Status as the one prior to On Hold. If the previous status is On Hold, then the system retrieves the status prior to any On Hold status.	Yes*  * Can only return back to a status that has the same Internal Status as the one prior to On Hold. If the previous status is On Hold, then the system retrieves the status prior to any On Hold status.	Yes*  * Can only return back to a status that has the same Internal Status as the one prior to On Hold. If the previous status is On Hold, then the system retrieves the status prior to any On Hold status.	No	No	Yes*  * Can only return back to a status that has the same Internal Status as the one prior to On Hold. If the previous status is On Hold, then the system retrieves the status prior to any On Hold status.

The editable fields on the Crew Scheduling Workbench must follow the enabling and disabling rules based on the work order task status. The following table outlines the rules for fields that are unique to crew scheduling:

Field/Status	Open	Awaiting Schedule	Scheduled	Work in Progress	On Hold
Crew	Enabled depending on Completed Date not present and Carryover Hours $< 0$ .	Enabled depending on Completed Date not present and Carryover Hours $> 0$ .	Disabled	Disabled	Enabled or disabled depending on prior status.
Carryover Hours	Enabled depending on the Completed Date field being blank and a crew has been assigned. Also depends on the selection of the Report Crew Carryover Hours check box in User Preferences, Maintenance Management page.	Enabled depending on the Completed Date field being blank and the crew has been assigned. Also depends on the selection of the Report Crew Carryover Hours check box in User Preferences, Maintenance Management page.	Enabled depending on the Completed Date field being blank and the crew has been assigned. Also depends on the selection of the Report Crew Carryover Hours check box in User Preferences, Maintenance Management page.	Enabled depending on the Completed Date field being blank and the crew has been assigned. Also depends on the selection of the Report Crew Carryover Hours check box in User Preferences, Maintenance Management page.	Enabled or disabled depending on prior status.
Scheduled Hours	Enabled depending on the <b>Completed Date</b> field being blank, the crew has been assigned, and the crew schedule status is not <i>Schedule Confirmed</i> .	Enabled depending on the Completed Date field being blank, the crew has been assigned, and the crew schedule status is not Schedule Confirmed.	Disabled	Disabled	Disabled

Field/Status	Open	Awaiting Schedule	Scheduled	Work in Progress	On Hold
Completed Hours	Enabled depending on the Completed Date field being blank and the crew has been assigned. Also depends on the selection of the Report Crew Assignment Completion check box in User Preferences, Maintenance Management page.	Enabled depending on the Completed Date field being blank and the crew has been assigned. Also depends on the selection of the Report Crew Assignment Completion check box in User Preferences, Maintenance Management page.	Enabled depending on the Completed Date field being blank and the crew has been assigned. Also depends on the selection of the Report Crew Assignment Completion check box in User Preferences, Maintenance Management page.	Enabled depending on the Completed Date field being blank and the crew has been assigned. Also depends on the selection of the Report Crew Assignment Completion check box in User Preferences, Maintenance Management page.	Enabled or disabled depending on prior status.
Completed Date	Enabled depending on crew being assigned. Also depends on the selection of the Report Crew Assignment Completion check box in User Preferences, Maintenance Management page.	Enabled depending on crew being assigned. Also depends on the selection of the Report Crew Assignment Completion check box in User Preferences, Maintenance Management page.	Enabled depending on crew being assigned. Also depends on the selection of the Report Crew Assignment Completion check box in User Preferences, Maintenance Management page.	Enabled depending on crew being assigned. Also depends on the selection of the Report Crew Assignment Completion check box in User Preferences, Maintenance Management page.	Enabled or disabled depending on prior status.
Crew Start Date	Enabled depending on if the Completed Date and Carryover Hours \$\iff 0\$, and if the crew has been assigned.	Enabled depending on if Schedule Status, Completed Date, and Carryover Hours are <> 0, and if the crew has been assigned.	Disabled	Disabled	Enabled or disabled depending on prior status.
Crew Start Time	Enabled depending on if Completed Date and Carryover Hours $> 0$ , and if the crew has been assigned.	Enabled depending on if Completed Date and Carryover Hours $>$ 0, and if the crew has been assigned.	Disabled	Disabled	Enabled or disabled depending on prior status.

Field/Status	Open	Awaiting Schedule	Scheduled	Work in Progress	On Hold
Crew End Date	Enabled depending on if Completed Date and Carryover Hours $>> 0$ , and if the crew has been assigned.	Enabled depending on if Completed Date and Carryover Hours $> 0$ , and if the crew has been assigned.	Disabled	Disabled	Enabled or disabled depending on prior status.

## Work Order Status - Add a New Value Page

Use the Work Order Status - Add a New Value Page to add a new value

Navigation:

Set Up Financials/Supply Chain > Product Related > Maintenance Management > Setup > MM Work Order Status Add a New Value

This example illustrates the fields and controls on the Work Order Status - Add a New Value page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Status	Enter a status name that identifies a phase of your organization's typical workflow and coincides with one of the PeopleSoft Maintenance Management system-defined internal statuses listed below. For example, you might define this status as <i>On Hold - Material on Order</i> and map it to the <b>system-defined internal status</b> value, <i>On Hold</i> .
	See Work Order Status Setup Page.

Field or Control	Description
Status Type	Select one of these values:  • Header  Selecting this value indicates that this status displays in the work order header status field and applies to the overall work order. The status that displays in the work order header status field is based on the weighting of the task statuses.  See Understanding Service Request and Work Order Statuses.  Note: When you select this value, the Allowed Status Transitions group box does not appear because header statuses are dependent on the transitions of the work order task statuses.
	Selecting this value indicates that this status applies to the status that appears in each work order task.
<b>Description</b> and <b>Short Description</b>	Enter a long description of this status code, and then enter a short description.

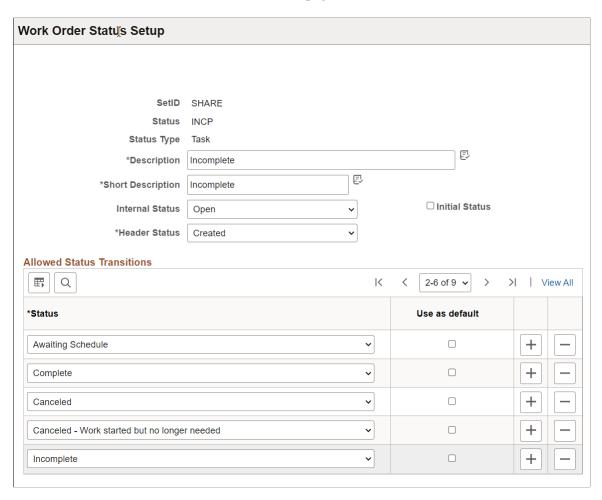
## **Work Order Status Setup Page**

Use the Work Order Status Setup page (WM\_STATUS) to defines work order status values specific to an organization and matches them with PeopleSoft Maintenance Management required system-defined internal statuses.

#### Navigation:

Set Up Financials/Supply Chain, Product Related, Maintenance Management, Setup, Work Order Status - Add a New Value.

This example illustrates the fields and controls on the Work Order Status Setup page. You can find definitions for the fields and controls later on this page.



You can set up all of the values in the fields describe previously that reside in the Work Order Status - Add a New Value page. However, you can set up the description, short description, and internal status values in this page.

Field or Control	Description
Description and Short Description	Set up these fields in the Work Order Status - Add New Value page (they are required fields) and, if desired, you can modify the fields, as well as click the <b>Dictionary</b> button and check the spelling for each field value in this page.

Field or Control	Description
Internal Status	Select one of these system-defined internal statuses to apply to this user-defined status. The system-defined statuses include:
	Awaiting Schedule.
	• Canceled.
	• Closed.
	Complete.
	• On Hold.
	• Open.
	Scheduled.
	Work in Progress.
	<b>Note:</b> You can map one internal header status to only one user-defined header status value. You can map one internal task status value to multiple user-defined task statuses.
	See <u>Understanding Service Request and Work Order Statuses</u> .
Initial Status	Select this check box if this status is the initial status for the work order task.
	<b>Note:</b> This check box only displays when you set up a work order task status and is only available for statuses being mapped to an internal status of <i>Open</i> . Furthermore, only one task status can be defined as the initial status at any given point in time.
Header Status	Select the status value that you want to display in the work order header when the weighting of the work order task statuses results in the task status currently being defined.
	For example, there are three tasks in a work order and the task statuses are On Hold - Awaiting Information (4), Scheduled (5), and Complete (6). Because <i>On Hold</i> has the highest weighted value, then work order header status value would be based on the internal task status of On Hold. However, when you set up the task status for the internal status of On Hold and name the task status On Hold – Awaiting Information, then you can select the <b>Header Status</b> value in this field that you want to display in the work order header's status field.

#### **Allowed Status Transitions**

The allowable status transitions display for task statuses only and are based on the system-defined status display rules.

See <u>Understanding Service Request and Work Order Statuses</u>.

Field or Control	Description
Status	Displays a list of allowed status transitions based on the internal status for the selected status that you are currently defining.
	The internal status values that allow transitions are:
	• Open.
	Awaiting Schedule.
	On Hold.
	Scheduled.
	Complete.
	Work in Progress.
	Important! The Allowed Status Transitions grid does not display if the internal status is Canceled or Closed. Also, when you set up a user-defined task status with a specific internal status, the user-defined statuses that appear in the Allowed Status Transitions grid are dependent on the allowed internal status transitions that appear in the Allowable Status Transitions diagram or the allowable status transitions table.
Use as Default	Select the check box to signal, in an automated status transition, the status that will be chosen as default. Currently the only automated status transition that exists in the application is the Batch Close process. When setting transitions from a task <i>Complete</i> status, ideally one of the transitions to a closed status should be chosen as the default status.

## **Setting Up Labor and Tools Resources**

## **Understanding Labor and Tools Resource Setup and Maintenance**

This section discusses:

- Labor resource setup.
- Comparison of PeopleSoft FSCM and HRMS employee source database tables.
- Steps to create employee data, generate resources, and manage resources without PeopleSoft HRMS.
- Tool resources setup.
- Resource cache administration.

## **Labor Resources Setup**

The goal of the operations manager and shop supervisor is to ensure the accurate inventorying and easy deployment of the labor resources (technicians) who are needed to complete work order assignments. Normally, the supervisor sets up the labor resources and assigns them to a shop. When a work order is created, the scheduler can assign resources to the work order task by simply selecting resources directly from the list of eligible labor resources, by using the Recommend Labor feature to search for the most qualified and available resources, or by manually searching for available labor resources. Before you set up shops and assign resources to the shops, you must set up competencies and accomplishments and associate them with employees.

You can generate labor resources by setting up employee data using one of these methods:

- Integrating with PeopleSoft HRMS.
- Integrating with 7.X HRMS or Third-Party HRMS.
- Set up employee and non-employee data in the FSCM database using PeopleSoft Maintenance Management.

**Important!** You must access Set Up Financials/Supply Chain, Common Definitions, Resources Data, Resource Setup and indicate whether you intend to use PeopleSoft HCM 8.0+, PeopleSoft HCM 8.0+ and PeopleSoft Financials Database, or PeopleSoft Financials Database for your employee source data. If you use PeopleSoft Front Office Staffing, then the PeopleSoft Financials Database option is not available for selection.

You set up accomplishments and competencies using tables that are common to PeopleSoft Resource Management, Staffing, and PeopleSoft Maintenance Management. You assign these accomplishments and competencies in qualification profiles, which you can associate when setting up a craft codes in PeopleSoft Maintenance Management, or select to specify the labor qualification requirements for a craft requirement in a work order task line of the Work Order component. You can assign one or more

resources to a craft. When you assign resources to a craft, you can update the qualification profiles from the craft only if the labor resource is set up in the Financials Database using PeopleSoft Maintenance Management. For each work order task, you can specify all the crafts required to perform the task and then modify the competencies and accomplishment qualifications needed for each of the specified crafts if necessary. You can also update and review each resource's qualification profile in PeopleSoft Maintenance Management to keep the profile current.

Once the resources and the qualifications are set up, you assign the resources to a shop. You must associate the resources with a shift in the shop. You can also associate resources with crews and assign one or more crews to a shop. You can assign crew members to more than one shop as long as you divide their capacity percentage between the shops. Before you can use the system to determine capacity for a crew based on specific periods, you must set up the schedule patterns, generate the schedule periods from the pattern, and specify which schedule pattern the crew will be using on the Crew Definition Component. You also can set up reasons for rescheduling a crew.

After this data is set up, you must run the Cache Administration process (Set Up Financials/ Supply Chain > Common Definitions > Resource Search > Cache Administration) to refresh the current eligible resources cache, the resource schedule cache, and the search indexes. Oracle recommends that you run this process nightly to keep the cache up to date. You must update the cache if you want the system to recommend labor resources based on their qualifications and availability, and if you want to enable users to see the availability score for each labor resource in relation to each work order task. The availability cache is updated automatically when assignments are created and canceled. Once you establish your labor resources, you can then create work orders and assign these resources to the work order tasks in PeopleSoft Maintenance Management by:

- Directly assigning the labor resource to a task.
- Selecting of the Recommend Resource button, which runs the Resource Matching process that recommends qualified and available resources for the task.

This Matching process matches eligible resources to resource demand as specified in the work order task. It objectively assesses resource availability and qualification level and presents resource assignment possibilities at the work order task level.

- Manually searching for available resources that possess the required craft and are available for the work order task.
- Assigning labor resources from crews, as well as individual resources, using the Labor Assignment Workbench.

Important! If you use PeopleSoft Resource Management and have set up your employee data in PeopleSoft Resource Management, then you do not have to set up the employee data again in PeopleSoft Maintenance Management because the employee data is set up in the same tables for both PeopleSoft Resource Management and PeopleSoft Maintenance Management. However, after the employee data is set up, you must create the employees as resources using the Create Resources or Create Resource Program components in PeopleSoft Maintenance Management before you can schedule the labor resources to a work order. The system marks them as PeopleSoft Maintenance Management resources in the same table PeopleSoft Resource Management uses. Once you create the employees as resources in PeopleSoft Maintenance Management, then you must perform all other activities such as managing a resource profile using the Labor Administration components in PeopleSoft Maintenance Management.

See PeopleSoft HRMS Setup Considerations.

See <u>Understanding Resource Scheduling</u>.

See "Understanding PeopleSoft Resource Management and PeopleSoft HCM" (PeopleSoft Resource Management).

## Comparison of PeopleSoft FSCM and HRMS Employee Source Database Tables in Resource Profile

The PeopleSoft Resource Management documentation identifies the tables used in the PeopleSoft Financial Database versus the PeopleSoft HRMS Database to derive data for the pages in the Manage Profiles component. All of this information also applies to PeopleSoft Maintenance Management except for:

- The row describing Preferences, which does not apply to PeopleSoft Maintenance Management.
- The row describing Supply Categories, which does not apply to PeopleSoft Maintenance Management.
- Additional pages in the Resource Profile specifically for PeopleSoft Maintenance Management, which include:
  - A Craft page.
  - A Shop page.

#### See Labor and Tool Resource Matching.

This describes the use of the Resource Profile Craft and Shop pages.

Craft Lists the crafts associated with this resource.	This is unique to PeopleSoft Maintenance Management. On this page, you can review all of the crafts that apply to the labor resource, and manually add one or more crafts to the labor resource's profile. This is just one way to specify the crafts belonging to a given resource. Another way is to add crafts to a labor resource is through the Assigning Resources to a Craft component, which enables you to assign one or more resources to a given craft.	Not applicable
Shop  Lists the shops to which an employee is assigned.	This is unique to PeopleSoft Maintenance Management. On this page, you can assign one or more shops to the labor resource with a specific weekly Shift. Manage Resource Profile validates shifts to prevent overlapping.	Not applicable

**Important!** PeopleSoft Maintenance Management does not use pool, regions, or industry in the resource profile.

# Steps to Create Employee Data, Generate Resources, and Manage Resources Without PeopleSoft HRMS

You can set up labor resources based on integrating with PeopleSoft HRMS and using the established employee data and competencies from PeopleSoft HRMS. You may also be able to use the data from a third-party product if you use PeopleSoft HRMS 7. x or earlier. However, if you do not use PeopleSoft HRMS, you can set up accomplishments and competencies in the Financials/Supply Chain database for employees that you define in PeopleSoft Maintenance Management.

Follow these steps to establish accomplishments and competencies for use in with resources in PeopleSoft Maintenance Management:

- 1. Set up fundamental resource and competency data in Set Up Financials/Supply Chain, Common Definitions, Resource Data, which includes:
  - Resources setup.
  - · Honors and awards.
  - Memberships.
  - Languages.
  - Licenses and certifications.
  - Degrees.
  - Majors.
  - Schools.
  - Competency types.
  - Competencies.
  - Competency tree.
  - Job codes.
  - · Holidays.

**Note:** You also can set up a competency tree using Tree Manager.

See "Using a Competency Tree to Organize Competencies" (PeopleSoft Resource Management).

See "Setting Up Resources" (Application Fundamentals).

- 2. Set up relevant qualification and employee data in PeopleSoft Maintenance Management including:
  - Task categories.
  - Qualification profiles.
  - Crafts.

- Employee data.
- 3. Create resources from employees using one of these methods:
  - Create resources (individual employees).
  - Create resources using the batch (RS CW AE) process.
- 4. Set up key features in PeopleSoft Maintenance Management used to manage and assign resources to a work order and work order task, which include:
  - Defining shifts.
  - Setting up shops.
  - Setting up crews.
  - Setting up schedule patterns and generating schedule periods based on a schedule pattern.
  - Setting up crew rescheduling reason codes.
- 5. Manage resources by:
  - Creating a resource group.
  - Assigning resources to a craft.
  - Maintaining employee eligibility.
  - Managing employee profiles.

## **Tool Resources Setup**

Tools are assets that are identified as tools in PeopleSoft Asset Management's asset repository by selecting the **Asset Management** > **Asset Transactions** > **Owned Assets** > **Basic Add** component. You can assign the asset type, subtype, manufacturer ID, and model of a tool along with the shop in which the tool is located or stored at and the preferred maintenance crew that can maintain the tools. You can assign a tool for use in a work order task in the work order component and can track the actual usage and cost of the tool in the Technician Workbench in PeopleSoft Maintenance Management. You can set up tool rates based on the asset type and subtype in the shop's Tool Rates page. These rates are the default rate values that display in the Tool Requirements and Tool Schedules grids of the work order task. If the rates are not set up in the shop, the default values are derived from the asset subtype, which is set up in PeopleSoft Asset Management. When you search for a tool, the availability is based on the operating hours of the shop.

When you use the matching engine to recommend the qualified and available tools to use for a work order task, the availability of tools is determined by the shop's operating hours. You can set up resource groups of tools for more than one shop. For example, you can set up a resource group for SHOP A to SHOP C, which includes all resources belong to SHOP A, SHOP B, and SHOP C. You can use a resource group to restrict the search for tools available to use in the performance of a work order task to the shops specified within the resource group. If you do not specify a resource group, the system searches through all the

assets marked as tools based on the asset characteristics that you specify when you schedule tools in the work order task line.

**Important!** The accuracy of the recommendation provided by the Match Engine for labor and tools depends on the status of the cache records. You should refresh the cache regularly.

#### **Resource Cache Administration**

You run the Cache Administration Application Engine (RS\_CACHE\_AD) process to manage various cache records in order to enhance system performance. PeopleSoft Maintenance Management uses only three cache records: Resource Eligibility, Resource Schedule, and Search Framework. You run this process periodically to purge unnecessary data from the system and to update cache tables that are used by various PeopleSoft Maintenance Management activities which include:

- Incorporating a Search Framework for searching.
- Keeping the available dates and times in the resource schedules up to date.
- Keeping the resource eligibility up to date.

The matching engine uses the search framework, resource eligibility, and the resource schedules cache to determine the qualification and availability fit scores that the matching engine uses to determine whether a resource is qualified and available to perform a specific work order task.

You should run the resource eligibility cache every time you run the Create Resources process.

**Important!** It is important to keep the cache records current in order to produce accurate results when you run processes such as the Match Engine, the resource availability checking routine, and resource assignment creation. To keep the cache current at any point in time, Oracle recommends that you should schedule this process to run nightly.

PeopleSoft Maintenance Management uses the resource schedules and resource eligibility to determine the availability of a resource for assignment in a work order task.

**Note:** You should also refresh the cache if you add resources or modify the shifts or shops associated with resources

See "Establishing Resource Groups" (PeopleSoft Resource Management).

# **Setting Up Qualifications and Employee Data in PeopleSoft Maintenance Management**

To set up task categories, crafts, employees, and qualification profiles, use the:

- Setup Task Categories (RS TASK TYPE) component.
- Define Crafts (RS\_SETUP\_CRAFT) component.
- Qualification Profiles (RS RESRC TEMPLT) component.

Manage Employee Data (RS CM PERSONAL) component.

This section provides an overview of qualification and employee data in PeopleSoft Maintenance Management and discusses how to set up task categories, add and maintain qualification profiles, add competencies, define crafts, add employee personal data, add employee job data, add employee visa and work permit data, and add employee citizenship and passport data.

**Important!** Before you set up this data, you must set up the Resource Setup component, as well as specific competency components located in Set Up Financials/Supply Chain, Common Definitions, Resources Data. The links to access this information are located in the Pages Used to Define Qualifications and Set Up Employee Data in PeopleSoft Maintenance Management section later in this section.

## Pages Used to Set Up Qualifications and Employee Data in Maintenance

Page Name	Definition Name	Usage and Navigation
Resource Setup	INSTALLATION_RESRC	Set up generic resource data, which includes identifying default work days, calendar options, the employee data source, and whether to notify the employee's manager when competencies and qualifications are changes.
Competencies	RS_CM_COMPTNCY_TBL	Define competencies to apply to crafts and resources in the qualification profile.
"Load Holidays Page" (PeopleSoft Resource Management)	RUN_RS_HOLIDAY	Load the holidays into employee's schedules.
Competency Type	RS_CM_TYPE_TBL	Define the various types of skills employees may need in your organization.
Degree	RS_CM_DEGREE_TBL	Define various types of degrees that may be needed for employees in your organization to perform certain tasks.
Holiday Schedule	RS_CM_HOLIDAY_TBL	Set up the organization holidays, which are loaded into employee's schedules using the Load Holiday component.
Honor/Award	RS_CM_AWARD_TBL	Define the various honors and awards that employees may have attained.
Job Code Definition	RS_CM_JOBCODE_TBL	

Page Name	Definition Name	Usage and Navigation
Language	RS_CM_LANG_TBL	Add the languages that employees in which an employee may need to be competent.
License/Certificate	RS_CM_LIC_CERT_TBL	Define any licenses and certificates that an employee may acquire that might be pertinent to work performed in your organization.
Major	RS_CM_MAJOR_TBL	Define a list of college majors that are desirable for employees in your organization to have to perform certain tasks.
Membership	RS_CM_MEMBR_TBL	Define any memberships to organizations that are desirable for employee's in your organization to belong to in order to perform certain tasks.
School	RS_CM_SCHOOL_TBL	Create a list of schools that employee's may have attended.
"Tree Manager Page" (PeopleSoft Order to Cash Common Information)	PSTREEMGR	Use to add and update a competency tree.
Task Categories Page	RS_TASK_TYPE	Distinguish between different types of tasks on a resource's schedule, for both informational purposes and in the Resource Matching Availability factor fit score calculation.
Qualification Profile Page	RS_RESRC_TEMPLT	Define generic competencies and qualifications in a template that may be accessed at the work order task level or may be associated with a craft which is identified at the work order task level.
Competencies Page	RS_RESRC_TMPL_COMP	Add a competency from the competency tree to the grid on the Qualification Profile page.
Define Crafts Page	RS_CFTSETUP_PG	Set up craft codes for classifying resources by craft in work orders.
<u>Update Employee Data - Personal Data</u> <u>Page</u>	RS_CM_PERSONL_DATA	Add and update an employee's personal data such as address and phone number.

Page Name	Definition Name	Usage and Navigation
Employee Job Page	RS_CM_EMPL_JOB	Add and update an employee's jobrelated data such as supervisor and work phone.
Visa/Work Permit Page	RM_CM_VISA_PRMT	Add and update any work permit and visa information for an employee.
Citizenship/Passport Page	RS_CM_CITI_PASS	Add and update the citizenship and passport information for the employee.

## **Understanding Qualification and Employee Data in PeopleSoft Maintenance Management**

This section discusses:

- Task categories.
- Accomplishments and competencies.
- Qualification profiles.
- Craft definitions.
- Employee data.

### **Task Categories**

In PeopleSoft Maintenance Management, a task is the equivalent of a schedule entry, such as an appointment, holiday, or meeting. When adding a new schedule entry, you must specify a task category on the Task Details page of a resource's monthly calendar. For example, if you select a date on the monthly calendar and select the Task Category that is set up for Appointment, then the calendar is updated with the appointment. Task categories identify specific periods of time when a resource is not available in the resource schedule. When assigning a resource to a work order task, the system looks at the calendar and takes these periods when the resource is not available into consideration when determining the availability of a resource.

## Accomplishments and Competencies

An accomplishment is an objective, measurable achievement. The accomplishment setup tables identify the accomplishments that resources can include in their resource profiles or that users can list as requirements for the resources that they request for an assignment. The Resource Matching Engine compares the resource's accomplishments with the accomplishments requested for an assignment. Accomplishments are set up in the Set Up Financials/Supply Chain, Common Definitions, Resources Data component and include:

- Honors and awards.
- Memberships.

- · Languages.
- Licenses and certifications.
- Degrees.
- Majors.
- · Schools.

Specific accomplishments for education, licenses and certifications, memberships, and languages can be included in Resource Matching to find the best fit between resources and resource requests. You can include accomplishments in the remaining categories (honors and awards) in the resource profiles for information only.

Competencies encompass skills, abilities, knowledge, or behavior, such as experience with repairing equipment, knowledge of special manufacturing processes, or a background in plumbing. Unlike accomplishments, competencies are measured or evaluated using a rating model that you define. For example, if the rating model defines three possible values, each will add 33 percent to the score. If the rating model defines five values, each value will add 20 percent to the score.

Set up resource competency data in Set Up Financials/Supply Chain, Common Definitions, Resource Data to include:

Resources setup.

Set up this option to define default work days and calendar options, indicate whether to allow non-employees to be established as resources, and whether you want to obtain employee data and competencies from either the PeopleSoft HCM 8.0+ database, the PeopleSoft HCM 8.0+ and FMS databases, or only the FMS database.

- Competency types.
- Competencies.
- Competency tree.
- Job codes.
- Holidays.

**Note:** You also can set up a competency tree using Tree Manager.

- Competency types.
- Competencies.
- Competency tree.
- Job codes.
- Holidays.

See "Organizing Competencies Using a Competency Tree" (PeopleSoft Resource Management).

See "Understanding PeopleSoft Resource Management and PeopleSoft HCM" (PeopleSoft Resource Management).

#### **Qualification Profiles**

You can add or update qualification profiles in PeopleSoft Maintenance Management. A qualification profile is a template of a type of resource, usually a craft in PeopleSoft Maintenance Management. The profile consists of competencies and accomplishments that describe the resource. When you create a work order task and select the craft, the qualifications from the qualification profile associated with the craft are copied to the task's requirements.

**Note:** You cannot copy a qualification profile into a resource's profile (**PeopleSoft Maintenance Management** > **Labor Administration** > **Manage Profile**). When a craft is added to a resource's profile, the qualifications (competencies and accomplishments) associated with the qualification profile set up for that craft are not copied into the resource's profile for employees or non-employees created through the Peoplesoft HRMS system. However, for employees or non-employees created through FSCM PeopleSoft Maintenance Management, you can copy the qualification associated with the qualification profile set up for that craft.

#### **Craft Definitions**

Define crafts to identify the type of labor resource. Maintenance planners and managers normally plan their business needs by craft, whereas shop managers and schedulers plan their needs identifying labor resources. For example, a facilities manager or planner would examine historic trends and determine that in the summer months the organization is likely to need thirty resources who specialize in the craft Landscaper in May of each year to perform the routine spring cleaning maintenance at corporate headquarters. However, at the shop level, the gardening crew supervisor or scheduler would identify specific gardener resources to perform the work.

Each crew member is associated with a craft. When a resource is added to a crew, the primary craft of the resource, which is identified in the resource's profile, is the default value. However, users can change this resource's craft in the crew definition.

You can also assign resources to a craft for a specific supervisor. If you assign a resource to a craft, the craft displays in the resource's profile in the Craft page.

#### **Employee Data**

You can add visa, work permit, citizenship, and passport data to an employee's existing data or you can add a new employee. If you do not use an HRMS database as the source for employee or non-employee data, you can access the PeopleSoft Maintenance Management, Labor Administration, Manage Employee Data component and add both employee and non-employee data. Once you add these employees, you can generate them as resources and assign them to perform work order and work order task activities.

If you plan to set up your employee data in PeopleSoft Maintenance Management, when you set up the Common Installation Options page in the Resource Setup component, you must select the PeopleSoft Financials Databases option as the source for employee and non-employee data. This disables the enterprise integration points (EIPs) between PeopleSoft HRMS and PeopleSoft Maintenance Management tables. It also enables the processing rules for PeopleSoft Maintenance Management to serve as the employee data source.

**Note:** If you use PeopleSoft 8 HRMS or higher, take advantage of the built-in integration with PeopleSoft Maintenance Management to manage resources and resource competencies. PeopleSoft Maintenance Management employs EIPs to request and send data between the PeopleSoft Financials and Supply Chain Management (FSCM) database, where PeopleSoft Maintenance Management information resides, and the PeopleSoft HRMS database, where employee and competency information resides.

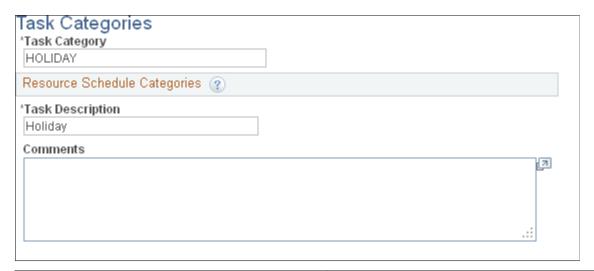
### **Task Categories Page**

Use the Task Categories page (RS\_TASK\_TYPE) to distinguish between different types of tasks on a resource's schedule, for both informational purposes and in the Resource Matching Availability factor fit score calculation.

Navigation:

## Set Up Financials/Supply Chain > Product Related > Maintenance Management > Setup > Setup MM Task Categories

This example illustrates the fields and controls on the Task Categories page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Task Category	Enter a category to apply to a resource's schedule such as Paid Time Off (PTO), Company Holiday, Corporate Event, Meeting, Training, and Appointment. You can add these to a resource's monthly calendar.
	Important! You do not set up work order tasks here. They are set up and assigned when you create a work order.
Task Description and Comments	Enter a description of this category and comments relevant to this task.

See "Understanding Resource Schedules" (PeopleSoft Resource Management).

## **Qualification Profile Page**

Use the Qualification Profile page (RS\_RESRC\_TEMPLT) to define generic competencies and qualifications in a template that may be accessed at the work order task level or may be associated with a craft which is identified at the work order task level.

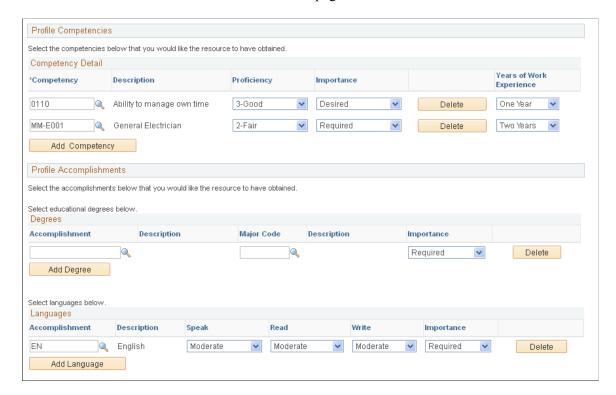
Navigation:

#### Maintenance Management > Labor Administration > Labor Qualification Profiles

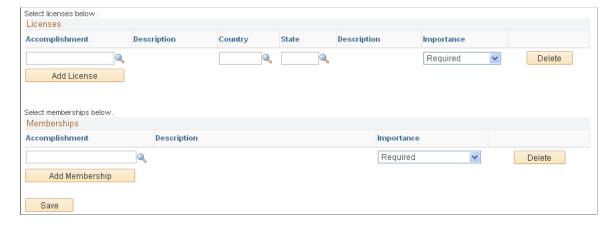
This example illustrates the fields and controls on the Qualification Profile (1 of 3) page. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Qualification Profile (2 of 3) page. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Qualification Profile (3 of 3) page. You can find definitions for the fields and controls later on this page.



Enter a name for the qualification profile, such as a craft name like MECHANIC, ELECTRICIAN, or PLUMBER. Enter a description and any other comments relevant to the profile you are creating.

Field or Control	Description
This qualification profile is for my personal use only. Do not make this profile visible to any other users.	Select the check box if you want to use this profile for personal use and not allow anyone else to see it.

### **Profile Competencies**

This grid enables you to select and add competencies to the profile. You can change the number of years of work experience required for each competency.

#### **Degrees**

Click the **Add** button to add a row to the **Degrees** grid. You can select and modify values for the **Accomplishment**, **Major Code**, and **Importance** fields.

#### Languages

Click the **Add** button to add a row to the **Languages** grid. You can select and modify values for the **Accomplishment, Speak, Read, Write,** and **Importance** fields.

#### Licenses

Click the **Add** button to add a row to the **Licenses** grid. You can select and modify values for the **Accomplishment, Country, State**, **Country,** and **Importance** fields.

### Memberships

Click the **Add** button to add a row to the **Memberships** grid. You can select and modify values for the **Accomplishment** and **Importance** fields.

#### **Related Links**

Competencies Page

"Establishing Application Setup Tables for Qualifications" (PeopleSoft Resource Management)

## **Competencies Page**

Click the Add Competency button on the Qualification Profile page to access the Competencies page.

Field or Control	Description
Competencies	Click the competency tree and click the competency that you want to copy into the new row that you just added or click the <b>Basic Search</b> button to display the <b>Competency Description</b> field.
Competency Description	Enter a description of a competency such as <i>listen</i> and click the <b>Search</b> button. The competency, <i>Ability to listen and respond</i> appears in the Competency grid. To display a list of all the competencies based on the competency type enter a wildcard (%) or just click the Search button. A list of competencies defined for the competency type displays.

Field or Control	Description
Select	Select the check box next to each of the competencies that you want to add and click the <b>Select</b> button. The selected competencies are added as rows in the Competency grid. You can modify the <b>Proficiency, Importance</b> , and <b>Years of Work Experience</b> for each competency in the grid.
Add	Click this button to add a blank row to the competency grid. When you search for the new competency, a list of all competencies set up in the system appears.
Return to Qualification Profile	Click this link to return to the Qualification Profile. The added competencies display in the grid for this profile.

## **Define Crafts Page**

Use the Define Crafts page (RS\_CFTSETUP\_PG) to describe each type of craft and any qualifications associated with the craft to enable users to associate it with resources identified in the shop and in the work order.

Navigation:

Set Up Financials/Supply Chain > Product Related > Maintenance Management > Resources > Setup MM Resource Crafts

This example illustrates the fields and controls on the Define Crafts page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Craft	Enter type of craft to use to complete work orders such as electricians, mechanics, plumbers.

Field or Control	Description	
Qualification Profile	Select the qualification profile that describes qualifications that an employee needs to perform this craft.	
	Note: When a craft is added to a work order task, then the competencies, accomplishments, and qualifications associated with the qualification profile selected here for the craft are copied to the work order task labor qualification requirements for that task.	

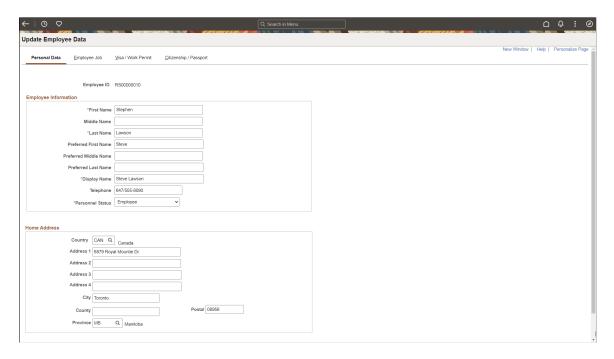
## **Update Employee Data - Personal Data Page**

Use the Update Employee Data - Personal Data page (RS\_CM\_PERSONL\_DATA) to add and update an employee's personal data such as address and phone number.

Navigation:

#### Maintenance Management > Labor Administration > Manage Employee Data

This example illustrates the fields and controls on the Updated Employee Data - Personal Data page. You can find definitions for the fields and controls later on this page.



Enter the employee's name, telephone number, and address information.

**Note:** If the page is display-only, then the information is sourced from the "Update Employee Data: Personal Data Page" (PeopleSoft Resource Management) in Resource Management.

Field or Control	Description
Personnel Status	Select whether this individual is one of the following:  An employee based on your organization's definition of an employee.  A non-employee such as a contractor or consultant.

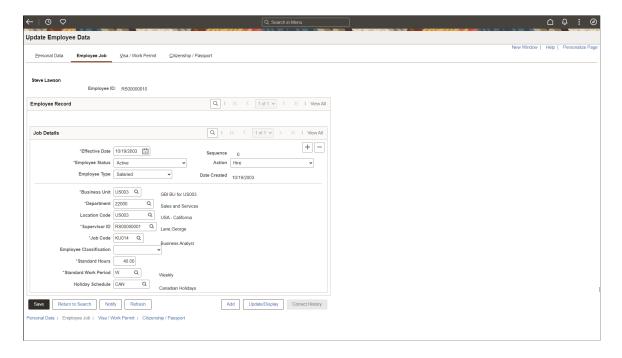
## **Employee Job Page**

Use the Employee Job page (RS\_CM\_EMPL\_JOB) to add and update an employee's job-related data such as supervisor and work phone.

Navigation:

#### Maintenance Management > Labor Administration > Manage Employee Data > Employee Job

This example illustrates the fields and controls on the Employee Job page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Effective Date	Select the date that this data becomes effective in the system. You can add more than one job data record consisting of different data selected as job details for this employee.  Effective Date, Employee Status, Business Unit, Department, Supervisor ID, Job Code, Standard Hours, and Standard Work Period are required fields.  The asterisk (*) by a field means that it is required and that you must select or enter a value in the field.

**Important!** You must refresh the Eligible Resource Cache table (RS\_ELGBL\_WRKR) when routine changes are made to a resource's job-related information.

#### Related Links

"Understanding Application Setup and Employee Data Tables" (PeopleSoft Resource Management)

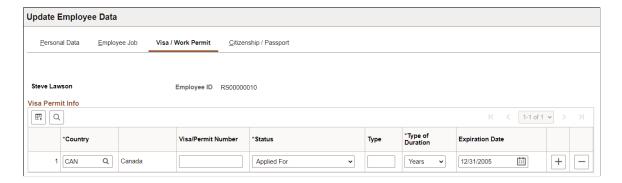
## **Visa/Work Permit Page**

Use the Visa/Work Permit page (RM\_CM\_VISA\_PRMT) to add and update any work permit and visa information for an employee.

Navigation:

## Maintenance Management > Labor Administration > Manage Employee Data > Visa/Work Permit

This example illustrates the fields and controls on the Visa/Work Permit page. You can find definitions for the fields and controls later on this page.



Add as many rows as necessary of visa and work permit information for this employee.

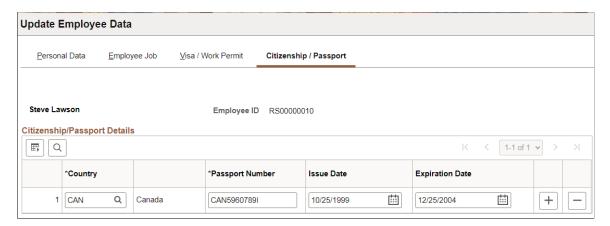
## Citizenship/Passport Page

Use the Citizenship/Passport page (RS\_CM\_CITI\_PASS) to add and update the citizenship and passport information for the employee.

Navigation:

### Maintenance Management > Labor Administration > Manage Employee Data > Citizenship/ Passport

This example illustrates the fields and controls on the Citizenship/Passport page. You can find definitions for the fields and controls later on this page.



Add as many rows as necessary of citizenship and passport information for this employee.

# **Generating Employees as Resources in PeopleSoft Maintenance Management**

This section provides an overview of resource generation and discusses how to create individual resources, change the job for a resource, create resources using batch processing, and establish resources.

## Pages Used to Generate Resources from Employee Data

Page Name	Definition Name	Usage
Create Resources Page	RS_WRKR_CREATE	Add an employee as a resource.
Establish Employee as Resource Page	RS_WRKR_CREAT_CHNG	Select one job from a list of jobs to associate with this employee resource if you allow multiple jobs in HRMS.
Send Notification Page	PT_WF_NOTIFY	Notify concerned parties that you created this employee as a resource for a specific job.
Lookup Address Page	PT_WF_NOTFY_LOOKUP	Search for and add the recipients of the notification.
Create Resources Program Page	RS_CW	Run a batch process to establish large numbers of employees as resources.

Page Name	Definition Name	Usage
Create Resources Program - Establishing Resources Page	RS_CW_2	Generates a list of employees from which you can select to create as resources.
Submit Confirmation Page	EO_SUBMIT_CONFIRM	Confirm submission of employees as resources is successful.

# **Understanding Resource Generation**

Once employee source data is either imported from PeopleSoft HRMS or set up in PeopleSoft Maintenance Management, you generate selected employees as resources. The term *resource* describes the employees and non-employees who can be assigned to work orders and work order tasks in PeopleSoft Maintenance Management. When you establish an employee or non-employee as a resource, PeopleSoft Maintenance Management automatically populates the resource's schedule with holidays. You can assign resources to a craft, change a resource's eligibility status, and update a resource's profile. For example, when you assign resources directly to a shop, add more crafts, and so on, you can then assign these resources to specific work order tasks.

To establish and maintain employees and non-employees as resources, use:

- For individual resources, the Create Resources (RS WRKR CREATE component).
- For resource batches, the Create Resources Program (RS CW AE) component.

New resources are established as eligible for assignment, which means that they are included in Resource Matching and can be assigned to work order tasks. Use the Create Resources component, and click the **Change Job** button to assign a resource to a different job.

**Important!** After you execute the process to convert the list of employees into resources, run the Cache Administration Application Engine process (RS\_CACHE\_ADMIN), which calls the Refresh Eligible Worker, Refresh Availability Cache, and Create/Update search framework processes to update the Cache tables that are used for resource matching.

# **Create Resources Page**

Use the Create Resources page (RS\_WRKR\_CREATE) to add an employee as a resource.

Navigation:

Maintenance Management > Labor Administration > Create Labor Resources

### Add an Employee as a Resource

Access the Add Employee as Resource page and select an employee ID that you want to add as a resource.

### **Create Resources**

Verify the resource's information. If the information is correct, click the **Save** button. If the information is incorrect, click the **Change Job** button.

# **Establish Employee as Resource Page**

Use the Establish Employee as Resource page (RS\_WRKR\_CREAT\_CHNG) to select one job from a list of jobs to associate with this employee resource if you allow multiple jobs in HRMS.

Navigation:

Maintenance Management > Labor Administration > Create Labor Resources

Click the Change Job link.

Field or Control	Description
Select	Click this button for the Department, Location, and Job with which to associate this resource. You perform this activity when an employee is eligible for assignment to more than one job.
Notify	Click this button either on the Establish Employee as a Resource page or the Create Resources page to notify the managers and the employee (if desired) that you created them as a resource for the selected job.
	This button only appears if you select the Email Notification to Manager check box in the Common Installation Options page if the data source is either Financials or Financials and PeopleSoft HCM. It does not appear if the data source is only PeopleSoft HCM.
	See "Setting Up Resources" (Application Fundamentals).

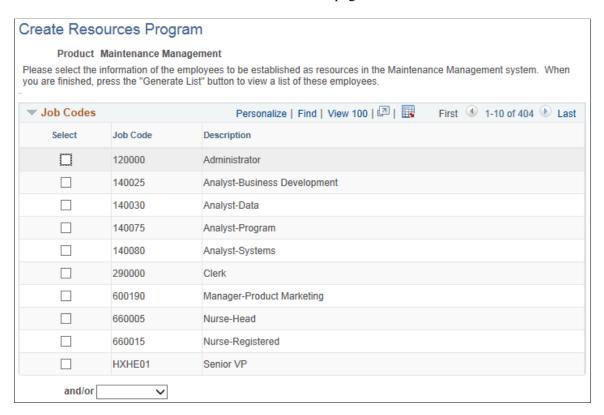
# **Create Resources Program Page**

Use the Create Resources Program page (RS\_CW) to run a batch process to establish large numbers of employees as resources.

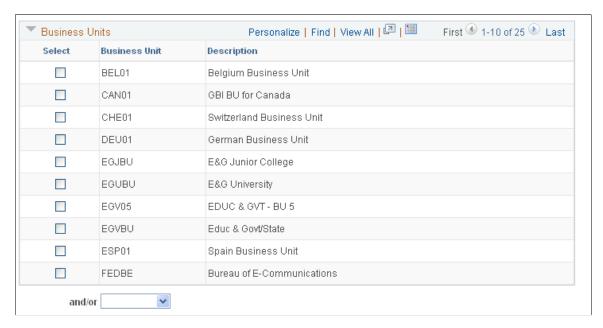
Navigation:

Maintenance Management, Labor Administration, Create Resources Program

This example illustrates the fields and controls on the Create Resources Program (1 of 5) page. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Create Resources Program (2 of 5) page. You can find definitions for the fields and controls later on this page.



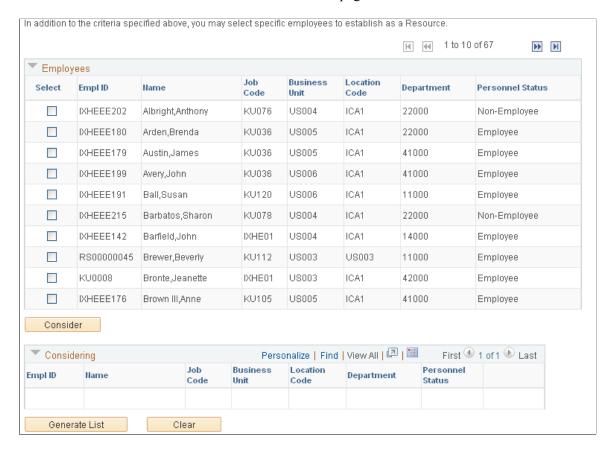
This example illustrates the fields and controls on the Create Resources Program (3 of 5) page. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Create Resources Program (4 of 5) page. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Create Resources Program (5 of 5) page. You can find definitions for the fields and controls later on this page.



### **Job Codes**

Select the job codes from which you want to generate employees as resources.

Field or Control	Description
and/or	Select:
	• and
	If you want to narrow the list. The system includes only employees and non-employees that meet these criteria and the criteria that is in the next grid.
	• or
	If you want to include employees and non-employees that meet any of the criteria that is selected in the grids.
	If you leave this field blank, the system includes employees and non-employees that meet any of the criteria that is selected in the grids.

### **Business Units**

Select the business units from which you want to generate employees as resources.

Field or Control	Description
and/or	Select:  • and
	If you want the program to generate resources based on the individuals belonging to the selected business units and selected locations identified in the next grid.
	or  If you want the program to generate resources based on the individuals belonging to the selected business units or selected locations identified in the next grid.

### Locations

Select the locations from which you want to generate employees as resources.

Field or Control	Description
and/or	Select:  • and  If you want the program to generate resources based on
	the individuals belonging to the selected locations and selected departments identified in the next grid.
	If you want the program to generate resources based on the individuals belonging to the selected locations or selected departments identified in the next grid.

### **Departments**

Select the departments from which you want to generate employees as resources.

Field or Control	Description
and/or	Select:  • and
	If you want the program to generate resources based on the individuals belonging to the selected departments and selected employees identified in the next grid.
	or  If you want the program to generate resources based on the individuals belonging to the selected departments or selected employees identified in the next grid.

### **Employees**

Select the employees who you want to generate as resources.

Field or Control	Description
Consider	Select the employees from the list that you want to consider as resources, and then click the <b>Consider</b> button. The selected employees appear in the Considering grid.
Generate List	Click this button to create a draft of the proposed list of employees that the system will create as resources based on your selections in each of the grids. You can review the list and decide whether to proceed, or click the <b>Clear</b> button to cancel your selections in order to regenerate the list.

# **Create Resources Program - Establishing Resources Page**

Use the Create Resources Program - Resources to be Established page (RS\_CW\_2) to generates a list of employees from which you can select to create as resources.

Navigation:

Click the Generate button on the Create Resources Program page.

This example illustrates the fields and controls on the Create Resources Program - Establishing Resources page. You can find definitions for the fields and controls later on this page.



This list of employees displays after you select **Generate List.** You can remove the check mark from the employees whom you do not want to generate as resources.

Field or Control	Description
Establish Resources	Click this button to run the program to establish the list of selected employees and non-employees as resources.
	The Submit Confirmation page displays when you select the <b>Establish Resources</b> button, which displays a message confirming that the employees that you submitted were successfully submitted as resources.
	This process does not affect HRMS employee records. It establishes a new row of data in the Worker table (RS_WORKER_TBL) and Worker Effective Date table (RS_WKKR_EFFDT) for each resource.
	Important! If any of the resources that you establish have more than one job in PeopleSoft HRMS (more than one active row in the JOB table), they are listed here.  When you execute the process, the system selects the job with the lowest field value in the Employee Record Number field (EMPL_RCD) to enter into the Worker table and Worke Effective Date table. The lowest employee record number represents the job entry that is created first. To change an employee's job, access the Create Resources component and click the Change Job button in the Create Resources page and then click the Select button in the Establish Employee as Resource page to access the Select Job page where you can select a different job in which to assign to the employee.
	Note: If the program cannot generate employees based on your selections, the <b>Establish Resources</b> button is not available for selection. You must return to the Create Resources Program page, change your selection criteria, and submit these new selections.

Field or Control	Description
Conflicting Resources	PeopleSoft HRMS employees and non-employees can have one-to-many job titles, while the Create Resources program only allows one job title. When you run the Create Resources process for employees and non-employees as resources, the system lists each employee with more than one job title in PeopleSoft HRMS as a conflicting resource. The system displays the first job title that was associated with the resource in PeopleSoft HRMS. You can override this job title in PeopleSoft Maintenance Management if necessary.

# Setting Up Shifts, Schedule Patterns and Periods, Shops, and Crews

To set up shifts, shops, and crews use the:

- Define Shifts (RS SHIFT DETAIL) component.
- Schedule Patterns and Periods (WM SCHED PERIOD) component.
- Define Shop (WM\_SHOP\_DEFN) component.
- Define Crew (WM\_CREW\_DEFN) component.
- Crew Rescheduling Reason Codes (WM CSREASON CD) component.

This section provides an overview of shop and crew management and discusses how to set up operating hours for a shift, define schedule pattern, define and generate schedule periods, define shop information, define and maintain resources for a shop, define and maintain craft rates for a shop, define and maintain tool rates for a shop, set up service groups for a shop, define inventory commit and reservation rules for work order types, set up timesheet defaults, set up a crew, and set up crew rescheduling reason codes.

# Pages Used to Set Up Shifts Shops, and Crew Information

Page Name	Definition Name	Usage
Define Shifts Page	RS_SHIFT_PG	Enables a user to create a shift and assign operating hours to it.
Schedule Pattern Page	WM_SCHED_PATTERN	Set up schedule patterns associate them with periods to use for crews.  determine crew assignments.
Schedule Periods Page	WM_SCHED_PERIOD	Define the number of schedule periods that fall within a given date range based on the selected schedule pattern.

Page Name	Definition Name	Usage
Shop Information Page	WM_SHOP_DEFN	Define shop header data and any default values for this shop.
Distribution Defaulting Setup for Shop Page	WM_SHOP_DIST_SEC	Set up default ChartField distribution values to display when this shop is selected for a work order.
Define Shop - Resources Page	WM_SHOP_RES	Assign the schedulers, resources, and crews to a shop.
Define Shop - Craft Rates Page	WM_SHOP_CRFT_RATE	Add one or more rows consisting of crafts and their associated rates to a shop.
Define Shop - Tool Rates Page	WM_SHOP_TOOL_RATE	Add one or more rows consisting of asset classifications for tools derived from the Asset Repository and the associated tool rates to a shop.
Service Group Page	WM_SHOP_SRVC_GRP	Add one or more service groups to associate with this shop.
Type Page	WM_SHOP_TYPE	Define Inventory commit and reservation rules combinations for one or more work order types.
Timesheet Default Page	WM_SHOP_DFLTS	Set up timesheet default values to use for the Work Order Completion component time entries.
Define Crew Page	WM_CREW_DEFN	Add one or more employees to a crew.
Crew Rescheduling Reason Code Page	WM_CSREASON_CD	Set up reasons for rescheduling crews.

# Understanding Shifts, Schedule Patterns and Periods, Shops, and Crews

The shop supervisor's goal is to ensure the accurate inventorying and easy deployment of labor resources (technicians), who are needed to complete work order assignments. Before users can set up shops and assign resources to shops, they must set up crafts and the labor resource requirements that are listed in the previous sections.

#### **Shifts Overview**

You can set up a shift for a resource or for a shop. When you set up a shift for a shop, it defines the operating hours for the shop. When you set up shifts for resources, the shift is listed in the resource's profile next to an assigned shop. When the resource works for the shop identified in their profile, the shift in their profile applies when assigning the resource to a work order task.

You can set up default work days for all resources, along with standard work hours and a standard start time in the Resource Setup - Common Installation Options page. You can modify this information in a resource's profile. The default work days, standard hours per work day, and standard start time are used to display the resource's daily calendar. For example, when you view a resource's calendar, the default work days, standard hours per work day, and standard start time are used to create the daily calendar for the resource, regardless of whether the resource has been assigned a shop and a shift. You select a shift for a shop to establish a relationship between resources and weekly shifts.

When the daily calendar is opened, it displays the time slots as per the installation table such as 8:00 am -5:00 pm, even if a shift was assigned to a resource. You have the option to view any time slots for a specific day by selecting the start and end time edit boxes.

### Schedule Pattern and Periods

To perform crew scheduling of work order tasks, you first must define one or more schedule patterns and assign a pattern to the crew. The crew can have different schedule patterns assigned with different effective dates. The available types of schedule patterns are days, weekly, biweekly, and monthly. Based on the type of schedule pattern, a specified period start date and optionally days in period that you select, the system generates the number of periods desired and marks the current schedule period based on the system date when a period contains the current system date. Once the periods are generated you can enter a date range to display a specific group of periods. You can leave the date range blank and display prior periods. Once the schedule pattern and periods are created, you can associate a schedule pattern with each crew on the Crew Definition page. The schedule pattern and periods that are assigned to each crew are used to assist in determining a crew's capacity to participate in work order tasks. The scheduler adjusts the capacity based on personal knowledge of the crew on each period.

A schedule pattern and its associated schedule periods are set up by SetID. The system looks at the current system date to determine the current schedule period. If you generate schedule periods for a schedule pattern using a future date as the Period Start Range Date, the system will not identify the current period on the Schedule Periods page until the actual date rolls around on the system calendar. For example, if the Period Start Range Date is 01/01/2008 using a monthly schedule pattern, and you generate 12 periods, then the system will not mark the period of 01/01/2008 — 01/31/2008 as the current period until the current system date falls within the range of 01/01/2008 and 01/31/2008. The system will roll forward the current period as the system calendar progresses. Based on the previous example, when the system date becomes 02/01/2008, the system will move the current date mark forward to the 02/01/2008 — 02/29/2008 period in the period schedule.

You can make changes to the pattern description, period start date, number of periods, and the number of days in a period until a crew is assigned to the pattern and a crew capacity plan is established, which locks the existing periods. Once the periods are locked, you can add additional periods by entering the number of periods to extend from the last period on the schedule pattern.

**Important!** It is important to understand that the schedule periods, which are generated on the Schedule Periods page are based on the Period Start Date and the number of periods entered on the on the Schedule Periods page of the component. The current period is determined by the current system date.

### **Shop Setup and Management**

You can associate a single shop with only one work order business unit; however, a single work order business unit may have multiple shops within it. You can assign a single shop to only one location; however, the same location may house multiple shops. The data set up in a shop affects and controls many parts of a work order. You must identify a shop when you create a work order. You can specify a shop in the work order business unit, which becomes the default shop value when you create a work order using

that business unit. You can override this value in the work order with another shop. You set up six pages of shop details that can affect and control the work order, which include the:

### • Shop Information page.

This is an effective dated page, which means if you indicate that the page is active, that the options you select or enter on this page remain active from that date forward or until you decide to change the effective date and the data on the page. This enables you to track the shop history. You identify a shift that determines the operating hours of the shop. You also indicate whether you intend to use crew scheduling for work orders associated with this shop.

You can assign ChartField values at the shop level, which override the default ChartFields in the work order that are based on the ChartField distribution template. The shop is the lowest defaulting level for ChartFields. This means that if a work order is created for a specific shop and you set up a ChartField distribution at the shop level, and create a work order using that shop, then the shop's ChartField distribution will override any ChartFields that are first populated by the work order distribution template. Labor, tools, and inventory only have one default distribution row, which means that the distribution values in the shop will override the values in each row. However, PeopleSoft Purchasing may have more than one default distribution row. In this case the ChartField values defined for the shop distribution will override the same fields in each of the PeopleSoft Purchasing distribution rows. For example, if Dept. 1000 is defined at the shop level, then department 1000 will be the default value on all of the PeopleSoft Purchasing distribution rows. In this case, you may have to modify these ChartField values at the work order level.

The major purpose of this page is to establish default values for the work order at the shop level. Default values typically follow the standard PeopleSoft default hierarchy by looking at the lowest level first, then the shop level, then the work order business unit level. For example, you can select whether you want workflow approval or preapproved to apply to a work order by specifying values as the work order business unit level, the shop level, and the work order type level. Based on this setup, you select *Default* for work order type CM, and select *Workflow Approval* for Shop A, and select *Pre-Approved* for work order business unit US001. When you create a work order using US001, Shop A, and CM, the system will look first at the work order type value of *Default* and move on to the shop level value of *Workflow Approval* and apply that value to the work order, which means the work order must go through the approval process. However, if you had selected *Default* at both the shop level and the work order type level, then the system would have applied Pre-Approved as the condition for approval in the work order.

#### Record Estimates

You can indicate that you want to be able to record labor, tools usage, and inventory estimates in the work order when you create a work order for a specific shop, or you can select *Default* at the shop level and apply the your selections in the work order business unit.

#### Schedule Resource

You can indicate that you want to be able to schedule labor, tools, and inventory resources based on your selections for a specific shop, or select *Default* at the shop level and apply your selections in the work order business unit to a work order.

#### Inventory Commit/Reservation

You can set up Inventory commit and reservation rules at the work order business unit level, the shop header level, and on the Type page of the shop. The default hierarchy for the Commit/Reservation rule is shop/type, shop header, work order business unit. For example, if a value

exists at the Shop/Type level for a commit and/or reservation rule, then when you create a work order using the combination of a specific business unit, shop, and shop/type, then the values set up for the shop/type are used.

### Update Resource Calendar

If a resource completes work ahead of schedule, selecting the **Update Calendar** option enables you to update the resource's calendar at the work order task level to free the resource to work on other tasks. You can select *Default* at the shop level and use the value selected at the work order business unit level.

### Overbooking Resources

You can select a check box to indicate that a user can manually intervene to overbook resources for a work order created with this shop. If you do not select this check box, the system automatically allows overbooking of all resources for work orders created with this shop.

#### Chargeback

If chargebacks are allowed, you can indicate that you want PeopleSoft Project Costing to calculate chargebacks at the work order business unit level, the shop level, or the work order type level. You must activate chargebacks on the Activity - Organization page in PeopleSoft Project Costing for the options in the work order business unit, the shop, and the work order type level to apply. If chargeback is set up in PeopleSoft Maintenance Management and PeopleSoft Project Costing, when you create a work order, the system looks for a value for the work order type specified for the work order, if Default is selected, it then looks for a value for the shop specified in the work order and applies that value to the work order. If the shop value is Default, the system looks at the value in work order business unit and uses it.

See "Understanding Integration with PeopleSoft Maintenance Management" (PeopleSoft Project Costing).

See "Revenue and Cost Sharing" (PeopleSoft Project Costing).

#### • PeopleSoft Project Costing

You can indicate the PeopleSoft Project Costing rate options for work orders created with this shop or use the options selected in the work order business unit. You can select either a rate plan, which consist of more than one rate set or you can select a specific rate set.

#### Labor Rates

You can specify the labor cost and bill rates for work orders created with this shop. You can also specify labor rates for each craft on the Craft Rates page of the Shop component. If you specify labor rates at the craft level and you enter the business unit, shop, and craft in the work order, then the craft labor rates serve as the default value in the work order. The system looks at the craft level, then the shop header level, and finally the business unit for the default values.

#### • Enable Workflow Approval

You indicate that you want to enable workflow approval at the business unit level, the shop level, or the work order type level. The system looks first at the work order type level, then at the shop level, and finally at the work order business unit level.

**Note:** Refer to the example in the introduction to these options.

#### Resources page.

You can select the schedulers, whom you want to perform scheduling for any work orders created with this shop. You assign them each Scheduler Codes and select one as the primary scheduler. This makes it easy to change schedulers of work order tasks. You just change the scheduler's code in the shop and eliminate having to change the scheduler on every work order task to which they were the scheduler was assigned.

Once you create a resource, you can access the Manage Profile component and associate the resource with one or more crafts on the Craft page, and assign the employee to one or more shops on the Shop page. This resource is automatically added to the Resources page of the assigned shop. You can access the Manage Profile page directly from the Resources page in the shop for each resource. When you create a work order and schedule a resource, the resource must be associated with the shop used in the work order.

The Resources page also lists any crews assigned to this shop. You can assign a specific crew to only one shop; however, a shop can have multiple crews assigned to it. You can split the time between a resource, who is assigned to more than one crew.

### Craft Rates page.

You can set up labor cost and bill rates by craft, which will override any labor rates specified for the shop or the business unit as the default value when you select on of the crafts listed here in the work order task.

### Tool Rates page.

You can specify tool cost and bill rate for tools used for a work order task at the shop level. This is also where you apply these rates based at the asset subtype level. If you do not specify these rates at the shop level, then the rates defined at the asset subtype level are applied to the work order.

#### Service Group page.

You can identify the types of services a shop can provide through the selection of one or more service groups.

#### Type page.

You can specify combinations of Inventory commit and reservations rules for each work order type within the shop.

#### • Timesheet Defaults page.

You set up the Timesheet prefix, which will be used when you stage the timesheet entries in the Work Order Completion component.

### **Crew Setup**

PeopleSoft Maintenance Management enables you to schedule crews for a work order tasks. You indicate on the Shop Information page that you intend to schedule crews for work orders. Before you set up your crews, you set up your shops, because you must associate each crew with a shop. You can select one

crew associated with a shop as the primary crew. The selected primary crew will be used to determine the default crew in the work order task. After you create a crew, the crew name displays on the Define Shop - Resources page. Only resources that you identified for a shop can be added to the shop's crew. You must select a schedule pattern for each crew if crew scheduling is performed by the shop. Once a schedule pattern is assigned to a crew and a crew capacity plan is defined, it is locked. However, you can continue to add additional periods to that schedule pattern. Effective dating is applied to the selected crew pattern and the selected resources. If you indicate that a crew is inactive, this removes the crew from the Resources page of its assigned shop. When a resource is added to a crew, the default craft value is the resource's primary craft. You can select another craft from a list of crafts associated with the resource as the primary craft for the resource. You can identify only one resource as the leader of the crew. A crew may have multiple resources and one resource can belong to multiple crews assigned to the same shop or different shops. You enter a capacity percentage to allocate a crew resource to more than one crew.

Crew Resource	Shop/Crew/ Capacity %
Joe Jones - Electrician	<ul> <li>Shop A: Crew 1 = 20%</li> <li>Shop A: Crew 2 = 80%</li> </ul>
Estelle Parsons - Carpenter	<ul> <li>Shop A: Crew 1 = 50%</li> <li>Shop B: Crew 3 = 50%</li> </ul>

You will *not* receive an error if the total capacity percentage for a resource assigned to more than one crew is less than 100%. You *will* receive a warning message if the total capacity percentage for a resource assigned to more than one crew is greater than 100%.

Effective dating for each crew enables you to track changes to the schedule pattern, any addition and removal of resources assigned to the crew, and whether a crew is active or inactive as of a specific date. When adding a new effective dated row on the Define Crew page, the system ensures that there is no crew capacity with a period end date that is greater than or equal to the specified effective date. This prevents overlapping crew capacity plans.

### **Crew Rescheduling Reason Codes**

You define as many of these codes as are necessary to establish the reasons why you may be rescheduling a crew. When you reschedule a crew on the Crew Scheduling Workbench, you can select the reason for the rescheduling.

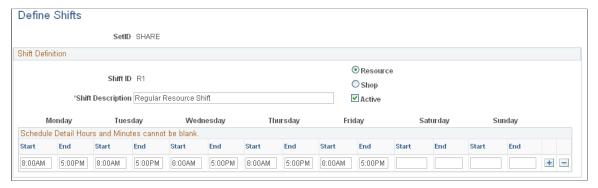
# **Define Shifts Page**

Use the Define Shifts page (RS\_SHIFT\_PG) to enables a user to create a shift and assign operating hours to it.

### Navigation:

- Set Up Financials/Supply Chain > Product Related > Maintenance Management > Resources > Setup MM Resource Shifts
- Click the **Define Shop Operating Hours** link on the Shop Information page.

This example illustrates the fields and controls on the Define Shifts page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Shift ID	Enter a shift ID to which you want to assign operating hours.
Resource and Shop	Click the <b>Resource</b> option to indicate that this shift applies to an individual resource, or click the <b>Shop</b> option if this shift applies to a shop.
Active	Select this check box to indicate that is shift is currently active for any shops or resources that you associated with it.
Start and End	Enter the start and ending times for each shift based on the day of the week. You can add additional rows if there a multiple shifts in a day.
	Note: You can enter more than one row of weekly start and end dates for a shift.

# Schedule Pattern Page

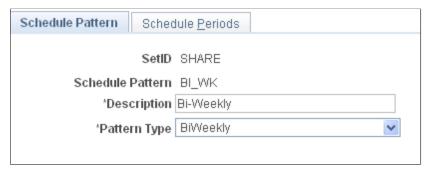
Use the Schedule Pattern page (WM\_SCHED\_PATTERN) to set up schedule patterns associate them with periods to use for crews.

determine crew assignments.

Navigation:

Set Up Financials/Supply Chain, Product Related, Maintenance Management, Setup, Schedule Pattern

This example illustrates the fields and controls on the Schedule Pattern page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
SetID	Enter a SetID to either find an existing Schedule Pattern value or add a new Schedule Pattern value.
Schedule Pattern	Enter a short name for the schedule pattern that you want to se up, such as <i>BIWK</i> .
Description	Enter a long description of the pattern, such as 14 day period.
Pattern Type	Select one of these pattern types:  • Days
	Indicates that the crew will be scheduled based on a specific number of days in the period.
	Weekly  The crew will be scheduled on a weekly basis.  Biweekly.
	The crew will be scheduled on a biweekly basis.
	• <i>Monthly</i> The crew will be scheduled on a monthly basis.

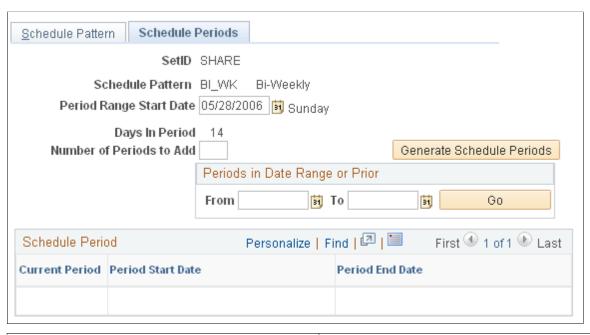
# **Schedule Periods Page**

Use the Schedule Periods page (WM\_SCHED\_PERIOD) to define the number of schedule periods that fall within a given date range based on the selected schedule pattern.

Navigation:

Select the Schedule Periods tab.

This example illustrates the fields and controls on the Schedule Periods page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Period Range Start Date and To	Select the start date of the period range for which you want to generate schedule periods. The system generates the <b>To</b> date (period end date) based on the schedule pattern you selected and the number of periods you that you indicate you want to add.
Number of Periods to Add	Enter the number of periods you want to generate. Based on the Biweekly pattern, for example, you can enter 10 periods. When you click the <b>Generate Schedule Periods</b> button, the system lists 10 biweekly periods.
Generate Schedule Periods	Click this button and the system generates the number of periods that you entered and enters the final date of the period in the <b>To</b> field of the date period range.
Periods in Date Range or Prior	Select the from date and the to date and select the <b>Go</b> button to display periods within the date range. When the <i>from</i> date is left blank, the system returns all periods starting on or prior to the to date. When the <i>to</i> date is left blank, the system returns all periods starting on or after the <i>from</i> date. When both fields are left blank, the system returns all existing periods in this pattern. After the periods display, you can click the <b>Back to Current/Future Periods</b> button to redisplay the current and future periods in your original date range.
Current Period	A green dot indicates the current schedule period based on the current system date that falls within a generated period. If none of the periods fits this criteria, a current period indicator will not appear on the page.

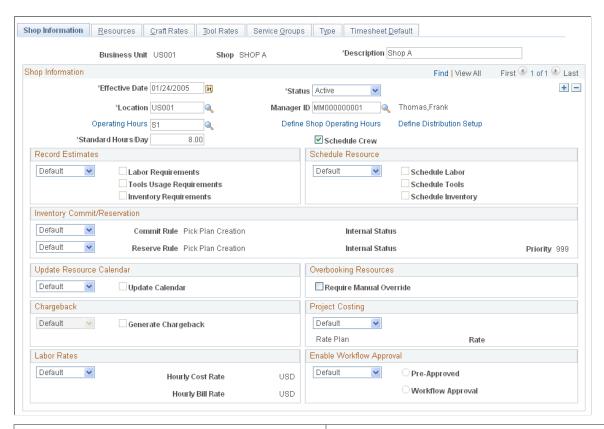
# **Shop Information Page**

Use the Shop Information page (WM\_SHOP\_DEFN) to define shop header data and any default values for this shop.

Navigation:

Set Up Financials/Supply Chain > Product Related > Maintenance Management > Resources > Define Shop > select the Shop Information tab.

This example illustrates the fields and controls on the Shop Information page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Shop	Enter a shop ID on the Add a New Value page.
	Note: A specific shop can be assigned to only one business unit; however, a business unit may be associated with many different shops.

Field or Control	Description
Effective Date and Status	Enter an effective date for the data in this <b>Shop Information</b> group box and indicate whether it is <i>Active</i> or <i>Inactive</i> . These are required fields.
	Note: You can maintain a history of changes in shop information data for this shop by one or more pages of values and changing the effective dates and statuses for the information entered on each page.
Location	Select the location of this shop. This is a required field.
Manager ID	Select the employee ID of the manager that you want to assign to this shop. The shop manager must be created as a resource in Maintenance Management.
Operating Hours	Select a shift value that contains the appropriate operating hours for this shop. This is a required field.
	Note: Click the Operating Hours link to view the operating hours for the selected shift.
Define Shop Operating Hours	Click this link to access the Define Shifts page to set up a new shift for this shop.
Define Distribution Setup	Click this link to access the Distribution Defaulting Setup for Shop page, to set up ChartField distributions to use to distribute and track costs for this shop. These default values display in the work order task when assigning and scheduling resources associated with this shop.
	Note: ChartFields defined at the shop level supplement the defaulting values entered in the Distribution templates.
	See <u>Distribution Template Page</u> .
Standard Hours/Day	Enter the standard hours that this shop is open each day. This is used to calculate the adjusted crew capacity in days.
Schedule Crew	Select this check box if your organization intends to schedule crews defined within this shop.

### **Record Estimates**

This group box determines whether you want to record estimates based on labor, tools usage, and inventory requirements specified in the work order task based on the default values in the work order business unit or the values you select here in the shop. Select *Default* to indicate that you want to use the default options selected in the business unit to apply to this shop, or select *Specify* if you want to specify

the options listed in this group box to apply when this shop is used to create a work order and then select the labor, tools usage, and inventory requirement estimates that you want to record.

See <u>Understanding Work Order Business Unit Setup</u>.

#### Schedule Resource

This group box determines whether you want to schedule labor, tools, and inventory resources for work order tasks based on the specifications at the work order business unit level or values that you select here in the shop. Select *Default* to indicate that you want to use the default options selected in the business unit to apply to this shop, or select *Specify* if you want to enable users to schedule labor, tools, and inventory in any work orders created for this shop.

### **Inventory Commit/Reservation**

To commit and reserve parts in PeopleSoft Inventory, you can select a combination of Inventory commit and reservation rules at either the work order business unit level or here at the shop level. Select *Default* to use the commit and reservation rule combination that you set up at the work order business unit level or select *Specify* to select a commit and/or reservation rule combination to apply when this shop is used to create a work order. You can also set these rules up for one or more work order types defined within the shop on the Type page.

See Understanding Work Order Business Unit Setup.

### **Update Resource Calendar**

Select *Default* to indicate that you want to use the Update Resource Calendar default value in the work order business unit, or select *Specify* and either select the **Update Calendar** check box or deselect it for this shop. If selected and a resource completes the work ahead of schedule, this option allows the resource's schedule to be freed up for new work assignments. This setting applies to both labor and tools for schedule update.

## **Overbooking Resources**

Field or Control	Description
Require Manual Overrides	Select this check box to enable a scheduler to manually overbook a labor resource associated with this shop. If this check box is deselected, then the system automatically overbooks the labor resources whenever an assignment conflict occurs.

### Chargeback

Select *Default* to indicate that you want to use the Generate Chargebacks default options set up in the work order business unit for this shop. Select *Specify* and either select the **Generate Chargebacks** check box or deselect it depending on what you want to do for work orders created using this shop. Selecting this field enables users to charge the costs generated for any work orders associated with this shop back to another organization within the enterprise.

See "Revenue and Cost Sharing" (PeopleSoft Project Costing).

### PC Template (Project Costing Template)

Select *Default* to indicate that you want to use the PeopleSoft Project Costing default rate set setting in the work order business unit for this shop. Select *Specify* and select the PeopleSoft Project Costing default rate plan, which contains more than one rate set, or rate set along with the accompanying rate that you want to use when you create a work order using this shop. This value is a Rate template defined in PeopleSoft Project Costing that can be used as a default value for chargebacks.

#### **Labor Rates**

Select *Default* to use the hourly cost rate and billing rate that are set up in the work order business unit for this shop. Select *Specify* and enter the hourly cost rate and billing rate that you want to apply to the work order task for a work order created with this shop.

**Important!** The labor cost and bill rates specified on the Shop Information page are independent of the resource. For example, if work order Task 1 requires an electrician and the work order is created for SHOP1, then the labor rate for the electrician for SHOP1 is derived first from the shop's craft rate. If the electrician's rate is found in the SHOP1 craft rates record, then that rate is applied to the work order task. If the labor and bill rates are not specified for a craft and they are specified for a specific shop, then the system applies the shop rates for the work orders created with this shop. Otherwise, the system gets the rates from the labor cost and bill rates specified in the work order business unit.

### **Enable Workflow Approval**

Select *Default* to apply the workflow approval settings in the work order business unit or work order type (depending on the default hierarchy selected in the work order business unit) to this shop. Select *Specify* and indicate whether work orders created for this shop are preapproved or require workflow approval.

#### **Related Links**

<u>Understanding Work Order Business Unit Setup</u> <u>Understanding the Work Order Approval Workflow Architecture</u>

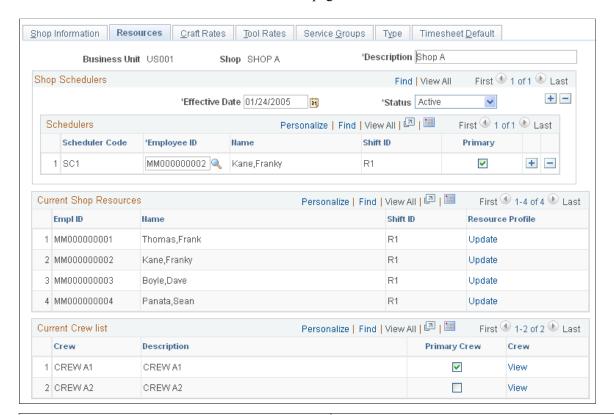
# **Define Shop - Resources Page**

Use the Resources page (WM SHOP RES) to assign the schedulers, resources, and crews to a shop.

Navigation:

Set Up Financials/Supply Chain > Product Related > Maintenance Management > Resources > Define Shop > select the Resources tab.

This example illustrates the fields and controls on the Define Shop - Resources page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Effective Date and Status	Select an effective date and status for the setup of the schedulers in this grid. You can create more than one grid with different effective dates and statuses and keep a history of these changes.
Scheduler Code	Enter a user-defined code to represent the scheduler assigned to this shop. The code that you enter here is unique to the scheduler in this shop and displays in the work order instead of the scheduler's employee ID. If the employee, who is assigned as a scheduler for this shop is no longer available, then you just have to change the employee ID of the scheduler in the shop, instead of changing it in every work order.
Employee ID	Select the employee ID to identify this scheduler, which results in the display of the scheduler's name and shift ID.
Primary	Select this check box to indicate that one of the schedulers listed is the primary scheduler.
	Note: You can assign more than one scheduler to a shop; however, you can identify only one scheduler as the primary scheduler.

### **Current Shop Resources**

You associate a resource with a shop in the resource's profile using Manage Profiles. Each resource that you assign to a shop automatically displays on this page. This page only displays currently active resources. If you assign a crew to a shop, each resource that comprises the crew must appear in this Resources grid. You can click the **Update** link to access the resource's profile from this page.

#### **Current Crew List**

When you set up a crew, you must associate it with a shop, which is automatically added to this crew list. This page only displays currently active crews for the shop. You can only identify one of the crews as the **Primary Crew.** The primary crew displays as the default crew in the work order task. You can click the **Crew** link to view the setup of the crew.

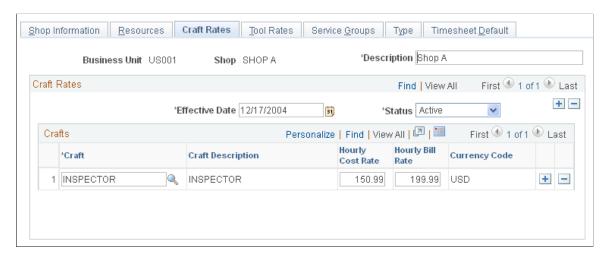
### **Define Shop - Craft Rates Page**

Use the Craft Rates page (WM\_SHOP\_CRFT\_RATE) to add one or more rows consisting of crafts and their associated rates to a shop.

Navigation:

Set Up Financials/Supply Chain > Product Related > Maintenance Management > Resources > Define Shop > select the Craft Rates tab.

This example illustrates the fields and controls on the Define Shop - Craft Rates page. You can find definitions for the fields and controls later on this page.



Set up one or more crafts and their associated hourly cost and hourly bill rates to use for chargeback calculations for this shop.

You can specify a labor cost and bill rate at the work order business unit level to display as default values for work order task labor resources. You can override these business unit rates on the Shop Definition page. When a work order is created for the shop, the default values from work order task labor cost and bill rates in the shop are derived from the work order business unit unless you specified the shop labor rates at the shop level or cost and bill rates for a specific craft at the shop level. If you specify the rates here at the craft level, then the system applies these rates to the work order task. The labor cost and bill rates specified on the Shop Information page are independent of an individual resource. For example, if a work order task #1 requires an electrician and SHOP1 is associated with the work order, then the labor

rates for an electrician assigned to SHOP1 is derived first from the labor rates set up for a craft in the shop's Craft Rates page. If a rate is set up for an electrician rate in the Craft Rates page, then the work order task uses this rate. If the rate is not set up for the craft in the shop, the system derives the rate if the labor cost and bill rates are set up in the shop, or, if not, it derives rates specified in the business unit.

The currency code for both the shop and tool rates is always the base currency specified in the work order business unit and cannot be modified.

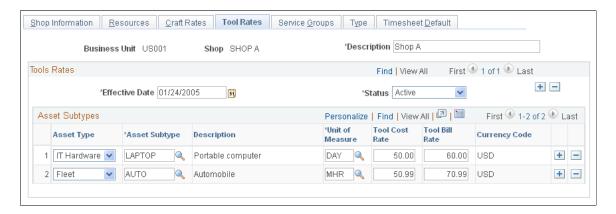
## **Define Shop - Tool Rates Page**

Use the Tool Rates page (WM\_SHOP\_TOOL\_RATE) to add one or more rows consisting of asset classifications for tools derived from the Asset Repository and the associated tool rates to a shop.

Navigation:

Set Up Financials/Supply Chain > Product Related > Maintenance Management > Resources > Define Shop > select the Tool Rates tab.

This example illustrates the fields and controls on the Define Shop - Tool Rates page. You can find definitions for the fields and controls later on this page.



Add and describe the asset types and asset subtypes that this shop uses as tools and their associated cost rate and bill rates. You can define tool cost and bill rates at the shop level and the asset subtype level. If you do not define tool rates at the shop level, the system uses the rates defined at the asset subtype level. If the rates from the asset subtype level are in a different currency, the rates are converted to the base currency specified in the work order business unit.

# Service Group Page

Use the Service Groups page (WM\_SHOP\_SRVC\_GRP) to add one or more service groups to associate with this shop.

Navigation:

Set Up Financials/Supply Chain > Product Related > Maintenance Management > Resources > Define Shop > select the Service Groups tab.

This example illustrates the fields and controls on the Define Shop - Service Groups page. You can find definitions for the fields and controls later on this page.



You must select at least one service group for a shop. You can add more service groups if desired. Some shops can provide multiple services. For example, a shop may be able to handle fleet and plant equipment, but not IT support. When you select a service group for a work order, then you can only select a shop for the work order from the shops that have the selected service group set up in their Service Groups page.

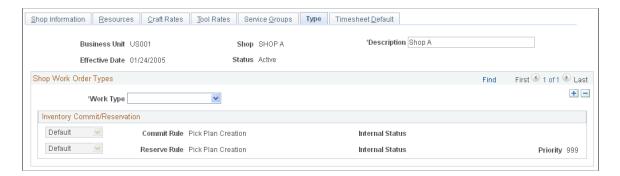
# **Type Page**

Use the Type page (WM\_SHOP\_TYPE) to define Inventory commit and reservation rules combinations for one or more work order types.

### Navigation:

Set Up Financials/Supply Chain, Product Related, Maintenance Management, Resources, Define Shop, select the Type tab.

This example illustrates the fields and controls on the Define Shop - Type page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Work Order Type	Select a user-defined work order type in which to apply commit and reservation rules. The work order type values delivered in the system data include:  • Capital Work Order  • Corrective Maintenance  • Preventive Maintenance  See Setting Up PeopleSoft Maintenance Management Work
	Order Parameters.
Inventory Commit/Reservation	Select a value of <i>Default</i> or <i>Specify</i> .  When you select <i>Default</i> , any work order created with this shop and work order type applies the commit and reservation rules to the work order task based on commit and reservation rule setup selections on the Shop Information page or on the Integrations page of the work order business unit. When you select <i>Default</i> , the system displays the values that were specified in one of these two pages.  When you select Specify, any work order created with this shop and work order type applies the commit and/or reservation rules that you specify on this page to the work order task.  See Work Order Business Unit Integration Options.

# **Timesheet Default Page**

Use the TimeSheet Default page (WM\_SHOP\_DFLTS) to set up timesheet default values to use for the Work Order Completion component time entries.

### Navigation:

Set Up Financials/Supply Chain, Product Related, Maintenance Management, Resources, Define Shop, click the Timesheet Default tab.

This example illustrates the fields and controls on the Define Shop - Timesheet Defaults page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Timesheet Prefix	Enter the prefix associated with the last timesheet generated. This prefix is used when the timesheet entries are sent from the Work Order Completion component to the Staging Tables for Project Costing.  For example, if the prefix used for your timesheets is ABC and the last time sheet ID is 1234, then the next timesheet ID generated from the Work Order Completion component will be ABC1235.
Last Timesheet ID	Enter the number of the last timesheet entered for this shop

# **Define Crew Page**

Use the Define Crew page (WM\_CREW\_DEFN) to add one or more employees to a crew.

Navigation:

**Set Up Financials/Supply Chain > Product Related > Maintenance Management > Resources > Define Crew** 

This example illustrates the fields and controls on the Define Crew page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Shop	Select the shop to which you want to assign this crew on the Add a New Value page.
	Note: A single crew can be assigned to only one shop; however, a shop may have many different crews assigned to it.
Crew Name	Enter a crew name on the Add a New Value page.
	Note: Each individual crew can be associated with only one business unit; however, a business unit may be associated with many different crews.
Primary Crew	Select this check box to indicate that this is the primary crew for the shop. You can assign multiple crews to a shop, but you can only identify one of those crews as the primary crew. The primary crew serves as the default crew in the work order task.
Effective Date and Status	Enter an effective date and status. You can track the changes in these crews based on changes in effective date and status. You can create more than one page with different effective dates and statuses. To create a crew capacity plan, the crew must have a current effective date that corresponds with the available schedule periods.
Schedule Pattern	Select the schedule pattern to associate with this crew.
Add Resources	Click to view Shop Resources page and select one or more resources to be member(s) of the crew at one time.

#### **Crew Resources**

Add each resource that you want to assign to the crew in the Crew Resources grid. You must set up each resource that you assign to a shop's crew in the Resources page of the Shop component.

Field or Control	Description
Employee ID	Select the employees (resources) that you want to assign to this crew. All employees assigned to a crew must be created as resources in Maintenance Management and must be active resources of the shop as of the effective date.
Primary Craft	Select the craft in which each crew member primarily works.  The primary craft is used to generate a crew capacity plan based on resources assigned to this crew. You can override this primary craft when you create a crew capacity plan.
Capacity % (capacity percent)	Enter the percentage of resource's capacity to allocate to this crew. This enables a crew scheduler to share a labor resource's time between two or more crews.

# **Crew Rescheduling Reason Code Page**

Use the Crew Rescheduling Reason Codes page (WM\_CSREASON\_CD) to set up reasons for rescheduling crews.

Navigation:

Set Up Financials and Supply Chain, Product Related, Maintenance Management, Setup, Crew Rescheduling Reason Codes

This example illustrates the fields and controls on the Crew Rescheduling Reason Codes. You can find definitions for the fields and controls later on this page.



Field or Control	Description
SetID	Enter or select the SetID that you want to use with these reason codes on the Add a New Value tab.

Field or Control	Description
Reason Code	Create reason code of 10 characters or less that briefly describes the reason for the crew rescheduling.
Description and Short Description	Enter a long description that provides a more thorough description of the code, and enter a short description.

# **Maintaining Resources in PeopleSoft Maintenance Management**

To set up resource groups, resource craft assignments, and resource eligibility status, use the:

- Set Up Resource Group (RS RESOURCE GROUPS) component.
- Assign Resources to Craft (RS CFT ASSGN) component.
- Assign Resources to Shop (WM\_SHOP\_ASSIGNMENT) component
- Maintain Resource Eligibility (RS WRKR MGMT) component.

This section provides an overview of resource maintenance and discusses how to set up resource groups, assign resources to crafts, assign resources to shops, maintain resource eligibility, add or change resources' eligibility, maintain resources' profile, maintain a resource's work experience, maintain resources' qualifications, maintain general information for resources, review resource profiles, maintain craft assignments for resources, maintain shop assignments for resources, manage a resource's monthly schedules, review a resource's daily schedules, and add or modify task details for resources.

# **Pages Used to Maintain Resources**

Page Name	Definition Name	Usage
Resource Group Definition - Resource Group	RS_RESOURCE_GROUPS	Add a new resource group or access an existing resource group.
Resource Group Definition - Resource Group Details Page	RS_RSRCGRP_ADD	Define a group of tool or labor resources to use to narrow the search in the resource matching process.
Assign Resources to Craft Page	RS_CFTASSGN_PG	Assigns resources to a craft based on a supervisor ID.
Assign Resources to a Shop Page	WM_SHOPASGN	Assigns resources to a shop based on a supervisor ID. This page is similar to Maintenance Management, Labor Administration, Assign Resources to Craft page.

Page Name	Definition Name	Usage
Maintain Eligibility - Resource Search	RS_WRKR_MGMT_SRCH	Search for an employee for whom you want to maintain eligibility.
Maintain Eligibility Page	RS_WRKR_MGMT	Indicate whether a resource is eligible or ineligible to be assigned to a shop, crew, or work order task.
Resource Eligibility Management Page	RS_WRKR_MGMT_FUT	Add or change a resource's eligibility.
Manage Profiles - Overview Page	RS_ERES_OVERVW	Define additional employee information, an overview of the resource, and any of the resource's specialties.
Work Experience Page	RS_ERES_WORK_HIST	Add or modify a resource's work experience.
Work Experience	RS_WORK_HIST_EDIT	Modify the work history of a selected resource.
Delete Confirmation	EO_DEL_CONFIRM	Confirm the deletion of the work experience by selecting the Yes – Do Delete or select No – Do Not Delete.
Qualifications Page	RS_ERES_COMP_ACOMP	Add or modify a resource's qualifications.
Competencies	RS_CM_COMPTNCY	Select additional competencies and interests that apply to a specific resource.
Education	RS_CM_EDU	Add, modify, or delete degrees that apply to a specific resource.
Licenses and Certificates	RS_CM_LIC_CERT	Add, modify, or delete any licenses and certificates that apply to a specific resource.
Languages	RS_CM_LANG	Add, modify, or delete any languages that apply to a specific resource.
Professional Memberships	RS_CM_MEMBR	Add, modify, or delete any memberships to professional organizations that apply to a specific resource.
Honors and Awards	RS_CM_HNR_AWRDS	Add, modify, or delete any honors and awards that apply to a specific resource.

Page Name	Definition Name	Usage
Test Results	RS_CM_TEST_RSLT	Add, modify, or delete any tests that apply to a specific resource.
Send Notification	PT_WF_NOTIFY	Send notification to interested parties about change in qualification.
General Info Page	RS_ERES_GEN_INFO	Add or modify a resource's information such as visa, work permit, passport, additional phones, and job information.
Resource Profile Page	RS_RES_PROF_RVW	View basic resource information and add or modify contact information.
Craft Page	RS_CFTPROF_PG	Associate a resource with one or more crafts.
Shop Page	RS_RES_SHOP_PROF	Associate a resource with one or more shops.
"Resource's" Name - Gina Angelini	RS_RES_PROF_RVW	Display a summary of a resource's profile information. You can click a link to access the Contact Information page and add contact information.
Contact Information	RS_RES_PROF_CONTCT	Add contact information to an employee's profile.
Monthly Schedule - Resource Search	RS_SCHED_MONTHSRCH	Search for a resource's monthly schedule.
Monthly Schedule Page	RS_SCHED_MONTH	Review and modify assignments on a day per month basis.
Daily Schedule Page	RS_SCHED_DAILY	Review and modify appointments on an hour per day basis.
Task Details Page	RS_SCHED_APPT	Add or modify an assignment for a specific day and time.
Asset Monthly Schedule	RS_ASSET_MONTH	Review asset assignments on a day per month basis.
Asset Daily Schedule	RS_ASSET_DAILY	Review and modify assignments on an hour per day basis.

Page Name	Definition Name	Usage
My Monthly Schedule	RS_SCHED_MONTH	Review resource's own monthly schedule.  The Daily Schedule and Task Details pages are identical to the pages listed for the pages associated with the Monthly Schedule.

# **Understanding Resource Maintenance in PeopleSoft Maintenance Management**

This section discusses:

- Resource groups.
- Resource craft assignments.
- Resource shop assignments
- Resource eligibility status changes.
- Resource profile maintenance.

### **Resource Groups**

Resource groups are collections of resources defined by supervisor ID or shop ID in PeopleSoft Maintenance Management. You can select one or more supervisors or one or more shops to include in a resource group. The pool of resources reporting to any of a resource group's selected supervisors or assigned to any of the resource group's selected shops are included in the appropriate resource group. When you schedule a work order task, you can select one or more rows in the labor schedule, select a resource group, and then click the **Recommend Labor** button to run the Match Engine to recommend a list of resources in the resource group that match the work order task requirements. If you do not select a resource group to limit your search, the system searches through all of the resources set up in PeopleSoft Maintenance Management.

When you create a resource group based on one or more shops and select a **Resource Group** and the **Recommend Tools** button in the Tool Schedules grid for a work order task, the Match Engine considers only the tools assigned to the shop. If you do not select a resource group, the Match Engine searches through all of the assets identified as tools in the asset repository that fall under a specified asset classification.

### **Resource Craft Assignments**

You can assign multiple resources to a craft. You can search for the resources that you want to assign to the craft by identifying one or more supervisors and searching for all resources associated with the selected supervisors. When you click the **Click to populate resources** button, the resources associated with the selected supervisors are listed. You can then delete the resources that you do not want to assign to the craft. Once you assign a resource to a craft, the craft is listed for the resource in the resource's profile (Manage Profiles). When you add a craft in the Craft page and save the page, you can indicate whether you want to copy accomplishments and competencies for this craft from the craft's qualification profile

for non-HCM employees. Competencies and accomplishments are already added in PeopleSoft HCM for employees who are set up in the PeopleSoft HCM database.

### **Resource Shop Assignments**

You can assign multiple resources to a shop. Using the Assign Resources to Shop (WM\_SHOP\_ASSIGNMENT) component, you can search for the resources that you want to assign to the shop by identifying one or more supervisors and searching for all resources associated with the selected supervisors. When you click the Populate Resources button, the resources associated with the selected supervisors are listed. You can then delete the resources that you do not want to assign to the shop. Once you assign a resource to a shop, the shop is listed for the resource in the resource's profile (Manage Profiles).

### Resource Eligibility Status Changes

You can change the eligibility of a resource from active to inactive and vice versa. You can also add rows to indicate future eligibility effective dates for a resource. If you change a resource to ineligible at a future date, this does not prevent you from scheduling the resource before the effective date for an assignment that begins or continues after the effective date. However, you can no longer assign the resource on or after the date that the resource becomes ineligible and the resource is not included in Resource Matching. You can continue to access and update the ineligible resource's profile.

A user cannot change the status of a Maintenance Management resource to ineligible during a time period when work order assignments exist for the resource in Maintenance Management.

For example, resource A is assigned to a Maintenance Management work order task from July 1 to July 31. If a user accesses the Maintenance Management Maintain Resource Eligibility component and attempts to make the resource ineligible for assignment from July 10 to August 10. The system will prevent the user from changing the eligibility status of the resource and issues the following error message, "This resource cannot be made ineligible during this time frame. There are one or more active assignments scheduled during the dates specified for the resource's ineligibility period. Please edit these assignments before setting the resource to ineligible."

**Important!** The assignments for a resource, if you are using the PeopleSoft HRMS employee source database, are automatically canceled when an employee's status changes in PeopleSoft HRMS from active to any other status.

#### **Resource Profile Maintenance**

The resource profile is a dynamic record designed for periodic review and update by the resource and the resource's managers to reflect changes in the resources qualifications. You view or modify various parts of a resource's profile when you establish and maintain the resource.

You can add crafts to a resource's profile in the Manage Profile - Craft page. You add a craft to an employee, who is not set up in the PeopleSoft HCM database, you can copy the qualification profile associated with the craft to the non-HCM employee. PeopleSoft HCM employee qualifications are updated in the PeopleSoft HCM system.

When you assign a resource to more than one shop with overlapping shifts on the PeopleSoft Maintenance Management, Labor Administration, Manage Profiles page, you will receive the following message:

Warning — Business Unit US001, Shop ID SHOP A, Shift L1 overlaps with the previous shift (US001, SHOP B, L1) for 2006- 08 - 09

You are about to assign a resource to work on two different shifts that overlap one another.

Since this is a warning message, you can select OK and proceed with the assignment.

For example, a painter, Jerome Kern, is assigned to Business Unit US001 and Shop A. The painter's assigned shift is L1 (8 a.m. to 4 p.m) Monday to Friday. However, the organization needs Jerome Kern to perform work in any one of 5 Maintenance Shops (SHOP A, SHOP B, L-SHOP1, L-SHOP2, L-SHOP3) during the 8 a.m. – 4 p.m time period. To solve this problem, you can select the Labor Administration, Manage Profiles component, select Jerome Kern, and select the Shop tab and add the following rows:

Business Unit	Shop	Shift
US001	SHOP A	L1
US001	SHOP B	L1
US001	SHOP-L1	L1
US001	SHOP-L2	L1
US001	SHOP-1-3	L1

When you click the **Save** button, the following message appears:

If you enter all the rows at once and Save the page, the system compares two rows at a time to each other. For example, SHOP A/L1 is compared to SHOP B/L1, then SHOP A/L1 is compared to SHOP-L1/L1, then SHOP A/L1 is compared to SHOP-L2/L1 and so on. You must click the OK button for each comparison before you can return to the menu. You may have to click the OK button several times if there are multiple shops. Manage: Profiles – Shop page

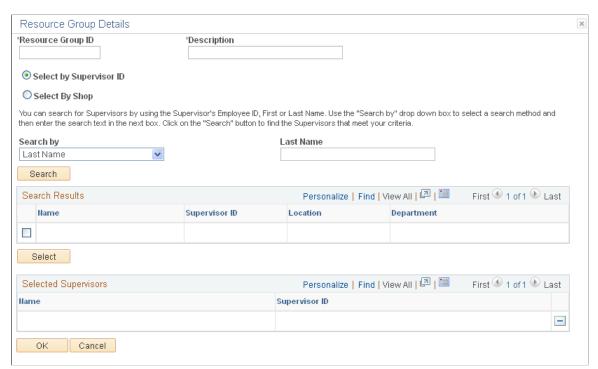
# **Resource Group Definition - Resource Group Details Page**

Use the Resource Group Definition - Resource Group Details page (RS\_RSRCGRP\_ADD) to define a group of tool or labor resources to use to narrow the search in the resource matching process.

Navigation:

Click the **Edit** button on the Resource Group Definition - Resource Groups page.

This example illustrates the fields and controls on the Resource Group Details page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Resource Group ID	Enter a unique group identifier (15 characters). This is a required field.
Select by Supervisor ID	Select this option to indicate that you want to set up the resource group based on resources identified as working for the specified supervisor.
	Important! You must enter a supervisor on the Update Employee Data - Employee Job page for all resources before you can use resource groups that are based on a supervisor ID.
Search By	Search for supervisors by using the supervisor's employee ID, or first or last name. Use the <b>Search By</b> drop-down list box to select a search method and then enter the search text in the next box. Click the <b>Search</b> button to find the supervisors that meet your criteria. Select one of these values from the drop-down list box:  • <i>Employee ID</i> .
	• Last Name. • First Name.
	Note: To search using characters within an employee name or ID, enter a wildcard (%), then enter any contiguous characters and then enter another wildcard (%).

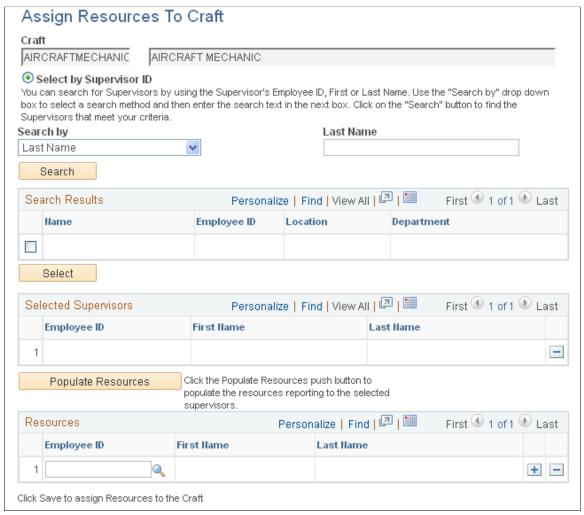
Field or Control	Description
Select by Shop	Search for a shop by using the shop ID, shop description, location, or work order business unit. Use the Search dropdown list box to select a search method and then enter the search text in the next box. Click the Search button to find the shops that meet your criteria. Select one of these values from the drop-down list box:  • Shop ID.  • Shop Description.  • Location.  • Work Order BU (work order business unit).  Click the Search button to display the specific shop or one or more shops based on your search criteria. Then select the check box next to the shop (or shops) that you want to include in the resource group. All of the resources and tools assigned to each shop are part of the resource group and are used by the matching engine to narrow your search for either labor resources or tools needed when you assign resources to a work order task in a work order.

# **Assign Resources to Craft Page**

Use the Assign Craft page (RS\_CFTASSGN\_PG) to assigns resources to a craft based on a supervisor ID. Navigation:

Maintenance Management > Labor Administration > Assign Resources to Craft

This example illustrates the fields and controls on the Assign Resources to Craft page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Search By	<ul> <li>Select either:</li> <li>Employee ID</li> <li>Selecting this value displays a field to the right in which you can enter an employee ID of a supervisor.</li> <li>First Name</li> <li>Selecting this value displays a field to the right in which you can enter the first name of a supervisor.</li> <li>Last Name</li> <li>Selecting this value displays a field to the right in which you can enter the last name of a supervisor.</li> <li>Note: If you leave these fields blank and click the Search button, a list of supervisor's names displays.</li> </ul>

Field or Control	Description
Search	Click this button to display the supervisor's name and ID. If you did not enter the name or identification of a supervisor, a list of supervisors displays in the <b>Search Results</b> group box. Select the check boxes next to the name or names of the supervisors who are in charge of resources you want to assign to this craft.
Select	Click this button to list the selected supervisors in the Selected Supervisors grid.
Populate Resources	Click this button to list the resources associated with the selected supervisors. The resources are listed by employee ID and a name in the <b>Resources</b> group box. You can delete resources that you do not want to assign to this craft. You can also add individual resources that you want to assign to this craft.
Save	Click this button to assign resources to the craft and update each resource's profile with this craft.

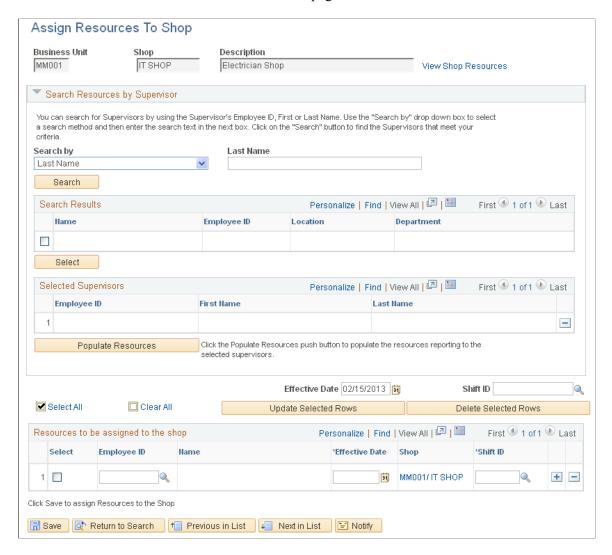
# **Assign Resources to a Shop Page**

Use the Assign Resources to a Shop Page (WM\_SHOPASGN) to assign resources to a shop based on a supervisor  ${\rm ID}$ 

Navigation:

Maintenance Management > Labor Administration > Assign Resources to a Shop

This example illustrates the fields and controls on the Assign Resources to Shop page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Search By	This Business Unit driven page Select either:  1. Employee ID  Selecting this value displays a field to the right in which you can enter an employee ID of a supervisor.  2. First Name  Selecting this value displays a field to the right in which you can enter the first name of a supervisor.  3. Last Name  Selecting this value displays a field to the right in which you can enter the last name of a supervisor.  Note: If you leave these fields blank and click the Search button, a list of supervisor names displays.
Search	Click this button to display the supervisor's name and ID. If you do not enter the name or identification of a supervisor, a list of supervisors displays in the Search Results group box. Select the check boxes next to the name or names of the supervisors who are in charge of resources you want to assign to this shop.
Select	Click this button to list the selected supervisors in the Selected Supervisors grid.
Populate Resources	Click to populate "Resources to be assigned to the shop"grid with the resources reporting to the selected supervisor(s). All resources on the grid are added to the shop unless you delete any from the grid.
Effective Date and Shift ID	Specify the effective date and the working shift to determine when the resources become active in the shop. The effective date must be greater than or equal to today.
Save	Click this button to assign resources to the shop and update each resource's profile with this shop

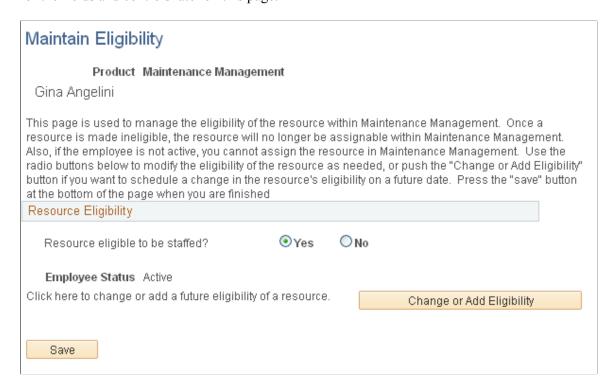
# **Maintain Eligibility Page**

Use the Maintain Eligibility page (RS\_WRKR\_MGMT) to indicate whether a resource is eligible or ineligible to be assigned to a shop, crew, or work order task.

Navigation:

Maintenance Management > Labor Administration > Maintain Resource Eligibility

This example illustrates the fields and controls on the Maintain Eligibility page. You can find definitions for the fields and controls later on this page.



Prior to entering this page, you must search for and select an employee on the Maintain Eligibility - Resource Search page.

Field or Control	Description
Resource Eligible to be staffed?	Select: • Yes
	Select this option to indicate that this resource can be assigned to a work order or work order task. If a resource's status is inactive, the resource cannot be assigned.  • No
	Select this option to indicate that this resource is not eligible to be assigned to a work order or work order task and is not considered when the Match Engine is run.
Change or Add Eligibility	Click this button to access the Resource Eligibility Management page.

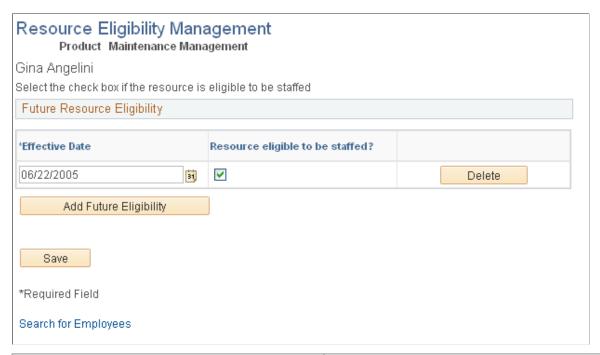
### **Resource Eligibility Management Page**

Use the Resource Eligibility Management page (RS\_WRKR\_MGMT\_FUT) to add or change a resource's eligibility.

#### Navigation:

Click the Change or Add Eligibility button on the Maintain Eligibility page.

This example illustrates the fields and controls on the Resource Eligibility Management page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Effective Date	Select the date in which you want this employee to become eligible.
Resource eligible to be staffed?	Select this check box if this resource is eligible to be assigned to a work order or work order task.
Add Future Eligibility	Click this button to add another row to the <b>Future Resource Eligibility</b> grid. You can add several rows with different dates to indicate when the resource will be eligible for assignment in the future.

# Manage Profiles - Overview Page

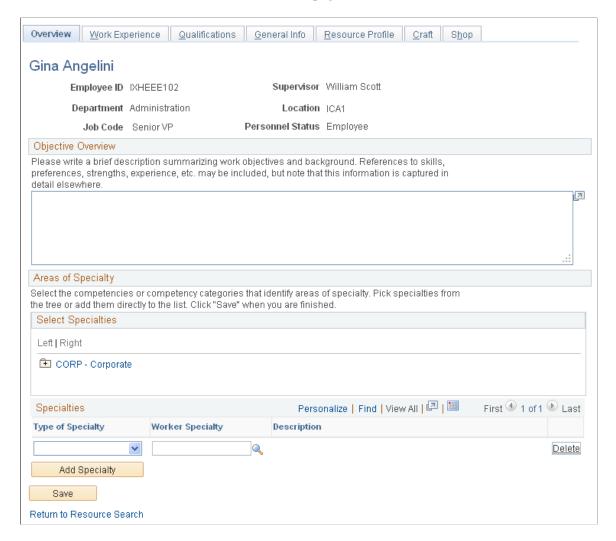
Use the Manage Profiles - Overview page (RS\_ERES\_OVERVW) to define additional employee information, an overview of the resource, and any of the resource's specialties.

Navigation:

Maintenance Management > Labor Administration > Manage Profiles

Select the Overview tab.

This example illustrates the fields and controls on the Manage Profiles - Overview page. You can find definitions for the fields and controls later on this page.



#### **Objective Overview**

Enter or modify this resource's work objectives and background. You can reference skills, preferences, and strengths if you want. However, you can add or modify this information later in the profile.

#### Areas of Specialty

If you created a competency tree, it should appear in the **Additional Resource Information** group box. Click a competency in the competency tree and it adds it as a row in the **Specialties** group box.

Field or Control	Description
Type of Specialty	<ul> <li>You can select whether a specialty is a:</li> <li>Competency This refers to a specific competency within a category, such as Analytical Thinking, Articulate and Concise, and more. </li> <li>Category This refers to an overall area of speciality such as Communication, Plumbing, Business Planning, and more. </li> </ul>
Worker Specialty	Select the specialty from a list of competencies or categories, depending on the type of specialty that you selected.
Add Specialty	Click this button to add a blank row to the <b>Specialties</b> group box list.

**Note:** Data that is captured in this page is for information only and is not used by the Resource Matching process.

# **Work Experience Page**

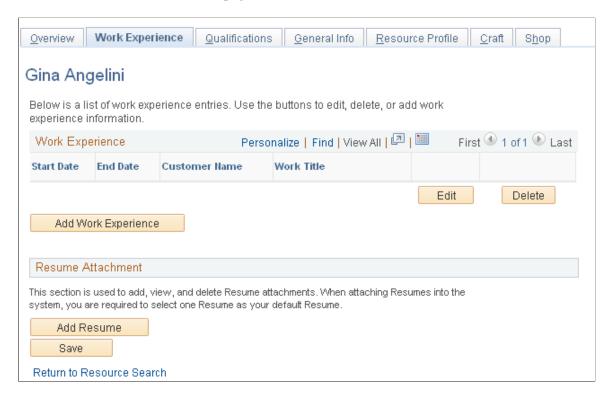
Use the Work Experience page (RS\_ERES\_WORK\_HIST) to add or modify a resource's work experience.

Navigation:

Maintenance Management > Labor Administration > Manage Profiles

Select the Work Experience tab.

This example illustrates the fields and controls on the Work Experience page. You can find definitions for the fields and controls later on this page.



#### **Work Experience**

You can edit or delete a resource's work experience.

Field or Control	Description
Edit	Click this button to access the Work Experience page for this resource, where you can modify the <b>Start Date</b> , <b>End Date</b> , <b>Customer Name</b> (name of company for which the employee worked or organization the technician supported), <b>Work Title</b> , and <b>Work Description</b> fields and click the <b>Save</b> button to save the changes.
Delete	Click this button to delete a row of work history for this resource. A Delete Confirmation page displays where you can select one of the following buttons:  • Yes - Do Delete  • No - Do Not Delete

Field or Control	Description
Add Work Experience	Click this button to access a blank Work Experience page for this resource where you can add the <b>Start Date</b> , <b>End Date</b> , <b>Customer Name</b> (name of company for which the employee worked or organization the technician supported), <b>Work Title</b> , and <b>Work Description</b> values and click the <b>Save</b> button to save the changes.
	Note: The work experience that you add here is used by the Resource Matching process and can be used by a user who evaluates candidates for an assignment.

#### **Resume Attachment**

Add, view, and delete resumes in this group box. You must select one resume as the default resume for this resource.

Field or Control	Description
Add Resume	Click this button to add a resume attachment.
Browse	Click this button to search for the resume for this resource and select the resume that you want to attach to this profile.
Upload	Click this button to upload the selected resume to this profile.
Default	Specify the resume, if there are more than one, to use as the default by the Resource Matching process.
Delete	Click this button to delete a resume from the <b>Resume Attachment</b> group box.

**Note:** Be sure to save the page.

### **Qualifications Page**

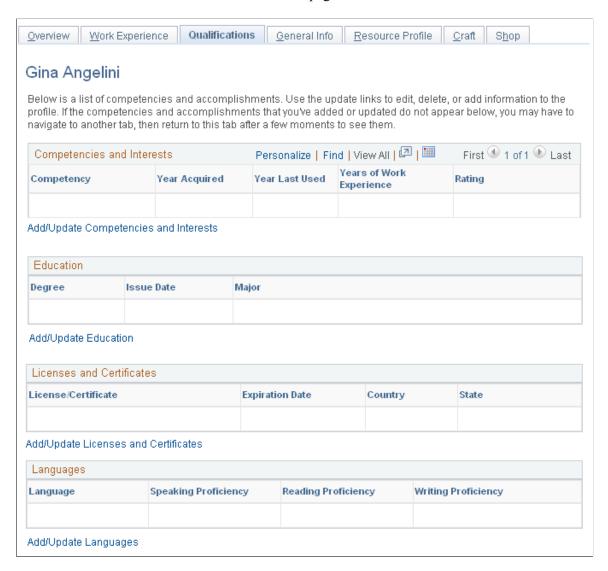
Use the Qualifications page (RS\_ERES\_COMP\_ACOMP) to add or modify a resource's qualifications.

Navigation:

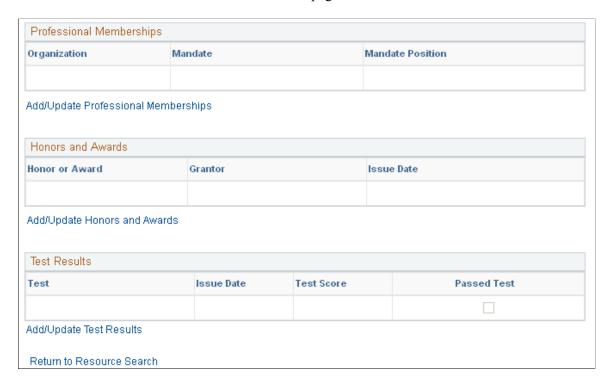
Maintenance Management > Labor Administration > Manage Profiles

Select the Qualifications tab.

This example illustrates the fields and controls on the Qualifications (1 of 2) page. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Qualifications (2 of 2) page. You can find definitions for the fields and controls later on this page.



### **Competencies and Interests**

Field or Control	Description
Add/Update Competencies and Interests	Click this button to access the Competencies page to associate additional competencies with this resource. This page simulates the Competencies page in the Qualification Profile component, except you do not have access to the competency tree.  See Competencies Page.

#### **Education**

Field or Control	Description
Add/Update Education	Click this link to add, modify, or delete degrees applicable to this resource.

#### **Licenses and Certificates**

Field or Control	Description
Add/Update Licenses and Certificates	Click this link to add, modify, or delete licenses and certificates that apply to this resource.

#### Languages

Field or Control	Description
Add/Update Languages	Click this link to add, modify, or delete languages and language proficiency that apply to this resource.

### **Professional Memberships**

Field or Control	Description
Add/Update Professional Memberships	Click this link to add, modify, or delete memberships to professional organizations for this resource.

#### **Honors and Awards**

Field or Control	Description
Add/Update Honors and Awards	Click this link to add, modify, or delete honors and awards that apply to this resource.

#### **Test Results**

Field or Control	Description
Add/Update Test Results	Click this link to add, modify, or delete tests and their associated results that apply to this resource.

Note: You can click the Notify button on each of the pages defined above to notify interested parties about this change if you select the Email Notification to Manager check box in Setup Financials/Supply Chain > Common Definitions > Resources Data > Resource Setup > Common Installation Options page.

### **General Info Page**

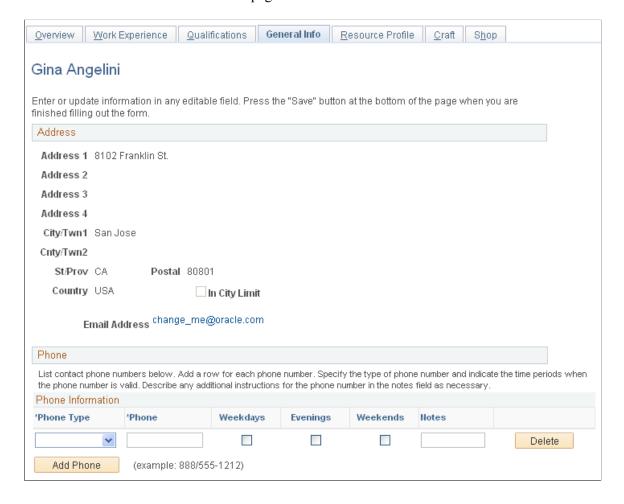
Use the General Info page (RS\_ERES\_GEN\_INFO) to add or modify a resource's information such as visa, work permit, passport, additional phones, and job information.

Navigation:

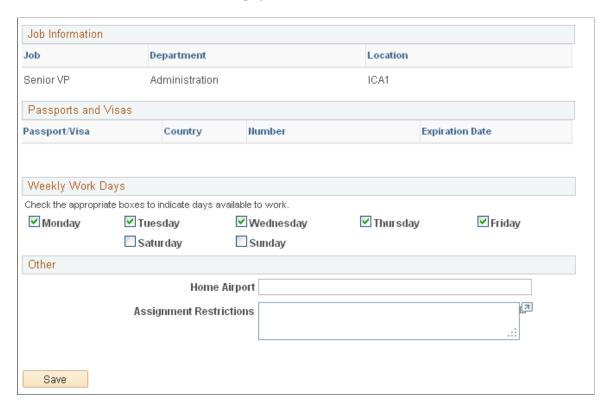
#### Maintenance Management > Labor Administration > Manage Profiles

Select the General Info tab.

This example illustrates the fields and controls on the General Info (1 of 2) page. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the General Info (2 of 2) page. You can find definitions for the fields and controls later on this page.



You can update some fields in this page. However, to update most of the fields, you must access the employee source database, either HRMS or PeopleSoft Maintenance Management's Manage Employee Data, and make the changes.

Field or Control	Description
E-mail Address	Click the resource's email address to create an email and send it to the resource.

#### **Phone**

Field or Control	Description
Phone Type	Select one for the following:
	Alternate
	Business
	• Home
	• Mobile
	• Other
	• Pager
	Voicemail
	Work Site
Phone	Enter or modify the phone number.
Weekdays, Evenings, and Weekends	Select the check box that applies to when the resource is available at this phone number.
Delete	Click this button to delete a phone row.
Add Phone	Click this button to add another row and enter a selected phone type's information.

#### Job Information

This information comes from the employee data.

### **Passports and Visas**

This information comes from the employee data.

### **Weekly Work Days**

Select the work days that apply to this resource. The values that you select here override Default Work Days values set up in the Set Up Financials/Supply Chain > Common Definitions > Resources Data > Resource Setup > Common Installation Options page.

#### Other

Field or Control	Description
Home Airport	Enter or override an airport in this field.
Assignment Restrictions	Enter or modify any assignment restrictions for this resource.

### **Resource Profile Page**

Use the Resource Profile page (RS\_RES\_PROF\_RVW) to view basic resource information and add or modify contact information.

Navigation:

#### Maintenance Management > Labor Administration > Manage Profiles

Select the Resource Profile tab.

This example illustrates the fields and controls on the Resource Profile page. You can find definitions for the fields and controls later on this page.



This page consolidates the resource profile sections into a single, display-only format. A region appears on this page if it contains data for the resource.

Field or Control	Description
Contact Information	Click this link to access the (resource) Contact Information page to review phone information for this resource.
View Detail	Click this link to view a detail list of the competencies that apply to this resource. Click the <b>View Summary</b> link to return to the summary view of the Resource Profile page.

### **Craft Page**

Use the Craft page (RS CFTPROF PG) to associate a resource with one or more crafts.

Navigation:

#### Maintenance Management > Labor Administration > Manage Profiles

Select the Craft tab.

This example illustrates the fields and controls on the Craft page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Craft	Select a craft to apply to this resource. When you add a craft for a non-HCM employee and select the <b>Save</b> button, a page displays where you can elect to copy all the competencies and accomplishments associated to the qualification profile of the craft to this resource's profile. Competencies and accomplishments for employees listed in the PeopleSoft HCM database are updated in PeopleSoft HCM. <b>Note:</b> Rows of crafts to which this resource is assigned are listed on this page.
Primary Craft	Select this check box if this is the primary craft for this resource. When you define a crew, and select this resource, this is the craft that is associated with the resource.  Note: If you leave this check box blank, the system uses the first craft in the list as the resource's primary craft in the crew definition.

**Note:** You can add multiple rows of crafts; however, select the **Primary Craft** check box for only one craft.

### **Shop Page**

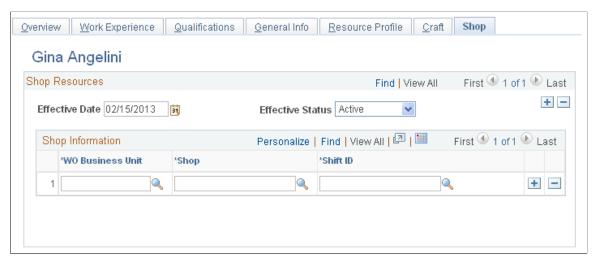
Use the Shop page (RS RES SHOP PROF) to associate a resource with one or more shops.

Navigation:

**Maintenance Management > Labor Administration > Manage Profiles** 

Select the Shop tab.

This example illustrates the fields and controls on the Shop page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Effective Date	Select the date from which the resources shop affiliation is either active or inactive.
Status as of Effective Date	Select if the resource's affiliation with this list of shops is <i>Active</i> or <i>Inactive</i> as of the selected effective date.
WO Business Unit (work order business unit)	Select the work order business unit associated with this shop.
Shop	Select a shop set up with the selected business unit.
Shift ID	Select a shift to apply to this resource when working from this shop.

**Note:** You can add multiple rows of shops based on an effective date and status. You can also add multiple rows of effective dates and associated shops to track the shop history and to change the shops based on a different effective date.

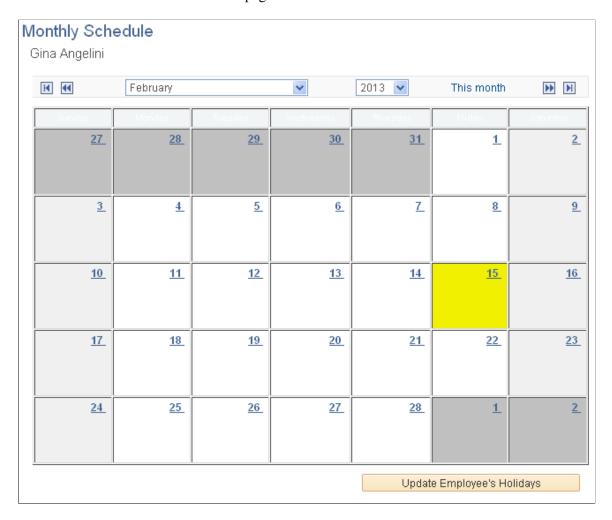
### **Monthly Schedule Page**

Use the Monthly Schedule - Resource Search page (RS\_SCHED\_MONTHSRCH) to search for a resource's monthly schedule.

Navigation:

Maintenance Management > Schedule Management > Resource Monthly Schedule

This example illustrates the fields and controls on the Monthly Schedule page. You can find definitions for the fields and controls later on this page.



Review the assignments and scheduled days off for this resource. If a resource is assigned to work order task assignment, a link with the description of WO ID/ WO Task ID/ Task Description appears. Click this link to access either the Technician Workbench or the Work Order Component depending on how you set up Set Up Financials/Supply Chain > Common Definitions > User Preferences > PeopleSoft Maintenance Management page. If you click a work order task link on this page, the Schedules page in the Work Order component displays for the specific task.

Field or Control	Description
This month	Click this link to display the current system month if you the month displayed is different from the current month. The current month is the system default month.
Update Employee's Holidays	Click this button to initiate the Holiday Load process to refresh holidays on the resource schedule. All of the holidays that are associated with the holiday schedule are inserted into the resource schedule as tasks with the task category HOLIDAY. The refresh process occurs in the background in real time. A message indicates when the process is complete.

**Note:** Click one of the date links in the month to access the Daily Schedule page.

**Important!** The Asset Monthly Schedule page works the same way as the Resource Monthly Schedule page. However, the Asset Monthly Schedule page does not have an **Update Employee's Holidays** button.

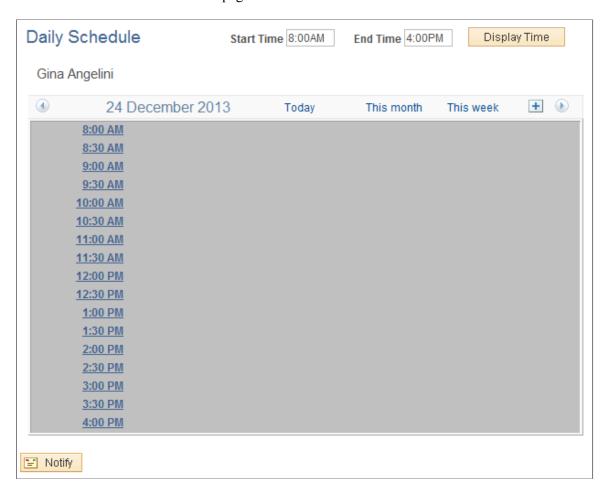
### **Daily Schedule Page**

Use the Daily Schedule page (RS\_SCHED\_DAILY) to review and modify appointments on an hour per day basis.

Navigation:

Click a date that has assignments on a the Monthly Schedule page.

This example illustrates the fields and controls on the Daily Schedule page. You can find definitions for the fields and controls later on this page.



Review the selected daily schedule for this resource. Click an hour or click a task to add or modify task details. When a resource is assigned to a work order task, a hyperlink displays with the description, which includes the time range/work order business unit/ work order ID/ work order task ID/ task description. If you click this link either the Technician Workbench or the Work Order component displays depending your setup in **Set Up Financials/Supply Chain** > **Common Definitions** > **User Preferences** > **PeopleSoft Maintenance Management** page.

**Important!** You access the Daily Schedule page by clicking on a date that has assignments. If a schedule does not have assignments, when you click on the date, the Task Details page displays.

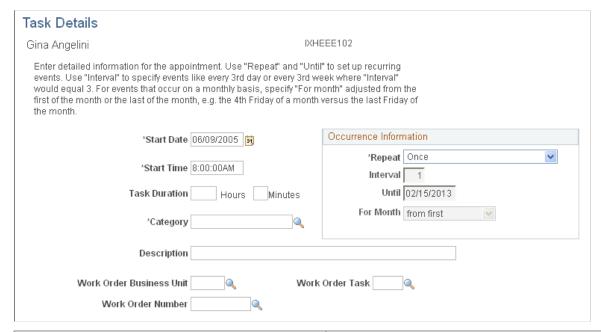
### **Task Details Page**

Use the Task Details page (RS\_SCHED\_APPT) to add or modify an assignment for a specific day and time.

#### Navigation:

- Click an hour link on the Daily Schedule page.
- Click an hour link on the Asset Daily Schedule page.

This example illustrates the fields and controls on the Task Details page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Start Date and Start Time	Enter a different date and time, if desired.
	Note: The date and time are based on the date and time link that you clicked on the Daily Schedule page.
Task Duration	Enter the total time for this resource to perform this task.
Category	Select the task category that applies to this period of time.  See <u>Task Categories Page</u> .

Field or Control	Description
Work Order Business Unit, Work Order Number, and Work Order Task	Select these values to identify downtime on the calendar for the asset being repaired or maintained in a work order task. This is a manual process.

Important! The Asset Task Details page contains the same fields as the Resource Daily Schedule page.

### **Occurrence Information**

Field or Control	Description
Repeat	Select a value that defines how often you want this task category repeated in the resource's schedule. The values are:  • Daily.  • Monthly by Date.  • Monthly by Day.  • Once.  • Weekly.  • Yearly.
Interval	Enter the number of intervals between occurrences of the event.
Until	Select the last date that the event should occur.
For Month	<ul> <li>Select one of these values:</li> <li>from first.</li> <li>For example, the event will occur on the fourth Friday of the month counting from the first Friday forward.</li> <li>from last.</li> <li>For example, the event will occur on the last Friday of the month.</li> </ul>

### **Chapter 9**

# **Defining Work Order Templates**

# **Understanding Work Order Templates**

Organizations often repeat the same work order activities, which follow a standard sequence of events. PeopleSoft Maintenance Management provides work order job and work order task templates, which enable you to predefine work order task resources and requirements that are common to various types of work orders. Each template is essentially a predefined job plan for a particular maintenance or repair operation or task. If a work order requires several tasks to complete the job, you can create a job template, which contains multiple predefined work order tasks that are organized as job steps and applied to the entire work order. You can also apply task templates to individual tasks in a work order. These templates are designed to enable you to reuse them in more than one work order, thus reducing work order entry time.

Characteristics common to the setup of both work order job and work order task templates include the use of:

• A SetID, which enables users to use this template across multiple work order business units.

Work order task and job templates reference SetID-based data from multiple subsystems. This means that you must be able to set up and subsequently access or reference combinations of this data to work with the various work order business units that use the templates. When you copy a template to populate data on an actual work order, the entire set of task requirement data that is copied—Labor, Inventory, Purchase/On-hand, Tools—must be compatible with the work order business unit for which the data is being entered. Tools are set up as assets in PeopleSoft Asset Management by business unit. However, each Asset Management business unit is a set control value which determines the SetID used for each record group in the system.

You use SetID mapping to coordinate the SetIDs for the various set control record groups, which provide data for the templates. There are basically four record groups that must be synchronized to work correctly with the templates and the work order, which include: WM\_01 for Job and Task Templates, PCR codes, and PeopleSoft Maintenance Management definitions; FS\_18 for Item Master and Manufacturing - Model definitions; RS\_02 for Labor and Crafts, and AM\_15 for Asset Subtypes.

You should also map each job or task template SetID (from WM\_01) to the same FS\_18, RS\_02, and AM\_15 SetIDs, which are the same as the work order business unit set control values. For example, if you mapped WO BU US001 to WM\_01 SHARE, FS\_18 SHARE, RS\_02 SHR01, and AM\_15 SHARE, then you should also map the set control SHARE to FS\_18 SHARE, RS\_02 SHR01, and AM\_15 SHARE. Any work order business units for which you want to share templates among should follow this pattern.

Ideally, you should always map set control for AM\_15 which controls table AM\_SUBTYPE and FS\_18 which controls table MFG\_MODEL to the same SetID (SHARE). This prevents a situation, for example, in which AUTO is a valid Asset Subtype for the SetID, but FORD, TOYOTA, and more are not set up as corresponding Manufacturer IDs for the same SetID. The solution for any mismatches is

to simply add the missing codes to one side or the other, effectively forming a *superset* of codes which work as if you had a single common SetID.

**Important!** Unless your organization has compelling business reasons to partition this dependent system data across multiple SetIDs, it is highly recommended that you use a single generic SetID such as SHARE to organize the job and task templates and all underlying subsystem data.

- Effective-dating, which enables you to change the status of the templates from active to inactive and vice versa, as well as update the data based on a specified date.
- A link for each type of template in the work order to enable you to copy the requirements and data directly into the work order.
- Specific combinations of asset classification parameters—asset type, subtype, manufacturer, and model—which enable you to reuse the template in work orders and work order tasks where the asset being maintained or repaired falls within these classification parameters.
- Optional association with a combination of problem, cause, and resolution codes (PCR) to enable
  users to easily locate the most suitable template to apply to a work order task to bring about the
  intended resolution.

**Note:** Selection of these PCR codes is optional in either of the templates.

See SetID Considerations in PeopleSoft Maintenance Management.

See <u>Understanding PCR Setup and Tracking</u>.

See Creating a Work Order.

#### **Work Order Task Templates**

To reduce data entry time, users can set up work order task templates. These templates enable users to predefine the resource requirements and associated data for each line of a work order task. When you create a work order and one or more work order tasks, you can click the Task Template link for a specific work order task on either the work order's Requirements page or the Schedules page. This enables you to access a Task Template Search page where you can search for a work order task template based on your data specifications. You select the template that you want to apply to a specific work order task line.

**Note:** When you click the Task Templates link for a specific work order task, the system copies the task template data to the rows for that specific task. The task to which the task template data is copied can be a new task with no data entered, or it can be a task that already has some data entered. However, selecting a template for a task does not add a new work order task.

For example, you can set up a work order task template to change the oil in an organization's fleet of automobiles. The information on the work order task template includes:

- Resolution Code = OILCHANGE: Drain and replace engine oil.
- Labor requirements = 1 mechanic for 1 hour.
- Inventory requirements = Hotwire set.
- Items that need to be purchased = 5 quarts of Motor Oil SAE10-40W and 1 Oil Filter BJZ-1200.

- Instructions: 1) Remove oil pan nut/washer assembly.
- Checklist: 1) Before task, do work site safety inspection. 2) After task, dispose of used oil in hazardous waste oil recycle container and add label with contents, date, and time of change.
- Notes: SAFETY Read attached safety plan.
- Attachments = Safety plan.

The work order task template enables you to:

- Optionally specify asset classification parameters. If you do not select any asset classification parameters, the template is considered a non-asset template, which means that the template is not associated with the maintenance or repair of any particular kind of asset. The work order task operation is either not associated with any asset, or the operation is so generic that it can apply to any and all assets that you are working on. For example, you could set up a separate task template, for cost tracking purposes, for the operation of filing a follow-up regulatory report. This kind of task is common to a large variety of maintenance and repair situations.
- Optionally specify labor resource requirements based on the craft and the qualifications needed to perform the specific task.
  - You can use existing qualifications for the craft and add any qualifications that are also needed to perform the task. The template's Labor Requirements fields exactly match the fields that are in the Labor Requirements Details tab in the work order's Requirement's page.
- Optionally specify the inventory items from Inventory's Item Master table that are needed to perform this work order task.

The template's Inventory Requirements fields correspond to the fields that are in the Inventory Requirements - Details tab on the Requirements page for the work order.

You can also click the Copy from EPL (Equipment Parts List) button, which is only enabled if one or more EPL templates exist in the asset repository for the asset classifications in the work order task template's header. The EPL enables you to quickly find an item that you need to use to repair or maintain an asset instead of searching for it in the Item Master. When you select this button, the system displays a list of inventory parts and supplies that are commonly used to maintain and repair the asset. You select the items and then select a button that copies the item information to the template's Inventory item lines. When the work order task template is copied to the work order, the system will not copy any inventory items specified in the template that are not available to work order's work order business unit and the Inventory business unit specified in the work order business unit.

The Add to EPL button enables you to add selected inventory items to one or more EPL templates from the Work Order Task Template. The Add to EPL button is visible only if you select either or both the asset-default EPL and the non-specific EPL options for a user on the User Preferences, Maintenance Management page. In addition one or more applicable EPL templates must exist that correspond to the asset classification parameters selected for a task template. You must select an item ID or supplier reference and a planned quantity for each row that you intend to add to the EPL templates.

**Note:** To select inventory items from the Item Master table, you must install PeopleSoft Inventory. To select non-inventory items from the Item Master Table that are either on-hand or must be purchased, you are not required to install PeopleSoft Inventory. If you do not install PeopleSoft Inventory, the Inventory link in the work order task template is not available for selection.

- View the display-only **Item SetID** in the Inventory and Purchase/On-hand Requirements grids, and the **Craft SetID** in the Labor Requirements grid.
- Optionally specify the non-inventory materials, tools, and labor services that either require purchasing using a requisition or purchase order or are currently on-hand or readily available.

The template's Purchase/On-hand Requirements fields correspond to the fields that are in the Purchase/On-hand Requirements – Details tab in work order's Requirement's page.

You can select the Copy from EPL button to look for non-inventory items that need purchasing or are on-hand in your shop. This works just as it does for inventory items. You can also add non-inventory items and open description items to one or more equipment parts lists associated with the selected asset characteristic by selecting the Add to EPL button on the work order task template. You add the non-inventory and open description requirement rows to the Work Order Task Template, making sure that you select an item ID or supplier reference, a planned quantity and a unit of measure for each row that you intend to add to the EPL templates.

Optionally specify the asset type and asset subtype that apply to the tools needed to complete the work order task.

The template's fields in the Tool Requirement grid correspond to the fields that are in the Tool Requirements - Details tab in work order's Requirement's page.

- Optionally add a list of operational instructions that are used to direct the work order task's activities.
- Optionally create a checklist that defines specific required and non-required activities to perform before, during, and after the work order task. The technician may be required to check these activities off during the execution of the work order.
- Optionally add notes that are relevant to the performance of the work order task.
- Optionally add attachment files, including html files, which enable you to access designs, schematic drawings, and other information that are relevant to the work order task.

You click on the Task Templates link in the work order to search for a task template to copy to a work order task. If you already specified a valid asset for the work order task, the system lists the work order task templates that have asset characteristics that correspond to the asset in the work order task. You select the template that most readily applies to the work order task. If you did not specify an asset in the work order task line, then you can select it, as well as specify PCR parameters, in the Search page, if desired and copy this information to the work order task. You can also select the Include Non-Asset Templates check box in the Search page for the system to look up non-asset related templates as well.

Before copying the task template data to the work order task, the system verifies the SetID compatibility with the SetID used to create the work order business unit. It also determines the insertion point in the work order task and increments a new task number. The required start and end dates and times that display in a work order task are default values from the work order. The task template copy functionality does not compute the task duration information in the template based on these values. You can override the data that is copied from the template to the task.

#### **Work Order Job Templates**

A work order job template is a collection of task templates that are needed to complete a job. The work order job template is applied at the header level of a work order. This template is used to apply common data and requirements to a work order that requires more than one task or job step. It is possible to use a work order job template to populate the requirements and associated data for an entire, multistep work order. You must create the appropriate work order task templates that apply to the work order before you can set up the work order job template. You then attach each work order task template as a job step in the work order job template. If you specify the asset categories in a work order job template's header, the system uses them to search for compatible work order task templates to associate with the job template. The work order job template enables you to sequence each job step, indicate whether one step depends on another step, and enter the percentage that these dependent job steps overlap each other.

The system enables you to share these job templates (like their component task templates) across multiple business units, use effective dating to allow for data changes, and to apply them to categories of equipment assets. When you set up and save a job template, the system checks cross SetID compatibility between the component task templates. This compatibility is rechecked when you click on the Job Templates link in the work order and copy the job template to a work order.

As an example, you can set up a work order job template called FL\_AUTO\_3KSERV – Fleet-Auto: 3000 mile service and include these details:

Asset Type and Subtype: Fleet and Auto.

• Effective Date: 04/01/2005 Status: Active.

Duration: 3.75 hours.

• Job Steps:

1. Sequence Number: 1

Work Order Task Template: FL AUTO OILCHG – Fleet-Auto: Oil Change.

2. Sequence Number: 2

Work Order Task Template: FL AUTO FFCOOL - Fleet-Auto: Flush-Fill Coolant.

3. Sequence Number: 3

Work Order Task Template: FL AUTO TIREROTATE – Fleet-Auto: Rotate Tires.

. To apply job templates to a work order, you create a work order and click the Job Templates link on the Work Order header page to display the Job Template Search page. The default Asset Management business unit is derived from the value specified in the work order business unit associated with the work order. You can identify the asset in the work order and selected asset displays on the search page. If you do not select an asset on the work order, you must select an asset on the search page to display the asset classifications of asset type, subtype, manufacturer, and model, and to enable you to search select an asset-related problem group and the group's subsequent PCR codes. You also can search for non-asset related templates by selecting the Include Non-Asset Templates check box on the search page. If you do not select an asset in the work order and bring up the search page, this check box is preselected. You can deselect the preselected check box. The system matches those criteria and lists the number of templates that match the search.

Asset selection in the header of the Work Order page or on the Job Template Search page, produces different results, which include:

- If you select an asset in the header of the Work Order page, the Asset Management business unit and the selected asset ID display as default values in the Job Template Search page along with any applicable asset characteristics, which remain disabled. Asset selection either in the header of the Work Order page or the Job Template Search page can have the one of the following effects:
- If you do not specify an asset in the header of the Work Order page, you can select an asset in the Job Template Search page and the system copies the selected asset to the asset field in the header of the Work Order page.
- If you specify an asset (asset 1) in the header of the Work Order page and override the asset (asset 1) with another asset (asset 2) in the Job Templates Search page, the system searches for job templates associated with asset 2.

When you select the appropriate job template for the work order, the work order tasks associated with that template are copied to the work order for asset 2. However, the original asset (asset 1) in the work order header does not change.

If you left the asset field on the work order header blank, the asset that you select on the search page is copied to the blank work order header field.

You specify a Resolution Code when you set up job templates and task templates. This enables you to search for a job template by specifying problem, cause, and resolution (PCR) data. However, if you modified the PCR data used in the search, you must select the **Copy PCR Criteria to Tasks** check box on the Job Template Search page before the system will copy the PCR data to all the tasks identified in the job template. You can also select the **Include Non-Asset Templates** check box on the Search page for the system to look up non-asset related job templates on the Job Template Search page.

When you want to add a single task template to a work order, you can select the Task Templates link on a task page to display the Task Template Search page. When you select the Copy PCR Criteria to Tasks check box on this search page, the system only copies the PCR data specified on the search page to that single task.

When the work order job template is copied to the work order, the system verifies that the template contains at least one valid job step. If you copy a work order job template into a work order that has existing task lines, the new task lines are always inserted at the end of the existing task lines. For example, if you are doing a corrective radiator repair on a vehicle and performing a multistep coolant system maintenance, including flushing/filling new coolant fluid, and these tasks are conveniently bundled in a job template, you append the new job template tasks to the radiator repair task that you previously entered manually.

**Note:** Sequence numbers on the work order job template steps enable the job steps specified in template to be copied in the in the sequence they are listed. When Job Template steps are inserted into a work order job template, the default values of the sequence numbers are automatically assigned in increments of 10 (10, 20, 30). Users can override these sequence numbers (for example, change sequence numbers for steps from 10, 20, 30 to 1, 2, 3). Even if users override the sequence numbers, the next auto-assigned sequence number for a newly-inserted job step will be in increments of 10. For example, if the user changes the sequence numbers of the first three job steps to 1,2,3, then the next auto-assigned sequence number for a fourth job step will be 40. When a work order is created, the sequence numbers of the job steps are copied into the work order as they currently exist in the job template. If the user overrides the auto-generated sequence numbers in the template, then the overridden sequence numbers are copied to the work order.

#### **Preventive Maintenance Work Order**

Work order job templates are particularly useful for creating preventive maintenance work orders, which consist of routine maintenance activities that require the use of the same or similar resources and other requirements. You apply a work order job template in the preventive maintenance schedule definition, which is applied when the work order is created by the Preventive Maintenance (WM\_PM) process. You can also create a work order for a single task preventive maintenance operation by associating a single step work order job template to a preventive maintenance schedule.

See <u>Understanding Preventive Maintenance Work Orders</u>.

# **Setting Up Work Order Templates**

To set up work order task templates, use the Work Order Task Template (WM\_WO\_TASK\_TMPLT) component.

To set up work order job templates, use the Work Order Job Template (WM\_WO\_JOB\_TMPLT) component.

This section describes how to set up a work order task template and set up a work order job template.

### **Pages Used To Set Up Work Order Templates**

Page Name	Definition Name	Usage
Work Order Task Template Page	WM_WO_TASK_TMPLT	Predefines work order data at the task (line) level for reuse in creating new work orders with equivalent work requirements.
Copy From Equipment Parts List Page	WM_EPL_SELECT_SEC	Copy inventory and purchase/on-hand non-inventory and open description items to the selected Inventory Requirements row or Purchase/On-Hand Requirements row.
Add to Equipment Parts List Page	WM_EPL_UPDATE_SEC	Add inventory items and purchased non-inventory and open description items to an equipment parts list (EPL).
Work Order Job Template Page	WM_WO_JOB_TMPLT	Predefines work order requirements at the work order level, which consist of one or more job steps that are each represented by a predefined task template.

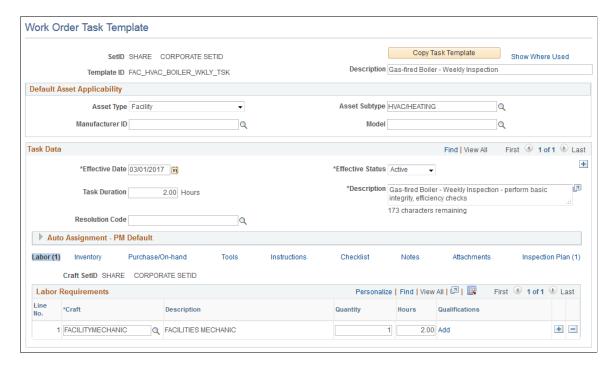
### **Work Order Task Template Page**

Use the Work Order Task Template page (WM\_WO\_TASK\_TMPLT) to predefines work order data at the task (line) level for reuse in creating new work orders with equivalent work requirements.

Navigation:

Set Up Financials/Supply Chain > Product Related > Maintenance Management > Templates > MM Work Order Task Templates > Work Order Task Template

This example illustrates the fields and controls on the Work Order Task Template Page. You can find definitions for the fields and controls later on this page.



#### **Default Asset Applicability**

Field or Control	Description
Asset Type, Asset Subtype, Manufacturer ID, and Model	Select these classification parameters to indicate that this template is applied to Asset instances matching this specified category combination only. <b>Asset Type</b> and <b>Subtype</b> must be specified together. Also, if you specify <b>Manufacturer ID</b> or <b>Model</b> , then you must enter of all of the higher-level categories.

**Note:** These fields are optional. If parameters are not selected, the template is considered to be non-asset related.

### Task Data

Field or Control	Description
Effective Date and Effective Status	Enter the date from which this template is either <i>Active</i> or <i>Inactive</i> . The selected effective date and status also apply to each of the requirements grids (Labor, Inventory, Purchase/On-Hand, and Tools), as well as instructions, checklists, notes, and attachments. When you copy a task template's data to a work order task, the system checks this effective date and status against the work order task's required start date. If the work order task does not have a required start date, then the current system date is used.
	Important! If the effective date on the work order job template does not coincide with the effective date on a work order task template that is added as a job step to the job template, the system will not copy this task to the work order.
Duration (Hrs) (hours)	Enter the overall duration of this task activity in hours and parts of an hour up to two decimal places. The unit of measure (hours) used here is hard-coded to match the unit of measure for the duration of a task in a work order.
	Note: You can override this field in the work order task.
Description	Enter a complete description of the task. This is a required field.
Resolution Code	Associate this task with a resolution code that most aptly applies to this task. This code is used for PCR tracking purposes and as a search value that is used to find an appropriate Task Template to copy to a work order.
	Note: You can override this value in the work order task.

# Auto Assignment — PM Default

Field or Control	Description
Problem Group	Select problem group to be used as criteria to automatically assign labour and supplier for PM Work Orders.
Problem Code	Select appropriate problem code to be used as criteria to automatically assign labour and supplier for PM Work Orders.

#### **Labor Requirements**

Click the **Labor** link to optionally define the labor requirements for this work order task.

#### **Inventory Requirements**

Click the **Inventory** link to optionally define the inventory requirements for this work order task.

Field or Control	Description
Copy from EPL (copy equipment parts list)	Click this button to access the Equipment Parts List Selection page which enables you to copy for items from an EPL template that is associated with the task's asset to the work order task row.
	Note: This button only appears on the page if the selected asset is associated with an EPL template.
Add to EPL (add to equipment parts list)	Click this button to access the Add to Equipment Parts List page, which enables you to add a selected part to an EPL template.
	Important! You must select the item, enter the Planned Quantity, select and the item row to activate this button and update the item row to an EPL.

**Note:** You must install PeopleSoft Inventory to access this link.

#### **Purchase/On-Hand Requirements**

Click the **Purchase/On-Hand** link to optionally define non-inventory labor, materials, or tools that the user must procure by creating either a purchase order or a requisition (specified in the work order business unit) in the PeopleSoft Purchasing application for the work order task. You can also define non-inventory materials that are on-hand in the shop and are not usually tracked, such as a large barrel full of nuts and bolts.

Field or Control	Description
Copy from EPL (copy equipment parts list)	Click this button to access the Equipment Parts List Selection page which enables you to copy for items from an EPL that is associated with the task's asset to the work order task row.
	Note: This button only appears on the page if the selected asset is associated with an EPL.

Field or Control	Description
Update to EPL (add to equipment parts list)	Click this button to access the Add to Equipment Parts List page, which enables you to add a selected part to an EPL template.
	Important! You must select the item, enter the Planned Quantity, and select the item row to activate this button and to update the item row to an EPL.
	Note: This button only appears on the page if the selected asset is associated with an EPL and the Allow Update options are selected on the User Preferences — Maintenance Management

### **Tool Requirements**

Click the **Tools** link to optionally define tools requirements for the work order task.

### Instruction

Click the **Instruction** link to optionally predefine a list of operational instructions for directing the activities of the work order task.

### Checklist

Click the **Checklist** link to optionally create a list of required and suggested steps to follow to complete the work order task.

#### **Notes**

Click the **Notes** link to optionally enter any comments that are needed to complete the work order task.

### **Attachments**

Click the **Attachments** link to optionally attach a number of different file types, including .html files, and other information that are associated with the work order task.

### **Inspection Plan**

Click the **Inspection Plan** link to optionally link an associated inspection plan to the task template. You can include only one inspection instance per task. The asset inspection plans available are listed on the basis of the default asset applicability parameters of the task template.

See <u>Labor Requirements</u>.

See Inventory Requirements.

See Purchased and On-Hand Resource Requirements.

See Tool Resource Requirements.

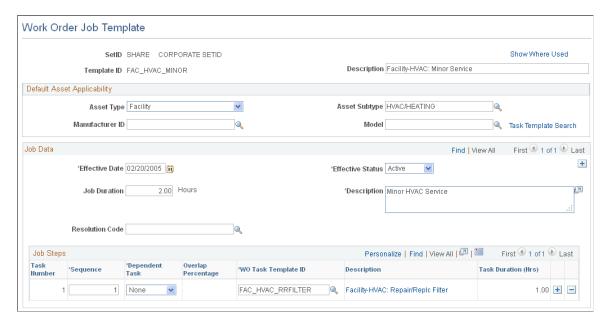
### **Work Order Job Template Page**

Use the Work Order Job Template page (WM\_WO\_JOB\_TMPLT) to predefines work order requirements at the work order level, which consist of one or more job steps that are each represented by a predefined task template.

Navigation:

Set Up Financials/Supply Chain > Product Related > Maintenance Management > Templates > MM Work Order Job Templates > Work Order Job Template

This example illustrates the fields and controls on the Work Order Job Template page. You can find definitions for the fields and controls later on this page.



### **Default Asset Applicability**

This group box contains the same fields as the fields described for the Work Order Task Templates. Entry of these fields is optional. If you leave them blank, this is considered a non-asset job template.

See Work Order Task Template Page.

### Job Data

Field or Control	Description
Effective Date and Effective Status	Select the date that the information in this Job Data group box becomes effective and whether the information in the group box is <i>Active</i> or <i>Inactive</i> as of the selected date. The date and status that you select here also applies to the Job Steps grid on the page since it resides within the Job Data group box. These are required fields.  When you copy a work order job template to a work order, the system compares the work order header's required start date
	with the job template's effective date. If the work order header does not have a required start date, then the current system date is used.
	Important! When you create a job template (Set Up Financials/Supply Chain > Product Related >
	Maintenance Management > Templates > Work Order Job Template) and you search for a work order task template to associate with the job template, the search results only consist of work order tasks templates that fall within the effective date parameters of the job template. However, when you copy a job template to the work order, the system only allows you to copy job templates with effective dates that fall within the parameters of the work order header's Required Start Date field. Also, only work order task templates with effective dates that fall within the parameters of the work order task's Required Start Date field are copied to a work order task. If the Required Start Date is not available in either instance, then the current system date is the controlling factor.
Duration (Hrs) (hours)	Enter the number of hours and parts of an hour it will take to complete the entire work order, including all job steps and task activities. This field allows for 5 digits and two decimal places.
	Note: This field is optional. If you enter a value, you can override this value in the work order.
Resolution Code	Select a resolution code to apply to the entire work order. This code is used for PCR tracking purposes and to use as a search value to find an appropriate job template to copy to a work order.
	<b>Note:</b> This field is optional. You can override this selected value in the work order.

# Job Steps

You can enter one or more job steps that are each associated with a work order task template.

Field or Control	Description
Sequence	Enter or override a number that indicates the order in which you want this job step (task template) to occur.
	Note: Job step sequencing is optional.
Dependent Task	Select the task number (job step) number that this current job step (work order task) is required to follow and is dependent upon.
	Note: Task dependency is optional.
Overlap Percentage	Enter the percentage of overlap that exists between the dependent task and this task.
	Note: Entering a percentage in this field is optional, even if you specify a task dependency.
WO Task Template ID	Select the work order task template to apply to a work order content for this job step.
	Note: You are notified at save time if a task template is incompatible.

### **Chapter 10**

# **Configuring Work Order Approval Workflow**

# **Understanding the Work Order Approval Workflow Architecture**

To ensure that all work orders have proper authorization, the system is able to dynamically route work orders to the appropriate people for approval using business rules that you establish for your organization, based on your particular business needs. This section discusses:

- Terminology.
- Architecture.
- Work order approval workflow modifications.

# **Terminology**

This table provides definitions for the work order workflow terminology that is used throughout this set of topics:

Term	Definition
Ad Hoc Approver/Reviewer	Technician or approver can add another user ad hoc to approve or review the current work order only. The process definition is not modified, so it does not affect other work order approval routings.
Approval Map	The graphic representation of an approval instance with stages, paths and steps.
Approval Path	A path is a group of sequential, related steps, such as approval steps based on a single department hierarchy (for example, manager, director, VP, and so on).
Approval Stage	A stage is a collection of paths. Stages come in a single sequence (stage 1, stage 2,) A stage runs when it's immediately preceding stage finishes. When a stage runs, all the paths within it run simultaneously. The stage is considered complete when all paths within it have finished.
Approval Step	The basic unit of approval. A step has one or more approvers, whose actions are tracked. A step can be configured to require a set number of approvers to act and has criteria that govern whether or not the step is to be active for the work order.

Term	Definition
Approver	Manager or maintenance planner who is responsible for approving the work order.
Criteria	A criterion is an entity, which evaluates to true or false. Criteria are used to determine which steps and paths are to be considered active for a particular request undergoing approval processing. Criteria can be configured by the functional analyst or can be canned queries, SQL objects, app classes, and so on.
Reviewer	The application routes work orders to reviewers for informational purposes, but reviewers do not need to take any action for the approval process.
User List	Approvers, reviewers, and other actors are grouped by roles and other means. The PeopleSoft Enterprise Components Approval Framework provides an abstraction across such aggregates, called Userlists.
Work Order Approval Process Definition	A set of rules to govern how the works order approval process should flow for a business unit (SetID-based sharing) based on the business requirements. Within the process definition, stages, paths, and steps can be defined with different criteria and approver designations.
Work Order Approval Process Instance	A running instance of the approval process for a particular work order with criteria evaluated and specific approvers known (routed or not routed).

### **Architecture**

The work order approval workflow uses the workflow framework provided by PeopleSoft Enterprise Components, rather than the standard PeopleTools workflow, which requires advanced technical skills in PeopleTools. Consequently, the PeopleSoft Maintenance Management workflow is easy to create and maintain. All the steps in the work order approval workflow are defined using PeopleSoft pages and are designed so that functional users can easily set it up.

PeopleSoft Maintenance Management delivers the work order approval workflow engine preconfigured. Oracle recommends using the delivered configuration as is, making minor modifications to suit your particular business practices. The work order approval is delivered as system data, using the WM\_WORK\_ORDER approval process ID. You can modify the definition to suit your implementation by defining your own phases, steps, and criteria. These definitions control who should approve the work order, the order in which they approve it, and the method by which the system routes it to approvers. The approval process is keyed by SetID, and by using SetID sharing, each business unit can either have its own independent work order approval process configuration or share the same approval process configuration with other business units. Oracle recommends that you understand the workflow technology before making any changes.

See documentation PeopleSoft Approval Framework

Work orders are routed to approvers so that they can act on the work orders to approve or deny them. If the approver approves a work order, then it is routed to the next approver, if any. A submitter or approver can add ad hoc approvers for the current work order as well. After the work order is fully approved (or no approval is required), it is available for a scheduler to schedule technicians to perform the work. If the approver denies a work order, than the approval process is terminated. The submitter is notified of the denial and can optionally revise the work order and resubmit it. The technician can choose to cancel a work order; and if an approval process is in progress, it will be terminated.

The following elements are used in the work order approval process definition and are among the items you would modify to suit your business requirements:

### • Stages.

A stage is one part of an approval process that can contain multiple parallel paths. The system executes stages in sequence where one must complete before the next one begins. A stage consists of one or more paths.

#### Paths

A path contains a sequence of steps. Within a stage, paths execute in parallel. Path entry criteria determine whether a path executes for a given work order.

### • Steps

A step represents one or more approvers or reviewers. Steps within a path execute in sequence. Separate criteria for each step determine whether or not that step executes. Each step can also have a set of reviewers, who are notified about transactions pending approval by email, if configured, and through the Worklist. But the workflow proceeds without waiting for reviewers to act.

**Note:** While the approval process configuration may require any number of approvers to approve a step before it advances, any single approver can deny a work order. After a work order is denied, the system stops routing the work order, the approval process terminates, and the entire work order is denied.

The system notifies approvers of a pending approval by using Worklist and email. You need to define the individuals or roles that comprise a user list, and the authorized approvers. You can specify approvers by roles, queries, fixed lists, or by using custom application classes. Once the required number of approvers have approved a step, the approval workflow advances past that step.

The following diagram illustrates the overall process flow for the work order approval workflow process. Workflow Approval is selected for the work order business unit. A work order is created in PeopleSoft Maintenance Management and the Approval Status is Initial. You enter the work order header data and work order task requirements and save the page to start the Approval Workflow Process. The approvers are notified by email that the task needs approving. If the task is approved, the Approval Status in the work order changes to Approved.

Approver Technician System Start Approval Notified by Submit Work Order worklist/email Workflow Process Route Task to Approve/Reject Approver(s) has more approvers -Approvedno more approvers Complete Approval Process Terminate Approval Rejected Process Update Status to Approved Update Status to Rejected Available for Scheduling Notify Submitter Technician Cancel Work Order Pending Approval Terminate Approval **Update Status** to Canceled Process

This diagram illustrates the overall process flow for the work order approval workflow process.

# **Work Order Approval Workflow Modifications**

To make adjustments to the delivered work order approval workflow process, complete the following tasks, which are discussed in detail in the remainder of this set of topics:

1. Update the work order approval process definition by using the Approval Process Setup component (Enterprise Components, Approvals, Approvals, Approval Process Setup).

The approval process definition specifies the stages, paths, steps, and criteria for the workflow approval process.

2. (Optional) update the method of notification that is used for approvals in the Notification Options Register of the Register Transactions page (Enterprise Components, Approvals, Approvals, Transaction Registry, Register Transactions.)

The transaction definition contains the metadata which describes the transaction make up to the workflow approval engine. PeopleSoft delivers the transaction registry for work order approvals; you do not need to create it. As delivered, the system is configured to use emails and worklists.

- 3. Add or update user lists in the User List Definition page (Enterprise Components, Approvals, Approvals, User List Setup, User List Definition.)
- 4. Add or update work order approvers in the Approval Authorization page (Enterprise Components, Approvals, Approvals, Authorize Approvers, Approval Authorization).

# **Revising the Delivered Work Order Approval Workflow**

This section discusses the approval process.

### **Setup Process Definition Page**

Use the Setup Process Definition page for the WM WORK ORDER approval process

Navigation:

Enterprise Components > Approvals > Approvals > Approval Process Setup > Setup Process Definitions

This page is described in the Defining Approval Workflow Processes section of the Enterprise Components: PeopleSoft Approval Framework .

These are fields on the Setup Process Definitions page that either do not apply to the WM\_WORK\_ORDER approval process, or if they apply to the WM\_WORK\_ORDER approval process, they require specific field values.

- The **Take Action on Line Completion** check box does not appear in the Definition Options group box, because the WM\_WORK\_ORDER approval process only affects the header (work order) level.
- Header is the default value for the **Level** field because the WM\_WORK\_ORDER workflow process only requires approval at the header (work order) level. You cannot change this value.
- Application Class criteria does not apply to the WM WORK ORDER approval process.
- When you click the Criteria link in the Paths group box or Criteria icon in the Steps group box
  on the Setup Process Definitions page to access the Criteria Definitions page with a Criteria Type
  of *User Entered*, the Record field value should be WM\_WO\_HDR for the WM\_WORK\_ORDER
  approval process.

### **Chapter 11**

# Setting Up and Using Condition-based Maintenance

# **Understanding Condition-based Maintenance**

Oracle's PeopleSoft Maintenance Management condition-based maintenance (CBM) enables you to make maintenance decisions based on the actual condition of the asset. You can identify equipment problems early, when they are less costly to correct, and perform maintenance only when needed.

Condition-based maintenance in PeopleSoft Maintenance Management:

- Requires the setup of Web Services and Integration Broker to enable communication to external
  monitoring systems, as well as the setup of PeopleSoft workflow and condition-based maintenance
  rules for PeopleSoft Maintenance Management.
- Uses alerts generated from real-time equipment monitoring devices that assess equipment conditions against predefined, normal operation parameters.
- Provides real-time alerts when equipment is operating outside of normal bounds so appropriate maintenance action can be taken.
- Initiates appropriate maintenance action, including creation of a work order, and PM schedule updates.

External systems measure and analyze current equipment readings and determine whether the condition of the equipment is outside of normal operating parameters. When the condition is outside normal operating parameters, an alert triggers a response and follow-up action. Users can manually create an alert or an external software program can create an alert.

Then, depending on the setup rules, the system sends a message to the CBM coordinator by email or through a worklist indicating the condition exists. The CBM coordinator reviews the alert and can either create a work order, or, if the alert can be handled using a preventive maintenance work order, the coordinator updates the PM schedule, which is used by the Preventive Maintenance process to generate a work order. The system tracks the status of an alert throughout its life cycle.

## **Terminology**

The following terms are included in these topics:

Term	Definition
Web Service	Web service as a software service exposed on the Web through SOAP, described with a WSDL file and registered in UDDI. Web services are the fundamental building blocks in the move to distributed computing on the Internet.
SOAP	As the communications protocol for Web services, SOAP is a lightweight protocol intended for exchanging structured information in a decentralized, distributed environment. SOAP uses XML technologies to define an extensible messaging framework, which provides a message construct that can be exchanged over a variety of underlying protocols. The framework has been designed to be independent of any particular programming model and other implementation specific semantics.
WSDL	WSDL (often pronounced whiz-dull) stands for Web Services Description Language. A WSDL file is an XML document that describes a set of SOAP messages and how the messages are exchanged. WSDL is an XML format for describing network services as a set of endpoints operating on messages containing either document-oriented or procedure-oriented information. The operations and messages are described abstractly, and then bound to a concrete network protocol and message format to define an endpoint. Related concrete endpoints are combined into abstract endpoints (services).

### **PeopleSoft Maintenance Management CBM Setup Considerations**

There are specific steps that you must perform to enable condition-based maintenance in PeopleSoft Maintenance Management.

- To create alerts using Web Services, set up:
  - The external system that is used for monitoring the asset must follow Web Service standards and publish WSDL.
  - Web Services to work with PeopleSoft Integration Broker, which enables component interfaces and messages to be offered to third parties as web services.
- To create both Web Services and manual alerts, you must assign the role and route control profiles to the CBM coordinator's user profile.

The role of CBM Coordinator (WM\_CBM\_COORDINATOR) and the Route Control Profile (WM\_CBM\_US001) have already been set up in the system data.

PeopleSoft Workflow sends a notification message. In the worklist and email, use the "Two Route Controls Qry" from the recipient in the Fields Mapping. The role WM\_CBM\_COORDINATOR is passed as a bind variable for ROLENAME. Business unit and shop ID are passed as the other two bind variables.

• In PeopleSoft Maintenance Management, set up condition-based maintenance rules.

The system uses the rules you set up on the Condition-Based Maintenance Setup page to route alerts to the correct work order business unit and shop and thus the appropriate CBM coordinator. These rules also indicate maintenance type, work order type, and service group default values that will display in the work order or the PM schedule depending on the selected rule. The rules are selected by weighting each of the characteristics They provide default values for these actions:

- Update a PM schedule and run the Preventive Maintenance Process to generate a work order.
- Create a work order manually.

**Important!** You must set up a user in PeopleSoft Security for the CBM Coordinator role.

The condition-based rules assign a weight to each of the attributes of an asset. The system matches the attributes of the asset associated with the alert with these rules and assigns the with rule with the highest total weight. The asset attributes and their associated weights are:

• Asset Type: weight = 1

• Asset Subtype: weight = 2

Asset Location: weight = 4

• Asset Area: weight = 8

• Asset ID: weight = 16

You can also enter a wildcard for the above attributes, which is equal to zero (0).

**Note:** You can assign any values you want to each attribute, if desired.

For example, if an external system is monitoring the condition of a building's air conditioning system where each unit has a monitoring attached to it that measures electrical load produced by the air conditioner. If the monitor on Unit A indicates that the electrical load has increased out of normal range, the system issues a message that the unit needs repair. Unit A is identified as: Asset Type: Facility; Asset Subtype: HVAC/Heating

Asset Type: Facility

• Asset Subtype: HVAC/Heating

Asset Location: US001

Asset Area: Building B

Asset ID: BAC000000A1

The condition-based rules that are set up in your system include (both tables apply to the same 5 rules):

Row#	Asset Type (wt = 1)	Asset Subtype (wt =2)	Asset Location (wt =4)	Asset Area (wt =8)	Asset ID (wt =16)	Total Row Weight
1	% 0	% 0	% 0	% 0	% 0	0
2	IT Hardware	SERVER 2	% 0	% 0	% 0	3
3	IT Hardware	Laptop 2	US001 4	% 0	% 0	7
4	Facility 1	HVAC/Heating 2	US001 4	0	% 0	7
5	Facility	HVAC/Heating 2	0	0	0	3

Row#	Business Unit	Shop	Maintenance Type	WO Type	Service Group
1	US001	Shop A	MINOR	СМ	MAINT
2	US001	Shop B	MAJOR	PM	MAINT
3	US001	Shop B	MINOR	PM	MAINT
4	US002	Shop A	MINOR	СМ	MAINT
5	US002	Shop C	MINOR	PM	MAINT

Based on the asset attributes you selected and the rules, the system matches:

Asset Attribute	Selected Asset Attributes	Matching Rule
Asset Type	Facility	Row 4 - Facility
		Row 5 - Facility

Asset Attribute	Selected Asset Attributes	Matching Rule
Asset Subtype	HVAC/Heating	Row 4 - HVAC/Heating Row 5 - HVAC/Heating
Location	US001	Row 4 - US001 Row 5 - %
Asset Area	Building B	Row 4 - % Row 5 - %
Asset ID	BAC000000A1	Row 4 - % Row 5 - %

RESULT: The system selects Row 4 because the total weighting for Row 4 = 7 and the total weighting for Row 5 = 3. Since row 4 is higher, the system will default the values work order business unit (US001), shop (Shop A), maintenance type (Minor), work type (CM), and service group (MAINT).

**Note:** Row 1 is also matched because the weight = 0. It is wise to include this general rule to enable the system to catch all of the alerts should no specific rule exist.

Each alert has a system-generated ID. During setup you specify the last CBM alert ID number used. The system uses this number to generate sequential Alert IDs for the Asset Management Business Unit alerts.

See documentation *PeopleTools: Integration Broker* 

# Condition-Based Maintenance Alerts Issued Using Web Services

An external condition monitoring system sends a SOAP (Simple Object Access Protocol). request to PeopleSoft Maintenance Management when it detects an asset that is out of operational limits. Condition-based Maintenance receives the message of an alert via Web Services working with PeopleSoft Integration Broker.

When the system receives an alert from an external condition monitoring system it takes the following steps:

- 1. Receives the SOAP request message of a new alert.
- 2. Validates the SOAP request message.
- 3. Uses the matching rules to populate the work order Business Unit and Shop ID.
- 4. Generates the Alert Identification.
- 5. Triggers the workflow to notify the person with the CBM Coordinator role and matching profile.
- 6. Saves the alert.

7. Sends back Alert Identification in a SOAP response message.

If the system finds an error in the request it sends back an error message to the external condition monitoring system. If the system cannot find a matching rule or a CBM Coordinator role user, it sets the status of the alert to Error when the alert is saved.

See documentation PeopleTools: Integration Broker

### **Condition-Based Maintenance Alerts Issued Manually**

To enter an alert manually:

- A user determines that an asset performing outside operational limits.
- The user creates an alert on the Condition-based Maintenance Alert page.
- System matches the input to the Condition-based Maintenance Rules and populates the work order business unit and shop ID fields in the alert.
- The system generates an Alert Identification.
- Alert triggers workflow to notify the CBM Coordinator.
- Save the alert, which updates the Alert Status History.

### **CBM Work Order Creation Process**

After receiving an alert the CBM Coordinator can create a work order, or update the PM schedule and the Preventive Maintenance process generates a work order. When the CBM coordinator clicks the Create Work Order button the system retrieves the default values and displays them on the Create Work Order page based on the matching rule. The CBM Coordinator can change the values if desired. The system creates the work order when the CBM Coordinator submits the request by clicking the OK button. You must access the work order component to create tasks and assign and schedule resources. If you plan to schedule a crew for this work order, you must use the Crew Scheduling Workbench and the Labor Assignment Workbench as well. The system updates the alert status to Work Order Created. When a work order is closed or cancelled the system updates the status of the related alert to close.

If the CBM Coordinator clicks the Update PM Schedule button, the Update PM Schedule page contains the default values based on the rules. The system updates the PM schedule, which was set up for this asset, and displays the schedule ID on the Condition-Based Maintenance Alert page. The system also updates the CBM Alert tab of the Preventive Maintenance Schedule Workbench for the PM schedule, indicating the source of the alert and if the override option is turned on in the schedule to enable the Preventive Maintenance process to generate a work order.

Understanding Preventive Maintenance Work Orders

# **Setting Up CBM Rules**

To set up CBM rules use the Condition-Based Maintenance Setup (WM CBM RULE) component.

This section provides an overview of CBM rules and discusses how to define CBM rules.

# Page Used to Set Up CBM Rules

Page Name	Definition Name	Usage
Condition-Based Maintenance Setup Page	WM_CBM_RULE	Define CBM rules.

### **Condition-Based Maintenance Setup Page**

Use the Condition-Based Maintenance Setup page (WM CBM RULE) to define CBM rules.

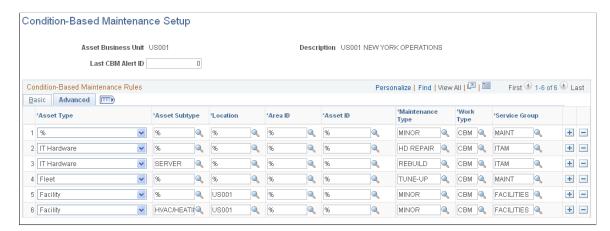
Navigation:

Set up Financials/Supply Chain > Product Related > Maintenance Management > Setup > CBM Rule Setup

This example illustrates the fields and controls on the Condition-based Maintenance Rules - Basic. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Condition-Based Maintenance Rules - Advanced. You can find definitions for the fields and controls later on this page.



Define the CBM rules and last alert ID for the Asset Management Business Unit.

Field or Control	Description
Last CBM Alert ID	Enter a number. The system uses the number to generate sequential alert IDs starting with the number following your entry.
Asset Type	Select a wildcard (%) to represent all asset types or select a specific asset type from your list.
Asset Subtype	Select a wildcard (%) to represent all asset subtypes or select a specific asset subtype from your list.
Location	Select a wildcard (%) to represent all asset locations or select a specific asset location from your list.
Area ID	Select a wildcard (%) to represent all area IDs or select a specific area ID from your list.
Asset ID	Select a wildcard (%) to represent all asset IDs or select a specific asset ID from your list.
Weight Points	Displays the total weight for the selected values for each row. The values are Asset Type (1), Asset Subtype (2), Asset Location (4), Asset Area (8), and Asset ID (16). Wildcards = 0.
<b>Business Unit</b>	Select the work order business unit to serve as the default value in the work order for the selected row.
	You must specify a default value and cannot use a wildcard in the fields for the Business Unit, Shop, Maintenance Type, Work Type, and Service Group.
Shop	Select the shop to serve as the default value in the work order for the selected row.
Maintenance Type	Select the maintenance type to serve as the default value in the PM schedule for the selected row.
Work Type	Select the work (order) type to serve as the default value in the work order for the selected row.
Service Group	Select the service group to serve as the default value in the work order for the selected row.

# **Creating and Updating a CBM Alert in PeopleSoft Maintenance Management**

To create and update CBM alerts in PeopleSoft Maintenance Management use the Condition-Based Maintenance Alert (WM ALERT) component.

This section provides an overview of CBM alerts in PeopleSoft Maintenance Management and discusses how to create a CBM alert in PeopleSoft Maintenance Management, update a PM schedule, create a work order, and review the alert status history.

# Pages Used to Create and Update a CBM Alert in PeopleSoft Maintenance Management

Page Name	Definition Name	Usage
Condition-Based Maintenance Alert Page	WM_ALERT	Enter a new CBM alert and respond to alerts entered manually or generated from an integrated system.
Update PM Schedule Page	WM_ALERT_UPD_PM_SP	Update the PM schedule.
Create Work Order Page	WM_ADD_WO_SP	Create a work order.
Alert Status History Page	WM_ALERT_STATS_SEC	View the status history of the alert.

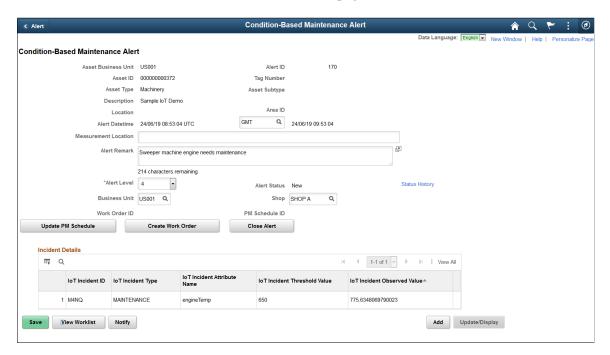
# **Condition-Based Maintenance Alert Page**

Use the Condition-Based Maintenance Alert page (WM\_ALERT) to enter a new CBM alert and respond to alerts entered manually or generated from an integrated system.

Navigation:

Maintenance Management > Condition-Based Maintenance > CBM Alert

This example illustrates the fields and controls on the Condition-Based Maintenance Alert page. You can find definitions for the fields and controls later on this page.



Only the CBM coordinator can add or update an alert. You must save the component before you can update the PM schedule, create a work order, or close the alert. When you save, the system sends a notification message based on workflow routing controls. If the system cannot find a corresponding CBM rule it displays *There is no matching rule found for the alert*. If the system cannot find a user for the notification it displays *There is an error in triggering workflow*. The administrator or CBM coordinator can manually correct the errors.

Field or Control	Description
Alert ID	Displays the alert number generated based on the last alert number.
Location	Displays the location of the asset.
Area ID	Displays the specific area in which the asset is located.
Alert Datetime	Displays the local date and time based on a local time zone and the date and time based on GMT (Greenwich Mean Time) date and time. If you select a local time zone that is not supported, the local date and time does not appear and the dropdown box shows <i>Invalid</i> .
Measurement Location	Indicates the location where the measurement, which triggered the alert process was taken.
URL	Displays the URL for the integrated monitoring system.

Field or Control	Description	
Alert Remark	Enter additional information about the alert.	
Alert Level	Select a number between 1 and 5 to indicate the priority and severity of the problem.	
Alert Status	Indicates the status of the alert. Alert statuses are identified in Reviewing the Alert Status History.	
	See Alert Status History Page.	
Status History	Click this link to access the Alert Status History page where you can view the status history of the alert.	
Business Unit and Shop	Displays the work order business unit and shop based on the matched CBM rule. When you change either value on a save alert the system asks if you want to send workflow notification of the event.	
Work Order ID or PM Schedule ID	Displays the work order ID if you selected the <b>Create Work Order</b> button as a link to enable you to access the work order	
	If you selected the <b>Update the PM Schedule</b> button, the PM schedule ID displays as a link to enable you to access the PM schedule.	
	Note: You must save the page before you can access the Update PM Schedule, Create a Work Order, and Close Alert buttons. These fields are not updated until you select one of these buttons.	
Save	Click this button to save the alert and display the <b>Update PM Schedule</b> , <b>Create Work Order</b> , and <b>Close Alert</b> buttons.	
Update PM Schedule	Click this button to access the Update PM Schedule page.	
	See <u>CBM Work Order Creation Process</u> .	
Create Work Order	Click to take the indicated action for a saved alert. Once you take an action the <b>Business Unit</b> is unavailable.	
Close Alert	Click this button to close the alert and update the Alert Status History page for the selected asset.	

### **Incident Details**

Use the Incident Details grid to view details related to out-of-tolerance alerts for an Internet of Things (IoT) connected asset.

**Note:** This grid appears only for condition-based alerts related to IoT assets.

See "Understanding the Integration with Oracle Internet of Things Asset Monitoring Cloud Service" (Asset Lifecycle Management Fundamentals).

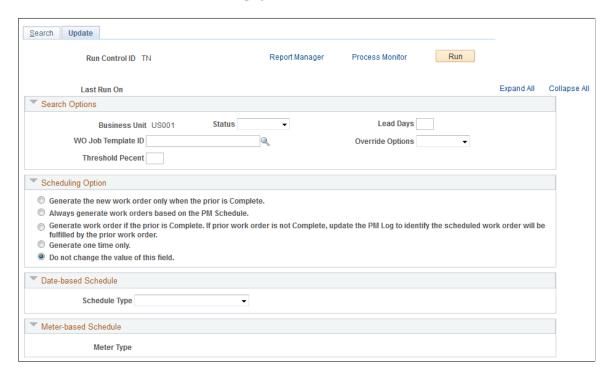
### **Update PM Schedule Page**

Use the Update PM Schedule page (WM ALERT UPD PM SP) to update the PM schedule.

Navigation:

### Click the Update PM Schedule button on the Condition-Based Maintenance Alert page.

This example illustrates the fields and controls on the Update PM Schedule page. You can find definitions for the fields and controls later on this page.



Use this page to update the PM schedule. When you update the PM schedule the system updates the alert with the PM Schedule ID.

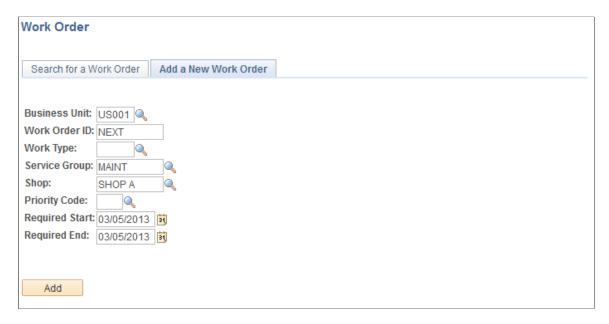
## **Create Work Order Page**

Use the Create Work Order page (WM ADD WO SP) to create a work order.

Navigation:

Click the Create Work Order button on the Condition-Based Maintenance Alert page.

This example illustrates the fields and controls on the Create Work Order page. You can find definitions for the fields and controls later on this page.



Use this page to create a work order for the alert. The CBM rule determines the **Maintenance Type**, **Work Type**, and **Service Group**, values unless you changed the **Business Unit** or **Shop**. When you create the work order the system updates the alert with the Work Order ID. All fields must have a value selected.

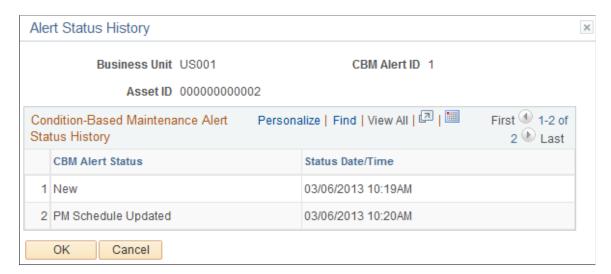
### **Alert Status History Page**

Use the Alert Status History page (WM\_ALERT\_STATS\_SEC) to view the status history of the alert.

Navigation:

### Click the Status History link on the Condition-Based Maintenance Alert page.

This example illustrates the fields and controls on the Alert Status History page. You can find definitions for the fields and controls later on this page.



Use this page to track the status of an alert.

Field or Control	Description
CBM Alert Status (conditioned-based maintenance alert status)	Displays the status of a CBM alert. These statuses include:  • New  • Error  • PM Schedule Updated  • Work Order Created  • Work Order Completed  • Work Order Canceled  • Closed

# **Creating a CBM Alert Using Web Services**

Web Services enables an external condition monitoring system, which is monitoring an asset is being monitoring an asset, to send a SOAP (Simple Object Access Protocol) message to PeopleSoft Maintenance Management indicating that the asset is operating outside its tolerance limits. PeopleSoft Maintenance Management:

- 1. Receives the SOAP request message of a new alert.
- 2. Validates the SOAP request message.
- 3. Uses the matching rules to populate the work order Business Unit and Shop ID.
- 4. Generates the Alert Identification.
- 5. Triggers the workflow to notify the person with the CBM Coordinator role and matching profile.
- 6. Saves the alert.
- 7. Sends back Alert Identification to condition monitoring system in a SOAP response message.

Everything is generated automatically without an manual intervention. Setting up Web Services is the key factor, which enables the transfer of information back and forth between an external system and PeopleSoft Maintenance Management. documentation*PeopleTools* describe, in detail, how to set up Web Services.

See documentation PeopleTools: Integration Broker

### **Chapter 12**

# Setting Up and Generating Preventive Maintenance Work Orders

# **Understanding Preventive Maintenance Work Orders**

This section discusses the setup and processing of preventive maintenance work orders.

### **Setup and Processing of Preventive Maintenance Work Orders**

PeopleSoft Maintenance Management enables users to plan, schedule, and complete an organization's routine maintenance of individual assets, groups of assets, or specific locations through the creation and processing of preventive maintenance work orders. Users can set up preventive maintenance schedules for individual assets, for preventive maintenance loops composed of multiple assets, and for specific locations where non-asset-related maintenance activities are performed on an ongoing basis. You can select one of several different scheduling options and base the scheduling on selected dates or meter readings (assets and loops only). You can set up a primary schedule and one or more secondary schedules and link these schedules to synchronize the generation of preventive maintenance work orders and projections based on the calculated or projected dates of the associated schedules.

When you run the Preventive Maintenance Process Application Engine (WM\_PM), it uses information in the schedules and their associated job templates to generate work orders. You run the Preventive Maintenance Process in batch mode. Based on projection data that you set up in preventive maintenance schedules, you can run the Preventive Maintenance Process to generate projections, which enable you to plan future maintenance and determine future resource demand. You can load this data into Microsoft Project for further analysis. To generate preventive maintenance work orders, you:

Set up work order task and work order job templates that define the resource requirements and data
that is needed to perform work order tasks for a scheduled asset in a preventive maintenance work
order.

See Setting Up Work Order Templates.

 Optionally, define preventive maintenance loops, which are composed of groups of similar (homogeneous) and, possibly, even dissimilar (heterogeneous) assets. Maintenance loops can be associated with preventive maintenance schedules and work order job templates and used to generate preventive maintenance work orders and projections.

See <u>Understanding Preventive Maintenance Loops</u>.

• Set up preventive maintenance schedules for single assets, preventive maintenance loops, and locations, which establish specific rules based on time intervals or meters that are associated with specific assets and are used by the Preventive Maintenance Process to control the due date of the next scheduled maintenance.

The Preventive Maintenance Process also uses preventive maintenance schedules to provide work order header information and to provide access to the work order job template, which it uses to create preventive maintenance work orders. If the shop that is specified in the schedule allows crew scheduling, a default crew ID will appear in the preventive maintenance work order that is generated.

- Run Preventive Maintenance Processing to apply the rules that are set up in the preventive maintenance schedules to generate preventive maintenance work orders.
- If you want, run the Preventive Maintenance Projections process to apply the rules that are set up in the preventive maintenance schedules to generate projection data, which can be loaded into Microsoft Project to perform forecasting activities.

### Work Order Task and Work Order Job Templates

You create work order task and work order job templates to predefine the resource requirements and other data based on specified asset categories for similar types of work orders. Creating these templates reduces the amount of data entry time that is needed to create work orders. Work order task templates enable you to predefine the resource requirements and associated data for various types of maintenance and repair work orders. Work order job templates are applied at the work order header level and predefine a sequence of one or more job steps, which consist of the work order task templates that you need to complete maintenance or repair work. You must create a work order job template even if the maintenance operation consists of only one task.

You must associate a job template with each type of preventive maintenance schedule definition, which includes schedules for individual assets, for a maintenance loop, or for a location. Work order job templates that are used for preventive maintenance work orders are not set up any differently than any other work order job templates. However, you must set up these templates prior to setting up preventive maintenance loops and schedules.

For example, a fleet maintenance planner may want to set up a work order job template for the 3000 mile service of a specific line of trucks. This 3000 mile service consists of the following work order tasks:

- Change oil.
- Rotate tires.
- Inspect brakes.

You create a work order task template for each activity, defining any resource requirements, attachments, instructions, checklists, and notes for each task. You then create the work order job template, naming it 3000 Mile Service, for example, and organize each of these tasks within the job template as job steps that are needed to complete the work order.

You can then associate this work order job template with one or more preventive maintenance schedules for this type of asset. You can also associate this work order job template with a preventive maintenance schedule that references a group of automobile assets that are defined for a maintenance loop.

In addition, because these work order task and job templates have effective-dating, you can maintain the requirements and tasks for an individual task within a multistep job template over time. When you adjust the task in either the work order task template or the work order job template, the changes are reflected in all of the preventive maintenance schedules that either directly or indirectly reference the template. For example, if you set up a new work order task template, Emission Inspection, and add it to the 3000 Mile Service work order job template, then any preventive maintenance schedule that is associated with this job template automatically has the Emission Inspection task added to it.

See <u>Understanding Work Order Templates</u>.

# **Setting Up Preventive Maintenance Loops**

To set up preventive maintenance loops, use the Maintenance Loop (WM\_PM\_MAINT\_LOOP) component.

This section provides an overview of preventive maintenance loops and discusses how to create a preventive maintenance loop and search for a specific asset.

### Pages Used to Set Up Preventive Maintenance Loops

Page Name	Definition Name	Usage
PM Loop Page	WM_PM_MAINT_LOOP	Create a preventive maintenance loop to perform routine maintenance tasks on groups of homogeneous assets or groups of heterogeneous assets.
Asset Information Page	WM_WO_ASSET_SEC	Review details about the selected asset.

### **Understanding Preventive Maintenance Loops**

You set up preventive maintenance loops to enable you to schedule and generate one or more work orders to perform a preventive maintenance service operation on a group of multiple similar and dissimilar, but related, assets.

**Important!** You must select the **Multiple Asset Per Work Order** check box in the appropriate work order business units to enable you to create work orders using a loop.

Preventive maintenance loops are set up for groups of:

• Assets that are similar, or more specifically, homogeneous.

Homogeneous assets are assets for which all the assets that are listed in the loop grid share the same default asset classification parameters based on the level of specification in the loop's header. You must specify, at a minimum, the asset type and asset subtype in the loop header. For example, if you specify the asset type (fleet) and asset subtype (truck), then you can set up a loop that includes trucks from different manufacturers that are associated with job templates that are also generic in nature. In other words, the job templates and underlying task templates are not applicable for specific makes and models of trucks. Continuing the previous vehicle example, a 3000-mile checkup job template could include a task to change the oil and a task to rotate the tires, and it could be applied to vehicles from any manufacturer. In this case, you do not have to assign a job template to each individual asset. Instead, you can assign a job template in any schedule that you set up for this type of loop. When the Preventive Maintenance Process generates a work order based on this loop, the resource requirements and data that are associated with the template that is specified in the preventive maintenance loop schedule applies to all of the assets.

• Assets that are dissimilar, or heterogeneous.

Heterogeneous assets are assets that are set up together in a preventive maintenance loop that are related to one another in some way, but do not fall under the same asset categories (asset type, subtype, manufacturer, and model). For example, an organization may use a group of different kinds of equipment to perform a specific kind of job and want the service maintenance on each piece of equipment in the group to occur at the same time to avoid having to take individual pieces of equipment in the group offline at different times. An example of heterogeneous assets would be a pickup truck from one manufacturer, a dump truck from another, and a cement mixer from a third. You may want to schedule them to be serviced on a specific day every six months. In this case, you must assign a relevant work order job template to each type of asset.

**Important!** You can use a heterogeneous loop only for a single maintenance situation.

You can also create a preventive maintenance loop that contains a list of homogeneous assets and heterogeneous assets. For example, you may require the use of five pickup trucks (homogeneous), a dump truck, and a cement mixer for certain kinds of jobs. You set them up in a preventive maintenance loop so that they can be scheduled for maintenance at the same time and same interval. In this case, you must assign a work order job template to the heterogeneous assets in the list (the dump truck and cement mixer). However, you can either specify a work order job template in the schedule to apply to the homogeneous assets (the pickup trucks), or specify the same work order job template in the **Override Job Template** field for each homogeneous asset that is listed in the loop. If you specify an override job template value for one or more assets in a loop, then you can usually use the loop in only one maintenance situation.

You use the Preventive Maintenance Process to generate work orders based on preventive maintenance loop schedules that have heterogeneous assets.

Using the previous example, you set up a loop with heterogeneous assets:

Loop's Assets	Work Order Job Template
Manufacturer A, Pickup Truck 1	Monthly Truck Service Job Template attached to Schedule.
Manufacturer A, Pickup Truck 2	Same as above.
Manufacturer A, Pickup Truck 3	Same as above.
Manufacturer A, Pickup Truck 4	Same as above.
Manufacturer A, Pickup Truck 5	Same as above.
Manufacturer B, Dump Truck	Monthly Dump Truck Maintenance Job Template.
Manufacturer C, Cement Mixer	Monthly Cement Mixer Maintenance Job Template.

The work order job template, Monthly Truck Service, contains three work order tasks: Rotate Tires, Change Oil, Check Brake Fluid.

The work order job template, Monthly Dump Truck, contains four work order tasks: Rotate Tires, Change Oil, Check Brake Fluid, and Clean Truck Bed.

The work order job template, Monthly Cement Mixer, contains two work order tasks: Lubricate Drum Turning Mechanism and Clean Drum.

A preventive maintenance loop schedule is set up to perform the maintenance monthly.

The Preventive Maintenance Process generates a work order based on the loop schedule. The requirements are applied to each work order task in the work order based on the tasks that are in the work order job templates.

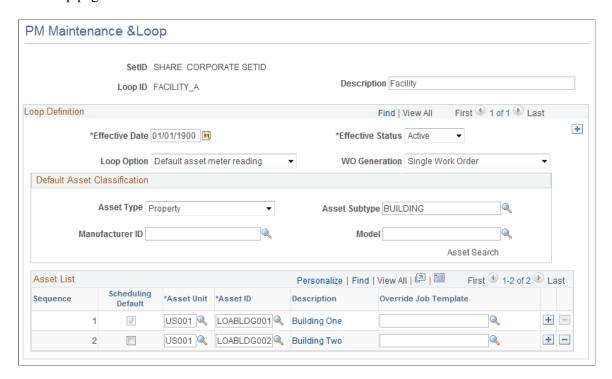
### **PM Loop Page**

Use the PM Loop page (WM\_PM\_MAINT\_LOOP) to create a preventive maintenance loop to perform routine maintenance tasks on groups of homogeneous assets or groups of heterogeneous assets.

Navigation:

Maintenance Management > Preventive Maintenance > PM Schedule Management Setup > Maintenance Loop

PM Loop page



### **Loop Definition**

Field or Control	Description
Effective Date	Enter the date to create a preventive maintenance loop.

Field or Control	Description	
Effective Status	Select the status for the loop definition. It can be either <i>Active</i> or <i>Inactive</i> .	
Loop Option	Select one of the two given options:	
	<ul> <li>Default asset meter reading – PM and Projection processes use the meter readings related to the scheduling default asset only to determine when the maintenance is due. In case, the maintenance is due, all assets in the loop list will be added in the scheduled maintenance work order(s).</li> <li>Individual asset meter reading - PM and Projection processes use the meter readings related to each asset in the loop list to determine when the maintenance is due. Only the assets based on the meter reading that have the maintenance due will be added in the scheduled maintenance work order(s).</li> </ul>	
WO Generation	Select one of the two given options:	
	Single Work Order – generate a single work order for all the assets.	
	Multiple Work Orders – generate work order for every asset defined in the loop. If maintenance is not due then the work order will not be created.	

### **Default Asset Classification**

Field or Control	Description
Asset Type, Asset Subtype, Manufacturer ID, and Model	Specify the asset classification values that are common to the homogeneous (similar) assets within the loop, such as <i>Fleet</i> and <i>Auto</i> . You must also select asset IDs for each asset that is listed in the <b>Asset List</b> grid for both homogeneous and heterogeneous (dissimilar) assets. The asset IDs that you select must either fall within these selected default asset characteristics, or be associated with an override template. If you select only heterogeneous asset IDs in the <b>Asset List</b> grid, and you select an override template for each asset ID, then you do not have to select any asset characteristics (asset type, asset subtype).  Note: For homogeneous assets, you must, at a minimum, specify both asset type and asset subtype. If you also choose to identify a model, you must also identify the manufacturer ID. You cannot skip over a member in the asset category hierarchy.
Asset Search	Click to access the Asset Search page.
	Note: You must specify an asset type and asset subtype at a minimum to perform the search.
	See Asset Search Page (WM_ASSET_SRCH_SEC).

### **Asset List**

The **Asset List** grid lists the homogeneous (similar) assets that you copied from the Asset Search page. You can also select individual (heterogeneous) assets and their associated business units directly in the grid.

Field or Control	Description	
Scheduling Default	Select to indicate which asset's actual meter reading controls the scheduling of all of the assets in the Asset List. For example, if you have three different odometer readings for three cars, you must select one for the Preventive Maintenance Process to use to perform the calculations that are necessary to determine whether to create a work order.	
	Note: The first asset in the list is selected by default. However, you can override this default and select the check box for another asset. You can identify only one asset as the scheduling default.	
Description	Click to access the Asset Information page that contains details about the selected asset in the row.	
Override Job Template	Select a work order job template to associate with each heterogeneous asset in the grid. This association with a work order job template is required for all heterogeneous assets in the <b>Asset List</b> grid. You must specify a job template in this field for any asset that has classification parameters that are different from the classification parameters that are specified on the loop header for homogeneous assets.  You may optionally select a work order job template to associate with each homogeneous asset that is listed in this <b>Asset List</b> grid. If you specify a template here for a homogeneous asset, it overrides any template that is set up in the Loop Schedule. If this field is left blank for homogeneous assets, then the template that is specified in the Loop Schedule for this loop ID is used when the work order is created.	

# **Setting Up and Maintaining Preventive Maintenance Schedules**

To set up a preventive maintenance schedule for an asset, use the Schedule (WM\_PM\_SCHD) component.

To set up a preventive maintenance schedule for a loop, use the Loop Schedule (WM\_PM\_LOOP\_SCHD) component.

To set up a preventive maintenance schedule for a location, use the Location Schedule (WM\_PM\_LOC\_SCHD) component.

To copy a preventive maintenance schedule, use the Copy Schedule (WM PM SCHD CPY) component.

To maintain preventive maintenance schedules, use the PM Workbench (WM\_PM\_SCHD\_WRKB) component.

This section provides overviews of preventive maintenance schedules, meter ranges and condition-based maintenance preventive maintenance work orders, and projected meter readings and discusses how to create a preventive maintenance schedule, set up advanced options for a preventive maintenance schedule, link a primary PM schedule to secondary PM schedules, copy a PM Schedule, perform a PM Mass Schedule Update, and use the Preventive Maintenance Schedule Workbench.

# Pages Used to Set Up and Maintain Preventive Maintenance Schedules

Page Name	Definition Name	Usage	
PM Schedule - General Options Page	WM_PM_SCHD_PG1	Define the date-based and meter-based rules for the Preventive Maintenance Process to use in determining the next due date upon which to generate a preventive maintenance work order.	
PM Schedule - Advanced Options Page	WM_PM_SCHD_PG2	Define work order header specifications, which are optional, that the Preventive Maintenance Process uses when it creates a work order and also define blackout periods to apply to the scheduling rules that are set up on the General Options page.	
Copy PM Schedule Page	WM_PM_SCHD_CPY	Copy data from an existing PM Schedule to a new PM Schedule.	
PM Linking Page	WM_PM_SCHD_LINK	Link secondary schedules to a primary schedule.	
Preventive Maintenance Schedule Workbench Page	WM_PM_SCHD_WKBC	Maintain an asset's preventive maintenance schedules.	
Meter Readings History Page	WM_PM_SCHD_WKBC	Review the date, time, and readings for a specific meter type.	
Meter Readings Details Page	AM_MTR_RD_HID	View details about the meter reading history for an asset including the date and time, source, operator ID, and daily average.	
PM Schedule Mass Update – Search Page	WM_PM_SCH_UPD_RUN1	Enter search criteria to search for PM schedules on which to run the Mass Update process.	
PM Schedule Mass Update – Update Page	WM_PM_SCH_UPD_RUN1	Select the information on the schedules that you want to update and run the PM Mass Schedule Update (WM_PMSCH_UPD) process, which updates each of the selected schedules.	

### **Understanding Preventive Maintenance Schedules**

You set up preventive maintenance schedules to enable the Preventive Maintenance Process to automatically generate work orders to use for servicing or maintaining one or more assets or a location at specified times and service intervals. A service interval refers to the frequency with which the maintenance types are performed. These intervals, which are specifically defined in the schedule, can be either date-based or meter-based. You associate a work order job template with a schedule. The job template lists the work order task templates (steps) that contain the resource requirements and attachments that must be completed once the work order is generated. You can also define the work order header information and the project and activity to associate with the preventive maintenance work order that the Preventive Maintenance Process generates. Each preventive maintenance schedule that you set up is unique. You can set up a preventive maintenance schedule for:

- A single asset.
- A preventive maintenance loop (group of assets).
- A specific location.

This type of schedule is used for a task that is not associated with an asset, such as scheduling the routine cleaning of the shop floor.

You set up preventive maintenance schedules and associate them with a work order business unit and a maintenance type that is defined in PeopleSoft Asset Management.

**Note:** As of PeopleSoft Maintenance Management, you can create two PM schedules with the same asset and the same maintenance type.

If the schedule is defined for:

- A single asset, you must also associate it with an Asset Management business unit and an asset ID.
- A preventive maintenance loop, you must also associate it with a loop ID.
- A location, you must also associate it with a location code.

**Note:** You can associate a maintenance type with an asset's subtype in PeopleSoft Maintenance Management.

### **Date-based and Meter-based Rules**

A schedule for an asset can incorporate both date-based and meter-based rules. In this case, the Preventive Maintenance Process looks first at the date-based rules, and if the target date is less than or equal to the current date, then the process creates a work order and ignores any meter-based rules. If, as of the current date, neither the date-based nor meter-based rules are due and the estimated meter usage is not defined, the Preventive Maintenance Process will not generate the work order until either a date-based due date or a meter-based due date comes up. However, if you set up the estimated meter usage, the system generates a work order with an estimated maintenance date.

### Secondary Schedules Linkage to Primary Schedules

You can link related secondary schedules to a primary schedule for a single asset, asset loop, or a location on the PM Linking page of the primary schedule. Primary and secondary schedules are determined by

the maintenance type that you assign to the schedule, as well as the schedule's description. When the PM process runs, it schedules and generates preventive maintenance work orders for the maintenance of the asset, asset loop, or location identified in the primary schedule, as well as the maintenance of one or more secondary schedules that are linked to this primary schedule and have the same due date. This synchronization reduces equipment downtime and lessens the possibility of performing unnecessary maintenance.

### **Work Order Business Units and Maintenance Types**

You assign a work order business unit to each PM Schedule. This is the business unit that the Preventive Maintenance Process uses to create work orders and the business unit for which the work is performed.

You can assign a schedule ID to a PM Schedule, or you can set up a PM Schedule without a schedule ID and when you save the schedule the system automatically generates a schedule ID for you. You associate each schedule with a maintenance type that you set up in PeopleSoft Asset Management. Maintenance types are user-defined and are used to divide service maintenance procedures into specific categories. You can set up as many maintenance types as you need. However, you must also set up maintenance types, which you defined in PeopleSoft Asset Management, in PeopleSoft Maintenance Management to associate each maintenance type with an asset type and asset subtype. Each preventive maintenance schedule is categorized by the type of maintenance that is being performed. For example, you can set up maintenance types as major, minor, rebuild, tune-up, 3000 mile service, 6000 mile service, and more. You also must specify either the asset, preventive maintenance loop, or location that you want to schedule for this type of maintenance.

If your organization plans on linking primary and secondary PM regular, loop, and location schedules, you will want to set up maintenance types in PeopleSoft Asset Management to categorize your schedules according to the level of maintenance to be performed. For example:

Your organization could set up the following Maintenance Types in the system for asset type - fleet vehicle, asset subtype - auto:

- Major
- Minor 1
- Minor 2
- Minor 3

Next you associate these maintenance types with specific preventive maintenance schedules:

PM Schedule ID	Maintenance Type	Asset Type and Subtype	Maintenance Type Description
001	Major	Fleet/Auto	Perform required major service every 30,000 miles.
002	Minor 1	Fleet/Auto	Rotate Tires every 500 miles.
003	Minor 2	Fleet/Auto	Change oil and oil filter every 1000 miles.

PM Schedule ID	Maintenance Type	Asset Type and Subtype	Maintenance Type Description
004	Minor 3	Fleet/Auto	Check brake fluid every 1000 miles.

Based on this setup, you can link the secondary schedules (002, 003, and 004) to the primary PM Schedule (001) by selecting them on the PM Linking page of the primary PM Schedule. You can click an Edit link to view and edit each secondary schedule.

When you define the default asset classifications in a loop, you must specify, at a minimum, the asset type and subtype. When you set up a loop schedule for this type of loop, the maintenance type that you select must be associated with the same asset type and asset subtype as the default asset type and subtype in the loop.

However, when you set up a schedule for an asset that is not associated with an asset subtype or for a location, which involves no asset, the system looks at the maintenance types that are set up in PeopleSoft Asset Management and bypasses the ones that are associated with an asset type and asset subtype in PeopleSoft Maintenance Management.

This table shows how the work order business unit is mapped to the maintenance type and asset business unit for preventive maintenance schedules:

PM Schedule Type	WO Business Unit	AM Business Unit	Maintenance Type
Single Asset	Required to create PM Schedule	Required to create PM Schedule	Required to create PM Schedule
PM Loop	Required to create PM Loop Schedule	Assigned to each asset within the PM Loop definition.	Required to create PM Loop Schedule
Location	Required to create PM Location Schedule	Not used	Required to create PM Location Schedule

**Note:** The work order business unit should use the same sets of data as the job template uses, which includes record groups FS\_18 (items), RS\_02 (labor), and AM\_05 (tools).

See Associate Maintenance Type With Asset Subtype Page.

See <u>Understanding Work Order Templates</u>.

See "Understanding Asset Processing" (Asset Lifecycle Management Fundamentals).

#### **Basis Date**

The Basis Date for PM Schedule is established on the Schedule-General Options page. The PM projection and PM processes use this date to determine the base date for generating the first preventive maintenance work order cycle. The only instance the basis date is not used for a schedule is when you

enter a specific date for the maintenance to occur. Once the first preventive maintenance work order is created, the basis date becomes unavailable for selection, but can be viewed for informational purposes. The next scheduled due date for all subsequent preventive maintenance work orders is determined using the required start date, or, depending on the schedule options selected, the completion date associated with the previously generated preventive maintenance work order.

#### **Effective Dating**

Effective dating enables you to change the content for a PM Schedule over time and track the changes. For example, you can change to a new date-based or meter-based rule, change the job template, select a different scheduling option, and change work order header and PeopleSoft Project Costing tracking information.

### **Work Order Job Templates**

The Preventive Maintenance Process generates work orders with the requirement details that are specified in the work order task templates that are associated with the work order job templates. The Preventive Maintenance Process places demand on PeopleSoft Inventory for the inventory item requirements if the commitment rule that is defined in the work order business unit is either based on the parts list or a status change. If it is based on a status change, the default PM work order status must be the same as the status that is specified in the commit rules set up in the work order business unit, shop, or shop/type. If either of these commit rules apply, then the Preventive Maintenance Process also generates an Inventory Schedule for the work order. You receive an error when you save the PM Schedule online (and not in batch mode) if some of the inventory items defined in the underlying task templates that are associated with the job template in the schedule are not available because they are associated with a different Inventory business unit than the Inventory business unit that is specified in the work order business unit. You can still correct the template or you can manually include a valid item in the work order schedule after it is generated by the Preventive Maintenance Process.

If the work order job template has more than one effective date associated with it, the Preventive Maintenance Process uses the effective date in the job template, which is closest to the required start date.

For example, if the processing date is September 8, 2004, and the effective dates in the work order job template are August 8, 2004 and January 1, 2004, the Preventive Maintenance Process applies the template that is dated August 8, 2004 to the work order because it is the date that is closest to the run date of September 8, 2004.

#### Override Options – Generate One Time

You can select or unselect this check box on the schedule. If you select this check box, the Preventive Maintenance Process creates a work order and disregards any date-based or meter-based rules that are set up in the schedule only once. The process also removes the check mark from this option (changes it to *off*) so that the process generates a work order and considers the date and meter rules the next time you run it. If you want the process to generate another work order that disregards the date and meter rules, then you must access the Schedule page and select this option again.

A condition-based alert is issued because a meter reading for an asset exceeds the meter reading range set up in the PM Schedule. This causes the automatic selection of the Override Options — Generate One Time check box on the schedule, which causes the Preventive Maintenance Process to generate a work order.

See Understanding Meter Ranges and Condition-Based Preventive Maintenance Work Orders.

#### Threshold Percentage

The threshold percentage is used for calculating the next maintenance due date for date-based, fixed meter, and meter-based rules. It is not used for calculating the next maintenance due date for specific date and projected meter rules. When a schedule has both fixed meter rules and date-based rules and the threshold percentage is used to calculate the preventive maintenance start date, then the Preventive Maintenance Process applies the threshold percentage to rules that have a target date closest to the current date.

For example, a date-based schedule for a vehicle's maintenance is monthly and the meter (odometer) interval is every 1000 miles. The system keeps track of the percent due date-based and meter-based figures for reporting purposes. If you enter a threshold percentage in the schedule's General Options page, the Preventive Maintenance Process creates a work order if the calculated percent due for either the date-based or meter-based readings is more than or equal to the threshold percentage. In this example, if you entered a threshold percentage of 70, and the percentage of the next maintenance due for the date-based reading is 65 and the percentage of the next maintenance due for the meter-based reading is 70, then the Preventive Maintenance Process creates a work order based on the meter-based reading.

#### **Lead Days**

Users can generate a preventive maintenance work order with a future due date by entering a specific number of lead days in the Lead Days field on the PM Schedule. This information also displays on the Preventive Maintenance Schedule Workbench. The Preventive Maintenance process ensures that the current date plus the number of lead days is equal to or greater than the calculated due date for the preventive maintenance work order and then creates the work order. If the lead days entered do not trigger the creation of a work order, the threshold percentage, if applicable, will generate the work order.

**Note:** Lead days are based on a 7 day per week calendar instead of a business calendar.

See <u>Understanding Preventive Maintenance Schedules</u>.

## **Scheduling Options**

Different options are available for generating work orders based on both date-based and fixed-meter preventive maintenance schedules, which include:

• Generate the new work order only when the prior is complete.

The Preventive Maintenance Process generates the next preventive maintenance work order for the selected asset, loop, or location only after the previously generated work order's status is marked complete.

**Note:** The process generates only one work order at a time for the PM Schedule. You must mark the PM work order complete before the process can generate another work order.

• Always generate work orders based on the PM Schedule.

The Preventive Maintenance Process generates the next scheduled preventive maintenance work order even if the status of the most recently generated preventive maintenance work order is a status other than *complete*. The Preventive Maintenance Process continues to generate a work order for the next scheduled maintenance. A good example is when users set up a schedule to perform maintenance on a fleet of cars monthly and they are unable to complete the work before the next due date. This means that the first work order has a status of open. When the next due date comes up, the Preventive

Maintenance Process creates a new work order with a status of open. Even if you change the status of the generated work order to complete, canceled, or open, the selected status does not affect the generation of the next preventive maintenance work order. This is important for organizations that need a method to keep track of every scheduled maintenance, even if the maintenance was not able to be performed.

Generate a work order if the prior work order's status is complete. If the prior work order's status is
not complete, update the PM Log to identify that the scheduled work order will be fulfilled by the
prior work order.

In this case, if you do not change the status of the current open work order to complete, then on the next maintenance due date, the Preventive Maintenance Process generates the next preventive maintenance audit record, which points to the open work order. The process continues creating audit records when the next due date or meter reading is due. Each audit record provides a method of tracking preventive maintenance work which was included as part of an existing work order.

• Generate one time.

In this case, the Preventive Maintenance Process generates a preventive or scheduled maintenance work order only once. This option is often used for equipment that is under warranty to generate a final inspection of the asset before its warranty expires. The schedule type that you can select for this scheduling option is either *None*, which is used when a schedule applies only meter-based rules, or *Specific Date*.

**Note:** Scheduling options do not apply to projected meter rules.

## **Next Maintenance Due Calculations Using Date-Based Schedules**

You can create scheduling rules based on dates or time periods. The Preventive Maintenance Process uses these rules to determine when the next maintenance is due by comparing the last performed maintenance date to the current date. If the number of days between the last performed maintenance date and the current date matches the calculated interval that is defined by the date-based rules, then the Preventive Maintenance Process generates a work order.

After you select a scheduling option, if the scheduling is date-based, you must select the type of maintenance schedule (Schedule Type) that you want the Preventive Maintenance Process to use to generate work orders. The schedule types include:

Daily

Selecting this option means that you want to schedule the maintenance based on intervals of a specific number of days. For example, if you want the floor cleaned in the shop every two days, you enter an interval number of 2, which means that the Preventive Maintenance Process creates a preventive maintenance work order for this task every two days.

If you select **Generate the new work order only when the prior is complete** as the scheduling option, then you can select the **From Last PM Completion** check box, which enables the system to use the completion date in the previous work order for calculating the next maintenance due date. If you do not select this check box, then the system uses the start date that is specified in the previous work order for calculating the next maintenance due date.

**Note:** For the start date that appears in the work order header, the Preventive Maintenance Process compares the calculated start date against a predefined calendar that you can optionally select in the PM Options page of the work order business unit. The process searches forward to ensure that the actual start date of the preventive maintenance work order falls on the next available working day. The Preventive Maintenance Process does not validate the start date if you do not select a calendar in the work order business unit.

#### Monthly by Date

You enter the number of months between each maintenance as the number of intervals and the date of the month in which you want the Preventive Maintenance Process to create a work order for the maintenance. The Preventive Maintenance Process uses a 360-day year (twelve 30-day months) in the calculations.

**Note:** For the start date that appears in the work order header, the Preventive Maintenance Process compares the calculated start date against a predefined calendar that you can optionally select in the PM Options page of the work order business unit. The process searches forward to ensure that the actual start date of the preventive maintenance work order falls on the next available working day. The Preventive Maintenance Process does not validate the start date if you do not select a calendar in the work order business unit.

#### Monthly by Day

You enter the number of months between each maintenance as the number of intervals, the week of the month, and the day of the week in the month in which you want the Preventive Maintenance Process to create a work order for the maintenance. The Preventive Maintenance Process uses a 360-day year (twelve 30-day months) in the calculations.

#### • None

You select this option when you want to use only meter-based schedules to determine the dates for the Preventive Maintenance Process to create a work order for the maintenance.

#### Weekly by Day

Enter the number of weeks between each maintenance as the number of intervals and select the day of the week in which you want the Preventive Maintenance Process to create a work order for the maintenance.

The Preventive Maintenance Process takes into account the threshold percentage that you indicate in the schedule's General Options page, as well as any blackout periods that you indicate in the schedule's Advanced Options page when it creates a preventive maintenance work order. In addition, the system calculates the percentage due for both date-based and fixed meter rules. The system compares these rules to the threshold percentage to determine the number of days before the actual next maintenance due date that the Preventive Maintenance Process should generate a work order.

The formula for calculating the percentage due for date-based rules is

Percentage Due =  $100 \times (Total \ number \ of \ days \ that \ have \ passed from \ last \ maintenance \ date \ to \ current \ date) \div (Date \ interval \ (days))$ 

**Note:** The last maintenance date depends on your selection of a scheduling option and scheduling type. For example, if you selected the scheduling option **Generate the new work order only when the prior is Complete** and select the **From the last PM completion** check box, then the date on which you changed the work order to complete is the date used here. If you selected any of the remaining date-based schedule types (except for *None*), the system uses the start date in the header of the last work order.

For example, if the last maintenance date was March 1, 2005, the current date is March 20, 2005, and the scheduled interval is 30 days, applying the formula  $100 \times 20 \div 30 = 66.7$  percent due means that 66.7 percent of the scheduled maintenance period has passed before the next scheduled maintenance due date.

If this is the first cycle for the scheduled maintenance, then the formula is:

Percentage  $Due = 100 \times (Total \ number \ of \ days \ that \ have \ passed from \ the \ Basis \ Date \ specified in \ the \ schedule's \ General \ Options \ page \ to \ the \ current \ date) \div (Date \ interval \ (days))$ 

For example, if the basis date in the schedule is January 1, 2005 and the current date is January 25 and the cycle is every 30 days, then the percent due is  $100 \times 25 \div 30 = 80.3\%$ .

The scheduling option that you select affects the fields that appear for the selected schedule type. This table describes the fields that appear in the **Date-based Schedule** group box when you select a specific schedule type after selecting a specific scheduling option:

Scheduling Option / Schedule Type	Daily	Monthly by Date	Monthly by Day	Weekly by Day	Specific Date
Generate the new work order only when the prior is complete.	Field: Interval (days) Check box: From Last PM Completion	Fields: Interval (days) Date of Month	Fields: Interval (month(s)) Week of the Month Day of the Week	Fields: Interval (week(s)) Day of the Week	NA
Always generate work orders based on the PM Schedule.	Fields: Interval (days)	Same as above.	Same as above.	Same as above.	NA

Scheduling Option / Schedule Type	Daily	Monthly by Date	Monthly by Day	Weekly by Day	Specific Date
Generate work order if the prior is complete. If prior work order is not complete, update the PM Log to identify that the scheduled work order will be fulfilled by the prior work order.	Same as above.	Same as above.	Same as above.	Same as above.	NA
Generate one time only.	NA	NA	NA	NA	Field: Schedule Date

# Next Maintenance Due Calculations - Meter-based Schedules: Basic (Fixed) Meter Readings

The Preventive Maintenance Process calculates the next maintenance due date and generates a work order based on the meter rules that are defined in the General Options page of the preventive maintenance schedule. You define the fixed meter rules on the Basic tab of the grid by selecting a meter type and entering the intervals for the meter readings. The Preventive Maintenance Process uses increasing and decreasing meter types. The start date in the work order header is considered the current date. The system determines when the next maintenance is due and when to create a work order by comparing the current equipment meter reading to the next maintenance due reading, which is the last meter reading plus the interval that is defined in the preventive maintenance schedule. If the asset has multiple meters associated with it, all meter intervals that are reached first cause the Preventive Maintenance Process to trigger the automatic creation of a work order.

For example, if the last maintenance for a car was performed when its odometer reading was 7000 miles, and the meter interval specified to indicate that the next maintenance due in the preventive maintenance schedule is 1000 miles, then the Preventive Maintenance Process creates the next preventive maintenance work order when the odometer of the car reaches 8000 miles. An odometer is an example of an increasing meter type.

If you enter a threshold percentage amount, the Preventive Maintenance Process takes that number into account, as well as any specified blackout periods, when it creates a work order. For blackout periods, this means that if a meter reading interval is every 1000 miles, and the interval is reached during a blackout period, then the process does not create a work order. In addition, the Preventive Maintenance Process will not create a work order if the threshold percentage is equal to or less than the calculated percentage during a blackout period.

Once meter readings are entered in PeopleSoft Asset Management for the asset, the Preventive Maintenance Process uses the accumulated reading in the asset's Meter Reading History to determine the next maintenance due date.

The formula that the Preventive Maintenance Process uses to determine the next maintenance due date for preventive maintenance is based on an increasing meter type. The formula is

Next Meter Reading = Last PM Work Order Meter Reading + Meter Interval

Important! The Last PM Work Order Meter Reading value is used only for a PM Schedule in which you selected either the Generate the new work order only when the prior is Complete, Always generate work orders based on the PM Schedule, or Generate work order if the prior is Complete scheduling option.

If the prior work order is not *complete*, the process updates the Preventive Maintenance Process log to indicate that the scheduled work order will be fulfilled by the prior work order. In this case, the Preventive Maintenance Process uses the previously calculated meter reading. Thus, you do not have to enter the last work order reading.

If this is the first preventive maintenance cycle, which means that no last preventive maintenance meter reading exists, the Preventive Maintenance Process uses zero as the lower limit reading in the formula:

Next Meter Reading = zero + Meter Interval

For example, if the lower limit for the odometer is set at 0 miles, and your maintenance interval is every 1000 miles, then the next service is based on a odometer reading of 1000 miles.

A good example of how decreasing meters are used involves the measurement of the thickness of tire tread for tires that are attached to an earth mover. The tread of these expensive tires decreases over time. Each meter reading captures the current thickness of each tire's tread. Once the reading falls below a specified value, the Preventive Maintenance Process generates a preventive maintenance work order. This is an example of how using a decreasing meter can serve as an elementary method for performing condition-based monitoring for assets that wear down or deteriorate over time. It is much more useful for this type of meter to trigger the preventive maintenance of an asset, rather than tying the reading to the tire's accumulated mileage, because an earth mover that travels over coarse gravel can wear down the tire treads much faster than an earth mover that travels on soft dirt, even if the miles traveled in the soft dirt are greater.

The formula that the Preventive Maintenance Process uses to determine the next maintenance based on a decreasing meter type is the same as the formula for increasing meters, because it uses the accumulated reading from the Meter Reading table, which is increasing and positive for both increasing and decreasing meter types. Only positive numbers can be entered for the meter interval value in the PM Schedule for both increasing and decreasing meter types.

Because these are fixed meter readings, the Preventive Maintenance Process also accounts for the threshold percentage. For example, if the threshold percentage is 80 percent, the Preventive Maintenance Process creates a work order when the calculated percentage due based on a defined meter interval reaches 80 percent. If more than one meter interval is listed, the system uses the percentage closest to the threshold percentage. The formula for calculating the percentage due is:

Percent Due = 100 × Current Reading – Previous Work Order Reading ÷ Meter Interval

For example, if the current odometer reading is 7700 miles, the previous reading was 7000 miles and the meter interval is 1000 miles, then  $100 \times 7700 - 7000 \div 1000 = 70$  percent due.

If the threshold percentage is equal to or greater than 80 percent, then the system creates a work order when the calculated percentage based on the meter reading reaches 80 percent.

# **Understanding Meter Ranges and Condition-Based Preventive Maintenance Work Orders**

You can associate an asset with a meter type that has a tolerance range defined. You add this meter type to the **Basic** grid in the preventive maintenance schedule. When the meter reading falls outside this tolerance, PeopleSoft Asset Management sends a message to the in PeopleSoft Maintenance Management, which states: "Out of tolerance readings will enforce the creating of a preventive maintenance work order. Do you want to proceed?" If the user answers yes, then the system selects the **Override Options – Generate one time** check box in every preventive maintenance schedule that has that asset and meter type defined. The Preventive Maintenance Schedule Workbench on the CBM Alert tab is updated with the schedule ID, the override options, and the CBM source, which is the system that issued the alert. When the Preventive Maintenance Process runs, work orders are created for these preventive maintenance schedules.

## **Understanding Projected Meter Readings**

Projected meter readings are useful for calculating the next maintenance due as long as they are accurate. Projected meter readings can be used for:

• Maintenance that is performed by outside organizations.

In this situation, the Preventive Maintenance Process generates a preventive maintenance work order with a start date in the near future to determine the equipment downtime and the work start date to avoid conflicts with the outside organization's external resources.

Planning purposes.

The maintenance planner can gain efficiency and reduce costs and prevent maintenance delays by projecting when and how often the future preventive maintenance needs to be performed.

You select the way you want the Preventive Maintenance Projection process to project the next maintenance due in the schedule's **Meter-based Schedules** – **Advanced** grid. You select from two overall methods for estimating or projecting the next maintenance due:

- Average from Asset.
- Sampling.

Three different types of sampling methods are available.

- Days.
- Readings.
- Cycles.

**Note:** Scheduling options do not apply to projected meters, which means that the status of the previous work order does not affect the creation of the next work order. For projected meters, the next work order will be generated when the status of the previous work order is changed to *complete*.

The objective of both the Average from Asset and the Sampling methods is to project the next maintenance due date for an asset. The difference between Average from Asset, Sampling Days, and

Sampling Readings methods is based on the way the average reading per day is obtained or calculated. Once the average reading per day is calculated, average from asset, sampling days, and sample readings all use the same formula to calculate the number of days until the projected next maintenance is due.

The following table presents both examples and guidelines for using each projection method.

Method	Guidelines	Example
Average from Asset	<ul> <li>Constant use or a pattern of static use (instances, level, duration).</li> <li>Regular scheduled meter readings.</li> </ul>	A delivery truck that is used for a regular, fixed route. The odometer is logged daily.
Sampling – Days	<ul> <li>Frequent or cyclic use. For example, the use in the last thirty days can predict the use for the next thirty days.</li> <li>Regular or relatively frequent meter readings.</li> </ul>	A service truck that is used for a fixed geographical area and has variable service calls per day. The odometer is logged weekly.
Sampling – Readings	<ul> <li>Infrequent use or a variable pattern of use.</li> <li>Infrequent meter readings based on the use of the asset.</li> </ul>	A rescue vehicle that responds to a large variety of calls in a multitude of geographical areas. The odometer is logged after each call.
Sampling – Cycles	Infrequent use.     Regular meter readings.	A rescue vehicle. The odometer is logged monthly.

See "Understanding Asset Meters" (PeopleSoft Asset Management).

# Determining Average Meter Reading Measured Per Day for Average from Asset, Sampling Days, and Sampling Readings

Before the Preventive Maintenance Process can apply the formulas described previously, the system has to determine the average meter reading measured per day for the average from asset, sampling days, and sampling readings methods.

**Important!** For example, if the meter type is an odometer, the average meter reading per day is equal to the average number of miles that accumulate each day based on daily odometer readings.

The Average from Asset method uses the actual average daily meter reading in the Asset Meter table as its average meter reading per day figure.

The Sampling Days method and the Sampling Readings method are very similar in the way they determine the average meter reading per day value. The difference between the two methods is the way the sample size is determined based on the readings in the Meter Reading History table. This is an example of the data that is contained in the PeopleSoft Asset Management Meter Reading History table for a particular asset's odometer meter:

Meter Reading Date	Current Meter Reading in Miles
April 30, 2004	10000
April 15, 2004	8000
April 1, 2004	7800
March 21, 2004	5000
March 11, 2004	3000
February 2, 2004	2500
February 1, 2004	1000

#### Sampling Days Method

The sample size that is used in this method is based on the actual number of days that you want the system to count back based on the dates that the meter readings were taken in the Meter Reading History table from the current date.

For example, if you enter a sample size of 60 days in the schedule and today's date is May 4, 2004, the system counts back 60 days from May 4, 2004 to the first reading date, which is March 11, 2004. The last reading date in the Meter Reading History table is April 30, 2004. If you calculate the number of days between March 11, 2004 and April 30, 2004, 50 days are between these readings.

To calculate the average number of miles per day based on sampling days, the system uses this formula:

(Last meter reading – First meter reading) ÷ The total number of days between the meter readings = Average miles or meter reading value per day.

Continuing with our example using the Sampling Days method, the last meter reading was on April 30, 2004 and was 10,000 miles. The first meter reading was on March 11, 2004 and was 3000 miles. There are 50 days between the meter readings. Based on this information, you apply the formula  $(10,000 \text{ miles} - 3,000 \text{ miles}) \div 50 \text{ days} = 140 \text{ miles}$  per day (average miles or meter reading value per day).

#### Sampling Readings Method

The sample size that is used in this method is based on the number of readings in the table, not days, that you want the system to count back from the current date.

For example, if you enter a sample size in the schedule of three readings and if today's date is May 4, 2004, then the first reading date is March 21, 2004 and the last reading date is April 30, 2004.

**Note:** The number of sample readings is based on counting the last reading date and the reading date prior to the first reading date in the Meter Reading History table, which means April 30, 2004, April 15, 2004, and April 1, 2004. The total number of days between March 21, 2004 and April 30, 2004 meter readings is 40 days.

Continuing with our example using sampling readings, the last meter reading was April 30, 2004 and was 10,000 miles. The first meter reading based on a sample reading size of 3 was March 21, 2004 and was 5000 miles. There are 40 days between the meter readings. Based on this information, you apply the formula  $(10,000 \text{ miles} - 5,000 \text{ miles}) \div 40 \text{ days} = 125 \text{ miles per day}$  (average miles or meter reading value per day).

# Calculating the Next Maintenance Due Date for the Average from Asset, Sampling Days, and Sampling Readings Methods

Once the system calculates the average meter reading value per day for each meter-based method, it can apply the results of these calculations (from either the Average from Asset calculation, the Sampling Days calculation, or the Sampling Readings calculation) to the following formulas to determine the next maintenance due date.

The formula that is used by the Preventive Maintenance Process is based on the values that you select in the schedule's **Projected From** field, which are:

• Last PM Completion Date

This is the date when the last preventive maintenance work order was marked complete.

Current System Date

This is the next date that the Preventive Maintenance Process will be run to generate a work order.

The formula for increasing meters if you selected a **Projected From** value of Last PM Completion Date is:

Meter Interval ÷ Average Meter Reading per Day = Number of days from the completion of the last preventive maintenance work order to the next preventive maintenance due date.

For example, if the meter interval is 2000 miles and the average meter reading per day is 140 miles per day, then  $2000 \div 140 = 14$  days. This means that the next maintenance due date is 14 days from the work order completion date.

If you selected the **Projected From** value of *Current System Date*, the formula for increasing meters is:

(Reading from the date that the last preventive maintenance work order was completed + Meter Interval defined in the PM Schedule) – Current Meter Reading ÷ Average Meter Reading per Day

For example, to determine the days due based on our Sampling Days example:

You select the Last PM value in the schedule. The last date that you changed the status of the preventive maintenance work order to complete was April 30, 2004, and the meter reading was 10,000 miles. The interval value that you entered for this odometer in the schedule was 2,000 miles. The current meter reading is 11,000 miles.

 $(10,000 \text{ miles} + 2,000 \text{ miles}) - 11,000 \text{ miles} \div 140 \text{ miles per day} = 7 \text{ days}$ 

Therefore, the projected maintenance due date is seven days from the last date that the Preventive Maintenance Process was run. For example, if the run date was May 1, then the next maintenance due date would be seven days from May 1, 2004, or specifically May 8, 2004.

The formula for decreasing meters is the same as it is for increasing meters because the process uses the accumulated meter reading from the Meter Reading table, which is increasing and positive for decreasing meters. The intervals must always be positive.

**Important!** Remember that these formulas apply exactly the same for the sampling readings and average from asset methods. The only difference is that you must use the average meter reading per day value in the formula based on the method that you choose in the **Meter-based Schedules Advance** grid.

## Sampling Cycles Method

Sampling cycles are based on the percentage due and are projected only from the last date that you ran the Preventive Maintenance Process. The system first calculates the percentage that the maintenance is due. Next, the process calculates the number of days it took to get to that percentage. This number of days is then used to determine how many days it takes to reach 100 percent.

The formula that is used for increasing meters is:

Percentage of the preventive maintenance due for an asset =  $100 \times (Current Meter Reading - Meter Reading from the last completed PM work order) <math>\div$  Meter Reading Interval

For example, the current meter reading for a truck is 10000 miles, and the meter reading for last preventive maintenance work order performed for an oil change was 7500 miles, and the interval defined for changing the oil is 5000 miles. Then the maintenance due percentage is  $100 \times (10000 - 7500) \div 5000 = 50\%$ .

To calculate the number of days that it took to reach this percentage (50 percent):

Days = Current Date – Last PM WO Complete Date

Continuing with the example, if it took 30 days to reach 50 percent, then it would take 30 more days for the preventive maintenance to be 100 percent due.

The formula that is used to calculate the number of days left to reach the maintenance date is:

Number of days left =  $30 \text{ days} \times (100 - 50) \div 50 = 30 \text{ days}$ .

**Note:** If a last PM WO completion date is not available (for first cycles), the system uses the Basis Date that is defined in the schedule, which can be the same date as the date that the asset was acquired or put in service, if applicable. If no meter reading is available from the last maintenance completed (for first cycles), the system uses zero as the lower limit. This also applies to the Average from Asset, Sampling Days, and Sampling Readings projected data.

# **Advanced Options**

This page enables you to define default values for the work order header. Values that you enter in this page override values that are set up elsewhere, such as the work order business unit. The default shop that you specify determines whether the preventive maintenance work orders that are generated require crew scheduling.

#### **PeopleSoft Project Costing Data**

You can set up PeopleSoft Project Costing data for a preventive maintenance work order here, or else the system will create the work order with the default project ID and generate an activity ID. When you save a PM Schedule, the system verifies that a default project exists.

If this preventive maintenance work order is associated with a Project Costing-managed project, then you can select both the project ID and the activity ID. Only one project activity is associated with all the work order tasks that are performed for a preventive maintenance work order.

If the preventive maintenance work order is associated with a work order-managed project, then you can select the project ID and the activity is generated automatically when the Preventive Maintenance Process creates the work order. If you leave both of these fields blank in the schedule for a work order-managed project, the Preventive Maintenance Process assigns the project ID and the activity ID based on the work order business unit, work order type, and service group values that you entered in the schedule.

When you access the Preventive Maintenance Schedule Workbench, the Project tab has a field that indicates whether the project that is associated with a preventive maintenance work order is associated with a Project Costing-managed project or a work order-managed project.

## **Duration Multiple for Loop Schedules**

This field appears only in the Advanced Option page of the Loop Schedule component. You can use this field to increase the preventive maintenance work order duration by multiplying the value of this field by the value of the duration field in the work order job template.

For example, if a loop has three similar assets, and the associated job template has one or more sequential tasks (100 percent dependent) that total 8 hours, then if:

- You want the system to perform a parallel operation on the assets, you do not enter any multiple and the duration in the work order header is 8 hours.
- You want the system to perform a sequential operation on the assets, then you enter a multiple of 3, which is multiplied times 8 hours, which means the duration in the header is 24 hours.

#### **Blackout Periods**

You can specify blackout periods on the PM Schedule Advanced Options page. Blackout periods are periods when the selected asset is unavailable for maintenance. For example, seasonal assets, such as snow-plowing equipment, may not be available for routine maintenance until the snow season ends. These periods are used in the calculation of the next maintenance due dates for all date-based and meter-based schedules, except for schedules using a specific date. If the next maintenance due date falls within a specified range of blackout dates, the Preventive Maintenance Process will not, under any circumstances, generate a work order.

# PM Schedule Linking

After setting up maintenance types and associating them with primary and secondary schedules, you access a primary preventive maintenance schedule for a single asset, loop schedule, or location schedule, select the PM Linking tab, and associate this primary schedule with one or more secondary schedules. Assign an effective date and status to the list of secondary schedules that you associate with the primary schedule so that you can track any changes you make to this setup. You can link multiple secondary PM schedules with a single primary schedule, as well as link a single secondary schedule to multiple primary

schedules. However, you cannot select a primary PM schedule as a secondary schedule and link it to another primary PM schedule.

You add the secondary schedules to a Secondary Schedules grid. Select either the Days Tolerance or the Linking by Cycle linking method for each secondary schedule, as well as a linking action, which determines whether the Preventive Maintenance process will generate one or more work orders for the linked schedules.

## **Linking Actions**

Whether you select the linking method Days Tolerance or Linking by Cycle, you must select a linking action on the Secondary Schedules - General tab to determine whether the Preventive Maintenance process will generate a single work order or multiple work orders based on the linked schedules. The linking actions are:

#### Merge

The Preventive Maintenance process will merge secondary schedule tasks with the primary schedule tasks in a single work order.

#### Separate

The Preventive Maintenance process will create separate work order for the primary and secondary schedules with the same due date. The system will not reserve duplicate parts assigned to tasks on the primary and the secondary schedules.

#### Suppress

The Preventive Maintenance process lists only the primary schedule tasks in the work order and suppresses the secondary tasks. No work order will be created for the secondary schedule tasks. However, the system creates a PM record transaction for the secondary schedule, which points to the work order created for the primary schedule.

## **Days Tolerance Linking Method**

You select the days tolerance linking method to indicate when the system can link the primary and selected secondary preventive maintenance schedules based on a specified difference in the dates. Selecting the Days Tolerance method also displays a Days Tolerance field, where you enter the number of days tolerated (allowed) between the date on the primary PM schedule and the date on the secondary PM schedule.

The Preventive Maintenance process looks at the schedule dates and tolerance, and schedules the maintenance for the primary PM schedule and the secondary PM schedule at the same time. For example, you indicate that the Days Tolerance for the secondary PM schedule is 5, the maintenance for the primary PM schedule is currently due, and the maintenance for the selected secondary PM schedule is due in 5 days. When the Preventive Maintenance process runs, it will link the primary PM schedule to this secondary PM schedule and generate one work order or individual work orders at the same time based on the maintenance date for the primary PM schedule and the linking action selected.

When a black out period is in place and the linking method is days tolerance, the system will not link a secondary schedule with a primary schedule if the primary schedule's due date or the secondary schedule's due date falls within the black out period. The system validates the secondary schedule's due date against the defined secondary schedule's black out dates, and the primary schedule's due date against the defined primary schedule's black out dates.

## **Linking by Cycle Method**

You select linking by cycle as the linking method and the Preventive Maintenance process will link the selected secondary schedules to the primary schedule based on cycles, which are determined by meter reading intervals or date intervals. The linking of a secondary schedule to a primary schedule depends on the number of times the secondary schedule's cycle occurs within the primary schedule's cycle. When you select the linking by cycle method on the Secondary Schedules - General tab, a Cycle tab appears, which enables you to select an interval type of meter or day.

When you select meter as the interval type, a **Meter Type** field appears, where you can select the type of meter to apply to the schedule. Only meter types that are common to the meters identified on the linked primary and secondary schedules are available for selection. In addition, the meter interval for the primary PM schedule appears along with the meter interval for the secondary PM schedule, as well as the current occurrence number, the total number of occurrences, and the current cycle number. The meter interval for the primary PM schedule should always be larger than the meter interval for the secondary PM schedule. For example, the meter interval on the primary PM schedule is every 30,000 miles and the meter interval on the secondary PM schedule is every 500 miles.

If you select Day as the interval type on the Cycle tab, the primary interval, the primary schedule type (which determines whether the due date occurs daily, weekly, or monthly), the secondary interval, the secondary schedule type, the current occurrence number, the total number of occurrences, and the current cycle number appear on the grid. For the interval type value, the primary interval should always be greater than the secondary interval. For example, the primary schedule's interval is every 12 months and the secondary schedule's interval is every three months.

Every time the Preventive Maintenance process schedules the next maintenance for a linked secondary PM schedule, it adds one to the Current Occurrence field on the Cycle tab. This field value changes to zero when the current occurrence field reaches the total number of occurrences per cycle. The system calculates the total number of occurrences per cycle by dividing the interval of the primary PM schedule by the interval of the linked secondary PM schedule. For example, if the interval for a primary PM schedule is 30,000 miles and the interval for a linked secondary PM schedule is 7500 miles, then the occurrences per cycle is equal to 4. The system also resets the current cycle, which is updated by the Preventive Maintenance process each time a cycle is completed and the primary and secondary PM schedule's maintenances are linked.

When the black out period is in place and the linking method is cycle, the system will not link the primary and secondary schedules if either the secondary schedule's due date or the primary schedule's due date is within the black out period. When the secondary schedule's due date is within the blackout period, the system will add one to the Current Occurrence field. If the current occurrences reach the total occurrences within a cycle, the Preventive Maintenance process creates a work order for the primary schedule and not the secondary schedule.

#### **Preventive Maintenance and Projection Processing of Linked PM Schedules**

You can run the Preventive Maintenance process to generate work orders for linked primary and secondary schedules. You can also run the Preventive Maintenance Projection process to generate work orders and projected due dates for linked primary and secondary schedules.

Linking and the Preventive Maintenance Process

When you run the Preventive Maintenance process, the process links primary and secondary maintenances as long as the linking criteria is met based on the days tolerance or cycle occurrences. The process:

- Generates maintenance schedules with the same due date in a single work order, which combines both the primary and secondary tasks.
- Generates maintenance schedules with the same due date in a single work order, which contains only primary work order tasks and suppresses secondary tasks.
- Generates maintenance schedules with the same due date into multiple work orders, one containing primary schedule tasks, and one or more work orders containing secondary schedule tasks.
- Records linking information along with the PM log to enable the tracking of linked maintenances.
- Updates the occurrences field for the PM linking cycle in the PM schedule component.

Once preventive maintenance primary and secondary schedules are set up and saved, they are listed on the Preventive Maintenance Schedule Workbench. Users can click a link to edit each schedule. Once the Preventive Maintenance process runs and generates work orders with linked schedules and the PM log is generated, the PM Inquiry component indicates that the schedules have been linked.

**Note:** If you create two separate primary schedules with the same asset and linked them to the same secondary schedule with the same asset and both schedules have the same calculated due date, when the Preventive Maintenance process runs, it will check for duplicate linkage and only link the secondary schedule to the first primary schedule being processed.

#### Linking and the Preventive Maintenance Projection Process

The Preventive Maintenance Projection Process links all primary and secondary schedules as they occur. For example, based on the setup of a primary PM schedule and secondary PM schedule, one major service is performed for every three minor services performed. When the PM Projection process runs, it generates nine projections for the minor services and links the major service with the 3rd, 6th, and 9th minor services.

When maintenance is scheduled using Preventive Maintenance or the PM Projection process and there are secondary schedules defined with the days tolerance method, the system compares the calculated due date for the primary schedule to the due date for the secondary schedule. If the due dates are the same, or if the difference between the due dates is a number of days less than or equal to the days tolerance defined in the setup, the process will link the maintenances. The primary due date can be a number of days earlier or later than the secondary due date as long as the number of days is within the days tolerance. If these criteria are not met, the process does not link the maintenances.

**Note:** The Preventive Maintenance Projection process updates the Preventive Maintenance Projection Summary component, which lists primary PM schedules and indicates if they are linked. The Preventive Maintenance Projection Detail component displays a list of secondary PM schedules that are linked to a primary PM schedule. The Preventive Maintenance Projection process also creates a PM log, which is used for tracking linked maintenances.

#### Linking Exceptions

When the Preventive Maintenance and Projection processes encounter linking exceptions, users can access an Exceptions page to review the linked transactions. The system sends a email to the scheduler indicating that an exception has occurred and sends the exception to a worklist. You can also view the exceptions based on the process instance using the PM Exception component (Maintenance Management, Preventive Maintenance, PM Exception.)

For example, If the Preventive Maintenance process already scheduled the preventive maintenance for the secondary schedule's maintenance prior to the due date for the primary schedule's maintenance, and the work order status is not complete, closed or canceled, the process will generate an exception and notify the scheduler through an e-mail, which contains a link to the Exceptions page. The user reviews the exception transactions and decides upon an appropriate action. If cancelling the work order is the best solution, the user can click a link on the Exceptions page to access the Work Order Workbench and perform a mass cancellation for all of the listed work orders.

**Important!** The Scenarios for PeopleSoft Maintenance Management Troubleshooting contains several examples in the Processing PM Linked Schedules section.

See Examples: Processing Linked PM Schedules.

## **Copy Schedules**

Use this feature to copy the PM Schedule for similar individual assets to expedite the schedule that is set up for newly acquired assets. You define one PM Schedule and copy or clone this PM Schedule for multiple assets. When you select the asset ID that is associated with the schedule that you want to copy in the Copy From section, the date in the AM Business Unit, Asset Field, and Asset Type fields appears in the Copy To search criteria. Values may appear in additional fields depending on the asset ID that you select in the Copy From section. The system searches for and lists all of the assets that fall within the search criteria. You select the target asset to which you want to copy the Copy From asset's schedule.

When you copy schedules from one asset to another asset, the system will copy all PM linking definitions. The system will also copy any specified lead days. Copy Schedule automatically copies any linking and lead days information for all applicable schedules.

# **PM Mass Schedule Update**

You can perform a mass update to PM (preventive maintenance) schedules that fall under a specified business unit and any additional search criteria that you select. A list of PM schedules appear based on your search criteria. You select the schedules that you want to update, and select the values that you want to update for these selected schedules on the Update page. The PM Schedule Mass Update process can update the:

- PM Schedule.
- PM Blackout Period Schedule.
- PM Meter Schedule
- PM Linking.

To perform a mass update, you must select a business unit on the Search page. You can also narrow your search by selecting criteria from these group boxes:

- Scheduling Option.
- Date-based Schedule.
- Meter-based Schedule.
- Advanced Options.

- · Blackout Period.
- PM Linking.

When you click the Search button, a list of PM schedules matching your search criteria appears. You select the PM schedules that you want to update and click the Save button to save the search and update the selected PM schedules on the Update page.

You can select these options on the Update page:

- Search options.
- Scheduling options
- Date-based Schedule options
- Meter-based Schedule options.
- Advanced options.
- Blackout Period options.
- PM Linking options.

The values that you select will be updated on each of the selected schedules when you run the PM Schedule Mass Update (WM\_PMSCH\_UPD) process. This process uses the current date as the effective date. The system automatically creates a new effective revision if it does not already exist. If a revision exists, the system updates the revision. When a new revision is created, the system copies the current version, and then applies the requested update.

#### PM Schedule Workbench

The PM Workbench enables you to review all of the active preventive maintenance schedules that you created for a specific asset. Three different methods are available to search existing PM Schedules, which include:

• Searching for the asset identified in a PM Schedule.

You must enter the Asset Management business unit under which the asset was set up and select the asset ID.

• Searching for the asset location that is identified in a PM Schedule.

You must enter the Asset Management business unit, the location of the asset that is associated with the PM Schedule.

• Searching for the work location, which is where the preventive maintenance work will be performed.

This search option is useful for searching for location schedules that are not associated with an asset. You must enter the work order business unit that is associated with each schedule and the location where the work will be performed.

Once you perform the search, a list of PM Schedules appears on the workbench. You can click the **Edit** link to access any of the listed schedules. The workbench tabs include:

PM Schedule Info

This tab enables users to click a link and edit a specific PM Schedule. Users can review on the workbench a description, the maintenance type that is associated with each schedule, whether a meter is used, whether any blackout periods exist, whether this schedule is linked to another schedule, a threshold percentage, and the basis date of each schedule listed.

#### PM Loop Info

This tab enables users to access and edit any PM loop schedules that are listed. Users can also review the PM loop definition that was used to create the PM Loop Schedule.

#### Work Order Info

This tab enables users to review the work order business unit, job template, shop, work type, service group, priority code, service group, approval status, internal status, and work order description that is associated with each schedule.

#### Date Options

This tab enables users to review each schedule type, any intervals, the week (if applicable), the date of the month (if applicable), the day (if applicable), and whether the next maintenance due date is calculated from the completion date of the last preventive maintenance work order.

#### Scheduling Option

This tab enables users to review the scheduling option that is selected for each preventive maintenance schedule.

#### Project

This tab enables users to review the PC business unit, project, and activity that are associated with each of the PM Schedules in the list. A WO managed column is also available, which indicates whether the project that is associated with the schedule is a work order-managed project.

#### CBM Alert

This tab enables users to review the override options, which indicate whether the system should override selected scheduling options and generate a work order, and the CBM source, which is the monitoring system that initiated the alert, for conditional-based maintenance work orders.

#### Last Reviewed

This tab enables users to review when and who last reviewed each PM Schedule that is listed.

You can also review any meters that were used to determine the next maintenance due date for the selected asset. This grid displays whether the meter is an increasing or decreasing meter, the unit of measure that is used for the readings, the calculation method that is used, and whether the next due date will be projected from the completion date of the last preventive maintenance work order, the system date, or neither. You can click a link to access the Meter Readings History for the meter and asset. You can click another link to access a Meter Readings Trend Chart for a listed meter, which displays the meter readings over a series of meter reading dates and times.

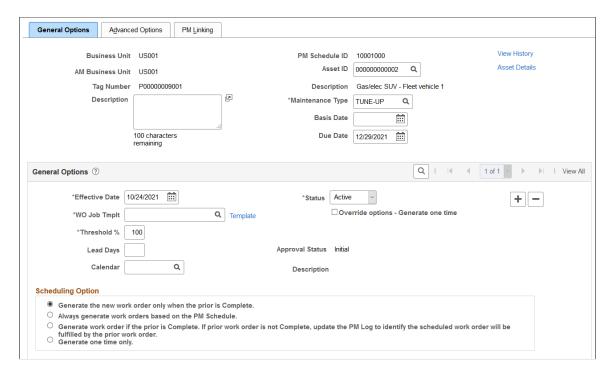
## **PM Schedule - General Options Page**

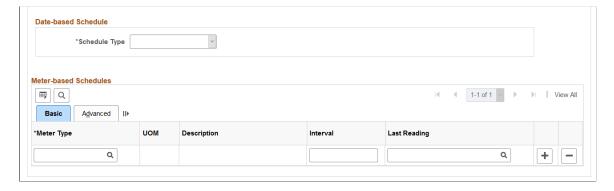
Use the PM Schedule - General Options page (WM\_PM\_SCHD\_PG1) to define the date-based and meter-based rules for the Preventive Maintenance Process to use in determining the next due date upon which to generate a preventive maintenance work order.

#### Navigation:

- Maintenance Management > Preventive Maintenance > PM Schedule Management Setup > PM Schedule
- Maintenance Management > Preventive Maintenance > PM Schedule Management Setup > Loop PM Schedule
- Maintenance Management > Preventive Maintenance > PM Schedule Management Setup > Location PM Schedule

This example illustrates the fields and controls on the PM Schedule - General Options page. You can find definitions for the fields and controls later on this page.





Field or Control	Description
Maintenance Loop link	Click the link to view and edit the details of PM Loop.
Description	Define the purpose of the preventive maintenance work order and describe, briefly, the scheduling rules and intervals being defined in this schedule.
Maintenance Type	Change the PM schedule maintenance type if needed. Save it.
Basis Date	Enter a PM schedule basis date, which is used to calculate the Due Date.
	Enter the basis date that you want the Preventive Maintenance Process to use as the base date for the first cycle of generating a preventive maintenance work order. For example, this date is often the installed or in-service date of the asset. The only time that this date is not used for a schedule is when you enter a specific date for the maintenance to occur.
	If you do not enter a Basis Date, the date is calculated automatically using the Due Date. The calculation occurs once you save the page.
	Note: If you do not enter a due date, you must enter a basis date.  This field is unavailable for selection in the PM Schedule after the first work order is generated.
Due Date	Enter a due date to calculate the preventive maintenance schedule basis date, when a basis date is not provided.
	If you do not enter a Due Date, the date is calculated automatically using the Basis Date. The calculation occurs once you save the page.
	Note: If you do not enter a due date, you must enter a basis date.  This field is unavailable for selection in the PM Schedule after the first work order is generated.

Field or Control	Description
View History	Click the View History link to access the PM Schedule History details. Any changes made to the PM Schedule is automatically recorded when you save the PM schedule. The details include a description of the PM Schedule update, date and time the PM schedule component was last updated, and the name of the person who updated the schedule. The PM Schedule, PM Loop Schedule, and PM Location Schedule components display the View History link.
	When you create a PM or update a field, the Description changes accordingly. Based on the field changes, the PM Schedule History displays any of the following descriptions:
	PM Schedule Creation
	Review Complete
	Description
	Template ID
	Empl ID
	Crew ID
	Basis Date
	Schedule/ Type Interval
	Meter Type/Meter Reading Interval
	If you update a field or multiple fields, other than those listed above, the history description is displayed as PM Schedule Component Updated.
Asset Details	Click this link to view the <u>Asset Information Page</u> , which provides additional details about the asset, such as asset type, asset subtype, asset status, and retire date.
Status	Displays the status of the PM schedule. The PM schedule status will be Inactive till the schedule is approved. The status will be Active after the schedule approval.
WO Job Template (work order job template)	Select a work order job template to define the job steps, requirements, and associated data to apply to the work order that is generated by the Preventive Maintenance Process. This template is used unless an overriding template is specified in the preventive maintenance loop definition.
Job Template link	Click the link to view and edit the details of the Work Order Job Template

Field or Control	Description				
Override options - Generate one time	Select to enable the Preventive Maintenance Process to bypass any scheduling rules and force the creation of a work order in the next run of the PM Process. The system deselects this check box after the work order is created.				
	This check box is automatically selected when PeopleSoft Asset Management issues a CBM alert based on a meter reading exceeding its range tolerance for the schedule's asset. The Preventive Maintenance Process looks at this check box and generates a condition-based maintenance work order.				
Scheduling Option	Select the method that you want to use to schedule this preventive maintenance work order:				
	Generate the new work order only when the prior is Complete.				
	Always generate work orders based on the PM Schedule.				
	Generate work order if the prior is Complete. If prior work order is not Complete, update the PM Log to identify the scheduled work order will be fulfilled by the prior work order.				
	Generate one time only.				
	Note: The only Schedule Type values that appear when you select Generate one time only are <i>None</i> and <i>Specific Date</i> .				
Threshold % (threshold percent)	Enter a value to instruct the system to force the due date for the preventive maintenance work to occur earlier than the scheduled date based on the percentage that is entered here.				
	Note: You should set the threshold below 100 percent, especially when a long lead time is required to acquire materials, services, and tools that are required to perform the scheduled maintenance that is associated with the PM Schedule.				
	See <u>Understanding Preventive Maintenance Schedules</u> .				
Lead Days	Enter the number of days from the current system date that you want the Preventive Maintenance process to generate a preventive maintenance work order with a future due date. The Preventive Maintenance process ensures that the current date plus the number of lead days is equal to or greater than the calculated due date for the preventive maintenance work order and then creates the work order.				
	See <u>Understanding Preventive Maintenance Schedules</u> .				

Field or Control	Description
Approval Status	Displays the approval status of the schedule. The status will be Initial when a new PM schedule is created.
Approval History	Click the Approval History link to view the Approval Preview page.
Calendar	Select a calendar for the PM schedule. The PM process will use the calendar setup defined in the Maintenance Management BU definition if the calendar option in the PM schedule is left blank.
Approval Preview	Click the Approval Preview button to display the page which holds the PM schedule identifying information, as well as the Approval Map and the Submit for Approval button.  The Approval Preview button is displayed when a new or updated PM schedule is saved.
Submit for Approval	Click the Submit for Approval button to route the PM schedule to the Compliance Manager. The user will be shown the Approval Preview page, with the Approval map updated to show where the request is within the system.  The Submit for Approval button is displayed when a new or updated PM schedule is saved.
Cancel Approval	Click the Cancel Approval button to cancel the approval process and display the Approval Preview page. The Cancel Approval button is displayed only when the Approval Status is Pending Approval.

**Note:** A preventative maintenance schedule would require approval only in the case of a hazardous asset. The approval process will be enabled only on for hazardous assets.

## **Date-based Schedule**

Field or Control	Description
Schedule Type	Select the type of date-based schedule for the Preventive Maintenance Process to use to generate a preventive maintenance work order. These values vary depending on the scheduling option that you choose.
	• Daily
	The Preventive Maintenance Process calculates the next maintenance due date based on the number of days that you enter between each maintenance. The fields that appear when you select this option are:
	From Last PM Completion
	The Preventive Maintenance Process calculates the next maintenance due date based on the date that you changed the last preventive maintenance work order to complete.
	• Interval - day(s)
	Enter the number of days between each maintenance.
	Monthly by Date
	The Preventive Maintenance Process calculates the next maintenance due and creates a work order based on the number of months between the last work order start date and the date in the month that you select for this option.  The fields that appear when you select this option are:
	• Date of the Month.
	Select the date of the month in which you want the Preventive Maintenance Process to create a work order.
	<b>Note:</b> Because February has 28 days three out of every four years, if you enter 29, 30, or 31 in this field, the system generates a work order for February on the last day of the month. If you want to guarantee that the system always generates a work order on the last day of the month based on the interval that you specify, enter 31 in the <b>Date of the Month</b> field.

Field or Control	Description
	Enter the number of months between each maintenance.
	Monthly by Day
	The Preventive Maintenance Process calculates the next maintenance due and creates a work order based on the number of months between the last work order start date and the day in the week of the month that you select for this option. The fields that appear when you select this option are:
	• Week of the Month
	Select the week in which you want the Preventive Maintenance Process to create a work order.
	• Day of the Week
	Select the day in the week in which you want the Preventive Maintenance Process to create a work order.
	• Interval - month(s)
	Enter the number of months between each maintenance.
	Weekly by Day
	The Preventive Maintenance Process calculates the next maintenance due and creates a work order based on the number of weeks since the last work order start date and the day in the week that you select for this option. The fields that appear when you select this option are:
	• Day of the Week
	Select the day that you want the Preventive Maintenance Process to create a work order.
	• Interval- Week(s)
	Enter the number of weeks between maintenance.
	• None
	Select this option when you want to use only meter readings and not date-based readings to determine the next maintenance due for this schedule.

Field or Control	Description		
	Specific Date  The Proof is Minister Proof in the state of the st		
	The Preventive Maintenance Process calculates the next maintenance due and creates a work order based on a specific date that you enter. The field that appears when you select this option is <b>Schedule Date</b> , in which you enter a specific maintenance due date. You select this option after selecting the scheduling option <b>Generate one time only</b>		
	Note: If you specified a Threshold % on the schedule and selected this option, the threshold percentage value will be ignored.		
	See <u>Understanding Preventive Maintenance Work Orders</u> .		

## **Examples**

The table below list scenarios to better understand the behavior of preventive maintenance and projection processes based on the Use Business Day option in the Work Order Definition setup.

PM Schedule Type	Scenario	Use Business Day	Normal Business Days	Interval	Number of non- business days	Last Schedule date	Process Calculation	Resulting Due Date
Daily	I	Disabled	Monday to Friday	15 days	4	August 18th, 2014	Last Schedule date + PM schedule interval	September 2nd, 2014
Daily	II	Enabled	Monday to Friday	15 days	4	August 18th, 2014	Last Schedule date + PM schedule interval + number of non- business days	September 8th, 2014  Note: September 6th being a Saturday is skipped.

### Navigation:

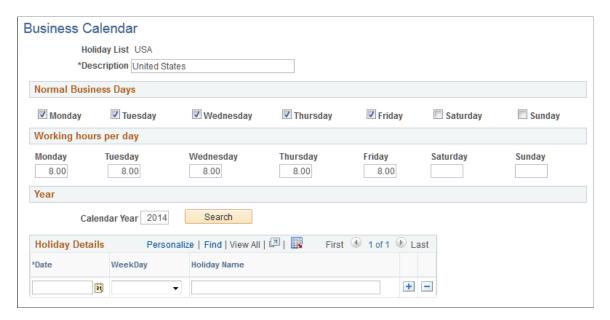
• Set Up Financials /Supply Chain > Common Definitions > Calendars /Schedules > Business Calendar

• Set Up Financials /Supply Chain > Business Unit Related > Maintenance Management > Work Order Definition

#### Scenario I

If the PM schedule has an interval of 15 days, you can run the preventive maintenance and projection processes to calculate the due date.

This example illustrates the fields and controls on the Business Calendar page. You can set up non-business days here.

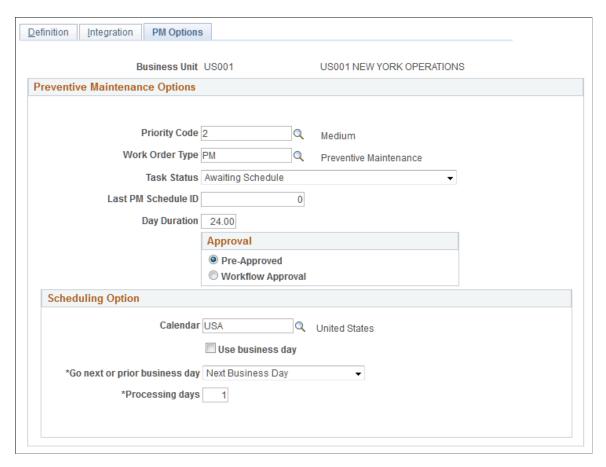


For more information about business calendars, see "Defining Business Calendars" (Application Fundamentals)

#### Scenario II

If the PM schedule has an interval of 15 days plus 4 non-business days, when the Use Business Day option is selected, you can run the preventive maintenance and projection processes for the daily schedule to calculate the due date.

This example illustrates the fields and controls on the PM Options page. You can schedule the next business day here in the event of a non-business day in the system.



For more information about Preventive Maintenance, see PM Options Page

### Meter-based Schedules - Basic

Select the Basic tab.

Field or Control	Description
Meter Type	Select a type of meter, which is set up in PeopleSoft Asset Management. The default description and the <b>UOM</b> (unit of measure) that are defined for the selected meter type appear.

Field or Control	Description
Interval	Enter the specific increasing or decreasing amount that you want the meter to measure, which the system uses to calculate the next maintenance due date. For example, if the asset is a vehicle and the meter is an odometer, enter the number of miles that needs to accumulate before the Preventive Maintenance Process creates a preventive maintenance work order for the vehicle that requires servicing.  The Interval field does not appear for meter types that use a meter range, such as a battery. When this type of meter is out of range, PeopleSoft Asset Management sets the Override Options – Generate one time check box to yes (selected). When the Preventive Maintenance Process runs, it generates a condition-based maintenance work order that is based on the alert.  Note: You must always enter a positive value for either
	increasing or decreasing meter measurements.
Last Reading	Enter the last PM accumulated meter reading.  This field appears on the PM Schedule and Loop Schedule pages when a PM schedule has just been created and no work orders have been generated based on this schedule.  The last PM accumulated meter reading must be a valid reading from the Meter Reading page in PeopleSoft Asset Management.  See "Entering Meter Readings" section in the documentation PeopleSoft Asset Management

See <u>Understanding Preventive Maintenance Schedules</u>.

## Meter-based Schedules- Advanced: Estimate Meter Usage is Average from Asset

Select the Meter-based Schedules - Advanced tab. The values in this grid change based on the value that you select for **Estimate Meter Usage.** 

Field or Control	Description
Estimate Meter Usage	Select Average from Asset.  The Preventive Maintenance Process and the Preventive Maintenance Projection process both calculate and project the next maintenance due date using the average meter reading from the PeopleSoft Asset Management meter table. Selecting this value displays these Projected From options:  • Last PM Completion Date  Select to enable the Preventive Maintenance Process to determine the next preventive maintenance due date based on the last date on which you changed the status of the preventive maintenance work order that is associated with this schedule to complete.  • Current System Date  Select to indicate the basis date that the Preventive Maintenance Process uses to calculate the next due date.
	Select <i>Sampling</i> to determine the next maintenance due date based on one of three methods. The fields that appear when you select this option are described in the next section.
	Note: If you select <i>None</i> for the Estimate Meter Usage value, the Preventive Maintenance Process generates a preventive maintenance work order based on the interval amount that is indicated in the Basic grid. For example, if you specify an interval of 2000 miles between vehicle services, the system generates a preventive maintenance work order every time its odometer increases by 2000 miles from its last preventive maintenance service.

## Meter-based Schedules- Advanced: Estimate Meter Usage is Sampling

Select the Meter-based Schedules – Advanced tab and select *Sampling* in the **Estimated Meter Usage** field to display the following options:

Field or Control	Description
Sampling Method	Select one of the methods in the list. Sampling methods are used to calculate averages based on an asset's meter-reading history to determine the next preventive maintenance due date.
	The sampling methods include:
	• Cycles
	Selecting this option projects the next maintenance due based on the calculation of the percentage of maintenance due.
	• Days
	Selecting this option displays the following fields:
	Sampling Size
	Enter the number of days that you want to use in the calculation the next maintenance due date.
	• Projected From
	Selecting this option displays the <i>Current System</i> Date and Last PM Completion Date values. These values are the same as defined for the Average from Assetoption.
	The Preventive Maintenance Process and the Preventive Maintenance Projection process calculate the average number of meter readings per day based on the Meter Reading History tables in PeopleSoft Asset Management and the number of days that you specify in the <b>Sampling Size</b> field. Then, depending on whether you select <i>Current System Date</i> or the <i>Last PM Completion Date</i> , the processes calculate the number of days until your next preventive maintenance due date. These values are also used by the Preventive Maintenance Projection process to create projections that you can load into Microsoft Project.
	• Readings
	Selecting this option displays the following fields:
	Sampling Size
	Enter the number of meter readings in the meter reading history that you want the Preventive

Field or Control	Description
	Maintenance Process to use to calculate the next preventive maintenance due date.
	Projected From
	Selecting this option displays the <i>Current System</i>
	The Preventive Maintenance Process calculates the average number of readings per day and then uses this figure to calculate the number of days from the current system date or date of the last PM completion date, which is used to determine the date for the Preventive Maintenance Process to create the next work order. These values are also used by the
	Preventive Maintenance Projection process to create projections that you can load into Microsoft Project.  See <u>Understanding Preventive Maintenance Work</u>
	Orders.

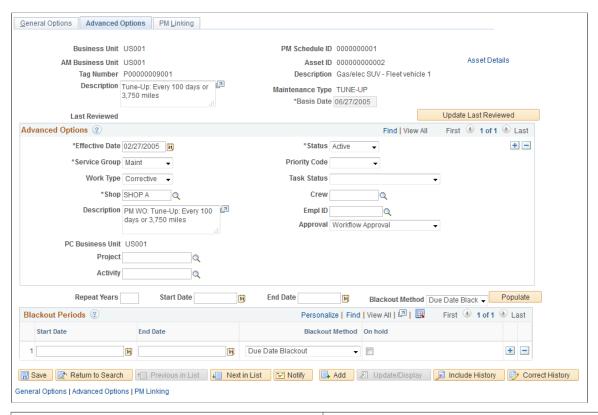
# **PM Schedule - Advanced Options Page**

Use the PM Schedule - Advanced Options page (WM\_PM\_SCHD\_PG2) to define work order header specifications, which are optional, that the Preventive Maintenance Process uses when it creates a work order and also define blackout periods to apply to the scheduling rules that are set up on the General Options page.

Navigation:

Select the Advanced Options tab.

This example illustrates the fields and controls on the PM Schedule Advanced Options page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Update Last Reviewed	Click to update the date and time in the preventive maintenance schedule and indicate that the preventive maintenance schedule has been reviewed. The value that is shown in the field can then be used to determine when the schedule was last reviewed and who reviewed it. The date, time, and user ID appear in the <b>Last Reviewed</b> field.
Service Group, Work Type, Shop, and Priority Code	Specify the default values for the preventive maintenance work order header. The work order Business Unit field acts as the set control field for the Service Group, Work Type, Priority Code, and Task Status fields.
	Note: The Preventive Maintenance Process uses the work order business unit, job template, and preventive maintenance schedule as the hierarchy for retrieving default values for the preventive maintenance work order.
Task Status	Select a task status to apply to the work order. This status must be the same at every level of the work order. Specifying a status at this level overrides the status that is set up in the work order business unit.

Field or Control	Description
Crew and Empl ID	The Crew and Employee ID fields for a PM schedule can override the Shop Scheduler and Crew Leader criteria that you defined on the Auto Assignment & Dispatch page. If you enter the Employee ID, the Crew field become blank and disabled. Similarly, if you enter the Crew ID, the Employee ID field become blank and disabled.
	When you run a PM process, it will consider the PM Schedule employee ID instead of the employee ID that you specified on the Auto Assignment & Dispatch page. The concept is applicable for the Crew field as well.
Approval	Select whether this work order is <i>Pre-Approved</i> or requires <i>Workflow Approval</i> . When you select a value in this field, it overrides whatever value is set up in the work order business unit, the shop, or the work type.
Description	Enter the description of this preventive maintenance that you want to appear in the work order. This is a required field in the work order.
PC Business Unit (Project Costing business unit)	Displays a default value based on the specification in the work order business unit.
Project ID and Activity ID	Enter values for both of these fields if the preventive maintenance work orders that are generated by the Preventive Maintenance Process based on this schedule are associated with a Project Costing-managed project.
	If the preventive maintenance work orders that are generated by the Preventive Maintenance Process based on this schedule are associated with a work order-managed project, perform one of the following activities:
	Leave both fields blank. The system finds and uses default project information based on the values in the work order Business Unit, Work Type, and Service Group fields. When you save the PM Schedule, the system verifies that a default project exists. The Preventive Maintenance Process generates the activity for the work order.
	Specify the project and leave the <b>Activity</b> field blank. The system verifies that this is a work order-managed project, and the Preventive Maintenance Process generates the activity when it creates the work order.
Work Order Duration Multiplier	The system displays this field only in the Loop Schedule - Advanced Options page. The default value is <i>1</i> . The Preventive Maintenance Process calculates the duration for a preventive maintenance work order based on the value residing in the <b>Duration</b> field that is defined for an asset in the associated work order job template.

Field or Control	Description
Repeat Years	Specify the number of years for which you want to create blackout periods and specify the start date and end date for the blackout period that you want to repeat.
Populate	Click to add the successive blackout period rows to the <b>Blackout Period</b> grid based on the number of repeat years and start and end dates that you entered.

### **Blackout Periods**

Blackout periods are often used for seasonal assets, such as snow-plowing equipment. The Preventive Maintenance Process does not generate preventive maintenance work orders during the blackout periods that are specified in this schedule.

**Note:** These periods are taken into consideration for date-based schedules (except for specified dates) and all types of meter-based schedules.

Field or Control	Description
Start Date	Specify the start date for each blackout period that you add.
End Date	Specify the end date for each blackout period that you add.
Blackout Method	<ul> <li>Select a blackout method. The available options are:         <ul> <li>Due Date Blackout: If the calculated due date falls within the blackout period, then the PM process will not generate the work order.</li> </ul> </li> <li>Interval Blackout: The number of days within the blackout period is added to the interval to calculate the due date.         <ul> <li>Note: Overlap of interval blackout periods are not allowed.</li> </ul> </li> </ul>
On hold	Select this check box for blackouts with uncertain end dates.  When this check box is selected and the calculated due date is greater than or equal to the blackout start date, the PM process will not generate the work order. You can deselect this check box and generate the work order once you know the end date for the blackout.

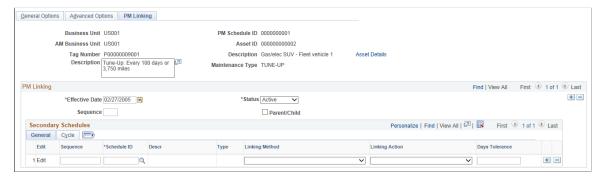
# **PM Linking Page**

Use the PM Linking page (WM\_PM\_SCHD\_LINK) to link secondary schedules to a primary schedule.

Navigation:

Maintenance Management, Preventive Maintenance, PM Schedule Management Setup, click the PM Linking tab.

This example illustrates the fields and controls on the PM Linking page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Asset Details	Click link to access the Asset Information page, which lists characteristics and pertinent information about the asset. You can modify the asset's description on this page.

# **PM Linking**

Field or Control	Description
Effective Date	Enter the date from which the setup of these secondary schedules with this primary schedule is effective. You can change this effective date when you change the secondary schedule setup by clicking the plus icon. This enables you to track changes to this page.  Note: In case a major maintenance is due but minor is not due yet (This can happen when you enter a WO meter reading for the minor WO greater than the meter interval), the system generates the major WO and not link them. The next time the PM process is run with the minor due, and the occurrences per cycle is reached, then the system links maintenances with WO creation. If the previous major WO is still in process the system creates a PM Exception so you can take proper action.

Field or Control	Description
Status	Select <i>active</i> or <i>inactive</i> to identify the status of this PM Linking secondary schedule setup.
Sequence	Enter a sequence number for the primary schedule if you selected <i>Merge</i> as the linking action. The numbers entered in this field will define the order of the primary and secondary job template for the Preventive Maintenance process to use when it creates work orders and merges primary tasks and secondary tasks.
	If you selected either <i>Separate</i> or <i>Suppress</i> as the linking action, you can leave the sequence value blank.
	For example: The selected linking action is <i>Merge</i> and the:
	• Primary schedule MAJOR has a sequence number of 10.
	Secondary schedule MINORA is linked to MAJOR and has a sequence number of 30.
	Secondary schedule MINORB is linked to MAJOR and has a sequence number of 20.
	When the Preventive Maintenance process creates the tasks in the work order, the MAJOR tasks are first, followed by MINORB tasks, and then MINORA tasks.
	1. MAJOR tasks.
	2. MINORB tasks.
	3. MINORA tasks.
	Note: The work order header fields are always populated with the primary schedule information regardless of the sequence number value entered for the primary schedule. Any duplicate tasks between schedules are deleted. If MAJOR has one of its tasks in common with MINORA, the Preventive Maintenance process will keep only one of the tasks.
Parent/Child	Select this check box to create PM work orders with a parent/child relationship for multiple levels.
	The parent PM schedule due date will determine when the work orders are created for the child PM. You can also create child PM schedules with its own scheduling options and intervals independent of the parent PM schedule.

# **Secondary Schedules**

You select the secondary schedules that you want to add to this primary schedule using the **General** and **Cycle** tabs.

Select the **General** tab.

Field or Control	Description
Edit	Click this link to access the selected secondary schedule. If you have not selected a secondary schedule, you can click this link to access the PM Schedule Search Results page and select a secondary schedule from the list of schedules in the Search Results.
Sequence	Enter a sequence number for each secondary schedule if you selected <i>Merge</i> as the linking action. The numbers entered in this field will define the order of the primary and secondary job template for the Preventive Maintenance process to use when it creates work orders and merges primary tasks and secondary tasks.
	Note: If you selected either Separate or Suppress as the linking action, you can leave these values blank.
	See Example in PM Linking subtopic.
Schedule ID	Enter a Schedule ID or click the search icon and select a secondary schedule to associate with this primary schedule.
Description	Displays the description of the selected secondary schedule.

Field or Control	Description
Linking Method	Select one of these linking methods:  • Days Tolerance  Select this value and the Days Tolerance field appears. Selecting this method enables the Preventive Maintenance process to use the number of days entered in the Days Tolerance field to calculate when the system can link the primary and selected secondary preventive maintenance schedules based on the specified difference in the dates.  • Linking by Cycle  Select this value and the Cycle tab appears. Selecting this option enables the system to link a secondary schedule with a primary schedule based on a cyclical period determined by the selection of an interval type.  See Linking by Cycle
Linking Action	<ul> <li>Merge  The Preventive Maintenance process merges the secondary schedule tasks to the primary schedule tasks for the same work order.</li> <li>Separate  The Preventive Maintenance process creates separate work orders for primary and secondary schedules with the same due date. In this case, the system will not reserve duplicate parts identified on the primary schedule and the secondary schedule. Only one part is reserved to use for one or more tasks on each work order.</li> <li>SuppressThe Preventive Maintenance process lists only the primary schedule tasks in the work order.</li> <li>No work order will be created for the secondary schedule tasks. However, a PM record transaction will be created for the secondary schedule, which points to the work order created for the primary schedule.</li> </ul>

Field or Control	Description
Days Tolerance	Enter the number days between the calculated due date of the primary schedule and the calculated due date of the selected secondary schedule.  For example:  Days Tolerance = 5
	<ul> <li>The maintenance for the primary PM schedule is currently due, and the maintenance for the selected secondary PM schedule is due in 5 days.</li> <li>When the Preventive Maintenance process runs, it will</li> </ul>
	link the primary PM schedule to this secondary PM schedule and generate one work order or individual work orders at the same time based on the maintenance date for the primary PM schedule and the linking action selected.

# **Linking by Cycle**

When you select the *Linking by Cycle* as the **Linking Method** on the General tab, only the **Linking Action** field appears on the tab and a Cycle tab appears next to the General tab.

You select the linking action that defines whether the Preventive Maintenance process creates one or multiple work orders as described previously. This field works the same for both the Days Tolerance and Linking by Cycle methods.

Once you select the Linking by Cycle method and the linking action, select the Cycle tab.

Field or Control	Description
Interval Type	Selecting this option displays the Primary Interval, Schedule Type, Secondary Interval, Schedule Type, Current Occurrence, Occurrences per Cycle, and Current Cycle fields and values.  Meter  Selecting this option displays the Primary Interval, Schedule Type, Secondary Interval, Schedule Type, Current Occurrence, Occurrences per cycle, and Current Cycle fields and values, which follow these fields:  Meter Type  Select a meter type to use for linking with cycles. Only the meter types that both the primary and secondary schedules have in common appear on the dropdown list.  UOM (unit of measure)  Default value for selected meter type.
Primary Interval	Displays the interval entered for the primary PM schedule on the General Options page. This value must always be greater than any secondary intervals. This field is display-only. You must access the General Options page to modify this value. If you selected <i>Day</i> as the interval type, this field displays the number of days that you entered in the <b>Interval</b> field on the General Options page.  If you selected <i>Meter</i> as the interval type, the <b>Meter Type</b> field appears. You select the meter type, such as <i>Hours</i> , and the primary interval hours set up on the General Options page for the primary schedule and the secondary schedule display in their appropriate fields.

Field or Control	Description
Schedule Type	Displays the schedule type for the primary schedule, which appears on the General Options page of the Schedule component. This field only appears if the selected interval type is <i>Day</i> . You can only change this value by accessing the Schedule Type field on the General Options page of the primary schedule.
Secondary Interval	Displays the date interval set up on the General Options page for a secondary schedule. This value must always be smaller than the primary schedule interval. This field should is display-only. You can click the <b>Edit</b> link and update the secondary schedule in the General Options page.
Schedule Type	Displays the schedule type for the secondary schedule, which appears on the General Options page of the Schedule component. This field only appears if the selected interval type is <i>Day</i> You can change this field by clicking the <b>Edit</b> link for each secondary schedule listed in the Secondary Schedules grid.
Current Occurrence	The Preventive Maintenance process adds 1 to this field every time it schedules the next maintenance for a secondary schedule. When this field gets to the total number of occurrences per cycle and the primary schedule is also due, the system updates this field with zero. This is always a display only field.

Field or Control	Description
Occurrences per Cycle	Displays the number of secondary intervals that occur within a primary interval. The system calculates this figure using the formula: primary interval / secondary interval = occurrences per cycle. For date intervals, the interval is converted to days. A cycle should have at least two occurrences. Whenever a secondary schedule's interval is changed and it is defined in the linking definition using the cycle method, the system validates the occurrences per cycle field with the new interval value.
	Example of the calculation for occurrences per cycle based on meters:
	Primary meter interval: 30,000 miles
	Secondary meter interval: 7,500 miles
	Occurrences per cycle: 30,000 / 7500 = 4 occurrences
	Example of the calculation for occurrences per cycle based on days:
	Primary meter interval: 12 months
	Secondary meter interval: 3 months
	Occurrences per cycle: 12 months / 3 months = 4 occurrences
Current Cycle	Displays current maintenance cycle for the linking the primary schedule to this secondary schedule. Once the Preventive Maintenance process runs and links the primary schedule maintenance with the secondary schedule maintenance for each of the occurrences per cycle, then the cycle is considered complete and the system updates the value in this <b>Current Cycle</b> field.
	For example:
	If the current cycle value is <i>I</i> , the occurrences per cycle are 4 and the current occurrence is also 4, the current cycle value will change to 2 after the Preventive Maintenance process runs and links the secondary schedule maintenance with the primary schedule maintenance.

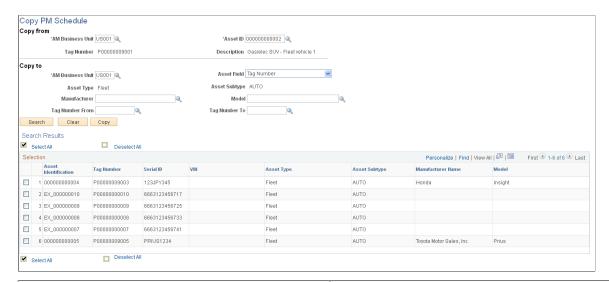
# **Copy PM Schedule Page**

Use the Copy PM Schedule page (WM\_PM\_SCHD\_CPY) to copy data from an existing PM Schedule to a new PM Schedule.

#### Navigation:

# Maintenance Management > Preventive Maintenance > PM Schedule Management Setup > Copy PM Schedule

This example illustrates the fields and controls on the Copy PM Schedule page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Search	Click to display a list of assets in the <b>Search Results</b> grid based on the criteria that you set up in the <b>Copy To</b> group box.
Сору	Select the target assets from the <b>Search Results</b> group box to which you want to copy the selected copy from asset's schedule. Once the schedule is copied to the selected assets, then you can review and modify the new schedules of the assets by selecting <b>Preventive Maintenance Schedule Setup</b> > <b>Schedule</b> .

# **Copy From**

Select the Asset Management business unit that is associated with the asset PM Schedule from which you want to copy. When you select the asset ID that is associated with the schedule from which you want to copy, the AM business unit and the asset type values appear in the fields in the **Copy To** group box of the page. Additional field values may also appear depending on the asset ID that you select in the **Copy From** group box on the page. The system automatically copies any linking and lead days information for all applicable schedules.

**Note:** The only assets that appear in the list are assets that are associated with a PM Schedule.

# Copy To

Field or Control	Description
AM Business Unit (Asset Management business unit)	Select a business unit to narrow the search for the target assets to which you want to copy the preventive maintenance schedule. When you select an asset ID in the Copy From group box, the AM Business Unit and Asset Type values appear in this Copy To group box.
	Note: You can override or delete the values from all of the asset characteristic fields except for <b>Asset Type.</b>
From (asset identifier) and To (asset identifier)	Enter a range of asset IDs, serial IDs, tag numbers, or vehicle identification numbers (VIN). The field names that appear are based on the value that you select for the <b>Asset Field</b> . If you select <i>Don't Show</i> for the <b>Asset Field</b> value, then these fields do not appear at all. Once you set up the Copy To and Copy From criteria, when you click the Search button, schedules that match the criteria appear on the page and the Copy button is enabled. If no schedules appear, then there are not schedules available to match the criteria you selected. You should modify your criteria or select another asset. Once schedules appear on the page, you can select the schedules you want to copy and click the Copy button. A message appears indicating that PM schedules for the number of schedules that you selected were created. When search for PM schedules on the PM Schedule search page, these new schedules should be listed.  Note: Since a maintenance type is associated with an asset subtype during setup and should not be changed, the <b>Asset Subtype</b> field on this page is inaccessible to avoid selecting an incorrect value for the maintenance type.

# PM Schedule Mass Update – Search Page

Use the PM Schedule Mass Update – Search page (WM\_PM\_SCH\_UPD\_RUN1) to enter search criteria to search for PM schedules on which to run the Mass Update process.

### Navigation:

Maintenance Management, Preventive Maintenance, PM Schedule Management Setup, PM Schedule Mass Update, Search tab

Field or Control	Description
Run Control ID	Select or add a run control ID on the PM Schedule Mass Update Find an Existing Value or Add a New Value search pages.
Search	Click this button after selecting any of the options in each of the group boxes listed below that you want to use to narrow your search criteria for schedules for which you want to perform a PM Mass Schedule Update.
	After clicking this button, a list of PM schedules appears on the page. You select the schedules from the list for which you want to perform a PM Mass Schedule Update and click the Save button.
	Once the selected schedules are saved, you can click the Update tab.

# **Search Options**

Field or Control	Description
Business Unit	You are required to enter a business unit to search for schedules to update.
Search Field	You can optionally select one of these values to narrow your search for schedules to update:  • Asset ID  • Location  • Loop ID  • Schd. ID (schedule identifier)  • Serial ID  • Tag # (tag number)  • VIN (vehicle identification number)
Remaining Fields in Group Box	The rest of the fields on this page are self-explanatory and appear on other schedule page.  See PM Schedule - General Options Page.
	See PM Schedule - Advanced Options Page.

# **Scheduling Options**

Select one of these scheduling options to narrow your search for schedules that you want to update. These options appear on the Schedule - General Options page (Maintenance Management, Preventive Maintenance, PM Schedule Management Setup, Schedule, General Options page).

See PM Schedule - General Options Page.

### **Date-based Option**

Field or Control	Description
Schedule Type	The schedule type values appear on the Schedule-General Options page (Maintenance Management, Preventive Maintenance, PM Schedule Management Setup, Schedule, General Options page.)  See PM Schedule - General Options Page.

### **Meter-based Option**

Field or Control	Description
Meter Type	Select a meter type to narrow your search for schedules for which you want to perform a PM Mass Schedule Update.  See PM Schedule - General Options Page.

### Advanced Options

Select any advanced options to narrow your search for schedules for which you want to perform a PM Mass Schedule Update.

See PM Schedule - Advanced Options Page.

#### **Blackout Period**

Enter the dates of any blackout periods to narrow your search for schedules for which you want to perform a PM Mass Schedule Update.

### PM Linking

Select any secondary schedules that are linked to this primary schedule to narrow your search for schedules for which you want to perform a PM Mass Schedule Update.

See PM Schedule Linking.

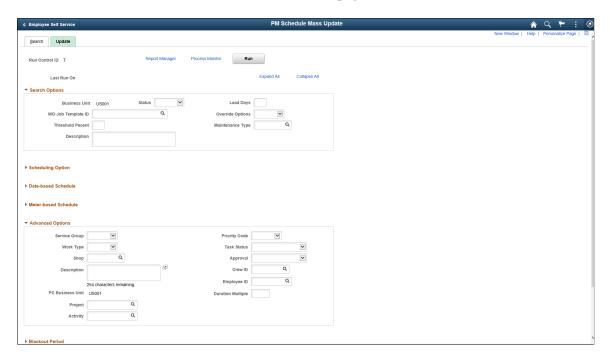
# PM Schedule Mass Update - Update Page

Use the PM Schedule Mass Update – Update page (WM\_PM\_SCH\_UPD\_RUN1) to select the information on the schedules that you want to update and run the PM Mass Schedule Update (WM\_PMSCH\_UPD) process, which updates each of the selected schedules.

### Navigation:

Maintenance Management, Preventive Maintenance, PM Schedule Management Setup, PM Schedule Mass Update, Update

This example illustrates the fields and controls on the PM Schedule Mass Update - Update page. You can find definitions for the fields and controls later on this page.



**Important!** You cannot access the Update tab until you search for PM schedules to update and save the Search page.

The values that you selected on the Search page appear on the Update page. You can override or select different values before you click the **Run** button.

Field or Control	Description
Last Run On:	Displays the date that the PM Schedule Mass Update process was last run.
Run	Click this button to run the PM Schedule Mass Update (WM _PMSCH_UPD) process. When you run this process, the system uses the current date as the effective date. The system automatically creates a new effective revision if it does not already exist. If a revision exists, the system updates the revision. When a new revision is created, the system copies the current version, and then applies the requested update

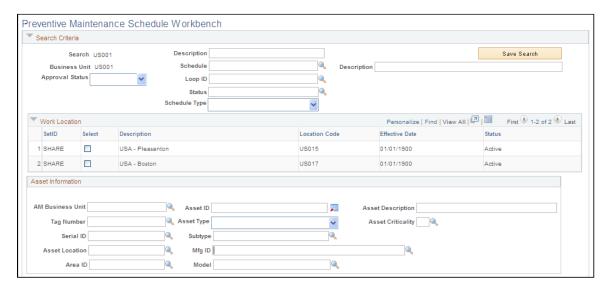
# **Preventive Maintenance Schedule Workbench Page**

Use the Preventive Maintenance Schedule Workbench page (WM\_PM\_SCHD\_WKBC) to maintain an asset's preventive maintenance schedules.

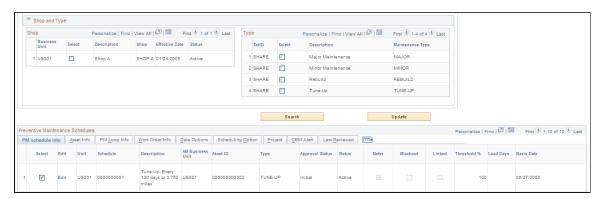
Navigation:

### Maintenance Management > Workbenches > PM Schedule Workbench

This example illustrates the fields and controls on the Preventive Maintenance Schedule Workbench Page. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Preventive Maintenance Schedule Workbench Page (2 of 3). You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Preventive Maintenance Schedule Workbench Page (3 of 3). You can find definitions for the fields and controls later on this page.



Field or Control	Description	
Approval Status	Select the desired approval status from the following options:  Approved  Cancelled  Denied  Initial  Pending	
Description	Enter the description for the search.	
Schedule	Select the desired PM schedule for the search.	
Loop ID	Select the desired maintenance loop ID for the search	
Status	Select from the various statuses available	
Schedule Type	Select the type of schedule from the options:  Daily  Monthly by date  Monthly by day  None  On demand  Specific date  Weekly by day	
Work Location	Select one or more work locations from the list, to view the associated PM schedules.	

# Asset Information

Field or Control	Description
AM Business Unit	Select the desired Asset Management business unit for the PM schedules.
Tag Number	Select the desired tag number for the AM business unit.

Field or Control	Description
Serial ID	Select the serial ID for the AM business unit.
Asset Location	Select from the various asset locations based on the location ID.
Area ID	Select the required area ID from the list.
Asset ID	Select the required asset identification from the list.
Asset Type	Select the type of asset from the available options:  Asset Retirement Obligations  Equipment  Facility  Fleet  Furniture  IT Hardware  IT Software  Intangible  Machinery  Other
Subtype	Select the asset sub type based on the types of asset selected.
Mfg ID	Select the manufacturing ID for the AM business unit.
Model	Select the model of AM business unit.
Asset Description	Enter any relevant description for the asset.
Asset Criticality	Select the criticality of the asset from the following options:  High Medium Low

Field or Control	Description
Shop and Type	Select one or more shops, and type of shop from the list, to view the associated PM schedules.

### PM Schedule Info

Click the **Edit** link to access and update the associated PM Schedule. This tab contains a check box, which indicates whether the schedule has linking setup information.

### PM Loop Info

Click the **View** link to access the PM Loop Find an Existing Value page and select a maintenance loop to review.

#### **CBM Alert**

If this asset is associated with a meter that has a range tolerance, and the meter reading for the asset exceeds the tolerance limit, then a condition-based maintenance alert is sent from PeopleSoft Asset Management to PeopleSoft Maintenance Management. PeopleSoft Asset Management automatically selects the override option in the schedule to enable the Preventive Maintenance Process to generate a condition-based maintenance work order.

# **Meter and Meter Readings History**

This grid appears if one or more meters are associated with an asset. Click the **View** link to view the Meter Reading History information in PeopleSoft Asset Management.

#### **Blackout Periods**

If you set up blackout periods for a schedule, they appear as part of the PM Schedule Workbench if you select the check boxes for the schedules in the list that have the **Blackout** check box selected.

# **Running the Preventive Maintenance Process**

To run the Preventive Maintenance Process, use the Run Preventive Maintenance (WM\_PM\_RUN\_CNTL) component.

To review the results of preventive maintenance information, use the View Preventive Maintenance (WM PM) component.

This section provides overviews o<u>Running the Preventive Maintenance Process</u>f the Preventive Maintenance Process, Preventive Maintenance Process log, errors, and Preventive Maintenance Inquiry and discusses how to run the Preventive Maintenance Process and review the preventive maintenance inquiry.

# **Pages Used to Run the Preventive Maintenance Process**

Page Name	Definition Name	Usage
Run Preventive Maintenance - Selection Page	WM_PM_RUN_SEL	Run the Preventive Maintenance Process.
Run Preventive Maintenance - Process Log Page	WM_PM_RUN_LOG	Track the progress and any messages based on the Preventive Maintenance Processing.
Run Preventive Maintenance - Errors Page	WM_PM_RUN_ERROR	Display and review any error messages that were generated during Preventive Maintenance Processing.
Preventive Maintenance Inquiry Page	WM_PM	Display the status of preventive maintenance work orders.
View Business Calendar Page	WM_BUS_CALENDAR	Review the business calendar, including holidays, that is associated with the work order business unit for this Preventive Maintenance Inquiry.
Meter Readings History Page	AM_MTR_RD_HIS	Enter a meter and date range and review the meter reading history for the selected meter.
Meter Reading Details Page	AM_MTR_RD_HID	Review comments and the detail information regarding a selected meter reading.
Preventive Maintenance Meter Page	WM_PM_MTR	Review the meter-based schedule information details for a meter, projected meter, and meter sample.
PM Exception Page	WM_PM_EXCEPTION	Review a list of preventive maintenance exceptions, including linking exceptions, after running the Preventive Maintenance ad Projection processes.
Preventive Maintenance Linking Page	WM_PM_LINK	Displays secondary schedules linked to the selected primary schedule.

# **Understanding the Preventive Maintenance Process**

The Preventive Maintenance Process uses the date-based and meter-based preventive maintenance schedule information, the work order job templates associated with the PM Schedule, the effective date in the job template that is closest to the next calculated maintenance date, and the work order header and project information to create a work order that is based on the determination of the next maintenance due

date. Preventive maintenance work orders are created for single assets, loops, and locations based on their associated schedules. The system processes both unlinked and linked schedules. Most of the preventive maintenance work order fields are copied from the work order job template that is specified in the preventive maintenance schedule's General Options page or for assets that are defined in a maintenance loop. The rules and formulas that determine the next maintenance due date based on the selections that you make in the schedule are discussed previously in the Understanding Preventive Maintenance Schedules section.

After the preventive maintenance work order is created, it is accessible through the Work Order component. You can access the preventive maintenance work order and schedule resources, if needed. Once you schedule individual technicians or technicians that belong to a crew to a work order, the preventive maintenance work order appears as a link in the technicians' workbench. If a scheduler is assigned in the work order, the work order appears in the scheduler's view of the Work Order Workbench.

Preventive maintenance work orders have the same status values as any other work orders that are created in PeopleSoft Maintenance Management.

Depending on the scheduling options that you selected in the schedule, the Preventive Maintenance Process may not always create a work order. The following is an example of this situation.

- You select the scheduling option, Generate work order if the prior is Complete. If prior work
  order is not Complete, update the PM Log to identify that the scheduled work order will be
  fulfilled by the prior work order.
- You do not change the status of the current work order to *complete*, and it is time for the next maintenance based on the due date.

As a result of your actions in the example, the Preventive Maintenance Process creates an audit record every time a work order due date comes around, but does not create a new work order. The Preventive Maintenance Process creates an audit record every time a work order due date comes around, but does not create a new work order.

The Preventive Maintenance Process creates an audit record every time a work order due date comes around, but does not create a new work order.

If you selected **Always generate work orders based on the PM Schedule** or **Generate work order if the prior is Complete in the PM Schedule**, the Preventive Maintenance Process uses the previously calculated meter reading instead of the meter reading that is based on the last work order. This applies to all Preventive Maintenance Processes. If the prior work order is not complete, the process updates the Process Log to indicate that the scheduled work order will be fulfilled by the prior work order.

**Important!** You cannot access a preventive maintenance work order through the Express Work Order component.

The default hierarchy for the Preventive Maintenance Process is set up so that the default values that are set up in the work order business unit are used in the preventive maintenance work order if they are not overridden at one of the subsequent levels. The work order also uses the default orders that are set up for the control default order and the project default order in the work order business unit.

See PM Schedule Linking.

The main default hierarchy is:

1. Work order business unit.

- 2. Service group.
- 3. Work order type.
- 4. Shop.
- 5. Work order job template.
- 6. Preventive maintenance schedule.

For WO Business Units enabled to *Precheck for Disposed Assets* in WO <u>PM Options Page</u>, the Schedule definition or Maintenance Loop definition is set inactive for any active asset and loop-type PM Schedules that reference disposed assets.

**Note:** For loop-type PM Schedules, all of its constituent loop detail assets must be in disposed status to inactivate.

The *Precheck for Disposed Assets* enabled WO is processed every time the PM/Projections batch process is run, regardless of the PM Schedules actually selected for a particular processing run. It uses an SQL set processing for efficiency and will supplement the existing functionality.

The following table describes the source of the default values that appear in a preventive maintenance work order header and describes the default hierarchies for the values.

Preventive Maintenance Work Order Default Fields	Source	Default Value Derived From
<b>Business Unit</b>	Defined in the PM Schedule.	PM Schedule.
Work Order Type	Defined in the PM Schedule.	<ol> <li>PM Schedule.</li> <li>Work Order Type specified in a Shop.</li> <li>If PM Schedule field is blank, uses Work Order Business Unit value.</li> </ol>
PC Business Unit	Defined in the Work Order Business Unit.	Work Order Business Unit.
AM Business Unit	Defined in either the PM Schedule setup or the Maintenance Loop setup.	PM Schedule or Maintenance Loop.
Asset ID	Defined in either the PM Schedule setup or the Maintenance Loop setup.	PM Schedule or Maintenance Loop.
Service Group	Defined in the PM Schedule.	PM Schedule     If PM Schedule field is blank, uses     Work Order Business Unit value.

Preventive Maintenance Work Order Default Fields	Source	Default Value Derived From
Location	Defined in the Location Schedule.	<ul> <li>For Location Schedule, uses the location that is specified in the schedule.</li> <li>For PM or Loop Schedule, uses Asset Location or Shop Location depending on the asset's definition in the Asset Repository.</li> </ul>
Shop ID	Defined in the PM Schedule.	PM Schedule.  If PM Schedule field is blank, uses the Work Order Business Unit value.
Parent Work Order ID	Defined in the Job Template.	Job Template.
Priority Code	Defined in the PM Schedule.	PM Schedule.      If PM Schedule field is blank, uses the Work Order Business Unit value.
Approval Status	Defined in the PM Schedule.	PM Schedule.  If PM Schedule field is blank, uses the Control Default Order hierarchy, which can be either unit, work order type, and shop or unit, shop, and work order type.
Project ID	Defined in the PM Schedule.	Dependent on whether this is a work order-managed project or a Project Costing-managed project. You can specify this value in the PM Schedule's Advanced Options page for either type of project. However, you can also leave the field blank for a work-order managed project. If you leave the field blank, the default project is generated in the work order based on the Project Default Order in the work order business unit.
Task Status	Defined in the PM Schedule.	PM Schedule.     If the PM Schedule field is blank, uses the Work Order business unit value.
Asset Up Flag	Defined for the asset in PeopleSoft Asset Management.	Asset Definition in PeopleSoft Asset Management.

Preventive Maintenance Work Order Default Fields	Source	Default Value Derived From
Scheduler Code	Defined in the shop.	Shop.
Job Template	Defined in PM Schedule.	PM Schedule.
Dependent Task and Overlap Percentage	Defined in job template.	Job template that is associated with the PM Schedule.
Chargebacks	Defined in the shop.	Shop value in PM Schedule.  1. Shop value in PM Schedule  2. If the <b>Shop</b> field is blank, then Work Order Type  3. If the <b>Work Order Type</b> field is blank, then Work Order Business Unit.
Project Costing Default Rate Set	Defined in the shop. (Rate Set is set up originally in PeopleSoft Project Costing)	Shop value in PM Schedule.  1. Shop value in PM Schedule  2. If the <b>Shop</b> field is blank, then Work Order Business Unit.

See <u>Understanding Preventive Maintenance Work Orders</u>.

# Scheduling a Preventive Maintenance Work Order

Once the Preventive Maintenance Process applies the formulas and calculations based on your specifications in the schedule, it normally generates a work order on a given date. You can access the work order from the Work Order Workbench component or access it directly in the Work Order component to schedule the work order.

When you access the work order, you may want to override the header values that are supplied by default from the Preventive Maintenance schedule. The labor, inventory, purchase/on-hand, and tool requirements, along with instructions, a checklist, notes, and attachments are derived from the task templates that are associated with the job template that you attached to the schedule.

If you plan to schedule labor and inventory resources, you may need to consider:

Crew scheduling.

PeopleSoft Maintenance Management enables you to schedule individual technicians and crews on preventive maintenance work orders. To enable you to perform crew scheduling, the **Schedule**Crews check box on the Shop Definition page of the shop that you selected for the preventive maintenance work order must be selected. You must also set up crews and assign them to the shop. Schedulers must access the Crew Scheduling Workbench to determine the capacity of one or more crew to perform the preventive maintenance work order's tasks and schedule the crews from the Labor Assignment Workbench, along with technicians that are not part of a crew, if desired.

• Inventory parts commitment and reservation.

To commit and reserve inventory parts for work order tasks, you must apply a combination of commit and reservation rules to the work order. These rules are set up at the work order business unit level, the shop level, and the shop/type level that is defined within the shop. The Preventive Maintenance Process calls the Reservation process when the material is ready to reserve based on the reserve rules.

The Commit Rules that are defined at the business unit, shop, and work order type level are:

#### Commit at Reserve

Selecting this Commit rule enables you to defer committing the items to PeopleSoft Inventory until the time you choose to reserve the items. The Preventive Maintenance Process will call the commit and reservation processes for transactions and point to this commit rule, as long as the associated reservation rule is either Parts List Creation or Status Change where the task status is equal to the reservation status.

Important! The Preventive Maintenance Process does not trigger the Batch Reservation process in PeopleSoft Inventory, which means that if you select a combination of the Commit at Reserve rule and the Batch Reservation rule at the business unit, shop, or shop/type level, then the Preventive Maintenance Process will create a work order without triggering the commit or reserve rules. Once the work order is created by the Preventive Maintenance Process, you can run the Batch Reservation process in PeopleSoft Inventory (Inventory > Fufill Stock Orders > Stock Requests > Reserve Materials Process) to commit and reserve the inventory that is identified in the job template that is associated with the PM Schedule.

#### Parts List

The addition of an inventory item to the parts list means that items are committed when they have been added to the **Inventory Schedules** grid and a save has been issued. Each subsequent part that is added and saved on the work order task will commit the item to PeopleSoft Inventory.

#### Picking Plan

You cannot create a picking plan in Preventive Maintenance, which means that the Preventive Maintenance Process does not have access to this option. You can create a picking plan only after the work order is created.

#### • Work Order Status Change

Items are committed when the work order task status is changed to a status of *Awaiting Schedule*, *Scheduled*, or *Work in Progress*.

The Reservation Rules that are defined at the business unit, shop, and work-order type level are:

#### Batch Reserve Only

You must select **Inventory** > **Fulfill Stock Orders** > **Stock Requests** > **Reserve Materials Process** in PeopleSoft Inventory to run the Batch Reservation process, which reserves committed rows for all work orders. The Preventive Maintenance Process does not initiate the Batch Reservation process. If you select this reservation rule in combination with the Commit at Reserve rule in the business unit, shop, or shop/type, you cannot reserve the inventory that is specified in the job template of the PM Schedule until after the Preventive Maintenance Process generates the work order. Once a work order is generated, you can access PeopleSoft Inventory and run the Batch Reservation process.

The Batch Reservation process does not differentiate between preventive maintenance and other types of work orders.

Parts List Creation

When the parts (items) in the work order task are saved, the parts (items) are reserved.

Pick Plan Creation

This option does not apply to the Preventive Maintenance Process because it can reserve parts only when the picking plan is run

• Work Order Status Change

When the status of the work order task is changed to *Awaiting Schedule, Scheduled*, or *Work in Progress*, the parts (items) are reserved.

See Setting Up PeopleSoft Maintenance Management Work Order Parameters.

# **Processing a Preventive Maintenance Work Order**

When the Preventive Maintenance Process runs, it calculates the estimated costs for labor, inventory, purchased materials, and tools. It also calculates the required end date based on the duration that is specified in the job template, which assumes that one day has 24 work hours.

The formula for calculating the work order end date is:

WO Start Date + (Duration in Job Template  $\div$  24) = Work Order End Date

You can apply work order access security to preventive maintenance work orders just as you do for other work orders. The shop in the preventive maintenance work order serves as the default shop in the Work Order Access page. You can add shops if necessary. If this is a PeopleSoft Project Costing managed work order, work order access security based on resource pools applies.

See **Business Unit Setup Options**.

# **Understanding Preventive Maintenance Process Log**

Use the Run Preventive Maintenance - Process Log page to track the Preventive Maintenance Process based on its process instances and review any messages that are generated by the process. You can also click the **Process Monitor** link to view the status of each process instance in a batch. You can view processing details for each process instance from the process monitor, as well as view the status of the servers that are running the processes.

# **Understanding Errors**

Use the Run Preventive Maintenance - Errors page to view any error messages and their associated details that are generated by the Preventive Maintenance Process. You can also review the asset business unit, asset identification, SetID, maintenance loop ID, and maintenance type that are associated with each error.

# **Understanding Preventive Maintenance Inquiry**

After the Preventive Maintenance Process is complete, you can access the Preventive Maintenance Inquiry page to view the results of processing a specific asset ID based on its associated work order business unit, asset business unit and maintenance type. The transactions that are listed in this inquiry are the Preventive Maintenance (PM) audit records. This inquiry uses basically the same format as the Preventive Maintenance Workbench and contains the same tabs.

#### • PM Info (information)

This tab lists all of the PM schedules that were processed, the schedule ID, due date, schedule type, percentage due, if a blackout period existed, if a meter was used, whether the schedule was linked, the threshold percentage, the process type, basis date, and the last date that the schedule was processed. You click an edit link to access and edit the PM schedule as well as review the blackout periods and the Meter Readings Trend chart.

When the maintenance percentage is 50 percent, for example, then the preventive maintenance work is half way from being due and the **Percent Due** displays as 50 percent. When the **Percent Due** value is 100 percent, then the process creates a work order unless the maintenance due date falls in a blackout period.

### PM Loop

This tab lists the loop schedule information, if a loop schedule was processed. You can access and edit each loop schedule.

### • Work Order Info (information)

This tab identifies the last work order that was created for this asset, the work order business unit, and the work order's status. You can click a link to view the work order.

### Date Options

This tab identifies the schedule type for each asset, the interval processed, the date of the month, day of the month, week of the month the asset was processed, and whether the due dates were based upon the last PM completion.

#### Scheduling Option

This tab identifies which scheduling option was selected on the asset's schedule.

#### • CBM (Condition Based Maintenance) Alert

This tab identifies whether the CBM Alert was turned off or on. If it was turned on, it identifies the source of the alert.

#### Estimated Cost

This tab describes the estimated resource costs of the work order based on the requirements defined in the job template associated with the asset's schedule.

You can also click a link to access the business calendar that is associated with PeopleSoft Maintenance Management, and the Meter Readings History for a meter that is associated with the asset being maintained.

**Note:** Readings are based only on meter-based schedules.

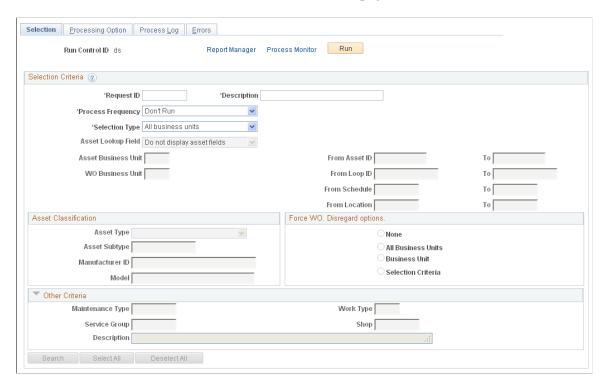
# **Run Preventive Maintenance - Selection Page**

Use the Run Preventive Maintenance - Selection page (WM\_PM\_RUN\_SEL) to run the Preventive Maintenance Process.

Navigation:

### Maintenance Management > Preventive Maintenance > Run Preventive Maintenance

This example illustrates the fields and controls on the Run Preventive Maintenance - Selection page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Selection Type	Select the type of data to use to run the Preventive Maintenance Process. Selecting this option displays a list of selection data types, which includes:
	AM business unit list
	All business units
	Asset classification
	Location list
	Maintenance type list
	PM Schedule selection
	Shop List
	WO business unit list

#### **AM Business Unit List**

Selecting *AM business unit list* in the **Selection Type** field makes all subsequent fields inaccessible to the user except for the **Selection** grid, where you can create a list of Asset Management business units to serve as criteria for which to run the Preventive Maintenance Process.

#### **All Business Units**

Selecting *All business units* in the **Selection Type** field makes all subsequent fields inaccessible to the user and does not display the **Selection** grid because the Preventive Maintenance Process is run for both PeopleSoft Asset Management and work order business units.

#### **Asset Classification**

Selecting *Asset classification* in the **Selection Type** field makes all subsequent fields inaccessible except for the **Search** grid, where you create a list of asset characteristics, which include asset type, subtype, manufacturer, and **model** # to serve as criteria for running the Preventive Maintenance Process.

#### **Location List**

Selecting *Location list* in the **Selection Type** field makes all subsequent fields inaccessible except for the **Search** grid, where you create a list of work order business units and their associated locations to serve as criteria for running the Preventive Maintenance Process. This list consists of the locations that you can specify in the Location Schedule component.

# **Maintenance Type List**

Selecting *Maintenance type list* in the **Selection Type** field makes all subsequent fields inaccessible except for the **Search** grid, where you create a list of maintenance types to serve as criteria for running the Preventive Maintenance Process.

#### PM Schedule Selection

Select *PM Schedule selection* in the **Selection Type** field.

Selecting this option and then selecting one of the values in the **Asset Lookup** field enables you to enter active fields as search criteria to search for PM Schedules.

Field or Control	Description
Asset Lookup Field	Select:
	Asset ID.
	• Don't Show (do not show).
	Serial ID
	• Tag # (tag number).
	• VIN (vehicle identification number).

#### Asset ID

Select Asset ID for the Asset Lookup Field value.

**Important!** If you select one of the other lookup fields that are listed previously, such as **Serial ID**, the following field descriptions apply except the field names and values will pertain to the **Asset Lookup Field** value that you selected.

#### **Don't Show**

Select *Don't Show* in the **Asset Lookup Field.** This selection makes the **Asset Business Unit, Asset,** and **To** fields inaccessible to the user. However, you can complete the **Maintenance Business Unit, Loop,** and **To** fields as search criteria and click the **Search** button to list the preventive maintenance schedules based on the selected criteria. You can then select the preventive maintenance schedules that you want the Preventive Maintenance Process to use.

**Note:** You can also select the **Show Override Options Only** check box, which makes all of the other fields inaccessible.

#### Serial ID

Select *Serial ID* in the **Asset Lookup Field.** All of the subsequent fields and buttons appear and work the same way as your selection of the asset ID, except that you can enter one serial ID or a number or a range of serial IDs instead of one or more asset IDs.

### Tag # (tag number)

Select *Tag* # in the **Asset Lookup Field.** All of the subsequent fields and buttons appear and work the same way as your selection of the asset ID, except that you can enter one tag number or a range of tag numbers instead of one or more asset IDs.

# VIN (vehicle identification number)

Select *VIN* in the **Asset Lookup Field.** All of the subsequent fields and buttons appear and work the same way as your selection of the asset ID, except that you can enter one VIN or a range of VINs instead of one or more asset IDs.

Field or Control	Description
Asset Business Unit	Select an Asset Management business unit to associate with one or more selected asset IDs.

Field or Control	Description
WO Business Unit (work order business unit)	Select the work order business unit to associate with one or more selected preventive maintenance loops.

Field or Control	Description
From Assets and to	Select a single asset ID or select a second asset ID to create a range of assets to use as search criteria to narrow your search for PM Schedules.

Field or Control	Description	
From Loop ID and to	Select a single loop ID or select a second loop ID to create a range of loops to use as search criteria to narrow your search for PM Loop Schedules to process.	

Field or Control	Description
From Schedule and to	Select a single schedule ID or select a second schedule ID to create a range of schedule IDs to use as search criteria to narrow your search for PM Schedules to process. If you select a primary schedule with linked secondary schedules, the Preventive Maintenance process will automatically process any secondary schedules associated with this primary schedule and check the linkage of the maintenances.

Field or Control	Description
From Location and to	Select a single location or select a second location to create a range of location schedules to use as search criteria to narrow your search for Location Schedules to process.

# **Force WO. Disregard Options**

Select to identify the preventive maintenance schedules that have the **Override Options - Generate One Time**check box selected in a schedule's General Options page. The available options are:

- None: Select this checkbox and click the Search button to display a list of preventive maintenance schedules without accounting for the override option.
- All business units: Select this check box and click the Search button to display schedules that have the override option enabled for all business units.
- Business Unit: You can select a business unit. The result for the search shows override options only for the selected Business unit.
- Selection Criteria: You can add a selection criteria. The result shows only the override options that met the predefined selection criteria.

Note: If you select this field, the Asset Lookup, Asset Business Unit, Asset, To, Maintenance Business Unit, Loop, and To fields become inaccessible.

### **Asset Classification**

Field or Control	Description
Asset Type	Select the desired type of asset.

Field or Control	Description
Asset Subtype	Enter the desired sub type of asset.

Field or Control	Description
Manufacturer ID	Enter the ID of the desired Manufacturer.

Field or Control	Description
Model	Enter the desired model

#### Other Criteria

Field or Control	Description
Maintenance Type	Enter the desired type of maintenance.
Work Type	Enter the desired type of work.
Service Group	Enter the service group.
Shop	Enter the desired shop.

Field or Control	Description
Search	Click to search for preventive maintenance schedules that match the search criteria. A list of preventive maintenance schedules appears in a grid based on the criteria that you selected. You can then select the schedules that you want to include in the Preventive Maintenance Process.

# **Preventive Maintenance Inquiry Page**

Use the Preventive Maintenance Inquiry page (WM\_PM) to display the status of preventive maintenance work orders.

Navigation:

### **Maintenance Management** > **Preventive Maintenance** > **View Preventive Maintenance**

This example illustrates the fields and controls on the Preventive Maintenance Inquiry page. You can find definitions for the fields and controls later on this page.



### **Search Criteria**

You can search for all work orders that were created by the Preventive Maintenance Process by leaving the Business Unit, AM Business Unit, Asset Identification, Maintenance Type, Location Code, and Loop ID fields blank and clicking the Search button on the Preventive Maintenance search page.

Field or Control	Description
Calendar	Click to review the business calendar.
View Meter History	Click to view the Meter Reading History for the meter that is associated with this asset.
Due Date From and To	Enter a range of preventive maintenance due dates to display the associated preventive maintenance work orders that were generated by the Preventive Maintenance Process.
	Note: In case a major maintenance is due but minor is not due yet (This can happen when you enter a WO meter reading for the minor WO greater than the meter interval), the system generates the major WO and not link them. The next time the PM process is run with the minor due, and the occurrences per cycle is reached, then the system links maintenances with WO creation. If the previous major WO is still in process the system creates a PM Exception so you can take proper action.
Reading From and To	Enter a range of meter reading values to display a list of work orders that were generated for the selected asset based on meter readings.
Percent From and Percent Through	Enter a range of percentage due values to display a list of work orders with percentage due values that fall within this range for the selected asset.

Field or Control	Description
Work Order Status	Select the work order status from the following options:
	Awaiting Schedule
	• Closed
	• Complete
	Cancelled
	• On Hold
	Open NOW
	Scheduled
	Work in Progress

# **PM Info**

After specifying the search criteria, click **Search** to display work orders in the grid. Select the PM Info tab.

Field or Control	Description
Edit	Click to access and edit the schedule that is associated with the row.
Due Date	<ul> <li>The PM Inquiry screen displays the due date of the PM process. The due date is calculated by the PM process (WM_PM) based on the following criteria:</li> <li>The due date is blank if the calculation of the next due date is dependent on WO completion date.</li> <li>The due date is blank if the calculation of the next due date is dependent on the meter readings recorded on the last completed WO.</li> <li>If the WO is due today, the next due date that displays is the current date.</li> <li>If a PM schedule is brand new, the scheduled due date will be calculated using the PM schedule's basis date.</li> </ul>

Field or Control	Description
Schedule Type	Identifies the calculation method that was used to trigger the creation of the work order.
	The listed schedule type can be:
	Day interval.
	Week interval.
	Month interval.
	Specific date.
	Meter reading.
	CBM alert.
	Sampling days.
	Sampling reading.
	Cycles.
	Average from asset.
Percent Due	Displays the maintenance percentage due amount based on the calculation of the maintenance due date. This calculation is performed by the Preventive Maintenance Process to generate a work order. The formula for calculating this percentage is Percent Due = $100 \times \text{Current Reading} - \text{Previous Work Order}$ Reading ÷ Meter Interval
	This field may have a value:
	Of zero if you created a work order from a projection.
	Greater than 100 percent if the Preventive Maintenance is overdue.
	See <u>Understanding Preventive Maintenance Schedules</u> .
Blackout	Click to display the blackout periods that are associated with the selected schedule.
Meter 🗉	Click to access the Preventive Maintenance Meter page. You can click an icon on this page to access and view the Meter Readings Trend Chart, which charts the meter reading date and time against the meter reading over a period of time. You can also view project meter readings based on a specific projection method and view the meter sample, if used.

Field or Control	Description
Linked	Identifies whether the PM schedule is linked. You can click the <i>Linked</i> link and review any linked secondary schedules on the Preventive Maintenance Linking page.
Primary Schedule	Displays the primary schedule ID to which this secondary schedule is linked. This field only appears for secondary schedules that are linked to primary schedules.

# PM Loop

Select the PM Loop tab to display the SetID that is associated with a maintenance loop ID if this is a preventive maintenance Loop Schedule.

#### **Work Order Info**

Select the Work Order Info tab to display the work order business unit, the work order number, and the current work order status. You can also click a **View** link to view the actual work order. You cannot modify the work order using this link.

### **Date Options**

Select the Date Options tab to view the date option (if applicable) that was selected for each of the listed schedules.

### Scheduling Options

Select the Scheduling Options tab to view the scheduling option (if applicable) that was selected for each of the listed schedules.

### **CBM Alert**

Select the CBM Alert (condition-based maintenance alert) tab to view the CBM alert, the source of the CBM alert, the alert ID, and the CBM alert date and time. This appears only for preventive maintenance schedules that are associated with condition-based maintenance work orders and indicates whether the CBM was used *(On)* or not used *(Off.)* 

#### **Estimated Costs**

This tab lists the estimated labor, tools, inventory, and procurement costs. These estimated costs are calculated first in the Preventive Maintenance Process. They can be recalculated later based on changes made to the work order.

# **Preventive Maintenance Meter Page**

Use the Preventive Maintenance Meter page (WM\_PM\_MTR) to review the meter-based schedule information details for a meter, projected meter, and meter sample.

Navigation:

Click the Meter icon in the PM Info grid of the Preventive Maintenance Inquiry page.

This page includes these three grids.

Field or Control	Description
Meter	This grid describes the meters that are used by the PM Schedule. This information includes:
	• View.
	Click to access the Meter Readings History page for this meter. The Meter Readings History page lists each meter reading date, whether the meter was rolled over or replaced, the meter reading on that date, the accumulated meter reading, he variation between the meter reading on that date and the accumulated meter reading, and the unit of measure that is used for the meter reading, such as miles. You can click a <b>Details</b> link to access the Meter Reading Details page, which lists the current reading, the increment or decrement amount, the cumulative reading, and the actual daily average reading, and indicates whether the reading was replaced, allows for rollover, or is out of sequence. You can also review comments about this meter and meter reading.
	Meter Reading Trend Chart.
	Click to access a Meter Reading Trend Chart for this meter, which enables you to compare meter readings that were taken on different dates and times with one another in graphic form.
	• Meter Type.
	Identifies the type of meter, which is identified in the PM Schedule.
	• Meter Options.
	Indicates whether this is an increasing or decreasing meter.
	• Percent Due.
	Displays the maintenance percentage due amount based on the calculation of the maintenance due date. This calculation is performed by the Preventive Maintenance Process to generate a work order. The formula for calculating this percentage is Percent Due = $100 \times \text{Current Reading} - \text{Previous Work Order Reading} \div \text{Meter Interval}$
	• Due Date.
	Indicates the calculated next maintenance due date, which the system uses to generate a work order.
	• Interval.
	Displays the measurement between readings, which is used to determine the next meter reading.
	• UOM. (unit of measure)

Field or Control	Description
	Indicates the unit of measure that applies to the interval measurement.
	• Last reading.
	Indicates either the reading that is entered against the last work order when the selected scheduling option is "Generate WO (work order) when prior is complete," or the last PM transaction calculated reading when the selected scheduling option is "Always Generate WO based on PM Schedule."
	• Current reading.
	Indicates the latest reading that is entered for the asset before the Preventive Maintenance Process is run.
	• Reading.
	Indicates the reading that is calculated in the Preventive Maintenance Process based on PM Schedule rules and methods.

Field or Control	Description
Projected Meter	If this meter is used to perform projected meter readings, this grid describes the methods that were used to create the projections. The columns on this grid include:
	• Project Usage.
	Indicates how the projections will be calculated (Average from Asset or Sampling)
	Sampling Method.
	Indicates whether the sampling will be based on cycles, days, or readings.
	Sampling Size.
	Indicates the size of the sampling based on the sampling method.
	Projected From.
	Indicates whether the sampling will be projected from the current system date or the last PM completion date.
	Estimated Daily Average
	Indicates the calculated average meter reading measured per day based on whether you use one of the sampling methods or the average from asset method.
	See <u>Understanding Projected Meter Readings</u> .
	Projected days.
	Indicates the number of days until the next maintenance due date.
	Projection Basis Date.
	Indicates the date on which the projection was based, which is either the current system date or the last PM completion date.

Field or Control	Description
Meter Sample	Describes the details of the sample taken if the sampling method was used for a projection. The columns are:
	Sampling Method
	Indicates whether the sampling method was cycles, days, or readings.
	Sampling Size
	Indicates the number of cycles, days, or readings that were used in the sample.
	First Date and First Reading
	Indicates the date and value of the first reading that was taken for the sample.
	Last Date and Last Reading
	Indicates the date and value of the last reading that was taken for the sample.

# **Generating and Analyzing Preventive Maintenance Projections**

To generate preventive maintenance projections, use the Run Project (WM PM PJC RUN) component.

To review projections use:

- The View Projection Summary (WM PM PJC) component.
- The View Projection Detail (WM PROJECTION) component.

To integrate preventive maintenance projections with Microsoft Project, use the Microsoft Project Integration (WM\_MSP) component.

This section provides an overview of Preventive Maintenance projections and discusses how to set up processing options for preventive maintenance projections, review a summary of preventive maintenance projections, review details of preventive maintenance projections, export preventive maintenance projections and work orders to Microsoft Project, and import work order data from Microsoft Project to Maintenance Management.

# Pages Used to Generate and Analyze Preventive Maintenance Projections

Page Name	Definition Name	Usage
Run Projection - Selection	WM_PM_RUN_SEL	Enter selection criteria to run the Preventive Maintenance Projections process. This page is exactly the same as the Run Preventive Maintenance – Selection page.
Run Projection - Processing Options Page	WM_PM_RUN_OPT	Define the processing options for preventive maintenance projections, which include creating a work order, the projection start and end dates, and selection of the projection method.
Run Projection - Process Log	WM_PM_RUN_LOG	Track Preventive Maintenance Projection processing and messages. This page works the same way as the Run Preventive Maintenance - Process Log page.
Run Projection - Errors	WM_PM_RUN_ERROR	Display errors, PM Schedule information, and message details that are generated by running the Preventive Maintenance Projection process.  This page works the same as the Run Preventive Maintenance - Errors page.
Projection Summary Page	WM_PM_PJC	Review a list of each of the preventive maintenance projections and their associated preventive maintenance schedules, and provides a link to the detail information for each projection.
Projection	WM_PM_PJC_HDR	Review projection header information, including duration, estimated costs, shop, and approval statuses.
Task	WM_PM_PJC_TSK	Review a list of projected work order tasks, the estimated costs for the tasks, and the asset information that is associated with the tasks.
Labor Requirement	WM_PM_PJC_LBR	Review the labor requirements and estimated costs that are associated with each task for this projection.
Tool Requirement	WM_PM_PJC_TLS	Review the tool requirements and estimated costs that are associated with each task for this projection.

Page Name	Definition Name	Usage
Material Requirement	WM_PM_PJC_MAT	Review the material requirements and estimated costs that are associated with each task for this projection.
Procurement Requirement	WM_PM_PJC_PO	Review the procurement requirements and estimated costs that are associated with each task for this projection.
Search & Export Work Orders/PM Projections Page	WM_MSP	Integrate preventive maintenance projections and work orders into Microsoft Project for analysis.
Import Microsoft Project File Page	WM_MSP_IMPORT	Import projection and work order data from Microsoft Project to Maintenance Management.

# **Understanding Preventive Maintenance Projections**

Preventive maintenance projections enable you to plan future maintenance, as well as determine future labor and material demand. The Preventive Maintenance Projection process uses the maintenance rules and intervals that you set up for a single asset, asset loop, or location in the preventive maintenance schedule to determine when to create the projected maintenance work. The Preventive Maintenance Projection process also generates work orders and projections linked single asset, asset loop, and location schedules. Once these projections are generated into a staging area, you can view the results using the View Projection Detail and the View Project Summary components in PeopleSoft Maintenance Management or by loading the projection data into Microsoft Project. You can create work orders based on selected projections directly from the Projection Summary inquiry. The difference between the Preventive Maintenance Process and the Preventive Maintenance Projection process is that the Preventive Maintenance Process generates the first maintenance due date, while the Preventive Maintenance Projection process generates multiple projections with future dates based on a specified period of time or on the number of occurrences that are entered. The Preventive Maintenance Projection process generates a projection with the most recent projected start date. For example, if the date-based rule is every 15 days, and the start date for the meter-based rule is projected for 30 days ahead, the process creates the projection based on the date-based rule, because the projected start date is more recent than the one that was calculated for the meter-based rules.

**Note:** The Preventive Maintenance Projection process generates the same projection for all the assets that are defined in the loop when the WO Generation field option in the PM Loop page is Single Work Order. For multiple work orders, separate projections are generated for each asset.

Projections are processed based on the data that is entered in the preventive maintenance schedule. The calculation methods that the Preventive Maintenance Projection process uses to generate preventive maintenance projections are the same methods that are used by the Preventive Maintenance Process that is described in the Understanding Preventive Maintenance Scheduling section. They are:

Date-based schedules

The Preventive Maintenance Projection process calculates these projections based on the date and period rules that are set up in the preventive maintenance schedule. The process determines the next projected date by adding the date interval to the last generated projection date. Blackout periods that are set up in the schedule are taken into account for projections. For example, if a blackout period is set up from July 1, 2005 to September 1, 2005 and the projected date falls within the blackout period, the process does not generate that projection. The Preventive Maintenance Projection process uses the start date that is defined in a schedule's General Options page, rather than the last preventive maintenance work-order date for the first cycle.

**Important!** Projections are not generated for schedules using specific dates. In addition, the threshold that is indicated in the PM Schedule is not used for projections.

Meter-based rules

The meter-based rules are:

Basic or fixed meter rules.

**Important!** Projections are not calculated for these rules.

- Average from asset meter-based rules, which are used to determine the average meter reading
  from the PeopleSoft Asset Management Meter Reading table and then use the same calculation as
  the Sampling Days and the Sampling Readings rules to determine the next maintenance due date.
- Sampling days meter-based rules, which are used to calculate the average meter reading based on
  the PeopleSoft Asset Management Meter Reading History table using a sample size of a specified
  number days. This average meter reading is then used to calculate the number of days until the
  next maintenance is due.
- Sampling readings meter-based rules, which are used to calculate the average meter reading
  based on the PeopleSoft Asset Management Meter Reading History table using a sample size of
  a specified number of meter readings. This average meter reading is then used to calculate the
  number of days until the next maintenance is due.

See <u>Understanding Preventive Maintenance Schedules</u>.

**Note:** If no readings are available, the system uses the estimated average reading from the PeopleSoft Asset Management setup. If the estimated average is not found, the system issues an error message. If only one reading is on the PeopleSoft Asset Management Meter Reading History within the period that is determined in the sample size field, the Preventive Maintenance Projection process issues an error message indicating that no reading history is available from which to perform projections. If the user specifies a sample size that is greater than the number of readings available, the Preventive Maintenance Projection process proceeds to generate the projections and issues a warning message in the error table.

Cycle meter-based rules.

These rules are based on the calculation of the percentage of the maintenance that is due. The system then calculates the number of actual days that were required to get to the percentage of the maintenance due. Finally, the system calculates the number of days that will be required to reach 100 percent maintenance due.

If the Preventive Maintenance Projection process is calculating the first projection date for the preventive maintenance schedule, the projected date will be thirty days forward from the last work order completion date. For the projections following this first one, the next projected date will be the thirty days forward from the previous projected date.

**Note:** You can perform projections if no readings are available from the last maintenance completed for first cycles. The Preventive Maintenance Projection process uses zero as the value for the meter reading of last maintenance completed for the meter type, which is set up in PeopleSoft Asset Management. Also, if no last maintenance completed date is available for first cycles, the Preventive Maintenance Projection process uses the start date that is defined in the PM Schedule, which may be the same date as the asset acquisition date, in service date, or any other user-defined date.

If you selected **Always generate work orders based on the PM Schedule** or **Generate work order if the prior is Complete in the PM Schedule**, the Preventive Maintenance Process uses the previously calculated meter reading instead of the meter reading based on the last work order. This applies to all preventive maintenance and projection processes. If the prior work order is not complete, the process updates the Process Log to indicate that the scheduled work order will be fulfilled by the prior work order.

**Important!** Calculations for Averages from Asset, Sampling Days, and Sampling Readings projections are based on the selection in the PM Schedule of the *Current System Date*, which is the date that the Preventive Maintenance Process was last run, or the *Last PM Complete Date*, which is the date that the last preventive maintenance work order was closed. The Cycle rules use only the current system date.

If the projection is based on the last date that a preventive maintenance work order was closed (last PM completion date) and no date is available because this is the first cycle, then the process uses the basis date that is defined in the preventive maintenance schedule's General Options page.

If the projection is based on the last date that the Preventive Maintenance Process was run (current system date) and this is the first cycle, the process uses zero as the minimum reading.

If the Preventive Maintenance Projection process calculates a past date for the next projected date, the system replaces this date with the current date.

Also, the Preventive Maintenance Projection process does not factor the work order duration into the calculation of the next projected start date.

The Preventive Maintenance Projections process selects the preventive maintenance schedules to process based on criteria that you define in the Run Projection – Selection page. This page is exactly the same as the page described in Running the Preventive Maintenance Process section, with one exception: the **Show Override Options only** field does not appear on the page because it is not applicable for projections.

The system processes projection data based on a user's selections in the pages of the Run Projection component. The Preventive Maintenance Projections Process continues to calculate the maintenance projected date until it reaches the finish date or until it fulfills the number of occurrences that are specified in the Run Projection – Processing Options page. Following that, the system creates any exceptions and error messages.

See Understanding the Preventive Maintenance Process.

#### **Projections and Effective Dates**

The Preventive Maintenance Projection process uses the effective date in the work order job template that is closest to the projected due date of the first projection that was generated. For example, if the process

is run on September 8, 2004 and two effective dates are set up for the job template (August 8, 2004 and January 1, 2004), the system uses the effective date August 8, 2004 because it is the closest date to all of the generated projections.

# **Using the Preventive Maintenance Projection Summary Inquiry**

The Preventive Maintenance Projection process generates the projections and stores them in a Projections table. Two methods are available for viewing and analyzing these projections:

- The PeopleSoft Maintenance Management Preventive Maintenance Projection Summary and Detail Inquiries.
- Microsoft Project.

You can review and analyze the projections using the View Projection Summary and View Projection Detail components.

If you are satisfied with one or more of the projections, you can select projections from the summary grid and create work orders. If you are not satisfied with the results of the projections, you can run them again after modifying the rules in your schedule.

You can narrow your search for preventive maintenance work order projections in the Projection Summary page by entering a work order business unit, shop, and crew for preventive maintenance work orders using crew assignments. You can also specify a date range for the projections. Once your search criteria is specified and you click the Search button, the Preventive Maintenance View Projection Summary component contains:

- A Projection General list of each projection that is generated by the Preventive Maintenance Projection process, which includes the Asset Management business unit, asset ID, asset description, location, maintenance type, and due date.
- A PM Schedule Info list of each preventive maintenance schedule ID that is associated with each projection and its associated work order business unit. If the associated schedule is a loop schedule, the list also includes the SetID that is associated with the loop and the loop ID.
- A PM Loop Info list, which identifies the SetID that is associated with each Maintenance Loop ID.
- A Projection Detail list, which lists all of the projection IDs and their associated work order business units, and identifies whether a projection contains linked PM schedules. You click on a View link to review the details for the projection. This tab also identifies whether the PM schedule is linked.
- An Asset Info list, which identifies the Asset Management business unit, the asset ID and description, the asset's location, and the asset type and subtype classifications.
- An Additional Asset Info tab includes the maintenance due date, the manufacturer ID, and the model.

## **Using the Preventive Maintenance Projection Detail Inquiry**

The Preventive Maintenance View Projection Detail component enables you to review the details of projected work orders and includes:

- A Projection page, which describes the projection's work order header information, including:
  - A Duration group box, which contains the required start and end dates and the duration of the work order.

- An **Estimated Cost** group box, which contains the total estimated costs that are calculated based on the requirements that are defined in the work order job template that is associated with the schedule and the cost values in the shop.
- A **Shop** group box, which contains the shop ID from either a default value in the schedule or a value that is entered in the work order and the scheduler's ID, which is a default value from the work order.
- An **Approval** group box, which indicates the approval characteristics of the work order.
- A list of primary PM schedules and any linked secondary PM schedules.
- A Task page, which consists of:
  - A General grid listing all of the work order tasks, which were defined in the work order job template that is associated with the schedule, the work order task duration, any task dependencies, the percentage of overlap with other dependent tasks, and whether the cost of each task must be charged back to another organization.
  - An **Estimated Cost** grid containing any estimated inventory, material, labor, and tool costs for each task.
  - An **Asset Info** grid, which defines the AM business unit, asset ID, location, and if the asset if the asset is functioning (up) or offline for repair for each task.
- A Labor Requirement page, which contains a **Requirements** grid for each task and lists the labor requirements and the estimated costs of these requirements.

**Note:** Estimated costs are calculated for a work order only if you specify that you want to calculate them in the work order business unit.

- A Tool Requirement page, which contains a list of all the tools that are required for a task and the estimated tools usage costs.
- A Material Requirement page, which contains a list of all of the inventory requirements for a task and the estimated costs for these materials.
- A Procurement Requirement page, which contains a list of all of the non-inventory and open description items that you must procure for the task, along with their estimated costs.

# **Using Preventive Maintenance Projections with Microsoft Project**

If you want to analyze the projections using Microsoft Project, you can access the Microsoft Project Integration component and set up the search criteria to export data for either projection, work order, or both into Microsoft Project. If you export projections, you must enter the process instance ID for the particular projection run in the search criteria. After you enter the search criteria, you can save them and reuse them. Click the **Search** button, and a list of projections, work orders, or both appears. You can select the projection and work order data that you want to export to Microsoft Project, assign a name to the export file, and let the software insert key data for projection, work order, or both into the WM\_MSP\_AET\_DAT using the WM\_MSP\_AE process for access by Microsoft Project.

**Note:** You cannot import projection data from Microsoft Project to PeopleSoft Maintenance Management. However, you can import other work order data such as some work order header and task data.

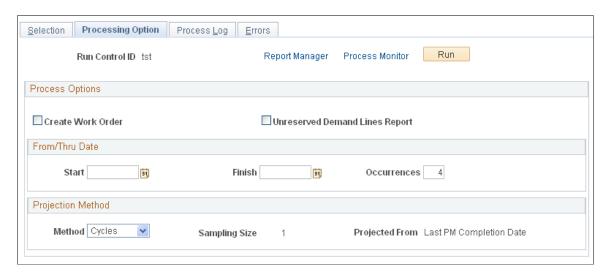
# **Run Projection - Processing Options Page**

Use the Run Projection - Processing Options page (WM\_PM\_RUN\_OPT) to define the processing options for preventive maintenance projections, which include creating a work order, the projection start and end dates, and selection of the projection method.

Navigation:

#### Maintenance Management > Preventive Maintenance > Run Projection > Processing Options

This example illustrates the fields and controls on the Run Projection - Processing Options page. You can find definitions for the fields and controls later on this page.



The Run Projection - Selection page is identical to the Run Preventive Maintenance - Selection page except for the **Show Override Options** only check box on the Run Preventive Maintenance - Selection page.

See Running the Preventive Maintenance Process.

Field or Control	Description
Create Work Order	Select to create work orders that are identical to the previously generated and analyzed projections.
	Note: Typically, most users want to run the Preventive Maintenance Projection process first without selecting this check box. After analyzing the projections that are generated, they can select this check box and create work orders based on the same run control and criteria that were used to generate the projections.

Field or Control	Description
Unreserved Demand Lines Report	Select this check box to enable a report showing the reservation exceptions to run. If you do not select this check box, the report will not run.
Start	Enter the date for the Preventive Maintenance Projection process from which to start generating the projections. If this field is populated, the <b>Occurrences</b> field is left blank.
Finish	Enter the date for the Preventive Maintenance Projection process from which to finish scheduling preventive maintenance. If this field is completed, the <b>Occurrences</b> field is left blank.
	Note: The generated projections fall between these start and finish dates.
Occurrences	Enter a number between 1 and 999. If you do not enter start and finish dates, then you enter the number of maintenance due dates that you want to include in the projections. The maximum number of projection occurrences is 999. If you complete this field, the <b>Start</b> and <b>Finish</b> fields are left blank.
Method	Select one of the following values:
	• Cycles
	• Days
	Readings
	Note: If you select a schedule on the Selection page, which uses Sampling as the Estimate Meter Usage method, then you can select one of these method values to override the one or more methods that you specified in the PM Schedule. The Preventive Maintenance Projection process uses the method that is selected here. You can also leave this field blank if you want to use the method that is selected for Sampling in the PM Schedule.
Sampling Size	If you selected <i>Cycles</i> , a <i>1</i> appears in this field. <i>Cycles</i> does not use a sampling size. For <i>Days</i> and <i>Readings</i> , enter the number of days that you want to include in the sampling size or the number of readings that you want to include in the sampling size.

Field or Control	Description
Projected From	Select one of the following values:
	Last PM Completion Date
	Current System Date
	Note: If a primary schedule is included in the selection list and is linked to one or more secondary schedules, any associated secondary schedules are automatically selected for processing.
	See Understanding Preventive Maintenance Schedules.

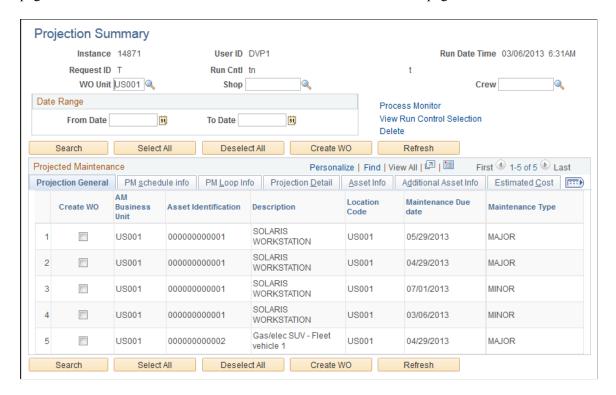
# **Projection Summary Page**

Use the Projection Summary page (WM\_PM\_PJC) to review a list of each of the preventive maintenance projections and their associated preventive maintenance schedules, and provides a link to the detail information for each projection.

Navigation:

#### Maintenance Management > Preventive Maintenance > View Projection Summary

This example illustrates the fields and controls on the View Projection Summary - Projection Summary page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Business Unit, Shop, and Crew	Select the work order business unit, shop, and crew to narrow your search to work order projections to which a crew will be assigned.
From Date and To Date	Enter the date range for the projections that you want listed.
Search	Click the search button to list the projections based on your search criteria. You can enter both crew and date range criteria, if you want.
View Run Control Selection	Click to view the details of the run control options that were used when this process instance was generated using the Run Projection process.
Process Monitor	Click to view the Process List and Process Servers that are associated with the selected process instance.
Create WO (create work order)	Select the projections in the list for which you want the system to create work orders, and click the <b>Create WO</b> button. The new preventive maintenance work orders appear in the Work Order Search Results. When you click the <b>Refresh</b> button, the projections that are selected to create the work orders are removed from the grid.

#### **Projection General**

Displays the AM business unit, asset identification, description, location code, maintenance due date, and maintenance type for each projection.

#### PM Schedule Info

Select the PM Schedule Info tab to view the information in the **Projection General** grid along with the work order business unit and the PM schedule ID for each projection.

#### PM Loop Info

Select the PM Loop Info tab to view the information in the **Projection General** grid along with the SetID that is associated with the Maintenance Loop and the maintenance loop ID for each projection. (This information appears only for projections that used the PM Loop Schedule.)

## **Projection Detail**

Select the Projection Detail tab to view the information in the **Projection General** grid along with the projection ID and a **View** link to the View Projection Detail inquiry for the specific projection ID. You click the **LINKED** link to access the Preventive Maintenance Linking page and review the secondary schedules linked to the primary schedule for a selected projection ID.

#### Asset Info

Select the Asset Info tab to view the information in the **Projection General** grid along with the asset type and subtype for each projection.

#### **Additional Asset Info**

Select the Additional Asset Info tab to view the information in the **Projection General** grid along with manufacturer ID and model for each projection.

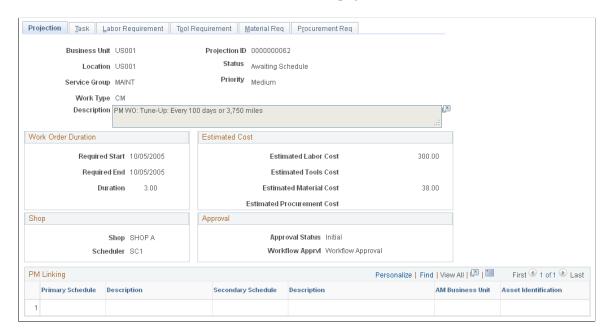
# **View Projection Detail - Projection Page**

Use the Projection page (WM\_PM\_PJC\_HDR) to review projection header information, including duration, estimated costs, shop, and approval statuses.

Navigation:

#### Maintenance Management > Preventive Maintenance > View Projection Detail > Projection

This example illustrates the fields and controls on the View Projection Detail - Projection page. You can find definitions for the fields and controls later on this page.



## **Projection**

The Projection page presents a summary of the projection and the information that will appear in the work order's header.

This page also lists all of the linked PM schedules and their descriptions.

#### **Task**

Select the Task tab to view a list of projected work order tasks based on the job template that is associated with the PM Schedule that is used for the projection.

- Select the General tab in the **Project Tasks** grid to review the task number, the duration, any task dependency, the overlap percentage, a crew ID if a crew was scheduled, and whether to calculate chargeback costs to another organization.
- Select the Estimated Cost tab to review the projected estimated tools, material, and labor costs for each task in the projection.
- Select the Asset Info tab to review the Asset Management business unit, asset ID, asset location, area ID, and whether the asset is functioning or offline for repair.

#### **Labor Requirement**

Select the Labor Requirement tab to review the labor requirements for each separate task, including a description of the task.

- Select the General tab in the **Requirements** grid to review each line (row) within the task, which includes the craft, the quantity of labor needed, and the unit of measure that is used to calculate the estimated cost of labor
- Select the Estimated Cost tab in the **Requirements** grid to review each line's labor cost rate and bill rate (default value derived from the shop that is identified in the PM Schedule) and the calculated estimated labor cost and estimated billing amount for each line.

**Note:** Click the arrow in the right-hand corner of the **Project Tasks** group box to review the lines for the next task (if the projection included more than one task.)

#### **Tool Requirement**

Select the Tool Requirement tab to review the tool requirements for each separate task, including a description of the task.

- Select the General tab in the **Requirements** grid to review each line (row) within the task, the asset type, subtype, manufacturer, and model characteristics of the tool along with the amount of tool usage.
- Select the Estimated Cost tab in the **Requirements** grid to review each line's quantity of tools needed and the unit of measure, along with the tool cost rate and bill rate (default value from the asset type and subtype or from the shop that is identified in the PM Schedule) and the estimated tool usage cost and estimated tool usage billing amount, which are calculated for each line.

**Note:** Click the arrow in the right-hand corner of the **Project Tasks** group box to review the lines for the next task (if the projection included more than one task.)

#### **Material Requirement**

Select the Material Requirement tab to review the inventory requirements for each separate task, including a description of the task.

- Select the General tab in the **Requirements** grid to review each line (row) within the task that includes the Inventory business unit, the item, the quantity required, and the unit of measure.
- Select the Estimated Cost tab in the **Requirements** grid to review each item's unit cost rate (default value specified in the item ID and derived from the work order task template that is associated with the job template in the PM Schedule) and the calculated estimated cost for each line.

**Note:** Click the arrow in the right-hand corner of the **Project Tasks** group box to review the lines for the next task (if the projection included more than one task.)

#### **Procurement Requirement**

Select the Procurement Requirement tab to review the labor, non-inventory material, and tool requirements that must be procured for each separate task, including a description of the task.

- Select the General tab in the **Requirements** grid to review each line (row) within the task that includes the resource type (labor, material, tools), the Inventory business unit, the item number, the quantity required, and the unit of measure.
- Select the Estimated Cost tab in the **Requirements** grid to review the estimated cost, which is based on calculating the estimated unit cost based on the resource type times the quantity required.

**Note:** Click the arrow in the right-hand corner of the **Project Tasks** group box to review the lines for the next task (if the projection included more than one task.)

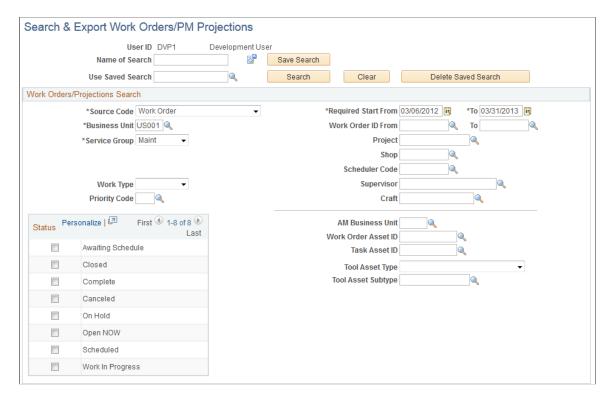
# Search & Export Work Orders/PM Projections Page

Use the Search and Export Work Orders/PM Projections page (WM\_MSP) to integrate preventive maintenance projections and work orders into Microsoft Project for analysis.

Navigation:

#### Maintenance Management > Work Order Management > Microsoft Project Integration

This example illustrates the fields and controls on the Search and Export Work Orders/PM Projections page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Name of Search	Enter a name to identify a search to use to filter data for the work order, preventive maintenance projects, or both. You can enter the search criteria in the <b>Work Order/ Projections</b> Search group box before you enter a name to identify the search for future use.
Save Search	Click to save the identified search after you enter the search criteria to enable you to reuse the search criteria again without having to reconfigure the search criteria.
Use Saved Search	Select a previously saved search name and click the <b>Search</b> button to display the search results based on the criteria that are specified in the <b>Work Order Projections Search</b> group box.

# Work Orders/Projections Search

Enter the search criteria to list the projections, work orders, or both that you want to export to Microsoft Project.

Field or Control	Description
Source Code	Select one of these values:
	PM Projection (preventive maintenance projection)
	Work Order
	Work Order and PM Projection
	This is a required field.
Business Unit	Enter a work order business unit.
	This is a required field.
Required Start From, To	Enter a Required Start From and To dates.
	This is a required field.
Service Group	Select a service group that is associated with the work order or projections.
	This is a required field.

Field or Control	Description
Process Instance	Enter the specific process instance in this field for the projections, which has a default value of <i>I</i> . If this search is just for work orders, then the process instance default value of <i>I</i> is read-only.
Status	Select the status of the work order, projection, or both if you want. Statuses are user-defined values, which are based on required system-defined values.

## **Work Order/PM Projections List**

When you click the **Search** button after entering the Search criteria, a list of work orders, projections, or work orders and projections appears. You can select the items from the list that you want to export into Microsoft Project.

Field or Control	Description
File Name	Enter a name for the file containing the selected projection, work order, or projection and work order data that you want to export into Microsoft Project.
Export	Click to insert the designated list of work orders and projections into the key fields of the WM_MSP_AEP_DATA table. An application engine process, WM_MSP_AE, exports the data into Microsoft Project.
Process Monitor	Click to monitor the WM_MSP_AE process.

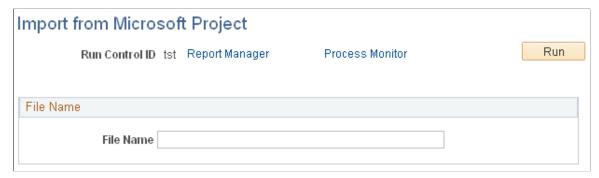
# **Import Microsoft Project File Page**

Use the Import Microsoft Project File page (WM\_MSP\_IMPORT) to import projection and work order data from Microsoft Project to Maintenance Management.

Navigation:

Maintenance Management, Work Order Management, Import From Microsoft Project

This example illustrates the fields and controls on the Import Microsoft Project File. You can find definitions for the fields and controls later on this page.



Field or Control	Description
File Name	Enter the name of the Microsoft Project File that you want to import into Maintenance Management. You can only import selected work order data that you exported. You cannot import projections that you exported.

# Approving Preventive Maintenance Schedules Using PeopleSoft Fluid User Interface

This section discusses approving preventive maintenance (PM) schedules using the PeopleSoft Fluid User Interface.

# Pages Used to Approve PM Schedules Using PeopleSoft Fluid User Interface

Page Name	Definition Name	Usage
Pending Approvals - Preventive Maintenance Page (List)	EOAWMA_MAIN_FL	Review and approve multiple PM Schedules.
Preventive Maintenance Page	EOAWMA_TXNHDTL_FL	Review and approve a single PM.

# **Pending Approvals - Preventive Maintenance Page (List)**

Use the Pending Approvals - Preventive Maintenance page (EOAWMA\_MAIN\_FL) to review and approve multiple PM Schedules.

Navigation:

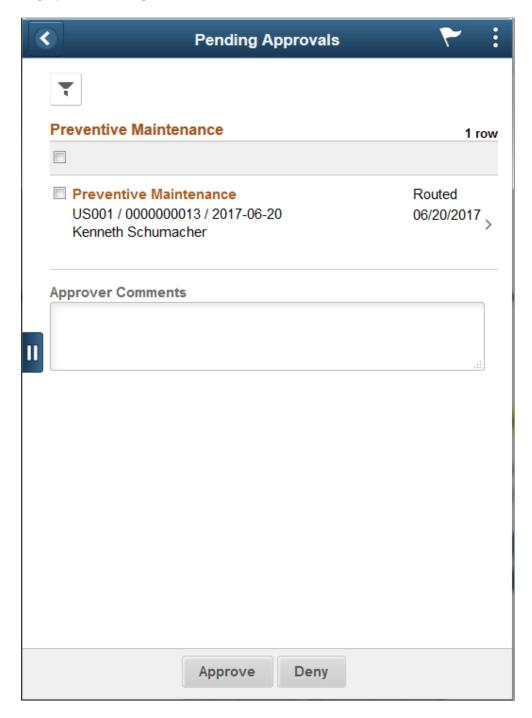
#### **Employee Self Service > Approvals**

On the Pending Approvals page, select Preventive Maintenance in the left pane.

This example illustrates the fields and controls on the Pending Approvals – PM Schedules list page. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Pending Approvals – PM Schedules list page as displayed on a smartphone. You can find definitions for the fields and controls later on this page.



You can review the header information for the PM schedules currently routed for approval. A PM schedule displays the business unit, PM schedule ID, effective date, requester's name, and routed date.

You can select one or more PM schedules on this page and perform a mass action (approve or Deny) on the selected schedules. To access the details of a PM schedule, select the particular row.

Field or Control	Description
Approve or Deny	Select to approve or deny one or more PM Schedules. The Approve or Deny buttons are enabled only if you select an individual PM schedule or multiple schedules.
Approver Comments	Enter comments in the text entry field.

Oracle PeopleSoft delivers Notification Composer Framework to manage the setup and administration of notifications in one central location. Once you have adopted the Notification Composer feature, you must use it to create new notifications and manage your existing notifications.

For more information about Notification Composer Framework, see "Understanding Notification Composer" (Enterprise Components).

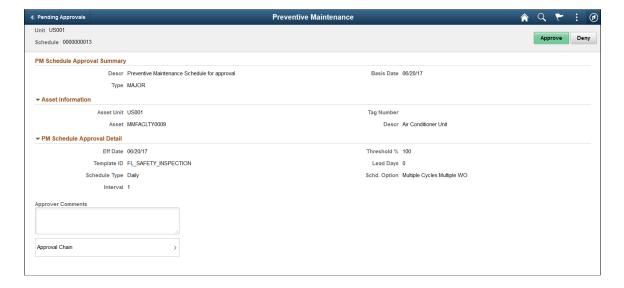
# **Preventive Maintenance Page**

Use the Preventive Maintenance page (EOAWMA\_TXNHDTL\_FL) to review and approve a single PM schedule.

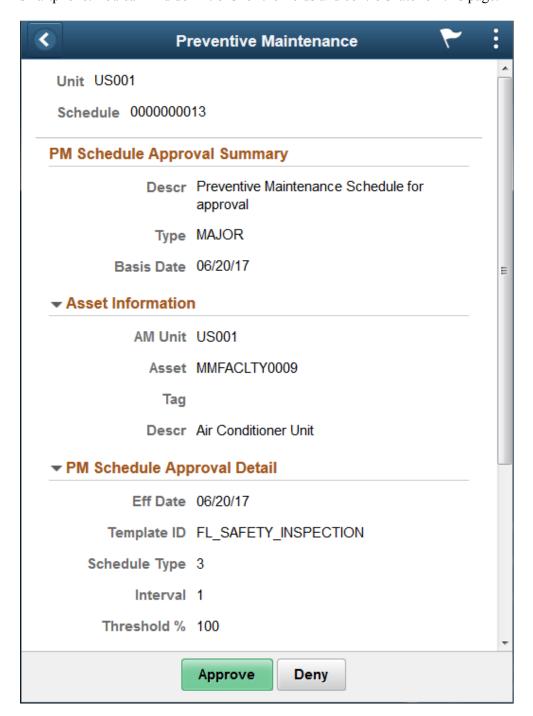
## Navigation:

Select a PM schedule from the list of pending schedules on the Pending Approvals – Preventive Maintenance list page.

This example illustrates the fields and controls on the Preventive Maintenance page. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Preventive Maintenance page as displayed on a smartphone. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Approve or Deny	Perform an action on the PM Schedule by selecting an approval action button. Upon selecting an action, you have the option to select Submit to continue the action, or Cancel to back out of the action. Upon submitting the action, the system generates a message that the action is successful.  Select Deny to reject the PM schedule and send it back to the requester.
Approver Comments	Enter comments in the text entry field.
Approval Chain	Select to review approval chain information. You can expand or collapse approver information for each line by selecting the Expand/Collapse icon. You can also select the approver name to view approver details.  The approval chain reflects approval status generated by the Approval Framework. For more information, see the product documentation for the <i>PeopleSoft Approval Framework</i> . See also "Understanding Transaction Approval Flows" (Approval Framework).

# **Chapter 13**

# Configuring PM Schedule Approval Workflow

# Understanding the PM Schedule Approval Workflow Architecture

To ensure that all PM schedules have proper authorization, the system is able to dynamically route PM schedules to the appropriate people for approval using business rules that you establish for your organization, based on your particular business needs. This section discusses:

- Terminology.
- Architecture.
- PM schedule approval workflow modifications.

# **Terminology**

This table provides definitions for the PM schedules workflow terminology that is used throughout these topics:

Term	Definition
Ad Hoc Approver/Reviewer	Technician or approver can add another user ad hoc to approve or review the current PM schedule only. The process definition is not modified, so it does not affect other PM schedule approval routings.
Approval Map	The graphic representation of an approval instance with stages, paths and steps.
Approval Path	A path is a group of sequential, related steps, such as approval steps based on a single department hierarchy (for example, manager, director, VP, and so on).
Approval Stage	A stage is a collection of paths. Stages come in a single sequence (stage 1, stage 2,) A stage runs when its immediately preceding stage finishes. When a stage runs, all the paths within it run simultaneously. The stage is considered complete when all paths within it have finished.

Term	Definition
Approval Step	The basic unit of approval. A step has one or more approvers, whose actions are tracked. A step can be configured to require a set number of approvers to act and has criteria that govern whether or not the step is to be active for the PM schedule.
Approver	Compliance Manager who is responsible for approving the PM schedule.
Criteria	A criterion is an entity, which evaluates to true or false. Criteria are used to determine which steps and paths are to be considered active for a particular request undergoing approval processing. Criteria can be configured by the functional analyst or can be canned queries, SQL objects, app classes, and so on.
Reviewer	The application routes PM schedules to reviewers for informational purposes, but reviewers do not need to take any action for the approval process.
User List	Approvers, reviewers, and other actors are grouped by roles and other means. The PeopleSoft Enterprise Components Approval Framework provides an abstraction across such aggregates, called Userlists.
PM Schedule Approval Process Definition	A set of rules to govern how the PM schedule approval process should flow for a business unit (SetID-based sharing) based on the business requirements. Within the process definition, stages, paths, and steps can be defined with different criteria and approver designations.
PM Schedule Approval Process Instance	A running instance of the approval process for a particular PM schedule with criteria evaluated and specific approvers known (routed or not routed).

#### **Architecture**

The PM schedule approval workflow uses the workflow framework provided by PeopleSoft Enterprise Components, rather than the standard PeopleTools workflow, which requires advanced technical skills in PeopleTools. Consequently, the PeopleSoft Maintenance Management workflow is easy to create and maintain. All the steps in the PM schedule approval workflow are defined using PeopleSoft pages and are designed so that functional users can easily set it up.

PeopleSoft Maintenance Management delivers the PM schedule approval workflow engine preconfigured. Oracle recommends using the delivered configuration as is, making minor modifications to suit your particular business practices. The PM schedule approval is delivered as system data, using the WM\_PM\_SCHD approval process ID. You can modify the definition to suit your implementation by defining your own phases, steps, and criteria. These definitions control who should approve the PM schedule, the order in which they approve it, and the method by which the system routes it to approvers. The approval process is keyed by SetID, and by using SetID sharing, each business unit can either have

its own independent PM schedule approval process configuration or share the same approval process configuration with other business units. Oracle recommends that you understand the workflow technology before making any changes.

See documentation PeopleSoft Approval Framework

PM schedules are routed to approvers so that they can act on the PM schedules to approve or deny them. If the approver approves a PM schedule, then it is routed to the next approver, if any. A submitter or approver can add ad hoc approvers for the current PM schedule as well. After the PM schedule is fully approved (or no approval is required), it is available to be selected by PM and Projection processes. If the approver denies a PM schedule, than the approval process is terminated. The submitter is notified of the denial and can optionally revise the PM schedule and resubmit it.

The following elements are used in the PM schedule approval process definition and are among the items you would modify to suit your business requirements:

Stages.

A stage is one part of an approval process that can contain multiple parallel paths. The system executes stages in sequence where one must complete before the next one begins. A stage consists of one or more paths.

Paths

A path contains a sequence of steps. Within a stage, paths execute in parallel. Path entry criteria determine whether a path executes for a given PM schedule.

• Steps

A step represents one or more approvers or reviewers. Steps within a path execute in sequence. Separate criteria for each step determine whether or not that step executes. Each step can also have a set of reviewers, who are notified about transactions pending approval by email, if configured, and through the Worklist. But the workflow proceeds without waiting for reviewers to act.

**Note:** While the approval process configuration may require any number of approvers to approve a step before it advances, any single approver can deny a PM schedule. After a PM schedule is denied, the system stops routing the PM schedule, the approval process terminates, and the entire PM schedule is denied.

The system notifies approvers of a pending approval by using Worklist and email. You need to define the individuals or roles that comprise a user list, and the authorized approvers. You can specify approvers by roles, queries, fixed lists, or by using custom application classes. Once the required number of approvers have approved a step, the approval workflow advances past that step.

# **PM Schedule Approval Workflow Modifications**

To make adjustments to the delivered PM schedule approval workflow process, complete the following tasks, which are discussed in detail in the remainder of these topics:

1. Update the PM schedule approval process definition by using the Approval Process Setup component (Enterprise Components, Approvals, Approvals, Approval Process Setup).

The approval process definition specifies the stages, paths, steps, and criteria for the workflow approval process.

 (Optional) update the method of notification that is used for approvals in the Notification Options Register of the Register Transactions page (Enterprise Components, Approvals, Approvals, Transaction Registry, Register Transactions.)

The transaction definition contains the metadata which describes the transaction make up to the workflow approval engine. PeopleSoft delivers the transaction registry for PM schedule approvals; you do not need to create it. As delivered, the system is configured to use emails and worklists.

- 3. Add or update user lists in the User List Definition page (Enterprise Components, Approvals, Approvals, User List Setup, User List Definition.)
- 4. Add or update PM schedule approvers in the Approval Authorization page (Enterprise Components, Approvals, Approvals, Authorize Approvers, Approval Authorization).

# Revising the Delivered PM schedule Approval Workflow

This section discusses how to:

- Modify the approval process definition.
- Define approval criteria.
- Define approval paths.
- Define approval steps.
- Authorize approvers.
- Modify approval notification options.
- Define generic notification templates.
- Maintain user list definitions.

# **Setup Process Definition Page**

Use the Setup Process Definition page for the WM PM SCHD approval process.

Navigation:

Enterprise Components > Approvals > Approval Process Setup > Setup Process Definitions.

See documentation PeopleSoft Approval Framework

These are fields on the Setup Process Definitions page that either do not apply to the WM\_PM\_SCHD approval process, or if they apply to the WM\_PM\_SCHD approval process, they require specific field values.

• The **Take Action on Line Completion** check box does not appear in the Definition Options group box, because the WM\_PM\_SCHD approval process only uses the header level.

- Header is the default value for the **Level** field because the WM\_PM\_SCHD workflow process only requires approval at the header level. You cannot change this value.
- Application Class criteria does not apply to the WM PM SCHD approval process.
- When you click the **Criteria** link in the Paths group box or **Criteria** icon in the Steps group box on the Setup Process Definitions page to access the Criteria Definitions page with a **Criteria Type** of *User Entered*, the Record field value should be WM\_PM\_SCHD for the WM\_PM\_SCHD approval process.

# **Creating a Service Request**

# **Understanding Service Request Creation and Use**

Service requests enable employees and non-employees, who may not have access to a help desk provider or PeopleSoft Maintenance Management, to enter a request by means of a self-service web page to repair, move, or maintain one or more of an organization's assets. When a user enters a service request to report a problem, an agent receives the service request. The agent solves the problem, assigns a technician to solve the problem, or creates a work order in PeopleSoft Maintenance Management, which is used to assign labor, material, and tools resources to solve the problem.

#### This section discusses:

- Service request product integrations.
- Service request setup.
- Service request process flow.
- Service request resolutions.

# **Service Request Product Integrations**

Service requests integrate with:

• PeopleSoft Asset Management.

When users create a service request, they normally identify the asset needing repair in the asset repository.

PeopleSoft Human Capital Management (PeopleSoft HCM).

If a service request user is an employee and the employee's organization has PeopleSoft HCM, then the system can synchronize the employee data with the PeopleSoft HCM data.

Third-party applications.

If the user is an employee, the organization can integrate the employee data from a third-party application.

PeopleSoft Maintenance Management.

Once the service request is created, an agent is assigned to manage the service request in PeopleSoft Maintenance Management. The agent can create a PeopleSoft Maintenance Management work order from the service request. In addition, the agent can associate a calendar with an employee (agent or technician) assigned to manage a service request by generating the employee as a resource using the Create Resource functionality in PeopleSoft Maintenance Management.

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**Note:** You can manually enter employees into the PeopleSoft Financials database. However, non-employees can also create a service request without being set up in the database. To create a service request, only a user ID is required.

## **Service Request Setup**

To create and process a service request, organizations must set up:

• Permission lists, user profiles, and roles.

See documentation PeopleTools: Security Administration

• Service request business units.

See <u>Understanding Service Request Business Units</u>.

• A service request business unit for specific users in the Define User Preferences, Maintenance Management page.

See "User Preferences - Maintenance Management Page" (Application Fundamentals).

• SMTP (Single Mail Transfer Protocol) settings.

See documentation *PeopleTools: System and Server Administration, Setting Application Server Domain Parameters* 

• Service request statuses. (Set Up Financials/Supply Chain, Product Related, Maintenance Management, Setup, Service Request Status)

See <u>Understanding Service Request and Work Order Statuses</u>.

• Problem, Cause, and Resolution (PCR) data (optional).

This includes problem, cause, and resolution definitions and problem groups.

- A problem tree, which is the source for much of the default data in a service request.
- Employees in PeopleSoft Maintenance Management or PeopleSoft HRMS and generate them as resources in PeopleSoft Maintenance Management.

See <u>Understanding Problem Tree Setup for Use in Service Requests</u>.

# **Service Request Process Flow**

Service requests are created in three different ways:

A requester creates a self-service service request using the Employee Self-Service > Service
 Request > Service Request Wizard component, which guides the requester step-by-step through the service request information.

**Note:** The requester can be an employee, a non-employee, or a representative, such as a manager.

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• A requester creates a self-service service request using the **Employee Self-Service** > **Service Request** > **Service Request** component, which enables a requester to complete the service request using a one-page format.

An agent creates a service request using the Maintenance Management > Service Request
 Management > Agent Service Request component, which enables the agent to not only create a
 service request, but also create a work order from the service request.

**Note:** Only the Agent Service Request component is documented in these topics. The Agent Service Request contains the same features as the self-service components, along with additional features, such as the **Create Work Order** button.

#### Service Request Problem Definition Using a Problem Tree

The fields that display in the Request Detail group box are based on the levels defined in a problem tree in PeopleSoft Maintenance Management and optionally on any additional fields your organization defines as supplemental data. The first node level of the problem tree represents the **Request Type** field, which lists the various categories of problems, such as Computers, Fleet-Vehicles, and Facilities, depending on how your organization sets up the tree. The next field, which represents the second level of the problem tree that displays on the page is dependent on your specific Request Type selection. For example, if you select *Computers* as the **Request Type** in the service request, then the next field name that displays is **Computers.** You then select from a list of different types of computer problems, which represent the next level in the problem tree, such as *Hardware* and *Software*. The field name or names that display next on the page are dependent upon the field value you select. For example, if you select the field value *Hardware*, then field name **Hardware** displays next on the page. You then select from a list of Hardware problems, which are defined in the next level of the problem tree, such as *Mouse doesn't work*, *CD ROM doesn't read*, *Printer does not work* and more. Your selection of this field value determines what other field names appear on the page.

The problem tree fields control the asset identifier that displays in the service request. If the service request is used for a facilities move, the problem tree controls whether special Facilities Move Request fields appear in the service request. If you add fields using supplemental data, the supplemental data fields are dependent on the last node value selected in the problem tree. For example, if you created a supplemental data field, Operating System, that is associated with the selection of *CD ROM*, then when you select *CD ROM* in the service request, the **Operating System** field displays.

The problem tree provides several methods of filtering the eligible assets for a problem identified on the service request. You can specify the asset classification characteristics (asset type, subtype, manufacturer, model), asset ownership (employee assets), and smart tags.

A smart tag is a tag number, which is used to identify eligible assets and is subdivided into groups of characters where each group represents a particular attribute of an asset. For example: C4BFGMTR0002 – where C4 represents "combustion turbine 4", BFG represents "boiler flue gas system", MTR represents "motor", and 0002 represents a sequential equipment number. Even though you have the capability to narrow down asset selection in a service request by asset classification and ownership, smart tags can allow for even more flexibility and fine-tuning.

See Creating a Problem Tree for Use in Service Requests.

#### Supplemental Data in a Service Request

You can also define supplemental data fields that display in the service request and further specify the problem. When either a requester or agent creates a new service request and selects values that display

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based on the problem tree setup, additional fields may appear, based on the setup of supplemental data, that prompt the user for more information about the problem. For example, if you select the value, *Mouse doesn't work*, which is derived from a level in the problem tree, and you set up two additional supplemental data fields such as, **Operating System** and **Type**, these fields appear in the service request. You can then select values for each of these fields to better describe the problem. A set of supplemental data accompanies PeopleSoft Maintenance Management, which you can use or modify depending on the needs of your organization.

See <u>Understanding Supplemental Data</u>.

#### **Facilities Move Request**

You can also create a special type of service request called a facilities move requests. A facilities move is a request to move an employee's office or one or more pieces of office equipment to another office. If you create a problem tree for a facilities move request and define the WM\_MOVE\_SBR in the Subrecord field, these system-defined fields appear in the request:

- Move From Location.
- Move To Location.
- Charge To Department.
- Move Employee.
- Move Phone.
- Move Equipment and Furniture.

If a work order is created, these fields are copied to the work order description field or work order notes to enable a technician to see the details of the move on the printed work order.

#### Submitting a Service Request or Facilities Move Request

For service requests, requesters have the option of selecting the specific asset requiring service, as well as the asset's location. They can specify search criteria to locate an asset in PeopleSoft Asset Management asset repository.

In addition, requesters can further define the problem and add any number of attachments such as documents, diagrams, and screen shots, which can help describe the problem.

When the requester selects the **Finish** button in the Service Request Wizard component or selects the **Submit** button in the Service Request single-page component, the service request is saved and the requester is transferred to the My Service Requests component where the new service request appears at the top of the list. From the My Service Requests page, a requester can view, add notes and attachments, and close or reopen a completed request.

If a technician or agent requests more information from the requester, an alert indicator appears on the request line of the My Service Requests page, which instructs the user to E-mail a reply. Submitting a service request also sends it to the Service Request Inbox in PeopleSoft Maintenance Management, which is shared by one or more agents.

Either a user or an automatic process may trigger state transitions for a service request. Users trigger state transitions by selecting buttons or changing a field status. Automatic processes include the completion or cancellation of a work order.

### **Service Request Assignment and Processing**

Once a requester creates a service request, any employee who is set up in an agent's role may access it through the Service Request Inbox.

#### An agent can:

- Change the contact information, re-categorize the request type, change the asset information, and add notes and attachments to the service request.
- Solve the problem and change the status of the service request to complete.
- Request more information from the requester about the problem.
- Assign the service request to a technician if more work is required without creating a work order.
- Create a work order in PeopleSoft Maintenance Management if more work is required.
- Cancel an existing work order.

The following table describes the types of individuals typically involved in the service request process and the activities each one performs.

**Important!** There are specific roles and permission lists already created for PeopleSoft Maintenance Management in the sample data included in your software. You should base your setup on this data and not the roles and permissions described in this table.

Individual Responsible	Activity
Requester	Creates a service request using the self-service service request options.
Agent	Create and manage service requests and create work order.
Service Request Technician	Create and manage service requests and create work order
Planner/Scheduler	Plans workload and schedules technicians for work orders.
Work Order Technician	Performs work identified on work order.

The agent's user ID is the default value in the **Assigned To** field on the service request. The agent can assign a service request to a technician or another agent. However, you must set up this agent in the agent role and the technician role before an agent can assign the service request. In addition, you must define the technician's role in the problem tree, which determines the resources that are listed on the drop-down list for the **Assigned To** field in the service request. If the agent changes a service request's category, then the list of technicians can also change.

After an agent creates a work order, a planner assigns it to a work order technician. The work order technician may or may not be the same individual as the service request technician. From the Technician Workbench component, the work order technician can drill down to the work order and then drill down

further to access the Service Request. The technician for the work order can also access any assigned service requests by selecting a link directly in the Technician Workbench component, which displays a list of the technician's assigned service requests. The technician for the work order can request more information from the requester by sending the requester an email directly from the work order Notes page. *Pending* displays in the **Notes** field in the requester's My Service Request page for the service request submitted by the requester. When the requester responds to the note, then *Replied* displays in the **Notes** field of the Service Request Inbox, as well as in the Technician Workbench.

### **Service Request Resolutions**

Agents and technicians resolve service requests by:

• Completing a service request, which automatically generates an email notifying the requester that a simple service request was resolved.

When the agent or technician changes the status to complete and saves the service request, the system sends an email to the requester indicating the completion of the service request and its closing in a specified number of days. If not satisfied with the results, the requester may reopen the service request. The email to the requester contains a link to the Service Request Update page.

• Canceling a service request, which automatically generates an email notifying the original requester of the cancellation.

The requester has no recourse for the cancellation of a service request other than opening a new service request or asking the agent to open a new service request.

• Creating a work order for a service request that cannot be easily resolved.

This generates a new work order number and copies it back to the service request. The agent can make changes to the work order or make changes to the service request to update the work order. In the latter case, the work order is updated with changes made to the service request based on the following rules:

- If the work order status is identified as the Initial Status in the Work Order Status Setup page, if you change contact information, request type, problem summary and detail, and asset information in the service request, the system updates this information on the work order.
- If the work order status is anything other than Initial, only a change in the contact information on the service request is updated in the work order.

**Note:** Contact information includes only the contact method and alternate email address or phone. Agents and technicians cannot change the **Requested For** field once a work order is created. They cannot change the **Requested By** field in the service request once service request is submitted.

• Associating multiple, related service requests with a single work order.

The requestor can use the Service Request Inbox or the Agent Service Request to establish a relationship between multiple service requests and a single work order. Once the work order is complete, all associated service requests have their status set to '*Completed*.' You can also implement email alerts so that all requestors are notified of the completion. The many-to-one relationship can help improve maintenance planning and scheduling, and reduce overall asset downtime by addressing multiple service requests at once.

See the Associate to Existing WO (Work Order) Page.

Canceling a work order.

An agent or technician may cancel a work order created from a service request if the work order status is set to Initial. However, if the work order status is set to a status other than Initial and the work order's status allows a transition to Canceled, then when the service request agent or technician selects the Cancel Work Order button in the Service Request, the system sends an email to the assigned planner or technician requesting the cancellation of the work order. The planner or technician can decide to cancel or not cancel the work order. The system notifies the agent if the work order was canceled, which automatically cancels the service request. A notification is also sent to the requester that the service request was canceled.

Completing a work order.

The system notifies the requester that the work order is complete and that the service request will be closed automatically based on the number of days specified in the service request business unit. The system notifies the requester that if the work is unsatisfactory, the requester may click on the URL in the email and access the Update Service Request page and reopen the service request.

All PeopleSoft Maintenance Management users, excluding the original service request requester, can view the audit history of a service request.

## **Creating and Managing a Service Request**

To create a service request use:

- The Service Request Wizard (WM ADD WR WIZARD) component.
- The Service Request (WM ADD WR SS) component.
- The Agent Service Request (WM WORK REQUEST) component.

To review and manage service requests, use the:

- Service Request Inbox (WM\_REQUEST\_INBOX) component.
- My Service Requests (WM MY REQUESTS) component.

This section discusses how to create a service request as an agent in PeopleSoft Maintenance Management and use the service request inbox.

## Pages Used to Create a Service Request

Page Name	Definition Name	Usage
Service Request Page	WM_WORK_REQUEST	Update an existing service request or create a new service request within the Maintenance Management system.

Page Name	Definition Name	Usage
Associate to Existing WO (Work Order) Page	WM_ASSOC_WO_SEC	Add a service request to an existing work order and view detailed work order information
Create Work Order	WM_CREATE_WO_SEC	Select a shop and modify the priority of the work order. Create a work order and update the service request with the work order's ID.
Monthly Schedule	RS_SCHED_MONTH	Review assignments.
Task Details Appointment Details	RS_SCHED_APPT	Enter task appointment details and occurrences for a specific time related to a task category.
Daily Schedule	RS_SCHED_DAILY	Review hourly assignments for a specific time and day and click hour link to access the Appointment Details page.
Appointment Details	RS_SCHED_APPT	Enter specific details for the appointment.
Service Request Inbox Page	WM_REQUEST_INBOX	Locate and access service requests assigned to agents and technicians.
Audit History	WM_WR_AUDIT	Track the modifications to a service request.
Create Service Request	WM_WORK_REQUEST_SS	Create a one-page, self-service service request in the Maintenance Management system.
My Service Requests	WM_MY_REQUESTS	Review and modify self-service service requests.
Service Request - Requested By	WM_WR_BY_WIZ	Create a service request step-by-step in the Maintenance Management system.
Service Request - Requested For	WM_WR_FOR_WIZ	Identifies the employee contact information for this employee, if the user indicated that this request was for someone else on the Requested By page, otherwise it uses the requested by employee name.

Page Name	Definition Name	Usage
Service Request - Request Type	WM_WR_TYPE_WIZ	Access the next level in the problem tree to define the problem based on the levels and fields that were set up in the problem tree.
Service Request - Request Detail	WM_WR_SUPLDATA_WIZ	Review the type of supplemental data that is attached to a specific problem. Data is informational only. If this is a Facilities Move service request, the supplemental data is predefined in the system.
Service Request - Fulfillment Detail	WM_WR_DETAIL_WIZ	Identify the service center and the specific asset information, and add attachments.
Service Request-Summary	WM_WR_SUMMARY_WIZ	Summarizes the previously entered service request information.
Asset Search Page (WM_ASSET_SRCH_SEC)	WM_ASSET_SRCH_SEC	Enter search criteria and display a list of assets that fall within the entered criteria.

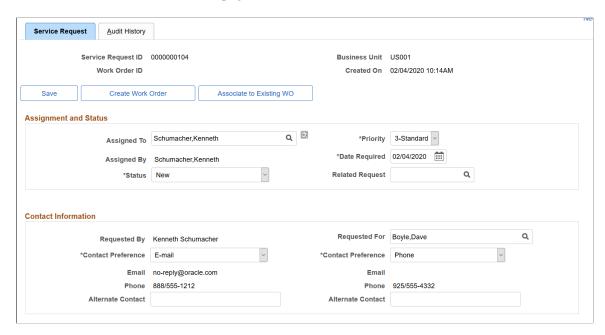
## **Service Request Page**

Use the Service Request page (WM\_WORK\_REQUEST) to update an existing service request or create a new service request within the Maintenance Management system.

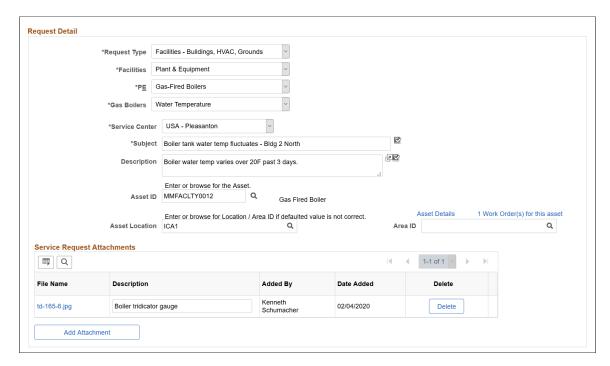
Navigation:

Maintenance Management, Service Request Management, Agent Service Request

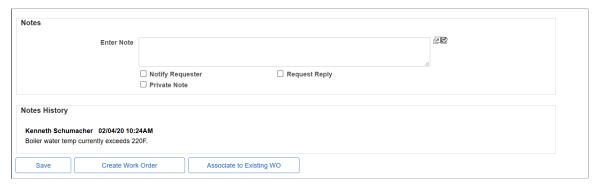
This example illustrates the fields and controls on the Service Request page. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Service Request page. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Service Request page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Save	Click this button to save the service request.
	Important! You cannot create a work order until you save the service request.
Create Work Order	Click this button to create a work order from a service request if the service request cannot be solved by the agent or technician without requiring a work order.  When you click this button, you access the Create Work Order secondary page. Use the Create Work Order page to identify the shop to associate with this work order and modify the priority of the work order, if necessary.  When you select <b>OK</b> , the work order is created and the <b>Work Order ID</b> field on the service request is updated and serves as a link to the work order.
	Note: This work order is not automatically submitted for approval. It is available to the planner to review and submit it for approval, if necessary.  Important! You cannot create a work order until you save the service request.

Field or Control	Description
Associate to Existing WO (Associate to Existing Work Order)	Click this button to access the Associate to Existing WO (Work Order) Page and add this service request to an existing work order. The page also contains detailed work order information—such as work order type, service request problem match, and approval status—to help determine which work order is appropriate for this service request.  This button only appears when:  The service request status is either new or in progress.  The work order ID is unpopulated.  One or more open work orders exist for the target asset.  The Request Type problem tree and target asset ID have
Unassociate WO (Unassociate Work Order)	Click this button to remove the association between this service request and the existing work order you selected.
	<ul> <li>This button only appears when:</li> <li>The service request is associated with an existing work order.</li> <li>The service request is a follow on request (that is, the service request must be an additional request, secondary to the primary request).</li> <li>The work order must have a status other than 'Completed' or 'Canceled.'</li> </ul>

# **Assignment and Status**

Field or Control	Description
Assigned To	Select from a list of all of the technicians associated with the technician role on the service request. An agent must belong to the technician role to appear in the list.
	Note: If an agent or technician is not set up as a resource in PeopleSoft Maintenance Management, the agent's monthly calendar is not available.
Monthly Calendar	Click this icon to access the agent or technician's Monthly Schedule page. Schedules are discussed in detail in the "Setting Up Labor and Tools Resources" topic.  See Monthly Schedule Page.

Field or Control	Description
Priority	Select the priority of this service request from the drop-down list as being <i>Critical, Urgent, Standard,</i> or <i>Low.</i>
	Note: The service request priorities are predefined in the PeopleSoft Maintenance Management system. Work order priorities are user-defined.
Assigned By	Displays the name of the agent who picks up the service request. If the <b>Assigned To</b> field value is changed, the system updates this field with the name of the current user.
Date Required	Displays the date when a service request is created either by the agent or the requester. The agent or requester can change this date.
	Note: If an agent creates a work order based on this service request, this date is copied to the Required Start and End date fields in the work order.
Status	Select the current status of this service request.
	Note: This field is only available to the agent.
Related Request	Select the service request that is related to this service request. For example, a service request may have been closed and the requester notified the agent that the problem was not corrected. The agent creates this new service request and uses this field to select the previous service request to serve as additional information. This field is also useful when a user submits a service request when a server is down and an agent creates a work order. Other users report the same problem and the agent sets the related requests to the original request with the work order.

### **Contact Information**

Field or Control	Description
Requested By	Displays the agent's name if the agent is creating a new service request. If an agent is updating an existing self-service service request, this is a read-only field that contains the name of the requester who created the self-service service request.

Field or Control	Description
Requested For	Select the name of the original requester if you are creating this service request for someone else. For example, if this service request was closed before it was actually completed, the agent creates a new service request and identifies the requester of the old service request in this field. If an agent is updating a service request, this field displays the name of the person selected by the requester on the self-service service request. If the agent does not select a name, the <b>Requested By</b> name is the defaulting field value.  Note: If the Contact Preference is set to E-mail, the system sends an E-mail to this person indicating that the service request has been completed.
Contact Preference	Select the preferred way to contact the requested by and requested for parties. Once an agent or technician completes the service request, the users specified in the requested by and requested for fields receive an email informing them of this fact.
Email	Displays email address of the requester based on the user profile setup.
Phone	Displays an employee's phone number. If the requester is a non-employee, a phone number is not displayed in this field.
Alternate Contact	Enter another method of contacting the requested by and requested for employees, such as a mobile phone number or an alternate email address.

## **Request Detail**

Field or Control	Description
Request Type	Select the category that best describes this service request problem. If this is a facilities move service request, predefined data fields appear.  Note: This row can display more than once depending on the number of levels in the Problem Tree page. The remaining fields on this page depend upon the problem tree's setup
	method for this request type, as well as any supplemental data setup.

Field or Control	Description
Service Center	Select the service center field to route the service request to the location where the agent works. Normally the user (requester) selects a service center, which is the location where the agent works. If agents select a service center, this routes the service request to their own in box or to the in box of another agent. The drop-down list consists of locations that are valid for the problem that is identified in the problem tree. The default field value comes from user preferences or the service request business unit definition provided it is a valid value in the problem tree. The list of valid values is defined in the Service Center Information group box on the Problem Tree page.
	Note: This is not necessarily where the problem is fixed. For example, the agent may send the service request to reinstall a hard drive in a computer to a service center (fulfillment location). However, the service center may send the computer back to the factory.
Subject and Description	Enter a short description of the problem in the <b>Subject</b> field, such as "Mouse not working." Add additional details about the problem, which might include any system messages you received or what you were doing when a piece of equipment failed in the <b>Description</b> field.
Asset ID	Click the <b>Search</b> icon to display the Asset Search page (WM _ASSET_SRCH_SEC), where you can enter search criteria to locate a specific asset in the asset repository.  If the asset for which you are searching is defined in an Asset Component Hierarchy—which is set up in PeopleSoft Asset Management and is a parent asset containing child components—you can click the <b>Hierarchy</b> icon and search for a specific component of the asset to apply to the service request.
	Note: The field name in the service request detail information will appear as Asset ID, Tag Number, Serial ID, Vehicle ID  Number or it can be blank depending on the Asset Lookup  Field that you select on the Problem Tree.  See Asset Search Page (WM_ASSET_SRCH_SEC).
Asset Details	Click to access the Asset Information page and view details about the asset, such as business unit, serial ID, and asset type.

Field or Control	Description
(Number) of Work Orders for this asset	Click to access the <u>Work Order Workbench Page</u> and view details related to all open work orders associated with the asset.
Asset Location	Override the default location associated with the asset, if necessary. You can also leave this field blank. If you create a work order this field's value is copied as the asset's location in the work order.

#### **Attachments**

Field or Control	Description
Add Attachment	Click the Add Attachment button to enable you to browse and upload any files essential to this service request, such as a screen shot of an error message, an authorization from a manager to move, or the readings from a piece of equipment.  You can also access these service request attachments by clicking a link on the Work Order, Requirements, or Schedules pages of the Work Order component (Maintenance Management > Work Order Management > Work Order.) In addition, you can access service request attachments by clicking the Procedures link on the Technician Workbench page and clicking the View link in the Attachments column on the Procedures page. (Maintenance Management > Workbenches > Technician Workbench)

#### **Notes**

Enter any notes or special instructions that apply to this service request. The system keeps a history of any events that transpire between the agent and the requester, and it also keeps a record of any communication between the technician and the requester. The contact for a work order originating from the service request is the requester.

If the requester, who is identified in the **Requested By** field, entered the service request on behalf of another person, who is identified in the **Requested For** field, the requester is the one who receives requests for more information and responds to those requests. The only time that the individual on whose behalf the request was entered is notified is when the service request is complete.

Notes entered here also appear on the associated Work Order Notes Page.

Field or Control	Description
Notify Requester	Select this check box to automatically notify the requester.
Request Reply	Select this check box to request that the receiver of this note (requester) reply to the contents of the note. The <b>Notes</b> field on the <b>Employee Self-service</b> > <b>Service Request</b> > <b>My Service Request</b> page indicates to the requester that the note is pending. When the requester opens the service request, the note appears in the Notes History group box. The requester can click on the <b>Reply</b> button and enter a reply to the original note.
	Note: When the requester responds to this note, the Notes link in the work order and the link in the technician's workbench indicate that a reply is awaiting review.
Private Note	Select this check box to prevent requesters from seeing this note.

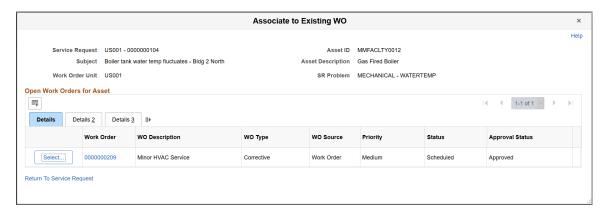
### **Notes History**

A record of each note displays in this group box, which includes the note's content, author, date, and time. The system keeps a running history when you save the page.

## Associate to Existing WO (Work Order) Page

Use the Associate to Existing WO page (WM\_ASSOC\_WO\_SEC) to add a service request to an existing work order and view detailed work order information, such as work order type, service request problem match, and approval status.

This example illustrates the fields and controls on the Associate to Existing WO page.



Use the detailed information on this page to help determine which work order is appropriate to associate with a service request.

The **Details 3** tab contains particularly useful information:

Last Task: This field indicates the number of tasks associated with the work order. A work order with
more than one task associated with it may indicate its complexity and whether more than one problem
for the target asset is being addressed.

- **WO Primary Asset:** This field indicates whether the target asset has been specified on the work order header (versus only appearing on one of the tasks).
- **SR Problem Match:** This field indicates whether the Problem Group and Problem Code combination for the service request matches the information in the work order task content.
- Service Request: This field indicates the number of service requests already associated with the work order.

Click the **Select** button (for the desired work order) to access the Associate Work Order page and indicate whether a new task should be added to the work order. On the Associate Work Order page use the **Associate** button to confirm your work order selection.

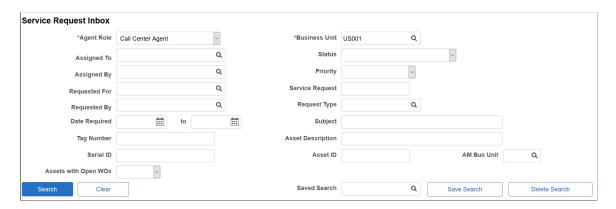
## **Service Request Inbox Page**

Use the Service Request Inbox page (WM\_REQUEST\_INBOX) to locate and access service requests assigned to agents and technicians.

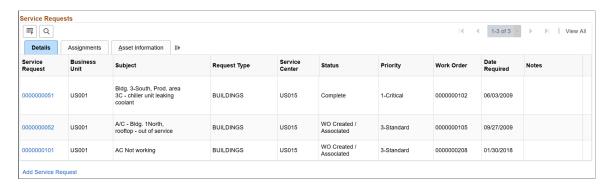
Navigation:

Maintenance Management, Service Request Management, Service Request Inbox.

This example illustrates the fields and controls on the Service Request Inbox page. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Service Request Inbox page. You can find definitions for the fields and controls later on this page.



Use these fields to narrow your search results:

- Agent Role
- Business Unit
- Assigned To
- Status
- Assigned By
- Priority
- Requested For
- Service Request
- Requested By
- Request Type
- **Date Required** (date range)
- Subject
- · Tag Number
- Asset Description
- Serial ID
- Asset ID
- AM Business Unit (Asset Management Business Unit)
- Assets with Open WOs (Assets with Open Work Orders)

Field or Control	Description
Save Search	Click this button to save your search criteria or click the <b>Search</b> button if you do not want to save your search criteria after selecting values to narrow your search for any of these fields:
Saved Search	Select one of your saved search criteria and then select the Search button to list the service requests bases on the selected search criteria.
Add Service Request	Click this link, which appears below the Service Requests grid, to access the Agent Service Request search page to add a new service request. When you click Add, the Service Request page displays and you can enter data for a new service request. You can click a link on the Service Request page that will return you to the Service Request Inbox.

### **Service Requests Tabs**

After you perform a search, a list of service requests displays in this tab, which enables you to access the actual service request, as well as review its details. It also enables you to review assignments.

#### **Details Tab**

Click on a **Service Request** link in the Details tab to display the actual service request. This tab also displays a service request's fields including the business unit, request type, service center, status, priority, the work order ID, the date required, and an indicator that a requester has replied to a service request note from the agent or technician.

### **Assignments Tab**

This tab displays service request fields, which include the subject, request type, related request, requested for, assigned by, and assigned to fields.

**Note:** Once a work order technician links to the Service Request Inbox from the Technician's Workbench page in PeopleSoft Maintenance Management, the **Assigned To** field contains the technician's name and lists only this technician's assigned service requests.

#### **Asset Information Tab**

This tab displays asset information associated with each service request, which includes the asset description, tag number, serial ID, asset ID, AM business unit, and open work orders.

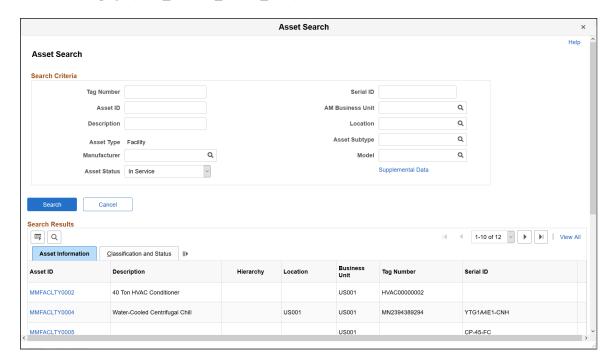
## Asset Search Page (WM\_ASSET\_SRCH\_SEC)

Use the Asset Search page (WM\_ASSET\_SRCH\_SEC) to enter search criteria and click the Search button to display a list of assets that fall within the entered criteria.

Navigation:

Click the Lookup Asset icon (next to the Asset ID) on the Service Request page.

Asset Search page (WM ASSET SRCH SEC)



#### Search Results

Field or Control	Description
Hierarchy (icon)	If you set up an asset hierarchy for an asset in PeopleSoft Asset Management, a Hierarchy icon appears in the Search Results. Click this icon to access the Asset Component Hierarchy page in PeopleSoft Maintenance Management, which displays the asset and any associated components.  You can view the component hierarchy of the asset and the asset components that comprise the hierarchy from the Asset Component Hierarchy page. Just like the Advanced Asset Search page you can select any asset that is displayed in the hierarchy returning the selected asset to the work order page from which you originated the asset search.

# Creating a Service Request Using PeopleSoft Fluid User Interface

This section discusses creating Service Requests and updating Service Requests using the fluid user interface.

PeopleTools documentation regarding the PeopleSoft Fluid User Interface includes:

• PeopleTools: Fluid User Interface Developer's Guide.

• PeopleTools: Applications User's Guide, Working With PeopleSoft Fluid User Interface.

Click to watch a short video about PeopleSoft Fluid User Interface - Getting Started.

## **Pages Used to Create a Service Request**

Page Name	Definition Name	Usage
My Requests Page	WM_MY_REQUESTS_FL	View list of requests entered by a requester.
Service Request — Requester Page	WM_WR_BY_WIZ_FL WM_WR_FOR_WIZ_FL	View the requester's contact information that is Requested By and Requested For information.
Service Request — Problem Type Page	WM_WR_TYPE_WIZ_FL	Select the type of problem.
Service Request — Request Details Page	WM_WR_DTL_WIZ_FL	Enter the request details.
Service Request — Submit Page	WM_WR_SUM_WIZ_FL	Review request details and submit the service request.

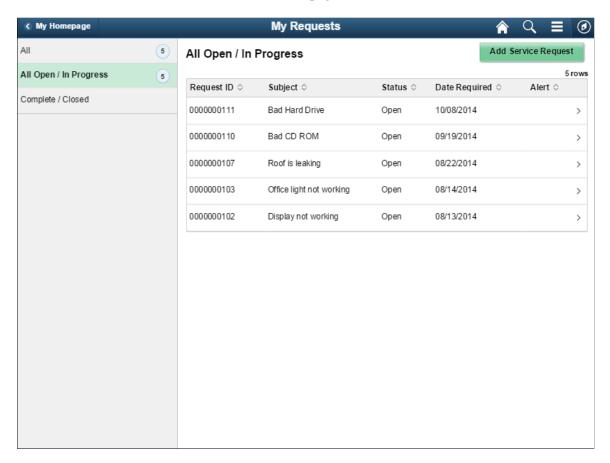
## My Requests Page

Use the My Requests page (WM\_MY\_REQUESTS\_FL) to view list of requests entered by a requester. Select any row in the list to view the particular service request details.

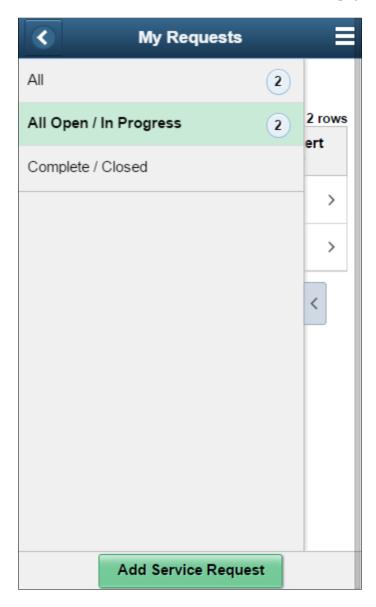
Navigation:

Fluid Home > Employee Self Service > My Service Requests

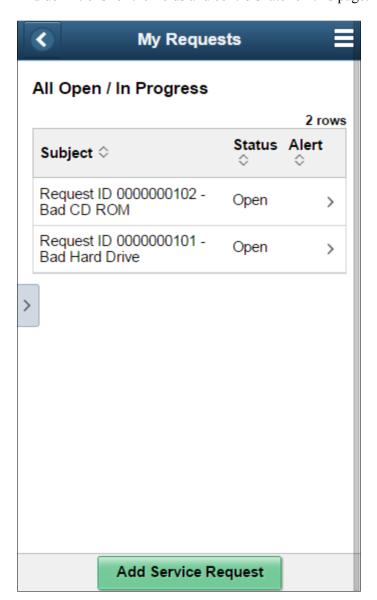
This example illustrates the fields and controls on the My Requests Page on a Tablet. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the My Requests Page (1 of 2) on a Phone. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the My Requests Page (2 of 2) on a Phone. You can find definitions for the fields and controls later on this page.



Field or Control	Description
	Select to see a list of available actions for the current window.  Access pages to personalize window content or sign out.
Add Service Requests	Select to access the Service Request page where user can create a new service request.

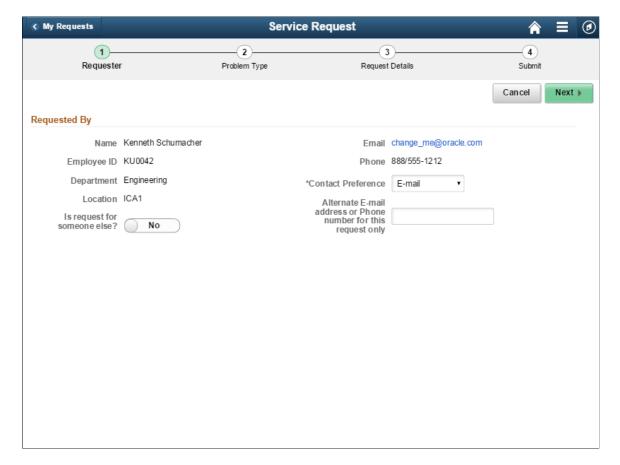
# Service Request — Requester Page

Use the Service Request — Requester page (WM\_WR\_BY\_WIZ\_FL) to view the requester's contact information.

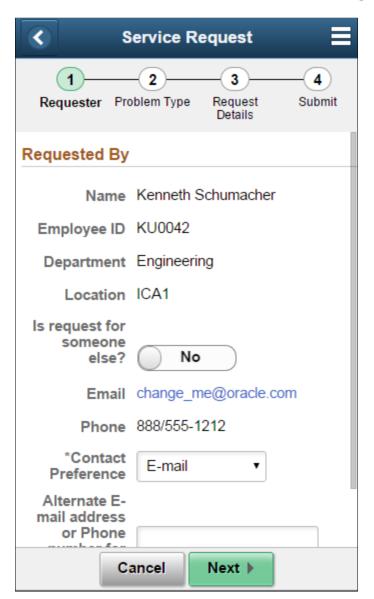
Navigation:

### Fluid Home > Employee Self Service > My Service Requests > Add Service Request

This example illustrates the fields and controls on the Service Request - Requester Page on a Tablet. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Service Request - Requester Page on a Phone. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Cancel	Select to return to the My Requests page. On clicking this button a message will pop-up asking if the user wants to cancel the service request or not.
Next	Select to navigate to the next page.
Is request for someone else?	Swipe to choose between Yes or No option.

Field or Control	Description
Contract Preference	Select to choose suitable option from the drop—down list. Available options are:  Do Not Contact  E-mail Phone
Alternate E-mail address or Phone number for this request only	Select to enter alternate E-mail address or Phone number.

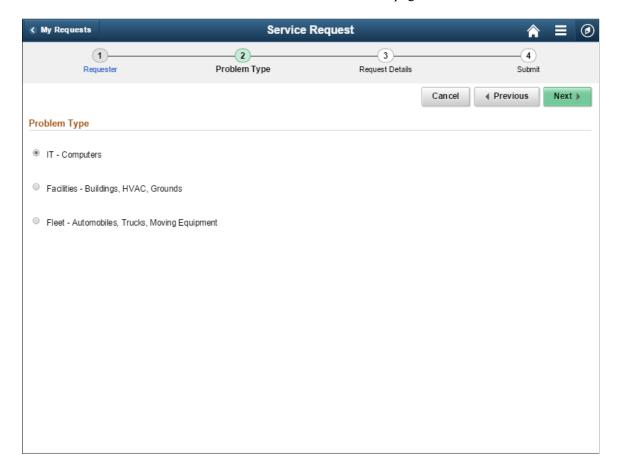
## Service Request — Problem Type Page

Use the Service Request — Problem Type page (WM\_WR\_TYPE\_WIZ\_FL) to select the type of problem. Based on the type of problem selected a series of pages will be displayed for the user to further narrow down the type of problem.

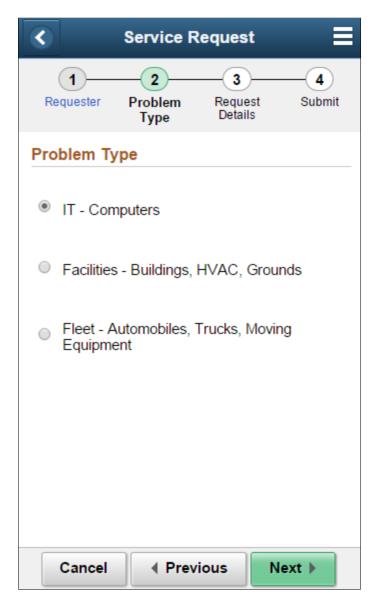
Navigation:

Fluid Home > Employee Self Service > My Service Requests > Add Service Request

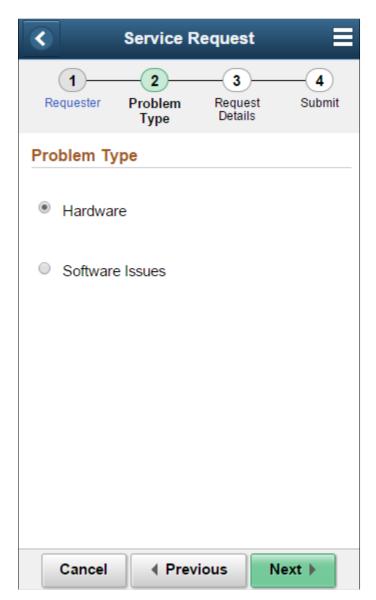
This example illustrates the fields and controls on the Service Request - Problem Type Page on a Tablet. You can find definitions for the fields and controls later on this page.



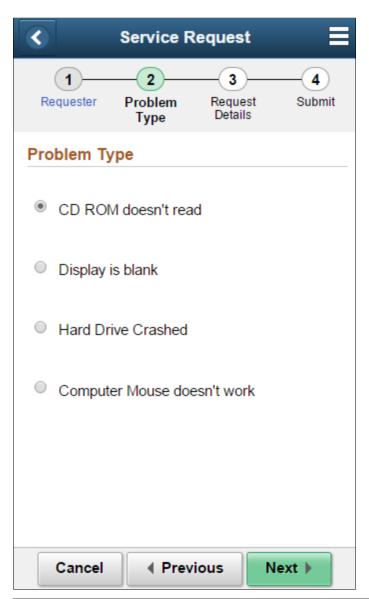
This example illustrates the fields and controls on the Service Request - Problem Type Page on a Phone. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Service Request - Problem Type Page (2 of 4) on a Phone. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Service Request - Problem Type Page (3 of 4) on a Phone. You can find definitions for the fields and controls later on this page.

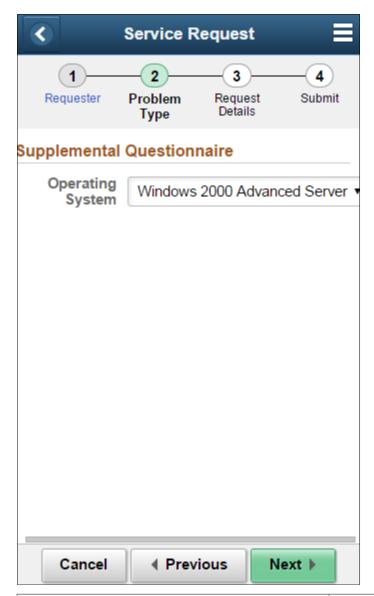


Field or Control	Description
Previous	Select to return to the previous page.
Problem Type	Select the appropriate Problem Type. Based on the type of problem selected a series of pages will be displayed where the user can select options to further narrow down the type of problem.

### **Supplemental Questionnaire**

Use the Supplemental Questionnaire page (WM\_WR\_SD\_WIZ\_FL) to specify supplemental data. This page appears only if supplemental data fields exists for the type of problem chosen.

This example illustrates the fields and controls on the Service Request - Problem Type Page (4 of 4) on a Phone. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Supplemental Questionnaire	Enter Supplemental data.

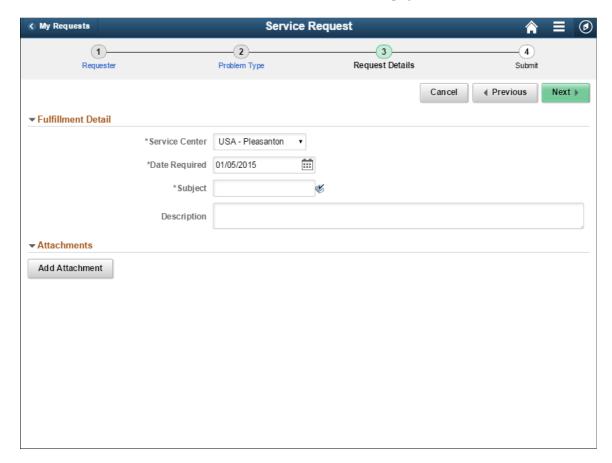
## Service Request — Request Details Page

Use the Service Request — Request Details page (WM\_WR\_DTL\_WIZ\_FL) to enter the request details. Based on the type of problem selected the request details will be populated.

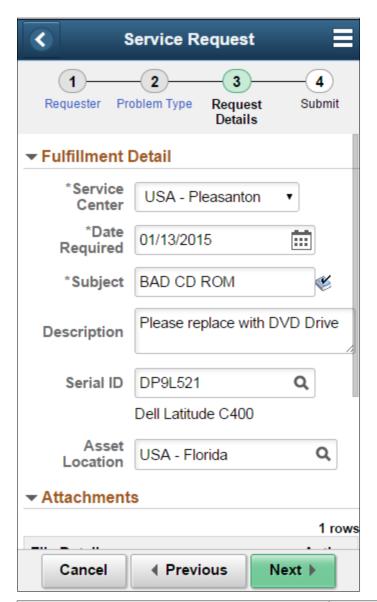
Navigation:

Fluid Home > Employee Self Service > My Service Requests > Add Service Request

This example illustrates the fields and controls on the Service Request - Request Details Page on a Tablet. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Service Request - Request Details Page on a Phone. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Service Center	Displays the location from where the service request was routed. This value defaults from the user preferences or the business unit.
Date Required	Enter the date for the request to be completed.
Subject	Enter the request detail in brief.
Description	Enter the request in detail.

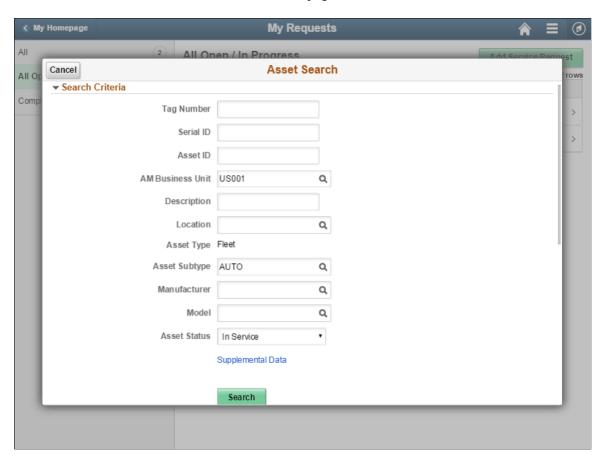
Field or Control	Description
Serial ID	Enter Serial ID or select from the search result.
Asset Location	Enter Asset Location or select from the search result.
Add Attachment	Select to add attachment to the request detail. Any number of attachments can be added.

### **Asset Search Page**

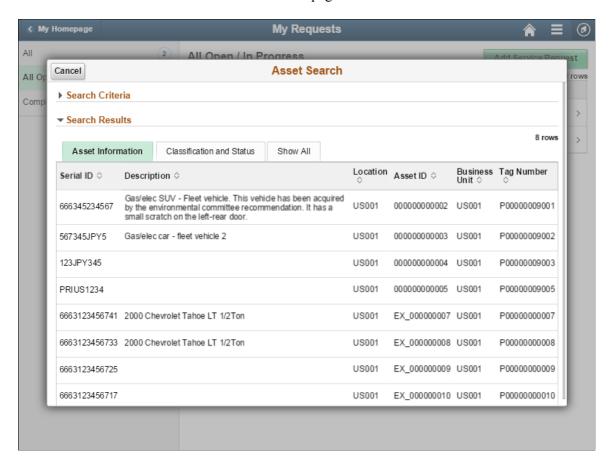
Use the Asset Search page (WM\_ASSET\_SRCH\_FL) to search asset information.

Access this page by clicking the Serial ID prompt. Serial ID field appears as part of the request details for certain type of service request such as Fleet.

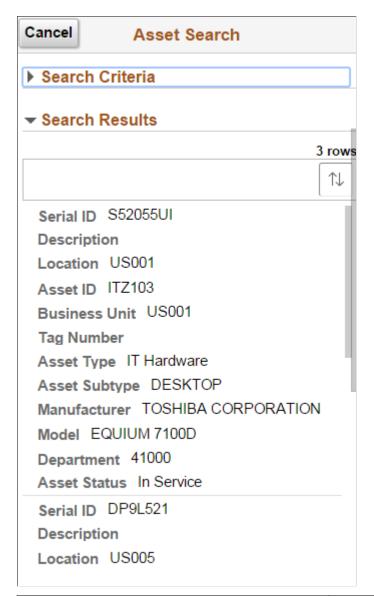
This example illustrates the fields and controls on the Asset Search Page (1 of 2) on a Tablet. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Asset Search Page (2 of 2) on a Tablet. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Asset Search Page on a Phone. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Tag Number	Enter tag number to search for assets in the asset repository.  As part of the search criteria Tag Number, Serial ID and Asset ID are identifiers used for searching assets.
Cancel	Click to cancel the asset search and return to the Service Request page.

Field or Control	Description
Search	Click to search assets based on the search criteria specified.  Asset information matching the search criteria will be displayed. Select any row in the search result to select that particular data for the Serial ID.

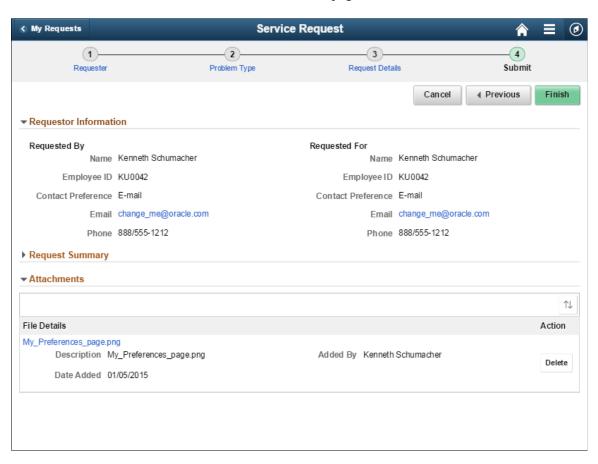
### Service Request — Submit Page

Use the Service Request — Submit page (WM\_WR\_SUM\_WIZ\_FL) to review request details and submit the service request.

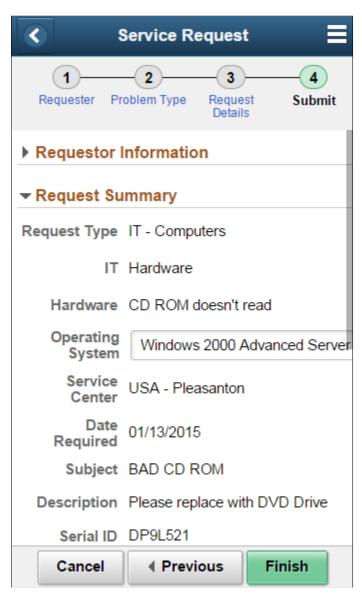
Navigation:

### Fluid Home > Employee Self Service > My Service Requests > Add Service Request

This example illustrates the fields and controls on the Service Request - Submit Page on a Tablet. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Service Request - Submit Page on a Phone. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Finish	Click to submit the service request.

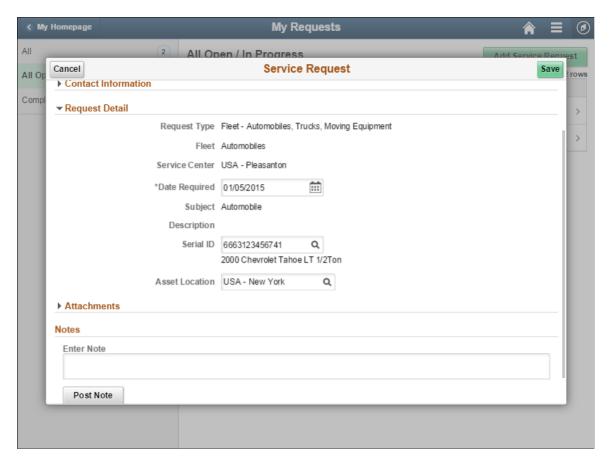
### Service Request — Review/Update Page

Requester can use this page to review and update service request information that has already been submitted and in pending status.

Service requests that have been submitted can be viewed on the My Requests page.

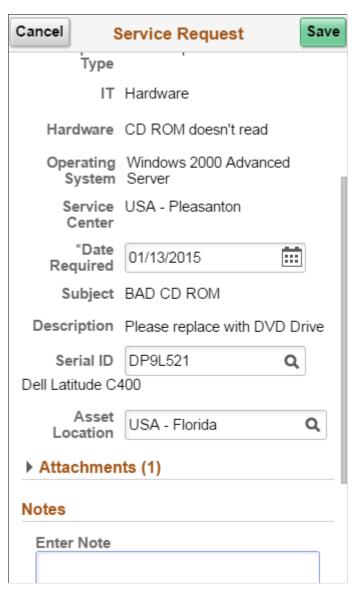
Chapter 14 Creating a Service Request

This example illustrates the fields and controls on the Service Request — Review/Update Page on a Tablet. You can find definitions for the fields and controls later on this page.



Creating a Service Request Chapter 14

This example illustrates the fields and controls on the Service Request — Review/Update Page on a Phone. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Supplemental Data	Displays supplemental data if it exists for the service request.

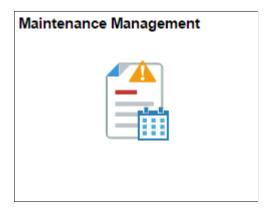
Chapter 14 Creating a Service Request

Field or Control	Description
Notes	Enter any notes or special instructions that apply to the service request.
	The system keeps a history of any events that transpire between the agent and the requester, and it also keeps a record of any communication between the technician and the requester through the Notes. However in the fluid user interface you cannot reply to notes that were added while creating a work order or work order task. Hence the Reply button will be disabled for WO Header and WO Task notes. Only notes added to the service requests can be responded by the requester.
Post Note	Select to save the entered note in the database.
Cancel	Click to return to the My Requests page without saving the changes.
Save	Click to save the changes and return to the My Requests page.

### **Understanding Navigation Collections**

Navigation collections are sets of links that support the users' ability to perform key business processes in a services organization. This navigation collection enables users to access frequently used components from one location. System administrators can modify a Navigation Collection to include links to any component or page in the Financials database.

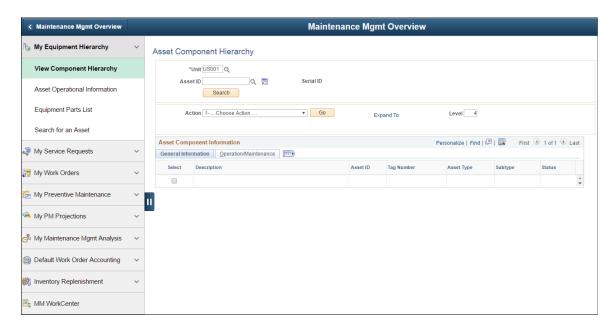
This example illustrates the fields and controls on the Maintenance Management Tile.



Click the Maintenance Management tile on the Fluid home page to access a collection of frequently used setup and Maintenance Management related components.

Creating a Service Request Chapter 14

This example illustrates the fields and controls on the Maintenance Management Navigation Collection.



The left panel of this page lists all the components in the following categories:

- My Equipment Hierarchy
- My Service Requests
- My Work Orders
- My Preventive Maintenance
- My PM Projections
- My Maintenance Mgmt Analysis
- Default Work Order Accounting
- Inventory Replenishment
- MM Workcenter

The right panel displays the component selected in the left panel.

Administrators can edit the categories displayed in the navigation collection by accessing the Structure and Content page (Navigation: PeopleTools, Portal, Structure and Content, Portal Objects, Navigation Collections, Maintenance Management).

### **Chapter 15**

## **Creating a Work Order**

### **Understanding Work Orders**

This section discusses:

- An overview of work orders.
- The work order header
- Work order tasks
- Asset downtime entry.
- Work order task accounting.
- Work order creation from a service request.
- Work order creation from PeopleSoft Project Costing and PeopleSoft Program Management.
- Work order creation from PeopleSoft CRM Help Desk and third party help desk applications.
- Work order creation for an Asset from an ESRI map location.
- Work order copy.

#### **An Overview of Work Orders**

Maintenance planners, physical plant administrators, facilities managers, technicians, and equipment operators use work orders to plan, schedule, dispatch, track, account for, and report on the construction, repair, maintenance, and disposal of an organization's physical assets. Prior to creating a work order, along with PeopleSoft Maintenance Management, you must install and set up PeopleSoft Asset Management, PeopleSoft Project Costing, and PeopleSoft Purchasing, as well as optional product integrations such as PeopleSoft Inventory.

Important! You must set up either a work order-managed or Project Costing-managed project before you can create a work order. Make sure the project's business unit is specified in the work order business unit's Integrations page, and add the project to the Work Order-Projects Association page in Setting Up Financial/Supply Chain > Product Related > PeopleSoft Maintenance Management before you create a work order.

See PeopleSoft Maintenance Management System Overview.

The two different formats for work orders in PeopleSoft Maintenance Management are:

• Work orders, which can have multiple work order tasks and can involve the definition and scheduling of multiple types of resources.

• Express work orders, which are easily entered and require minimal resources and data entry.

You can initiate the creation of work orders from several different applications and options in the system, which include:

- PeopleSoft Project Costing.
- PeopleSoft CRM Help Desk and third-party help desk applications.
- PeopleSoft Maintenance Management service requests.
- PeopleSoft Program Management.

See Integrated Product Setup Considerations.

This section discusses:

- The Work Order component.
- Express work orders.
- Preventive maintenance work order creation.
- Condition-based maintenance (CBM) work orders.

### **The Work Order Component**

The standard work order in PeopleSoft Maintenance Management is a comprehensive planning and scheduling vehicle with extensive functionality in comparison to the express work order. You can create a work order directly in PeopleSoft Maintenance Management using the Work Order component, or you can create it by initiating it from a service request, PeopleSoft Project Costing, PeopleSoft Program Management, PeopleSoft CRM Help Desk and third party help desk applications, or from a CBM alert.

The pages in a work order include:

The Work Order page.

You define the work order header, which includes the overall status of the work order, the work order approval status, service request information, if applicable, and the capability to approve a work order, if applicable, and the ability to add supplemental data, attachments, and notes. You can also specify an asset that applies to the overall work order. You can select a work order job template to apply to this work order, and you can create one or more work order tasks. The work order header status is automatically determined by the system based on the most outstanding status of all the work order tasks associated with this work order. Users cannot directly modify the status of the header. The work order status is indirectly changed when users change the work order task status and is only changed when you save the work order. If ESRI integration is implemented, you can access the location of the work order on a map.

Note: You can set up more detailed task information on the Requirements and Schedules pages.

The Requirements page.

The Requirements page is used to set up the details of each work order task. When you create a work order, the first work order task is automatically created. You can create additional work order tasks on the Requirements page of the work order and enter the details for each task, such as the task's start

and end dates, the scheduler and supervisor responsible for the task, and the percentage of overlap between tasks. You can also change the status for a work order task on this page. When you change the status for each task, the system performs a weighting of the statuses of each task to determine the status for the overall work order. The status of the work order continues to change as the statuses of the tasks change.

**Note:** You also can create additional work order tasks from the Work Order page, Schedules page, and Actuals page.

You can enter a the location of the work and, if this is a Project Costing-managed work order, you can select an activity to associate with the task. If this is a work order-managed project, the activity is automatically generated. If the shop is set up for crew scheduling and a preferred crew was selected in the shop, this preferred crew displays in the work order. You can change the shop that the crew is associated with from this page, if necessary. You can click the Setup Accounts link to set up the asset capitalization filter and minimum, and select the chargeback rate set or rate plan options, if chargebacks are enabled for the task in PeopleSoft Project Costing and at the business unit, shop, or work order type level.

You can select the asset affected by the task, and a description of its problem. You can also review any warranties associated with the asset and create a warranty claim from this page. There are links that enable you to review the asset's details, the asset's maintenance history, enter asset downtime, and, if the asset is associated with a meter, review the asset's meter reading history. You can also review the asset's calendar to determine when the asset is available for scheduling.

**Note:** If you have set up integration to ESRI, a Map It button appears next to the Asset Location field on the Work Order, Requirements, and Schedules pages. When you click this button, the work order task locations appear on an ESRI map.

You can optionally define the labor, inventory, purchased and on-hand, and tool resource requirements needed to perform the task. In addition, links are provided for instructions, a checklist, attachments, supplemental data, notes, and task templates. Selecting a task template enables you to copy requirements to a task that is routinely performed for a work order, saving data entry time. You determine at the business unit level or at the shop level whether you want to calculate estimated costs based on these requirements. Requirement definitions are discussed in detail in the Defining Work Order Task Requirements topic of this documentation.

See <u>Understanding Work Order Task Resource Requirements</u>.

#### • The Schedules page.

If you plan to schedule resources, you enter a scheduled start and end date for each work order task. You can access the same additional information and asset information fields and links that appears on the Requirements page. If you chose to set up resource requirements, you can copy the labor, inventory, purchased and on-hand, and tool resource requirements from the Requirements page to the schedules. You can optionally schedule specific labor, inventory, purchased and on-hand, and tool resources for each task. You determine whether you want to schedule labor, inventory, or tools resources at the business unit and shop levels. You can also access instructions, a checklist, attachments, task templates, supplemental data, and notes from the Schedules page. Normally a scheduler is designated on the Requirements page of the work order and the scheduler uses the Work Order Workbench component to access work orders to perform the scheduling.

**Note:** If you indicate in the work order business unit, shop, or work order type associated with a work order that a work order requires approval, then the Schedules and Actuals pages do not appear until the work order is approved.

See <u>Understanding Resource Scheduling</u>.

The Actuals page.

The Actuals page shows the actuals entries for resources associated with a work order task. You enter actuals data on the Technician Workbench and Work Order Completion components, as well as through PeopleSoft Travel and Expenses and PeopleSoft Project Costing. Actuals data includes labor time entry, material and tools usage, and procurement data.

See <u>Understanding Work Order Task Completion</u>.

• The Cost page.

This page shows a summary of the total estimated, scheduled, and actual costs for each resource type, along with the variances. In addition, a second grid displays the estimated, scheduled, and total costs, along with a variance, for each work order task. The **Task Actuals** grid shows the actual totals for the resources in each work order task, and also enables you to click the **Capitalize** button to display the capitalized costs and the **Chargeback** button to display the actual amounts charged back to other organizations in the enterprise by means of PeopleSoft Project Costing. You can also click on the task resource total to display the task line details in another grid.

You must run the following Cost Collection processes in PeopleSoft Project Costing to collect the costs from PeopleSoft Travel and Expenses, PeopleSoft Inventory, PeopleSoft Payables, Procurement, and PeopleSoft Maintenance Management (tools).

Labor costs are collected by running Project Costing > Cost Collection > Cost Collect Expenses

Inventory costs are collected by running **Project Costing** > **Cost Collection** > **Cost Collect Inventory** 

Procurement costs are collected by running **Project Costing** > **Cost Collection** > **Cost Collect Payables** 

Tool costs are collected by running **Project Costing** > **Cost Collection** > **PeopleSoft Maintenance Management.** 

The actual costs are not updated for labor costs until you access either the Technician Workbench or the Work Order Completion components and enter each resource's time. On the Technician Workbench, you must save the time, and stage time entries to the Time Staging for Project Transaction table (EX\_PROJ\_RES\_STG) in PeopleSoft Travel and Expenses. In the Work Order Completion component, the time entries are staged automatically and you do not have run the Stage Time Entries process from PeopleSoft Maintenance Management. For either component, you must run the cost collection process (PC-TLX) in PeopleSoft Project Costing, and run the Cost Summarization process in PeopleSoft Maintenance Management to display the costs on the Costs page. Once the entries are staged in PeopleSoft Travel and Expenses, you run the PeopleSoft Travel and Expenses to PeopleSoft Project Costing Application Engine process (PC\_EX\_TO\_PC) in PeopleSoft Project Costing to pull staged time transactions from the Time Staging for Project Transaction table into PeopleSoft Project Costing tables and run the Cost Collection process (PC-TLX) to store the transaction costs are stored in the PROJ\_RESOURCE table. PeopleSoft Project Costing applies its rules, capitalizes the costs in PeopleSoft Asset Management, if appropriate, and posts the costs to

the general ledger business unit associated with the work order business unit. When you run the Cost Summarization process in PeopleSoft Maintenance Management or run the Work Order Close process, PeopleSoft Project Costing updates the total actual costs for the work order task stored on the Costs page of the work order.

For inventory transactions, you schedule, commit, and reserve selected inventory items. Transaction 231 inventory record(s), which are the transactions or records that are used in cost collection, are created when a clerk issues one or more items from PeopleSoft Inventory. You schedule the inventory in PeopleSoft Maintenance Management and commit and reserve the inventory. You must access Cost Accounting, Cost Accounting, Inventory and Mfg Accounting, Create Accounting Entries, Cost Accounting Creation to create cost accounting entries to stage data to the PeopleSoft Project Costing tables (CM\_ACCOUNTING\_LN). The PeopleSoft Project Costing Cost Collection process pulls the data to the PeopleSoft Project Costing PROJ\_RESOURCE tables. When you run the Cost Summarization process in PeopleSoft Maintenance Management either manually or when the Work Order Close process runs, the system updates these actual inventory costs on the Costs page of the work order.

When you schedule non-inventory items or open description materials using the Purchase/On-Hand tab in the work order, the estimated costs are staged either as a requisition or a purchase order directly from the work order. Once a voucher is created and paid, possibly taking into account additional costs and discounts, the voucher is posted and run through the Accounts Payable and is sent to the PeopleSoft Project Costing interface. When the Cost Collection process is run in PeopleSoft Project Costing, the costs are pulled into the PROJ\_RESOURCE tables. When you run the Cost Summarization process in PeopleSoft Maintenance Management either manually or when the Work Order Close process runs, the system updates these actual Purchase/On-Hand costs on the Costs page of the work order.

**Important!** Inventory materials that are floor stock and non-inventory purchased goods and services marked as on-hand are not calculated in the overall costs of the work order.

**Note:** The usage amounts that you enter on the Technician Workbench Materials tab is not used in determining Inventory or PeopleSoft Purchasing costs. This data is informational only for recording actual materials usage versus what was issued for the task.

When you enter and save the tool usage amounts on the Technician Workbench component or the Work Order Completion component, transactions are sent directly from PeopleSoft Maintenance Management to PeopleSoft Project Costing. When you run the Cost Collection process for PeopleSoft Maintenance Management in PeopleSoft Project Costing, the transaction amounts are pulled into the PROJ\_RESOURCE table. When you run the Cost Summarization process in PeopleSoft Maintenance Management either manually or when the Work Order Close process runs, the system updates these actual Tool costs on the Costs page of the work order.

The Costs page is described in the Closing Service Requests, Work Order Tasks, and Work Orders topic.

See <u>Understanding Service Request and Work Order Close</u>.

• The Miscellaneous page.

This page presents a summary of the work order header information, the current status of the work order, who last modified the work order and when, individuals responsible for the work order, and the dates that the work order was completed and then closed.

A maintenance type is required to close preventive maintenance work orders. You can set up a default maintenance type in the work order business unit and that value will display in the Maintenance Type field on the Miscellaneous page. You can override this value. Make sure this value is specified for each work order to avoid any problems at closing.

You can indicate that this is a standing work order, which prevents it from being closed. However, you can close each task within a standing work order either manually or through the batch close process. If all the tasks are closed in a standing work order, the work order will still remain not closed. Standing work orders are typically used to capture frequently occurring, repetitive work, such as replacing light bulbs. You can close a standing work order by deselecting the **Standing Work Order** check box and changing any not closed, complete, or cancelled task statuses to *Complete*.

If this work order is a child of another work order, you can select the parent work order. If this is a parent work order and child work orders were created, the child work orders are listed in a grid on this page. If this work order was created based on another work order (for example, you may create a work order to change the oil and discover that the brake pads are bad and create a work order to perform that work), then you can select a value for the Originating Work order field.

You can input values into any supplemental data fields that you established.

Work order access security enables authorized users assigned to a shop, resource pool, or shop and resource pool to access work orders and work order tasks from the Work Order, Express Work Order, and Technician Workbench components depending on how you set up Technician WO Security options on the Definition page of the work order business unit.

The Technician WO Security options on the Definition page of the work order are Full Access, Shop, Resource Pool, and Shop and Resource Pool. You must also select the Apply WO Access Security check box in the User Preferences – Maintenance Management page for any user to whom you want to apply work order access security.

To access the Work Order Access page from the Miscellaneous page of a work order, you must create the work order with a business unit that has Shop or Shop and Resource Pool selected on the Definition page. You must also select the Allow Access to WO Security check box on the User Preferences – Maintenance Management page to enable this user click the Technician Work Order Access link on the Miscellaneous page of the work order and display the Work Order Access page.

The Work Order Access page displays with the shop used to create this work order listed along with any cross shops associated with resources assigned to work order tasks. The authorized user can add or delete any shops except for the primary shop used to create the work order. Before you can apply work order access security to resources in the shops listed on the Work Order Access page, you must select the Apply WO Access Security check box on the User Preferences – Maintenance Management page for each resource associated with one of the listed shops. Once these shops are set up, any resources assigned to the shops on the list can access those work orders and work order tasks from the Work Order, Express Work Order or the Technician Workbench components.

There is no direct relationship between the specific resources assigned to a work order task and work order access security. The major consideration is whether or not the resource is assigned to a shop or resource pool depending on the selection in the Definition page of the work order business unit that was used to create the work order, and the Apply WO Access Security check box is selected on the User Preferences – Maintenance Management page.

See <u>Understanding Work Order Business Unit Setup</u>.

See "User Preferences - Maintenance Management Page" (Application Fundamentals).

### **Express Work Orders**

An express work order is the simplest and fastest way to create a basic work order. Use this option to create work orders that require few resources and little or no scheduling. You enter a full description of the work order and task on the Express Work Order page. You identify the asset requiring work, the scheduler, and the parent work order, if this work order is being created based on another work order. You select a project and activity, if this is a PeopleSoft Project Costing managed work order. If this is a work order managed work order, then a default project value displays and the activity field is inaccessible. For Project Costing managed work orders, you can click an icon next to the Project Activity field on the express work order to access the project and activity on the Resources by Activity page in PeopleSoft Project Costing or in PeopleSoft Program Management, if this product is installed. You have the option of defining the inventory and purchased and on-hand resources needed to perform the work. You can select these resources from an Equipment Parts List (EPL) if asset in the work order has an EPL associated with it. You can also add inventory and purchase/on-hand items to an existing EPL from an express work order. It is also possible to add attachments, notes, and supplemental data to this type of work order. You can only create an express work order by selecting the Maintenance Management > Work Order Management > Express Work Order menu option. Users cannot create an express work order from PeopleSoft CRM Help Desk, third party help desk applications, PeopleSoft Project Costing, PeopleSoft Program Management, or service requests.

Work order access security can be applied to control who searches and updates existing express work orders. The primary shop that is entered to create the work order is automatically added to the work order access security shop list, which means that only authorized resources assigned to that shop can access the shop's express work orders. If, for some reason, you wanted to authorize additional resources from another shop to access that express work order, you must access the Work Order component and add any additional shops to the Work Order Access page from the Miscellaneous tab. If you selected Resource Pools for work order security access in the work order business unit, then any employee, who is assigned to a resource pool can search for existing express work orders whose project/activity is associated to that resource pool.

If you are using the dedicated web services provided by PeopleSoft Maintenance Management that enable mobile device integration for technicians with a third party supplier, a Mobile Updates Pending link appears in any express work orders that you create with business units that have this feature activated. This link only appears if a task or any task-level data such as materials, checklists, and more have been sent to a mobile device since the last recorded date an update was received and the work order data was updated.

**Note:** You cannot enter labor or tools requirements in an express work order.

See Mobile Web Services Integration.

See "Activity Definitions - General Information Page" (PeopleSoft Project Costing).

See <u>Understanding Supplemental Data</u>.

#### **Preventive Maintenance Work Order Creation**

Preventive maintenance work orders are normally used to maintain assets on a routine basis. To generate a preventive maintenance work order, you must set up a preventive maintenance schedule, in which you identify the asset (or assets) being maintained and the type of maintenance to be performed, associate a work order job template, and specify the intervals between work orders based on date-based and meter-based schedules. Once a schedule is set up, you can run the Preventive Maintenance process (WM\_PM) to generate work orders, or run the Preventive Maintenance Projection process (WM\_PM) to

determine the next maintenance due date and generate preventive maintenance projections and work orders. You can review these projections online or load them into Microsoft Project. Once the work orders are generated, you access the work order using the Work Order component, where you can modify the work order and schedule the resources, if applicable. You cannot access generated preventive maintenance work orders using the Express Work Order component.

See <u>Understanding Preventive Maintenance Work Orders</u>.

#### **Condition-based Maintenance Work Orders**

Condition-based maintenance enables you to make maintenance decisions based on the actual condition of an asset. You can set up Web Services to enable external systems measure and analyze current readings on equipment and determine whether the condition of the equipment is outside of normal operating parameters. When the condition is outside normal operating parameters, the external system issues CBM alert or a user enters the alert manually indicating that the asset needs maintenance. A CBM coordinator associated with a specific work order business unit and shop is notified of the alert either through email or workflow. When a new alert is saved, the Update PM Schedule, Create a Work Order, and Close Alert buttons become available. The CBM coordinator can update the preventive maintenance schedule so that the Preventive Maintenance process generate a condition-based work order in the next run, or create a work order from the Condition-Based Maintenance Alert page. The status of each alert is tracked in the Alert Status History.

You must set up workflow and specific rules in Maintenance Management to enable condition-based maintenance.

See <u>Understanding Condition-based Maintenance</u>.

See <u>Understanding Preventive Maintenance Work Orders</u>.

#### The Work Order Header

The work order header consists of data that controls the entire work order.

To add a work order in the Express Work Order component and in the Work Order component, you must enter:

A work order business unit.

This field is required. You can enter a default value at the user preferences level.

• A work order ID.

When you create a work order, the **Work Order ID** field default value is *NEXT* if you selected the **Work Order Auto Numbering** check box in the work order business unit. For each new work order, the system uses the next work order ID based on the last work order number tracked in the business unit. However, you can override *NEXT* with any number you choose for the work order. If you left the **Work Order Auto Numbering** check box in the work order business unit deselected, you must enter a work order ID manually when you create a work order.

• A work order type.

This value, such as CAPT (Capital Work Order), PM (Preventive Maintenance), and CM (Corrective Maintenance), is used to categorize the work for analysis purposes and is required. It also is included

as part of the control default order, the accounting default order, and the project default order set up in the work order business unit.

• A service group.

This value is required. You can enter a default value at the business unit level and user preferences level. Service group is also included as part of the project default order and the accounting default order in the work order business unit. This value is also used to categorize work order information.

A shop.

This value is required. You can enter a default value at the business unit level and user preferences level. Shop is also included as part of the control default order, in the work order business unit.

• A priority code.

This value is required. It enables you to prioritize work orders to enable a scheduler to search for and locate work orders by priority on the Work Order Workbench and is used to sort work orders in some of the PeopleSoft Maintenance Management pagelets.

Required start and end dates.

When you create a work order, the current system date is the default value in both the **Required Start** and **Required End** fields. You can enter the correct start and end dates for the work order in the Add page, or you can override the dates in the work order's header information in the Work Order page.

When you access the Work Order page, the work order header information:

- Identifies who created the work order and when.
- Establishes a date for the entire work order to begin and end and how long the total work should take.
- Displays the current status of the work order.
- Identifies if a service request is associated with the work order.
- Enables the user to select or override the work order type and priority and shop.

If you change the work order type, it may change the default project.

- Indicates the approval status of the work order, enables a user to approve a work order, and provides a link to enable a user to review the approval history.
- Enables the user to add attachments (documents, drawings, and such) that apply to the overall work order.
- Enables the user to enter values into supplemental data fields, which you can set up for work orders.
- Enables the user to add notes that are relevant to the overall work order.
- Enables a user to select the asset on which the technician is performing the work specified in this work order along with the location of this asset.

**Important!** If you selected the **Multiple Assets Per Work Order** check box in the work order business unit, then you can select an asset in the work order header and different assets for the work order tasks. If you do not select the check box, then the asset field does not display for any of the work order's tasks. In this case, the asset selected in the work order header also applies to any tasks created for the work order.

- Enables a user to locate the work order on a map by clicking the Map It button if ESRI integration is set up.
- Enables a user to view any work history associated with this asset, as well as any associated warranties.
- Enables a user to select a job template to copy into the work order.

The list of job templates is based on a combination of the asset category and the problem, cause, and resolution values that the user selects to search for the appropriate job template. You can only copy one job template per search to the work order. However, you can perform multiple searches to copy more than one job template to the work order. The work order tasks identified in the job template are appended to the end of the work order's task list.

• If you are using the dedicated web services provided by PeopleSoft Maintenance Management that enable mobile device integration for technicians with a third party supplier, a Mobile Updates Pending link appears on the Work Order page, the Requirements page, and the Schedules page of a work order that you created with a business unit that has this feature enabled. This link only appears if a task or any task-level data such as materials, checklists, and more have been sent to a mobile device since the last recorded date an update was received and the work order data was updated.

See Setting Up a Work Order Business Unit.

See Understanding PeopleSoft Maintenance Management Work Order Parameters.

See <u>Understanding Shifts</u>, <u>Schedule Patterns and Periods</u>, <u>Shops</u>, and <u>Crews</u>.

See <u>Integrated Product Setup Considerations</u>.

#### **Asset Search**

You typically select an asset on the Work Order page that applies to each work order task. If you selected the Multiple Assets Per Work Order check box on the Definition page of the work order business unit, you can override the asset selected on the Work Order page and select a different asset for each work order task.

A flexible keyword search allows you to search for assets across all Asset Management Business Units. To search for assets by keyword, select the icon to the right of the asset field. If enabled, the Keyword Search page is displayed (WM\_ASSET\_SEARCH). You can search by keyword across many asset attributes and/or by specific attributes such as asset type, asset subtype, manufacturer, and model.

If search is not enabled, the alternate Asset Search page (WM\_ASSET\_SRCH\_SEC) provides the selection of specific asset characteristics, such as the asset tag number, serial ID, asset type, asset subtype, asset description, and more.

See:

"Understanding Financials and Supply Chain Search" (Application Fundamentals)

PeopleTools: Security Administration

### **Work Order Approval**

The work order approval link in the work order header displays if you selected the **Workflow Approval** option in the work order business unit. If you selected **Pre-Approved**, the **Approval Status** field in the work order indicates that the work order is *Approved*. You must set up work order approval workflow before you can approve a work order or manage work order approvals.

**Note:** If the work order header status is *Canceled*, then the work order approval process is not invoked.

See <u>Understanding the Work Order Approval Workflow Architecture</u>.

See Understanding the Work Order Approval Process.

### **Work Order Assets and Asset Warranty Claims**

Selecting an asset enables you to access the asset's details, maintenance history, calendar, meter history, and any warranties. You can also enter asset downtime, failure information. A hazard icon appears for assets that are considered hazardous, which you can click to access the Asset Information page and review any comments about the asset.

If warranties exist, you can create a warranty claim for assets specified in the work order or work order tasks.

See Understanding Warranty Claim Management in PeopleSoft Maintenance Management.

#### **Work Order Tasks**

You create work order tasks to specifically define:

- The problem that needs to be resolved.
- The work that needs to be completed.
- The length of time that it takes to complete each task.
- The asset associated with each task.
- The status of each task.
- The resources needed to complete each task.

You can optionally define labor, inventory, purchased and on-hand, and tool resource requirements for a work order task and generate estimated costs based on these resources. In addition, you can optionally schedule resources for each task.

**Note:** You must identify the work order task status that you want to serve as the initial status in the work order when you set up your a work order tasks.

You can select data that is relevant to each task, which includes:

#### Additional Task Data.

You can specify the work location and identify the supervisor, scheduler, and a key contact. If you intend to schedule crews for this task, you can identify the preferred crew that you want to use for this task. Selecting the crew associates this unscheduled task with Crew Scheduling Workbench after you determine crew capacity. If the crew is associated with a shop, other than the primary shop in the work order, you can associate that shop with this crew.

#### • Information for the selected asset.

You describe the characteristics and details about the asset. You can identify if the asset is being installed, removed, or retired. There are numerous links related to the task's asset, which may include links to the:

- Work Order History
- Asset Maintenance History
- Asset Details
- Asset Downtime
- Asset Calendar
- Warranty Claim
- Meter History

#### Problem Reporting

You can identify the problem group, problem, cause, and resolution to associate with a asset-related or non-asset related task. Specifying these values enable you to search for a work order job or task template, which already has requirements defined for this type of problem, and to categorize this task in order to later search for this task or other work orders and tasks associated with this PCR data.

You can use work order job templates and work order task templates to simplify the creation of work orders and tasks that you use frequently. You can select a work order task template at the task level that provides the resource requirements for a single task. You select the work order job template at the work order header level. It consists of one or more job steps that are associated with work order task templates. When you select a job template, all the data from all the work order task templates associated with the work order job template are copied to the work order tasks. You can only access one work order job template at a time to copy to the work order. However, if you want to add more than one job template to the work order, you can click the **Job Templates** link again and select another job template. The second job template is appended to the work order after the data copied from the first template.

Note: When you create a job template (Set Up Financials/Supply Chain > Product Related > Maintenance Management > Templates > Work Order Job Template) and you search for a work order task template to associate with the job template, the search results only consist of work order tasks templates that fall within the effective date parameters of the job template. However, when you copy a job template to the work order, the system only allows you to copy job templates with effective dates that fall within the parameters of the work order header's Required Start Date field. Also, only work order task templates with effective dates that fall within the parameters of the work order task's Required Start Date field are copied to a work order task. If the Required Start Date is not available in either instance, then the current system date is the controlling factor.

You can also copy the data from a single work order task template to a task. If you copied one or more job templates to a work order, you can copy one or more single task templates to the work order as well.

When the resource requirements are copied to the work order tasks either from tasks listed in a job template or from a single task template, then the data is edited just like any other work order task data, and the resource cost data from the individual tasks is recalculated and rolled up from the individual tasks to the **Estimated Cost** fields in the work order's Costs page.

See Understanding Crew Scheduling.

See <u>Understanding Work Order Task Resource Requirements</u>.

See <u>Understanding Work Order Statuses</u>.

See Understanding Resource Scheduling.

### **Asset Downtime**

You can enter and update the planned and actual start and end dates and times that an asset will not be available for use by clicking a link in the Work Order component, accessing the Downtime Entry component, and clicking a link in the Technician Workbench in PeopleSoft Maintenance Management. You select a Downtime Reason, which you must set up in advance. You can review an asset's downtime history from PeopleSoft Maintenance Management via the Asset Downtime Review component. When the work order is closed, PeopleSoft Maintenance Management updates downtime for the asset in the Asset Maintenance History in PeopleSoft Asset Management.

**Important!** The entry of asset downtime in PeopleSoft Maintenance Management does not control whether or not you can schedule the asset. Downtime is informational only, and does not drive functionality.

### **Failure Tracking**

PeopleSoft Maintenance Management provides users the capability to track and analyze equipment failure incidents for various operational and regulatory needs, such as health, safety, and environmental compliance.

Users can analyze these asset failures to:

- Help prevent recurrence or minimize the number of future incidents.
- Reduce associated downtime and repair costs.

- Measure and track both asset reliability and maintenance and repair effectiveness.
- Support repair versus replace decisions.
- Support related planning and budget allocation activities for constrained maintenance resources.

To accomplish these goals, PeopleSoft Maintenance Management enables users to:

- Set up failure severity and failure impact codes.
- Define data that describes, quantifies, and qualifies asset failure events from various perspectives from the Work Order, Work Order Completion, or Technician Workbench components.
- Analyze failure events based on specific detail or summary criteria through the Failure Analysis
  Inquiry. Users can discover trends and relationships affecting future failure occurrence, asset
  reliability, and maintenance and repair effectiveness measures.

Once you set up the failure impact and severity codes, you can enter, maintain and review the data associated with an asset failure event in the Work Order Failure Tracking component. You can create a failure event from the Work Order, the Work Order Completion, and the Technician Workbench components.

When you create a failure event from the Work Order, the Work Order Completion, or the Technician Workbench components, the system automatically assigns the next Failure ID in the system to the failure event. You cannot override this value. When you save the Work Order Failure Tracking page, the system updates this failure ID number in the Last Failure ID field on the Definition page of the work order business unit associated with the failure event.

If you create a failure event from the Work Order Failure Tracking component, you can accept NEXT as the default for the Failure ID and the system assigns the next failure ID to the failure event. You can also override NEXT with a unique failure ID. A unique failure ID is not tracked on the Definition page of the work order business unit. If you entered a unique failure ID for one failure event, and created the next failure event from the work order, which automatically assigns a failure ID number, when you save the Work Order Failure Tracking page, the number generated is automatically updated in the Last Failure ID field on the Definition page of the work order business unit.

**Important!** Failure tracking and analysis is not required to create and maintain work orders in PeopleSoft Maintenance Management. However, it is an extremely valuable and easy to use tool, which enables supervisors and managers to carefully manage their assets.

Refer to Setting Up and Performing Work Order Failure Tracking and Analysis to understand how to perform failure tracking and analysis based on failure events derived from assets associated with a work order task.

See Understanding Work Order Failure Tracking and Analysis.

### **Work Order Task Accounting**

You can click the **Set Accounts** link on the Requirements page to access the Work Order Task Accounting page. Use this page to set up asset capitalization, retirement, and chargeback information for the work order task and to generate accounting transactions based on the GL business unit set up in the work order business unit and send this accounting data through the subsystems to PeopleSoft Project Costing for cost and billing calculations. This only applies to work orders associated with work order-managed projects.

**Important!** Work orders associated with Project Costing-managed projects do not use this page to set up accounting for chargebacks. Chargeback accounting for work orders associated with Project Costingmanaged projects are handled completely by PeopleSoft Project Costing.

See PeopleSoft Maintenance Management System Overview.

### **Asset Capitalization for Work Order-managed Projects**

You can select a filter ID and a capitalization minimum amount for PeopleSoft Project Costing to use to calculate the capitalization amount for an asset. The capitalization minimum amount that you specify means that the cost to repair, maintain, or build the asset must be equal to or greater than the amount specified in this page before PeopleSoft Project Costing will calculate a capitalization amount to apply to the asset in PeopleSoft Asset Management. You identify a filter that is set up in the PeopleSoft Project Costing Express Asset Filter Criteria component. This filter criteria specifies which transaction costs are allowed to make up the amount to capitalize. For example, Filter 1 could establish that material and labor actuals should be capitalized, and Filter 2 could indicate that only labor actuals should be capitalized.

### **Chargebacks for Work Order Managed Projects**

PeopleSoft Project Costing integrates with PeopleSoft Maintenance Management to enable you to charge back these costs to a different organization such as a different GL business unit, operating unit, or department. You use the Work Order Task Accounting page to enable these chargebacks. This only applies to work orders that are associated a with a work order-managed project. For project-managed work orders, the charging back of costs is controlled in PeopleSoft Project Costing using standard PeopleSoft Project Costing functionality.

Before you can generate chargebacks for work orders associated with work order-managed projects, you must:

- Select the Enable Organization check box on the Set Up Financials/Supply Chain > Installation Options > Project Costing page.
- Select **Project Costing** > **Project Definition** > **Organization** and select a GL business unit for the project that will be associated with the work order.
- Select the Generate Chargebacks check box on the Set Up Financials/Supply Chain > Business Unit Related > Work Order Definition > Definition page. You can override this option at the shop or work order type levels.

**Note:** You cannot select this field if you have not selected the Enable Organization check box on the Installation Options - Project Costing page listed above.

• To calculate chargebacks for a work order task, you set up the Task Accounting page, where you select the ChartFields that the chargeback will be charged to when the accounting rules are applied in Project Costing

See Project Costing Price Engine, Rate Sets, and Rate Plans.

### Project Costing Price Engine, Rate Sets, and Rate Plans

For work orders associated with work order-managed projects, accounting entries for any transactions generated from performing work order tasks in PeopleSoft Maintenance Management are created in

PeopleSoft Travel and Expenses (by means of shared functionality) for labor, PeopleSoft Inventory for inventory items, PeopleSoft Purchasing and PeopleSoft Payables for non-inventory items, open descriptions, and services procured, and PeopleSoft Project Costing for tool usage costs.

The Project Costing Price Engine (PC\_PRICING) is run on the costs generated from the feeder systems and the tool costs generated in PeopleSoft Project Costing. PeopleSoft Project Costing applies accounting rules, which are determined by the selection of *Rate Set* or *Rate Plan* for the value of the Rate Selection field on the Work Order Definition - Integration page of the work order business unit, and the Define Shop - Definition page. The values selected on these pages determine the default value that will be used to by the PeopleSoft Project Costing Pricing Engine.

Rate sets do only one level of pricing. For example, if you an Actual row of \$100 is calculated in PeopleSoft Maintenance Management and sent to the subsystems. The rate set WO\_ACT1 is specified in the work order business unit and applies to the work order task row. This rate set indicates that actual rows are to be marked up by 20 percent. The rate set is applied and the new row is referred to as the markup row and is priced at 120 USD. Since you specified rate set, this is the only rate that applies.

However, what if you want the Pricing Engine to apply another rate WO\_DISC1, which indicates that actual rows are discounted by 5 percent? Since you selected rate set on the Integration page of the work order business unit, you cannot apply this second rate to the transaction, which would created a newly priced row for the discount of 95 USD in PeopleSoft Project Costing. In this case, you would select a rate plan.

A rate plan is a collection of rate sets that the system executes in a specified order. Continuing with our example, if you had selected Rate Plan, you can create a rate plan in PeopleSoft Project Costing, for example, WO\_RATEPLAN1, that contain both of the rate sets, WO\_ACT1 and WO\_DISC1. If WO\_RATEPLAN1 is associated with the work order then for an actual row of 100 USD, two priced rows are created in PeopleSoft Project Costing:

- Row 1 = 100 USD (This is the transaction originating from PeopleSoft Maintenance Management.)
- Row 2 = 120 USD based on WO ACT1 rate set (20 percent markup).
- Row 3 = 95 USD based on WO DISC1 rate set (5 percent discount).

The rate set is associated with a rate template that resides in PeopleSoft Project Costing and contains four rate options specific to PeopleSoft Maintenance Management:

- WBI, which is the work order labor bill rate option.
- WCO, which is the work order labor cost rate option.
- TBI, which is the work order tools bill rate option.
- TCO, which is the work order tools cost rate option.

Once the Pricing Engine (PC\_PRICING) runs, these costs reside in the Project Resource (PROJ\_RESOURCE) table. When a work order transaction is priced, the Pricing Engine (PC\_PRICING) updates the GL\_DISTRIB\_STATUS in PROJ\_RESOURCE to *Hold*, which prevents the Accounting Engine (PSA\_ACCTGGL) from selecting or processing any rows with this status. When a work order task is closed, the Work Order (task) Close Process (WM\_CLOSE) updates GL\_DISTRIB\_STATUS to *Costed*. The rows in PROJ\_RESOURCE are then selected by the Accounting Engine to apply the accounting rules, which enables the Journal Generator to generate chargeback accounting entries.

See "Setting Up Rate Sets and Asset Integration Rules" (PeopleSoft Project Costing).

### **Work Order Creation from a Service Request**

Employees in an organization can create and submit a self-service request online to an agent concerning a problem they may be experiencing which can range from the need to replace a light bulb in their office to problems with their computer hardware and software. Many service requests are fulfilled without creating a work order. However, if an agent receives requests concerning problems that cannot be resolved easily, then the agent creates a work order directly from the service request. When an agent creates a work order from a service request, the work order is created with a minimum of data. Later, a planner or scheduler can update the work order with any missing information and assign it to the appropriate technicians.

For example, an employee creates a self-service service request to have a file cabinet moved from one location in the employee's (requester's) office to another location. Because this type of work requires the use of facilities personnel to physically move the filing cabinet, the agent that reviews the service request creates a work order and work order task for a technician to move the filing cabinet. The work order is assigned and scheduled (if necessary). The technician then moves the filing cabinet, enters the time it took to perform the work in the work order, and marks the work order task as complete. The requester is notified that the work order is complete and has a specific amount of time to respond before the service request is closed. A work order task is automatically closed after the number of close days from the completion of the work order task, which is specified on the work order business unit definition, has expired. The closure of the work order is of no concern to the requester.

In addition, work orders can include multiple, related service requests. Once the work order is complete, all associated service requests have their status set to 'Completed.' You can also implement email alerts so that all requestors are notified of the completion. The many-to-one relationship can help improve maintenance planning and scheduling, and reduce overall asset downtime by addressing multiple service requests at once.

See:

Associate to Existing WO (Work Order) Page

Associated Service Requests Page

<u>Understanding Service Request Creation and Use.</u>

# Work Order Creation from PeopleSoft Project Costing or PeopleSoft Program Management

All work orders are associated with a project created in PeopleSoft Project Costing and at least one project activity that is either created in PeopleSoft Project Costing or generated in PeopleSoft Maintenance Management, depending on whether the project you create to associate with work order is:

- A Project Costing-managed project.
- A work order-managed project.

In PeopleSoft Program Management and PeopleSoft Project Costing, you can create a work order from an activity. To do so in PeopleSoft Program Management, you access the **Program Management** > **Activity Definitions** > **Resources** > **Resources by Activity** page, and in PeopleSoft Project Costing, the navigation is **Project Costing** > **Activity Definitions** > **Manage Activity Tem**Both the Resources by Activity and Team pages contain a **Create Work Order** button.

If you have PeopleSoft Program Management installed, you can identify asset (tool), material, and labor resources for an activity, and when you are ready to create a work order, you click the **Create Work Order** button to bring up a page that enables you to select which of the activity's resources you want to copy to a new work order.

If you have only PeopleSoft Project Costing installed, clicking the **Create Work Order** button will take you to a page from which you can select only the labor resources that you wish to place on the new work order you are creating. Regardless of whether you are using PeopleSoft Project Costing or PeopleSoft Program Management, the Create Work Order page that appears enables you to select the resources; identify the work order business unit, work order type, service group, and shop, and create a new single task work order with the selected resources automatically loaded to as requirements of the work order task.

Generic resources serve as place-holders for resources specified for a project. If you have PeopleSoft Project Costing and PeopleSoft Program Management installed, you can assign labor, asset, material, and other generic resources to a project. You can also create a work order and assign one or more these generic resources to the work order. When you define a generic resource for an asset (tools or equipment) in PeopleSoft Project Costing, you select the asset type, subtype, manufacturer ID, and model values for the asset. When you add generic labor resources to a work order, you can select a craft for the resource. When you schedule the work order, you can select a specific resource ID to replace the generic resource.

**Note:** For work order-managed projects, when you set up the PeopleSoft Project Costing Options component for a Project Costing business unit in **Setup Financial/Supply Chain** > **Business Unit Related** > **Project Costing** > **Project Costing Options**, you should select *Optional* for the Input Control, Business Unit, Project, and Activity field value.

No accounting activities are performed in PeopleSoft Maintenance Management. Instead, as work is performed and entered in the work order in PeopleSoft Maintenance Management, the labor, inventory, and purchase costs are sent to the feeder systems where the appropriate accounting is performed, and then sent to PeopleSoft Project Costing where it calculates the costs, capitalizes costs, and sends chargeback calculations to PeopleSoft General Ledger. Tool usage actual costs are distributed and calculated directly in PeopleSoft Project Costing. You can run the Cost Summarization process to collect costs from PeopleSoft Project Costing and display them as actuals in PeopleSoft Maintenance Management.

### **Work Order Creation from Help Desk Applications**

You can integrate PeopleSoft CRM Help Desk and third party help desk applications with PeopleSoft Maintenance Management using the Integration Broker. You must perform the normal setup procedures for PeopleSoft Maintenance Management, as well as set up assets in the PeopleSoft Asset Management asset repository. This provides the foundation to enable you to create work orders from help desk applications.

When a help desk agent receives a call or a self-service notification that involves a problem that the agent cannot resolve without the intervention of one or more technicians, the agent can create a PeopleSoft Maintenance Management work order directly from the help desk application. The help desk application can access the assets in PeopleSoft Asset Management and the problem tree, shops, work order statuses, and work order priorities in PeopleSoft Maintenance Management using PeopleSoft Integration Broker. In addition, the help desk application maintains a history of all transactions that are sent to PeopleSoft Maintenance Management.

When a help desk agent creates a work order, the system sends a series of messages between PeopleSoft Maintenance Management and the help desk application using PeopleSoft Integration Broker. The help

desk initiates the first message to create a work order to PeopleSoft Maintenance Management. Then, PeopleSoft Maintenance Management responds by sending a message that contains the new work order number and the status. If the system fails to create a work order, then the response message contains the errors that are relevant to the failure.

Once PeopleSoft Maintenance Management creates the work order, the system notifies the help desk of key events, which include a change in the work order header status, a change in the work order description, or a request for additional information. A request for information is usually sent to the agent in an email containing an embedded URL, and the technician's workbench in PeopleSoft Maintenance Management indicates that the technician is awaiting a reply to this request. If the agent responds to the email through the URL, the work order workbench indicates that the agent replied to the email.

A technician assigned to a work order can also add a note to which the agent can respond within the work order without using email. After the work order is completed, the system updates the help desk application with the status change and notifies the agent of this status.

If nothing else is necessary to complete the work order, the agent indicates that the problem is resolved and notifies the requester. If the requester is satisfied with the solution, then no further action is required. The agent can close a case without affecting the work order. The technician can manually close the work order or the work order will close automatically within a given time period. However, if the solution was not satisfactory, the requester can instruct the agent to keep the help desk case open. The help desk agent might then respond by creating a new work order.

To create a work order from a help desk application, you can assume that:

- All systems sending information track their requests or cases by business unit.
- Person data used for help desk case creation is part of the help desk system and is not related to person data used in PeopleSoft Maintenance Management.

Because the help desk agent's contact information displays in the work order header, the help desk agent must also be set up in either the PeopleSoft FSCM or HRMS source data tables.

The help desk application is responsible for retrieving all asset information from the PeopleSoft Asset Management asset repository and for maintaining the history of all transactions sent to PeopleSoft Maintenance Management.

PeopleTools Integration Broker is used to issue a series of asynchronous messages that are sent between the help desk application and PeopleSoft Maintenance Management. PeopleSoft CRM Help Desk and third party help desk applications must be set up to successfully send and receive the required Integration Broker messages. Activities that you must perform include:

- Setting up Integration Broker and activating application messages from PeopleSoft Maintenance Management to the help desk application on both the help desk application and PeopleSoft Maintenance Management databases.
- Setting up Integration Broker and activating all application messages from PeopleSoft Asset Management to the help desk application on both the help desk application and PeopleSoft Asset Management databases.
- Setting up problems in the PeopleSoft Maintenance Management Problem Tree.
- Selecting the Publish Data flag for the problems you want to be available to the help desk application.

• Entering work order default values (business unit, service group, type, & priority) for all problems to be published to the help desk application.

• Executing the COPY\_\* messages to populate the corresponding tables in the help desk application.

The following table describes the messages that are sent between the two products by means of the Integration Broker:

Message	Processing	Function
COPY_PROBLEM_TREE	Outbound	Publish All Problem Tree information for problem trees set up in PeopleSoft Maintenance Management.
		The Problem Tree page (WM_PROBLEM_TREE) in PeopleSoft Maintenance Management has a Publish Data check box in the top level of the tree, which, when selected, sends a problem's branch information to the help desk, which uses it to identify and classify a problem.
COPY_SHOP_LOC	Outbound	Publish All Shop Location information.  This message copies all shop locations to the help desk application. These are the shops (service locations) available to the help desk agent when creating a work order.
COPY_WO_STATUS	Outbound	Publish Work Order Header Status Code information.  This message copies the work order statuses to the help desk application.
		These are the work order statuses returned to the help desk from PeopleSoft Maintenance Management when a work order is added or updated.
COPY_WM_PRIORITY	Outbound	Publish all Work Order Priority information.
		This message copies the work order priority codes to the help desk application. These are the priorities available to the help desk agent when creating a work order.

Message	Processing	Function
SYNC_REQ_WORK_ORDER	Inbound	Subscribe to work order add/update request from help desk.  This message enables the help desk agent to add or update work orders.  This message creates a work order in PeopleSoft Maintenance Management when the help desk agent invokes the Create Work Order related action on a case. The message updates a work order in PeopleSoft Maintenance Management when the agent changes the contact information on the case.
SYNC_RSP_WORK _ORDER	Outbound	Publish to work order create/update response.  This message returns an Add or Update status to the help desk application.  If the Add work order is successful, this message returns the new work order number and its initial status. If unsuccessful, this message returns the errors encountered trying to create the work order.
SYNC_WM_WO_KEY_EVENT	Outbound	Publish to key event reporting.  Send work order key events to the help desk application. Key events include: work order status change, work order description change, and request for more information from the work order technician.

See documentation PeopleTools: PeopleSoft Integration Broker

You cannot create a PeopleSoft Maintenance Management express work order from the PeopleSoft CRM Help Desk

### Requests for Information

A technician can request more information from the help desk application by email if a valid employee ID or email address for the help desk agent is available on the work order header. The technician accesses the **Notes** link in either a work order's header or task, enters a new note, indicates that a reply is needed, and sends an email to the contact person (usually the help desk agent) identified in the work order. This email contains an URL that points to a reply page where the help desk's contact person can reply to the information request. When the help desk agent replies, the system automatically sets the note indicator in the technician workbench to *Replied* so that the technician knows that a reply to his request has arrived and is awaiting review. For a work order header note, an email is sent to the scheduler, supervisor, and lead person, indicating a reply was received. For a work order task note, an email is sent additionally to the technician. A technician can deselect the **Request for Information** check box in the work order's Notes page, which cancels the need for a reply to the note. This resets the note indicator in the technician

workbench from *Pending* to *Cleared*. If the technician deselects the **Reply** check box, this resets the note indicator from *Replied* to *Cleared*.

### Work Order Creation for an Asset from an ESRI Map Location

You can create a work order from an asset location on an ESRI map. You click a Map It button to access the ESRI map for a single asset in PeopleSoft Asset Management from these pages:

- Location/Comments/Attributes page in the Basic Add component. (Asset Management, Asset Transactions, Owned Assets, Basic Add.)
- Location group box on the Asset Information page in the Define Asset Operational Information component. (Asset Management, Transactions, Owned Assets, Define Asset Operational Information.)

You click the Map Selected Assets button to access the ESRI map for a single or multiple assets selected on the Asset Map Dashboard in PeopleSoft Asset Management. Once you access a map, the AM business unit and asset ID display as a marker for the selected assets. When you click on the marker, these details about the asset display:

- AM Business Unit (in label)
- Asset ID (in label)
- Asset Type
- Asset Sub-Type
- Asset Description
- Asset Status
- Asset Location
- Asset Area.

Depending on the page from which you accessed the map, specific links appear on the sub page:

- When you access the map from the Location/Comments/Attributes page or the Location group box on the Asset Information page, a link to create and Express Work Order appears on the sub page.
- When you access the map from the Asset Map Dashboard, two links appear on the sub page.

One link enables you to create an express work order, and the second link enables you to drill down to asset.

**Note:** PeopleSoft does not automatically update the latitude or longitude in the location definition. These must be entered manually.

### **Work Order Copy**

You select the Copy To New Work Order check box in the User Preferences > PeopleSoft

Maintenance Management page for selected users to enable them to copy data from an existing work

order to a new work order by clicking the **Copy Work Order** button. This button is available only when you are updating an existing work order.

When you click the **Copy Work Order** button in the Work Order page, you can enter a work order ID for the new (target) work order or let the system assign the next work order ID automatically. You can copy both open and closed work orders.

You can also select specific work order data to copy, which can include:

- Task labor requirements.
- Task inventory requirements.
- Task purchased and on-hand requirements.
- Task tools requirements.
- Task labor schedules.

Selecting this option also copies work order access information.

- Task inventory schedules.
- Task purchased and on-hand schedules.
- Task tools schedules.
- Header notes.
- Task notes.

**Note:** The options available for selection are dependent upon the setup of the user in User Preferences.

**Note:** Scheduled items that you originally created from the direct application of actuals, such as labor and tools items entered from the Technician Workbench and a direct issue of inventory items to the work order, will not be copied to the target work order. Only scheduled resources that a user enters on a work order are copied to the target work order.

See Understanding Overall System Setup Parameters for PeopleSoft Maintenance Management.

Additional data that is either copied or not copied from the source work order to the target work order includes:

- The work order type, service group, priority, shop ID, asset data, problem, cause, and resolution data, location, the work order description, and chargeback data are copied to the target work order.
- The project activity ID is copied from a work order, which is associated with a Project Costingmanaged project, but it is not copied from a work order, which is associated with a work ordermanaged project.
- The required start date is set to the current date and is valid in accordance with default requirements, for the header, labor, inventory, purchase and on-hand, and tools requirements.

You can change the required start date for the new work order before it is created.

• The required end date is set to the new required start date plus the difference between the source work order's required start and end dates, and is valid in accordance with default requirements, for the header, labor, inventory, purchase and on-hand, and tools requirements.

• The task statuses are based on how you set them up, which means that they will default to whichever status value is flagged as Initial.

See Understanding Service Request and Work Order Statuses.

- The header status is recalculated based on the task statuses.
- The status audit log is created for both header and task statuses.
- The service request data is not copied to the target work order.
- The labor schedule lines are copied but the labor assignments and their corresponding ChartField distributions are cleared. New Chartfield distributions are created later when the schedule assignments are made.
- The tools schedule lines are copied but the tool assignments and their corresponding ChartField distributions are cleared. New Chartfield distributions are created later when the tool assignments are made.
- The inventory schedule lines are copied together with their corresponding ChartField distributions.
- The purchased and on-hand schedule lines are copied together with their corresponding ChartField distributions.
- The schedule and actual start and end dates and the actual costs are not copied to the target work order. The schedule start and end dates are recalculated and the actual start and end dates and costs are cleared. The actual start and end times are also cleared while the scheduled start and end times are copied as is.

For example, you can copy a work order with a status of *scheduled* and indicate that you want to copy the labor, inventory, purchased and on-hand, and tools schedules. However, after the copy, the schedule start and end dates convert to the source work order schedule dates plus the difference between the new target work order required start date and the source work order required start date, all actual dates and times are cleared, and all actual costs are cleared.

- The source work order task attachments, instructions, and checklists are copied to the target work order's tasks.
- Work order job and task templates are not copied.

### **Creating a Work Order**

To create a work order use either the:

- Work Order (WM WO) component.
- Express Work Order (WM WO WR) component.

This section discusses how to define work order header information, search for an asset, add notes to work orders, create attachments, search for job templates, and copy to a new work order.

### Pages Used To Create a Work Order

Page Name	Definition Name	Usage
Express Work Order	WM_WO_WR	Create an very basic work order quickly.
Work Order Page	WM_WO_HDR	Identify the key information describing what is to be done with which resources, to which asset, when, why, and how.
Associated Service Requests Page	WM_WO_ASSOCSR_SEC	View multiple service requests associated with a work order.
Mobile Tasks Pending	WM_EIP_STAT_SEC	Update work order task data that is retrieved from third-party mobile devices that are integrated with PeopleSoft Maintenance Management Web Services.
Work Order Status History	WM_WOSTATUS_SEC	Display the status history of the work order, the date that the status was updated, and the user who created a change in the work order that resulted in the work order header status change.
Work Order Approval	WM_WO_APPR	Once you submit a work order for approval, click the <b>Approval History</b> link to view the status of the approval process.
Work Order Attachments Page	WM_WO_ATTACH	Attach a document to a work order or work order task.
Work Order Supplemental Data	WM_WOHDR_SD_SEC	Enter values for supplemental data fields that the organization has created for use on work orders.
Work Order Notes Page	WM_WO_NOTES	Add notes about the work order.
Work Order Task Notes	WM_TSK_NOTES	Add notes about the work order task.
Work Order History for Asset	WM_ASSETWO_SEC	View a history of the work order created, completed, and closed for the specified asset.

Page Name	Definition Name	Usage
Asset Information Page	WM_WO_ASSET_SEC	View additional details about the asset, such as the asset type, asset subtype, asset status, and retire date.
Classification and Status	WM_WO_ASSET_SEC	Displays the asset classification characteristics, status, and criticality based on the criteria entered on the Asset Search page.
Asset Component Hierarchy	WM_AM_HGRID	View the asset component hierarchy.
ESRI Map	ESRI_MAP_PG	Locates selected work order tasks on an ESRI map.
Maintenance History by Type	ASSET_MAINT_SUM_01	View the asset maintenance history based on the type of maintenance performed on the asset.
Asset Warranties	ASSET_WARRANTY	Display the asset warranties associated with an asset specified in the work order. If a warranty does not exist, users with update access to the page can create an asset warranty for this asset, using a warranty template if desired.
Search for Asset Warranty Templates	AM_WTMPL_SRH	Search and select an asset warranty template to apply to the Asset Warranties page to create a new warranty for an asset.
Job Template Search Page	WM_JRL_JT_SRCH_SEC	Search for a job template to associate with this work order.
Personal Data	WM_PERSON_DATA_SEC	Enables a user to view a selected employee's contact information.
Scheduler Information	WM_SCHEDULER_SEC	Enables a user to view the selected scheduler's shop, employee ID, and shift information.
Copy to Work Order Page	WM_WO_COPY_SEC	Copy existing work order data to a new work order.
Work Order Failure Tracking Page	WM_WO_FAIL_TRACK	Define failure information for an asset selected for a work order task  You must select an asset for this link to
		appear.

Page Name	Definition Name	Usage
Task Status History	WM_TASKSTATUS_SEC	Review the status history of a specific work order task.
Failure Causal Parts	WM_WO_FAILCAUS_SEC	Add comments concerning the parts or assets that caused the failure.
Enter Meter Reading	WM_FTRK_METER_ADD	Enter the current meter reading to display any change from the last meter reading for the failed asset.
Prior Meter Reading	WM_FTRK_METER_ADD2	Review any prior meter readings of the meter associated with the selected asset.
Meter Reading Comments	AM_MTR_RD_CMT2	Review any comments concerning the meter readings.

### **Work Order Page**

Use the Work Order page (WM\_WO\_HDR) to identify the key information describing what is to be done with which resources, to which asset, when, why, and how.

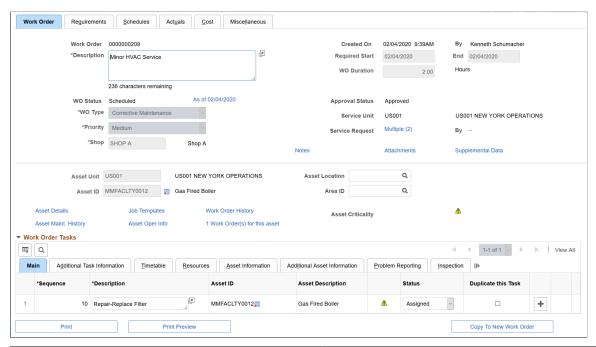
The data entered on this page such as Priority, Asset ID, and Shop will be used as parameters for automatically assigning labor and supplier for the Work Order. If the Auto Assignment & Dispatch check box is selected on the Work Order - Definition Page and valid auto assignment and dispatch data is setup on the Auto Assignment & Dispatch Setup Page then the labor and supplier will be assigned and dispatched based on the Work Order task template requirements populated by the system. Labour and Supplier are auto assigned once the Work Order is saved after specifying the parameters.

**Note:** When searching for an existing work order, you can search across all business units. You can also use keyword search to locate an existing work order.

Navigation:

Maintenance Management > Work Order Management > Work Order

This example illustrates the fields and controls on the Work Order page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Work Order	If the selected business unit indicates auto-numbering, then the system assigns the <i>NEXT</i> number after the last Work Order ID created. If auto-numbering is not selected for the business unit, you can enter a number manually.
Description	Enter a description of the problem being addressed by this work order. This description automatically defaults to the description field for the first work order task on the Requirements page of the work order. You can override this description on the Requirements page and enter a description that describes the specific work to be performed for the task. If you override this description for a work order task, this description on the Work Order page will not change.  Note: To insure that a description of the work order problem and a description of the work to be performed for each task are entered, you can enter the problem description in the Description field on the Work Order page, and a description of the work to be performed for each task in the Description field on the Work Order Tasks grid at the bottom of the Work Order
	page.
Created On and Created By	Once a new work order is saved, these fields display the date and time that the work order was created and the name of the user who created the work order.

Field or Control	Description
Mobile Updates Pending	Click this link to update the work order tasks that have had any data sent from to a third-party mobile device.
	Note: This link only appears if you have integrated a third-party mobile device with PeopleSoft Maintenance Management Web Services and selected the Enable Integration Enabled check box for the business unit used to create this work order.
	See Mobile Web Services Integration.
Required Start and End	Select the date that you want this work order to start and end. The current system date appears as the default date in these fields, which you can override.
WO Status (Work Order Status)	Identifies the overall work order status. The work order status reflects the most outstanding status of the work order task statuses. You cannot directly change this work order header status.
As of mm/dd/yyyy (as of month/day/year)	Click this link to access the Work Order Status History page, which describes the status of the work order, the date it was updated, and the name of the person who updated it.
Duration	Enter the number of hours and fractions of an hour needed to complete the entire work order. This field is informational only.
	<b>Note:</b> The duration value is not exported to MicroSoft Project. Instead MicroSoft Project calculates the duration based on the start and end dates of the work order and tasks.
Work Order Type	Displays the default value from the value entered on the Work Order - Add a New Work Order page. This is the tentative user-defined value for the type of work order you are creating. Typical work order types could be: CORR (corrective maintenance), Capital (capital), and PM (preventive maintenance). You can override this value.
	<b>Note:</b> You cannot change this work order type value after scheduling resources for a task.

Field or Control	Description
Service Request Unit	Click to select a service request business unit to enable you to associate a service request with this work order. This field may already contain a value if:
	This work order was created from a service request. The business unit value from that service request displays here.
	The service request was created from an application, such as a help desk application, that is external to PeopleSoft Maintenance Management. This information is displayonly.
Priority	Displays the default value from the value entered on the Work Order - Add a New Work Order page. This is the tentative level of urgency for this work order.
	Note: You can override this value.
Service Request and By	When there is a single service request associated with the work order, click the service request link to access the <u>Service Request Page</u> .
	When there are multiple, related service requests associated with the work order, click the service request link to access the <u>Associated Service Requests Page</u> and view multiple service requests associated with this work order.
	When there is a single service request associated with the work order, the <b>By</b> link contains the name of the person entered in the <b>Requested By</b> field in the service request. This could be the name of the agent or the original requester, depending who entered the service request. This person is automatically notified when a work order is completed or canceled.
	Note: When there are multiple service requests associated with the work order, the By link displays ellipsis, not individual names.
Shop	Displays the default value from the value entered on the Work Order - Add a New Work Order page. This is the tentative primary shop. You can override this field.
	Note: You cannot change this shop value after scheduling resources for a work order task.
PM Schedule ID (preventive maintenance schedule ID)	Identifies the preventive maintenance schedule, which was used to generate this preventive maintenance work order. If this is not a preventive maintenance work order, this field does not display.

Field or Control	Description
Approval Status	If the work order business unit, shop definition, or work order type indicate that this is a pre-approved work order, the defaulting approval status is <i>Approved</i> . However, if the work order business unit, shop definition, or work order type indicate that this work order must be approved, then the value in this field is determined by the current status of the approval process, which includes:  • <i>Initial</i> .  • <i>Pending Approval</i> .  • <i>Approved</i> .  • <i>Denied</i> .  • <i>Canceled</i> .  Note: If work order header status is canceled, work order approval is not invoked.
	approval is not invoked.
Approval History	Click this link, which displays after you run the Approval process for this work order, to access the Work Order Approval page, which displays the steps in the approval process.
Notes	Click this link to access the Work Order Notes page.
Total	If multiple notes exist for the work order, the link displays the total number of notes.
Attachments	Click this link to access the Work Order Attachments page. If a service request is associated with this work order, you can view any of the attachments added when the service request was created.
Supplemental Data	Click this link to access the supplemental data that you set up for the work order header. The contents that display in this page are entirely dependent on how you set up the supplemental data. You set up supplemental data to extend the information stored for an object without modifying that object's base record (table). Objects, include records, pages, and components, which must be specifically configured to accept supplemental data.

Field or Control	Description
Asset ID and Asset Advanced Search	To locate an asset, click the Asset Advanced Search icon and access the Asset Search page (WM_ASSET_SEARCH). The Asset Search page uses keyword search.
	For more information on keyword searches, see:
	"Understanding Global Searches" (Application Fundamentals)
	"Understanding Keyword Search within Components" (Application Fundamentals)
Print	Click this button to print the work order. You cannot preview the work order. However you can select specific sections of the work order to print. You can also print attachments associated with the work order.
Print Preview	Click this button to preview the work order in PDF format that opens in a new window. You can preview and print the entire work order with the exception of print attachments associated with the work order.

### **Approval Preview and Submit for Approval**

Click the **Approval Preview** button and the **Submit for Approval** button to access the Work Order Approval page.

See <u>Understanding the Work Order Approval Process</u>.

### **Asset Information**

This asset information is applicable to the entire work order and is optional.

Field or Control	Description
AM Business Unit (Asset Management business unit)	Displays the Asset Management business unit associated with the work order. This value is populated automatically when an asset is selected from the Asset Search page.
Area ID	Select the specific area in which this asset is located. This value is set up in the PeopleSoft Asset Management asset repository.
Asset Criticality	Identifies how critical this asset is to the organization. This value comes from the PeopleSoft Asset Management asset repository.

Field or Control	Description
Asset ID	The field name displayed is based on the set up in the work order business unit. The field's name could be <b>Asset ID</b> , <b>Tag Number</b> , <b>Serial ID</b> , or <b>VIN</b> (vehicle identification number).
Description	Displays a detailed description of the asset. This field is available only if the Display Asset Detailed Description check box is selected on the Installation Options - Maintenance Management page.
Asset Location	Enter the location of this asset or click the Search icon to display a list of locations and select the location of this asset.
Map It	Click this button to access the ESRI map for the asset associated with this work order.
	<b>Note:</b> This button appears only if ESRI integration is selected for the work order business unit that is associated with this work order.
	Once you access a map, the work order business unit, work order ID, and Task ID display as a marker for the selected work orders on the map. When you click the marker, these details concerning the work order display:
	• Work Order Business Unit (in label)
	• WO ID (in label)
	• Task ID (in label)
	• Description
	• Shop
	• Priority
	Service Group
	Work Order Type
	Task Status
	Note: You can also access a work order location on an ESRI map from the Additional Asset Information tab on the Work Order Tasks grid on the Work Order page, the Requirements page and Schedules page of the Work Order component, the Work Order Workbench, and the Technician Workbench.

Field or Control	Description
	Click this button to access any warranties in PeopleSoft Asset Management that apply to this asset. Indicates that there are warranties associated with the selected asset.
	Click this button to access the Asset Information/Details page for information concerning the hazardous implications of the selected asset. The asset is defined as a hazardous waste asset in PeopleSoft Asset Management.
Asset Location	Select the current location of the selected asset.
	Important! When you enter the asset business unit and ID, the default location is derived from the asset repository. However, you can change the location to indicate that the asset is currently in a different location. For this reason the location is not validated against the asset when the work order is saved.
View Work History	Click this link to view the Work Order History for Asset page. This page lists the work orders, their descriptions, statuses, and required, completed, and closed dates that were created for this asset.
Asset Details	Click this link to view the <u>Asset Information Page</u> , which provides additional details about the asset, such as asset type, asset subtype, asset status, and retire date.
Asset Maint. History (asset maintenance history)	Click this link to access a second window to review the Review Maintenance History component in PeopleSoft Asset Management, which enables you to view the Maintenance History by Type page.  This page enables you to view the description of the maintenance, the date and time of the maintenance events, the technician who performed the maintenance, the cost of the maintenance, the work order business unit, work order ID, and task ID.
Job Templates	Click this link to access the Job Template Search page, which enables you to search for a job template to apply to the work order.

See <u>Understanding Service Request and Work Order Statuses</u>.

See Work Order Business Unit Defaults and Default Hierarchies.

See <u>Understanding Service Request Creation and Use</u>.

See Work Order Priority Page.

See Understanding Labor and Tools Resource Setup and Maintenance.

See Understanding the Work Order Approval Workflow Architecture.

See <u>Understanding the Work Order Approval Process</u>.

See Work Order Attachments Page.

See <u>Understanding Supplemental Data</u>.

#### **Work Order Tasks**

When a work order is created, one task is automatically created. This grid displays all the tasks and their details associated with this work order. If you copy a job template to a work order, the tasks copied from the template are listed here. You can add a task to this grid by adding a new row, however, you can access the Requirements page to define resources for each task, and access the Schedules page to schedule the resources for the task.

The Asset Description hyperlink allows you to view the outstanding work orders for the Asset ID. If you click on the link, a new window for the work order or technician workbench is displayed. You can then use the search functionality on this page to see if duplicate work orders exist.

When you select and save an asset for a work order or work order task, you can click the Failure ID Add link to access the Work Order Failure Tracking page and describe the detail failure information concerning the asset. This activity is optional.

**Note:** Typically, if you are going to define resource requirements for one or more tasks, you set up the task and define the requirements on the Requirements page. If you are not going to define requirements, you can set up one or more tasks on the Schedules page and schedule the resources. You can also add tasks from the Actuals page. If the work order requires approval, the Schedules and Actuals tabs do not display.

The fields used to create a work order task, which appear on the tabs of this Work Order Tasks grid, are defined in detail in the section Creating Work Order tasks. The fields used to define labor, inventory, purchase/on-hand, and tool resources are described in detail in the Defining Work Order Task Requirements set of topics.

## **Associated Service Requests Page**

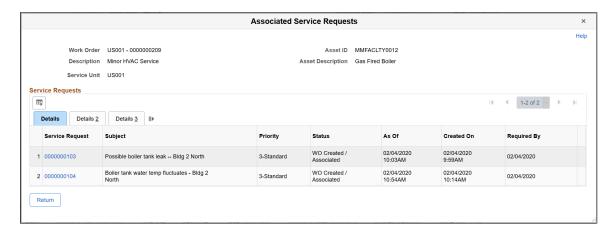
Use the Associated Service Requests page (WM\_WO\_ASSOCSR\_SEC) to view multiple, related service requests associated with a work order.

You can only access this page from the Work Order page when there are 2 or more service requests associated with the work order.

Navigation:

Click the Service Request link on the Work Order page.

This example illustrates the fields and controls on the Associated Service Requests page.



Review service request details for each service request, such as status, request type, requestor, and notes.

Click the Service Request link to access the Service Request page and view or modify individual service request details.

### **Work Order Attachments Page**

Use the Work Order Attachments page (WM\_WO\_ATTACH) to attach a document to a work order or work order task.

#### Navigation:

- Click the **Attachments** link on the Work Order page.
- Click the **Attachments** link on the Requirements page.
- Click the **Attachments** link on the Schedules page.

This example illustrates the fields and controls on the Work Order Attachments page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Description	Enter a brief description of each attachment.

Field or Control	Description
	Click this icon to enable you to search for an attachment such as a drawing, diagram, or other type of document that is needed for the construction, service, or repair of the selected asset.

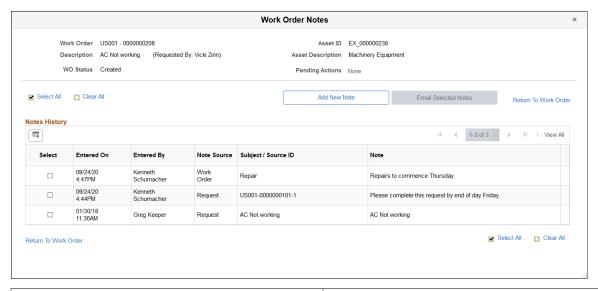
# **Work Order Notes Page**

Use the Notes page (WM\_WO\_NOTES) to add notes about the work order.

Navigation:

Click the Notes link on the Work Order page.

This example illustrates the fields and controls on the Work Order Notes page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Add New Note	Click to access the Add New Note page and add a new note to the work order.  You can also notify users of the new note you are adding.  Once the note is complete, it displays in the Notes History section of this page.
Email Selected Notes	Click to access the Email Selected Notes page and email a work order note to one or more users.  You cannot use this button until you first select a note from the Notes History section.

### **Notes History**

Use this section to view past work order notes, the date and time the note was entered, and the note source (either the service request or the work order). All notes entered on the associated service request display here. This is also true when a work order is associated with multiple service requests—notes from each service request appear here. As notes are added, this enables you to keep track of the note history.

Because service request notes are entered without subject text, the system generates a subject for the note. The generated subject consists of service request business unit, service request ID, and notes sequence number. For example, US001-0000000101-1.

Use the **Action** icon to reset the status of the note. Clearing the status for the note indicates that you no longer want to track the note as a pending item.

You can also select one or more of the notes to email to another user.

**Note:** The **Note Source** column only appears when notes from both the service request and work order are present. If only work order notes are present, the column does not appear. Additionally, the **Status** and **Action** columns only appear when a work order note was created with *'Needs Reply'* selected, or when a reply is present but the note status has not been cleared.

### **Asset Information Page**

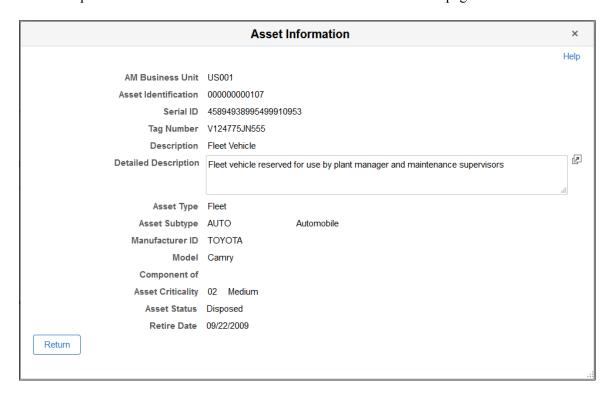
Use the Asset Information page (WM\_WO\_ASSET\_SEC) to view additional details about the asset, such as the asset type, asset subtype, asset status, and retire date.

Navigation:

Click the Asset Details link on the Work Order page.

Click the Asset Details link on the PM Schedule - General Options page.

This example illustrates the fields and controls on the Asset Information page.



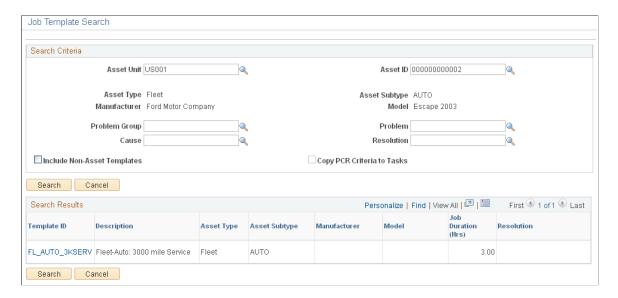
## **Job Template Search Page**

Use the Job Template Search page (WM\_JRL\_JT\_SRCH\_SEC) to search for a job template to associate with this work order.

Navigation:

#### Click the Job Template link on the Work Order page.

This example illustrates the fields and controls on the Job Template Search page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Asset Business Unit	Select an asset business unit or a default business unit displays.
Asset ID	Displays a field name depending on which of the values that you select for the Asset Lookup Field definition in the work order business unit, which include:  • Asset ID  • Serial ID
	<ul><li>Tag Number</li><li>Vehicle ID Number</li></ul>
Include Non-Asset Templates	Select this check box to include job templates that contain tasks that do not directly involve the asset, such as a multi-task operation to clean up and restore the work area.  Note: If you do not select and Asset Management business unit and an asset in the work order header or task when
	you access this search page, this check box is automatically selected and only non-asset templates are listed after performing the search.
Copy PCR Criteria to Tasks (copy problem, cause, and resolution criteria to tasks)	Select this check box if you did not specify the problem/cause/ resolution (PCR) code values in the fields on the Work Order page, but selected PCR codes instead on the search page to refine your search. You have the option of copying these PCR lookup values back to the work order task lines. When you save the work order, the work order copies the problem, cause, and resolution to each of the task lines created from the selected job template.

**Important!** When you select a job template to apply to this work order, it copies the associated task template information to the work order tasks. The system only copies task template lines to a work order task line that does not contain any default values or values entered by a user. Usually, once a user enters a task line, a new line is triggered into which the system can copy a task line associated with work order job template.

See <u>Defining Resource Requirements for a Work Order Task</u>.

See <u>Understanding Work Order Task Resource Requirements</u>.

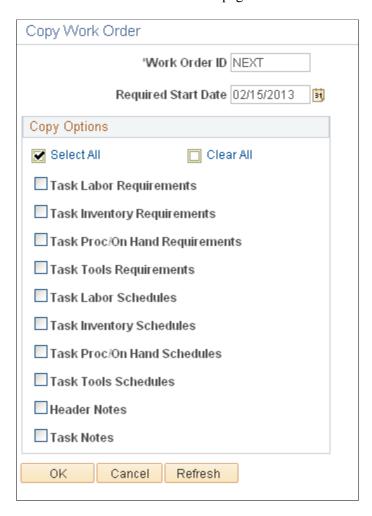
# **Copy to Work Order Page**

Use the Copy Work Order page (WM\_WO\_COPY\_SEC) to copy existing work order data to a new work order.

Navigation:

Click the Copy to New Work Order button on the Work Order page.

This example illustrates the fields and controls on the Copy Work Order page. You can find definitions for the fields and controls later on this page.



Click the Copy To New Work Order button to access the Copy to Work Order page.

**Note:** This button displays only if this option is selected for this user in User Preferences.

Field or Control	Description
Work Order ID (new work order number)	Enter a combination of letters and/or numbers for this new work order. Leave this field unchanged if you want the system to generate a new work order number for you.
Required Start Date	Change the date or leave as today's date for the new work order.

Field or Control	Description
Copy Options	To copy one or more of the following values to the new work order, click the corresponding check box for:  • Task Labor Requirements.
	Task Inventory Requirements.
	Task Proc/On Hand Requirements (purchase/on hand requirements).
	Task Tool Requirements.
	Task Labor Schedules.
	Task Proc/On Hand Schedules (purchase/on hand schedules).
	Task Tools Schedules.
	Task Inventory Schedules.
	Header Notes.
	Task Notes.
	Note: The scheduling options do not appear until the work order is approved.
	See <u>Understanding Overall System Setup Parameters for</u> <u>PeopleSoft Maintenance Management</u> .
ОК	Click this button to access the new work order.

See Work Order Copy.

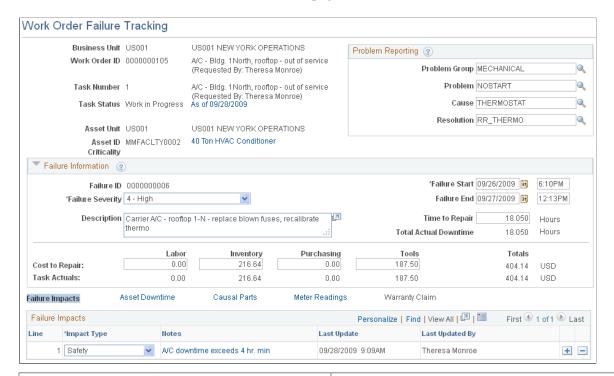
# **Work Order Failure Tracking Page**

Use the Work Order Failure Tracking page (WM\_WO\_FAIL\_TRACK) to .

#### Navigation:

- Click the Failure ID Add link on the Work Order Tasks Problem Reporting grid on the Work Order page.
- Maintenance Management, Work Order Management, Work Order Failure Tracking, Work Order Failure Tracking

This example illustrates the fields and controls on the Work Order Failure Tracking page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
<b>Business Unit</b>	Displays the business unit associated with the work order and work order task to which this failure event is associated.
Work Order ID	Displays the ID of the work order associated with this failure event. The system will only display work orders associated with an asset on this page.
Task Number	Displays the task number that is associated with the work order that you selected. If the work order has multiple tasks, you can select from any of those tasks as long as a failure event has not been created for that task.
Task Status	Displays the current status of the task based on the status selected in the work order. The date that the status was created displays as a link. Click this link to review the Task Status History page.
Asset Unit	Displays the business unit associated with the asset for which this failure event is created.

Field or Control	Description
Asset ID	Displays the Asset ID or whatever value is specified in the Asset LookUp Field on the work order business unit Definition page. (Asset ID, Serial ID, Tag Number, Vehicle ID Number) When you select an asset ID, the description of the asset appears as a link. Click this link to view the Asset Information page.
Criticality	Displays how critical the asset is to the operation of the organization. A Warranty icon or Hazardous icon may appear next to an asset's criticality code. You can click the <b>Warranty</b> icon and access the Asset Warranties page for this asset to find out if the warranty covers the repair or partial repair of this asset. You can click the <b>Hazardous</b> icon and access the Asset Information page, which provides more information about any hazardous condition related to the selected asset.
Problem Reporting	Displays values entered on the Requirements page of the work order for this task. You select values for these fields based on the asset associated with the work order and this failure event.
	Problem Group
	• Problem
	• Cause
	• Resolution
Failure ID	Displays the next failure id in the system or displays a unique failure ID entered by the user.
Failure Start and Failure End	Enter or select the date (required) and the time (optional) that this failure event began.
	Selecting a failure start date enables the system to compute the mean time between failures metric for the Failure Tracking Analysis information.
	Optionally enter or select the date and time that this failure event ended. You would normally enter it after the asset failure is resolved.
	Important! If the Failure Start and Failure End dates and times are blank on this page, and the Actual Start Date and Start Time and Actual End Date and End Time in the Asset Downtime grid contain values, the system will update the blank failure start and end dates and times fields with the actual start and end dates and time for the asset. You can override these values.
	However, if a value appears in the Failure Start field, the asset downtime actual start and end date and time field values will not override the Failure Start field value, or place a value in the Failure End field.

Field or Control	Description
Failure Severity	Select a code that best describes the seriousness of this failure event to the organization. This is a required field. Failure Severity codes are set up in Set Up Financials/Supply Chain, Product Related, Maintenance Management, Failure Tracking Setup, Failure Severity.
Description	Enter or add to a description of the failure. You can click the arrow icon to access a larger Description page (ModalWidget).
Time to Repair	Displays the same value as the Total Actual Downtime field, if actual downtime has been calculated for this asset. You can adjust this value to the actual time that it took to repair the asset.
	For example, the total time the asset associated with this failure event was down was eight hours. However, it only took the technician four hours to repair the asset. The other four hours were used for cleanup and reports. Entering 4 hours in this field provides a more accurate picture of how much time it actually took to repair this asset based on this particular failure.
Total Actual Downtime	Displays the total actual downtime for the asset based on the entry of the actual start and end dates and times in the Work Order component, the Technician Workbench component, the Downtime Entry component, or by clicking the Asset Downtime link on this page and entering actual downtime start and end dates in the Asset Downtime – Actual Downtime grid.

Field or Control	Description
Costs to Repair	Displays these costs to repair the asset:
	• Labor
	• Inventory
	Purchasing
	• Tools
	The system uses this repair costs data as the actual costs in the Work Order Failure Analysis metric calculations.
	When the system calculates the actual task costs for a work order task, it updates these costs in both the Task Actuals and Costs page and the fields on this page as long as a failure event exists for the task. The values in the fields of each row are equal to the Task Actuals values in the work order for this task However, you may know that the costs to repair this asset are either higher or lower that the Task Actuals calculation by the system. Based on this knowledge, you can override the Costs to Repair values for this failure event.
	For example, the total asset downtime was eight hours, and you entered 8 hours for the work order task to calculate the labor, inventory, procurements, and tools. However, you know that the actual labor to repair the asset only took 4 hours. The technician spent four more hours doing paperwork, which you do not want to count as part of the actual repair time and costs. You can adjust the costs to repair amount for labor to 4 hours instead of 8 on this page to derive a more realistic scenario. Any metrics calculated based on this page do not change the values for the work order task.
	If the system updates the task actuals a second time in the work order, the Costs to Repair field on this page will not be updated. You must modify these Costs to Repair values manually.
	If you create the Work Order Failure Tracking page before any actual costs have been calculated for the task, there will be no data in the Cost to Repair field or the Total Actual Costs field. If you want to analyze this data before the actual costs are calculated, you can enter the Cost to Repair fields manually.
Task Actuals	These fields are updated by actual costs calculated for the work order task. These same values initially update the Costs to Repair values on this page.
	Refer to the Costs to Repair field description to understand how these Task Actuals are used on this Work Order Failure Tracking page.

### **Additional Failure Event Information**

Depending on the work order task and asset, these links appear on the Work Order Tracking Failure page:

- Failure Impacts
- Asset Downtime
- Causal Parts
- Meter Readings
- Warranty Claim

### **Failure Impacts Page**

Use the Failure Impacts Grid page to display the Failure Impacts

Navigation:

Click the link on the Work Order Failure Tracking page.

This example illustrates the fields and controls on the Failure Impacts grid. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Failure Impacts	Click this link to display the Failure Impacts grid.
Impact Type	Select one of the Failure Impact codes, which define the situation impacted by this failure. You can add more than one failure impacts codes by row to a failure event. Assigning a failure event one or more of these codes enables you to search for failure events based on failure impact on the Failure Analysis page. Failure Impact codes are set up in Set Up Financials/Supply Chain, Product Related, Maintenance Management, Failure Tracking Setup, Failure Impact.
Notes	Click the Add link to display the Failure Impact Notes page (WM_WO_FAILIMPC_SEC) where you can enter details about how this selected impact type affects the failure event.
Last Update	Displays the date and time the notes were last updated when you click the <b>OK</b> button on the Failure Impact Notes page.

Field or Control	Description
Last Updated	Displays the date and time the notes were updated once click <b>OK</b> on the Failure Impact Notes page.
Last Update By	Displays the name of the person who last updated the notes and clicked OK on the Failure Impact Notes page.

#### **Asset Downtime**

Use the Actual Downtime grid. to display the asset downtime.

Navigation:

Click the **Asset Downtime** link on the Work Order Failure Tracking page and select the Actual Downtime tab

This example illustrates the fields and controls on the Asset Downtime grid. You can find definitions for the fields and controls later on this page.



You normally enter planned and actual asset downtime information for an asset associated with a work order task in the Work Order, Technician Workbench, or Downtime Entry components. When you create a failure event for a work order task that has some or all of asset downtime defined, the system updates the Asset Downtime grid on the Work Order Failure Tracking page with this downtime information. Planned downtime is optional for tracking failure events.

If you have not entered any asset downtime prior to creating a failure event, you can enter the information in the Asset Downtime grids on this page. The system will update the Asset Downtime grids associated with the Work Order, Technician Workbench, and Downtime Entry components with the asset downtime information that you enter in the grids on the Work Order Failure Tracking page.

If you have not entered any asset downtime from the Work Order, Technician Workbench, or the Downtime Entry components, the Asset Downtime grid on the Work Order Failure Tracking page will be blank and no figure will appear in the Total Actual Downtime field or the Hours to Repair field. If this is the case, you can enter the actual downtime data on the Work Order Failure Tracking page or enter it in the Work Order, Technician Workbench, or Downtime Entry components. When the data is saved, the Total Actual Downtime and Hours to Repair fields are updated.

When you enter the actual downtime for the asset associated with this failure event and save the page, the system calculates the Planned Actual Variance, updates the Time to Repair and Total Asset Downtime fields on this Work Order Failure Tracking page, and updates the asset downtime for this asset and task in the Work Order, Technician Workbench, and Downtime Entry components.

If the Failure Start and Failure End date and time fields are blank on the Work Order Failure Tracking page, and the Actual Start Date and Start Time and Actual End Date and End Time on the Actual Downtime grid contain values, the system updates the most recent of these values in the Failure Start and Failure End date and time fields. You can override these values.

**Note:** The Actual Downtime grid may already contain data that was entered in the Work Order, Technician Workbench, or Downtime Entry components for this work order task.

See **Downtime Entry Page**.

#### **Causal Parts**

The Causal Parts grid enables you to select and enter the quantity of part or assets that were responsible for the failure of the asset associated with this failure event. This data is used to add information about a failure event, but it does not affect any costs or quantities for the failure event or the work order task associated with it. You can use causal parts as search criteria to locate specific failure events for analysis.

Use the Failure Causal Parts page (WM\_WO\_FAILCAUS\_SEC) to add comments concerning the parts or assets that caused the failure.

#### Navigation:

Click the Add link in the Causal Parts grid on the Work Order Failure Tracking page.

This example illustrates the fields and controls on the Causal Parts grid. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Part Type	Select one of these as one of the causal parts responsible for the failure event:  • Part  • Asset
Causal Part ID	If you have not selected a causal part for this failure event, you can click the Add link to select and describe the part or asset.  After adding a part, you can click the ID and view the details concerning the selected causal part.
Quantity	Enter the number of these causal parts involved in the failure event.

Field or Control	Description
Comments	Click the <b>Add</b> link to access the Failure Causal Parts page (WM_WO_FAILCAUS_SEC) and add comments about the selected causal part, such as the part has corroded.

### **Meter Readings**

Use the Meter Reading Comments page (AM\_MTR\_RD\_CMT2) to review any comments concerning the meter readings.

Navigation:

Click the Comments link in the Meter Readings grid of the Work Order Failure Tracking page.

The Meter Readings link is only enabled if the asset has one or more meters associated with it. The system calculates the mean meter reading metric for an asset to use for analysis.

Field or Control	Description
Meter Type	Displays the meter type associated with the failure event's asset.
As of Date, Time	Click the <b>Add</b> link to access the Enter Meter Reading tab (WM_FTRK_METER_ADD) and the Prior Reading tab (WM_FTRK_METER_ADD2). See: documentation <i>PeopleSoft Asset Management</i> : "Adding and Maintaining Assets," Entering Meter Readings
Meter Reading	Click the Add link to access the Enter Meter Reading tab and the Prior Reading tab.  See "Entering Meter Readings" section in the documentation PeopleSoft Asset Management
Change	Displays the change between the current meter reading that you enter and the prior meter reading.
Comments	Click the field value link to view any comments that you entered on the Meter Reading Comments page (AM_MTR_ RD_CMT2) concerning the current meter reading.

# **Warranty Claim**

The Warranty Claim link is only enabled if the asset has warranties associated with it. This grid displays the warranty associated with the failure event's asset.

Navigation:

Click the Warranty Claim link on the Work Order Failure Tracking page.

This example illustrates the fields and controls on the Warranty Claim grid. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Claim Number	Click the Update link below the Claim Number to access the Task Cost Recovery page, where you can add the information and attempt to recover the cost of repairing on replacing the failed asset associated with the task.  See Managing Warranty Claims.

# **Creating Work Order Tasks**

To create a work order task, use the Work Order (WM WO) component.

This section discusses how to create work order tasks, enter asset downtime, and set up work order task accounting.

## **Pages Used To Create Work Order Tasks**

Page Name	Definition Name	Usage
Work Order Page	WM_WO_HDR	Select, enter, or view data in the <b>Work Order Tasks</b> grid.
Requirements Page	WM_WO_TASK_RQMT	Create and update work order tasks and task requirements.
Task Status History	WM_TASKSTATUS_SEC	Review the history of work order task status changes for the selected task.
Work Order - Task Accounting Page	WM_WO_TSK_ACCTG	Set up asset capitalization and chargeback information.

Page Name	Definition Name	Usage
Personal Data	WM_PERSON_DATA_SEC	Review additional personal information, such as the telephone number, of the selected individual.
Scheduler Information	WM_SCHEDULER_SEC	View specific information about the scheduler.
Change Shop to Identify Crew	WM_CREW_BUSHOP_SEC	Change the shop for a selected crew.
Work Order History for Asset	WM_ASSETWO_SEC	View a history of the work order created, completed, and closed for the specified asset.
Maintenance History by Type	ASSET_MAINT_SUM_01	Review the maintenance history based on the type of maintenance performed.
Asset Information	WM_WO_ASSET_SEC	Displays detailed asset information such as the asset type, asset subtype, manufacturer ID, and model.
Downtime Entry Page	WM_WO_DOWNTIME	Enter the start and end dates and times that the asset will be unavailable for use.
Asset Calendar	RS_ASSET_MONTH	Access and review the Asset Calendar.  This link displays only if you select an asset for the task.
Task Details	RS_SCHED_APPT	Review the task details for an asset on a specific day.
Asset Daily Schedule	RS_ASSET_DAILY	Displays the asset's schedule per day hour by hour.
Task Template Search	WM_JRL_TT_SRCH_SEC	Search for a work order task template to copy to the work order.
Task Cost Recovery	WM_WO_TSK_CLAIM	Enter warranty claim information to begin the process of attempting to recover costs from a supplier based on an asset's warranty.
Meter Reading History	AM_MTR_RD_HIS	Review the meter reading history of the meter associated with the selected asset.

### **Requirements Page**

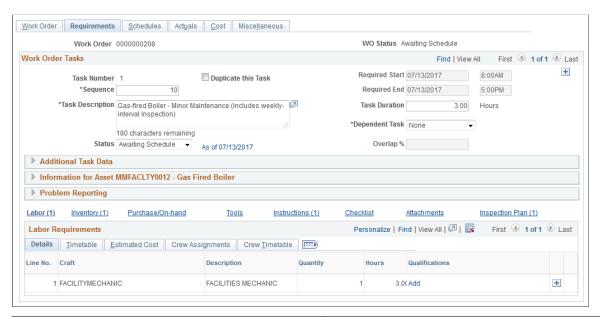
Use the Requirements page (WM\_WO\_TASK\_RQMT) to create and update work order tasks and task requirements.

Navigation:

#### Maintenance Management > Work Order Management > Work Order

Select the Requirements tab.

This example illustrates the fields and controls on the Requirements page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Task Number	The system generates a number for each task.
Duplicate this Task	Select the check box and then click the plus sign in the upper right corner of the <b>Work Order Tasks</b> group box to create a copy of this task.
	Note: You can also click the plus sign in the upper right corner of the Work Order Tasks group box to insert another blank task. You can create as many tasks as needed using this method. You can click the minus sign in the upper right corner of the Work Order Tasks group box to delete a task.
Sequence	Enter the number that represents the numerical order within the work order in which to complete this task.
Required Start and Required End	Select the start and end dates and times. The default start and end date values are derived from the work order header. You can override this information.

Field or Control	Description
Task Description	Enter a brief description of this task. This field is required.
Duration	Enter the total number of hours and parts of an hour that the task will take to complete.
Dependent Task	Select the task that must be performed before this task can be started for work orders associated with more than one task.
Status	Select the user-defined status for this task based on the statuses in the list. The work order task status values are user defined and correspond to system-defined internal statuses. The values that display in this list are determined by the allowable status transitions that are set up when you set up the work order task statues. Workflow approval also affects the statuses that you can choose from. For example, if workflow approval is required (based on the business unit, work order type, or shop setup), then only the <i>Open, Canceled</i> and <i>On Hold</i> statuses are available until the work order task is approved. Tables that define the behavior of each status are defined in the Setting Up Service Request and Work Order Statuses topics.  See <u>Understanding Work Order Task Completion</u> .
As of mm/dd/yyyy	Click this link to access the Task Status History page, which lists the changes in status for this task as of the date specified in this link.
Overlap % (overlap percentage)	Enter the percentage that this task overlaps with the dependent task. You can load this information into Microsoft Project.

### **Additional Task Data**

The Additional Task Data group box contains these fields:

Field or Control	Description
Work Location	Select the location where this work order task will be performed. If a default value displays in this field, it is based on a rule that specifies whether to derive this default value from the asset, the shop, or another location. If the latter is selected, then this field is blank.

Field or Control	Description
Supervisor	Select the employee ID and name of the supervisor assigned to this task.
	The name of the supervisor appears as a link on the page. When you click this link, the Personal Data page for the selected supervisor displays, which contains the individual's contact information.
Project Activity ID	Select an activity if this work order is associated with a Project Costing-managed project. A default activity ID value automatically displays when the work order is saved if this work order is associated with a work order-managed project.
	Note: If this work order is associated with a Project Costing managed project, a link will appear next to the Project Activity field, which enables you to access the Resources by Activity page in PeopleSoft Project Costing or in PeopleSoft Program Management, if this product is installed.
	See "Activity Definitions - Definition Page" (PeopleSoft Project Costing).
Set Accounts	Click this link to access the Work Order Task Accounting page.
Scheduler	Select the scheduler code. The name of the selected scheduler appears on the page as a link. When you click this link, the Scheduler's Information page displays information about the scheduler, such as the scheduler's employee ID and shift.  Schedulers are set up in the shop based on a scheduler code instead of an employee ID. Schedulers in many shops move from one role to another. By setting up a scheduler by a scheduler code in the shop, you only have to change the employee associated with a scheduler code, rather than having to change the employee ID for the scheduler in every work
	order task.
Preferred Crew	Displays the primary crew identified in the shop associated with the work order or with the task's asset ID. This value is used in the Crew Scheduling Workbench as part of the search criteria when searching for unscheduled requirements.
	Note: This field and the Change Shop for Crew link only display when the shop associated with the work order performs crew scheduling.

Field or Control	Description
Change Shop for Crew	Click this link to access the Change Shop to Identify Crew page, where you can select a shop different from the primary shop in the work order to associate with a selected crew. The crew and its resources must be set up in the selected shop.
Contact	Select the user ID of the person to contact concerning this work order. The name of the contact appears as a link on the page. When you click this link, the Personal Data page displays with additional information about the selected contact.

#### **Task Asset Information**

If you identify an asset in the work order header, it can apply to all the work order tasks. However, you can also identify different assets for each work order task. To use more than one asset in a work order, you must select the **Multiple Assets Per Work Order** option in the work order business unit. If you do not select this option, the asset fields for a task are not available for selection and the tasks use the asset selected in the work order header.

**Note:** The principles of selecting an asset for a task are the same as selecting an asset in the work order header.

Field or Control	Description
AM Bus Unit (Asset Management business unit)	The default value is derived from the User Preferences > Maintenance Management page.
Asset Location	Select the current location of the selected asset.
	Important! When you enter the asset business unit and ID, the default location is derived from the asset repository. However, you can change the location to indicate that the asset is currently in a different location. For this reason the location is not validated against the asset when the work order is saved.

Field or Control	Description
Map It	Click this button to access the location of this work order on an ESRI map. Once you access the map, the work order business unit, work order ID, and work order task ID appear on the map as a marker. You click the marker and a window appears, which contains a list of these work order characteristics:  • Task description.  • Shop associated with the work order.  • Priority.  • Service group.  • Work order type.  • Task status.
	Note: This button does not appear on the page unless you set up Installation Options and the work order business unit to enable ESRI integration.
Asset ID (Serial ID, Tag Number, Vehicle ID Number)	Select a value to more specifically identify the asset or click the Advanced Search icon to access the Asset Search page, where you can select search criteria to narrow your search. The Search Results contain an Asset Component Hierarchy link, which enables you to view the Asset Component Hierarchy page. This page displays the selected asset in a hierarchical relationship with any asset components.  The field name that appears on the page depends on the field name (Asset ID, Serial ID, Tag Number, or Vehicle ID
	Number) that you select in the work order business unit that was used to create the work order.
Description	Displays a detailed description of the asset. This field is available only if the Display Asset Detailed Description check box is selected on the Installation Options - Maintenance Management page.
Area ID	Select the specific area in which the asset is located.

Field or Control	Description
Asset Action	Select one of these actions to affect this task's asset:
	<b>Note:</b> This option only appears on the page if the work order type for capital work orders and is used primarily for the retirement and removal of assets and component changeouts.
	<ul><li>Install</li><li>No Change</li></ul>
	• Remove
	• Retire
	If you select <i>Retire</i> and this is a Project Costing managed work order with the Asset Integration Rules set to Capitalize, PeopleSoft Maintenance Management allows this asset action to proceed with no edit. However, PeopleSoft Project Costing will ignore the Retire setting.
	<b>Note:</b> You must select <i>No Change</i> for non-financial assets. All other values involve the installation, removal, or retirement of a financial asset.
Parent Component	Displays the parent component of this asset, if it is part of another component. For example, the selected asset for this task is part of a component that consists of two or more assets, such as a truck's engine and all of the parts (assets) that compose the engine (parent component).
Work Order History	Click this link to access the Work Order History page for this asset. This page lists the work orders and tasks that are associated with this asset, along with the start and end dates and when they were completed and closed.
Asset Maint. History asset maintenance history	Click this link to access the Review Maintenance History component in PeopleSoft Asset Management.
Asset Details	Click this link to access the Asset Information page, which lists details about this asset, such as the asset characteristics, asset ID and more. The Asset Information page also contains an Asset Component Hierarchy icon that links to the Asset Component Hierarchy page, where you can view the selected asset's hierarchical relationship with other asset components.

Field or Control	Description
Asset Downtime	Click this link to access the Downtime Entry page.  See <u>Downtime Entry Page</u> .
Asset Calendar	Click this link to access the Asset Monthly Schedule for this asset. You can drill down to the daily schedule and add task details. This schedule indicates when the asset is available for maintenance or repair.
	Click this button to access the Asset Warranties page in PeopleSoft Asset Management and view any warranties associated with this asset.
	Displays this icon when the asset is hazardous.
Warranty Claim	Click this link to access the Task Cost Recovery page, which enables you to create a warranty claim.
Meter History	Click this link to access the Meter Reading History component in PeopleSoft Asset Management.

### Problem, Cause, and Resolution Data

You can optionally associate a problem group, problem, cause, and resolution with a work order task. Specifying these values enable you to search for a work order job or task template, which already has requirements defined for this type of problem. In addition, specifying these values enables you to categorize this task in order to later search for this task or other work orders and tasks associated with the PCR data specified for this task.

Field or Control	Description
Failure ID	Click the Add link to access the Work Order Failure Tracking page to describe the failure associated with the selected asset.
	See Work Order Failure Tracking Page.

Field or Control	Description
Problem Group, Problem, Cause, and Resolution	Select a problem group that applies to the work being performed by this task. Then select a problem, cause, and resolution that are appropriate for this task based on your diagnosis of the situation. To perform a search based on PCR data, you must specify, at a minimum, the <b>Problem Group</b> , <b>Problem</b> , and <b>Cause</b> . You can then select from templates associated with resolution codes that match this criteria. In addition, by entering PCR criteria, you restrict your search to only those templates that are associated with resolution codes. If you select <b>Include Non-Asset Templates</b> on the Task Template Search page when you click either the Job or the Task Templates link, then Non-Asset Templates are included in the search for resolutions.

See <u>Understanding Work Order Templates</u>.

### **Resource Requirement and Associated Task Data Links**

Click the **Labor**, **Inventory**, **Purchase/On-Hand**, and **Tools** links to set up resource requirements for a work order task. This is described in detail in the Defining Work Order Task Requirements topics.

See <u>Defining Resource Requirements for a Work Order Task</u>.

Field or Control	Description
Labor	Click this link to access the <b>Labor Requirements</b> grid.
Inventory	Click this link to access the Inventory Requirements grid.
	Note: This link does not display if you have not installed PeopleSoft Inventory.
Purchase/On Hand	Click this link to access the Purchase/On Hand Requirements grid.
Tools	Click this link to access the <b>Tool Requirements</b> grid.
Instructions	Click this link to display a <b>Task Instructions</b> group box. Enter the step number for the instruction, then enter the instruction, and click the plus sign in the upper right corner to add another instruction. You can add as many instructions as you want. Click the minus sign in the upper right corner to delete an instruction.

Field or Control	Description
Checklist	Click this link to display a <b>Checklist</b> group box. This checklist is for tasks that should be done either before a work order task is started, or after a work order task is completed.
	• Step
	Enter the step number for this checklist item.
	• Type
	Select whether this step is performed before the task begins or after the task is completed.
	Before task
	• After task
	• Required
	Select this check box if this is a required step. Leave it blank if the step is optional. For those marked as <i>Required</i> , the technician must mark the item as complete in the Technician Workbench and the system stamps the date and time next to the checklist item along with the technician's name. Optionally, the Completed by, date and time can all be manually updated in the Technician Workbench. Additionally, for Before Task checklist steps the technician must mark it as complete in the Technicia Workbench before the work order task status can advance to or past a system internal status of <i>work in process</i> . For After Task checklist required steps, the technician must mark them as complete in the Technician Workbench before the work order task can be set to a system internal status of <i>complete</i> .
	Note: Use the plus and minus buttons to add or delete steps.
Attachments	Click this link to access attachments that pertain to the work order task, such as drawings, schemas, and more.
Inspection Plan	Select the asset inspection plan associated with the work orde task. Click the description link to view the inspection plan details.
	For information see, Creating Work Order Inspections.

Field or Control	Description
Task Templates	Click this link to access the Task Template Search page. This search page has the same fields as the Job Template Search page. When you select a task template, the requirements are copied into a work order task along with other task information.
Supplemental Data	Click this link to access supplemental data set up for this task.
Notes	Click this link to add notes to the work order task. You can send notes to the scheduler.

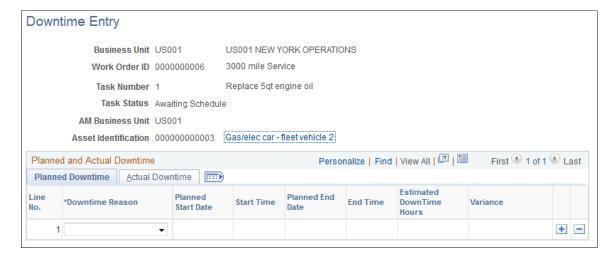
### **Downtime Entry Page**

Use the Downtime Entry page (WM\_WO\_DOWNTIME) to enter the start and end dates and times that the asset will be unavailable for use.

#### Navigation:

- Click the Asset Downtime link on the Requirements page of the Work Order component.
- Click the Asset Downtime link on the Schedules page of the Work Order component.
- Maintenance Management, Work Order Processing, Downtime Entry
- Click the Downtime link on the Task Actual Dates/Time tab of the Work Order Tasks grid in the Technician Workbench

This example illustrates the fields and controls on the Downtime Entry page. You can find definitions for the fields and controls later on this page.



The Downtime Entry page header information is derived from the asset description in the work order task.

#### **Planned Downtime**

Select a reason for the downtime and then select the proposed start and end downtime dates and times, and enter the number of yours that you think the asset will be down. When you save the page, the variance field initially displays the hours of proposed downtime.

#### **Actual Downtime**

You can modify the **Downtime Reason** if necessary. Enter the actual dates and times that the asset was down and the number of hours that it was down. When you save the page, the variance on the Planned Downtime tab displays any difference. For example, if you planned for the asset to be down for repair for 4 hours and it only took two hours to repair it, then the **Variance** field will display -2.000.

# **Work Order - Task Accounting Page**

Click the Set Accounts link on the Requirements page to access the Work Order Task Accounting page.

This example illustrates the fields and controls on the Work Order - Task Accounting page. You can find definitions for the fields and controls later on this page.



#### Asset Information

Field or Control	Description
AM Business Unit Asset Management business unit	The default value is derived from the business unit set up in the User Preferences > Maintenance Management page.
Asset ID	This value only displays if you select an asset in the work order header or in the work order task.

Field or Control	Description
Filter ID	Select the an express asset filter ID. These filters are set up in the Set Up Financials/ Supply Chain > Product Related > Project Costing > General Options > Express Asset Filter Criteria. Filters specify in PeopleSoft Project Costing which transaction costs are allowed to make up the cost basis of the asset. The delivered sample data filters are "Filter 1" and "Filter 2". Filter 1 identifies that Material and Labor actuals should be considered for capitalization, and Filter 2 identifies that only Labor actuals should be considered.  See "Express Asset Filter Criteria Page" (PeopleSoft Project Costing).
Currency	The currency value is derived from the primary book of the Asset Management business unit.
Capitalization Minimum	Enter the minimum cost for maintaining or repairing the asset associated with this work order task that must be reached before the costs are capitalized by PeopleSoft Project Costing.

# Project

Field or Control	Description
PC Bus Unit	This default value comes from the Project Costing business unit set up in the work order business unit's Integration page.
Project and Activity	These values are based on the project and activity associated with the work order and work order task.
Rate Selection	Select <i>Rate Set</i> or <i>Rate Plan</i> , which are set up in PeopleSoft Project Costing. The default value in this field is set up on the work order business unit's Integration page. Rate sets and rate plans work in conjunction with chargeback to a calculate premium or discount to chargeback based on work performed.  See Work Order Business Unit Integration Options.
Rate	Select the user-defined rate based on whether you selected Rate Set or Rate Plan for the Rate Selection field.

Field or Control	Description
Generate Chargeback	Select this check box to enable PeopleSoft Project Costing to calculate chargeback amounts for this work order task based on the selected rate set. When you select this check box, the following field display for you to enter the accounting information necessary to complete the chargeback in PeopleSoft Project Costing.
	Note: To enable this check box, you must select the Enable Organization check box on the Installation Options - Project Costing page. You must complete any of these fields that display on the page if you want chargeback processing to occur in PeopleSoft Project Costing for this work order task. The fields that display are determined by the set up of the General Options - Organization Hierarchy for PeopleSoft Project Costing product-related setup.
GL Business Unit	Select the GL Business Unit to associate with this chargeback. This field appears if you select the Generate Chargeback check box.
Department	Select a department to which these work order task costs should apply depending on your organization's setup.
Fund Code	Select a fund code to which these work order task costs should apply depending on your organization's setup.
Activity	Select the project activity to which these work order task costs should apply.
Product	Select the product to which these work order task costs should apply, if applicable.

# **Using the Work Order Actuals Page**

This section defines the Actuals page in the Work Order component.

## Page Used to Use the Work Order Actuals Page

Page Name	Definition Name	Usage
Actuals Page	WM_WO_TASK_ACTUAL	Compares the scheduled start date and time with the actual start date and time for each work order task, and also compares the labor, inventory, purchase/on-hand, and tools scheduled for a work order task with the labor, inventory, purchase/on-hand, and tools actuals for a work order task.

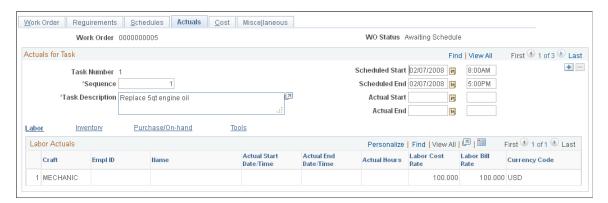
### **Actuals Page**

Use the Actuals page (WM\_WO\_TASK\_ACTUAL) to compares the scheduled start date and time with the actual start date and time for each work order task, and also compares the labor, inventory, purchase/on-hand, and tools scheduled for a work order task with the labor, inventory, purchase/on-hand, and tools actuals for a work order task.

Navigation:

Maintenance Management, Work Order Management, Work Order, select the Actuals tab.

This example illustrates the fields and controls on the Work Order - Actuals page. You can find definitions for the fields and controls later on this page.



The Actuals page is updated based on the dates and resources that you enter on the Schedules page for each work order task and the data that you enter on the Technician Workbench for each work order task.

Field or Control	Description
Scheduled Start and Scheduled End	Enter these dates and times on the Schedules page of the Work Order component. You can modify these dates in the Work Order Workbench component. These dates are automatically updated on the Actuals page of the work order.

Field or Control	Description
Actual Start and Actual End	Enter these dates and times on the Technician Workbench. When you save the Technician Workbench, these dates are automatically updated in these fields on the Actuals page of the work order.
Labor	Click this link to view the Labor Actuals grid. When you schedule employees for a work order task, these scheduled values are updated on the Actuals page of the work order. When you select a task on the Technician Workbench and enter the actual hours that the scheduled employee worked on the task, the system updates the actual dates and hours on the Actuals page of the work order. This enables you to compare the scheduled labor data to the actual labor data. You do not have to stage and process the time entries for this data to update the Actuals page in the work order. This grid contains:  • The craft of each employee that worked on this task. This information is derived from the Schedules page of the work order.  • Each employee's ID and employee's name, which is derived from the Schedules page of the work order.  • The scheduled start and end dates and times for each employee, which is derived from the Labor Schedules grid on the Schedules page of the work order or the Work Order Workbench.  • The actual start and end dates and times for each employee, which is entered on the Technician Workbench for each employee scheduled to work on the task.  • The actual hours, which are entered when you enter time for the employee on the Time Entry page of the Technician Workbench.  • The labor cost and labor bill rate are derived from the work order business unit or the craft, unless you modified these rates when you scheduled this employee in the work order.

Field or Control	Description
Inventory	Click this link to view the Inventory Actuals grid. This grid contains:
	Planned Material
	This check box displays if the row is specified on the Inventory Requirements grid on the Requirements page of the work order. This check box is not selected if the row was only specified on the Inventory Schedules grid on the Schedules page of the work order, and not specified on the Inventory Requirements grid.
	Item ID and DescriptionThe item is derived when you schedule an item on the Schedules page of the work order.
	Quantity Required
	This is the amount specified in the planned quantity field on the Inventory Requirements grid on the Requirements page of the work order component. This field will be blank if a planned quantity was only specified on the Inventory Schedules grid and not on the Inventory Requirements grid.
	Quantity Scheduled
	This value is derived when you schedule an item quantity on the Schedules page of the work order.
	Quantity Issued
	This quantity is updated by PeopleSoft Inventory after a pick plan is generated and the quantity is issued to the technician and updated in the work order.
	Used Quantity
	You can enter this quantity directly on this page, or it is updated if you enter a quantity for the item in the Technician Workbench.

Chapter 15 Creating a Work Order

Field or Control	Description
Purchase/On-Hand	Click this link to access the Purchasing Actuals grid which contains these fields:
	Item ID and Description
	These values are derived from the data entered on the Purchase/On-Hand Schedules grid on the Schedules page of the work order. You can select a non-inventory item, an employee ID, or enter an open description and the system updates the fields on this page based on your entry.
	Resource Type
	This value is also derived from the Purchase/On-Hand Schedules grid on the Schedules page of the work order. You must select whether your selected entry is material, labor, or a tool resource.
	• Planned Quantity and Unit of Measure
	This value is derived from the requisition staged for the selected value in the Purchase/On-Hand grid on the Schedules page of the work order.
Tools	Click this link to access the Tools Actuals grid. This grid contains the following fields:
	Asset Identification and Description.
	These values are derived from values that you enter in the Tool Schedules grid on the Schedules page of the work order.
	Scheduled Start Date/Time and Scheduled End Date/ Time
	These values are derived from the Tool Schedules grid on the Schedules page of the work order.
	Actual Start Date/Time and Actual End Date/Time
	These values are updated when you enter and save values on the Tool Usage page on the Technician Workbench
	Actual Usage and Unit of Measure
	These values are updated when you enter and save values on the Tool Usage page on the Technician Workbench

# **Using the Work Order Miscellaneous Page**

This section describes how to use the Miscellaneous page in the Work Order component.

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## Page Used to Use the Work Order - Miscellaneous Page

Page Name	Definition Name	Usage
Work Order - Miscellaneous Page	WM_WO_DETAIL	Review work order header information and enter additional information.

#### Work Order - Miscellaneous Page

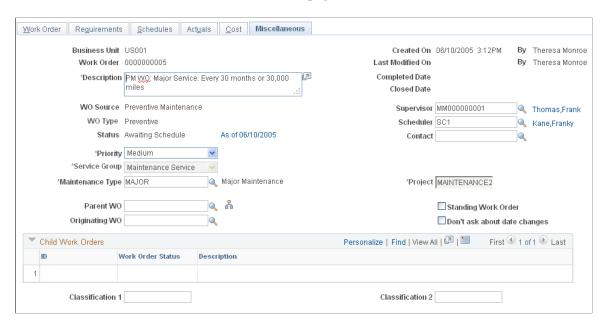
Use the Work Order - Miscellaneous page (WM\_WO\_DETAIL) to review work order header information and enter additional information.

Navigation:

#### Maintenance Management > Work Order Management > Work Order

Select the Miscellaneous tab.

This example illustrates the fields and controls on the Work Order - Miscellaneous page. You can find definitions for the fields and controls later on this page.



Most of the information in the top half of this page comes from the work order header. However, you can enter a description and select or override the supervisor, scheduler, and contact in this page.

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Field or Control	Description
Project	Override the default project, if necessary. The default project ID is derived from calculations based on the setup of the Associate Projects component and the Project Default Order set up in the work order business unit.
	Note: If this is a Project Costing-managed project, the Project ID of the project from which you created the work order displays in this field.
Maintenance Type	Displays a default maintenance type value that is derived from the work order business unit. You can override this value when you add a new work order.
	Important! This is a required field if you selected assets for each work order task. You must select the Maintenance Type to enable the Work Order Close batch process to close the task.
Standing Work Order	Select this check box if you want this work order to be a standing work order. Standing work orders do not automatically close upon completion of the last open task. Deselect this check box to enable a standing work order to close.
Parent Work Order	Select another work order as the parent of this work order, if you want this work order to be the child of another work order.
Don't ask about date changes	Select this check box if you do not want the system to issue a message asking you if you want to override corresponding dates on lower levels when you change a required date in the work order header or task and a schedule date in the task. Selecting this check box enables you to proceed with changes to the above dates without the message displaying.
Originating Work Order	Select the work order that this work order originated from. For example, if a work order is closed and there is still work pending, you can create a new work order and indicate that it originated from the closed work order.

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Field or Control	Description
Technician Work Order Access	Click this link to display the Work Order Access page. The shop that was used to create the work order appears in the list of shops. If a resource was selected for a work order task from a cross-shop, this shop also appears on the list. The user, who has the Allow Access to WO Security check box selected on the User Preferences – Maintenance Management page, can add and delete shops, but cannot delete the primary shop from the list. Once the Work Order Access page is set up, resources assigned to the shops listed on the page with the Apply WO Access Security check box selected on the User Preferences – Maintenance Management page, can access the work orders and associated work order tasks from the Work Order, Express Work Order and Technician Workbench components.  See PeopleSoft Application Fundamentals: "Defining User Preferences," Defining Maintenance Management User Preferences  See PeopleSoft Maintenance Management documentation: "Setting Up PeopleSoft Maintenance Management System Parameters," Setting Up a Work Order Business Unit, Business Unit Setup Options, Technician WO Security
Child Work Orders	If one or more work orders indicate that they are children of this work order, then these child work orders are listed here in this grid.

# **Creating a Work Order Inspection Using the Work Order Component**

To create a work order inspection, use the Work Order (WM\_WO) component.

# Pages Used to Create a Work Order Inspection

Page Name	Definition Name	Usage
Work Order Page	WM_WO_HDR	Access the Job Templates or Task Templates to manually copy the template data that contain the associated work order inspection plan.
Requirements Page	WM_WO_TASK_RQMT	Select or modify the work order inspection plan.
Schedules Page	WM_WO_TASK_SCHED	Schedule the work Order inspection instance.

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#### **Work Order Page**

Use the Work Order page (WM\_WO\_HDR) to enable work order tasks to be associated with inspection plans. Work orders created through PM Batch processing can automatically generate work order inspections if the Generate PM Inspections option is selected on the Work Order-Definition page. You can associate only one asset inspection instance per task.

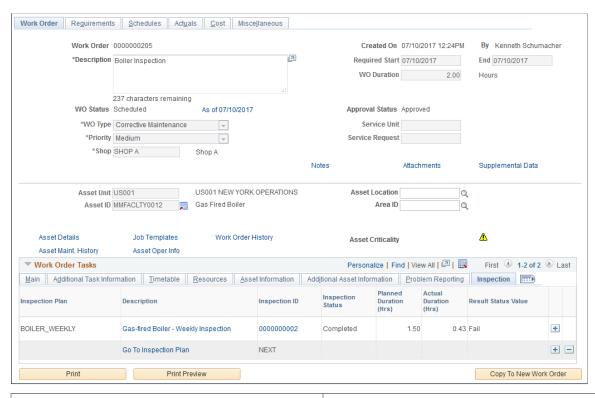
**Note:** Associating work order inspection to a task is optional.

Navigation:

#### Maintenance Management > Work Order Management > Work Order

Click the **Inspection** tab.

This example illustrates the fields and controls on the Work Order page-Inspection tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Inspection Plan	Displays the inspection plan associated to the task.
Description	Displays the inspection plan details. Click the <b>Go To Inspection Plan</b> link and select the required inspection plan for the task.

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Field or Control	Description
Inspection ID	Displays the sequential inspection ID automatically generated for the new inspection instance. Click the ID to view the details of the inspection.
	Note: The inspection plan details displays in a new window. You can either start working on the inspection in the new window or access the inspection instance using the Work Order Inspection component.
	See Completing Work Order Inspections.
	If an inspection plan is not associated to the task, the field displays the value as NEXT.
Inspection Status	Displays the status of the inspection.
Planned Duration	Displays the total time required to complete all the inspection activities.
Actual Duration	Displays the total time taken to complete all the inspection activities.
Result Status Value	Displays the inspection result value.

# **Requirements Page**

Use the Requirements page (WM\_WO\_TASK\_RQMT) to select the inspection plan for the particular work order task.

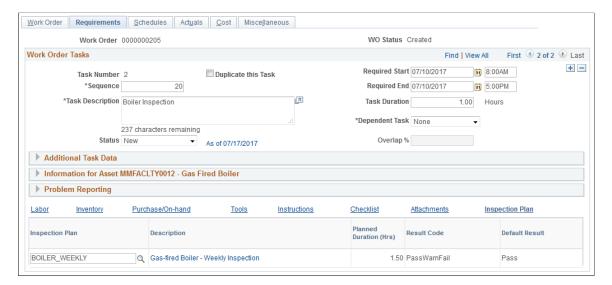
Navigation:

**Maintenance Management > Work Order Management > Requirements** 

Click the Inspection Plan tab.

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This example illustrates the fields and controls on the Requirements page-Inspection Plan tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Inspection Plan	Click the Search icon to select the related inspection plan for the task. The selected inspection plan displays in the Work Order page and Schedules page.
Description	Click this link to view the current inspection plan details or to modify them.
Result Code	Displays the possible inspection result values as set in the inspection plan.
Default Result	Displays the expected inspection result as set in the inspection plan.

# **Schedules Page**

Use the Schedules page (WM\_WO\_TASK\_SCHED) to create an actual inspection.

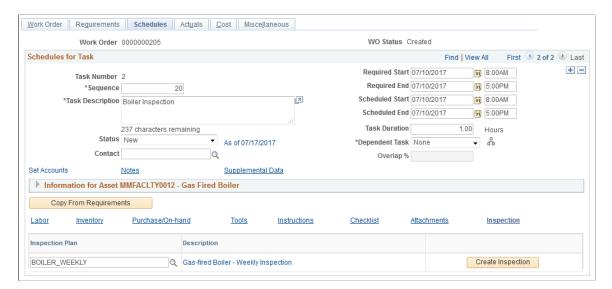
Navigation:

Maintenance Management > Work Order Management > Schedules

Click the **Inspection** tab.

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This example illustrates the fields and controls on the Schedules page-Inspection Plan tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Create Inspection	Click this button to create the work order inspection instance. In the new window displayed, make the required changes to the work order inspection and save it. After saving the work order, both the Schedules and Inspection tabs display the automatically assigned next available sequential inspection ID as tracked on the associated WO Business Unit definition.  Click the ID to initiate the inspection in the new window. Also, you can separately work on the inspection instance using the Work Order Inspection component.  See Completing Work Order Inspections.

# **Approving Work Orders**

# **Understanding the Work Order Approval Process**

Work order approval workflow is used to enforce the business rules of an organization's maintenance operations to ensure that all work orders are within budget and have proper authorization.

For example, ABC organization has the following business requirements for its work order business unit:

- The designated capital work order approver must approve any capital work order.
- The shop supervisor must approve any non-emergency corrective work order with an estimated cost of more than \$5000.
- A company director must approve any non-emergency corrective work order with an estimated cost of more than \$10,000.

A maintenance supervisor or a business analyst in ABC sets up workflow approval rules in the system. When users create work orders for a specific work order business unit, the system checks them against these rules.

The Work Order component enables a user to submit a work order for approval depending upon whether the work order's business unit, shop, or work order type indicates either that a work order:

- Is preapproved.
- Requires approval.

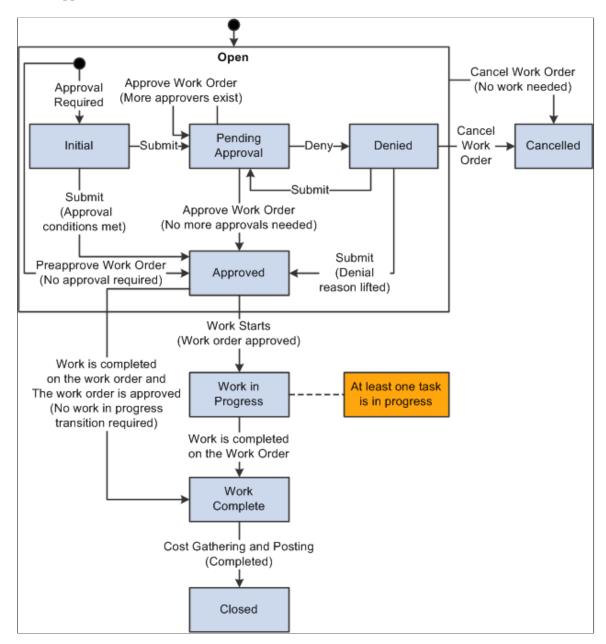
The requirements for approving a work order are entirely dependent upon the way your organization defines its approval rules in the Approval Process Setup component.

See <u>Understanding the Work Order Approval Workflow Architecture</u>.

Work order approval status values are system defined, and change depending on the approval state of the work order, as shown in the following diagram:

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This diagram illustrates how work order approval status values are system defined, and change depending on the approval state of the work order.



To approve a work order:

• If a work order requires approval, the user can click the **Approval Preview** button on the Work Order page to access the Work Order Approval page, review the approval process setup, and add approvers if desired.

Note: You must create a work order and save it before the Approval Preview link appears.

- The user can click the **Submit for Approval** button on the Work Order Approval page to submit the work order for approval, or return to the Work Order page and click **Submit for Approval**.
- Once a user submits a work order for approval, the approval status of the work order changes from *Initial* to *Pending Approval*.

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The user can click the **Approval History** link on the Work Order page to view the approval workflow in the Work Order Approval page.

**Note:** The user cannot add or modify the approvers at this point.

- The approval process routes the work order to the first approver for approval or denial.
- If this approver approves the work order, the work order is routed to the next approver, depending on how many approvers are set up for this business unit.

The work order approval status changes to *Approved* after all required approvers have approved the work order.

- If an approver denies the work order, the work order approval process terminates, and the submitter is notified of the denial.
- The submitter optionally can revise the work order and resubmit it for approval.

When the work order approval status is *Pending Approval* a user can also cancel the approval process, change the work order, and resubmit it.

For example, Joe, an operations manager for ABC Company, submits a corrective work order with an estimated cost of \$11,000. Because this estimate is more than \$5,000, it requires approval by the shop manager, John Dean. John Dean approves the work order. Because the work order is over \$10,000, it is then sent to ABC director Jennifer Lee for approval. If either John Dean or Jennifer Lee rejects the work order, the approval process is terminated.

Depending on the situation, either the submitter or the approvers can add another approver. If for example, Jennifer Lee decides that Asst. VP Steve Shaw should approve the work order, she can add Shaw as an approver. The work order is then sent to Shaw for approval.

The submitter or approver can also add reviewers to the approval process. In that case the system routes the work order to reviewers for their information. A reviewer's decision does not affect the progress of the approval process.

Once a work order is fully approved, the scheduler can then schedule resources to complete the work order.

See Work Order Job Template Page.

# **Prerequisites**

Before you can approve a work order, you must configure the Approval Workflow Engine (AWE).

See <u>Understanding the Work Order Approval Workflow Architecture</u>.

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# **Administering Work Order Approvals**

This section discusses how to use work order approval options, preview work order approvals, submit work orders for approval, review work order approval history, and manage work order approvals.

## Pages Used to Approve a Work Order

Page Name	Definition Name	Usage
Work Order Page	WM_WO_HDR	Identify the information that controls the work order, and access the pages to preview approvals and review approval history. You can also submit a work order for approval from this page.
Work Order Approval Page	WM_WO_APPR	Review approval setup and add any additional approvers, if needed, and submit a work order for approval.
		Review the approval setup once the work order is submitted for approval. This approval history is read only.
Manage Approvals Page	WM_MANAGE_APPROVAL	Search for and manage work orders that require approvals.

## **Work Order Page**

Use the Work Order page (WM\_WO\_HDR) to identify the information that controls the work order, and access the pages to preview approvals and review approval history.

You can also submit a work order for approval from this page.

Navigation:

#### Maintenance Management > Work Order Management > Work Order

The work order business unit, shop, and work order type determine whether a work order requires approval. Depending on how the default hierarchy is set up for this business unit, one or all of these attributes may indicate that the work order is preapproved, which means that the approval workflow process is not required for this work order. If one of these attributes indicates, depending on the hierarchy, that workflow approval is required, then the following descriptions apply to the Work Order page:

See Setting Up a Work Order Business Unit.

Field or Control	Description
Approval Status	For a work order that requires approval, prior to initiating the approval process, this value displays as <i>Initial</i> .

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Field or Control	Description
Approval Preview	Click this button to access the Work Order Approval page, which displays the work order's estimated labor, material, and tools costs, if they exist, and the approval map. Select users can add or remove approvers at this time. Users can click the <b>Submit for Approval</b> button directly from this page to submit the work order for approval, or they can return to the Work Order page to submit the work order for approval from there.
Submit for Approval	Click this button to submit this work order for approval. The work order approval status changes to <i>Pending Approval</i> . When the work order approval process is complete, the approval status changes to <i>Approved</i> .
Approval History	Click this link to review the work order approval history. This link appears only after a work order is submitted for approval. The Work Order Approval page displays the status of the work order in the approval process. This page is now in view-only mode.

## **Work Order Approval Page**

Use the Work Order Approval page (WM\_WO\_APPR) to review approval setup and add any additional approvers, if needed, and submit a work order for approval.

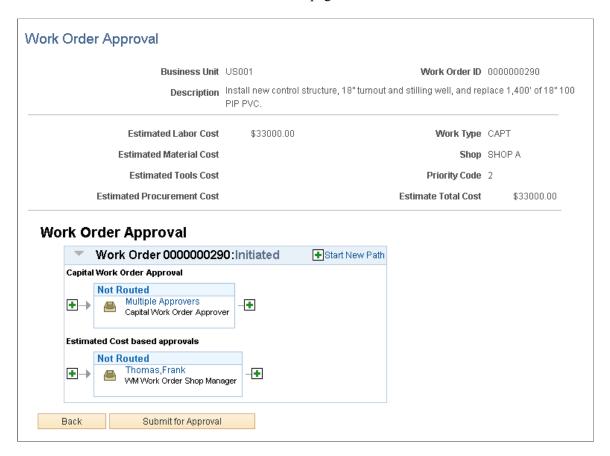
Review the approval setup once the work order is submitted for approval. This approval history is read only.

#### Navigation:

- Click the **Approval Preview** button on the Work Order page.
- Click the **Approval History** link once a work order has been submitted for approval to view the status of the approval process.
- Click a work order approval item from your worklist.

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This example illustrates the fields and controls on the Work Order Approval page. You can find definitions for the fields and controls later on this page.



#### **Work Order Approval**

Use this section of the Work Order Approval page to preview the approval flow.

Field or Control	Description
<b>+</b>	Click to add an ad hoc approval path with additional approvers or reviewers for this work order. Another page appears for you to select the user ID, and whether the person is an ad hoc approver or reviewer.
Multiple Approvers	If multiple approvers are required for a given path, click this link to review information about each approver.
<user id=""></user>	If a single approver is required for a given path, click the user ID to review information about that approver.
+	Click to add an ad hoc approver or reviewer to an existing path. Another page appears for you to select the user ID and whether the person is an ad hoc approver or reviewer.

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Field or Control	Description
	Click to remove an ad hoc approver or reviewer for this work order.
Submit for Approval	Click to submit the work order for approval.

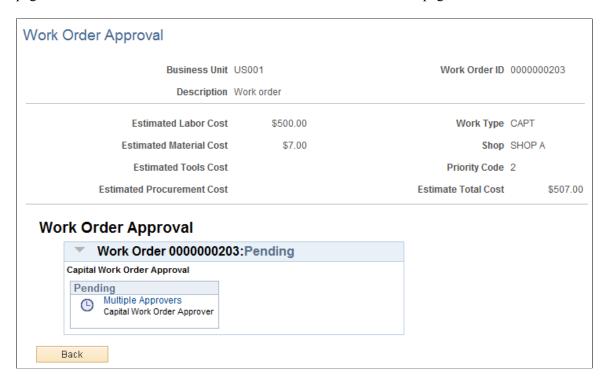
## **Submitting Work Orders for Approval**

You can use either of the following methods to submit a work order for approval:

- Click the **Submit for Approval** button on the Work Order page.
- Click the **Approval Preview** button on the Work Order page to access the Work Order Approval page, review and revise the approvals if needed, then click the **Submit for Approval** button.

## **Work Order Approval Page**

This example illustrates the fields and controls on the Review Approval History – Work Order Approval page. You can find definitions for the fields and controls later on this page.



#### **Approval Action**

If you are viewing a work order for which you are designated as an approver, enter comments, and then click **Approve** or **Deny** to update the approval status of this work order.

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#### **Approval Map**

Field or Control	Description
Multiple Approvers	If multiple approvers are required for a given path, click this link to review information about each approver.
<user id=""></user>	If a single approver is required for a given path, click the user ID to review information about that approver.

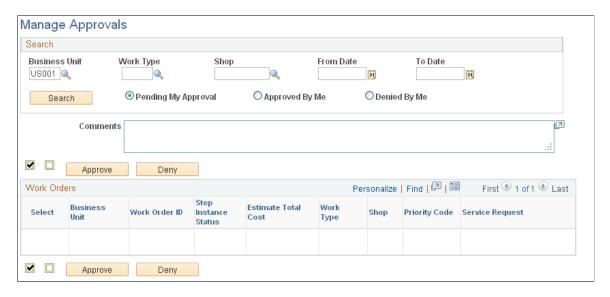
# **Manage Approvals Page**

Use the Manage Approvals page (WM\_MANAGE\_APPROVAL) to search for and manage work orders that require approvals.

Navigation:

#### Maintenance Management > Work Order Management > Approve Work Order

This example illustrates the fields and controls on the Manage Approvals page. You can find definitions for the fields and controls later on this page.



#### Search

Select data in this group box to narrow your search for work orders at various stages in the approval process.

Field or Control	Description
Business Unit, Work Type, and Shop	Select any of these options to narrow your search for work orders requiring approval.

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Field or Control	Description
From Date and To Date	Enter dates to restrict your search for work orders requiring approval within a specified date range.
Pending My Approval	Select this option to narrow the search to work orders with an approval status of <i>Pending</i> for this logged-in user.
Approved By Me	Select this option to narrow the search to work orders that were approved by this logged-in user.
Denied By Me	Select this option to narrow the search to work orders that were denied approval by this logged-in user.
Search	Click this button to perform a search for the work orders that fall within your specified search criteria. A list of work orders displays in the <b>Work Orders</b> group box.

#### **Work Orders**

Select the work orders for which to modify the approval status.

Field or Control	Description
Approve	Click this button to approve the selected work orders.
Deny	Click this button to deny the selected work orders.

# **Approving Work Orders Using PeopleSoft Fluid User Interface**

This section discusses approving work orders using the PeopleSoft Fluid User Interface.

# Pages Used to Approve Work Orders Using PeopleSoft Fluid User Interface

Page Name	Definition Name	Usage
Pending Approvals - Work Order Page (List)	EOAWMA_MAIN_FL	Review and approve multiple work orders.
Work Order Page	EOAWMA_TXNHDTL_FL	Review and approve a single work order.

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## **Pending Approvals - Work Order Page (List)**

Use the Pending Approvals - Work Order page (EOAWMA\_MAIN\_FL) to review and approve multiple work orders.

Navigation:

#### **Employee Self Service > Approvals**

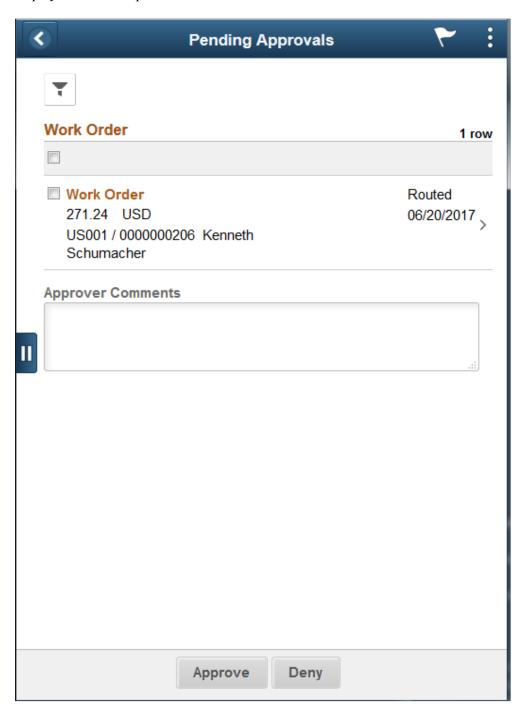
On the Pending Approvals page, select Work Order in the left pane.

This example illustrates the fields and controls on the Pending Approvals - Work Order list page. You can find definitions for the fields and controls later on this page.



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This example illustrates the fields and controls on the Pending Approvals – Work Order list page as displayed on a smartphone. You can find definitions for the fields and controls later on this page.



The number in the left pane indicates the total number of work orders pending for approval. You can review the header information for the work orders currently routed for approval. A work order displays the total estimated cost, currency code, business unit, work order ID, requester's name, and routed date.

You can select one or multiple work orders on this page and perform a mass action (approve or deny) on the selected work orders. To access a work order's details, select the particular row.

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Field or Control	Description
Approve or Deny	Select to approve or deny work orders. These buttons are enabled only if you select one or more work orders.
Approver Comments	Enter comments in the text entry field.

Oracle PeopleSoft delivers Notification Composer Framework to manage the setup and administration of notifications in one central location. Once you have adopted the Notification Composer feature, you must use it to create new notifications and manage your existing notifications.

For more information about Notification Composer Framework, see "Understanding Notification Composer" (Enterprise Components).

#### **Work Order Page**

Use the Work Order page (EOAWMA TXNHDTL FL) to review and approve a single work order.

#### Navigation:

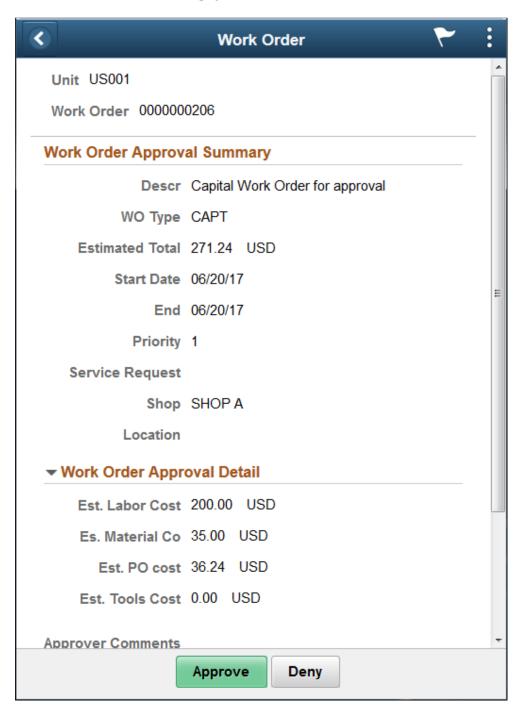
Select a work order from the list of pending work orders on the Work Order list page.

This example illustrates the fields and controls on the Work Order page. You can find definitions for the fields and controls later on this page.



Chapter 16 Approving Work Orders

This example illustrates the fields and controls on the Work Order page. You can find definitions for the fields and controls later on this page.



Approving Work Orders Chapter 16

Field or Control	Description	
Approve or Deny	Perform an action on the work order by selecting an approval action button. Upon selecting an action, you have the option to select Submit to continue the action, or Cancel to back out of the action. Upon submitting the action, the system generates a message that the action is successful.  Select Deny to reject the work order and send it back to the requester.	
Approver Comments	Enter comments in the text entry field.	
Approval Chain	Select to review approval chain information. You can expand or collapse approver information for each line by selecting the Expand/Collapse icon. You can also select the approver name to view approver details.  The approval chain reflects approval status generated by the Approval Framework. For more information, see the product documentation for the <i>PeopleSoft Approval Framework</i> . See also "Understanding Transaction Approval Flows" (Approval Framework).	

# **Managing Warranty Claims**

# **Understanding Warranty Claim Management in PeopleSoft Maintenance Management**

Warranties are set up for assets in PeopleSoft Asset Management. Whenever an asset is repaired in PeopleSoft Maintenance Management, it is important for the technician to know whether any warranties exist for the asset and to determine whether to file a warranty claim for an asset that is being repaired. An outbound cost recovery claim may be filed to:

- Recover the cost of a work order task from the supplier or manufacturer who warranties the asset being repaired.
- Recover the cost from the supplier of a causal part associated with a work order task.
- Recover the cost of non-warranty related maintenance, such as a recall, from the manufacturer.

When you create a work order and select an asset or asset component, PeopleSoft Maintenance Management:

- Enables you to review the asset or asset component's warranty information.
- Enables the technician in the Technician's Workbench to record the asset's downtime hours and downtime rate, failure date, its warranty name, supplier information, and causal part information to drive the creation of a warranty claim that can be directly related to the work order task.

You can also indicate whether to attempt to recover the costs for the asset's repair.

**Note:** Warranty claims always apply to a work order task and not the overall work order. You can group multiple work order tasks into one warranty claim as long as they are for the same supplier.

When a work order task is completed and closed and costs are collected, if you marked the task for cost recovery, the system routes the task to the warranty claims clerk. The warranty claims clerk uses the Generate Claim component to select work order tasks for which to generate warranty claims. You can group multiple tasks into one claim as long as the tasks are associated with the same supplier and work order business unit. All information entered at the work order task level is copied over to generate a claim.

After a claim is generated, a claims clerk can access the generated claim to:

- Print it and send it to the supplier for reimbursement, which is a manual process.
- Maintain the claim by entering information about recovered costs.
- Review and modify all cost information on the claim that was loaded from the work order tasks.

Managing Warranty Claims Chapter 17

**Note:** If you delete a claim line, the claim line ID field of the corresponding work order task is cleared so that a user can group the task into a different claim.

• Review meter readings that reside in the asset repository, which serve as supporting information for a claim.

The clerk can delete an unrelated reading and add a reading that does not currently exist in the asset repository.

**Note:** Warranty claims are not associated with chargebacks based on a work order, and warranty claim history is not tracked in PeopleSoft Asset Management. Claims are tracked in PeopleSoft Maintenance Management.

# **Managing Warranty Claims**

This section discusses how to review an asset's warranty, search for asset warranty templates, recover costs for work order tasks, generate warranty claims, and revise and submit warranty claims.

# **Pages Used to Manage Warranty Claims**

Page Name	Definition Name	Usage
Asset Warranties Page	ASSET_WARRANTY	Review the warranty information for assets that are associated with work order tasks.
Asset Warranty Templates Page	AM_WTMPL_SRH	Search to find a Standard Warranty Template to apply to an asset.
Task Cost Recovery Page	WM_WO_TSK_CLAIM	Indicate whether to recover costs for an asset, and specify downtime rates, supplier, warranty, and causal parts.
Generate Claim Page	WM_CLAIM_GEN	Generate a warranty claim.
Warranty Claim - Claim Summary Page	WM_CLAIM_HDR	Review information for a warranty claim, update the status, and create the warranty claim report.
Warranty Claim - Supplier Contact Page	WM_CLAIM_VENDOR	Update supplier information for a warranty claim.
Warranty Claim - Cost Details Page	WM_CLAIM_COST_DTL	Update tasks and costs for a warranty claim

Chapter 17 Managing Warranty Claims

Page Name	Definition Name	Usage
Warranty Claim - Related Meter Readings Page	WM_CLAIM_METER	Update meter readings associated with a warranty claim.

#### **Asset Warranties Page**

Use the Asset Warranties page (ASSET\_WARRANTY) to review the warranty information for assets that are associated with work order tasks.

#### Navigation:

- Maintenance Management > Work Order Management > Express Work Order > Update Warranty Claim
- Click the Active Warranties icon on the Express Work Order page.
- Click the Active Warranties icon on the Work Order page.
- Click the Active Warranties icon on the Work Order Requirements page.

Field or Control	Description
	Active Warranties icon.

**Note:** This icon does not appear if the asset is not associated with a warranty.

If users have the appropriate security in PeopleSoft Asset Management, they can add or update warranty information for the asset. The user completes the information on the page or applies a warranty template.

Detailed information about the Asset Warranties page is available in the PeopleSoft Asset Management documentation.

See "Maintaining Warranties" (PeopleSoft Asset Management).

## **Asset Warranty Templates Page**

Use the Search for Asset Warranty Templates page (AM\_WTMPL\_SRH) to search to find a Standard Warranty Template to apply to an asset.

Navigation:

Click the **Apply Warranties from Template** link on the Asset Warranties page.

Use this search page to find a defined standard warranty template and apply the warranty terms to this asset.

Enter search criteria to restrict template selections based on:

Asset type

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- Asset subtype
- Supplier ID
- Model
- Item ID

The valid warranty templates matching the search criteria appear, and you can select one to associate with this asset. Standard warranties are defined on the Standard Warranty Template.

See "Setting Up Asset Warranties" (Asset Lifecycle Management Fundamentals).

Field or Control	Description
Asset Type and Asset Subtype	Override these fields, if necessary. The field values that display here depend on the asset selected for the work order or work order task.

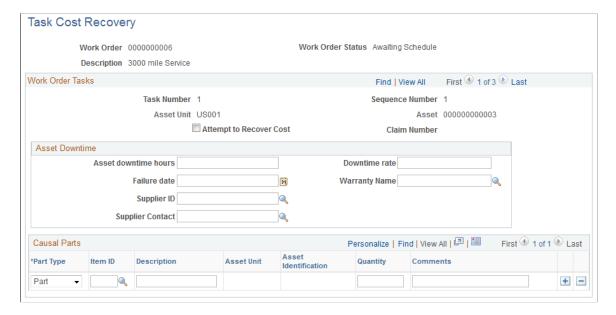
# **Task Cost Recovery Page**

Use the Task Cost Recovery page (WM\_WO\_TSK\_CLAIM) to indicate whether to recover costs for an asset, and specify downtime rates, supplier, warranty, and causal parts.

#### Navigation:

- Click the Warranty Claim link on the Work Order Requirements page.
- Click the **Warranty Claim** link on the Work Order Schedules page.

This example illustrates the fields and controls on the Task Cost Recovery page. You can find definitions for the fields and controls later on this page.



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Field or Control	Description
Attempt to Recover Cost	Select this check box if the asset was repaired within your organization to indicate that you want to recover the cost of the repairs for this task's asset from the supplier by generating a warranty claim. The system routes the task to a claim clerk when this option is selected.  Deselect this option if either the asset is sent to the supplier for repair or replacement or the repair is not one for which the supplier will reimburse.
Claim Number	The claim number appears only if the work order task is complete and a warranty claim has been generated. Click the claim number to access the Warranty Claim component pages for this task. The system automatically generates claim numbers.
Asset downtime hours	Enter the hours the asset was unable to be used for work purposes. The value for this field is derived from the work order task information, but you can override it if necessary.
Downtime rate	Enter the hourly rate to charge for the time the asset was down and unable to be used.
Failure date	Enter or select the date the asset went down. The value for this field is derived from the work order task information, but you can override it if necessary.
Warranty Name	Select the name of the warranty covering this asset.
Supplier ID and Supplier Contact	Enter or select the ID of the supplier that issued this warranty and select the supplier's contact person for this warranty. The system automatically populates these fields with the supplier information associated with the specified warranty.

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Field or Control	Description
Causal Parts	Identify parts that are either from PeopleSoft Inventory or PeopleSoft Asset Management that caused this asset to be down. Enter or select the:  • Line number
	Part type
	• Item ID
	AM business unit
	Asset identification
	• Description
	Quantity
	• Comments

## **Generate Claim Page**

Use the Generate Claim page (WM\_CLAIM\_GEN) to generate a warranty claim.

Navigation:

#### Maintenance Management > Warranty Claim > Generate Warranty Claim

This example illustrates the fields and controls on the Generate Claim page. You can find definitions for the fields and controls later on this page.



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#### Search

Field or Control	Description
Business Unit, Supplier ID, Contact, Cause Code, and Warranty Name	Specify the criteria by which to retrieve work order tasks that are pending warranty claims by selecting values for the business unit and supplier ID, and clicking the <b>Search</b> button. You can optionally select a contact, cause code, and warranty name to further limit the work orders tasks that you retrieve.

#### **Work Order Tasks**

The work order tasks that meet the search criteria specified appear in this grid. Select the tasks for which to generate a warranty claim, then click **Generate Claim** to create a warranty claim. The page updates and the claim ID appears.

Field or Control	Description
Generate Claim	Select the tasks for which to generate a warranty claim, then click this button to create a warranty claim.
Claim ID	This appears if the associated task has a generated warranty claim. Click the claim ID to access the Warranty Claim component pages for the task.

# **Warranty Claim - Claim Summary Page**

#### **Warranty Claim - Claim Summary Page**

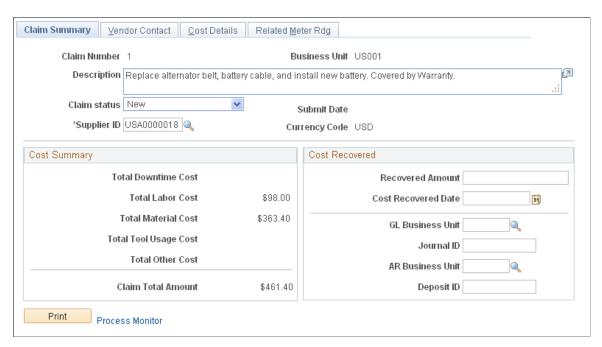
Use the Warranty Claim - Claim Summary page (WM\_CLAIM\_HDR) to review information for a warranty claim, update the status, and create the warranty claim report.

#### Navigation:

- Maintenance Management > Warranty Claim > Update Warranty Claim > Claim Summary
- Click a claim ID on the Generate Claim page.

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This example illustrates the fields and controls on the Warranty Claim - Claim Summary page. You can find definitions for the fields and controls later on this page.



The **Cost Summary** group box displays totals of the various cost amounts for the warranty claim, and the total claim amount. These values are display-only because they are summarized amounts from the Warranty Claim - Cost Details page.

The claim status controls which of the other fields you can modify on this page. If the claim status is *New*, you can modify all the remaining fields. If the status is *Submitted* or *Resubmitted*, you can edit only the **Claim Status** field. If the claim status is *Recovered*, you can edit only the fields in the **Cost Recovered** group box.

Field or Control	Description
Claim Status	Select a value to update the status of the warranty claim. Options are:
	New: The initial status value once a claim is generated.
	Submitted: Indicates that you have printed and mailed the claim in order to recover the costs.
	Resubmitted: Indicates that the initial claim was rejected by the supplier, and you are submitting the claim again.
	<i>Recovered</i> : Indicates that you have received payment for the costs.
	Canceled: Indicates you are cancelling the claim and no longer intend to recover the costs.

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Field or Control	Description
Recovered Amount and Cost Recovered Date	Enter the amount recovered from the supplier, and the date you received the payment.
GL Business Unit and Journal ID	Optionally, enter a general ledger business unit and journal ID to cross reference the associated accounting information related to the recovered costs.
	Note: You must manually enter a general ledger journal entry and accounts receivable invoice to record the transaction; the fields on this page are informational only.
AR Business Unit and Deposit ID	Optionally, enter the accounts receivable business unit and deposit ID to record invoice information related to the transaction.
	Note: You must manually enter a general ledger journal entry and accounts receivable invoice to record the transaction; the fields on this page are informational only.
Print	Click to launch the warranty claim report process, and generate a report for the claim that you can send to the supplier.

**Note:** Accounting entries that are associated with cost recovery must be done manually. The system does not automatically generate them.

#### Warranty Claim - Supplier Contact Page

Use the Warranty Claim - Supplier Contact page (WM\_CLAIM\_VENDOR) to update supplier information for a warranty claim.

Navigation:

Maintenance Management > Warranty Claim > Update Warranty Claim > Supplier Contact

This page contains information on how to contact the supplier associated with a warranty claim.

#### Warranty Claim - Cost Details Page

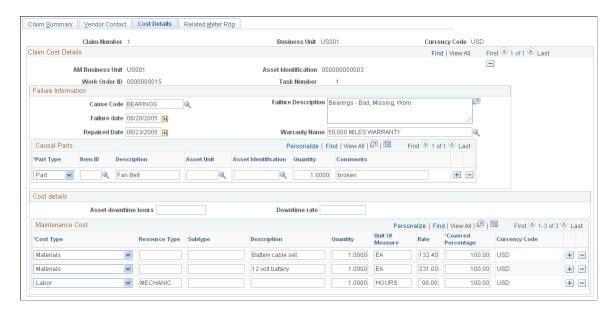
Use the Warranty Claim - Cost Details page (WM\_CLAIM\_COST\_DTL) to .

Navigation:

Maintenance Management > Warranty Claim > Update Warranty Claim > Cost Details

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This example illustrates the fields and controls on the Warranty Claim - Cost Details page. You can find definitions for the fields and controls later on this page.



If a claim line is deleted, the claim ID field of the corresponding work order task is set to blank so that it can be grouped into a different claim.

#### Warranty Claim - Related Meter Readings Page

Use the Warranty Claim - Related Meter Readings page (WM\_CLAIM\_METER) to update meter readings associated with a warranty claim.

Navigation:

# Maintenance Management > Warranty Claim > Update Warranty Claim > Related Meter Readings

This example illustrates the fields and controls on the Warranty Claim - Related Meter Readings page. You can find definitions for the fields and controls later on this page.



# **Defining Work Order Task Requirements**

# **Understanding Work Order Task Resource Requirements**

Work order task requirements are used for planning the resources needed and determining the estimated costs to complete each work order task. You optionally define these requirements before submitting the work order for approval. You can also load these requirements into Microsoft Project for further planning and analysis. In addition, you can easily define these requirements by copying work order job and work order task templates to the work order. If you schedule these work order tasks, you can copy these requirements to the corresponding fields in the schedule.

**Note:** When you access a new work order that requires approval, the Schedules tab and page does not appear in the work order until the work order has been approved.

You click a link on the Requirements page to set up resource requirements, which include:

- Labor requirements.
- Inventory requirements.
- Purchase and on-hand requirements.
- Tool requirements.

**Important!** You must select the appropriate check box in the work order business unit definition, shop definition, and user preferences page to enable you to access and enter these requirements. You must install the PeopleSoft Inventory product before the Inventory link in the Requirements page displays.

See <u>Understanding Work Order Business Unit Setup</u>.

If a work order requires approval, then you must define these resource requirements before they are submitted for approval. Once the work order's status is *approval pending* or *approved*, you can no longer define requirements.

You can use three different methods to set up resource requirements for a work order task:

- Entering the resource requirements manually in the work order's Requirements page.
- Selecting a predefined work order job or task template.

The resource requirements are copied into the work order as part of each task.

• Copying to another work order.

You can select specific resource requirements that you want to copy to another work order.

See Copy to Work Order Page.

Some work orders require a limited number of resources to perform the work and may not need any resource requirements defined or scheduled. In this case, you may want to use the Express Work Order component, which is designed for quick and easy work order creation.

**Note:** You can only specify inventoried and purchase/on-hand resource requirements for an express work order.

#### **Labor Requirements**

When you click the **Labor** link on the work order's Requirement's page, a **Labor Requirements** group box displays with a grid containing these tabs:

- Details.
- Timetable.
- Estimated Cost.
- Crew Assignments.
- Crew Timetable.

Important! If you do not select the View WO Requirements check box on the User Preferences - Maintenance Management page, the Labor link will be disabled on the Requirements page of the work order. Also, if you do not select the Labor Requirements check box on either the Definition page of the work order business unit, or the Shop Information page, the Labor link will be disabled on the Requirements page of the work order.

You can optionally set up labor requirements to determine the number of resources from a craft with specific qualifications that are needed to perform a work order task, as well as enter how long it will take to perform the task. When you enter the labor cost and billing rates, the system calculates the estimated labor costs for each labor resource requirement line in the task. In addition, the system calculates and tracks the total estimated labor costs for each work order and each work order task and displays them on the work order's Cost page and on the Work Order History, Summary page. When the tasks are scheduled and executed, the Cost page displays the total scheduled labor costs and later the actual labor costs for the work order and for each work order task, along with the variance between the estimated and actual costs.

See Using the Work Order History Inquiry.

Before you can define labor requirements for a task, you must set up crafts and optionally associate a qualification profile with a craft. When you select labor resource requirements in the **Details** grid for a work order task, you select the crafts needed to perform the work order task, the number of resources needed per craft, and the total number of hours it will take each of these resources to complete the task. In addition, when you select the craft, you can click the link to the qualifications profile associated with the craft and modify these qualifications so that they correspond more specifically to the work order task. You can also add or copy a qualification profile to associate with the selected craft. Later, if you copy these requirements to the schedule, the Resource Matching process can use these qualifications to match resources to the task.

The selected craft, quantity, and hours also apply to a crew when crew scheduling is activated for the shop, which is associated with the work order. If crew scheduling is not activated in the shop, the **Crew Assignment** and **Crew Timetable** tabs do not appear on the page.

The work order task's required start and end dates and times display as the default values in the **Timetable** grid. You can override this information as necessary for each labor requirement that you specify for a work order task. Each labor requirement can have different requirement start and end dates and times than the work order task's required start and end dates and times. However, the start and end dates and times for each labor requirement must fall within the work order task's required start and end dates and times.

To calculate estimated cost, the default standard hourly bill rate and cost rate display in the **Estimated Cost** grid and are derived from either the work order business unit level, the shop header level, or the craft specified in the shop. You can enable specific users to override these default values in the work order in User Preferences, if desired. The system multiplies these rates times the number of resources per craft and the total number of hours required to complete the task and calculates the estimated cost for each resource requirement. The total estimated labor costs for the entire work order and each task display on the work order's Cost page and the Work Order History, Summary page.

The default currency code used for all requirements and schedules is set up in the work order business unit. Even if the work order task transactions are processed by an application, such as PeopleSoft Inventory, that uses a different currency code, the transaction amounts are converted back into the currency code identified in the work order business unit and displayed in PeopleSoft Maintenance Management.

When you define the labor requirements by craft, the craft, quantity, and hours entered display in **Crew Assignments** tab. The crew shop, crew, scheduled hours, and carryover hours field values are updated when the crew is assigned on the Crew Scheduling Workbench to this task.

The crew start and end dates and times and the completed date fields on **Crew Timetable** tab are updated based on entries in the Crew Scheduling Workbench for this task.

**Note:** The fields on these two tabs are not updated if crew scheduling is not applied to this work order.

See Understanding Crew Scheduling.

#### **Related Links**

Understanding Labor and Tools Resource Setup and Maintenance

# **Inventory Requirements**

Inventory parts requirements are determined based on the PeopleSoft Maintenance Management integration with PeopleSoft Inventory. You can identify inventory parts requirements for a work order by:

- Selecting a work order task template associated with the asset being repaired, which copies the inventory requirements defined in the template to a task.
- Selecting the parts manually on the work order task's Inventory Requirements grid.
- Selecting inventory items from the equipment parts list (EPL).

Within PeopleSoft Asset Management you can optionally set up an EPL for an asset category. One or more EPL templates be defined to an asset, with one template identified as the default template. When you identify the asset on the work order and inventory parts exist for the Inventory business unit that is identified in the work order business unit, the **Copy from EPL** button is enabled. If the asset is not associated with an EPL, the **Copy from EPL** button is not visible on the work order Requirements

page. If the **Copy EPL** button is enabled, if EPL templates exist for the selected asset, you can search multiple EPL templates to find the inventory items that are most appropriate for the task. These items can then be selected and copied to the Inventory Requirements grid for the task. For single template selection, the applicable EPL template is display-only at the top of the page along with a check box, which, if shown selected, indicates that this template is the designated default for the asset. The user can go directly to the Parts List grid and select items to copy to the task.

For multi-template selection, the default template is listed at the top of the Equipment Parts List page first, followed by templates, which are listed in descending order of applicability The user selects from among the available templates and then copies selected parts items to the task.

You can also add one or more selected inventory items to one or more EPL templates by clicking the **Add to EPL** button. You can add inventory items to the default EPL template associated with the selected asset, add inventory items to one or more EPL templates that are applicable to the selected asset, or add items to both the default EPL template and the applicable EPL templates. This button only appears if you select one or both of these options on the User Preferences – Maintenance Management page:

Allow Update Asset-default EPL

Selecting this option enables you to add selected items only to the EPL that was selected as the default EPL for the asset selected for the work order task.

• Allow Update Non-Specific EPLs

Selecting this option enables you to add selected items to applicable EPL templates associated with the asset selected for the work order task, but not the selected asset's default EPL.

**Note:** If you select both options, you can add selected items to the asset's default EPL template and any applicable EPL templates.

You can add multiple items to multiple templates, but you cannot add new EPL templates.

**Important!** The **Inventory** link does not appear on the Requirements page if the PeopleSoft Inventory product is not installed. You must select the appropriate check box in the work order business unit definition, shop definition, and User Preferences – Maintenance Management page to enable you to access and enter these requirements.

See "Setting Up Equipment Parts Lists" topic in the documentation *PeopleSoft Asset Lifecycle Management* 

Inventory requirements are defined on three tabs:

- Details.
- Default Settings.
- Estimated Cost.

When you select the Details tab, you can select an item from the Inventory Item prompt list, or optionally select the Item ID expanded search icon that enables you to enter more search criteria. The Inventory Requirements and Scheduling pages are only used for Inventory item planning and scheduling. Once you select an item, you can then enter the planned quantity and whether you need to provide delivery instructions. If you select the **Delivery Flag** check box, you can enter delivery instructions and indicate either that you plan to pick the item up, that you want it delivered to a specific location, or that you intend to follow your organization's delivery policies. The item type indicates if the item can be obtained from

PeopleSoft Inventory or is a floor stock item that is maintained within the shop and not obtained from the inventory warehouse. Floor stock items are not included in the overall estimated cost of Inventory Requirements as they have already been costed and accounted for by a purchase order unrelated to the work order.

**Note:** The items that are available on the Item ID prompt are specific to the Inventory business unit that is set up on the Integration page of the work order business unit.

When you select the Default Settings tab, the default values for the Inventory business unit and the GL business unit are derived from the work order business unit's Integration page. The default item SetID is based on the SetID associated with the Inventory business unit on the work order business unit's Integration page. This grid also displays the commitment status of the item and a supplier reference. The commitment status is determined by the Inventory Commit Rule that you set up on the Integration page of the work order business unit, the Shop Information page, or Define Shop - Type page. The supplier reference only displays if you copied the item from the EPL and the supplier reference was indicated in the EPL.

See **Inventory Resource Scheduling**.

Select the Estimated Cost tab, where the default value of the estimated unit cost is derived from the selected item setup. The planned quantity is multiplied by the unit cost to come up with the estimated cost for each item. The total estimated inventory costs for each task and the work order appear on the work order's Cost page and the Work Order History, Summary page.

See Work Order History - Summary Page.

## **Purchased and On-Hand Resource Requirements**

When you click the **Purchase/On-hand** link on the Requirements page, you can identify non-inventory items that are not stored and tracked by any Inventory business units. You can also enter open description lines that contain a description of the goods or services that you want to procure for the work order. These items, along with selected tools and contracted labor and services are added to the **Purchase/On-hand** grid to enable users to create requisitions or purchase orders in the Schedules page of the work order. If you have to procure certain goods or services often, you can establish a non-inventory item ID for this type of procurement need and then select the item ID instead of using open descriptions to identify the item.

You can also identify on-hand items, which are goods and services that you have at your disposal, are not obtained from PeopleSoft Inventory, and do not need to be procured. You identify them to indicate that they are needed for successful completion of the work order. Lines marked as on-hand are for information purposes only and do not accumulate in the work order costs. An example of this type of item might be computer hard drives that were previously procured and needed to complete a work order. The hard drives were expensed previously but may be needed to complete the work order task. In this case, the organization does not need to rigorously track the drives in the PeopleSoft Inventory application.

A Copy from EPL button appears for Purchase/On-Hand requirements based on whether the asset identified in the work order task line has non-inventory parts or open description items defined in an equipment parts list (EPL). You click the Copy from EPL button to display a list of one or more EPL templates and a list of items associated with the default EPL template. You can select one or more items and copy them to the Purchase/On Hand Requirements rows of the work order task.

You can also select one or more non-inventory items or enter one or more open description items for a task requirement on the Purchase/On Hand Requirements grid, select the row or rows, and click the Add to EPL button to add the items to one or more EPL templates. Before you can update an EPL template, you must access the User Preferences – Maintenance Management page and select one or both of these options:

Allow Update Asset-default EPL

Selecting this option enables you to add selected items only to the EPL that was selected as the default EPL for the associated asset, which was selected for the task.

• Allow Update Non-Specific EPLs

Selecting this option enables you to add selected items to applicable EPL templates associated with the selected asset, but not the selected asset's default EPL.

**Note:** If you select both options, you can add selected items to the asset's default EPL template and any applicable EPL templates.

You can add multiple items to multiple templates, but you cannot add new EPL templates.

#### The Purchase/On-Hand Requirementsgrid contains three tabs:

- A Details grid.
- A Default settings grid.
- An Estimates grid.

You either select an item or enter a description in the **Details** grid and identify whether the item or open description is categorized as labor, material, or tools. You enter the quantity needed and the unit of measure and identify whether this item will be considered on-hand in the shop (the costs are not tracked). You can also enter delivery instructions.

The default settings include the GL business unit specified in the work order business unit, and item SetID, which is derived from the work order business unit associated with the item table.

The estimated costs in the Estimated Cost grid are calculated by multiplying the planned quantity times a unit cost value, which you enter or is derived from the system. The unit cost field derives its value from the standard cost of the non-inventory item, if a standard cost has been established. If a standard cost was not established, you must enter a cost for the item. You must enter the estimated cost for open description rows.

# **Tool Resource Requirements**

A tool is a piece of equipment that is specifically designated for use in the maintenance and repair of other assets. A tool is normally stored in PeopleSoft Asset Management's asset repository and can be specified by asset type and subtype, manufacturer, and model. Access the **Tool Requirements** grid to enter:

- Details
- Timetable.
- Estimated Cost.

Important! If you do not select the View WO Requirements check box on the User Preferences - Maintenance Management page, the Tools link will be disabled on the Requirements page of the work order. Also, if you do not select the Tools Usage Requirements check box on either the Definition page of the work order business unit, or the Shop Information page, the Tools link will be disabled on the Requirements page of the work order.

You select the Details tab, where you can specify the asset type, asset subtype, manufacturer, and model for each tool that you plan to use for a work order task. You must at a minimum specify the asset type and subtype. You identify the quantity needed and how long the tool is needed to complete the work order task. You enter the estimated usage to determine the costs. For example, you may only need a truck for two hours to haul equipment to complete a work order task. However, because the cost to rent the truck is 20.00 USD per day, you should enter an estimated usage of one day. When you enter the **Estimated Cost** grid, the cost (20.00 USD) is multiplied times the estimated usage (1 day) and the quantity needed to determine the estimated cost.

You select the **Timetable** grid, where the work order's required start and end dates and times display as the default values in the **Timetable** grid. You can override this information as necessary for each type of tool that you specify for a work order task. Each tool requirement can have different requirement start and end dates and times than the work order task's required start and end dates and times. However, the start and end dates and times for each tool requirement must fall within the work order task's required start and end dates and times.

You select the Estimated Cost tab, which contains the cost and billing rates for a specific tool. The default rate values are derived from the asset subtype selection or the tool rates defined in the shop associated with the work order. The estimated usage is multiplied times the cost and bill rates and the quantity to determine the estimated cost and billing amount. The total estimated cost for tools used for a work order task is displayed in the work order's cost page and compared against the actual costs as these values are accumulated based on the execution of the work order and work order tasks.

You can copy the tool requirements to the schedule by using the **Copy from Requirement** button on the Schedule page. These requirements, like the labor requirements, can be analyzed by the Resource Matching engine to identify qualified and available tools.

# Work Order Job and Task Template Usage

To reduce data-entry time, you can set up work order job and work order task templates, which define work order requirements and can apply to more than one work order. You can click the **Job Template** link in the Work Order page to copy a job template to the work order. A job template consists of one or more task templates set up in sequence. You set up a work order task template based on selected asset characteristics and define the resource requirements needed to complete the task.

For example, you could set up a work order job template for a 3,000 mile maintenance for asset type (Fleet) and asset subtype (Automobiles). The task templates that you add to the job template are:

- 1. Change engine oil.
- 2. Flush radiator.
- 3. Rotate tires.

Each task template consists of the typical resource requirements to perform the task. When you create a work order to perform a 3,000 mile maintenance for your fleet of electric automobiles, you can select the 3000 Mile Maintenance job template and its associated work order tasks to copy to the work order.

Each of the three tasks and their requirements specified in the template are copied to the work order. You can override the specified requirements, if necessary, as well as add tasks, work order job templates, and individual task templates to the work order. In addition, if you are scheduling the work order, you can also copy these requirements to the schedule.

You can select specific problem, cause, and resolution data to more specifically locate the template that best suits the work order. You do this by associating a particular task or job template with a predefined resolution code, and, if that resolution code is linked to a problem group, you can expedite the search for the most appropriate template to apply to the asset and problem and cause codes specified on the work order. When the template is copied to the work order, you can optionally choose to also copy the PCR lookup data to the individual task line or lines on the work order.

See <u>Understanding Work Order Templates</u>.

# **Defining Resource Requirements for a Work Order Task**

To define work order task requirements use the Work Order (WM WO) component.

This section discusses how to define labor resource requirements for a work order task, modify the labor qualifications profile, specify inventory resource requirements for a work order task, identify purchase and on-hand resource requirements for a work order task, and define tool resources for a work order task.

# Pages Used to Define Resource Requirements for a Work Order Task

Page Name	Definition Name	Usage
Requirements Page	WM_WO_TASK_RQMT	Set up a work order task and identify resource requirements.
Labor Qualifications Page	WM_TASKLBRQUAL_SEC	Review and modify the qualification profile set up for a craft specified as a requirement in a work order task.
Delivery Instructions	WM_WO_DELIVERY_SEC	Enter the instructions for how and where you want an inventory item delivered in order to perform a work order task.
Copy from Equipment Parts List	WM_EPL_SELECT_SEC	Select items or materials from one or more Equipment Parts List templates to use as resources in a work order task.
Add to Equipment Parts List	WM_EPL_UPDATE_SEC	Add inventory items and purchased non-inventory and open description items to an equipment parts list (EPL).
Work Order Supplemental Data	WM_TSK_SD_SEC	Displays any supplemental data that has been set up for this work order task.

Page Name	Definition Name	Usage
Work Order Task Notes	WM_TSK_NOTES	Add or review any notes related to this work order task.

# **Requirements Page**

Use the Requirements page (WM\_WO\_TASK\_RQMT) to set up a work order task and identify resource requirements.

Navigation:

#### Maintenance Management > Work Order Management > Work Order > Requirements

This example illustrates the fields and controls on the Requirements page - Labor Requirements - Details tab. You can find definitions for the fields and controls later on this page.



#### **Labor Requirements - Details**

Select the Labor Requirements - Details tab.

Field or Control	Description
Craft	Add a row for each type of craft and select the craft required for this work order task.
Quantity	Enter the number of resources needed to perform this work order task for each craft.
Hours	Enter the total number of hours for each of the specified number of resources to perform this work order task.

Field or Control	Description
Qualifications	Click the link to review, add, and modify labor qualifications that are applicable to the selected craft for this work order task.
	Note: The link shows Add by default. If a craft is selected and a qualification profile is associated with that craft, the link changes to View. If no qualification profile is associated to the craft, the link value is Add until you manually add the qualifications for the craft and save.  See Qualification Profile Page.

## **Labor Requirements - Timetable**

Select the Labor Requirements - Timetable tab.

This example illustrates the fields and controls on the Requirements page - Labor Requirements Timetable tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Required Start, Start Time, Required End, and End Time	Enter the start and end date and time values for each craft based on the duration entered in the <b>Details</b> grid. The default values that display in these fields for a new work order task are derived from the required start and end dates and times for the work order task. The values entered here cannot exceed the required start and end dates and times for the task.

### **Labor Requirements - Estimated Cost**

This example illustrates the fields and controls on the Requirements page - Labor Requirements Estimated Cost tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Cost Rate and Billing Rate	View or modify the default rates. The default values are derived from the work order business unit or shop.
Billing Amount and Cost	Click the <b>Save</b> button for the system to calculate these amounts by multiplying the total number of hours for the task times the rates and the number (quantity) of craft resources required. This calculation is used to determine whether the labor requirements are necessary.  See <u>Understanding Overall System Setup Parameters for PeopleSoft Maintenance Management</u> .  See <u>Work Order Business Unit Defaults and Default Hierarchies</u> .
Currency	View the default currency. The default value is derived from the currency specified in the work order business unit.

## **Labor Requirements - Crew Assignments**

Select the Labor Assignments - Crew Assignments tab.

This example illustrates the fields and controls on the Requirements page - Labor Requirements Crew Assignments tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Crew Business Unit	Displays the business unit associated with the default preferred crew in the work order, if the crew is unscheduled. Once the crew is scheduled, displays the business unit to which the selected crew is assigned on the Crew Scheduling Workbench. This field is updated by the Crew Scheduling Workbench and is display-only.

Field or Control	Description
Crew Shop	Displays the shop associated with the default preferred crew in the work order, if the crew is unscheduled. Once the crew is scheduled, displays the shop to which the selected crew is assigned on the Crew Scheduling Workbench. This field is updated by the Crew Scheduling Workbench and is displayonly.
Crew	Displays the crew assigned in the Crew Scheduling Workbench. This field is display-only.
Scheduled Hours	Displays the hours for which the crew was scheduled in the Crew Scheduling Workbench. This field is display-only.
Carryover Hours	Displays the hours that are carried forward from the period that the requirement was originally assigned to onto a new period, if the assignment was not completed within the original period. This field is display-only.
Completed Hours	Displays the number of actual hours completed on the job reported by technicians or crew schedulers. This field is display-only.

See <u>Understanding Crew Scheduling</u>.

### **Labor Requirements - Crew Timetable**

Select the Labor Assignments - Crew Timetable tab.

This example illustrates the fields and controls on the Requirements page - Labor Requirements Crew Timetable tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Crew Start Date and Start Time	Displays the intended date and time for the specified crew to start this task. This field is display-only.
Crew End Date and End Time	Displays the intended date and time for the specified crew to end this task. This field is display-only.

Field or Control	Description
Completed Date	Displays the date that the crew actually completed the task. This field is display-only.

See <u>Understanding Crew Scheduling</u>.

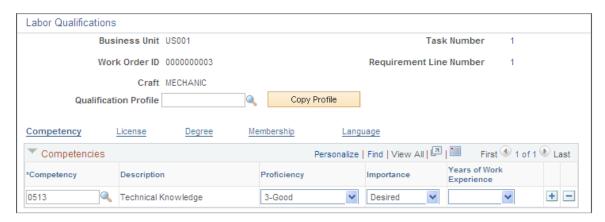
# **Labor Qualifications Page**

Use the Labor Qualifications page (WM\_TASKLBRQUAL\_SEC) to review and modify the qualification profile set up for a craft specified as a requirement in a work order task.

Navigation:

Click the Qualifications View link on the Labor Requirements - Details grid.

This example illustrates the fields and controls on the Labor Qualifications page. You can find definitions for the fields and controls later on this page.



The system automatically copies the qualification profile associated with a selected craft. You can add and modify the competencies and qualifications associated with this profile. You can also search for and copy another profile's attributes using the following options.

Field or Control	Description
Qualification Profile	Select an existing qualification profile and the system automatically copies the craft's profile information into the Competencies, Licenses, Degrees, Memberships, and Languages grids by clicking the Copy Profile button. Modify this information as necessary.
	Note: You can also select another craft's profile to copy, even if the profile for the craft displays in the grid. The additional lines from the profile that you copy are added to the existing profile's lines in the grid.

Field or Control	Description
Copy Profile	Click this button to copy the selected qualification profile's competencies and qualifications to the page. You can add to the attributes or modify them as necessary to apply to the work order task.
Competency	Click this link to add one or more competencies manually, including proficiency, importance, and years of work experience needed for this type of craft's worker to perform this work order task.
License	Click this link to add one or more licenses manually, including the accomplishment, country, state, and importance, needed for this type of craft's worker to perform this work order task.
Degree	Click this link and add one or more degrees, including the accomplishment, major code, and importance, needed for this type of craft's worker to perform this work order task.
Membership	Click this link to add one or more memberships manually, including the accomplishment and importance, needed for this type of craft's worker to perform this task.
Language	Click this link to add one or more languages manually, including the accomplishment, abilities to speak, read, and write the language, and importance, needed for this type of craft's worker to perform this task.

See <u>Understanding Qualification and Employee Data in PeopleSoft Maintenance Management</u>.

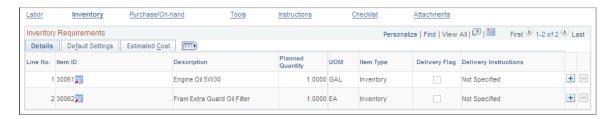
# **Inventory Requirements in the Requirements Page**

Use the Inventory Requirements page to view the inventory requirements.

Navigation:

Select the **Inventory** link to display the Inventory Requirements tabs.

This example illustrates the fields and controls on the Requirements page - Inventory Requirements Details tab. You can find definitions for the fields and controls later on this page.



# **Inventory Requirements - Details**

Field or Control	Description
Copy from EPL (copy from equipment parts list)	Click this button to access the Copy from Equipment Parts List page, which enables you to copy items from one or more EPL templates associated with the asset selected for the work order task to each task row.
	Note: This button only appears on the page if the selected asset is associated with an EPL.
Add to EPL (add to equipment parts list)	Click this button to access the Add to Equipment Parts List page, which enables you to add one or more selected inventory items to one or more EPL templates. You must enter the Planned Quantity and the Unit of Measure to update the item row to an EPL.
	Before you can add inventory items to an EPL template, you must select one or both of these options on the User Preferences — Maintenance Management page:
	Allow Update Asset-default EPL
	Selecting this option enables you to add selected items only to the EPL template that was selected as the default EPL template for the asset that was selected for the task.
	Allow Update Non-Specific EPLs
	Selecting this option enables you to add selected items to applicable EPL templates that are associated with the asset selected for the task, but not the selected asset's default EPL.
	If you select both options, you can add selected items to the asset's default EPL template and any applicable EPL templates. You can add multiple items to multiple templates, but you cannot add new EPL templates.
	Note: This button only appears on the page if the selected asset is associated with an EPL and one of the options listed above is selected in User Preferences.

Select the Inventory Requirements - Details tab.

Field or Control	Description
Item ID	Select an item from the Inventory business unit item table to use to perform this task. Default values appear in all of the fields in the grid, except for the <b>Planned Quantity</b> field based on the selected item.
	Note: You can only select Inventory items in this grid. The items that can be selected are only items that are defined for the Inventory business unit that is defined for the Work Order business unit.
	See PeopleSoft Inventory Setup Considerations.
Planned Quantity	Enter the quantity of the item needed to perform the task. You must enter this value to add items to one or more EPL templates.
UOM (unit of measure)	Displays default standard UOM when the item is selected. Each item has a standard UOM. You can change the UOM if additional UOM values are defined for the selected item.  You must enter this value to add items to one or more EPL templates.
Item Type	Identifies whether the item is:  Inventory  This type of item is obtained from the inventory warehouse.  Floor Stock  This type of item is maintained within the shop and not obtained from the inventory warehouse. Floor stock items are not included in the overall estimated cost of Inventory Requirements as they have already been costed and accounted for by a purchase order that is unrelated to the work order. Floor stock item types are for information purposes only.
Delivery Flag	Select this check box if you want to add instructions for obtaining the item. Selecting this check box enables you to click the <b>Delivery Instruction</b> link to access the Delivery Instruction page.

Field or Control	Description
Delivery Instructions	Enter delivery instructions for PeopleSoft Inventory to know where and how you want to obtain the selected item for the work order task. You can enter that you plan to pick up the item, as well as have it delivered, depending on the needs of the particular work order task and the item.

## **Inventory Requirements - Default Settings**

Select the Inventory Requirements - Default Setting tab.

This example illustrates the fields and controls on the Requirements page - Inventory Requirements Default Settings tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Commit	Displays one of the following values:
	Committed
	Indicates that the item in PeopleSoft Inventory has been committed and PeopleSoft Inventory is aware of the demand for this item by the work order. Inventory items are committed in Maintenance Management based on the Work Order Commit Rules that you select in the work order business unit, shop, or shop/type.
	Not Committed
	Indicates that the item has not yet placed demand on inventory. In most cases committing the item happens when the item is scheduled in the work order.
	See Work Order - Integration Page.
Inventory Unit	Displays the inventory default business unit value, which is derived from the value entered in the work order business unit's Integration page.

Field or Control	Description
GL Business Unit	Displays the GL business unit that is associated with the work order business unit.
Item SetID	Display the SetID value that is associated with the Inventory business unit specified in the work order business unit's Integration page.
Supplier Reference	Supplier reference is only populated if the row was copied from an EPL in which the EPL row had a defined supplier, otherwise it is blank.

### **Inventory Requirements - Estimated Cost**

Select the Inventory Requirements - Estimated Cost tab.

This example illustrates the fields and controls on the Requirements page - Inventory Requirements Estimated Cost tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Estimated Unit Cost	Estimated unit cost is derived from the item setup in the PeopleSoft Inventory product. When you save this page, the planned quantity is multiplied by the unit cost associated with the item to arrive at the estimated cost.
	Note: The unit cost and estimated cost for floor stock item types are calculated but the calculated amount is not rolled up to the overall estimated requirement cost of the work order.

# Purchase/On-Hand Requirements in the Requirements Page

Use the Purchase/On-Hand Requirements in the Requirements page .to view the purchase/on hand requirements.

Navigation:

Click the Purchase/On-Hand link to display the Purchase/On-Hand Requirements tabs

This example illustrates the fields and controls on the Requirements page - Purchase/On-Hand Requirements Details tab. You can find definitions for the fields and controls later on this page.



## Purchase/On-Hand Requirements - Details

Select the Purchase/On-Hand Requirements - Details tab.

Field or Control	Description
Copy from EPL (copy from equipment parts list)	Click this button to access the Copy from Equipment Parts List page, which enables you to copy one or more non-inventory or open description items from an one or more EPL templates that are associated with the asset selected for the work order task to one or more work order task rows. You must select each task row that you want to copy to before clicking this button.  Note: This button only appears on the page if the selected asset is associated with an EPL template.

enables you to add one or more non-inventory n description items that you select in rows on the
n-Hand Requirements grid. You must select a value that you want to add, enter the Planned Quantity, t of Measure to update task rows to one or more ses.
can add purchase/on-hand items to an EPL u must select one or both of these options on the ences — Maintenance Management page:
Jpdate Asset-default EPL
ng this option enables you to add selected items the EPL template that was selected as the default implate for the asset that was selected for the work sk.
Jpdate Non-Specific EPLs
ng this option enables you to add selected items cable EPL templates that are associated with the lected for the work order task, but not the selected default EPL.
both options, you can add selected items to efault EPL template and any applicable EPL ou can add multiple items to multiple templates, not add new EPL templates.
outton only appears on the page if the selected ciated with an EPL and one of the options listed exted in User Preferences.
t e

Field or Control	Description
Item ID and Description	Select a non-inventory item from the Item Master table. Non-inventory items are those that do not belong to any Inventory business units and are defined on the item master as non-inventory. You can also simply add an open description in the <b>Description</b> field for goods and services you need to procure. An item ID is not required.

Field or Control	Description
Resource Type	Select whether the resource is:  Labor  An example of a labor resource is a contractor.  Note: You can enable a contractor to enter work order time in the Technician Workbench. However, if a PO is used to procure contract labor for a work order and you have set up the contractor to enter the time, then you must not associate the invoiced costs based on the PO with the work order or the contractor's labor costs will be double-counted.  If you create a PO for the contractor and want to associate the invoiced costs with the work order, then you should not allow the contractor to enter time in the Technician Workbench.  Material  An example of a material resource could be a specific part that is not maintained in PeopleSoft Inventory. Also, you can specify open description items, which are materials that do not have an item ID.  Tools  You may have to purchase or rent a special tool to
Planned Quantity	Enter the quantity that you need to purchase or that you need to identify as on-hand.  You must enter a value to add an item to an EPL.
UOM (unit of measure)	Select the appropriate unit of measure for the selected non-inventory or open description item. If a unit of measure is set up for the item, it will display when you enter a quantity.  You must select a value to add an item to an EPL.
On-hand	Select this check box if the selected item is on-hand. The cost of on-hand items are not tracked in PeopleSoft Maintenance Management.

# Purchase/On-Hand Requirements - Default Settings

Select the Purchase/On-Hand Requirements - Default Settings tab.

This example illustrates the fields and controls on the Requirements page - Purchase/On-Hand Requirements Default Settings tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
GL Unit	Displays GL business unit value associated with the work order business unit.
Item SetID	Displays default SetID value based on the work order business unit associated with the item table.
	See "Defining Items at the SetID Level" (PeopleSoft Managing Items).

## **Purchase/On-Hand Requirements - Estimated Cost**

Select the Purchase/On-Hand Requirements - Estimated Cost tab.

This example illustrates the fields and controls on the Requirements page - Purchase/On-Hand Estimated Cost tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Unit Cost	Enter a cost per unit, if the resource is not an item selected from the Item Master table. If this is an item selected from the Item Master Table, a default unit cost value appears, if a cost exists, based on the setup of the item. Costs for non-inventory items are derived from the PeopleSoft Purchasing Attributes Standard cost in the Item setup component.
<b>Estimated Cost</b>	The system multiplies the planned quantity times the unit cost and displays the resulting value in this field.

# **Tool Requirements tabs Page**

Access the Tool Requirements tabs. (Click the **Tools** link in the Requirements page to display the Tool Requirements tabs.)

## **Tool Requirements - Details**

Select the Details tab.

This example illustrates the fields and controls on the Requirements page - Tool Requirements Details tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Asset Type, Asset Subtype, Manufacturer, and Model	Select the asset characteristics that identify the type of tool that you want to use to perform this work order task.
Quantity	Enter how many of these tools are needed to perform this work order task.
Hours	Enter the total number of hours you need to use this tool to perform this work order task.
Estimated Usage	Enter the method that is used for calculating the usage of a tool. For example, a truck may be rented out on a per day basis. If a truck is rented for 1 day (estimated usage) at 20. 00 USD a day, the estimated cost would be 20.00 USD, even though it was only used for 2 hours.
UOM (unit of measure)	The default unit of measure value that determines the usage cost is derived from the shop's tools rate or the asset subtype definition. For example, per day or per week are valid units of measure. If there is a default unit of measure set up, then the unit of measure field is not available for selection. Otherwise, the unit of measure field is blank and available for entry.
	Note: This behavior also applies to the Tools Schedule grid on the Schedules page of the work order.
	See <u>Understanding Work Order Task Resource Requirements</u> .

## **Tool Requirements - Timetable**

Select the **Tool Requirements - Timetable** tab.

This example illustrates the fields and controls on the Requirements page - Tool Requirements, Timetable tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Required Start, Start Time, Required End, and End Time	Enter the start and end dates and times for the usage of this tool. The default dates and times are based on the required dates for the work order task.

#### **Tool Requirements - Estimated Cost**

Select the Tool Requirements - Estimated Cost tab.

This example illustrates the fields and controls on the Requirements page - Tool Requirements, Estimated Cost tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Cost Rate and Billing Rate	These default rate values are derived from the rates specified in the Tool Rates page of the shop or the asset subtype page in the PeopleSoft Asset Management. The rate specified at the asset subtype level can be overridden by a rate specified at the shop level.
Billing Amount and Cost	Click the <b>Save</b> button to calculate these amounts. The cost and bill rates are multiplied times the tool's estimated usage and the quantity to determine the cost and billing amount.  Important! You can review a summary of the estimated costs for all the task requirements on the Cost page of the work order.

## **Chapter 19**

# Scheduling a Work Order

# **Understanding Resource Scheduling**

Once you create a work order and at least one work order task, you have the option of specifying resource requirements and assigning and scheduling these resources for each work order task.

This section discusses:

- Labor resource scheduling.
- Tool resource scheduling.
- Labor and tool resource matching.
- Labor resource assignment approval workflow.
- Move labor or tool resources to Purchase/On-Hand.
- Inventory resource scheduling.
- Inventory item availability.
- Procurement of material, tool, and labor resources using the Purchase/On-Hand Schedules grid.
- The Work Order Workbench.

# **Labor Resource Scheduling**

There are four different methods for scheduling labor resources.

- Select a resource group ID and click the **Recommend Labor** button on the Schedules page (Labor Schedules) to run the resource match engine, which recommends resources that meet the labor requirements based on both qualifications and availability.
- Search for the resources based on the craft manually by clicking the Search link in the Labor
  Schedules Assignments tab on the Schedules page. This conducts a search based on the availability
  of the resources and the craft.
- Enter or select a specific employee ID at the resource line level in the **Labor Schedules Assignments** tab on the Schedule page.

Use this method when you know the specific resource whom you want to assign.

 Access the Labor Assignment Workbench and assign available crew resources and non-crew resources to multiple work order tasks.

In each of these methods, the system checks the resource calendar for conflict before making the actual assignment. If a conflict exists and the system allows overbooking of the resource, it creates the assignment and issues a warning message to the user. If you indicated that overbooking is *not* allowed, then the system issues an error message based on the conflict. Once the labor resources are assigned, a distribution row is created in the Labor distribution record in PeopleSoft Maintenance Management. When the actual time spent on the work order task for this schedule row is entered through a timesheet, the Labor distribution row ChartField values will flow into the timesheet that will feed the shared tables with PeopleSoft Travel and Expenses.

To manually control overbooking of resources at the work order task line, you must select the **Overbooking Resources - Require Manual Override** check box for the shop associated with the work order. If you select this check box, then an **Overbook Flag** check box displays in both the **Labor Schedules** and **Tool Schedules** grids in the work order. If you select the check box, then the system allows the overbooking of the resource. If the check box is deselected, then the system does not allow the overbooking of the resource. If you do not select the **Require Manual Override** check box for the shop, then the system automatically allows overbooking of the resource for all work order task lines associated with the shop.

There are two types of shifts that the system considers in the assignment process:

- The shop's shift, which defines the operating hours of the shop.
- The resource's shift, which defines the working hours of the resource.

If overbooking is *not* allowed, the system checks the resource availability based on the availability cache record and the resource working hours in the shop. If there is no availability for the scheduled time frame and duration, an error issued. If overbooking is allowed, the system uses either the shift associated with the shop identified in the work order header or the resource shift in the assignment process, depending on one of these scenarios:

- For a cross shop assignment where the resource is assigned to the shop identified in the work order header, the system uses the shift that the resource is assigned to in the shop associated with the work order.
- For a cross shop assignment, where the resource is *not* assigned to the shop identified in the work order header, the system uses the shop's shift in the assignment process
- For a non-cross shop assignment, the system uses the resource's shift in the assignment process.

Schedulers can assign non-crew and crew resources one at a time using the Labor Schedules grid or the Labor Assignment Workbench. They can also assign non-crew and crew-scheduled resources to multiple work orders and tasks using the Labor Assignment Workbench. When you set up resources, you can associate them with one or more shops, shifts, and crafts using Manage Profiles. When you access the Shop component, the current shop resources are listed on the Resources page. All resources must be assigned to a shop before you can assign them to a work order task.

When you click the **Search** link in the **Labor Schedules** grid in the work order and access the Search for Labor Resources page, you can search by shop, crew, location, employee ID, craft, and availability. However, you can override the other values, but you cannot override the craft value on this search page. For example, if a crew has three electricians and two mechanics associated with it, and you need three electricians and two mechanics to do the job, then you perform the search based on the crew ID, which results in a list of the three electricians or two mechanics associated with the crew (depending on the craft specified on the search criteria) so that you can assign these resources to the task. If crew technicians are

not available in the shop associated with the work order task, the scheduler can search for technicians in another shop or procure technicians using a purchase order or requisition.

The scheduling and assignment of crews to multiple work orders is described in detail in the Performing Crew Scheduling set of topics.

See <u>Understanding Crew Scheduling</u>.

## **Tool Resource Scheduling**

Scheduling a specific tool asset presumes that the asset is marked as a tool and associated to a shop, able to be scheduled based on its availability, and that the asset is formally reserved or checked out for the time period indicated in the work order task. Tool resource scheduling is basically handled like labor resource scheduling in that you can either have the system recommend a tool, specify criteria and search for tools manually, or select a specific tool on the row in the **Tool Schedules** grid in the work order.

To schedule a tool, you can:

- Click the **Recommend Tools** button, which uses the match engine to conduct a search in PeopleSoft Asset Management for an appropriate tool.
- Manually search for a tool by clicking the **Search** link on the **Tool Schedules Assignments** tab to access the Asset Search page and search for the asset based on availability and a variety of criteria.
- Select a specific tool's asset ID in the **Tool Schedules Assignment** tab's work order task line, which is based on the assumption that you know that this type of tool is always available.

The system can determine availability for tool resources by examining continuous or discontinuous blocks of time, just as it can for labor resources. Each tool is associated with a shop based on its asset classification parameters (asset type, subtype, manufacturer, model), which are originally defined in PeopleSoft Asset Management. Therefore, the availability of the tools is determined by the operating hours of its associated shop. Tool qualification is determined based on the specification of the asset type, subtype, manufacturer, model, and the Asset Management business unit. When a scheduler clicks the **Recommend Tools** button to run the Resource Match engine, the system compares the Tool Schedules row specifications to the tool assets that reside in PeopleSoft Asset Management and determines qualification fit score based on the following table:

User Specification of Asset Characteristics in Work Order Task Row	Qualification Fit Score based on Matching Asset Characteristics	
Asset Type, Asset Subtype, AM Business Unit	<ul> <li>Matches all characteristics: 100%</li> <li>Matches only one of the characteristics: 33.33%</li> </ul>	
Asset Type, Asset Subtype, Manufacturer ID, AM Business Unit	<ul> <li>Matches all four characteristics: 100%</li> <li>Matches two characteristics: 50%</li> <li>Matches one characteristic: 25%</li> </ul>	

User Specification of Asset Characteristics in Work	Qualification Fit Score based on Matching Asset
Order Task Row	Characteristics
Asset Type, Asset Subtype, Manufacturing ID, Model, and AM Business Unit	<ul> <li>Matches all five characteristics: 100%</li> <li>Matches three characteristics: 60%</li> <li>Matches two characteristics: 40%</li> <li>Matches one characteristic: 20%</li> </ul>

If you cannot find a tool in the asset repository, you can procure the tool by creating a requisition or purchase order directly from PeopleSoft Maintenance Management by clicking the **Move Selected to Purchase** button or creating a purchase requisition or purchase order directly in the PeopleSoft Purchasing application.

See Procurement of Material, Labor, and Tool Resources Using the Purchase/On-Hand Schedules Grid.

## **Labor and Tool Resource Matching**

When you schedule either labor or tools for a work order task in PeopleSoft Maintenance Management, you can click:

- The **Recommend Labor** button, after clicking the **Labor** link on the work order's Schedules page.
- The **Recommend Tools** button, after clicking the **Tools** link on the work order's Schedules page.

Clicking either of these buttons invokes the Resource Matching engine for either labor or tools resources. The Resource Matching engine:

- Assesses all labor resources based on their availability and qualifications to perform a work order task.
- Assesses all tools resources based on their availability and qualifications for use in a work order task.

The Resource Matching engine evaluates various factors, such as crafts, accomplishments, competencies, experience, and availability to assess how various labor resources in the resource database match with the qualifications specified for a work order task resource. A fit score is calculated based on these factors, which is used to recommend resources for the task

To use resource matching, you must:

- 1. Follow the setup procedures for labor and tools.
- 2. Define and schedule the cache administration processes that will refresh the eligible resources and resource schedules cache and update the search index that will be used in the calculation of the qualification and availability scores.
- 3. Review and modify the Resource Search, Search Configuration.

## **PeopleSoft Maintenance Management Search Types**

Before you can use the Resource Match engine to search for and identify labor and tool resources that match your specifications for a technician or a tool in a work order task, your organization needs

to decide on the importance of each of the factors used to compile the fit scores. You can do this by accessing the two search types defined specifically for PeopleSoft Maintenance Management in **Common Definitions** > **Resource Search** > **Search Configuration** component. Each search type specifies the search settings and the factors that are used to determine the factor fit score.

The Resource Match engine uses the Search Framework search engine to quickly calculate the fit scores for labor and tool resources. The index process extracts information from the specified database and loads it into formatted files on the Process Scheduler server. The Search Framework indexing application transforms the labor resource or the asset data files into an index that is used for searching.

When you select one of the two PeopleSoft Maintenance Management search types in the Resource Search - Search Configuration component, the two pages in the component include the:

• Search Framework Settings page.

You can enter the Buffer Result set Size (in rows) field to specify the number of rows you want returned from the Search Index.

You can also specify the number of days to store the resource schedules. For example, if you specify 30 days, the cache administration process will store the resource schedules for 30-day periods in the cache record.

Factor Weights page.

You identify the importance you place on each of the qualification factors.

There are two search types predefined for PeopleSoft Maintenance Management, which include:

WASRC.

This search type is used to identify assets that are flagged as tools in the asset repository for a work order task. It only uses one factor, configurable fields, which includes ASSET\_TYPE, ASSET\_SUBTYPE, MANUFACTURER ID, MODEL, and AM BU.

· WMSRC.

This search type is used to identify labor resources for a work order task based on the importance of the weighting of these qualification factors:

• Accomplishments.

The Resource Match engine compares resource accomplishments specified for the selected craft in the work order task labor schedule to the accomplishments of the resources included in the search.

• Configurable fields.

The configurable fields for WMSRC are CRAFT, SHOP ID, and BUSINESS UNIT WO.

• Competency proficiency.

The Resource Match engine compares the competency proficiencies specified for the selected craft in the work order task labor schedule with the competency proficiencies of the resources included in the search.

Competency experience.

The Resource Match engine compares the years of experience specified for the selected craft in the work order task labor schedule with the years of experience of the resources included in the search.

You can specify how important each of these factors is to your organization in terms of finding resources that meet the qualifications necessary to perform a work order task.

#### **Resource Matching Fit Score Calculations**

The Resource Match engine requires separate algorithms for each match factor. Fit score calculations for PeopleSoft Maintenance Management are based on the:

- Accomplishment factor.
- Competency Proficiency and Competency Experience factors.
- Configurable fields.

See "Resource Matching" (PeopleSoft Resource Management).

#### **Resource Availability**

When the scheduler enters a resource group ID and clicks the **Recommend Labor** (or **Recommend Tools**) button, the match engine determines a resource's availability based on a precise calculation. The availability calculation uses the date range and duration of the resource request, the resource's calendar, and the shift associated with the resource. The match engine then determines the resource's availability based on these two calculation methods:

Continuous availability.

In certain scenarios, a work order task must be completed in a single block of time. For example, when a work order task requires that production equipment must be brought down to perform the task. In this case, the availability of the resource is 100 percent as long as the resource is available for a continuous time period of at least sixty minutes. If you select the **Continuous Scheduling** check box for either labor resources or tools, and click the **Recommend Labor** or **Recommend Tools** button to run the Resource Match engine, the engine searches for all resources that are available for a continuous time period.

Discontinuous availability.

If a resource is available for at least 60 minutes, even though the 60 minutes are not in a continuous time period, the availability is 100 percent. For the Resource Match engine to search for resources with discontinuous availability, you must deselect the **Continuous Scheduling** check box for labor or tool resources.

For example, if an organization needs to schedule twelve hours of work between Monday and Friday, the following table describes the how the availability of the resource is determined based on discontinuous versus continuous availability calculations:

Resource Schedules	Discontinuous Availability Calculation Results	Continuous Availability Calculation Results
Resource #1 works Monday - Friday from 8 a.m. – 12 p.m.	100% available given that this resource can be assigned Monday, Tuesday, and Wednesday from 8 a.m 12 p.m.	33% available given that the largest continuous block of time available for this resource is 4 hours out of the 12 hours required.
Resource #2 works Monday - Friday from 8 a.m 2 p.m. each day and already is assigned to work on Monday from 8 a.m. to 2 p.m. and is free the rest of the week.	100% available given that this resource can be assigned on Tuesday from 8 a.m.  – 2 p.m. and on Wednesday from 8 a.m.  – 2 p.m.	50% available given that the largest continuous block of time available for this resource is 6 hours out of the 12 hours required, from 8 a.m 2 p.m. on either Tuesday, Wednesday, Thursday, or Friday.

If conflicts arise in the creation of an assignment and the resources can be overbooked, then PeopleSoft Maintenance Management allows the scheduler to create the assignment and changes the status to assigned. The scheduler receives a message indicating that conflicts exist and that the resource is overbooked. If overbooking is not automatically allowed, then PeopleSoft Maintenance Management issues an error and indicates that the resource does not have enough available hours to perform the assigned task. The assignments are set to a status of pending approval if assignment workflow is enabled in the Work Order Options component. Once the assignment is approved, the status changes to assigned.

**Note:** Unless you indicate that overbooking requires manual override in the shop associated with the work order, the system automatically allows overbooking of a resource. Even if overbooking is allowed for a resource, you cannot assign a resource to a date past the work order task's scheduled end date and time.

An assignment status is changed to complete based on the date when the work order task is set to complete and the resource's calendar is updated based on the **Update Resource Calendar** option specified at the shop and business unit level. The labor resource's work history is updated only if the **Update Work History** check box on the resource schedule grid is selected in the row when the assignment is created. If an assignment is canceled as of a specified date, the system deletes the current and future entries on the resource's calendar and the removes the assignment from the resource's work history in the resource profile.

#### Example 1:

For example, a work order task (WO 2 /Task 1) is scheduled from 10:00 a.m., January 3, 2005, to 05:00 p.m., January 4, 2005, and the duration is 10 hours.

John Doe works shift form 8:00 a.m. - 12:00 am and 1:00 p.m. to 5 p.m. with an hour off for lunch from noon to 1:00 p.m. John is free all day from 01/03/2005 - 01/04/2005. He is scheduled to other tasks for the rest of the week. The scheduler wants to schedule John to WO2, Task 1 and creates these assignments for John:

Date	Time	WO/Task
1/03/2005	10 a.m 12 p.m. (2 hrs)	WO2/ Task 1

Date	Time	WO/Task
1/03/2005	1 p.m 5 p.m. (4 hrs)	WO2/ Task 1
1/04/2005	8 a.m 12 p.m. (4 hrs)	WO2/ Task 1

#### Example 2:

The scheduler wants to assign Jennifer Brown to WO2 – Task 2 for a duration of 16 hours on 1/3/2005 and 1/4/2005. Jennifer's shift is 8:00 a.m. to 12:00 noon, lunch from 12:00 noon - 1:00 p.m. and 1:00 p.m. - 5:00 p.m. Jennifer has already been scheduled from 10:00 a.m. - 12 noon on 1/3/05 to another task. She also is scheduled to other tasks for all of 1/5/06, 1/6/06, 1/7/06. The scheduler assigns Jennifer to:

Date	Time	WO/Task
1/03/2005	8 a.m 12 p.m. (4 hrs)	WO2/ Task 2
1/03/2005	1 p.m 5 p.m. (4 hrs)	WO2/ Task 2
1/04/2005	8 a.m 12 p.m. (4 hrs)	WO2/ Task 2
1/04/2005	1 p.m 5 p.m. (4 hrs)	WO2/Task 2

Since Jennifer is already assigned to work on a different task on January 3, 2005, from 10:00 a.m. - 12:00 p.m. If overbooking is not allowed, the scheduler will receive an error message that Jennifer is already assigned to a task on 1/3/2005 from 10 a.m. - 12:00 p.m. and the assignment will not be created. If overbooking is allowed, the scheduler will receive a warning message stating that the assignment has been created with a conflict, but the assignments will be created.

**Note:** The system updates the resource scheduled start and end dates and times based on the work order task start and end dates listed for the previous scenario.

The system also creates an assignment exception based on Scenario 1 indicating: From Date: January 2, 2005 and To Date: January 2, 2005, Hours: 1, Start Time: 12:00 p.m.

The system updates John Doe's calendar with the task assignment.

In another example, a work order task requires a resource from September 16, 2004 09:00 a.m. – September 16, 2004 1:00 p.m. (Duration = 4 hours).

Whether the task is continuous or discontinuous, if overbooking is allowed, the system does not consider the available date ranges returned. Instead it creates the assignment provided that the resource works enough hours between the scheduled start date and time and the scheduled end date and time based on the resource's shift. If overbooking the resource is not allowed and the resource is not 100% available, the system issues an error and creates no assignments.

#### The Overall Fit Score

After the matching process calculates an overall fit score by taking into consideration each match factor, it calculates factor family fit scores by applying the relative factor importance settings in the Search Configuration's Factor Weights page. Finally, the process averages the family scores according to the relative factor family preferences that are selected during search time. This overall fit score is not visible to end users.

See "Resource Matching" (PeopleSoft Resource Management).

## **Labor Resource Assignment Approval Workflow**

Schedulers can assign technicians, who are associated with a shop (SHOP B), which is different from the shop (SHOP A) associated with the work order. However, the resource's supervisor must approve the assignment, if the assignment approval is turned on in the Work Order Options component. The technician's supervisor is identified in the technician's employee data file. You can set up email notifications on the Work Order Options page for both the supervisor and the resource, which are triggered based on a selected assignment status. The employee's supervisor (from SHOP B) can access the worklist from the Worklist link located on the top right-hand corner of the browser and approve or reject the assignment. The supervisor can click a link in the worklist to access the Assignment Approval page for a work order resource. If the supervisor approves the assignment of this technician, then the assignment status changes to assigned. If the supervisor rejects the assignment, then the assignment status changes to rejected. Once a technician from a different shop is assigned to a work order task, the cost and bill rates for the technician are based on the rates set up in the shop associated with the work order and not the shop to which the technician is associated.

**Note:** If assignment approval is required, the cross shop assignment approval applies to the cross shop assignment of resources assigned to crews (crew members) on the Labor Assignment Workbench.

See documentation *PeopleTools: PeopleSoft Workflow Technology*.

#### Move Labor or Tool Resources to Purchase/On Hand

The scheduler can click the **Move Selected to Purchase** button above the **Labor Schedules** grid and above the **Tools Schedules** grid to send a selected resource to the **Purchase/On Hand** grid. When the scheduler selects the resource that requires procurement, such as a special tool, and clicks the **Move Selected to Purchase** button, the tool row is no longer available for selection in the **Tool Schedules** grid and now appears in the **Purchase/On-Hand Schedules** grid. The scheduler then selects the tool in the **Purchase/On-Hand Schedules** grid and creates a requisition or PO to purchase the tool. Once the tool is procured, the status of the tool in the **Tool Schedules** row changes to procured. The **Move Selected to Purchase** button works the same way for a selected labor resource and is often used when contract labor is needed for a task.

# **Inventory Resource Scheduling**

After creating a work order and work order tasks, you can schedule Inventory materials for use in performing a work order task. You do this by accessing the **Inventory Schedules** grid on the work order's Schedules page. You can populate the **Inventory Schedules** grid with materials or parts by:

• Copying the requirements from the **Inventory Requirements** grid that you specified either manually or that you copied from a work order task template.

• Selecting the Copy from EPL button to access the Copy from Equipment Parts List page where you can select among multiple EPL templates, as long as they are set up in PeopleSoft Asset Management, listed in descending order of applicability that match the target asset's classification criteria (asset type, subtype, manufacturer ID and model). You select the parts associated with each template that you want to copy to the tasks. The first template in the list of EPL templates is identified as the preferred template and is preselected. However, you can select any of the listed templates and the parts will appear in the lower grid. If only one template is listed, it is preselected, and the template information along with the parts from that template appear on the grid.

In addition to copying template items from the EPL to the work order task row, authorized users can add one or more EPL templates associated with the target asset with inventory items that you select for one or more inventory task rows on the Schedules grid by clicking the Add to EPL button. You can add items to an existing EPL template, but you cannot create new EPL templates from the work order.

**Note:** The **Copy from EPL** and **Add to EPL** buttons are only active if the asset for the task has an associated EPL and there are Inventory items applicable to the Inventory business unit that is defined for the work order business unit. The **Add to EPL** button also requires that you select one or both of the Allow Update Asset-default EPL and the Allow Update Non-specific EPLs options on the User Preferences – Maintenance Management page.

You can also select inventory parts from the EPL when you define inventory requirements for a work order task template.

See <u>Understanding Work Order Templates</u>.

• Entering the parts manually.

Once the inventory items (parts) are entered on the Inventory Schedules grid, the typical steps to obtain the items to complete a task are:

• Commit the items, which recognizes the work order demand for the items in PeopleSoft Inventory by applying a commit rule set up in the work order business unit, shop, or the Type page of the shop.

Work order demand lines for inventory items can be pre-allocated in PeopleSoft Inventory as long as the items have been committed. Pre-allocations automatically reserve the item as long as it has not been reserved.

Soft reserve the items, based on the combination of commit rules and reservation rules in PeopleSoft
Maintenance Management, which prevent the work order task demand from being consumed by other
demand lines

**Note:** You can check the availability of the items based on their need date on the Inventory Schedules - Availability tab.

- Generate a pick plan, which lists the work order items and the inventory locations from which they should be picked.
- Issue the material (items) from PeopleSoft Inventory to the work order.
- Return any unused material to PeopleSoft Inventory.

To schedule inventory, the Inventory Schedules page consists of:

 The Inventory Schedules - Materials tab is where a scheduler can search for and select an Inventory item from the Item Master.

This field may already be populated if you copied the Inventory requirements or selected the item from the Equipment Parts List, if available. The unit of measure (UOM) is derived from the Inventory STD UOM (standard units of measure) for the selected item. The scheduler can override the UOM and change it to an ordering UOM that is predefined in the Items > Define Items and Attributes > Define Item UOM component. The scheduler enters the quantity needed for the task and the date that it is needed. Once the item is committed, which means that PeopleSoft Inventory recognizes the work order task demand, the item ID and UOM are both disabled. However, you can still update the quantity needed and the date needed. These fields are no longer available once the item is added to a picking plan. The planned quantity only displays if this item was copied from the Inventory requirements and is informational only.

Items have many attributes, one of which is the ability to define an item as *Floor Stock*. If an item type of *Floor Stock* is used in the Inventory Schedules grid, the item is assumed on-hand in the shop and is not issued from PeopleSoft Inventory. The **Item Type** in the grid populates automatically as either *Inventory* or *Floor Stock* when selecting an item in the Inventory row. Floor Stock may include bolts, nuts, gloves, rags and other low valued items that you do not need to track. You typically replenish these items in your shop using a visual method. Once the stock becomes low, you can issue more from PeopleSoft Inventory using Express Issue in PeopleSoft Inventory.

• The Inventory Schedules - Details tab provides more information on the state and status of the inventory item or items that the work order task requires.

This tab shows whether the item was committed to PeopleSoft Inventory, if the item exists on a picking plan, if any quantities have been issued to the work order for the item, the current quantity available in PeopleSoft Inventory, the pegging status, and links to the pegging workbench and pegging inquiry, if pegging is enabled.

• The Inventory Schedules - Reservation tab works in conjunction with a selected combination of commit and reservation rules established in the work order business unit or in the shop to determine when the system will commit and reserve inventory items in PeopleSoft Inventory.

Some of the information on this tab is updated automatically when the system applies the selected commit and reservation rules to the inventory items at the task line. You can, however, override the system rules for a user, if you select the Authorized to Reserve Inventory check box on the User Preferences - Maintenance Management page. Selecting this check box displays the Reserve button on the Inventory Schedules page. When you select this Reserve button, the system overrides the commit and reservation rules and immediately commits the item if not already committed, and attempts to reserve the item. If the quantity cannot be fully reserved, reservation messages are generated. You can view these messages on the Reservations Errors page. The value in the Priority field on this grid, is derived from the set up in either the work order business unit, shop, or work order type in the shop. The Priority field is used to determine the order in which demand is reserved.

• The Inventory Schedules - Availability tab provides information to help determine whether the current quantity of an item will be available on a scheduled needed date.

After selecting one or more inventory items in a task, you click the Item Availability button and the system determines if the scheduled quantity will be available on the scheduled need date. The system also updates the Earliest Available date, indicates with *Yes* or *No* whether the selected number of items are available in the Item Availability column, and updates the Need Date Qty Available column with the number of items available on the date that you specified the items were needed for the task.

You can click on an Availability Inquiry link for a selected item, which takes you to the **Inventory** > **Manage Inventory** > **Review Inventory Balance Info** > **Item or Product Availability** page in PeopleSoft Inventory. This inquiry lists the available quantity as of a specific date and the total quantity demand and the total quantity supply for the selected item.

You can click on the Balance Inquiry link which takes you to the **Inventory** > **Manage Inventory** > **Review Inventory Balance Info** > **Item Balance by Unit** page in PeopleSoft Inventory. This inquiry displays a description of the item, the quantity on hand, the quantity owned, the quantity available, the quantity reserved, and the number of lead days required to replenish the quantity based on a specific business unit. A history listing the dates of the last adjustment, the last putaway, the last order date, and the amount of the last order displays on this page. You can click a link to access the Item Balance By All Units inquiry, Item Balance By Location inquiry, and Item Fulfillment Status inquiry.

The Item Balance By All Units inquiry displays the quantity available, quantity reserved, quantity in transit, and the quantity on hand of an item based on each business unit. There are also total quantities for all of the business units.

The Item Balance By Location inquiry displays the area and levels where the item is located, whether the item quantity is nettable, the quantity reserved, the quantity stored, the quantity reserved base amount, and the quantity storage base amount for each location of the item in a storage facility. It also lists the total amount stored in each of the storage locations and the total amount that is staged for shipping.

The Item Fulfillment Status inquiry displays the status of fulfilling the demand for an item if the demand was placed on the item based on a material request, material return, a planning requisition, a purchasing requisition, or a sales order. This page may indicate whether the fulfillment of the item is on hold, or if the request was fulfilled, it contains detailed shipping information.

• The Inventory Schedules - Additional Information tab further assists the work order task scheduler with information to make better planning and scheduling decisions.

This tab enables you to specify if any delivery requirements exist for the given item. If the item is serial or lot controlled and quantities are issued to the PeopleSoft Inventory row, you can click a link to review the serial or lot numbers associated with the item. Based upon quantities available and earliest available date information, the scheduler can better determine the most appropriate work order task start and end dates for the inventory schedule.

See Scheduling Inventory Resources for a Work Order Task.

• The Inventory Scheduling - Default Settings tab displays the Inventory business unit, the GL business unit, and the item's SetID.

These are all default values that depend on how you set up them up in the work order business unit.

The Transaction Source field on this tab identifies the source of the inventory transaction and determines whether the transactions are considered Scheduled or Actuals. If a transaction source is Scheduled, the total scheduled costs appear on the Cost page of the work order. If a transaction source is Actuals, you must run the Cost Summarization process to view the total actual costs on the Cost page of the work order. When Actuals is returned from a feeder application such as a direct issue from PeopleSoft Inventory, the Scheduled Quantity field on the Inventory Schedules - Materials tab is populated with a value of zero and:

• The system will not calculate the scheduled costs for the row or rows that are inserted by the feeder application.

- The costs will not roll up to the task's scheduled costs on the Cost page in the Work Order component for that inventory resource.
- Changes to the rows are prevented if entered from another application.
- The Inventory Scheduling Cost tab displays the estimated unit cost and the scheduled material cost.

The unit cost is derived from PeopleSoft Inventory and the scheduled material cost is calculated based on the quantity times the unit cost. Both of these fields are display only. The UOM is calculated using the Ordering Conversion rule in PeopleSoft Inventory. An example of applying the conversion rate is: 1 BOX = 4 EA.; 1 EA unit cost = 1.00 USD; therefore 1 BOX unit cost = 4.00 USD. If the work order parts row needs 2 boxes then the **Scheduled Material Cost** (extended cost in PeopleSoft Inventory) = 8.00 USD.

 The Inventory Scheduling - Distributions tab enables you to access the distribution data specified for the row after an assignment has been made.

You can override these values. You must select the **View and Update Accounting** check box on the User Preferences - Maintenance Management page for this link to appear on the tab.

See "Equipment Parts List Page" (Asset Lifecycle Management Fundamentals).

See "Confirming Quantity Data with Inventory Balance Audit Reports" (PeopleSoft Inventory).

#### **Inventory Commitment and Reservation**

To reserve items in PeopleSoft Inventory, they must be committed prior to or at the same time they are reserved. When the system commits an item specified in a work order task in PeopleSoft Inventory, the item is placed in the IN\_DEMAND table based on the work order task's commit rule. This means that PeopleSoft Inventory recognizes the work order task demand.

Only soft reserved items can be reserved for work orders. When the system reserves (soft reserves) an item in PeopleSoft Inventory, part of the Inventory business unit's total available quantity for the item is reserved for the demand line and cannot be consumed by other demand lines, which are staged for fulfillment processing in the PeopleSoft Inventory system. There are two primary locations for setting soft reserve in PeopleSoft Inventory:

- Setup Fulfillment at the Inventory business unit level.
- Setup Item Fulfillment at the item level.

You can reserve items associated with a work order task in PeopleSoft Inventory by:

- Entering the data in the Inventory Schedules grid and saving the work order.
- Clicking the Reserve button on the Schedules page of the work order.
- Running the Reserve Materials process in PeopleSoft Inventory.
- Using the Shortage Workbench in PeopleSoft Inventory.

• Receiving a pegged work order row in PeopleSoft Inventory.

Details about committing items to PeopleSoft Inventory and the methods listed above for reserving work order items in PeopleSoft Inventory are noted in the following the section on Inventory Commitment.

#### **Inventory Commitment**

The **Commit** field on the Inventory Scheduling - Details tab indicates whether the selected item is committed, which means that PeopleSoft Inventory recognizes the work order task demand. The work order demand appears in the Item Availability Inquiry and can be optionally included when running the Create Replenishment Requests for items that are below their reorder point. You specify the point at which items are committed to PeopleSoft Inventory on the Integration page of the work order business unit, on the Shop Definition page, and on the Type page of the shop. You select a commit rule, which indicates that you want to commit the inventory items based on:

• The addition of an item to the parts list in Inventory Schedules grid.

Items are committed when they have been added to the Inventory Schedules grid and a save has been issued. Each subsequent part that is added and saved on the work order task will commit the item to PeopleSoft Inventory.

• A change to a specified work order task status.

Once the work order task status changes to the status identified in the Integration page of the work order business unit or defined at the shop level, the item is committed.

**Note:** The valid internal statuses to choose from are *Awaiting Schedule, Scheduled,* and *Work in Progress*.

• The creation of a picking plan.

A picking plan consists of the parts or inventory items that are added to a list, which direct inventory personnel to the storage locations for the items that they need to pick for the work order task. This option delays committing of the inventory items until you are ready to have them picked and available to begin working the work order. You can set up and generate a pick list from the Inventory Schedules page or the Technician Workbench of the work order:

See Process/Output Options Page.

• When the item is reserved (Commit at Reserve).

To reserve inventory items, they must be committed prior to or at the same time that they are reserved. The reservation rules are set up to work in conjunction with each of the commit rules. When a commit rule is selected, the system commits the item based on the commit rule and reserves the item based on the selection of one the following reservation rules:

- Batch Reserve Only.
- Parts List Creation.
- Pick Plan Creation.
- Status Change to Awaiting Schedule, Scheduled, or Work in Progress.

There are specific combinations of commit and reserve rules that are compatible. The system runs a combination edit to verify that the combination of the Commit Rule and the Reservation Rule is correct.

See Work Order Business Unit Integration Options.

See <u>Inventory Schedules - Reservation tab — Schedules Page</u>.

Work order commit statuses are:

Not committed.

The Inventory Schedules row has *not* yet placed demand on Inventory (inserted the row into the IN DEMAND table in PeopleSoft Inventory).

Committed.

The Inventory Schedules row *has* placed demand on PeopleSoft Inventory (inserted the row into IN DEMAND table in PeopleSoft Inventory).

When Inventory items are committed to Inventory, a row is created in the Inventory primary table (IN\_DEMAND) with the DEMAND\_SOURCE value set to WM, which means that the committed rows in PeopleSoft Maintenance Management are recognized by PeopleSoft Inventory as demand. The uncommitted rows in PeopleSoft Maintenance Management are not visible to PeopleSoft Inventory.

See "Using the Fulfillment Workbench to Reserve or Promise Orders" (PeopleSoft Inventory).

See <u>Integrated Product Setup Considerations</u>.

See <u>Understanding Overall System Setup Parameters for PeopleSoft Maintenance Management</u>.

#### Reserving Inventory Using the Work Order's Inventory Schedules Grid

You can reserve work order task items in Inventory from the Schedules page - Inventory Schedules in PeopleSoft Maintenance Management. You set up a combination of commit and reservation rules on the Integration page of the work order business unit, on the Shop Definition page, or on the Type page of the shop where the rules are set up based on the work order type. Standard PeopleSoft Maintenance Management default hierarchies apply to these rules, with the business unit at the top of the hierarchy and the work order type at the bottom. The system uses these rules to automatically commit and reserve the inventory item specified at the task line.

To reserve inventory items, the items must be committed either before they are reserved or at the same time they are reserved. PeopleSoft Maintenance Management performs combination edits to ensure that invalid combinations of the commit and reservation rules do not occur. For example, if the commit rule is pick plan and the reservation rule is parts list, the rules in this combination conflict with each other because the attempt to reserve items precedes the attempt to commit the items.

Once you save the work order, the system executes the reservation rule in PeopleSoft Maintenance Management if the reserve rule is parts list or status change, which triggers the reservation process in PeopleSoft Inventory. If PeopleSoft Inventory cannot fully reserve task rows from PeopleSoft Maintenance Management, it sends a message back to PeopleSoft Maintenance Management explaining why the full reserve cannot take place.

The work order reservation rules are:

Batch Reserve Only

When the batch process is run, the rows will be reserved.

Parts List Creation

When the parts (items) in the work order task are saved, the parts (items) are reserved.

Pick Plan Creation

When the picking plan is created, the part (item) is reserved.

• Work Order Status Change

When the status of the work order task is changed to *Awaiting Schedule, Scheduled, or Work in Progress*, the parts (items) are reserved.

### Selecting the Reserve Button on the Work Order Schedules Page

You can authorize specific users to override the commit and reserve rules specified in the business unit, shop, or Type page of the shop, and reserve inventory items immediately by selecting the Authorized to Reserve Inventory check box on User Preferences - Maintenance Management page.

If the user is authorized, the Reserve button displays on the Inventory Schedules page, which the user can click to reserve the items. When you select this button it will commit any items that are not committed and reserve those items, ignoring any established commit and reserve rules.

#### **Running the Inventory Reserve Materials Process**

This process will attempt to reserve or re-reserve work order task items based on their respective reserve rule. This process may also commit work order task items to PeopleSoft Inventory if the commit rule is the same as the reserve rule. Work order task item rows, which are associated with a commit rule other than *Commit at Reserve* are picked up only if they were previously committed. If the work order task item rows are associated with the reserve rule *Parts List* or *Status Change* (where the task status is greater than or equal to the status selected for the reserve rule), the Reserve Materials process will reserve these items. The Reserve Materials process enables you to reserve multiple work orders at a time. It also can apportion the limited supply to the various demands based on the priority rules.

See "Understanding Work Orders" (PeopleSoft Inventory).

#### **Inventory Pre-allocations and Work Order Demand**

An inventory allocation means that a quantity in a specific storage location has been reserved for a particular item. The item is reserved at the inventory business unit level, provided the location is available, and at the physical inventory level. Allocations typically take place at order release and apply to released demand lines.

PeopleSoft Inventory also has the capability to pre-allocate inventory demand. With respect to the inventory demand based on work orders created in PeopleSoft Maintenance Management, pre-allocations are the allocation of inventory items selected for a work order that is created before the picking fulfillment step but after the work order demand line has been committed to the PeopleSoft Inventory demand fulfillment tables. Pre-allocations can occur when pegged stock is putaway in the inventory business unit or when you pre-allocate using the PeopleSoft Inventory Allocation Workbench. A user with access to the Allocation Workbench can override the Reserve Rules defined in the PeopleSoft Maintenance

Management work order business unit setup and pre-allocate work order demand as long as the work order has been committed.

See "Allocating Orders in Demand Fulfillment" set of topics in the documentation *PeopleSoft Inventory* 

#### The Shortage Workbench

Use the Shortage Workbench to reserve and unreserve stock to work order demand lines. You can click the Shortage Workbench link to access **Inventory** > **Fulfill Stock Orders** > **Shortage Workbench** in PeopleSoft Inventory. Based on the search criteria that you enter, you can use the Shortage Workbench to view just the work order demand lines that have attempted reservations and have reserved no stock or only partially reserved stock. This enables you to focus on shortages and determine how to reserve the stock.

You can use the Shortage Workbench to adjust reservations to the highest priority demand. You can also use the Shortage Workbench to deallocate a quantity of stock from a pegged receipt.

Using the Shortage Workbench template enables you to require that any user who unreserves stock on a work order demand line enter a reason code. The Shortage Workbench issues notifications to planners and schedulers when a user unreserves stock from a work order.

The rules that apply to the Shortage Workbench for work orders are defined in the PeopleSoft Inventory documentation: "Fulfilling Work Orders from PeopleSoft Maintenance Management".

See "Understanding Work Order Item Fulfillment from PeopleSoft Inventory" (PeopleSoft Inventory).

See "Handling Errors with the Fulfillment Engine" (PeopleSoft Inventory).

See "Using the Shortage Workbench" (PeopleSoft Inventory).

## **Pegging Inventory Supply to Work Order Demand**

Pegging can be used to associate specific supply, using a purchase requisition or purchase order, to work order demand. This essentially reserves the supply for that specific work order. Users can review the inquiry to see if the supply is pegged and the work order to which it is pegged.

When items are in short supply, organizations peg higher priority work order demand to specific supply to ensure that those demands are satisfied. This also enables the organization to more accurately schedule work orders.

When the level of inventory items reaches a reorder point, this triggers the generation of a requisition or purchase order in PeopleSoft Purchasing to replenish the supply. When a scheduler needs one or more inventory items for a work order that are not currently available, the scheduler can access the Pegging Workbench from the **Inventory Schedules - Details** tab and link the demand for the Inventory item based on the work order to the incoming supply identified in the requisition or purchase order. Pegging essentially reserves the incoming supply to the work order. If an item is pegged and is a soft reserve item, then the pegged receipt is reserved when putaway is performed. In addition, if the allocate soft pegs is set to Yes, the pegged receipt will be allocated when putaway is performed. The allocate soft pegs setting is defined in Inventory, Order Pegging, Business Unit Setup or Inventory, Order Pegging, Item Setup.

Once an item is pegged, the quantity scheduled in the Inventory Schedules grid is unavailable for selection until you save the page. The quantity pegged for the work order can be issued to the technician or delivered to the work order job location using the Issue to Work Order command in PeopleSoft

Inventory when the items are received. You can access the Pegging Inquiry to follow a pegged item's progress.

If pegging notification is enabled, a notification is generated indicating that the item for the work order has been received. If the email option is enabled, the work order contact receives an email indicating that the materials are now available. The item is put away into PeopleSoft Inventory and can then be issued to the work order.

**Important!** The pegging workbench is available in the work order only if pegging security is set up for the user in **Inventory** > **Order Pegging** > **Pegging User Security** 

See "Understanding Work Order Item Fulfillment from PeopleSoft Inventory" (PeopleSoft Inventory).

#### Issue Inventory to a Work Order With or Without a Pick Plan

Inventory is issued by creating a picking plan or when the inventory clerk accesses the work order and issues the inventory items to the work order without a picking plan. The clerk can update the quantity issued, which in turn updates the work order.

The pick plan process is a batch process, which is owned by Inventory, lists the items and quantities required for a particular work order. The process runs a PeopleSoft Inventory allocation process and generates the picking plan. The Allocation process determines the locations from which the various items of the work order materials list can be picked. The picking plan is a hard copy document, which an inventory clerk can print or a technician can print and carry to the inventory counter. Once you create the picking plan, the inventory clerk must run the issue command to issue the parts to the work order. The picking plan process enables an inventory clerk to obtain the list of needed materials and begin the process of physically pulling the items for the work order. The inventory material need date is the date that the pick plan uses to place items on the pick plan. When the items are picked and issued, the work order inventory item lines are updated to indicate the quantity issued.

An allocation process runs in PeopleSoft Inventory that hard allocates items at the location level. A hard allocation increases the quantity reserved in PeopleSoft Inventory for a location. If the business unit is flagged for a soft reserve, the quantity is reserved at the business unit/item level, which increases the quantity reserved and decreases the quantity available.

A work order can schedule materials that are due on various dates. The picking plan enables you to indicate to the clerk, to pick the material on specific dates, based on a certain number of lead days. All of the material with a scheduled due date that is equal to and prior to the date specified in the pick plan will be included. Because picking the materials on line in real time is not desirable in this instance, you can run a batch process that looks for start date of the work order and generates a pick plan based on this date.

You cannot delete scheduled materials if they are on a pick plan or if they were issued.

If you are using a push picking plan (the Action of *Create Allocations* on the Work Order Pick Plan page), you can print a Location Summary report either in addition to or instead of a full Picking Plan report. The Location Summary report sorts the demand lines according to where the items are physically stocked within the warehouse (Inventory business unit). The layout of the printed report reflects the actual positions of stock to be picked, enabling your personnel to fulfill all orders on the picking plan without revisiting locations. For example, if you select *Area*, as the highest-level sort order, the Location Summary report groups together all demand lines to be picked from storage area A, then groups all lines to be picked from storage area B, and so on. You can select up to three sort orders related to the physical location within the Inventory business unit. The Location Summary report prints the demand lines and the total item quantity to pick from each physical location.

Within the physical location grouping, you can use the *location detail sort options* to determine how the demand lines should be sorted based on values located on the work order. For example, if you select *Area*, as the highest-level sort order and *Work Order ID* as the highest-level detail sort option, then the Location Summary report groups together all demand lines to be picked from storage area A and, within that grouping, sorts the demand lines according to the work order ID of the demand lines.

**Note:** It is possible to complete all of the picking using only the Location Summary report; however, you can only view details such as picking errors or picking line and schedule orders and notes if you print out a full Picking Plan report.

See "Understanding the Picking Process" (PeopleSoft Inventory).

See "Issuing Items to a Work Order" (PeopleSoft Inventory).

#### **Inventory Demand and Work Order Task Completion**

If during the execution of a work order it is determined that the issued quantity satisfies the work order demand and there are still additional unfulfilled quantities (scheduled qty – issued qty > 0) in the row, users can decrease the scheduled quantity, which reduces the demand on PeopleSoft Inventory. When a work order's status is changed to *Complete*, the fulfillment status of the IN\_DEMAND row changes to *Depleted* in PeopleSoft Inventory. Any unfulfilled item quantities are no longer seen as demand in PeopleSoft Inventory.

There are certain situations where you cannot change the work order's task status to *Closed, Canceled, or Complete*:

- If any rows in the Inventory Schedules grid have an open peg, which means the items have been pegged to an incoming supply (requisition, PO or Interunit Stock Request) and the quantity has not been received yet.
- If any rows (parts) in the Inventory Schedules grid are on a picking plan.

**Note:** You cannot complete a work order task when open Inventory item pegs exist. You will receive an error that prevents you from changing the status of the task to complete until there are no longer any open Inventory pegs associated with the work order task.

• In some cases you may have partial issued quantities at the time you want to complete a task. If you have no quantities or partial quantities issued, you will be prompted to answer *Yes* or *No* prior to changing the work order task status to *Complete*. If you select *No*, then the work order task status is not set to complete and any unfulfilled demand stays in PeopleSoft Inventory for later issue. If you select *Yes*, then any remaining demand in PeopleSoft Inventory is released and the fulfillment status of the IN DEMAND row changes to Depleted.

#### Reorder and Replenishment of an Inventory Item

PeopleSoft Inventory has reorder thresholds, and once reached, these thresholds trigger the generation of a purchase requisition, which replenishes the stock levels for the item. PeopleSoft Inventory also has a replenishment option, Demand Quantity, that can be used to trigger replenishment when the available quantity is less than the work order demand for the item. However, you may also trigger replenishment even if there is available quantity for the work order demand so that there will be a sufficient quantity of specific items available for use in future work orders.

You can access Item Availability and Item Balance by Unit inquiries in PeopleSoft Inventory from the **Inventory Schedule - Additional Information** tab.

See "Understanding Inventory Replenishment Processing" (PeopleSoft Inventory).

## **Inventory Item Availability**

Planners and schedulers can determine if an inventory is available for a work order task on a specific date by selecting the Item Availability button and reviewing the results on the Availability tab of the Inventory grid.

**Note:** You also can determine the availability of non-inventory items that you want to procure for a work order task by accessing the Purchase/On-Hand Schedules grid.

See Scheduling Purchase/On-Hand Resources for a Work Order Task.

This enables scheduling a work order task start date with greater accuracy. There are different methods for checking the availability of an item:

- Clicking the Item Availability button on the Schedules page of the work order, which displays the
  item availability information for the selected inventory rows on the Inventory Schedules Availability
  tab.
- Selecting the Availability Inquiry link on the Inventory Schedules Availability tab, which provides visibility of item quantities and a time-phased supply and demand picture.
- Selecting the Balance Inquiry link on the Inventory, which provides visibility of Item Quantities such as on hand, available and reserved
- Reviewing reserved, issued, and current available quantity balances on the Inventory Schedule -Availability tab.

The Item Availability button for inventory enables you to determine the availability based on the scheduled need date. This button appears above the Inventory Schedules grid and the Purchase/On-Hand Schedules grid on the work order. You must select one or more inventory rows prior to clicking the Item Availability button. When you click this button, the system displays *Yes* if there is enough supply of the item available in PeopleSoft Inventory to meet the task row's demand on the specified date. The system displays *No* if it will not be available. If the item is not available, you can navigate to a page that displays the reasons why the item is not available. Clicking the Item Availability button for inventory items also returns the quantity available on the schedule need date and the earliest date that the quantity will be available.

PeopleSoft Inventory determines the information that displays for a row on the Inventory Schedules - Availability tab based on the following criteria:

- If the quantity is reserved in PeopleSoft Inventory, the reserved portion is considered available on the current date.
- If the current quantity available is less than zero, PeopleSoft Inventory cannot determine if the reserved quantity will be available on the request date and the system displays No on the Availability tab.
- If the quantity is pegged, the quantity will be available as long as the pegged quantity is received on or prior to the schedule need date.

• If the work order is pegged to a requisition that has a blank due date, there is no way to determine when that quantity will be available.

• If quantity is not reserved or pegged, the system determines if there will be enough quantity available in PeopleSoft Inventory on the schedule need date.

The system includes any incoming supply to PeopleSoft Inventory (from requisitions, purchase orders and interunit MSR receipts) and any existing demand in PeopleSoft Inventory (from work orders, sales orders, internal MSR, manufacturing production, interunit MSR shipments) and time phases these entries based on the due date to determine how much quantity will be available on the work orders schedule need date. Supply quantities that are due on or before the work order's schedule need date are added to the current available quantity. Demand quantities due on or before the work order's schedule need date are subtracted from the current available quantity. The resulting available quantity is compared against the quantity needed by the work order. If the quantity needed by the work order is less than or equal to the available quantity then the system displays a *Yes* in the field on the Inventory Schedules - Availability tab. If either the reserved portion, pegged portion or inventory portion of the requested quantity is not available, then *No* displays in the field on the Inventory Schedules - Availability tab. The No value appears as a link that you can select to access the Item Availability page, which lists the reasons why the item is not available. The calculated quantity available displays in the Need Date Qty Available field on the Inventory Schedules - Availability tab.

**Note:** The Need Date Qty Available field does not include quantity that is already reserved for the work order and pegged supply. A work order that is fully reserved can have *Yes* in the **Item Availability** if the date in the **Need Date Qty Available** amount is less than the scheduled quantity of the work order. A work order that has quantity pegged can also have *Yes* in the **Item Availability Field** and the Need Date Qty Available amount is less than the scheduled quantity of the work order.

Clicking the Item Availability button also determines the earliest available date on the grid. If the item is available on the schedule need date, the system checks to see if that quantity is available on an earlier date. If the item is not available on the schedule need date, the system determines the next date in the future that the quantity will be available. The system leaves the **Earliest Avail Date** field blank if there is no future date in which there is enough supply to cover the requested quantity, or if you have quantity reserved and the current available quantity is less than zero. The earliest available date quantity represents the maximum reserved portion, pegged portion, and inventory portion. The **Earliest Avail Date** field will be blank if the reserved, pegged or inventory portions return are blank. If quantity is partially reserved in PeopleSoft Inventory, then the remaining quantity can be partially pegged and the earliest available date quantity would be the maximum reserved portion, pegged portion, and inventory portion. If no quantity exists for any portion, the **Earliest Avail Date** field will be blank for partially reserved items.

**Note:** The system uses the Setup Fulfillment rules in PeopleSoft Inventory to determine the supply and demand rows to include in the Item Availability calculations.

An example of the calculations that occur when there is *not* enough quantity available:

Current Available:	Demand from PeopleSoft Inventory or other work orders:	New Work Order Demand:	Need Date Quantity Available:
25	20	8	25 – 20 = 5

Example of the calculations that occur when there is enough available:

Current Available:	Demand from PeopleSoft Inventory or other work orders:	New Work Order Demand:	Need Date Quantity Available:
25	20	3	25 – 20 = 5

An item can appear on a work order parts list multiple times. PeopleSoft Inventory factors in all previous instances of the item when determining quantity available. For example a work order requires:

Item	Quantity	Need Date
Air Filter	10	10/25
Air Filter	5	11/01

The business unit quantity available for this air filter = 12.

The Air Filter required on 10/25 will have quantity available, but the Air Filter required on 11/01 will not have quantity available.

The following table describes the messages that a display based on the availability of an Inventory item.

**Note:** Some of these messages also apply to non-inventory items selected on the Purchase/On Hand Schedules - Availability tab.

See Procurement of Material, Labor, and Tool Resources Using the Purchase/On-Hand Schedules Grid.

See Scheduling Purchase/On-Hand Resources for a Work Order Task.

Message Number	Description	Explain Text	Applicability	Indicators
15005	Row is pegged but the pegged supply is after the demand date.	The row has been pegged to incoming supply however the peg supply date is after the demand date you have requested	IN/PO	Supply date is later then need/due date
15006	Row has been pegged but the peg supply is past due.	The incoming supply is past due and has not yet arrived or been received.	IN/PO	Pegged supply not received on time

Message Number	Description	Explain Text	Applicability	Indicators
15007	Row is pegged however the requisition that is pegged to has a null date.	The incoming requisition supply transaction has a null date. The row is pegged to the requisition but the date is null and unknown when it will be received.	IN/PO	No requisition due date
15008	Multiple reasons exist, further research required.	There are multiple reasons why this item is not available for the requested date, further research is required for this item to determine availability.	IN	ATP calculations finds more then 5 reasons, passes tis in as the 5th reason
15011	On-hand quantity is insufficient to meet the requested demand	There is not enough on-hand or incoming supply to meet the requested demand at this time	IN	Quantity for specified date does not meet requested WO demand
15012	Negative on-hand quantity exists.	Item has already been reserved but on-hand quantity has gone negative	IN	Reserved but other demand has qty going negative

This table describes the reasons that the system indicates that inventory are unavailable.

**Note:** Some of these reasons also apply to non-inventory items selected on the Purchase/On-Hand Schedules - Availability tab.

See Procurement of Material, Labor, and Tool Resources Using the Purchase/On-Hand Schedules Grid.

See Scheduling Purchase/On-Hand Resources for a Work Order Task.

Reason	Inventory (INV), Non-inventory (NON-INV) Items	Item Availability
Pegged-related: Pegged Supply is scheduled late	Inv, Non-Inv	Not Ready: item's scheduled supply date is later than need/due date
Pegged-related: Pegged Scheduled supply is past due	Inv, Non-Inv	Not Ready: scheduled supply not received on time

Reason	Inventory (INV), Non-inventory (NON-INV) Items	Item Availability
Pegged-related: Pegged Requisition due date not specified	Inv, Non-Inv	Not Ready: assumed, when pegged Req has null due date
Pegged-related:  Multiple exceptions – needs research	Inv, Non-Inv	Not Ready: multiple reasons, due to multiple pegged supplies
Reserve-related: On-hand qty not sufficient	Inv (only)	Not Ready: based on on-hand qty, incoming supply and existing demand, insufficient material exists
Reserve-related: Negative on-hand qty	Inv (only)	Not Ready: If item is reserved and qty available is negative, it is not possible to determine if the qty will be available

#### **Material Readiness**

In the interim period between the scheduling and actual start of the work for a work order task events may occur, especially in PeopleSoft Inventory or PeopleSoft Purchasing, that can negatively affect the availability of material items scheduled for the task. To accommodate these changes, PeopleSoft Maintenance Management provides a planner or scheduler with a report that they can use to analyze and resolve current material availability problems, prioritize issues, and bottlenecks related to work orders. This report will indicate whether the materials scheduled work order tasks, based on a selected period of time, are ready or not.

After a user enters the appropriate run control parameters for this report, the application engine will:

Select the appropriate work order task and scheduled material data for analysis.

Only work order tasks with scheduled inventory and/or scheduled procurement items are included in the report. Scheduled tasks with issued items are included in the report processing and analysis. Issued items are automatically considered to be available. If all items have been issued for a selected task, the task is considered material ready. The process does not select *Canceled, Completed,* or *Closed* tasks. Inventory floor stock items and on-hand procurement items are not included on the report. All non-inventory items must have been pegged before the incoming supply can be analyzed.

**Important!** For inventory items, the system does not include unpegged purchase orders, requisitions, and interunit MSRs as supply thus the quantity on these unpegged supply orders are not considered as supply when determining readiness.

• Perform high-level calculations to determine the availability of individual quantities of items and the overall material readiness of the work order task.

These calculations determine what is available as of a specified date and any pegged supply.

The material readiness calculated and displayed for the report may not be as complete or accurate as the research performed by a user in the work order component. The batch process only looks at the

current selection of work order tasks and their requested items to determine total demand within the reporting period. If some item demand was excluded from the reporting period based on the selection of specific run control parameters, the report may determine a misleading readiness of a work order task.

In cases where multiple work order tasks are competing for the same item, which has limited supply, the system cannot prioritize the demands of the various tasks and allocate the supply accordingly. In this situation, a status of *Undetermined* will be indicate the material readiness status of one or more of these tasks on the report.

Only one reason code will be applied to tasks that are identified as *Not Ready*, even if there is more than one reason for this status. The statuses for the tasks include:

Ready

All scheduled items for this material type are determined to have sufficient quantity available.

Not Ready

Displays an exception, which indicates that at least one scheduled item from this material type is not ready based on the exception reason that accompanies this status.

Undetermined

Displays an exception in which at least one scheduled item for this material type is Undetermined based on the accompanying exception reason, and no other scheduled items for this material type are determined to be Not Ready. Not Ready always takes precedence of Undetermined.

- The status is blank, which indicates that the run control reporting option was set to exclude analysis of this material type.
- Asterisks (\*\*\*\*\*) display in the status field, which indicates that no scheduled items for this material exist or have been selected based on the date range for the task.

## Procurement of Material, Labor, and Tool Resources Using the Purchase/ On-Hand Schedules Grid

There are many instances when users may need to purchase specific materials, tools, and labor to complete a work order task. You determine whether you want to create a requisition or a purchase order in the work order business unit's Integrations page. To identify resources that need purchasing, users can:

- Copy from the Purchase/On-Hand requirements.
- Copy parts from the Equipment Parts List (EPL) to the work order task, if an EPL is associated with the asset selected for the task. EPLs are stored in the PeopleSoft Asset Management asset repository.

You can also add non-inventory or open description parts to one or more EPLs from the Purchase/On-Hand Scheduling grid. The Copy from EPL and Add to EPL buttons work the same way they do on the Inventory Scheduling grid described in the previous section.

Manually enter non-inventoried items and open description lines.

• Send labor resources and tools resources to the **Purchase/On-Hand Scheduling** grid from the **Labor Scheduling** grid and the **Tools Scheduling** grid using the **Move Selected to Purchase** button.

You indicate in the work order business unit whether you want to create a requisition using PeopleSoft Purchasing, create a requisition from PeopleSoft eProcurement, or create a purchase order using PeopleSoft Purchasing. When you access the Schedules page of the work order, these buttons appear above the Purchase/On-Hand Scheduling grid depending on your selection in the work order business unit:

- Load Purchase Order(s), Add Purchase Order, when you select Purchase Order on the Integrations page of the work order business unit.
- Load Requisition(s), Add Requisition, when you select either Purchasing Requisitions or ePro Requisitions.

If you selected ePro Requisition in the work order business unit, you create a requisition in PeopleSoft eProcurement when you click the **Add Requisition** button in the work order. If you selected Purchasing Requisition in the work order business unit, you create a PeopleSoft Purchasing requisition when you click the **Add Requisition** button in the work order.

**Note:** Purchasing and eProcurement use the same PeopleSoft Purchasing staging tables when you click the Load Requisition(s) button.

Before you can use PeopleSoft eProcurement with PeopleSoft Maintenance Management work orders, you must perform specific set up activities both in PeopleTools Security, PeopleSoft eProcurement, and PeopleSoft Purchasing.

You also can tie back from a requisition, purchase order, or voucher that you create in PeopleSoft Purchasing, PeopleSoft eProcurement, or PeopleSoft Payables to a work order by referencing a work order business unit, work order ID, and work order task. This inserts a resource row in the Purchase/On-Hand Schedule resource row in the work order to enable the costs to flow back to the work order for these procured resources.

**Note:** If a requisition, purchase order, or voucher is created and tied back to a work order, then a row is inserted in the Purchase/On-Hand Schedules grid, the PO status on the work order is set to *complete*, and the row is disabled.

You can authorize specific users to procure resources by granting them access through the User Preferences component.

See "User Preferences - Maintenance Management Page" (Application Fundamentals).

See <u>Understanding Overall System Setup Parameters for PeopleSoft Maintenance Management</u>.

The Purchase/On-Hand Schedules - Procurement tab enables you to select a non-inventory item or enter an open description resource row, enter a planned quantity, and select a UOM. You indicate whether a resource is labor, material, or tools, and the due date. You can override the default due date, which is the scheduled start date for the work order task. You also indicate if this resource is on-hand. Costs are not calculated for on-hand materials. The **On Hand** check box enables a scheduler to enter one or more rows, which do not need to be procured but are *in-store* stocked items. For example, you could procure 100 hard drives, expense them upon purchase, and keep your supply on hand in a cabinet in the work shop. If you need one of these hard drives to complete a work order task, you can identify this hard drive as on-hand in the work order **Purchase/On-Hand** grid for information purposes only.

The Purchase/On-Hand Schedules - Details tab enables you to review the Pegging Inquiry, once the resource is pegged, and also identifies the pegging status, the requisition status or the purchase order status. You can indicate whether you want the resource delivered and how you want it delivered. When a work order creates a requisition or purchase order for a non-inventory or open description resource, the system automatically pegs the resource row, which basically reserves the resource for the specific work order. The requisition or purchase order status enables the scheduler to determine the status of the procurement transaction. Once you select and stage the row to either the requisition load or purchase order build process, the system updates status and prevents any future staging of the row. Once the requisition load or purchase order build process successfully creates the requisition or purchase order the status is updated to *complete*.

The status displays on the Purchase/On-Hand Schedules - Details tab. These statuses were created by PeopleSoft Maintenance Management to identify the stage of the procurement transaction. You can only delete Purchase/On-Hand Schedules rows with a peg status of *New*. If a row has a status of *Ready to Stage or In Process*, it cannot be changed.

#### The peg statuses are:

- New, which is the default status when you add a new Purchase/On-Hand Schedules row is added to the work order task.
- Ready to Stage, which displays when you select the Load Req or PO button for the selected rows.
- In Process, which displays when you select the Load Req or PO button, the selected rows have been staged, and all the save processing has completed.
  - This status signals that the selected rows are in the Req Load or PO Load process. You must run the Req Loader or PO Load processes to create the Requisition or PO.
- Complete, which displays when the staging process completes successfully and a Requisition or PO is created.

The status can also display as *Complete* if the row was backward tied from a Requisition or PO to a work order. Creating a backward tie to a work order is when the system inserts a row into a Purchase/On-Hand Schedule in the work order.

The Purchase/On-Hand Schedules - Availability tab requires that the requisitions or purchase orders for the work order be pegged prior to selecting the Item Availability button to ensure that PeopleSoft Purchasing is aware of the demand from the work order. If the Purchase/On-Hand row has been pegged, the system checks to see if the scheduled due date is prior to the goods and services required date.

#### See <u>Inventory Item Availability</u>.

The Purchase/On-Hand Schedules - Supplier tab enables you to select the supplier from whom you are making this purchase. If you enter a non-inventory item row, the default category value is derived from the Item setup. If you do not specify a supplier when staging to the Purchase Order process and you have entered an open description resource row, the system issues an error preventing the rows from being staged until all errors are corrected. You must select a supplier ID for all open description rows, as well as select a category value. Additional values that must be entered before you can successfully stage the work order to the Purchase Order are **Ship to ID** and **Location.** 

The Purchase/On-Hand Schedules - Default Settings tab displays the work order's GL business unit, which comes from the work order business unit, the item's SetID, and a supplier reference. Supplier reference is only populated if copied from an EPL in which a supplier has been entered.

The Transaction Source field on this tab identifies the source of the purchasing transaction and determines whether the transactions are considered Scheduled or Actuals. If a transaction source is Scheduled, the total scheduled costs appear on the Cost page of the work order. If a transaction source is Actuals, you must run the Cost Summarization process to view the total actual costs on the Cost page of the work order. When Actuals is returned from a feeder application such as a voucher from PeopleSoft Payables or a Procurement Card from e-Procurement, the Planned Quantity field on the Purchase/On-Hand Schedules - Details tab is populated with a value of zero and:

- The system will not calculate the scheduled costs for the row or rows that are inserted by the feeder application.
- The costs will not roll up to the task's scheduled costs on the Cost page in the Work Order component for that Purchase/On-Hand resource.
- Changes to the rows are prevented if entered from another application.

The Purchase/On-Hand Schedules - Cost tab multiplies the unit cost times the planned quantity to arrive at the scheduled procurement cost. If this is a non-inventory item row and a standard cost is set up for the Item under the PeopleSoft Purchasing Attributes for the item, a unit cost value displays in the field. If the non-inventory item does not have a minimum standard unit cost set up, you must enter an estimated unit cost. If you know the cost or approximate cost for an open description row, you may enter it, otherwise you are not required to enter a cost. However, if you leave the cost at 0, the requisition or purchase order is created with a 0 price. You select the **Calculate Price** check box to enable the Purchase Order Calculation (PO\_CALC) process to calculate the current price for a non-inventory item rows. The **Calculate Price** check box is disabled for all open description rows because the PO Create (PO\_CREATE) process has no method of calculating the price for open description rows.

When the Purchase Order is staged, you can perform one of these activities:

- Run the PO Calculation process (PO POCALC) and then the PO Create Process (PO POCREATE).
- Run the PO Auto Sourcing process (PO\_AUTO\_SRC) which basically is one process that combines the Calculation and Creation processes.

If you load requisitions instead, once you select the Purchase/On-Hand rows to stage, then you run the Load Requisition (PO REQLOAD) process.

The cost of these items and open description rows flow through the Procure to Pay cycle and ultimately into PeopleSoft Project Costing. The costs are updated in PeopleSoft Maintenance Management by running the Cost Summarization process or by closing the work order.

The Purchase/On-Hand Schedules - Distributions tab enables you to indicate whether you want to distribute the purchasing data by amount or quantity. PeopleSoft Purchasing allows multiple distributions and enables users to override the ChartFields.

See PeopleSoft Maintenance Management System Overview.

When you create a requisition or purchase order to fulfill a need for labor resources, the system ensures that the required date for the work order task is specified on the purchase order or requisition line. You use a non-inventory or open description requisition or purchase order to outsource repairs, such as a motor rewind, or services, such as contract labor. To populate the **Purchase/On-Hand Schedules** grid for these labor and service requirements, you can use the **Move Selected to Purchasing** button, manually add the line, or copy the line from an existing template. You also can enter a labor or tool resource that is often

procured in the **Purchase/On-Hand** grid by setting up the labor or tool resource in a non-inventory item ID and selecting the resource in the item ID prompt.

#### **Pegging**

When you click either the **Load Requisition(s)** or **Load Purchase Order(s)** button in the work order, depending on the configuration specified in the work order business unit, the system automatically pegs the work order to either the requisition or purchase order when the requisition or purchase order is created. When you select the **Add Requisition** or **Add Purchase Order** button in the work order and access PeopleSoft Purchasing to manually create a requisition or purchase order, you can manually create a link to the work order, which also pegs the work order to either the requisition or the purchase order that you create.

Pegging for Purchase/On-Hand materials ties the Requisition or PO to the work order so that when you create vouchers in PeopleSoft Payables, the costs are sent to PeopleSoft Project Costing and eventually back to the PO. Creating the work order association copies the work order distributions onto the either the requisition or PO. The Project and project activity derive the default work order distributions from either the requisition or the PO. Users cannot change this information. When a requisition is sourced to a PO, the work order peg is moved to the PO. When the PO is received, if notification is enabled, the contact person in the work order is notified. With PeopleSoft Payables vouchers, the costs flow to PeopleSoft Project Costing and the work order cost collection picks up these costs.

See "Creating Requisitions Online" set of topics in the documentation *PeopleSoft Purchasing* 

See "Understanding Purchase Orders" set of topics in the documentation *PeopleSoft Purchasing* 

### Non-inventory Item Availability

Planners and schedulers can determine if a non-inventory items is available for a work order task on a specific date by selecting a row on the Purchase/On-Hand Schedules grid selecting the Item Availability button. The system indicates whether the item is available on the Availability tab of the Purchase/On-Hand Schedules grid. The system can only determine non-inventory item availability on a future date if pegs exist and if the supply that is pegged to the specific demand.

There are two ways to peg Purchase/On-Hand data:

- The Purchase/On-hand data is staged to the Requisition Loader or Purchase Order Load staging processes and a requisition or purchase order is created.
- A manual requisition or purchase order is created and backward tied to the Purchase/On-Hand data of the work order.

When you select the Item Availability button for a row, the system displays either a *Yes* or a *No* in the **Item Availability** field. Yes indicates that there is sufficient quantity for the requested date and requested WO quantity. No indicates then that informs the planner or scheduler that there is either insufficient quantity to fulfill the requested demand of the work order or there is partial or no quantity available. When No appears in the field, you can click on the link to review the Item Availability page and the message that describes why the item was not available. These messages are defined in a table later in this section.

The quantity available is displayed in the ordering unit of measure in the Purchase/On-Hand Schedules - Availability tab.

If the non-inventory item is not available, the system displays a reason code in the Item Availability column, which explains the reason for the unavailability of the item. The reasons codes are:

1. The purchase order due date is after requested date

The purchase order tied to the work order Purchase/On-Hand line has a due date beyond the current work order due date.

2. The received quantity is insufficient to meet requested work order quantity.

For example, the work order requested a quantity of ten and only six were received.

3. The pegged purchase order quantity is insufficient to meet the required work order quantity.

For example, the initial work order planned quantity was increased beyond the quantity pegged.

4. No peg exists.

The Purcahse/On-Hand data was not staged/pushed to Procurement, or a requisition or purchase order was not tied to the Purchase/On-Hand row on the work order.

5. The Purchase/On\_Hand quantity for the work order was pegged using a requisition and the due date on the requisition is null.

For example, the due date on the requisition was not entered (is null).

6. The pegged supply is past due.

For example, the pegged supply (incoming supply) has been delayed and not received

The following table describes the messages that a display based on the availability of a procured item:

**Note:** Some of these messages also apply to the availability of inventory items selected on the Inventory Schedules - Availability tab.

Message Number	Description	Explain Text	Applicability	Indicators
15005	Row is pegged but the pegged supply is after the demand date.	The row has been pegged to incoming supply however the peg supply date is after the demand date you have requested	IN/PO	Supply date is later then need/due date
15006	Row has been pegged but the peg supply is past due.	The incoming supply is past due and has not yet arrived or been received.	IN/PO	Pegged supply not received on time

Message Number	Description	Explain Text	Applicability	Indicators
15007	Row is pegged however the requisition that is pegged to has a null date.	The incoming requisition supply transaction has a null date. The row is pegged to the requisition but the date is null and unknown when it will be received.	IN/PO	No requisition due date
15009	Row has not been pegged.	The procured row has not yet been pegged.	РО	Purchase/on-hand row has not even been staged or backward tied (auto added from Req or PO)
15010	Insufficient supply exists.	The procured row has been pegged but the incoming supply is insufficient to meet the requested demand.	PO	Not enough quantity received

This table describes the reasons that the system indicates that non-inventory items are unavailable.

**Note:** Some of these reasons also apply to inventory items selected on the Inventory Schedules - Availability tab.

Reason	Inventory (INV), non-inventory (NON-INV) Items	Item Availability
Pegged-related: Pegged Supply is scheduled late	Inv, Non-Inv	Not Ready: item's scheduled supply date is later than need/due date
Pegged-related: Pegged Scheduled supply is past due	Inv, Non-Inv	Not Ready: scheduled supply not received on time
Pegged-related: Pegged Requisition due date not specified	Inv, Non-Inv	Not Ready: assumed, when pegged Req has null due date

Reason	Inventory (INV), non-inventory (NON-INV) Items	Item Availability
Pegged-related:  Multiple exceptions – needs research	Inv, Non-Inv	Not Ready: multiple reasons, due to multiple pegged supplies
Pegged-related: Procured item not pegged	Non-Inv (only)	Not Ready: assumed, when pegged Req has null due date
Pegged-related: Procured item insufficient pegged supply	Non-Inv (only)	Not Ready: item has pegged supply, but insufficient to cover needed qty

#### **Work Order Procurement Inquiry**

Clicking the **Procurement Inquiry** button accesses the PeopleSoft Maintenance Management Purchasing and Pegging Inquiry component. This inquiry enables a scheduler to review the specific procurement transactions that exist for a given work order.

See Using the Work Order Procurement Inquiry.

### **Purchase Order or Requisition Add**

Clicking this button accesses the PeopleSoft Purchasing Add/Update Requisition, the eProcurement Create Requisition, or Purchase Order component, where you can add a new purchase order or requisition, depending on the configuration in the work order business unit. This provides a convenient way to add a purchase order or requisition based on the work order by eliminating the need to exit the work order and selecting the options separately in PeopleSoft Purchasing. The work order key fields will not be copied if you click this button to add a requisition or purchase order, it is simply a navigation aid to help navigate to the component to add the necessary procurement transaction.

#### Purchase Order or Requisition Load

In order to stage work order Purchase/On-Hand rows you need to ensure that all of the data elements are populated properly. Once all edits are clear, you must select the check box for those rows for which you want to stage prior to clicking the **Load Purchase Order(s)** or **Load Requisition(s)** button. For each Purchase/On-Hand row you selected, the system inserts the row into the Purchase Item Stage record (PO\_ITM\_STG). Corresponding Purchase Order distributions are also inserted into the Distribution Staging record (PO\_DIST\_STG). Once the rows are staged, you must access PeopleSoft Purchasing to run either the PO Auto Sourcing process or the PO Calculations and PO Creation processes to create the purchase order, or the Purchasing, Requisitions > Load Requisitions process to create requisitions.

If you selected ePro Requisitions as the Procurement integration option for the work order business unit, the Load Requisition(s) button appears on the Schedules page and loads the rows to the same Purchase Item Stage record. Once the requisitions are created using the Purchasing, Load Requisitions, Load Requisitions process, you can access these requisitions in the PeopleSoft Purchasing Add/Update Requisitions component or in PeopleSoft eProcurement.

#### The Work Order Workbench

Before you can assign a scheduler to a work order task so that the scheduler can access the Work Order Workbench, you must:

- 1. Set up a role and permissions for a scheduler.
- 2. Set up the scheduler as an employee either using the PeopleSoft HRMS or FSCM database.
- 3. Establish the scheduler as a resource in PeopleSoft Maintenance Management.
- 4. Access PeopleSoft Maintenance Management's Manage Profiles for the scheduler and associate the scheduler with a shop.
- 5. Access the shop and enter a user-defined scheduler's code and then select the scheduler to associate with the code.

You can assign as many schedulers to a shop as you want, but you can only identify one scheduler as the primary scheduler. The primary scheduler's name displays, along with the scheduler code in the work order's Requirement's page for each work order task.

Setting up schedulers in the shop based on a scheduler's code enables you to easily change the scheduler assigned to multiple work order tasks without having to access each work order. You just access the shop and remove the current scheduler's employee ID assigned to the scheduler code and assign another scheduler's employee to the same scheduler's code.

See <u>Understanding Labor and Tools Resource Setup and Maintenance</u>.

You can select different schedulers for each work order task in the work order's Requirements page as long as they are assigned to the shop associated with the work order. Once you assign a scheduler to a work order task, the scheduler can access the Work Order Workbench component and view a list of assigned work order tasks. The scheduler can add or modify the scheduled start and end date and schedule the work order task directly from the Work Order Workbench. However, the scheduler must click the Work Order link in the workbench to access the work order component and assign resources to the work order task.

When you create a work order, the Scheduling page:

- Is immediately available for pre-approved work orders as long as the shop is set up to access and use Scheduling for its work orders.
- Is not accessible until the work order is approved if work order approval is required based on the set up in the business unit, work order type, or shop.

The Work Order Workbench includes:

A Task Overview tab, which enables a scheduler to link to the assigned work order and the work
order task, as well as view the task's description, the associated asset's description, and any notes
associated with the task.

It also displays the work order type, the priority, the task's status, and the location of the task.

A Schedules tab, which enables a scheduler to view the required start and end dates for the work
order task, as well as enter or modify the scheduled start and end dates and times for each work order
task.

Work order tasks without a start date have a status of awaiting scheduling. You can also select or view any task dependencies.

A Resources tab, which enables a scheduler to identify which types of resources are set up for each task.

The scheduler can click one of the resource links, such as **Labor**, and access the selected resource schedules grid on the work order's Schedules page for the selected task. The scheduler can then assign and schedule resources or modify existing resource schedules, depending on the task's status.

An Asset Information tab enables a scheduler to review any warranties associated with the asset that
is being repaired or maintained in a selected work order task, as well as a history of any other work
orders that were associated with this asset.

The scheduler can also access the target asset's calendar to determine the available dates that the asset can be taken offline for maintenance or repair. After reviewing the dates, the scheduler uses the calendar to reserve the target asset based on the scheduled start and end dates of the work order task.

Schedulers who have large workloads can set up specific search criteria and save this information. They can select these saved search criteria as a view and access the view at any time, which eliminates the need for setting up the criteria every time they want to view or schedule specific work order tasks.

Schedulers can create a new work order from the Work Order Workbench and can change the status of one or more existing work order tasks.

• A **Full Description** tab enables a scheduler to view the full description entered for the work order and the full description entered for each work order task.

A scheduler must be able to respond to changes that may occur during the completion of a work order, such as changes in a resource's availability or access to an asset being maintained. These changes are performed manually by the scheduler. Schedulers can view the location of selected work order tasks on an ESRI map by selecting the work orders and tasks and clicking the Map Selected Tasks button, which displays each task location on the map. Each location is identified by the work order business unit, work order ID, and task ID. You can click this marker to view the task description, shop, service group, priority, work order type, and task status.

**Note:** The Map Selected Tasks button appears only if ESRI is installed and set up.

You can enable specific users to perform various types of scheduling activities in the **User Preferences** > **Maintenance Management** page.

See "User Preferences - Maintenance Management Page" (Application Fundamentals).

## **Using the Work Order Schedules Page to Schedule Resources**

To schedule and assign resources for work order tasks use the Work Order (WM\_WO) component and the Work Order Workbench (WM\_WOTSK\_WORKBENCH) component.

This section discusses how to use the Schedules page to schedule resources:

## Pages Used to Use the Schedules Page to Schedule Resources

Page Name	Definition Name	Usage
Schedules Page	WM_WO_TASK_SCHED	Schedule resources for a work order task.

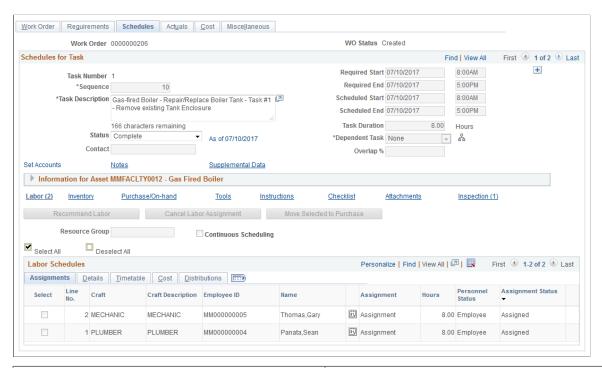
## **Schedules Page**

Use the Schedules page (WM WO TASK SCHED) to schedule resources for a work order task.

Navigation:

Maintenance Management, Work Order Management, Work Order, click the Schedules tab.

This example illustrates the fields and controls on the Schedules Page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Scheduled Start and Scheduled End	Enter the start and end dates and times to schedule resources for this work order task.  The system displays these dates on the Actuals page of the work order, where they can be compared to the actual start and end dates and times.
	Note: You must enter these dates before you click the Copy From Requirements button.

Field or Control	Description
Copy From Requirements	Click this button to copy data from the Labor Requirements, Inventory Requirements, Purchase/On-Hand Requirements, and Tools Requirements in the Requirements page to the Labor Schedules, Inventory Schedules, Purchase/On-Hand Schedules, and Tools Schedules grids on the Schedules page.
Labor	Click this link to access the labor scheduling options and Labor Scheduling grid.
Inventory	Click this link to access the Inventory scheduling options and the <b>Inventory Scheduling</b> grid.
	Note: You must install PeopleSoft Inventory to access this link.
Purchase/On-Hand	Click this link to access the Purchase/On-Hand scheduling options and the <b>Purchase/On-Hand Schedules grid.</b>
Tools	Click this link to access the Tools scheduling options and the <b>Tool Schedules</b> grid.

See Creating Work Order Tasks.

# Viewing and Editing Work Orders, Work Order Task, and Asset Components Relationships

## **Using the Hierarchy Chart page**

This section discusses how to use the Hierarchy Chart page to view and edit work order, work order task and asset component relationships.

PeopleSoft Maintenance Management 9.2 utilizes the PeopleSoft Organizational Chart to graphically display the relationships between tasks, work orders and asset components. The Hierarchy Chart icon link displays the task or work order hierarchy.

You can display various related hierarchy charts by clicking on the chart node's related actions link and choosing from the menu, which uses the PeopleSoft Related-Content Framework. The asset component hierarchy chart can be displayed for assets associated to a work order or task. You can apply any desired edits and changes in relationships for any given work order, task, or asset node by opening the appropriate update component. As the node link related-actions menu is generated through the PeopleSoft Related-Content Framework, other related-action menu components can also be user-defined.

The Work Order hierarchy chart's related-action menu item View Cost Details displays the Child Work Order Cost pivot grid. The Child Work Order Cost pivot grid provides all the cost information for

children and parent work orders along with the proper filters, summarizations, and charts. The grid shows the sum of labor, tools, material and procurement actual cost including the parent work order amounts.

## Pages Used to Display and Edit Work Order and Tasks Relationships

Page Name	Definition Name	Usage
Work Order Tasks Hierarchy Chart Page	WM_ORG_DISPLAY	Displays the Work Order Tasks hierarchy chart for all tasks on the given work order.
Asset Components Hierarchy Chart Page	WM_ORG_DISPLAY	Displays the Asset Components for any node with an Asset ID.
Work Orders Hierarchy Chart Page	WM_ORG_DISPLAY	Displays the Work Orders hierarchy chart for all work orders related to the given work order.
Child Work Order Cost Page	PTPG_PGVIEWER	Displays all the cost information for children and parent work orders along with the proper filters, summarizations, and charts.

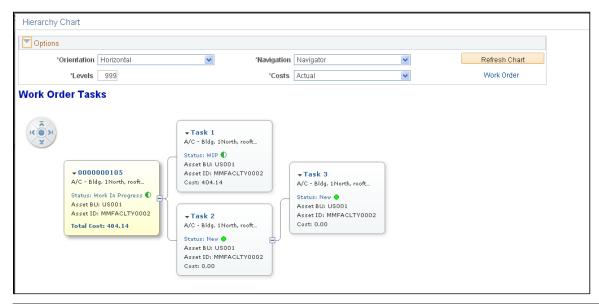
## **Work Order Tasks Hierarchy Chart Page**

Use the Work Order Tasks hierarchy chart to display all tasks related to the given work order:

Navigation:

Maintenance Management > Work Order Management > Work Order > Schedules tab > click the Task Hierarchy icon.

This example illustrates the fields and controls on the Work Order Tasks Hierarchy Chart page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Orientation	Select the orientation between Horizontal and Vertical depending on your data and personal preference.
Navigation	Select Navigator button or Scroll Bars. The Navigator button allows for navigation of the chart using directional buttons or by click-drag of the mouse. Alternatively, you can select the traditional scroll bars, which can be useful for viewing large amounts of data.
Levels	Select the number of levels to initially display on the chart.  To display additional levels, you can either click on the "expand" [+] icon or increase the Levels field.
Costs	Select from Actual, Estimated or Scheduled to display the total costs of an individual work order or task. The rolled-up costs are displayed on the parent node for that node and all its child nodes. This field is available only on the Work Orders and Work Order Tasks charts. The totals include the labor, material, tool and purchase order costs.
Refresh Chart	You must click this button after changing any of the options for the chart to be refreshed with any changed options.
Work Order or Asset link	Click the link to get to the appropriate update component for the given chart. This allows you to introduce any new tasks or assets to the chart. If you save any changes on the update component, the chart is automatically refreshed to reflect any relationship and data changes, work orders, tasks, or, assets to the chart.

Field or Control	Description
Related Actions	<ul> <li>Each node has various PeopleSoft Related-Content Framework defined related actions, depending on the node and chart type, as selected by the top link on the node:</li> <li>View Work Order — Click to open the Work Order component for the given node, navigating automatically to the Miscellaneous tab.</li> <li>View Cost Details — Click to open the Child Work Order Cost Pivot Grid.</li> <li>Chart Tasks — Click to open the Hierarchy Chart for Work Order Tasks for the given Work Order node.</li> <li>Chart Asset — Click to open the Hierarchy Chart for Asset Components for the given Asset assigned to the Work Order or Task.</li> <li>View Task — Click to open the Work Order component for the given node, navigating automatically to the Schedules tab for the selected task.</li> <li>View Asset — Click to open the Define Asset Operational Information component for the given asset node.</li> </ul>

## **Asset Components Hierarchy Chart Page**

Use the Asset Components Hierarchy chart page to display all the asset components for any node with an Asset ID

Navigation:

Maintenance Management > Work Order Management > Work Order > Schedules or Miscellaneous tabs > click the Hierarchy chart icon > click Chart Asset from the related-action linked menu.

This example illustrates the fields and controls on the Asset Components Hierarchy Chart Page

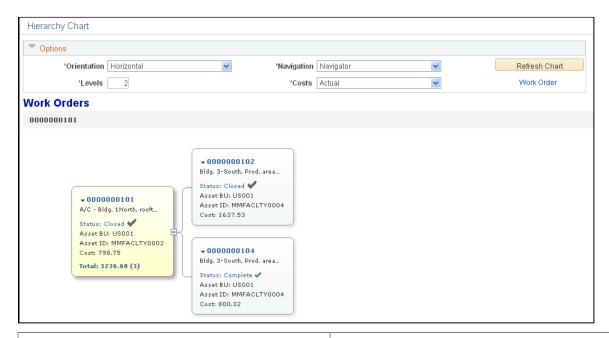


# **Work Orders Hierarchy Chart Page**

Use the Work Orders Hierarchy chart page to display all work orders related to the given work order Navigation:

Maintenance Management > Work Order Management > Work Order > Miscellaneous tab > click the Work Order Hierarchy icon.

This example illustrates the fields and controls on the Work Orders Hierarchy Chart Page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Breadcrumbs	If there are upstream parent nodes to the current top node, those links are displayed as Breadcrumbs. Click the link to refresh the chart with the selected link as the new top parent node on the chart.
	Note: This is only applicable to the Work Orders and Asset Components charts, not Work Order Tasks.
Work Order link	Click to open the Work Order component to allow for additional work orders to be added to the chart by updating the Parent WO field as appropriate. You can also make other appropriate changes to the work order. Click <b>OK</b> or <b>Apply</b> to automatically refresh and reflect any changes.
Asset Link	Click to open the Define Asset Operational Information component to allow for additional assets to be added to the chart by updating the Component of field as appropriate. You can also make other appropriate changes to the Asset. Click <b>OK</b> or <b>Apply</b> to automatically refresh and reflect any changes.

## **Child Work Order Cost Page**

The Child Work Order Cost pivot grid displays the sum of labor, tools, material and procurement actual cost, including the parent work order amounts.

Navigation:

Maintenance Management > Work Order Management > Work Order > Miscellaneous tab > click Child Work Order Cost link.

Alternatively, in the Work Order Hierarchy Chart, click on a Work Order node link and select View Cost Details.

This example illustrates the fields and controls on the Child Work Order Cost Page. You can find definitions for the fields and controls later on this page.



**Child Work Orders** 

Field or Control	Description
Child Work Order	Click on the "+" symbol to expand and view the children and parent work order ids, as well as the cost amounts for each one of them. The parent work order appears with a "P-" prefix. Click on a value in the grid to see the detailed grid data and drilldown to the Work Order Header, Cost and Actual pages.
Detailed View	Click to view information on work order id, description, status, cost amounts, currency and last update date and time.

#### **Actions**

Field or Control	Description
Child Work Order	Click the link to open the Work Order header page.
Child Cost	Click the Child Cost link to open the Work Order Cost page.
Child Actuals	Click the Child Actuals link to open the Work Order Actuals page.

# Scheduling Labor Resources for a Work Order Task

This section describes how to assign and schedule labor resources for work order tasks, define the Labor Schedules Assignments tab, define the Labor Schedules Details tab, define the Labor Schedules Timetable tab, define the Labor Schedules Cost tab, define the Labor Schedules Distributions tab, and define the Labor Schedules Messages tab.

# Pages Used to Schedule Labor Resources for a Work Order Task

Page Name	Definition Name	Usage
Schedules Page	WM_WO_TASK_SCHED	Enter resource schedules for work order tasks.
Search for Labor Resources	WM_SRCH_LBR_SEC	Enter search criteria to search for labor resource to assign to a work order task.
Summary - Worklist	WORKLIST	Selects resources assigned to a work order task to approve or reject.  PeopleTools: PeopleSoft Applications User's Guide, Using Workflow

Page Name	Definition Name	Usage
Details - Worklist	WORKLIST_DETAILS	Review details regarding resource assignments that require approval.  PeopleTools: PeopleSoft Applications User's Guide, Using Workflow
Actuals	WM_WO_TASK_ACTUAL	Displays the actual times, dates, and resource amounts used for a work order task for labor, inventory, purchase/on-hand, and tools resources.

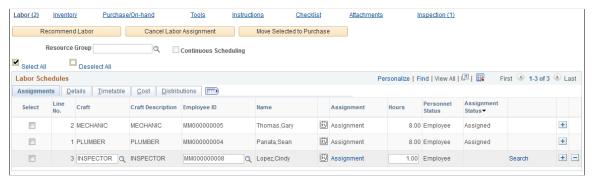
## **Schedules Page**

Use the Schedules page (WM\_WO\_TASK\_SCHED) to enter resource schedules for work order tasks.

#### Navigation:

Maintenance Management, Work Order Management, Work Order, click the Schedules tab.

This example illustrates the fields and controls on the Work Order - Schedules page - Labor Schedules grid. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Recommend Labor	Select at least one row in the <b>Labor Schedules</b> grid and then select this button to run the Resource Match engine, which matches qualifications and schedules specified in the row to the qualifications and schedules of all PeopleSoft Maintenance Management labor resources and returns the recommended labor resources with their qualification and availability fit scores. You can narrow the search by selecting a Resource Group before you click this button.  See <u>Labor and Tool Resource Matching</u> .
Cancel Labor Assignment	Click this button after selecting rows in the <b>Labor Schedules</b> grid that you want to cancel. This cancels the assignment, which deletes calendar entries (today and future entries) associated with the assignment and clears the employee ID on the selected labor resource schedule row.

Field or Control	Description
Move Selected to Purchase	Click this button if you need to obtain a selected labor resource from an outside supplier. You select the labor resource row and then select this button, which moves the resource information to the <b>Purchase/On-Hand Schedules</b> grid. You must specify the craft and the required dates for the work order task. Once a technician is procured, you need to set up the technician as a resource if you want to treat the individual as a regular employee technician, which enables you to schedule this individual to work on work order tasks. In this case, you would create the purchase requisition or purchase order without the work order information on the procurement document. Alternatively, you can procure a service directly to the work order and receive the costs to the work order from the supplier by means of an invoice through PeopleSoft Payables. In this instance, you would enter the work order business unit, work order ID, work order task ID, and resource line number on the procurement documents.
Resource Group	Select a resource group ID to use to narrow the search for resources by the Resource Match engine when you click the <b>Recommend Labor</b> button.
Continuous Scheduling	Select this check box to have the Resource Match engine determine availability of one or more selected resources by assuming the resource should ideally have one block of time available to complete the work. This option is used only by the Resource Match Engine.  See Labor and Tool Resource Matching.

#### **Recommended Labor Resources**

When you click the **Recommend Labor** button, the Search Framework and the Resource Match engine run and match the selected craft's qualifications and availability with either resources in the selected resource group or with all PeopleSoft Maintenance Management resources associated with the selected craft. Once the matching finishes, a **Recommend Labor Resources** grid displays listing the resources that match the labor resource row criteria.

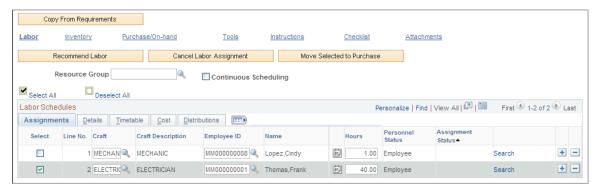
Field or Control	Description
Select	Click this button to add a resource to the <b>Labor Schedules</b> grid.
Qualifications Fit Score	Displays the overall fit score calculated by the Resource Match engine.
Availability Fit Score	Displays the overall availability fit score calculated by the Resource Match Engine.

Field or Control	Description
Employee ID and Name	Displays the employee's ID and name and provides access to this employee's monthly schedule.
Supervisor	Displays the name of the supervisor of the recommended employee.
Business Unit	Displays the work order business unit that is associated with the shop to which the employee is assigned.
Shop	Displays the shop with which the individual is associated.
	Note: For a given work order task, if you select an employee who is assigned to a shop that is different from the shop associated with the work order, the assignment may require approval, if your organization has set up assignment approval workflow.
	See <u>Labor Resource Assignment Approval Workflow</u> .
Shift	Displays the shift to which the employee is assigned to for the shop that he belongs to as shown on the grid.
	Note: You assign a resource to one or more shops, shifts, and one or more crafts using the PeopleSoft Maintenance Management, Labor Administration, Manage Profiles component.
	See Understanding Labor and Tools Resource Setup and Maintenance.

# Assignments tab — Schedules Page

Select the Labor Schedules - Assignments tab on the Schedules page.

This example illustrates the fields and controls on the Labor Schedules - Assignments tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
(warning) and (error) and (information)	Displays either a warning icon or an error icon and displays the Messages tab explaining the icon when the page is saved.
	Note: The information icon does not appear in the sample page.
Craft and Craft Description	Select the craft required for the work order task. You can also click the Copy From Requirements button to copy the labor resource requirements specified on the Requirements page to the Labor Schedules grid.
Employee ID	Select the employee ID of the technician that you want to assign to the work order task. Selecting an employee enables you to access the selected employee's monthly, weekly, and daily calendar. This option is known as direct assignment and does not use the Resource Match to help find a qualified resource. If you assigned resources on the Labor Assignments Workbench, those resource assignments also display in the appropriate rows on this page.
	Important! Resources who are assigned to a shop other than the shop associated with the work order usually require approval by the resource's shop manager. You set up workflow approval ahead of time, by setting up the work order business unit Options page, which is used to issue emails to the resource's supervisor and to the resource, if desired. Once assignment approval is set up, when you select an employee ID in this field, enter the hours and other details and save the work order, a message appears indicating that this employee requires approval and that you must access the Worklist link in the page.
	See documentation PeopleTools: Workflow Technology.

Field or Control	Description
	Click this icon to display the selected employee's monthly calendar. This calendar is updated with any assignments entered for the resource.  See Monthly Schedule Page.
Hours	Enter the total number of hours that you need the selected employee to work on this task.  If you entered this assignment on the Labor Assignment Workbench, the assigned hours display from the workbench.  Note: You can change these hours as long as they have not been assigned and depending on the work order task status.
	See <u>Understanding Service Request and Work Order Statuses</u> .
Personnel Status	Displays the status of the employee, such as employee, contractor, supervisor. This information is derived from the employee's profile.
Assignment Status	<ul> <li>Displays the assignment approval status as:</li> <li>Assigned</li> <li>Canceled</li> <li>Complete</li> <li>Pending Approval  This status only applies to employees that you assign who work for a shop other than the shop associated with this work order. You must also set up labor resource assignment approval workflow.</li> <li>Rejected  This status only applies to employees that you assign who work for a shop other than the shop associated with this work order. You must also set up labor resource assignment approval workflow.</li> </ul>
Search	Click this link to access the Search Labor Resources page, where you can enter search criteria to search for labor resources to assign to a work order task. This is one of the three methods used to identify resources for a task. You must select a craft and enter the hours in the Labor Schedules - Assignments tab before you click this link.

## **Search Labor Resources**

Use the Search for Labor Resources page (WM\_SRCH\_LBR\_SEC) to enter search criteria to search for labor resource to assign to a work order task.

Navigation:

Click the Search link in the Labor Schedules grid on the Schedules page.

Field or Control	Description
Shop	Select a shop to locate a resource. The default value is the shop associated with the work order. You can override this value and select a different shop in which to search for resources. If you select a resource from a shop different than the shop associated with the work order and assignment workflow is set up, then any resource assignments from this other shop require approval.
Location Code	Select the location of the resource to narrow the search.
Crew Name	Select a crew name to locate resources for this work order task that are assigned to a specific crew. The system searches for resources set up in crews, who are assigned to the selected shop.
100% Available	Remove the default check mark from this check box if you want the system to search for resources who are less than 100 percent available to work on the work order task. If the check box is selected, the system searches for resources who are 100 percent available for the work order task.
Search	Click this button to search for resources based on the specified search criteria. The resources that match the criteria are listed in the Labor Resources grid. Select the resource you want to assign to the selected task and click the <b>OK</b> button.

# Labor Schedules - Details tab — Schedules Page

Select the Labor Schedules - Details tab on the Schedules page.

This example illustrates the fields and controls on the Labor Schedules - Details tab. You can find definitions for the fields and controls later on this page.

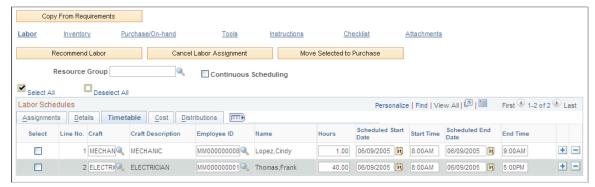


Field or Control	Description
Shop ID and Shift ID	When you select an employee ID, the system displays the shop associated with the selected resource based on if:
	The crew assignment is enabled in the shop and the resource belongs to the shop's crew, then the shop associated with the crew and the resource's weekly shift identified in the shop display as default values in the fields.
	The crew assignment is not enabled for the shop and the resource belongs to the shop identified in the work order header shop, the shop in the work order header and the resource's weekly shift display as default values in the fields.
	The resource does not belong to either the crew's shop or the shop identified in the work order header, the system displays a shop to which the resource belongs and the resource's weekly shift for that shop. If the resource belongs to multiple shops, the system selects one shop as the default value. Currently, users cannot specify a primary shop as the default shop in the work order task.
Overbook Flag	Select this check box to allow the overbooking of a resource.  Leave this check box blank if you do not want to allow overbooking for this resource.
	Important! This option displays only if you clicked the Require Manual Override button in the shop associated with this work order.
Procure Status	Indicates whether this resource is being procured and the status of that procurement.
Update Work History	Select this check box to update the work history based on the work order task for the resource.
Qualifications	Click this link to view the resource's qualifications profile.
	Note: You can view, but not modify the labor qualifications entered on the Labor Requirements - Details tab.
	See Qualification Profile Page.

# Labor Schedules -Timetable tab — Schedules Page

Select the Labor Schedules -Timetable tab on the Schedules page.

This example illustrates the fields and controls on the Labor Schedules - Timetable tab. You can find definitions for the fields and controls later on this page.

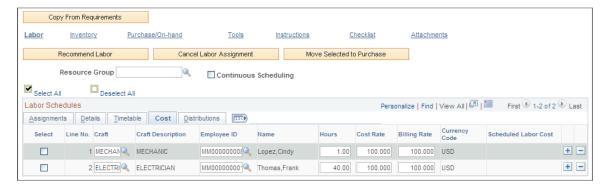


Field or Control	Description
Scheduled Start Date, Scheduled Time, Scheduled End Date, and Scheduled Time	Adjust these dates and times to schedule this resource's work in the work order task if the fields are enabled. These dates and times cannot exceed the scheduled start and end dates and times for the work order task. If you entered this assignment on the Labor Assignment Workbench, the values from the workbench display in these fields. However, the changes are validated against the crew schedule requirements and the work order task schedules:
	If the Labor Schedules rows originate from the Labor Requirements rows, then:
	If the schedule has crew assignments, the scheduled start and end dates and times must fall within the requirement crew scheduled start and end dates and times.
	If the schedule has no crew assignment, the scheduled start and end dates and times must fall within the work order task scheduled start and end dates and times.
	For example if Labor Schedules rows 1 and 2 originated from Labor Requirements row 1, and Labor Requirement row 1 is crew assigned, then the scheduled dates and times for Labor Schedules rows 1 and 2 must fall within the crew schedule dates and times for Labor Requirements row 1.
	If the Labor Schedules rows did not originate from the Labor Requirements rows, then the scheduled dates in the rows are validated against the task schedules dates and times.

# Labor Schedules - Cost tab — Schedules Page

Select the Labor Schedules - Cost tab on the Schedules page.

This example illustrates the fields and controls on the Labor Schedules - Cost tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Cost Rate and Billing Rate	These default rate values come from rates entered in either the work order business unit's Integration page, the rates specified for a shop, or the rates specified in the shop for the resource's craft depending on the setup. These scheduled costs are summarized in the work order and compared to the actual costs that come from PeopleSoft Project Costing after the work order task is completed and display in the work order's Cost page. The default <b>Currency Code</b> is derived from the work order business unit.

## **Labor Schedules - Crew Assignments tab**

Select the Labor Schedules - Crew Assignments tab.

This example illustrates the fields and controls on the Labor Schedules - Crew Assignments tab. You can find definitions for the fields and controls later on this page.



This tab only appears if you have scheduled a crew on the Crew Scheduling Workbench for this work order.

Field or Control	Description
Crew Business Unit	Displays value derived from the Crew Scheduling Workbench.
Crew Shop	Displays value derived from the Crew Scheduling Workbench.

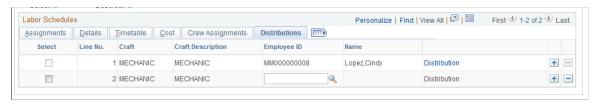
Field or Control	Description
Crew	Displays crew selected on the Crew Scheduling Workbench for each task row.
Period Start	Displays period start date derived from the Crew Scheduling Workbench.

See Understanding Crew Scheduling.

## Labor Schedules - Distributions tab — Schedules Page

Select the Labor Schedules - Distributions tab on the Schedules page.

This example illustrates the fields and controls on the Labor Schedules - Distributions tab. You can find definitions for the fields and controls later on this page.

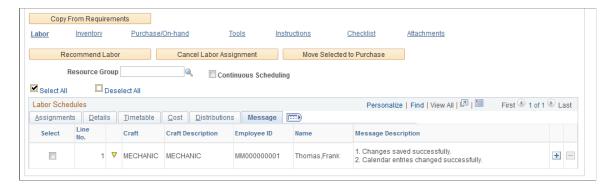


Field or Control	Description
Distributions	Click this link to access the distribution data specified for the row after an assignment has been made.
	Note: This tab only displays if the View and Update Accounting check box is selected in User Preferences for the user performing the scheduling.

## Labor Schedules - Messages tab — Schedules Page

Select the Labor Schedules - Messages tab on the Schedules page.

This example illustrates the fields and controls on the Labor Schedules - Message tab. You can find definitions for the fields and controls later on this page.



This tab only displays if a warning, or error message is issued when you save the page.

Field or Control	Description
	Indicates that there is a warning associated with this selection.
Message Description	Displays a description of the warning in the Message Description field for the row.
	Indicates that there is an error associated with this selection. A description of the error displays in the Message Description field for the row.

## **Scheduling Inventory Resources for a Work Order Task**

This section describes how to assign and schedule inventory resources for work order tasks, set up a picking plan, copy items from the Equipment Parts List, add Inventory Items and Purchase/On-Hand Materials to the Equipment Parts List, define the Inventory Schedules Materials tab, define the Inventory Schedules Details tab, define the Inventory Schedules Reservation tab, define the Inventory Schedules Availability tab, define the Inventory Schedules Additional Information tab, define the Inventory Schedules Default Settings tab, define the Inventory Schedules Cost tab, define the Inventory Schedules Distributions tab, and perform Inventory batch reservations.

## Pages Used to Schedule Inventory Resources for a Work Order Task

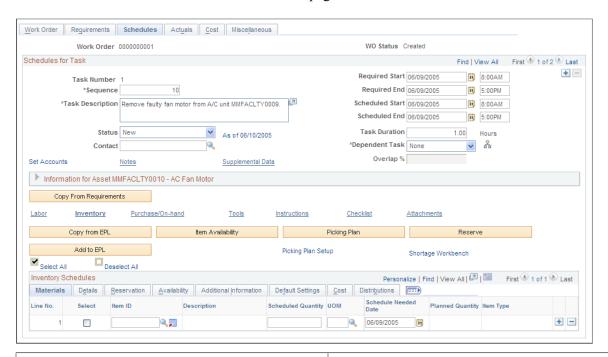
Page Name	Definition Name	Usage
Schedules Page	WM_WO_TASK_SCHED	Enter resource schedules for work order tasks.
Copy from Equipment Parts List Page	WM_EPL_SELECT_SEC	Select an inventory item associated with the selected asset for the task.
Add to Equipment Parts List Page	WM_AM_EPL_UPDATE	Add inventory items and purchase/on-hand items to existing EPL templates.
Process/Output Options Page	IN_WO_RNCTL_OPT_SP	Define the run parameters for the work order pick plan process.
Item Search Criteria	ITEM_SEARCH_SP	Perform an expanded search for an inventory item.
Pegging Workbench	IN_PEG_DETAIL_SP	Peg quantity for Inventory item in the work order task.

Page Name	Definition Name	Usage
Pegging Inquiry	IN_PEG_DETAIL_SP	Review the pegging status of an item.
Item/Product Availability	ATP_SUMMARY_INV	Review the availability status of a selected item in the work order task line.
Item Balance by Unit	INV_BU_QTY_INQ	Review remaining balance in Inventory of a selected inventory item in the work order task line.
Delivery Instructions	WM_WO_DELVSCHD_SEC	Add instructions concerning how to deliver the inventory and purchase/on-hand materials.
Reservation Errors	WM_WO_RESERVE_SEC	Review errors generated from Inventory when attempting to reserve an item.
Shortage Workbench	IN_SW_SELECTION	Reserve and unreserve inventory items selected for work order tasks.
Reserve Materials	RUN_IN_FULFILL_RSV	Perform batch reservation processing of inventory items selected for a work order task.
Item Availability	WM_WO_ITMAVAIL_SEC	Review the reason why an item was identified as unavailable.
Reservation Errors	WM_WO_RESERVE_SEC	Review reservation message errors.

# **Schedules Page - Inventory Schedules**

Select the **Inventory Schedules** tab on the Schedules page.

This example illustrates the fields and controls on the Schedules page - Inventory Schedules. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Item Availability	Click this button to determine the availability of a selected item as of the Schedule Needed Date. Selecting this button updates the Availability tab and indicates whether the quantity is available or not, the earliest available date, and the quantity available on the Schedule Needed Date.  See Inventory Schedules - Availability tab — Schedules Page.
Picking Plan	Click this button to generate a picking plan for any of the listed items that have not already been selected for a picking plan. You do not have to select each row to generate a picking plan. A message displays indicating that you submitted a picking plan and provides the process instance and pick batch ID for tracking purposes.
	Note: If you indicated that items are committed based on the generation of a Picking Plan in the work order business unit's Integration page or the shop definition, then the Inventory Schedules - Details tab indicates that the items are committed. You must indicate in the User Preferences - Maintenance Management page that a user is authorized to run a picking plan.
Picking Plan Setup	Click this button to display the Process/Output Options page to define the allocations and run parameters for the work order picking plan report.

Field or Control	Description
Shortage Workbench	Click this link to access the Inventory Shortage Workbench to reserve or unreserve the work order demand.
	Note: With proper authorization in PeopleSoft Inventory, you can access the Allocations Workbench from the Shortage Workbench.
	See "Understanding Work Order Item Fulfillment from PeopleSoft Inventory" (PeopleSoft Inventory).
Copy from EPL (copy from equipment parts list)	Click this button to access the Copy from Equipment Parts List page, where you can select among multiple EPL templates, if available, listed in descending order of applicability that match the target asset's classification criteria (asset type, subtype, manufacturer ID and model). The default template is listed at the top and is preselected. However, you can select a different template from which to copy the inventory parts. Selecting the template copies all of the inventory parts associated with the asset to the lower portion of the page. You then select the inventory parts that you want to copy to the work order task.
Add to EPL (add to equipment parts list)	Click this button to access the Add to Equipment Parts List page and add one or more selected inventory items to one or more EPL templates that appear on the page. You must select the items for each row on the Inventory Scheduling grid, enter a planned quantity, and select each item row to display the Add to Equipment Parts List page.
Reserve	Click this button to override the reservation rules hierarchy set up in the work order business unit and shop and immediately reserve the items for that task. The results of this selection displays information on the Inventory Schedules-Reservation tab.
	Note: This button only appears on the page if the user is authorized to perform this activity on the User Preferences-Maintenance Management page.
	Note: The user has the option to select (one or more) Inventory Schedule grid rows to be submitted for either the Picking Plan or Reserve options. If no rows are selected before clicking either the Picking Plan or Reserve button, then all the rows will be submitted for the requested function.

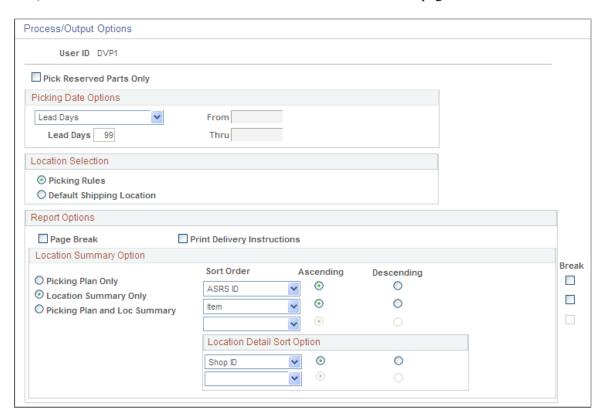
## **Process/Output Options Page**

Use the Process/Output Options page (IN\_WO\_RNCTL\_OPT\_SP) to define the run parameters for the work order pick plan process.

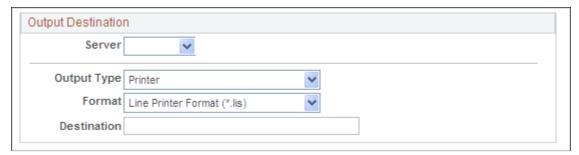
Navigation:

Click the Picking Plan Setup button on the Inventory Schedules - Schedules page.

This example illustrates the fields and controls on the Pick Plan Setup - Process/Output Options page (1 of 2). You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Pick Plan Setup - Process/Output Options page (2 of 2). You can find definitions for the fields and controls later on this page.



Field or Control	Description
Pick Reserved Parts Only	Select this check box and run the Picking Plan to pick only the reserved inventory items (parts) associated with the work order task.
	Note: If the reserve rule is pick plan, all the parts for the task will be picked regardless if they have already been reserved and Pick Reserved Parts only is selected.

Field or Control	Description
Picking Plan Date Options	Select one of these values to represent the number of days needed to reserve, pick, pack, and ship the majority of the items in the Inventory business unit. The requested quantities for soft-reserve items can be reserved when the scheduled shipment date falls within one of the following reservation lead days windows:
	Date Range
	These fields become available:
	• From:
	• Thru:
	Enter or select the beginning and end dates of the date range, which indicates the period of time that the selected items must be reserved, picked, packed and shipped in PeopleSoft Inventory.
	Lead Days
	This field becomes available:
	• Lead Days
	Enter the number of lead days in which the requested quantities can be reserved, picked, packed and shipped in PeopleSoft Inventory.
	• Today
	Select this value to indicate that the selected items must be reserved, picked, packed, and shipped in PeopleSoft Inventory as of the current date.
	Note: If you do not select or enter one of the previous values, the system will use the lead days indicated for the Inventory business unit in Inventory, Fulfill Stock Orders, Fulfillment Rules, Setup Fulfillment, Setup Fulfillment or at the item level in Inventory, Fulfill Stock Orders, Setup Item Fulfillment.

Field or Control	Description
Picking Rules	These rules are assigned at either the Inventory business unit level (Inventory > Fulfill Stock Orders > Fulfillment Rules > Setup Fulfillment) or at the item level (Inventory > Fulfill Stock Orders > Fulfillment Rules > Setup Item Fulfillment) and have these options:
	Container Option
	Default Putaway Option
	Default Shipment Location
	Fixed Pick Location
	Pick by Date
	Random Pick Locations
Default Shipping Location	These rules are assigned at either the business unit level (Inventory > Fulfill Stock Orders > Fulfillment Rules > Setup Fulfillment) or at the item level (Inventory > Fulfill Stock Orders > Fulfillment Rules > Setup Item Fulfillment) and have these options:
	Default Ship Staging Location
	Default Cross Docking Location
	Default Putaway Location
	Default Fixed Picking Bin
	Default Pegging Location
	Random Pick Locations
Page Break	Select this check box to break the pages in the report for each work order.
Print Delivery Instructions	Select this check box to print the delivery instructions provided that you entered delivery instructions in the Inventory Schedules line.

#### **Location Summary Option**

If you are using a push picking plan (the Action of *Create Allocations* on the Work Order Pick Plan page), you can print a Location Summary report either in addition to or instead of a full Picking Plan report. The Location Summary report sorts the demand lines according to where the items are physically stocked within the warehouse (Inventory business unit). The layout of the printed report reflects the actual positions of stock to be picked, enabling your personnel to fulfill all orders on the picking plan without revisiting locations.

**Note:** It is possible to complete all of the picking using only the Location Summary report; however, you can only view details such as picking errors or picking line and schedule orders and notes if you print out a full Picking Plan report.

Field or Control	Description
Picking Plan Only, Location Summary Only, and Picking Plan and Loc Summary (picking plan and location summary)	Indicate which version of the picking plan you are printing.  Location summary options are only available when you select   Create Allocations in the Action field on the Work Order Pick   Plan page.

Field or Control	Description
Sort Order	Select up to three sorting levels to sort demand lines on the Picking Plan Location Summary report. These sort orders are based on the locations within the inventory business unit (physical location table). For each level, indicate whether the sort is in ascending or descending order and whether a page break should occur.
	Values for the highest-level <b>Sort Order</b> field are:
	ASRS ID: (automated storage and retrieval system identification): Sorts numerically by the ASRS ID number assigned to each material storage location. The ASRS ID is assigned to a material storage location using the Material Storage Locations page.
	Area: Sorts by storage area within the inventory business unit.
	Area/Zone: Sorts by storage area and then sorts each storage area by picking zone.
	Area/Zone/ASRS: Sorts by storage area, then by picking zone, and then by the material storage location's ASRS ID.
	• Area/Zone/Stor Loc: Sorts by storage area, then by picking zone, and then by material storage location.
	Storage Location: Sorts by material storage location.
	• Zone: Sorts by picking zone.
	• Zone/ASRS: Sorts by picking zone and then sorts each picking zone by the material storage location's ASRS ID.
	• Zone/Stor Loc: Sorts by picking zone and then sorts each picking zone by the material storage location.
	Once a value has been used at a higher-level sort order, the same value cannot be repeated in a lower-level sort. The values for the two lower-level <b>Sort Order</b> fields are:
	ASRS ID: (automated storage and retrieval system ID):     Sorts numerically by the ASRS ID number assigned to each material storage location. The ASRS ID is assigned to a material storage location using the Material Storage Locations page.
	Area: Sorts by storage area within the inventory business unit.

Field or Control	Description
	Container: Sorts by the storage containers with stock to be picked.
	• <i>Item:</i> Sorts by the item ID of the stock to be picked.
	Lot: Sorts by the lot ID of the lot-controlled stock to be picked.
	Serial ID: Sorts by the serial ID of the serial-controlled stock to be picked.
	Staged Date: Sorts by the staged date of the stock to be picked.
	Storage Location: Sorts by material storage location.
	Unit of Measure: Sorts by stocking unit of measure for the stock to be picked.
	• Zone: Sorts by picking zone.
Location Detail Sort Option	Select up to two location detail sort options. The detail sort options are based on values located on the work order demand line, not the physical locations within the warehouse. For each level, indicate whether the sort is in ascending or descending order. Once a value has been used at the higher-level sort order, the same value cannot be repeated in the lower-level sort.
	Values for the location detail sort option fields are:
	Shop ID: Sorts by the shop ID on the work order demand line.
	Work Order ID: Sorts by work order ID on the demand line.
	Work Order Task: Sorts by the work order task used on the demand line.

## **Output Destination**

Select the **Server**, the **Format** of the output, and the **Destination** for the output, such as the name of an employee or a job location.

Field or Control	Description
Output Type	Identify the type of output for your picking plan. Options are <i>Email, File, Printer, Web, Default, Any,</i> or <i>Window.</i>

Field or Control	Description
Format	Identify the type of format for your picking plan. Options vary depending on the <b>Output Type</b> chosen.
Destination	Enter the directory into which you want to save the picking plan.

#### **Related Links**

"Understanding Work Order Item Fulfillment from PeopleSoft Inventory" (PeopleSoft Inventory)

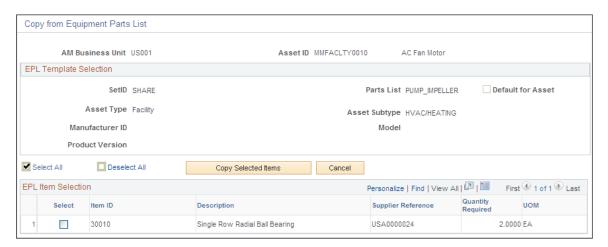
## **Copy from Equipment Parts List Page**

Use the Copy from Equipment Parts List page (WM\_EPL\_SELECT\_SEC) to select an inventory item associated with the selected asset for the task.

#### Navigation:

Maintenance Management, Work Order Management, Work Order, Schedules tab, click Inventory link, click the Copy from EPL button

This example illustrates the fields and controls on the Equipment Parts List Selection page. You can find definitions for the fields and controls later on this page.



This sample page displays for a target asset that has multiple EPL templates available. If only a single template is available, then that template displays as preselected in the top part of the page.

Field or Control	Description
EPL Template Selection(equipment parts list template selection)	Displays one or multiple EPL templates. These templates are set up in PeopleSoft Asset Management. The preselected template is the default template for the selected asset, which is set up when you define the asset in PeopleSoft Asset Management.
	If the system lists multiple templates, select the template from which you want to copy items to the work order. The templates are listed in order of their applicability to the target asset specified on the work order task.
	The designated default template for the asset is always listed first and is preselected as the default. However, you can select the check box for any other template and the EPL Item Selection grid display will automatically refresh to display the Inventory items corresponding to the template that you selected.
EPL Item Selection (equipment parts list item selection)	Select the one or more of the items that you want to copy to the Inventory Schedules grid of the work order task to maintain or repair the selected asset.
Copy Selected Items	Click this button to copy the selected items to the Inventory Schedules grid.

## **Add to Equipment Parts List Page**

Use the Add to Equipment Parts List page (WM\_AM\_EPL\_UPDATE) to add inventory items and purchase/on-hand items to existing EPL templates.

### Navigation:

- Click the Add to EPL button above the Inventory Schedules grid on the Schedules page.
- Click the Add to EPL button above the Purchase/On-Hand Schedules grid on the Schedules page.

Field or Control	Description
Add to EPL (add to equipment parts list)	Select the inventory item or items, enter the planned quantity, and select these rows on the Inventory Schedules grid that you want to add to an EPL template. On the Purchase/Hand Schedules grid, select or enter the materials, labor or tools items, enter the planned quantity, and select the rows that you want to add to the template. Click the <b>Add to EPL</b> button.  Note: You must set up one or more asset-default or non-specific EPLs in PeopleSoft Asset Management, and select the
	one or both of the Allow Update Asset Default EPL and Allow Update Non-Specific EPLs options on the User Preferences, Maintenance Management page in order for the Add to EPL button to appear on the Schedules page of the work order.

#### **Adding to an Equipment Parts List**

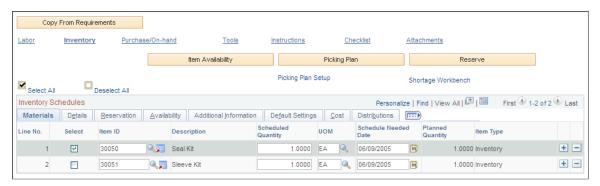
When you click the **Add to EPL** button, the Add to Equipment Parts List page displays a list of EPL templates that have been set up for the work order task asset or a non-specific category such as a location. If only one EPL template is available, this template is selected by default.

Field or Control	Description
EPL Template Selection (equipment parts list template selection)	Select the EPL template rows that you want to update with the selected items or purchase/on-hand materials.
EPL Items to Add	Displays any items that you selected on the work order task grid to add to one or more selected EPL templates.
Add to EPL (add to equipment parts list)	After selecting one or more EPL templates, click this button to add the new inventory items or purchase/on-hand materials to the selected templates.  A message displays indicating if the selected EPL templates were updated.

## Inventory Schedules - Materials tab — Schedules Page

Use the Inventory Schedules - Materials tab on the Schedules page to view details of the Inventory schedules.

This example illustrates the fields and controls on the Inventory Schedules Materials tab on Schedules page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Item ID	Select an item ID from the Item ID Lookup page.
	Note: This field can also be populated by clicking the Copy from Requirements button or by selecting items from the EPL.

Field or Control	Description
<b>T</b>	Click this icon to access the Item Search Criteria page, where you can enter information to perform an expanded search for an item ID, select the item, and copy it to the line in the <b>Inventory Schedules</b> grid.
Scheduled Quantity	Enter the quantity of items that you need for this work order task.
Schedule Needed Date	Select the date that these inventory items are needed to perform the work. The default date is derived from the schedules start date for the work order task.
UOM (unit of measure)	Displays the default standard unit of measure for the item. There is a standard unit of measure and an ordering unit of measure associated with an item. All items are setup with a standard unit of measures such as <i>EA</i> (each). However, you can override the default standard UOM with an ordering UOM. For example, an item may be defined with a standard unit of measure of EA. You override this default value with the ordering UOM <i>Box</i> since a box may contain 4 <i>EA</i> .
Planned Quantity	Displays value copied from the work order task's requirements. If there are no requirements copied over, this field is not populated.
	Note: You must enter an amount in this field to add an inventory item to an EPL template when you click the Add to EPL button.
Item Type	Displays an Inventory item ID attribute value of either:  • Inventory  This type is costed.  • Floor Stock  This type is not costed and is not issued to the work order. Examples of floor stock items can include: common nuts and bolts, disposable gloves, belts, and tubing.

# Inventory Schedules - Details tab — Schedules Page

Navigation:

Click the Inventory Schedules - Details tab on the Schedules page

This example illustrates the fields and controls on the Inventory Schedules Details tab on Schedules page. You can find definitions for the fields and controls later on this page.



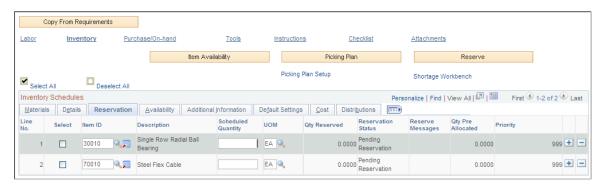
Field or Control	Description
Commit	Displays whether the item has been committed in PeopleSoft Inventory. The status changes to committed depending on the commit rule that you selected on the work order business unit's Integration page or the shop definition. The commit rules include:
	Generating a picking plan.
	Adding an item to the parts list.
	A change in the work order task status to a specified status.
Pick Batch ID	Displays the batch in which the pick plan was generated.
Qty Issued (quantity issued)	Displays after item is issued from PeopleSoft Inventory.
Standard UOM (standard unit of measure)	Add/Update a PO can also update the peg status to complete if the user reduces the PO quantity to be equal to the putaway quantity. This situation will occur if the user does a partial receipt and decides not to receive any more.

Field or Control	Description
Peg Status	Displays the peg status of the selected inventory item:
	<b>Note:</b> The peg status that displays in this field only pertains to the purchase of Inventory items and is derived from the PeopleSoft Inventory system. You cannot purchase inventory items from PeopleSoft Maintenance Management.
	• Open
	Quantity is pegged to supply (Requisition, PO, Interunit MSR).
	Not Pegged
	The quantity needed of the selected item is not pegged to supply (Requisition, PO, Interunit MSR).
	• Completed
	For Inventory Schedules rows, this status requires receiving into PeopleSoft Inventory so Inventory's putaway process, can set the peg status to <i>Complete</i> once the entire pegged quantity is putaway.
	Add/Update a PO can also update the peg status to complete if the user reduces the PO quantity to be equal the putaway quantity. This situation will occur if the user does a partial receipt and decides not to receive any more
	• Canceled
	This indicates that the requisition, the PO, or the Interuni Material Stock Request (MSR) to which the work order is pegged to has been canceled or the WO scheduled quantity has been decreased such that the quantity pegged has been decreased to zero, and the work order row is not pegged to any other supply.
Pegging Workbench	Click the icon to access the Pegging Workbench in PeopleSofi Inventory, where you can add the quantity needed for the item to an incoming requisition or purchase order. This essentially reserves the specified quantity for the work order task against the incoming supply. When the material is received, a notification can be generated to notify WO personnel the material has arrived.
	Note: If you access the Pegging Workbench from the Inventory Schedules - Details tab, the system will autonumber the work order when it is saved (as long as it has not been previously saved).
Pegging Inquiry	Click this link to access the Inventory Pegging Inquiry and review the pegging details of an item.

## Inventory Schedules - Reservation tab — Schedules Page

Select the Inventory Schedules - Reservation tab on the Schedules page.

This example illustrates the fields and controls on the Inventory Schedules Reservation tab on Schedules page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Qty Reserved (quantity reserved)	Displays the actual quantity reserved in PeopleSoft Inventory.  Work Order demand can be reserved in the following ways:  You save the work order and the system processes commit and reservation rules and triggers the reservation process in PeopleSoft Inventory.  You click the Reserve button.  You run the Reserve Materials process in PeopleSoft Inventory.  PeopleSoft Inventory receives a pegged work order row.  The items are reserved on the Shortage Workbench in PeopleSoft Inventory.

Field or Control	Description
Reservation Status	Displays the status of the selected item's reservation. Statuses that display include:  • Pending Reservation.  Reservation has not been attempted.  • Reserve Attempted.  Reservation has been attempted and no quantity has been reserved. This can indicate that an error has occurred preventing the item from being partially or fully reserved.  • Partially Reserved.  The scheduled quantity is only partially reserved, typically due to a shortage in PeopleSoft Inventory.  • Fully Reserved.  The total scheduled and committed quantity of items (parts) have been reserved at the business unit/item level in PeopleSoft Inventory, which increases the Qty Reserved and decreases the Qty Available amounts.
Reserve Messages	Displays link to Reservation Messages page, which describes the reason(s) why an item could not be fully reserved. This link appears when you attempt to reserve materials for a work order task.
Qty Pre Allocated (Quantity Pre Allocated)	Displays the current quantity pre-allocated (if any) for the Scheduled Inventory item. The quantity pre-allocated is displayed as a hyperlink. Click the hyperlink to open the Inventory Allocation Workbench.  The Allocation Workbench displayed by clicking the Qty Pre Allocated hyperlink will have only the Detail tab visible and the Allocation Type will be set to Pre-allocation.  Note: The Qty Pre Allocated hyperlink will be enabled only if Inventory demand exists for the item. If the item has been picked or fulfilled, the quantity displayed will be zero and the corresponding link to the Allocation Workbench will be disabled.
Priority	Displays default value, which is derived from the setup of the reservation rules either at the work order business unit level, shop level, or work order type level, which is set up in the shop. PeopleSoft Inventory uses this number to sort demand and prioritize it accordingly, with 1 being the highest or most important priority and 999 being the lowest or least important priority.

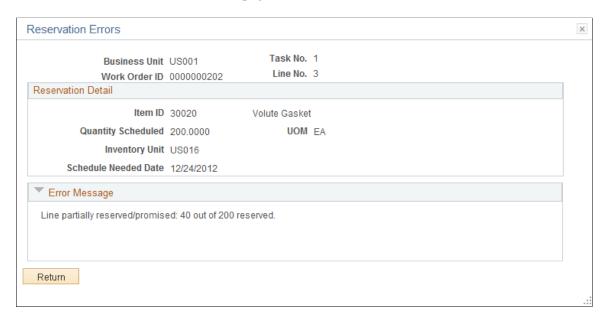
#### **Reservation Errors**

Use the Reservation Errors page (WM WO RESERVE SEC) to review reservation message errors.

Navigation:

Click the **Reserve Messages** link on the Inventory Schedules - Reservation tab.

This example illustrates the fields and controls on the Reservation Errors page. You can find definitions for the fields and controls later on this page.

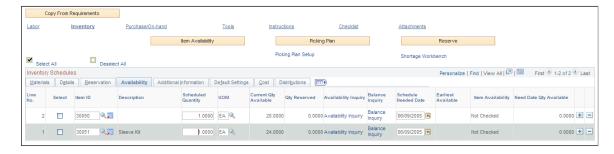


When you attempt to reserve an item on the Inventory Schedules grid and the system cannot reserve the item or can only partially reserve an item, you can click the Reserve Messages link to access the Reservation Errors page. This page describes reason that you could not reserve the item.

## Inventory Schedules - Availability tab — Schedules Page

Select the Inventory Schedules - Availability tab on the Schedules page.

This example illustrates the fields and controls on the Inventory Schedules Availability tab on Schedules page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Current Qty Available (current quantity available)	Displays the quantity available for the item in the Inventory business unit associated with the work order business unit.
Availability Inquiry	Click this button to access the Item/Product Availability page in PeopleSoft Inventory for the selected item based on a specific date. This page shows the cumulative ATP (Available to Promise) quantity, the available quantity, and the time phased supply and demand quantities for the item.
Balance Inquiry	Click this button to access the Item Balance by Unit page in PeopleSoft Inventory for the selected item. This page shows the quantity on hand, the quantity owned, the quantity available, and the quantity reserved for the item. It also shows the last adjustment, the last putaway date, the last order date and the last order. You can click links to access the Item Balance by All Units, the Item Balance by Location, and the Fulfillment Status components for the item.  See "Understanding On-Hand Inventory Reporting" (PeopleSoft Inventory).
Schedule Needed Date	Displays the default Schedule Date for the work order task. You can override this value and enter the date that the item is needed for the work order task. When you click the Item Availability button, the system updates the <b>Need Date Qty Available</b> field with the quantity available as of that date.
Earliest Available	Displays a date based on selecting one or more rows then clicking the <b>Item Availability</b> button on the Inventory Schedules page. This date determines, based on your scheduled quantity and schedule need date, when the selected Item is available.
	See Inventory Item Availability.
Item Availability	<ul> <li>Not Checked, if you have not selected the Item Availability button for this row.</li> <li>If you previously checked a row for Item Availability and you modify the Item, Schedule Qty, Schedule Needed Date, or UOM values, the Earliest Available Date, Item Availability, and Need Date Qty Available field values will be initialized to Not Checked.</li> <li>Yes, if the item is available.</li> </ul>
	<ul> <li>No, if the item is not available.</li> <li>This value displays as a link, which you can select and display the Item Availability page, which contains description(s) of why the item is not available.</li> </ul>

Field or Control	Description
Need Date Qty Available (need date quantity available)	Displays the quantity available on the date that you indicated you needed it for the work order task. This displays when you click the Item Availability button.  See Inventory Item Availability.

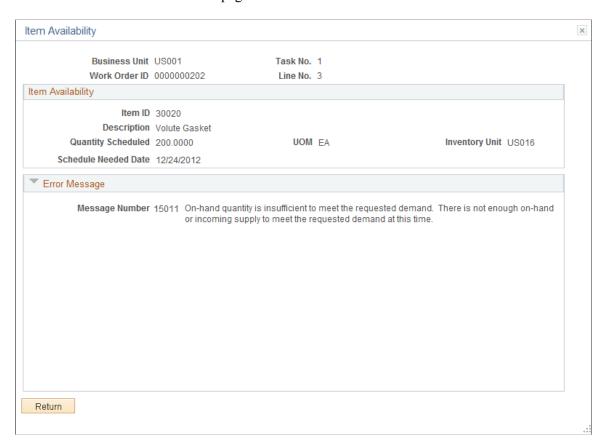
#### Item Availability Page

Use the Item/Product Availability page (ATP\_SUMMARY\_INV) to review the availability status of a selected item in the work order task line.

#### Navigation:

- Click the **Availability** link in the **Inventory Schedules Additional Information** tab on the Schedules page.
- Inventory > Manage Inventory > Review Inventory Balance Info > Item or Product Availability

This example illustrates the fields and controls on the Item Availability page. You can find definitions for the fields and controls later on this page.

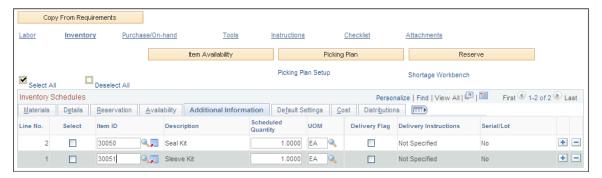


When schedule an item that is unavailable and select the Item Availability button, it displays a *No* in the Item Availability field of an Inventory/Schedules row. When you click the **No** link, the Item Availability page appears with a message describing the error.

### Inventory Schedules - Additional Information tab — Schedules Page

Select the Inventory Schedules - Additional Information tab on the Schedules page.

This example illustrates the fields and controls on the Inventory Schedules Additional Information tab on Schedules page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Delivery Flag	Select this check box to enable you to add delivery instructions.
Delivery Instructions	Enter instructions describing how you want the selected inventory item delivered.
Serial/Lot	Displays a serial or lot numbers if the selected item is serial or lot controlled and quantities are issued to the inventory row. You can click a link to review the serial or lot numbers associated with the item.

## Inventory Schedules - Default Settings tab — Schedules Page

Select the Inventory Schedules - Default Settings tab on the Schedules page.

This example illustrates the fields and controls on the Inventory Schedules Default Settings tab on Schedules page. You can find definitions for the fields and controls later on this page.



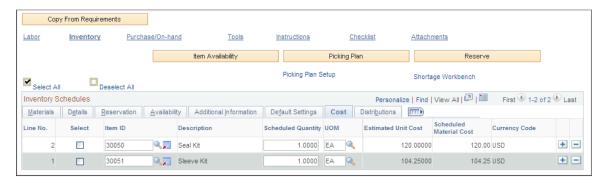
Field or Control	Description
Transaction Source	Displays the source of the transaction. These values determine whether the transaction costs are Scheduled or Actuals.  There are two integration points that can insert a row into the Inventory Schedules grid of a work order: From the pegging workbench you can peg a purchase order containing an inventory item back to a work order, or you can enter a direct issue from PeopleSoft Inventory to the work order. If a transaction cost is:
	Scheduled, the system updates the Scheduled Totals on the Cost page.
	Actuals, the scheduled costs will not be added back to the work order. The Actual Totals are updated on Cost page of the work order based when you run the Cost Summarization process.
	Transaction Source values can be:
	Work Order
	This value appears when the row is inserted directly in the work order. These are scheduled costs.
	Inventory Direct Issue
	This value appears when a row is inserted back to a work order as a result of a direct issue from PeopleSoft Inventory. These costs are actual costs and are not rolled into the scheduled costs for the work order task.
	Inventory Peg Workbench
	This value appears when a row is inserted back to a work order from the pegging workbench. These are scheduled costs.
	Note: For Inventory Schedules rows that are created by a direct issue from PeopleSoft Inventory, the Scheduled Quantity field will be 0 and the entire row will be disabled. The disabling of these rows prevents any changes and keeps the work order in sync with the feeder applications that created them.

See **Inventory Requirements**.

## Inventory Schedules - Cost tab — Schedules Page

Select the Inventory Schedules - Cost tab on the Schedules page.

This example illustrates the fields and controls on the Inventory Schedules Cost tab on Schedules page. You can find definitions for the fields and controls later on this page.

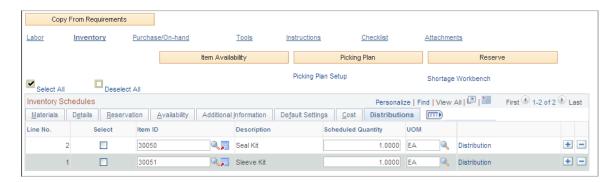


Field or Control	Description
Estimated Unit Cost	Displays the unit cost of the item. PeopleSoft Inventory determines the cost method of the item based on the primary book for the Inventory business unit and the cost profile of the business unit/item. For example, if the primary book for the Inventory business unit is FIN01 and the cost profile of the business unit/item is PERPAVG, the unit cost for the item will be the perpetual average cost for the item.
Scheduled Material Costs	Displays unit cost of each item scheduled, which is derived from PeopleSoft Inventory, multiplied by the scheduled quantity.
Currency Code	Converts Inventory currency to currency identified in the work order business unit.

## Inventory Schedules - Distributions tab — Schedules Page

Select the Inventory Schedules - Distributions tab on the Schedules page.

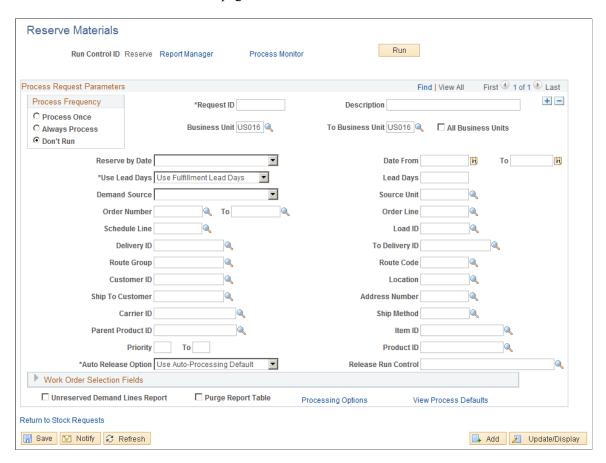
This example illustrates the fields and controls on the Inventory Schedules Distributions tab on Schedules page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Distributions	Click this link to access the distribution data specified for the row after an assignment has been made. You can override the values if necessary.  Note: This link only displays if the View and Update Accounting check box on the User Preferences - Maintenance
	Management page is selected for this user.

### **Reserve Materials Page**

This example illustrates the fields and controls on the Reserve Materials page. You can find definitions for the fields and controls later on this page.



The handling of this page for work orders is described in the PeopleSoft Inventory documentation set of topics, Fulfilling Work Orders from PeopleSoft Maintenance Management.

See "Committing, Pre-Allocating, and Reserving Work Orders" (PeopleSoft Inventory).

## Scheduling Purchase/On-Hand Resources for a Work Order Task

This section describes how to assign and schedule purchased/on-hand resources for work order tasks.

# Pages Used to Schedule Purchase On-Hand Resources for a Work Order Task

Page Name	Definition Name	Usage
Schedules Page - Purchase/On-Hand Schedules	WM_WO_TASK_SCHED	Enter resource schedules for work order tasks.
Purchase/On-Hand Schedules - Item Summary Tab	WM_WO_TASK_SCHED	Identify items for purchase and on-hand schedules, and specify demand criteria.
Purchase/On-Hand Schedules - Supplier Tab	WM_WO_TASK_SCHED	Enter supplier details for purchase and on-hand resources.
Purchase/On-Hand Schedules – Supplier Item/Price Tab	WM_WO_TASK_SCHED	Specify supplier item data for both contract and non-contract procurement items.
Purchase/On-Hand Schedules - Procurement/Delivery Tab	WM_WO_TASK_SCHED	Enter buying and delivery details for purchase and on-hand resources.
Purchase/On-Hand Schedules - Status/ Availability Tab	WM_WO_TASK_SCHED	Review individual staging, pegging, and availability statuses for procurement resources.
Purchase/On-Hand Schedules - Default Settings Tab	WM_WO_TASK_SCHED	Review default business unit and supplier information for purchase and on-hand resources.
Purchase/On-Hand Schedules - Cost Tab	WM_WO_TASK_SCHED	Review or modify cost details for purchase and on-hand resources.
Purchase/On-Hand Schedules - Distributions Tab	WM_WO_TASK_SCHED	Review or modify distribution details for purchase and on-hand resources.
Supplier Item Search Page	WM_VNDR_ITEM_SRCH	Search for contract and non-contract procurement items using supplier-related and item catalog search criteria.
Copy from Equipment Parts Lists	WM_EPL_SELECT_SEC	Copy non-inventory items and description only materials associated with a task's asset from an EPL template to a selected work order task row.
Add to Equipment Parts List	WM_AM_EPL_UPDATE	Add non-inventory and open description items to one or more existing EPL templates.

Page Name	Definition Name	Usage
Purchase Orders	WM_WO_PO_INQ	Review any purchase orders or requisitions associated with work orders and work order tasks.
Requisitions	WM_WO_PO_INQ	Review any purchase orders or requisitions associated with work orders and work order tasks.
Maintain Purchase Order	PO_LINE	Add a purchase order based on a work order task to purchase labor, materials, or tools identified in the Purchase/On Hand Schedules grid.
Maintain Requisitions	REQ_FORM	Add requisition based on a work order task to purchase labor, materials, or tools identified in the Purchase/On Hand Schedules grid.
Item Availability	WM_WO_ITMAVAIL_SEC	Review availability of an item or reason item is not available.

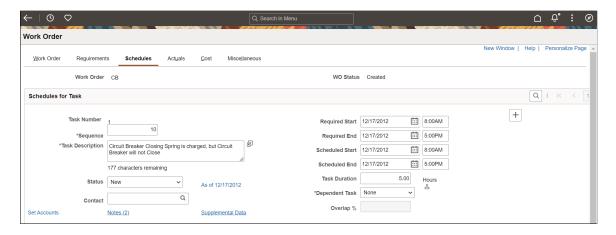
## Schedules Page - Purchase/On-Hand Schedules

Use the Schedules page (WM\_WO\_TASK\_SCHED) to enter resource schedules for work order tasks.

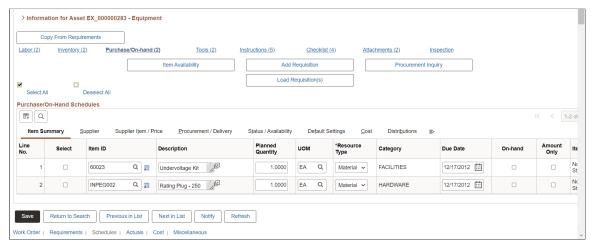
Navigation:

# Maintenance Management > Work Order Management > Work Order > Schedules > Purchase/On-Hand link

This example illustrates the fields and controls on the Schedules page - Purchase/On-Hand Schedules. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Schedules page - Purchase/On-Hand Schedules. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Item Availability	Select one or more rows and click this button to determine if the selected items are available as of the due date. The row must be pegged before you can determine if an item is available.  See Procurement of Material, Labor, and Tool Resources Using the Purchase/On-Hand Schedules Grid.
Add Purchase Order or Add Requisition	Click this button to access the PeopleSoft Purchasing Add/ Update Purchase Order component, the PeopleSoft Purchasing Add/Update Requisition component, or the PeopleSoft eProcurement Create Requisitions component to create a purchase order or requisition. The button that displays in the work order depends on your selection of either <i>Purchase</i> <i>Order,Purchasing Requisition</i> , or ePro Requisition on the work order business unit's Integrations page.

Field or Control	Description
Load Purchase Order(s) or Load Requisition(s)	Select the resource lines for which you intend to create purchase orders (or requisitions) and then click the <b>Load Purchase Order(s)</b> button for a work order task. The selected rows are then staged into the purchasing related stage records (PO_ITM_STG and PO_DIST_STG). Once the rows are staged, you must access PeopleSoft Purchasing to run either the PO Auto Sourcing process or the PO Calculations and PO Creation processes to create the purchase order. This stages the purchase orders. When you click the <b>Load Requisition</b> (s) button, this flags the selected work order rows and you then must access PeopleSoft Purchasing to run the Load Requisitions process.
	Note: Normally, organizations schedule PO Auto Sourcing, PO Calculations, PO Creation, and Load Requisitions to run automatically at regular intervals. Requisitions that are created in PeopleSoft eProcurement use the same staging tables as requisitions created in PeopleSoft Purchasing.
	See "Understanding the Requisition Business Process" (PeopleSoft Purchasing).
Copy from EPL (copy from Equipment Parts List)	Click this button to access the Copy from Equipment Part List page. This button only appears on the page if the asset selected for this work order task is associated with one or more EPL templates that contain non-inventory or open description items.
	Note: Inventory items are not included in the item list that displays based on the selected template.
	See Inventory Resource Scheduling.
Add to EPL	Click this button to access the Add to Equipment Parts List page. You select a Purchase/On-Hand row with a non- inventory or open description item that you want to add to one or more existing EPL templates before you click this button. If this is an open description item, you must enter the description, planned quantity and UOM for the item.
Procurement Inquiry	Click this button to access the Work Order Procurement Inquiry component in Maintenance Management. This inquiry displays all the purchase orders and requisitions that are associated with this work order task.

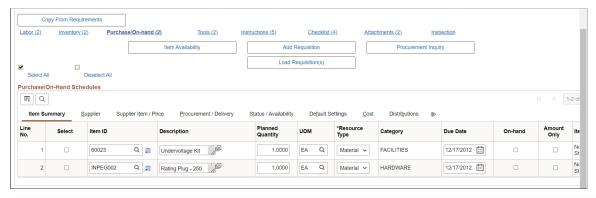
# **Purchase/On-Hand Schedules - Item Summary Tab**

Use the Purchase/On-Hand Schedules - Item Summary tab to identify items for purchase and on-hand schedules, and specify demand criteria.

Navigation:

# Maintenance Management > Work Order Management > Work Order > Schedules > Purchase/On-Hand link > Item Summary Tab

This example illustrates the fields and controls on the Purchase/On-Hand Schedules - Supplier tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Item ID	Select either a non-inventory item or enter an open description which may be used to purchase material, labor, or tools for the work order task. You can also select from an EPL, if the asset being worked on has an associated EPL that contains non-inventory and open description rows.
Planned Quantity	Enter the quantity of the item that you want to purchase or is on hand.
	Note: You must enter a value in this field along with a UOM (unit of measure) to enable you to add non-inventory or open description items to an EPL template when you click the Add to EPL button.
Resource Type	Select the work order resource type. Values are <i>Material</i> , <i>Labor</i> , or <i>Tools</i> .
UOM (Unit of Measurement)	Enter the unit of measurement for the item, such as <i>Gallons</i> , <i>Each</i> , <i>Pound</i> , and so forth.
Category	Enter this value if this is an open description row. A default value displays based on the non-inventory item selected.
Due Date	Select the date the quantity is needed for the work order task.  The scheduled date for the work order task is the default value, which you can override.
On-Hand	Select this check box to identify that the resource that you are scheduling are currently on-hand. On-hand rows are not costed.

Field or Control	Description
Amount Only	Select this check box to procure resource items based on their total cost, not by quantity. Typically, this identification is used for less tangible resource items such as labor services.  After saving the Amount Only procurement item, you can select it for Load Requisition(s) or Load Purchase Order(s) processing.  This check box is enabled only if the following conditions are satisfied:  • The status of the work order is either New or Awaiting Schedule.  • Item ID and Description are specified.  • Item ID is designated for a Non-inventory type item on the Item Master table.  • On-hand check box is not selected.  • WO PO Staging status is New.
Item Status	Displays the status for the item. Item status indicates the overall lifecycle status and is derived from multiple status attributes.

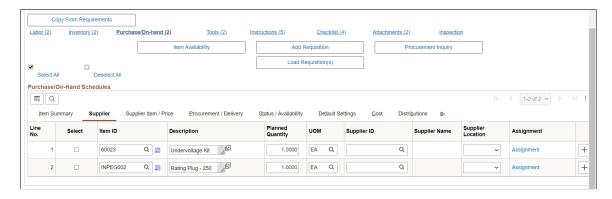
## **Purchase/On-Hand Schedules - Supplier Tab**

Use the Purchase/On-Hand Schedules - Supplier tab to enter supplier details for purchase and on-hand resources.

Navigation:

Maintenance Management > Work Order Management > Work Order > Schedules > Purchase/On-Hand link > Supplier Tab

This example illustrates the fields and controls on the Purchase/On-Hand Schedules - Supplier tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Supplier ID and Supplier Location	Select a supplier ID from which to purchase this resource. The default value for the <b>Supplier Location</b> field is based on the supplier selection.
	Note: These values are required for open description items where procurement option is 'Load PO,' but optional for a requisition.
Assignment	Click the link to access the Supplier Assignment page and enter primary, secondary, or tertiary suppliers for the item.

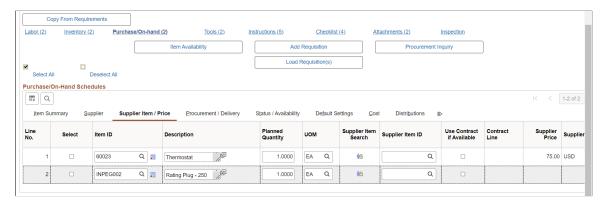
## Purchase/On-Hand Schedules - Supplier Item/Price Tab

Use the Purchase/On-Hand Schedules - Supplier Item / Price tab to specify supplier item data for both contract and non-contract procurement items.

Navigation:

Maintenance Management > Work Order Management > Work Order > Schedules > Purchase/On-Hand link > Supplier Item / Price Tab

This example illustrates the fields and controls on the Purchase/On-Hand Schedules – Supplier Item/Price Tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Supplier Item Search	Select the Get Supplier Item/Price icon to access the Supplier Item Search Page and search for contract and non-contract procurement items using supplier-related and item catalog search criteria.

Field or Control	Description
Supplier Item ID	Enter the supplier item ID (supplier part number) for the selected Supplier.
	You can only enter the supplier item ID when the Supplier ID is specified and a Supplier Item ID exists for the procurement item.
	This field is optional.
Use contract if available	Select this check box to indicate the contract can be referenced on the corresponding requisition or purchase order line item.
	This check box can be selected prior to using the Supplier Item Search, or after.
Contract Line	Select the link to access the Contract Line Summary page and view contract line details, such as Contract ID, item description, and base price.
	The link is visible only when a contract-related item is returned from the <u>Supplier Item Search Page</u> .
	When a contract-related item is returned, the contract line key values are passed to Purchasing when the item is loaded.
Supplier Price and Supplier Currency	Displays the supplier item unit price and currency that are returned from the Supplier Item Search.
	This information is used to calculate extended item cost on the <u>Purchase/On-Hand Schedules - Cost Tab</u> and is passed to Purchasing when the item is loaded.

**Note:** This tab is only available if the user has *Authorized to Procure* enabled on the "User Preferences - Maintenance Management Page" (Application Fundamentals) and permission list access to the Supplier Item Search component page.

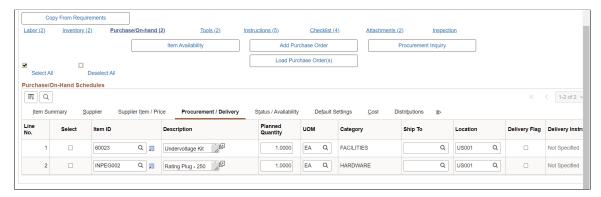
## Purchase/On-Hand Schedules - Procurement/Delivery Tab

Use the Purchase/On-Hand Schedules - Procurement/Delivery tab to enter buying and delivery details for purchase and on-hand resources.

Navigation:

Maintenance Management > Work Order Management > Work Order > Schedules > Purchase/On-Hand link > Procurement/Delivery Tab

This example illustrates the fields and controls on the Purchase/On-Hand Schedules - Procurement / Delivery tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Ship To	Select the location to which you want this item shipped.
Location	Select the location where the item will be used.  A default value may be displayed based on rules you define for the target asset.
Delivery Flag	Select this check box to enter delivery or handling instructions for the item.
Delivery Instructions	Click the link to access the Delivery Instructions page and enter or view delivery instructions for the item.  The link is available only when you select the <b>Delivery Flag</b> check box.
	Note: Delivery Instructions are for work order tracking purposes only. Instructions are not transferred to Purchasing requisitions or purchase orders when the item is loaded.

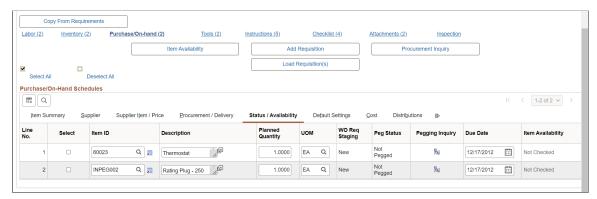
## Purchase/On-Hand Schedules - Status/Availability Tab

Use the Purchase/On-Hand Schedules - Status/Availability tab to review individual staging, pegging, and availability statuses for procurement resources.

Navigation:

Maintenance Management > Work Order Management > Work Order > Schedules > Purchase/On-Hand link > Status/Availability Tab

This example illustrates the fields and controls on the Purchase/On-Hand Schedules - Status/Availability tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
WO PO Staging (Work Order Purchase Order Staging) and WO Req Staging (Work Order Requisition Staging)	Displays the purchase order or requisition staging status, depending on the work order business unit procurement option selected. These statuses are owned by PeopleSoft Maintenance Management and are used to identify the loading progress and status of the item.
	The status values are:
	New: the default status when you add a new Purchase/On- Hand Schedules row is added to the work order task.
	Ready to Stage: displays when you select the Load Req or PO button for the selected rows.
	In Process: displays when you select the Load Req or PO button indicates that the selected rows have been staged, and the processing when you click the Save button has completed.
	This status signals that the selected rows are in the Req Load or PO Load process. You must run the Req Loader or PO Load processes to create the Requisition or PO.
	• <i>Complete</i> : displays when the staging process completes successfully and a Requisition or PO is created.
	The status can also display as <i>Complete</i> if the row was backward tied from a Requisition or PO to a work order.

Field or Control	Description
Peg Status	<ul> <li>Displays the pegging status. Values are:</li> <li>Open  Quantity is pegged to supply (Requisition, PO)</li> <li>Not Pegged  The quantity needed of the selected item is not pegged to supply (Requisition, PO).</li> <li>Completed  Scheduled PO rows for non-inventory items do not always require receiving. The PO carries an attribute that determines if receiving is required. If receiving is required, the peg status is set to Complete when the parts are fully received based on the PO's receipt process. If receiving is not required, then the peg status is set to Complete when the PO is closed.</li> <li>Canceled  This indicates that the requisition or the PO to which the work order is pegged has been canceled. It also can indicate that scheduled quantity of the work order has been decreased so that the quantity pegged was decreased to zero, and the work order row is not pegged to any other supply.</li> <li>Note: When you either add a purchase order or requisition in</li> </ul>
	PeopleSoft Purchasing and tie it to a work order, or you load the row to create a purchase order or requisition, the selected quantities are automatically pegged.
Pegging Inquiry	Review this inquiry to track the quantities pegged for this work order task. You can access this inquiry only after the row quantities are pegged.  Note: The Pegging Inquiry for Inventory and Purchase/On-
	Hand schedules are the same.

Field or Control	Description
Item Availability	Displays the availability of the item. The following values are possible:  • Yes, if the quantity is available.  • No link after you select the Item Availability button. Click the link to access the Item Availability page, which describes the reason(s) the item is not available.  • Not Checked, if you have not clicked the Item Availability button.  If you previously checked a row for Item Availability and you modify the Item, Planned Qty, Due Date, or UOM values, the Earliest Available Date, Item Availability, and Need Date Qty Available field values will be initialized to Not Checked.

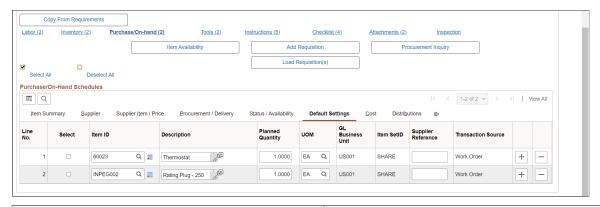
## Purchase/On-Hand Schedules - Default Settings Tab

Use the Purchase/On-Hand Schedules - Default Settings tab to review default business unit and supplier information for purchase and on-hand resources.

Navigation:

Maintenance Management > Work Order Management > Work Order > Schedules > Purchase/On-Hand link > Default Settings Tab

This example illustrates the fields and controls on the Purchase/On-Hand Schedules - Default Settings tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
GL Business Unit	Displays default value from the work order business unit.
Item SetID	Displays the SetID used to create the item in Items > Define Items and Attributes.

Field or Control	Description
Supplier Reference	Enter the supplier of the part.  This field is typically populated from an Equipment Parts List or task template.
Transaction Source	Identifies the source of the purchasing transaction and determines whether the transaction costs are Scheduled or Actuals. If a transaction source cost is Scheduled, the Total Scheduled Costs display on the Cost page of the work order. If a transaction source cost is Actuals, you must run the Cost Summarization process to view the Total Actual Costs on the Cost page of the work order.  If a transaction source is Actuals and is returned from a feeder application like inventory direct issue or purchase/on hand actuals like Pcard, or Voucher the Schedule qty (Inventory grid) and Planned Qty (Purchase/on-hand grid) with 0 (zero) is populated. A transaction source is used to isolate the costs in a work order from integration points.  The transaction source values that can appear in the field are:  • Purchase Requisition  Purchase Requisitions have a value of 04 and are considered scheduled.  • 05 = Purchase Order is considered Scheduled.  • 06 = Procurement Card is considered Actuals.  • Work Order  Note: For Purchase/On-Hand Schedules rows that are created from either a Pcard or Voucher, the value in the Planned
	Quantity field value will be zero, and the row will be disabled. The disabling of these rows prevents any changes and keeps the work order in sync with the feeder applications that created them.

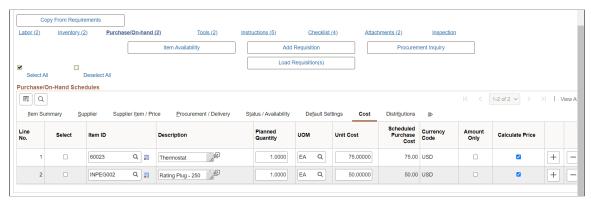
## **Purchase/On-Hand Schedules - Cost Tab**

Use the Purchase/On-Hand Schedules - Cost tab to review or modify cost details for purchase and on-hand resources.

Navigation:

Maintenance Management > Work Order Management > Work Order > Schedules > Purchase/On-Hand link > Cost Tab

This example illustrates the fields and controls on the Purchase/On-Hand Schedules - Cost tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Unit Cost	Enter the cost of this resource per unit for open descriptions items. Displays the item's purchasing attributes standard cost if defined for the item.
Scheduled Purchase Cost	The system multiplies the planned quantity times the unit cost to display the <b>Scheduled Purchase Cost</b> value.
Currency Code	Displays value set up in the work order business unit. No matter what currency is used in PeopleSoft Purchasing or PeopleSoft Payables, the amounts are converted back to the currency set up in the work order business unit before they are displayed in this row.
Amount Only	Select this check box to procure resource items based on their total cost. The Calculate Price check box is disabled after this selection. By default, the Procurement tab displays the Planned Quantity field value as 1.0 and the UOM field as EA.
	Note: If the Unit Cost is not specified for the Amount Only item, an error message is displayed when you try to save the work order.
Calculate Price	Select this check box to enable the PO Calculations process to calculate the cost of the item based on supplier and other rules. If deselected, the PO Calculations process uses the cost specified.
	See "Understanding the PO Calculations Process" (PeopleSoft Purchasing).

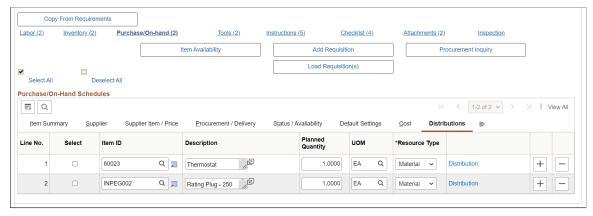
### Purchase/On-Hand Schedules - Distributions Tab

Use the Purchase/On-Hand Schedules - Distributions tab to review or modify distribution details for purchase and on-hand resources.

#### Navigation:

# Maintenance Management > Work Order Management > Work Order > Schedules > Purchase/On-Hand link > Distributions Tab

This example illustrates the fields and controls on the Purchase/On-Hand Schedules Distributions tab on Schedules page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Distribution	Click this link to display the distribution data for the specified row after an assignment has been made. You can override these fields, if necessary.
	Note: This link only displays if the Review and Update Accounting check box is selected on the User Preferences - Maintenance Management page for this user.
	For an Amount Only procurement item, the Distribute By drop down value is set to Amount by default. Whereas, for a non-amount only item, both Amount and Quantity will be listed.

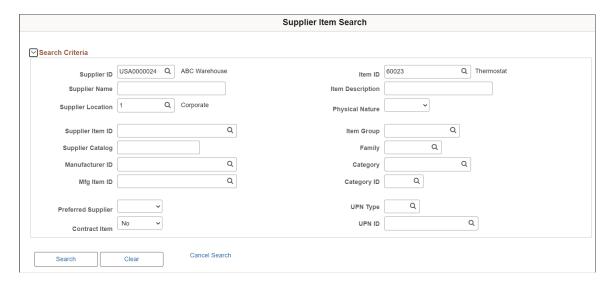
## **Supplier Item Search Page**

Use the Supplier Item Search page (WM\_VNDR\_ITEM\_SRCH) to search for contract and non-contract procurement items using supplier-related and item catalog search criteria.

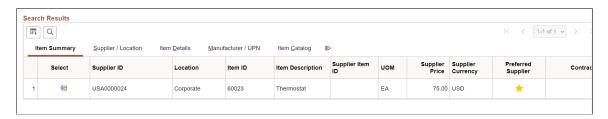
#### Navigation:

Select the Get Supplier Item/Price icon on the <u>Purchase/On-Hand Schedules – Supplier Item/Price Tab</u>.

This example illustrates the fields and controls on the Supplier Item Search page (1 of 2).



This example illustrates the fields and controls on the Supplier Item Search page (2 of 2).



Search for contract and non-contract procurement items using supplier-related and item catalog search criteria, such as **Supplier ID**, **Item ID**, **Supplier Catalog**, and **Category**. You can further narrow the search results by specifying whether the item is a contract item or if it is associated with a preferred supplier.

In addition, you can use the following special characters in your search:

- '%' = any character
- $\sim$  ' $\sim$ ' = blank
- '!' = negation

Use the **Select and Return Item** icon to choose an item from the search results and return to the Purchase/On-Hand Schedules – Supplier Item/Price Tab.

If you select a contract-related item, the work order uses the contract price instead of the item's standard price.

## Scheduling Tool Resources for a Work Order Task

This section describes how to assign and schedule tool resources for a work order task, define the Tool Schedules Assignments tab, define the Tool Schedules Details tab, define the Tool Schedules

Timetable tab, define the Tool Schedules Cost tab, define the Tool Schedules Distributions tab, and review messages.

## Pages Used to Schedule Tool Resources for a Work Order Task

Page Name	Definition Name	Usage
Schedules Page	WM_WO_TASK_SCHED	Enter resource schedules for work order tasks.
Asset Search	WM_ASSET_SRCH_SEC	Search for a tool in the asset repository.
Asset Monthly Schedule	RS_ASSET_MONTH	View an asset's monthly schedule and click a date to modify the details or access the asset's daily schedule.
Task Details	RS_ASSET_MONTH	View, update, or modify details about a work order's task's asset's monthly schedule, or access an asset's daily schedule.
Asset Daily Schedule	RS_ASSET_DAILY	View a work order task's asset's daily schedule, or click a time of day link to return to the Task Details page.

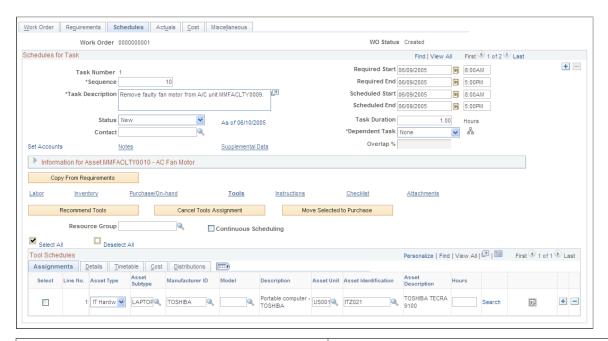
## **Schedules Page**

Use the Schedules page (WM\_WO\_TASK\_SCHED) to enter resource schedules for work order tasks.

Navigation:

Maintenance Management, Work Order Management, Work Order, select the Schedules tab

This example illustrates the fields and controls on the Schedules page - Tool Schedules grid. You can find definitions for the fields and controls later on this page.

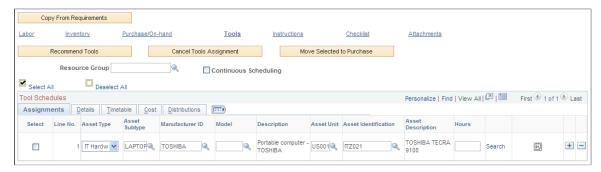


Field or Control	Description
Recommend Tools	Select a resource group ID, if set up, and click the <b>Recommend Resource</b> button to run the Resource Match engine, which recommends resources that meet the tools requirements based on availability.
Cancel Tools Assignment	Select one or more appropriate tools resource rows and then select this button to cancel the tool assignment.
Move Selected to Purchase	Click this button to move selected tool rows that need to be purchased to the Purchase/On-Hand grid. The rows are removed from the Tools Schedules grid.
Resource Group	Select a tools resource group to narrow your search when you select the <b>Recommend Tools</b> button.
Continuous Scheduling	Click this check box to indicate to the Resource Matching process that you only want to search for tools that are available for a continuous block of time.

## Tool Schedules - Assignments tab — Schedules Page

Select the Tool Schedules - Assignments tab on the Schedules page.

This example illustrates the fields and controls on the Schedules page - Tools Schedules Assignments tab. You can find definitions for the fields and controls later on this page.



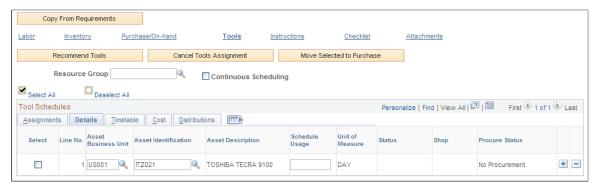
Field or Control	Description
or V	Displays either an error icon or a warning icon for a selected tool line, if there is a problem with your selection. A warning or error triggers the display of the Message tab.
Asset Type, Asset Subtype, Manufacturing ID, and Model	Select these values for a tool manually or copy the requirements from the task and then click the <b>Recommend Tools</b> button to determine the availability of the tools in PeopleSoft Asset Management's asset repository based on running the Resource Match engine.
Asset Business Unit	Displays default value from the Asset Management business unit in the work order task or work order. You can override this value. This is also used by the Match Engine to calculate the qualification fit score for the recommended tools.
Asset Identification	Select a specific asset ID, Tag Number, Serial ID, or Vehicle ID Number (depending on the setup if the work order business unit) if you are manually selecting a tool for this task.
Hours	Enter the specific number of hours that you plan to use the tool, which updates the tool's schedule.
Search	Click this link to access the Asset Search page and search for a tool based on the availability of the resource.
	Click this icon to access the Asset Monthly Calendar. This calendar identifies when this tool is not available and is considered when the Resource Match Engine or Asset Search is run.

See <u>Understanding Labor and Tools Resource Setup and Maintenance</u>.

## Tool Schedules - Details tab — Schedules Page

Select the Tool Schedules - Details tab on the Schedules page.

This example illustrates the fields and controls on the Schedules page - Tool Schedules Details tab. You can find definitions for the fields and controls later on this page.

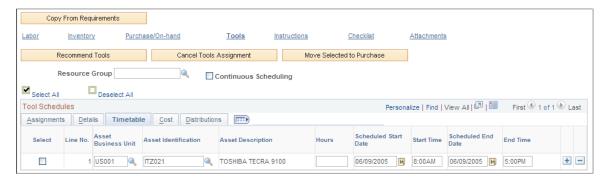


Field or Control	Description
Scheduled Usage	Enter the usage dictated by the terms for renting or obtaining the tools. For example, a truck may rent for \$20.00/day, therefore, you enter 1 day. The default value for the unit of measure (UOM) is derived either from tool rates set up in the shop or from the Asset Subtype definition. If a default value does not appear in the field, you can select a UOM value.
Status	Displays the assignment status for the tool as:  • Assigned  • Canceled  • Complete
Overbook Flag	Select this check box to allow the overbooking of a resource.  Leave this check box blank if you do not want to allow overbooking for this resource.  Important! This option displays only if you clicked the Require Manual Override button in the shop associated with this work order.
Procure Status	Indicates the status of a tool that is being procured if you clicked the <b>Move Selected to Purchase</b> button. If the tool does not need to be procured, the default status is <i>No Procurement</i> .

## Tool Schedules - Timetable tab — Schedules Page

Select the Tool Schedules - Timetable tab on the Schedules page.

This example illustrates the fields and controls on the Schedules page - Tool Schedules Timetable tab. You can find definitions for the fields and controls later on this page.

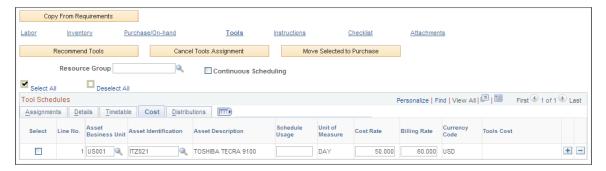


Field or Control	Description
Scheduled Start Date, Start Time, Scheduled End Date, and End Time	Enter the dates and times to use this tool for the work order task. Default values derived from the scheduled dates and times for the work order task. These dates and times cannot exceed the scheduled dates and times of the work order task.

## Tool Schedules - Cost tab — Schedules Page

Select the Tool Schedules - Cost tab on the Schedules page.

This example illustrates the fields and controls on the Schedules page - Tool Schedules Cost tab. You can find definitions for the fields and controls later on this page.

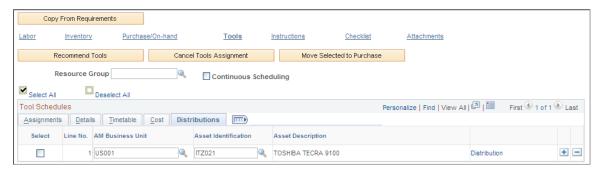


Field or Control	Description
Cost Rate and Billing Rate	Displays rates set up in the shop's Tools page and multiplies them times the scheduled usage to obtain the total cost for using the tools.
Tools Cost	Save the page after entering or accepting the values of the Cost Rate and Billing Rate and the system performs the cost calculations and generates the Tool Cost value.

### Tool Schedules - Distributions tab — Schedules Page

Select the Tool Schedules - Distributions tab on the Schedules page.

This example illustrates the fields and controls on the Schedules page - Tool Schedules Distributions tab. You can find definitions for the fields and controls later on this page.

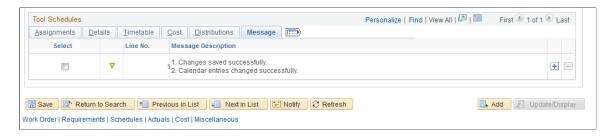


Field or Control	Description
Distributions	Click this link to access the distribution data specified for the row after an assignment has been made. You can override these values, if necessary.
	Note: This link only displays if the View and Update Accounting check box is selected on the User Preferences - Maintenance Management page for this user.

## Tool Schedules - Message tab — Schedules Page

Select the Tool Schedules - Message tab on the Schedules page.

This example illustrates the fields and controls on the Schedules page - Tool Schedules Message tab. You can find definitions for the fields and controls later on this page.



**Important!** This tab only displays if a warning or error icon displays for a selected tool.

Field or Control	Description
Line No. (line number)	Indicates the task line number on which the error or warning occurred.

Field or Control	Description
Message Description	Describes the reason why the warning or error occurred for the line.

## Managing Schedules Using the Work Order Workbench

This section describes how to use the Work Order Workbench, create a work order task search view, use the Task Overview tab in the Work Order Workbench, use the Schedules tab in the Work Order Workbench, use the Asset Information tab in the Work Order Workbench, and use the Full Description tab in the Work Order Workbench.

### Pages Used to Manage Schedules Using the Work Order Workbench

Page Name	Definition Name	Usage
Work Order Workbench Page	WM_WOTSK_WORKBENCH	Search for a work order task assigned to a specific scheduler on the work order's Requirements page.
Work Order Workbench - Task Search Page	WM_TSK_SRCH_SEC	Create a set of search criteria for work order tasks and save it as a view.
Work Order	WM_WO_HDR	Access the work order for a task to update, assign, and schedule the task.
Work Order Task Descriptions	WM_WO_TSK_DESC_SEC	Display a description of a task.
Asset Information	WM_WO_ASSET_SEC	Review task's asset information.
Work Order Task Notes	WM_TSK_NOTES	Add or review task notes and note history.
ESRI Map	ESRI_MAP_PG	Locates each work order task on an ESRI map.

## Work Order Workbench Page

Use the (Scheduler's Name) Workbench page (WM\_WOTSK\_WORKBENCH) to search for a work order task assigned to a specific scheduler on the work order's Requirements page.

Navigation:

Maintenance Management > Work Order Management > Workbenches > Work Order Workbench

This example illustrates the fields and controls on the Work Order Workbench - Search page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Use View	Select a view that you saved using the <b>View</b> button and click <b>Search</b> to display the work order tasks. This eliminates having to specify search parameters every time you use the workbench.
View	Click this button to access the Task Search page and enter search parameters to perform a search for one or more work order tasks. You can save the search parameters in the Task Search page to use again.

Field or Control	Description
Search group box	Select basic search criteria from these options and click the Search button to list work order tasks in the workbench:
	• Scheduler
	Asset Business Unit
	Business Unit
	• Asset ID
	Work Order ID
	• Required Start From:
	and To:
	• Priority
	Required End From: and To:
	Task Status
	• Show Entries
	Enter the number of rows that you want to appear on the page.
	• WO Description
	Enter a description of the work order. When you click the Search button, the system will search for any tasks associated with this work order description.
	<b>Note:</b> This description field is not case sensitive. For example, if you enter the word <i>tire</i> in the field, the syste will search for all work order descriptions that have the word "tire" in their description and list the tasks associated with those work orders.
	• Asset Description
	Enter a description of the asset. When you click the Search button, the system will search for any tasks associated with an asset with this asset description.
	This description field is not case sensitive. For example you enter the word <i>tire</i> in the field, the system will sear for all asset descriptions that have the word "tire" in the description and list the tasks associated with those asset
	• Task Description
	Enter a description of a work order task, When you click the search button, the system will search for tasks associated with this description.
	This description field is not case sensitive. For example if you enter the word <i>tire</i> in the field, the system will search for all task descriptions that have the word "tire"

Field or Control	Description
	in their description and list the tasks associated with those descriptions.

#### **Basic Search for Work Order Tasks**

You can also enter basic search criteria in the Search group box of the Work Order Workbench and click the **Search** button in the group box to list the tasks in the workbench based on the selected criteria.

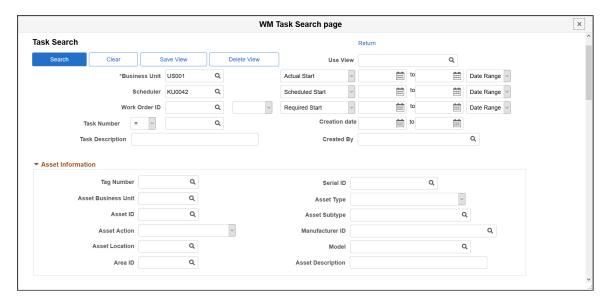
## Work Order Workbench - Task Search Page

Use the Work Order Workbench - Task Search page (WM\_TSK\_SRCH\_SEC) to create a set of search criteria for work order tasks and save it as a view.

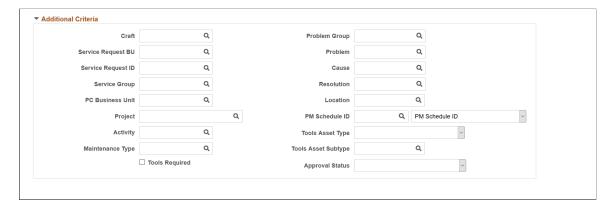
Navigation:

Click the View button on the Work Order Workbench page.

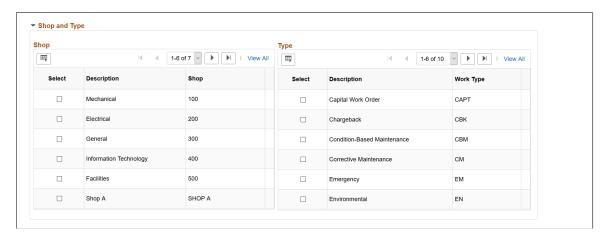
This example illustrates the fields and controls on the Work Order Workbench - Task Search page. You can find definitions for the fields and controls later on this page.



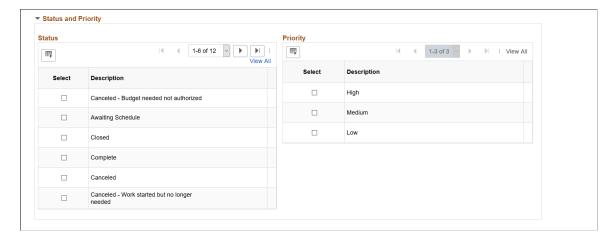
This example illustrates the fields and controls on the Work Order Workbench - Task Search page. You can find definitions for the fields and controls later on this page.



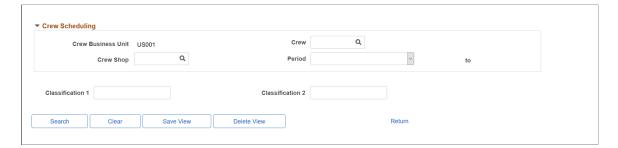
This example illustrates the fields and controls on the Work Order Workbench - Task Search page. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Work Order Workbench - Task Search page. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Work Order Workbench - Task Search page. You can find definitions for the fields and controls later on this page.



You select or enter the search criteria for a view. You can set up numerous views, which reduces the amount of time it takes to locate work orders and work order tasks having specific characteristics.

Field or Control	Description
Use View	Enter a name for the view that you want to save, after selecting the search criteria on the page. If you access this page by selecting a previously saved view on the Work Order Workbench Search page, then that view's name appears in this field.
Save View	Click this button to save the search criteria entered on this page. You must first enter a name for the view in the <b>Use View</b> field.
Business Unit	Override the default work order business unit, if necessary. Select or enter information in any of the remaining fields to narrow your search for work order tasks.
	Note: Business Unit is not required for searches.
Actual Start	Select the date the task actually started or the work order task's actual start date.
	Note: This search goes against the actual task start date on the Work Order Workbench and Work Progress tracking.  However, on the Technician Workbench Search page, this date refers to the date the scheduled labor line's actual start date.
Scheduled Start and Scheduled End	Select either the scheduled start date for the task or the scheduled end date for the task.
	Note: This search goes against the scheduled task start or end dates on the Work Order Workbench and Work Progress tracking. However, on the Technician Workbench Search page, this date refers to the labor line's (task row) scheduled start or end date.

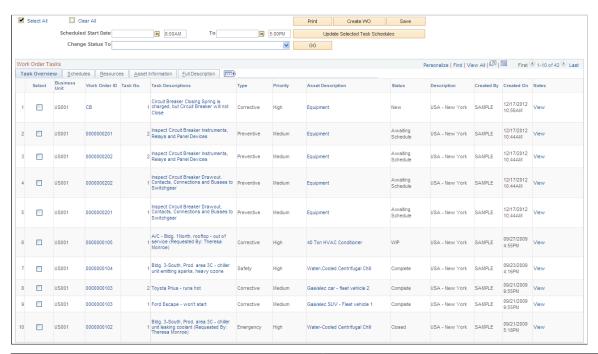
Field or Control	Description
Crew Scheduling	Select a specific <b>Crew</b> , <b>Shop</b> , and <b>Schedule Period</b> to narrow your search to only work order tasks whose requirements are assigned to the specified crew and schedule period.
Classification 1:	The classification fields appear based on supplemental data that can be set up for a work order task.
Search	Click this button to search for the work order tasks that meet the selected criteria on the Task Search page.

### Task Overview tab - Work Order Workbench Page

Navigation:

Select the Task Overview tab on the Work Order Workbench page

This example illustrates the fields and controls on the Work Order Workbench page - Task Overview tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Select All	Click this check box to indicate that you want to select all of the listed work order tasks listed in the workbench to print.
Clear All	Click this button to unselect all of the work order tasks listed in the workbench.

Field or Control	Description
Print	Click this button to access the Work Order Task Detail Report options. You select print reports for the selected tasks, which include:
	Labor Assignment Report
	Material Assignment Report
	Purchase/On-Hand Report
	Tool Assignment Report
	• Instruction Report
	Checklist Report
	Work Order Notes Report
	Work Order Task Notes Report
	• Equipment Parts List Report
	Note: You can also click the Bar Code check box to include bar codes on the reports to enable bar code scanning.
Change Status To	Select one or more tasks for which you want to transition the status, select the target status, and select the <b>Go</b> button.
Map Selected Tasks	Select the tasks in the Work Order Tasks grid that you want to locate on an ESRI map and click the Map Selected Tasks button to view the task locations on a map. Each task marker on the map contains the following information about the task:
	Work order business unit, which appears as part of the map marker.
	Work order ID, which appears as part of the map marker.
	Work order task ID, which appears as part of the map marker.
	Description
	Service Group
	• Priority
	Work order type secondary page.
	Task status
Create Work Order	Click this button to access the Work Order search page, where you can add a new work order.

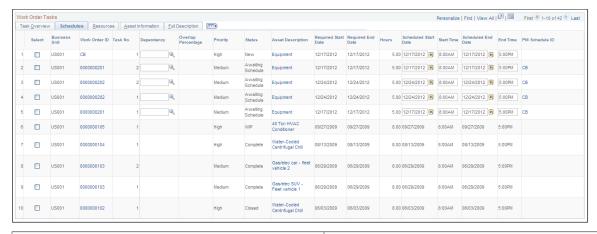
Field or Control	Description
Save	Click this button to save any changes to the Work Order Workbench.
Work Order ID	Click this link to access the actual work order.
Task Descriptions	Click this link to review a description of the task.
Asset Descriptions	Click this link to access the Asset Information page and review basic information about the target asset being repaired or maintained in the task.
Notes	Click the <i>View</i> link to review any existing notes for this work order task, to add a new note, and to select different notes by checking the blank check box next to the <b>Subject</b> field to send to a scheduler or service request requester.

## Schedules tab — Work Order Workbench Page

Navigation:

Select the Schedules tab on the Work Order Workbench page

This example illustrates the fields and controls on the Work Order Workbench page - Schedules tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Required Start Date and Required End Date	Displays required dates specified in the work order.

Field or Control	Description
Scheduled Start Date and Start Time	Modify the scheduled start date and time as necessary for each task. Validations of these schedule dates and times occur when the page is saved. The validations that take place for these fields on the Schedules page of the work order are also enforced on the Work Order Workbench.
Scheduled End Data and End Time	Modify the scheduled end date and time as necessary.

## Resources tab — Work Order Workbench Page

Navigation:

Select the **Resources tab** on the Work Order Workbench page.

This example illustrates the fields and controls on the Work Order Workbench page - Resources tab. You can find definitions for the fields and controls later on this page.



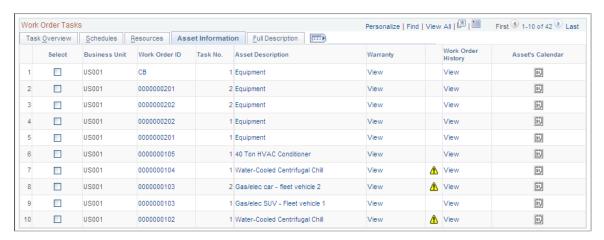
Field or Control	Description
Labor	Click the link to access the <b>Labor Schedules</b> grid on the work order's Schedules page, where you can modify the schedule depending on the status of the work order.  Displays <i>Yes</i> if labor resources are scheduled for this task and <i>No</i> if labor resources are not scheduled for this task.
Tools	Click the link to access the <b>Tool Schedules</b> grid on the work order's Schedules page, where you can modify the schedule depending on the status of the work order.  Displays <i>Yes</i> if tool resources are scheduled for this task and <i>No</i> if tool resources are not scheduled for this task.
Inventory	Click the link to access the <b>Inventory Schedules</b> grid on the work order's Schedules page, where you can modify the schedule depending on the status of the work order.  Displays <i>Yes</i> if inventory resources are scheduled for this task and <i>No</i> if inventory resources are not scheduled for this task.
Purchase/On-Hand	Click the link to access the <b>Purchase/On-Hand Schedules</b> grid on the work order's Schedules page, where you can modify the schedule depending on the status of the work order.  Displays <i>Yes</i> if Purchase/On-Hand resources are scheduled for this task and <i>No</i> if Purchase/On-Hand resources are not scheduled for this task.

## Asset Information tab — Work Order Workbench Page

Navigation:

Select the **Asset Information** tab on the Work Order Workbench page.

This example illustrates the fields and controls on the Work Order Workbench - Asset Information tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Warranty	Click this link to view or add warranty information for the work order task's asset on the Asset Warranties page.
<u>^</u>	Click this icon to access active warranties associated with this asset. This icon will only display if there are warranties associated with the asset.
	Displays this icon if the asset being maintained is categorized as hazardous.
Work Order History	Click this link to access the Work Order Task History page for this asset. You can override the asset ID on the page and search for and display the task history for a different asset.
Asset's Calendar	Click this link to access the Asset Monthly Schedule page, where you can review existing commitments for the asset.

## Full Description tab — Work Order Workbench

Navigation:

Click the Full Description tab on the Work Order Workbench

Field or Control	Description
Work Order Description	Displays the full description that was entered on each work order.
Task Description	Displays the full description that was entered for each work order task.

# **Performing Crew Scheduling**

## **Understanding Crew Scheduling**

This section discusses:

- · Crew scheduling.
- Crew scheduling setup requirements.
- The crew scheduling process.

### **Crew Scheduling**

Many maintenance organizations and organizations that perform large capital projects prefer to schedule crews for work orders in specific periods rather than to schedule individual labor resources. Schedulers must be able to determine the availability and capacity of a crew to appropriately allocate its resources to specific work order tasks. After scheduling crews to work orders, organizations need to measure and analyze statistics about each crew's compliance with the schedule in order to plan realistically for future periods.

To perform the overall crew scheduling process, users:

- Set up for crew scheduling.
- Plan crew capacity.
- Schedule crews and distribute reports.
- Assign crew and individual technicians to work orders.
- Capture schedule compliance statistics.

## **Crew Scheduling Setup Requirements**

Before you can schedule a crew, you must set up:

• User preferences

Select options on the Maintenance Management page to enable specific users to perform activities related to crew scheduling.

See "User Preferences - Maintenance Management Page" (Application Fundamentals).

Employee and labor resources

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All resources, including crew members, identified in a shop must be set up as a resource in PeopleSoft Maintenance Management. Users must follow all the setup requirements for employees, including setting up a resource schedule for each resource.

See Setting Up Labor and Tools Resources

**Important!** Be sure to run the Set Up Financials/Supply Chain, Common Definitions, Resource Search, Cache Administration process to ensure that any new resources are made available for scheduling.

See Resource Cache Administration.

#### Crafts

You must set up crafts before you set up crews. Crew members are set up based on their primary craft, and they are scheduled by craft.

See <u>Define Crafts Page</u>.

#### Shifts

You must set up shifts and assign a shift to each resource who is assigned to a crew.

Schedule patterns and periods

Crews are normally scheduled for specific time periods, which are created based on a pattern of time, such as daily, weekly, biweekly, and monthly. To plan crew capacity for a specific period, you must identify a schedule pattern, such as weekly, generate a series of schedule periods based on a period start date, and assign a schedule pattern and period to the crew.

See Understanding Shifts, Schedule Patterns and Periods, Shops, and Crews.

#### Shops

Each crew belongs to only one shop. Each crew member is identified as a resource in the shop. You must identify a shop when you set up a crew, which means that you must set up your shops before you set up your crews. When you assign a crew to a shop, the crew is updated in the shop.

#### Crews

You set up a crew for a specific business unit and shop, and associate it with a schedule pattern. You also identify the crew members and the percentage of time each can work on this crew.

Crew rescheduling reason codes

When you reschedule a crew, you need to identify the reason for the rescheduling.

See <u>Understanding Shifts</u>, <u>Schedule Patterns and Periods</u>, <u>Shops</u>, <u>and Crews</u>.

## **Crew Scheduling Process**

The crew scheduling process includes:

Setting up crew data.

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- Creating work orders and work order task requirements.
- Creating a crew capacity plan.
- Using the Crew Scheduling Workbench to schedule crews and update the schedule metrics. Crews are scheduled to work order task labor requirement lines based on the crew capacity plan.
- Using the Labor Assignment Workbench to assign crew members and individual technicians to the work order task labor schedule lines.
- Reviewing and analyzing the crew schedule metrics, reports, and the rescheduling history.
- Reporting time for each labor resource and for the crew.

#### **Creating Work Orders and Work Order Task Requirements**

Use one of these methods to create work orders and work order requirements that use crews:

- Create a work order using the Work Order component.
  - When you create a work order, if crew scheduling is enabled for the shop associated with the work order, then the primary crew of the shop appears as the default preferred crew on the work order task. Alternatively, if you selected an asset that has a shop and crew associated with it, this crew is provided by default as the preferred crew.
- Set up a Preventive Maintenance (PM) schedule and use the Preventive Maintenance process to generate work orders that use crews.

Regardless of the method by which the work order is created, you must access the Work Order component to define the task requirements for the work orders to which you intend to schedule a crew. If you selected the **Schedule Crew** check box on the Shop Information page and associated a crew with the shop, then the system assigns the shop's primary crew, which is defined as the default preferred crew on the work order task. You can override this crew with another crew and override the shop for the task, if necessary. If the asset identified on the work order task has its own preferred crew specified in the asset definition, then the system assigns this crew (not the shop's primary crew) to the work order task by default. However, the crew associated with the asset must belong to the shop associated with the work order for this override to occur.

The **Labor Requirements** grid has a Crew Assignments tab and a Crew Timetable tab. You add the requirement rows based on each craft for each task in the work order. The craft, quantity, and hours that you enter as requirement rows appear on the Crew Assignment and Crew Timetable tabs. The system does not update remaining fields on these grids; instead, you schedule the crews on the Crew Scheduling Workbench. When you access the Crew Scheduling Workbench and search for the labor requirement rows associated with the crew specified in the work order, these rows are listed in the Crew Scheduling Workbench for that crew.

### **Crew Capacity Plan**

You create a crew capacity plan to determine the total capacity of a crew and the capacity of each craft associated with the crew along with the potential cost and revenue amounts that will be generated by the craft for a future scheduled period.

Initially, the crew capacity plan displays the total base capacity and adjusted capacity values for the entire crew and the base capacity and adjusted capacity for each craft defined for the crew. The system derives the base capacity from the shift associated with the crew members, and it derives the adjusted capacity

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from the calendar of the crew members stored in the resource availability cache. The crew supervisor updates the adjusted capacity figures based on information that the crew members provide as to why they will not be available for as many hours as their shift suggests. This information provides the scheduler with an accurate baseline capacity to use when scheduling the next period using the Crew Scheduling Workbench. The crew capacity plan is the foundation for calculating the values that appear in the capacity grid on the Crew Scheduling Workbench. When you create a crew capacity plan for a period, this capacity information appears in the Crew Scheduling Workbench for that period, with additional fields that are updated based on the creation of crew schedules.

See Perform Crew Capacity Planning

**Important!** Oracle recommends running the cache administration process once a day and every time you add new resources or change resource shifts.

See <u>Understanding Crew Capacity Planning</u>.

#### **Crew Scheduling Workbench**

The Crew Scheduling Workbench enables a scheduler to avoid the burden of scheduling each individual technician by scheduling entire crews based on their availability by craft to work on tasks in specific periods. Scheduling crews in this way also establishes the schedule metrics by crew and craft, which can be used for future completion analysis. After completing the crew scheduling for a period, the craft supervisor can access the Labor Assignment Workbench to assign crew members, as well as non-crew members, to the scheduled work order tasks.

The Crew Schedule Workbench enables you to:

- Display a crew's capacity plan by craft.
- Schedule crews to multiple work orders for a period.
- Search for unscheduled work.
- Search for and schedule crew carryover work.
- Access preventive maintenance projections.
- Access labor, inventory, purchase/on-hand, and tool resources defined for work orders to determine the resources that are defined for each work order task.
- Cancel and reschedule work.
- Enter reason codes and descriptions of rescheduled work.
- Freeze (confirm) the schedule and save any updates applicable to the crew schedule metrics.

See <u>Crew Scheduling Process</u>.

#### **Labor Assignment Workbench**

Once you schedule a crew to work order tasks for a specific period on the Crew Scheduling Workbench and you create the labor schedules in the work order, you can use the Labor Assignment Workbench to assign each crew member to the scheduled tasks. When you search for work order tasks for a specific crew and period in the Labor Assignment Workbench, the system displays all of the labor schedule rows that were scheduled to the crew for the period in the Crew Scheduling Workbench. You can also display

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and assign non-crew scheduled labor schedule rows in the Labor Assignment Workbench and make labor assignments.

When you access the Labor Assignment Workbench, a resource availability grid displays the availability and load of each crew member for each day of the schedule period. If labor schedule rows exist for this crew, they display below the **Availability** grid. When you assign employees to the labor schedule rows or change the schedule dates or hours in the rows, the **Availability** grid is automatically updated. When you save the Labor Assignment Workbench page, the system updates the labor schedule rows in the work orders and updates the resource calendar with the new assignments.

Use the Labor Assignment Workbench to:

- Assign individual crew resources to the crew scheduled tasks.
- Assign individual non-crew resources to scheduled work order tasks.
- Review the available hours of individual resources.
- Reschedule work to a different resource, regardless of the resource's primary craft.
- Search, select, and display work order labor schedules by period.
- Cancel resource assignments.
- Search for labor resources and display their capacity, load, and tasks assigned each day.

See <u>Understanding the Labor Assignment Workbench</u>.

#### **Crew Schedule Metrics and Reports**

Crew schedule metrics are generated based on activities performed in the Crew Scheduling Workbench. Schedulers can use these values to determine how well the crews complied with the schedule for the scheduling period. These metrics assist the scheduler in determining a more accurate target load percentage, which is the target value used to reduce the expected availability of the crew to allow for unscheduled events for future periods.

Schedulers can update the adjusted completed schedule hours and the adjusted completed hours within the Crew Schedule Metrics component. They can also view graphic representations of the overall schedule completion data and the schedule completion by craft data.

In addition to the crew schedule metrics, you can also obtain the Schedule Completion report, which describes how well the crews comply with the schedule for the period. This report enables you to determine:

- Unscheduled and emergency work that was completed within a period.
- Completed scheduled work.
- Scheduled work that was not completed and becomes carryover work.

These Crew Schedule reports are also available:

Crew Capacity report

This report describes the crew's base capacity, adjusted capacity, target load percentage, and schedule compliance percentage by lead craft for a specified schedule period.

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Schedule and Assignment report

This report describes the workload by craft within each crew and, when you select the **Include Detail** option, it provides information about the employees assigned to each task.

Crew Unscheduled Work report

This report lists all of the work order tasks that are currently not scheduled by crew.

• Crew Carryover Work report

This report describes the work order tasks that were crew scheduled in a previous period but are not yet completed. These tasks must be rescheduled by carrying the hours over to the next period.

See <u>Using Crew Schedule Metrics</u>.

## **Performing Crew Capacity Planning**

This section presents an overview of crew capacity planning and discusses how to plan crew capacity and create a crew capacity chart.

### Page Used to Perform Crew Capacity Planning

Page Name	Definition Name	Usage
Crew Capacity Page	WM_CREW_CAPACITY	Define and update a crew capacity plan.

## **Understanding Crew Capacity Planning**

PeopleSoft Maintenance Management enables craft supervisors to plan crew capacity for a future scheduling period. They select a crew associated with a business unit and shop, select a future period, and the system calculates total values for the base capacity and adjusted capacity for the crew. The craft supervisor modifies the adjusted capacity values for each craft based on their personal experience and knowledge, which updates the totals. When a scheduler schedules a crew to one or more work orders on the Crew Scheduling Workbench, the crew capacity plan for that crew is updated based on the new crew assignments.

To determine crew capacity, you must set up a schedule pattern and generate schedule periods based on this pattern. Once a crew capacity is tied to the pattern, the user can add new periods with the initial period start date. Typically, the craft supervisor updates each resource's schedule with meetings, appointments, vacation, and more. The system acknowledges these commitments when determining crew availability and capacity. The accuracy of the crew availability and capacity depends upon whether you maintain each resource's calendar and routinely update the resource availability cache record.

Effective dates are important in determining crew capacity. Each resource is assigned to a shop as of an effective date. The crew definition is effective-dated, the shop is effective-dated, and the schedule pattern set up for the crew is based on a date range. If you create a resource on a date falling after the effective date of the crew, the system adds the resource to the shop but it will not add the resource to the crew. For example, if the effective date on the Define Crew page is 3/04/06 and you create an additional resource

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and associate it with the shop on 3/5/06, then you cannot add this resource to the crew without changing either the effective date of the crew or the effective date of resource's association with the shop.

You create a crew capacity plan for a crew based on a specific schedule period, which is generated from the crew's schedule pattern. The schedule pattern defined in the Crew Definition component is effective-dated, which means that the schedule pattern of a crew might change over time. Therefore, when adding a new crew capacity plan, the system must ensure that only valid schedule periods are used to create the new crew capacity plans. Valid schedule periods are the current and future periods that are valid for the crew schedule pattern as of the start date of the period. When you create a new crew capacity plan, the system calculates specific plan elements, which include:

#### • Base capacity

Base capacity is the crew's calculated total available hours based on the crew resources' weekly shift hours and their capacity allocation percentages in that crew. A crew's total base capacity in hours is the sum of the base capacity calculation for each craft, which appears on the Crew Craft Capacity - Details tab of the Crew Capacity page.

Base Capacity (hours) = Total hours in a crew member's assigned shift \* Crew member's capacity %

You assign a capacity percentage to each crew member on the Define Crew page. This percentage represents the time allocated for each crew member to work on a specific crew.

**Note:** The base capacity does not take holidays into account. For example, the base capacity of the resource for the week of July 4 holiday (07/02/06 through 07/08/06) will be 40 hours, assuming an 8-hour day, Monday through Friday shift. The base capacity *will not* consider 07/04/06 as a holiday.

This table describes John Clark's time allocation to different crews:

Shop	Crew	Capacity %
Shop A	Crew 1	25
Shop B	Crew 2	25
Shop A	Crew 3	50

Crew members must be listed as resources in the shop associated with their crew. Each resource assigned to a shop is associated with a shift, as shown by this table:

Crew Member/Craft	Shift	% Capacity for Crew 1	Biweekly Base Capacity (hours)	Total Base Capacity/Craft (hours)
#1 Electrician	L1 = 8 hour/day, 5 days/week, 40 hours/ week.	100	80.00	80.00

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Crew Member/Craft	Shift	% Capacity for Crew 1	Biweekly Base Capacity (hours)	Total Base Capacity/Craft (hours)
#2 Electrician	L1 = 8 hour/day, 5 days/week, 40.00 hours/week.	50	40.00	120.00
#3 Mechanic	L1 = 8 hour/day, 5 days/week, 40 hours/ week.	100	80.00	80.00
Crew 1 Total Base Capacity				200.00

#### Adjusted capacity (hours, days, headcount)

Adjusted capacity = Base capacity – All commitments (meetings and so on) on the resource's calendar.

The system initially calculates the adjusted capacity for each craft in hours, days, and head count.

The total adjusted capacity amounts that appear for the crew equal the sum of the craft values.

Schedulers can adjust the values in adjusted capacity fields for each craft based on their knowledge of any external circumstances affecting each crew member. The system recalculates total adjustment values for the crew based on any changes to these values that the scheduler enters.

The accuracy of these calculations depends on the timely management of a resources schedule, as well as the timeliness of the PeopleSoft Resource Management Availability Cache Record.

**Note:** The adjusted capacity *takes holidays into account* as long as the cache record is updated correctly based on the setup for scheduled holidays. For example, the adjusted capacity of the resource for the week of the July 4 holiday (07/02/06 through 07/08/06) will be 32 hours, assuming an 8-hour day, Monday through Friday shift. The adjusted capacity *will* consider 07/04/06 as a holiday, as long as the cache is updated.

#### Adjusted capacity (hours)

Adjusted capacity (hours) = Base capacity – Assigned hours for meetings, appointments, and more in a resource's schedule during the designated period

Adjusted capacity (hours) initially appeared on the Crew Craft Capacity - Details tab.

#### For example:

The resource schedule for crew member #1 in the previous example indicated one day (8 hours) for vacation, and no additional assignments were scheduled for crew member #2.

The adjusted capacity in hours for the craft Electrician is 120.00 hours - 8.00 hours = 112.00 hours.

Crew member #3 has a 4-hour appointment scheduled.

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The adjusted capacity in hours for the craft Mechanic is 80.00 hours - 4.00 hours = 76.00 hours.

The total adjusted capacity in hours for the entire crew equals the adjusted capacity hours for Electricians (112.00 hours) + the adjusted capacity hours for Mechanics (76.00 hours) = 188.00 hours.

#### • Adjusted capacity (days)

The adjusted capacity in days for each craft is the adjusted capacity in hours divided by the standard hours per workday as defined in the shop.

#### For example:

The adjusted capacity in days for an Electrician = 112.00 (the adjusted capacity in hours) / 8.00 hours (the standard hours per workday defined in shop) = 14.00 days for Electricians.

Mechanics = 76.00 hours / 8.00 hours = 9.50 days

The total adjusted capacity in days for the crew is Electrician (14.00 days) + Mechanic (9.50 days) = 23.50 days.

#### Adjusted capacity (head count)

The adjusted capacity based on headcount equals the craft's adjusted capacity days divided by the number of work days in the scheduled period.

#### For example:

For an Electrician, 14.00 days (adjusted capacity days for an Electrician) / 14.00 days (the number of work days in the schedule period) = 1.00 Adjusted capacity headcount for an Electrician.

For a Mechanic = 9.50 days / 14.00 days = .68 Adjusted headcount for a Mechanic.

The total adjusted capacity based on headcount for the crew is Craft 1 (Electrician) headcount (1.00) + Craft 2 (Mechanic) headcount (.68) = 1.68 headcount total adjusted capacity for the crew.

#### Total cost

Total cost for each craft = Adjusted capacity in hours \* Hourly cost rate.

The default hourly cost rate on the Crew Craft Capacity - Potential Cost Revenue tab is derived first from an hourly cost rate set up for the craft entered on the Craft Rates page of the Shop, or the value is derived from the generic labor cost rate specified in the shop or work order business unit.

#### For example:

The total cost for Electricians = 112.00 (The adjusted capacity in hours) \* 150.00 USD Hourly cost rate) = 16,800.00 USD

Because the rate for Mechanics is not specified on the Craft Rates page of the shop: 76.00 hours. (Adjusted capacity in hours) \* 100.00 USD (The default labor cost rate from the business unit) = 7,600.00 USD total cost for Mechanics.

Total cost is the sum of each craft's total cost or 16,800.00 USD + 7,600.00 USD = 24,400.00 USD

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#### • Total potential revenue

Total potential revenue for each craft = Adjusted capacity in hours \* Hourly bill rate)

The default hourly bill rate on the Crew Craft Capacity - Potential Cost Revenue tab is derived first from an hourly bill rate set up for the craft entered on the Craft Rates page of the Shop, or the value is derived from the generic labor bill rate specified in the shop or work order business unit. Total potential revenue for each craft is equal to the adjusted capacity in hours (112.00, Electricians) \* Hourly bill rate (200.00 USD) = 22,400.00 USD. \* Default labor bill rate from the business unit (110.00 USD) = 8,360.00 USD.

For Electricians, the total potential revenue = 112.00 hours. (The adjusted capacity in hours) \* 200.00 USD (The hourly bill rate) = 22,400.00 USD total potential revenue for Electricians.

Because the rate for Mechanics is not specified on the Craft Rates page of the shop, the default bill rate from the business unit is used: 76.00 hours. (The adjusted capacity in hours) \* 110.00 USD (The default bill rate) = 8,360.00 USD total potential revenue for Mechanics.

The total potential revenue is the sum of each craft's total potential revenue: 22,400.00 USD (Electricians) + 8,360.00 USD (Mechanics) = 30,760.00 USD

#### Total workdays

Total workdays equal the total number of days the shop is open based on the schedule period. For example, if the schedule period is weekly and the standard operating hours of the shop as defined on the Shop Definition page indicate that the shop is open on Monday for 8 hours, Tuesday for 8 hours, and Wednesday for 4 hours, then the Total Workdays equals 3 days for the weekly schedule period. Even though the shop is only open for 4 hours on Wednesday, it is counted as one workday.

#### Average target load percentage

This figure is the weighted average of the target load percentage of each craft associated with the crew. The target load percentage for a craft is determined by the scheduler based on the scheduler's knowledge of any unscheduled or emergency works that might come in during the scheduling period. After the initial creation of a crew capacity plan, the scheduler can enter a target load percentage for each craft, which is used to calculate the target hours for each craft.

For a craft: Target load % \* Adjusted capacity in hours = Craft's target hours.

#### For example:

A scheduler enters a target load percentage of 10.00, the target hours will equal to 11.20 hours, then 10.00% \* 112.00 hours (Adjusted capacity in hours for Electricians) = 11.20 target hours for Electricians.

This table shows how the average target load percentage is calculated:

Craft	Qty Resources	Target Load %	Qty * Target Load %	Average Target Load % = SUM of (Qty * Target Load %) / Total Qty Resources
Electrician	2	95.00	2 * .95 = 1.90	

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Craft	Qty Resources	Target Load %	Qty * Target Load %	Average Target Load % = SUM of (Qty * Target Load %) / Total Qty Resources
Plumber	1	100.00	1 * 1.00 = 1.00	
Carpenter	5	80.00	5 * .80 = 4.00	
				SUM:(1.90 + 1.00 + 4.00)/8 = 86.3% Average Target Load %

You can add crafts that are not part of a crew to a crew capacity plan, and you do not have to add these crafts to the crew. You also can copy from an existing crew capacity plan.

The confirmed scheduled hours and the total scheduled hours for a crew capacity plan are automatically updated when you assign and confirm the work order task requirements against the capacity plan in the Crew Scheduling Workbench by using the Confirm Metrics action.

**Note:** You can add or remove crew members regardless of whether or not a crew capacity plan exists. To add a crew member, insert a new effective-dated row on the Define Crew page.

### **Copying a Crew Capacity Plan**

The system does not allow overlapping crew capacity plans where the start period date for a new crew capacity plan falls within the period range of an existing crew capacity plan. However, users can copy a crew capacity plan from the current period to a future period. Because the crew is effective-dated and can change from one period to another, the system asks if you want to override the current capacity plan. If you indicate that you do want to override the crew capacity plan, the process will replace the capacity plan for each matched craft, but it will not change the target quantity and base capacity amounts. If the source capacity plan does not have a match for a given craft and the craft is not a crew craft, the system will insert the non-matching, non-crew craft to the target capacity plan.

## **Crew Capacity Page**

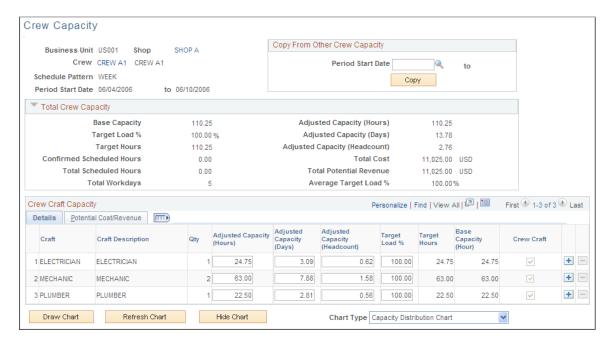
Use the Crew Capacity page (WM CREW CAPACITY) to define and update a crew capacity plan.

Navigation:

Maintenance Management > Crew Schedule > Crew Capacity Plan

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This example illustrates the fields and controls on the Crew Capacity page. You can find definitions for the fields and controls later on this page.



**Note:** To create a crew capacity plan, select a work order business unit, shop, crew, and a period start date on the Add a New Value page.

Field or Control	Description
Shop	Click the shop name link to access the Define Shop component for this shop.
Crew	Click the crew name link to access the Define Crew component for this crew.

#### **Total Crew Capacity**

Field or Control	Description
Base Capacity	Displays the total resource base capacity for the crew, which is derived from the hours in each resource's shift times the total capacity percentage of each resource assigned to this crew on the Define Crew page.
	Note: If the crew resources are associated with different shifts, the system calculates this value based on the different shifts.

Field or Control	Description
Adjusted Capacity (Hours)	Displays the total adjusted capacity in hours for the entire crew.
	Total Adjusted Capacity = (Base capacity – All commitments)  * Capacity allocation percentage of the each resource in the crew.
	This value cannot be negative. If a negative value is calculated, the system enters zero as the value.
	Schedulers can modify this value manually for each craft based on their knowledge of the technician's working hours for the period. Modify this value on the Details tab.
	Note: The accuracy of this calculation depends on the calendar entries of the resources for the specified schedule period and the currency of the resource management availability cache record.
Target Load % (target load percentage [total crew])	Displays total target load percentage value for the crew (calculated at the crew level) = Total target hours / Total adjusted capacity hours
	Total load % = Total target hours / Total adjusted capacity hours.
Adjusted Capacity (Days)	Displays the total adjusted capacity in days for the crew.
	Total adjusted capacity days = Total adjusted capacity hours / standard hours per workday defined on the Shop Definition page.
Target Hours	Displays the total target available hours for the crew for the schedule period.
	Total target hours for the crew = Total target load percentage * Total adjusted capacity hours.
	Note: This value is used to schedule a crew.

Field or Control	Description
Adjusted Capacity (Headcount)	Displays the total adjusted capacity in headcount for the crew.  Total adjusted capacity headcount for the crew = Total adjusted capacity days / Total workdays in the schedule period.  Note: The total workdays for a schedule period is based on the operating hours of the crew shop.
Confirmed Scheduled Hours	Displays the total confirmed number of hours scheduled for the crew on the Crew Scheduling Workbench, which means that the Confirm Metrics action was performed against the crew schedules.
Total Cost	Displays the total cost for the crew.  Total cost for the crew = Sum of the hourly cost rate for each craft * Total adjusted capacity hours for each craft
Total Scheduled Hours	Displays the total number of scheduled hours of all of the crafts listed for the crew. This value is updated when you assign a work order task requirement to a crew for the schedule period on the Crew Scheduling Workbench, or when you change the period on the Crew Scheduling Workbench and save the page.
Total Potential Revenue	Displays a value, which is derived by multiplying the hourly bill rate for each craft times the adjusted capacity (hours) for each craft. This value equals the potential revenue for each craft. Add these figures together to obtain the total potential revenue for the crew.
Total Workdays	Displays total number of workdays, which is derived from the total number of workdays in the shift associated with the shop based on the schedule period.  For example:
	If the schedule period is biweekly and the shift associated with the shop is 8 hours per day, 5 days per week, then the total workdays for this crew is 10.

Field or Control	Description
Average Target Load % (average target load percentage)	Displays a weighted average of the target load percentage.
	Average Target Load % = SUM (Number of resources in each craft) * Target Load % of the craft) / Total number of resources in the crew capacity plan

# **Copy from Other Crew Capacity**

Select the Copy From Other Crew Capacity group box.

The **Copy** button does not appear once the work is scheduled for this crew capacity plan. To copy this source crew capacity plan to a target crew capacity plan, select:

Field or Control	Description
Period Start Date	Select or enter the start date for the future period for the target crew capacity plan.
Сору	Click the <b>Copy</b> button to display a page containing this message:
	Would you like the system to override the current capacity plan?
	The system will copy each craft to the target capacity plan that matches a craft on the source capacity plan. However, it does not copy the quantity and the base capacity fields of the source capacity plan.
	If the system does not find a match for a source capacity plan craft in the target capacity plan and if the craft is not associated with a crew, then the system will insert the craft into the target capacity plan. If the non-matching craft is a crew craft, it will not be added to the target capacity plan.
	If the quantity of the target capacity plan is equal to the quantity of the source capacity plan for the crew's craft, the adjusted capacity value on the target capacity plan will be set to the adjusted capacity value on the source capacity plan. If these values are not equal, then the system will not change the adjusted capacity value in the target capacity plan.
	Click:
	<ul> <li>Yes to override the current capacity plan.</li> <li>No to <i>not</i> override the source capacity plan and copy it to a target capacity plan.</li> </ul>

# **Crew Craft Capacity Details**

Access the Crew Craft Capacity - Details tab.

Field or Control	Description
Craft	Displays one or more crafts based on the list of crafts associated with each resource on the Define Crew page.
Qty (quantity)	Displays the number of resources on the Define Crew page associated with a craft.
Adjusted Capacity (Hours)	Displays the adjusted capacity hours for the total number of resources in a craft.
	Adjusted Capacity hours (craft) = Base capacity for total number of craft resources – All commitments * Capacity allocation percentage of the craft resources
	Schedulers can modify this value manually based on their knowledge of the technician's working hours for that period. This adjustment is reflected in the total <b>Adjusted Capacity</b> (Hours) field in the <b>Total Crew Capacity</b> group box.
	Note: The accuracy of this calculation is determined by the calendar entries of the resources for the specified schedule period and the currency of the Resource Management Availability Cache Record.
Adjusted Capacity (Days)	Displays the adjusted capacity in days for a craft.
	Adjusted Capacity (Days) for a craft = Adjusted capacity hours / Standard Hours per Day (Shop Definition)
	A scheduler can adjust this value. This figure changes when the scheduler adjusts the adjusted capacity (hours) value.
	<b>Note:</b> Adjustments to one value automatically adjusts the values in the other fields.
Adjusted Capacity (Headcount)	Displays the adjusted capacity headcount for a craft.
	Adjusted capacity headcount for each craft = The adjusted capacity (days) / The total number of workdays based on the schedule period and the shop's operating hours
	A scheduler can adjust this value. This value changes if the adjusted capacity (hours or days) value changes.

Field or Control	Description
Target Load % (target load percentage)	Enter the workload percentage for this crew taking into account any unscheduled or emergency work that might come up during this schedule period. This percentage is used to calculate the target hours for this craft.
Target Hours	Displays the target hours for each craft.  Target hours for each craft = Target load percentage for the craft * Adjusted capacity hours for the craft
Base Capacity (Hours)	Displays the base capacity hours for each craft.  Base capacity hours for each craft = SUM of the resource's weekly shift hours * Capacity percentage specified for the resource on the Define Crew page
Crew Craft	A check mark appears in the check box as display only if the listed craft is associated with this crew.  Note: The system selects and deselects this check box
	depending on whether you associate a craft with a crew.

# **Crew Craft Capacity Potential Cost Revenue**

Select the Crew Craft Capacity - Potential Cost Revenue tab in the Crew Capacity component.

Field or Control	Description
Hourly Cost Rate	Displays the hourly cost rate for a craft if it is specified on the shop's Craft Rates page. If the crew capacity plan has more than one craft and if one or more of the crafts does not have a cost and bill rate specified on the Craft Rates page of the shop, then the rate is derived either from the shop or the work order business unit, depending on the setup.
Hourly Bill Rate	Displays the hourly bill rate for a craft if it is specified on the shop's Craft Rates page. If the crew capacity plan has more than one craft and if one or more of the crafts does not have a cost and bill rate specified on the Craft Rates page of the shop, then the rate is derived either from the shop or the work order business unit depending on the setup.

Field or Control	Description
Total Cost	Displays a value that equals the adjusted capacity (hours) for the craft multiplied by the hourly cost rate.
Total Potential Revenue	Displays a value that equals the adjusted capacity (hours) for the craft multiplied by the hourly bill rate.
Currency Code	Displays the default value derived from the work order business unit.

# **Crew Capacity Page**

Use the Crew Capacity page (WM\_CREW\_CAPACITY) to define and update a crew capacity plan.

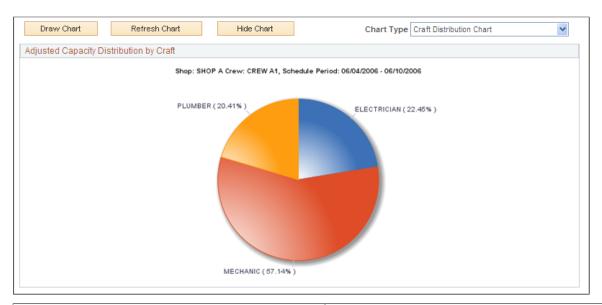
Navigation:

# Maintenance Management > Crew Schedule > Crew Capacity Plan

This example illustrates the fields and controls on the Crew Capacity page (1 of 2). You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Crew Capacity page (2 of 2). You can find definitions for the fields and controls later on this page.



Field or Control	Description
Draw Chart	Click this button to display the crew capacity chart based on the crew capacity data for the schedule period. The system saves the page before displaying the chart.
Refresh Chart	Click this button to refresh the crew capacity chart based on changes that you made to the crew capacity data.
Hide Chart	Click this button so that the chart is not visible on the page.
Chart Type	Select the type of chart that you want to appear. Chart types are:
	Capacity Distribution Chart
	This bar chart compares the base capacity, adjusted capacity, and target capacity hours for each craft in the crew for the specified schedule period.
	Craft Distribution Chart
	This pie chart displays the adjusted capacity distribution percentages for each craft in the crew capacity plan.

# **Scheduling Crews**

This section presents an overview of crew scheduling and discusses how to use the crew schedule search page, scheduling crews to multiple work orders, define the Crew Scheduling Workbench Crew Assignments tab, define the Crew Scheduling Workbench Resources tab, define the Crew Scheduling

Workbench Schedules tab, define the Crew Scheduling Workbench Rescheduling tab, define the Crew Scheduling Workbench Asset Information tab, using the Crew Scheduling Workbench Full Description tab, and define the Crew Scheduling Workbench Messages tab.

# **Pages Used for Scheduling Crews**

Page Name	Definition Name	Usage
Crew Scheduling Workbench Search Page	WM_CREW_SRCH_SEC	Enter search criteria to search for a crew and work orders to schedule.
Crew Scheduling Workbench Page	WM_CREW_SCHD_WB	Schedule crews to work order task labor requirement lines.
Work Order Page	WM_WO_HDR	Access and modify the selected work order.
WO Task Descriptions	WM_WO_CS_TSK_SEC	Review the selected work order task description.
Asset Information	WM_WO_ASSET_SEC	Review the work order task asset characteristics and attributes.
Change Shop to Identify Crew	WM_CSVW_BUSHOP_SEC	Change the shop for the crew being scheduled.
Schedules Page	WM_WO_TASK_SCHED	Access and modify, if necessary, the Labor Schedules grid, Inventory Schedules grid, Purchase/On-Hand Schedules grid, or Tool Schedules grid for a task in the work order.
Work Order History for Asset (ID)	WM_ASSETTSK_SEC	Review the work order task history and status for the task asset.
Maint History by Type (maintenance history by type)	ASSET_MAINT_SUM_01	Review the maintenance, costs, and work order information for any maintenance performed on the task asset.

# **Understanding Crew Scheduling**

The Crew Scheduling Workbench enables you to determine crew capacity and to allocate work orders by craft for a specific period so that each crew is loaded to its target capacity to ensure maximum efficiency. The workbench enables you to schedule crews to multiple work orders at one time.

You can establish and save multiple search criteria settings for each crew. These search settings enable you to easily find unscheduled backlog work, carryover work, and scheduled work. To ensure that all tasks are scheduled, you can also display tasks that are not assigned to a crew. Your search criteria can include specific work order details, work order status and priority, and target asset information.

Before using the Crew Scheduling Workbench, you must set up a crew capacity plan for each crew. This information appears in a crew capacity grid at the top of the Crew Scheduling Workbench. As you assign the crew by craft to one or more task lines, the crew capacity is immediately updated to reflect the assignments. This feature enables you to see the progress against the target load percentage. You can also change the crew at any time to compare the capacity of one crew against that of the crew that you are scheduling.

The Crew Scheduling Workbench displays a list of work order task requirement lines that is based on your search criteria in the Workbench section of the page. Between the Crew Capacity and the Workbench sections is the Action list, where you can select multiple task requirement rows and perform an action, such as assigning a crew, changing crew schedule dates and times, changing the period, creating labor schedules in the work order based on the assignments, updating carryover hours, and more. You can examine work order tasks that were started but are not yet complete and those that may not be started in the current period; these you can move to a future period. Work that cannot be accomplished can be put it in the backlog. Work can also be unscheduled and rescheduled. You can also schedule unplanned or emergency work that comes up during the current period or push it out to the next, following, or a subsequent period. Once work is scheduled, you can, if necessary, access the Labor Assignment Workbench directly from the Crew Scheduling Workbench to assign the work to individual members of the crew.

Once you have reviewed the various tasks and loaded each craft to the desired level, you can save the schedule as a baseline for the period. Then you can review information such as the actual quantity of the work performed compared to the quantity of work scheduled, or the scheduled work performed as a percentage of the total work.

The Crew Scheduling Workbench consists of:

- Search page.
- Crew capacity grid.
- Work order task labor requirements.
- Actions.

If the crew period and availability do not coincide with the task start and end dates, you can override these dates when you schedule the crew. Overriding these dates changes the scheduled start and end dates on the work order task.

These rules apply to crew scheduling:

- Since crew scheduling depends on periods, the crew schedule to dates are limited to a given period. You will receive an error if you attempt to schedule across multiple periods. You must split the labor requirements if you want to schedule across periods.
- The approval status of the work order must be *Approved*. After the work order is approved, users cannot split work order task rows to segregate portions of the work to different crews. If you need to be able to segregate work to different crews, then you can create child work orders, which also must be approved.

# **Crew Scheduling Workbench Search Page**

Once your work order requirements are defined, you access the Crew Scheduling Workbench to display the work orders, tasks, and task lines that you want to assign to a crew. For greater efficiency, you can set

up views for different stages of the crew scheduling process and save those views. Your search criteria must include a crew business unit, a crew shop, a crew, and a schedule period. You can also select the **View Tasks without Crew** check box to include unscheduled work orders that are not associated with a crew.

For example, you could set up and save a view named C1\_S1\_Current\_Unsch. This view name indicates that your selected search criteria is for:

- Crew 1
- Shop 1
- Current period
- Unscheduled

The scheduling statuses are:

Unscheduled

This status refers to all of the work order labor requirements that are not yet assigned to a crew.

Scheduled

The system displays all of the work order labor requirements that are assigned to a crew but currently not completed within the specified period. The crew schedule status of the work order task rows on the workbench appear as *Scheduled, Unplanned/Emergency,* or *Scheduled Confirmed*.

• Carryover Work

The system displays all of the work order labor requirements with a crew schedule status of *Scheduled, Unplanned/Emergency,* or *Schedule Confirmed* and in the current period or the period before the specified period. The internal statuses of the work order tasks may transition from *Open* to *Work in Progress,* and the carryover hours of the tasks must be greater than zero.

• Review Entire Crew Schedule

The system disables all search criteria fields other than those previously specified and applies their default values to the search. This option works in conjunction with selected business unit, shop, crew, and period values to list work orders scheduled to the specified crew and period.

A specified *schedule period* is the date range that covers the current schedule period. Typically, this period is defined as a week (Monday through Sunday), but it could be four days or two weeks, depending on the requirements of your organization. The schedule period for each crew is determined by the schedule pattern assigned to each crew on the Define Crew page. The schedule period options for crews are:

Current Period

The current schedule period is the period defined for the crew based on the current date in the system.

Next Period

This period follows the current period.

Following Period

This period follows the Next Period.

Previous Period

This period precedes the current period.

Specific Period

This period is one you select from a list of one or more periods.

You can specify other search criteria based on the work order, the work order status and priority, and asset information on the search page and include it in your saved view. You can also indicate whether you want specific fields sorted in ascending or descending order on the page. After you name and save the view, click the **Search** button to display the available capacity for the selected crew in the **Crew Capacity** grid and a list of work orders requirements on the **Workbench** grid.

# **Crew Capacity Grid**

When you search for a crew using the Crew Scheduling Workbench Search page, the system displays the Crew Capacity grid along with work order task rows that are based on the entered search criteria. This grid displays information about the crew's workload for the period specified in the search criteria, which is grouped by the primary crafts associated with the crew members. The crew capacity data is updated as you begin to use the actions available on the workbench, enabling you to track the percentage of capacity loaded for each craft against the target load percentage for each craft.

Users can change the crew that they want to focus on at any time. Changing the crew is useful when you are trying to determine whether a given set of requirements should be assigned to crews other than the one specified in the search criteria. You select a different business unit, shop, crew, and craft, which is optional, and display the data for that crew in the grid.

If you searched only one craft, then only the selected craft will appear in the grid for the crew. The **Crew Capacity** grid displays this information for each craft associated with the crew:

• Adjusted Capacity (hours) = a

You set up the adjusted capacity in hours in the Crew Capacity Plan for the crew and period:

Total shift hours for the period – Time off (vacation, holidays, sick days, and more)

• Adjusted Capacity (days)

You set up the adjusted capacity in days in the Crew Capacity Plan for the crew and period:

(Total shift hours for the period – Time off) / Standard day hours defined in the crew's shop

Adjusted Capacity (headcount)

You set up the adjusted capacity headcount in the Crew Capacity Plan for the crew and period:

Adjusted Capacity days / Days in the schedule period

• Target Load Hours = b

The system calculates this field: Target load hours = Adjusted capacity (hours) \* Target load %

Confirmed Scheduled Hours.

This field displays the number of hours from the Crew Schedule Workbench that were confirmed for the period. Hours are confirmed by selecting the Confirm Metrics action for selected rows. Typically, all schedules are confirmed at the end of the planning phase, and the confirmed scheduled hours should match the scheduled hours. If they do not, some scheduled hours have probably not been confirmed for the period. During the current period, the scheduled hours and the confirmed scheduled hours may not match because of unconfirmed or emergency work that was added to the schedule. If the unplanned/emergency work is confirmed, then these hours become part of the confirmed schedule hours total for each crew's craft.

• Scheduled Hours = c

The number of hours scheduled in the crew scheduling workbench for the period. These hours are updated when you assign a crew to a labor requirement, change a period on the workbench, or update the scheduled hours for an assignment.

Scheduled Days

Scheduled days = Scheduled hours / Standard number of hours in workday in the crew's shop

• Scheduled Headcount Equivalent

Scheduled headcount = (Scheduled hours / Standard number of hours in workday in the crew's shop) / Number of days in the period based on the shift

Variance

Variance = b - c, or Variance = Target load hours – Scheduled hours

Scheduled %

The actual schedule load relative to the target load hours:

Scheduled % = c/b \* 100, or Scheduled % = (Scheduled hours / Target load hours) \* 100

Availability %

This field represents the actual schedule load relative to the adjusted capacity.

Availability % = (1 - c/a) \*100, or Availability % = (1 - Scheduled hours / Adjusted capacity hours) \* 100

Target Load %.

Set up the target load % in the Crew Capacity Plan for the crew and the period. It typically represents the crew's expected load against the adjusted capacity in terms of percentage for all planned work. Typically, it is set below 100 percent to accommodate unplanned and emergency entries that may occur throughout the period.

See Performing Crew Capacity Planning.

# Work Order Task Labor Requirements for Using the Crew Scheduling Workbench

You schedule a crew to work order task labor requirement rows that appear on the workbench in the **Crew Capacity** grid. This workbench consists of details describing information in the work order, work order task, and labor requirement rows and fields that are updated based on scheduling a crew to a row. You can

schedule the crew to an individual work order task labor requirement row or you can select one or more work order task labor requirements rows on the workbench and select an action to apply to those rows. The workbench data is described in this section, and workbench actions are described in the next section.

The workbench has these tabs:

- Crew Assignments
- Resources
- Schedules
- Rescheduling
- Asset Information
- Messages (This tab does not always appear.)

The Workbench section displays labor requirements that you defined for one or more work orders associated with the selected shop, crew, and period. For unscheduled work, the system displays every unscheduled work order that meets the search criteria. If you want to narrow work orders to a selected period, you must enter required or schedule start and end dates as search criteria. Once work is scheduled, the system gathers work orders associated with a specific period. Most of the data that appears describes the specific work order data, work order task data, and task row data, all of which is retrieved from the work order. This information enables you to make informed decisions based on complete information about each work order, task, and labor requirement row before you schedule them.

The remaining fields in the Workbench section can be affected by performing the actions either manually on a single row or on multiple rows. To perform an action on multiple rows, select the rows, select an action, enter the action fields that appear, and select Go to apply the action to the row.

This data appears on the workbench tab:

• The Crew Assignments tab displays the primary work order, task, and labor requirement row data. You can directly access the work order, as well as review a description of both the task and the asset associated with the task. The remaining fields are used for scheduling, canceling, and rescheduling a crew to the labor requirement rows.

#### Task Status

The value in this field affects the assignments you make and the availability of the crew scheduling fields on the workbench. You can select one or more rows in the workbench and select the **Change Status** action to change the status of the task, which changes the task status in the selected row. You cannot manually change the **Task Status** field in each row because the field is only for display.

#### Crew

You use this field to assign a crew. You can also select one or more rows and then select the **Assign Crew** action. To remove a value from this field, select the **Remove from Schedule** action.

#### Scheduled Hours

When you assign a crew to labor requirement rows, you enter the number of hours you want to schedule for each task row. You maintain these hours through the life of the task, since unplanned or emergency work may come up before the task is completed. When you enter this information

and save the page, it updates the Crew Capacity data for the selected crew. You can enter each row manually, or you can select one or more rows and select the *Update Scheduled Hours* action. The schedule hours can be updated to any positive value, even beyond the original estimated duration of the job.

#### Carryover Hours

Carryover hours are the unscheduled or remaining hours that you could not schedule in the original period. You can update this field manually for an individual row or select one or more rows and select the *Update Carryover Hours* action. You can update carryover hours to any positive value, even beyond the estimated duration of the job. This field is particularly important when carryover work is moved to another period

### Completed Hours

As a job progresses, technicians may report the actual number of hours completed along with any carryover hours. You can update this field manually for an individual row, or select one or more rows and select the *Update Completed Hours* action.

#### Crew Schedule Status

The crew schedule status determines whether the labor requirement was saved as part of a Crew Capacity Plan. Values:

*Unscheduled*: The default value that appears whenever a labor requirement row is generated.

*Unplanned/Emergency:* Appears if you assign a crew in the current period.

Scheduled: Appears if you assign a crew to any future periods (next, following, and beyond).

Schedule Confirmed: Appears when you select one or more scheduled or unplanned rows and select the Confirm Metrics action.

Rows with a crew schedule status of *Unplanned /Emergency, Scheduled*, and *Schedule Confirmed* can derive the carryover work in these ways:

When you schedule for a future period (next, following, or specified), if you assigned a crew to a labor requirement row within the period, carryover hours are greater than zero, and the status of the task was not changed to *Complete*, then the carryover hours belong to that period.

When you schedule for a future period (next, following, or specified), if you assigned a crew to a labor requirement row for any period earlier than the Next period, then the carryover hours are greater than zero and the task status is set to an internal status of *Open, Awaiting Schedule, Scheduled, On Hold,* or *Work in Progress*.

• The Resources tab displays information as to whether labor, inventory, purchase/on-hand, and tool resources are scheduled for the task associated with the craft labor requirement row. You can access the task's Schedules page in the work order to either set up or change these schedules directly from the Crew Scheduling Workbench. This enables you to determine what the other schedules are for the task, how long it may actually take to start the task, and what qualifications a technician may need to perform the task.

There is also a link that enables you to change the shop for the crew specified on the row. This link also appears when you select the *Assign Crew* action. This field is primarily used when you want to select a crew for one or more rows that is different from the preferred you selected for the Crew Scheduling Workbench. Before you can change a crew, you must select the shop to which the crew

new crew is assigned. When you select a different crew, you must select the shop to which the crew is assigned. For example, if you selected the preferred crew, Crew 1 in Shop A, to assign in the Crew Scheduling Workbench, and you find one or more of the tasks really should be performed by Crew 2 in Shop B, then you should change the shop for the rows to Shop B and then select Crew 2 for each of the rows.

- The **Schedules** tab, which displays the required start and end dates and times from for each work order task, also displays the crew start and end dates and times fields, which you will enter or adjust depending on the internal task status, along with other dependencies. The completed date field is also on this tab.
  - Crew start date and time.

These fields are populated when you assign a crew to the row. The default start date is derived from the assigned period's start date. The default start time is the required start time for the task. You can apply the action *Change Crew Start Date/Time* to this field for one or more selected rows, or change the fields manually at the individual row level.

• Crew end date and time.

These fields are populated when you assign a crew to the row. The default end date is derived from the period's start date plus the difference between the required start and end dates for the task. The default end time is the required end time for the task. You can apply the action *Change Crew End Date/Time* to this field for one or more selected rows, or change the fields manually at the individual row level.

Completed date.

This field stores the date when the crew completed the job for the task. When the internal task status is changed to *Complete*, this field is automatically updated with the completion date of the task. The completion of a task impacts the availability of many of the fields on the workbench. You can apply the action *Report Completed Date* to this field for one or more selected rows, or change the field manually at the individual row level.

- The **Rescheduling** tab, which displays the reason code and its description for any rows that you reschedule. If you assign a different crew or change the crew dates on any row, the system determines if a reason for the change is necessary. When you select the actions *Assign Crew, Change Period or Change Crew Start Date/Time*, the system may require that you select a reason code for the change in the schedule.
- The **Asset Information** tab derives information about the asset selected for the work order task and displays it in the row.

These fields appear on this tab:

· Asset Location, Asset Area, Work Location

These values enable you to review where the asset is located with respect to the work location to determine how this information will affect your crew assignments. For example, if the asset and the technician assigned to work on it are not located in the same place, you may need to schedule time for the technician to retrieve the asset and take it to the work location.

• Asset Criticality

This field only appears on the tab if you entered this asset information for the work order task on the Requirements page of the work order. This value may help you determine the skills and qualifications needed by your crew members to do the job.

#### Asset Calendar

This icon only appears on the tab if you entered the asset information for the work order task on the Requirements page of the work order. Access the calendar of the asset to ensure that it will be available during the period that you want to schedule the crew.

## Warranty

This link only appears on the tab if you entered the asset information for the work order task on the Requirements page of the work order. This link enables you to access any warranties that are associated with the asset or add warranties. This information can be crucial to managing the costs of the work. The crew may be responsible for keeping track of the work to use in a warranty claim, which may need to be figured into the time allocated to perform the task.

#### Work History

This link only appears on the tab if you entered the asset information for the work order task on the Requirements page of the work order. This link enables you to access the work orders that were performed for the asset. This access can provide information about similar work done on this asset and identifies each work order. You can research work orders to determine the skills and time needed to complete the work.

# • Asset Maintenance History

This link only appears on the tab if you entered the asset information for the work order task on the Requirements page of the work order. This link enables you to access the Asset Maintenance History page in PeopleSoft Asset Management, which helps you determine the condition of the asset based on how much maintenance has been done. This information can help you determine the difficulty of this task before you schedule it.

- The Full Description tab displays the complete description entered in the Description field for the
  work order on the Work Order page and for each task on the Requirements or Schedules page of the
  Work Order component.
- The Messages tab does not appear until the system issues an informational, warning, or error message
  in response to an action performed on an individual row or multiple rows on the Crew Scheduling
  Workbench page.

The tab appears along with an icon, which indicates the type of message that you will see when you select the Message tab. If you select an action and receive an error message, the action is not performed. However, the action will be performed when you receive a warning or informational message.

See <u>Defining Work Order Statuses</u>.

## **Crew Scheduling Workbench Actions**

You use the work order labor requirement data in the Workbench to evaluate the actual work that needs to be performed in order to schedule your crews accordingly. Once the work is evaluated, you are ready to

schedule your crew. You can schedule a crew to each individual row. However, one of the major benefits of the Crew Scheduling Workbench is that you can apply an action, such as assigning a crew, to multiple rows at one time. The actions defined in a list in the center of the workbench enable you to do everything from assigning a crew to accessing preventive maintenance projections. The following actions, which you apply to the work order task requirements on the workbench, are listed in order of functionality rather than in the order that they appear in the drop-down list:

- Assign Crew
- Change Period
- Change Crew End Date/Time
- Change Crew Start Date/Time
- Remove from Schedule
- Create Labor Schedules
- Confirm Metrics
- Update Scheduled Hours
- Update Carryover Hours
- Update Completed Man Hours
- Change Status
- Report Completed Date
- Go to Labor Assignment WB (workbench)
- Go to PM Projections

To apply an action to one or more work order task labor requirement rows in the workbench, select the rows in the workbench and then select an action from the Action drop-down list. The system evaluates the selected data, such as crew scheduling dates and times, against the work order task data, and it displays additional fields that are associated with the selected action. Once you select the action and enter additional fields, as necessary, click the **Go** button. The system runs a validation process on the selected rows and applies the action. Not all actions affect the data in the rows. Some actions enable you to perform activities without exiting the Crew Scheduling Workbench, such as the action *Go to PM Projections*. The following information describes how each action is used in the Crew Scheduling Workbench:

#### Assign Crew

Select to assign a crew or to change a shop and crew assignment for selected labor requirement rows.

When you assign a crew, the system validates that the work order task status associated with the selected labor requirement row allows the crew to be changed. It also validates that the craft identified in the labor requirement row is included in the Crew Schedule Metrics. For example, if the craft in a labor requirement row is *Mechanic* but the Mechanic craft is not defined in the Crew Capacity Plan for the selected crew and target schedule period, then the system issues an error.

**Note:** An error occurs when a user who is not allowed to override metrics reassigns one crew to another crew and the periods involved occur in the past (previous or specific).

#### Crew

Select the crew that you want to assign to the selected labor requirement rows. Typically, you select the crew that you searched on to display the labor requirement rows. The system updates these fields in the workbench:

The **Crew** field is updated with the selected crew.

The **Scheduled Hours** field initially displays a default value based on the specifications on the Labor Requirements row for the task, which is equal to: Quantity (number of craft resources) \* Hours (number of hours each resource is needed)

The **Carryover Hours** field initially displays the same default value as the **Scheduled Hours** field.

The **Crew Start** date is updated with the start date of the period you selected for this crew in the search criteria, and the **Start Time** is updated with the start time of the required start date on the work order. The **Crew End** date is equal to the period start date plus the difference between the required start and end dates on the work order. The **End Time** field is updated with the end time of the required end date on the work order. The system compares these dates to the scheduled start and end dates and times of the task. The system handles the results of this comparison based on whether you selected the **Override Task Schedule Dates** check box, the **Schedule Crew's Entire Period** check box, or both. These are described below:

#### Override Task Schedule Dates

Selected is the default. The task schedule dates are updated as follows:

If Crew Start date, which is the same as the period start date, is earlier than the Scheduled Start date, the system updates the Scheduled Start date with the Crew Start date.

If Crew End date, which is matched to the period end date, is later than the Scheduled End date, the system updates the Scheduled End date with the Crew End date.

In summary, the scheduled start and end dates of the task are changed to accommodate the crew schedule start and end dates.

If you deselect the **Override Task Schedule Dates** check box and the crew start and end dates go beyond the scheduled start and end dates for the task, then the scheduled dates for the task will not be updated and an error message will be issued for the labor assignment rows on the workbench. This message will prevent you from continuing, and you will need to reevaluate your resources based on the task scheduled dates.

For example, if the work order task scheduled start date is 4/20/06 and the scheduled end date is 4/20/06:

Action	Response
Work order task Scheduled Start and Scheduled End dates	4/20/06 to 4/20/06

Action	Response
Crew Scheduling Workbench period	4/25/06 – 4/29/06
Crew Manager selects action	Assign Crew
Override Task Schedule Dates check box	Selected
Scheduler enters Crew Start/Start Time and Crew End/ End	4/23/06 - 4/23/06
System message displays	Warning: 'Crew Start and End' are later than the task schedule start and end dates - When the workbench is saved, the task schedule start and end dates will be updated with the Crew End Date on this row. If other rows in this workbench are updating the task schedule dates for this task, then the one that ends the latest will be the one to be updated.
Task Scheduled Dates updated	Task Scheduled Start Date remains the same and the Task Scheduled End is updated to 4/23/2006.
If Override Task Scheduled Dates check box	deselected
System issues an error	Error: 'Crew End' is later than the task schedule end date - The period assigned is later than the task schedule end date. To override the task schedule end dates you need to turn on the Override Task Schedule Dates Action setting.

**Important!** The change in the task schedule dates *will not* change the task dates for the inventory, purchase/on-hand, and tool resources task rows. However, a warning message appears for the row on the Messages tab indicating that the proposed change will affect these resources through issuing messages against each affected row.

#### • Schedule Crew's Entire Period

Select this check box to set the crew start date for crew assignments and period change actions to the schedule period's start date, and to set the crew end date to the period end date.

If you do *not* select the Schedule Crew's Entire Period check box, any action that would perform a change in the crew start and end dates will respect the original offset. If you do not assign any crew to the row before you change the crew start and end dates, then the system will respect the offset between the required start and end dates. If you assigned a crew before you changed the crew start and end dates, then the system respects the offset of the original crew start and end dates.

For example, you scheduled Crew A to a task row from 8/14 to 8/15 (two days) during the period of 8/12 to 8/19. The **Schedule Crew's Entire Period** check box is deselected. Subsequently, you must change the crew schedule dates for Crew A to 8/14 to 8/16 (three days) because you were notified that the inventory resources will not be delivered in time for the crew to do the work during this period. When you select the row and select the action to change the period to the target period of 8/20 to 8/27, the system carries over the change to the crew schedule dates to the start date of the next period. Since the original crew schedule dates were 8/14 to 8/16 (three days), the new crew schedule dates for the assignment appear as 8/20 to 8/22 (three days) for the scheduled row.

If, however, based on this example, you selected the **Schedule Crew's Entire Period** check box, then the target crew schedule dates for the assignment would be 8/20 to 8/27, which is the same as the target period dates.

#### • Change Shop for Crew

This link is described for the Resources tab on the workbench.

See <u>Resources Tab — Crew Scheduling Workbench Page</u>.

• When changing a crew assigned to selected rows to a different crew, consider these factors:

The period assigned to the row is determined by the period specified in the search criteria. However, the schedule pattern used by the new crew can differ from that of the original crew. Also, the schedule pattern of the new crew may not accommodate the time span (Crew Start Date – Crew End Date) allocated to the requirement, which will cause an error.

If you change the crew, the selected period in the workbench is *Current* and if the original Crew Schedule Status of the row is *Schedule Confirmed* or *Unplanned/Emergency*, then you must select a reason code for why the crew was changed. The Crew Capacity Plan for the original crew and period will be updated.

If you change a crew (Crew A), which is scheduled in the current period, to another crew (Crew B), then the system determines the current period for Crew B and updates the crew dates and times based on the current period for Crew B. If you change the crew and the period for the allocated rows is either *Current* or *Prior*, the **Schedule Status** field will be set to *Unplanned/Emergency*. Otherwise, it will be set to *Scheduled*. The Schedule Status State Chart diagram provides more details.

**Note:** If both crews are associated with the same schedule pattern, then no changes occur.

If labor schedule rows related to the selected requirement rows were generated for the work order task but no assignments were performed or the internal task status is *not Work In Progress*, then the system will update the crew (and period, if applicable) information on the labor schedule rows for the work order task

If schedule rows related to the selected requirement rows were generated, assignments were performed, and the row is being procured or the internal task status is *Work In Progress*, then the system will generate new labor schedule rows. You determine whether new labor schedule rows must be generated based on whether a change in period will occur as a consequence of changing the assigned crew.

Change Crew End Date/Time

Select to change the crew end date and time of the selected rows to those specified by the user. You enter the date and time that you want to update the **Crew End Date** and **End Time** fields in the selected rows. The end date must be later than or the same as the start date. If the end date is the same as the start date, then the end time must be later than the start time. The combination of start and end dates must fall within the specified period range. If the revised dates do not fall within the work order task scheduled dates and times, select the **Override Task Schedule Dates** check box to use the new dates.

#### Change Crew Start Date/Time

Select to use a different crew start date and time for selected labor requirement rows. You select a date and time in the action fields, and the system replaces the dates in the **Crew Start Date** and **Start Time** fields with the new date and time. You can select the **Override Task Schedule Dates** check box to override the scheduled dates and times in the task if the new dates and times do not fall within task scheduled dates and times.

If the change in the crew start date and time moves the selected labor requirement rows to a new period, you must also select a reason for the change. You must assign a crew to the selected labor requirement rows before you can move the labor requirement to another period. The **Reason** and **Description** fields do not appear for unscheduled labor requirement rows, and the rescheduling history is not updated.

**Note:** Changing the crew start date and time may change the assigned period for the selected rows. Refer to the discussion of the Change Period action for further information.

#### Change Period

Select to change the period to the current, following, next, previous, or a specified period. When you first assign a crew to select labor requirement rows, you also assign a period that updates the **Crew Start Date** field with the period start date and the **Crew End Date** field with a value that is equal to the crew start date plus the offset between the required start and end date on the work order. The crew end date cannot go beyond the end date of the period. When you change the period for selected rows, the new period must exist in the schedule pattern associated with the assigned crew, and a Crew Capacity Plan must be set up for that period, crew, and craft.

Select the **Override Task Schedule Dates** check box if the start and end dates and times of the new period do not fall within the scheduled start and end dates and times of the work order task associated with the row. Select the **Schedule Crew's Entire Period** check box if you want the crew end date to be the same as the period end date.

Whenever you move a *scheduled* resource to another period, you may need to enter a reason code. The schedule pattern associated with the crew determines what the current period is and its date range. When you change the period for *Confirmed* or *Unplanned/Emergency* scheduled work orders, it pushes the data into the rescheduling history and updates the Schedule Metrics for the affected crew, craft, and original period. The **Carryover Hours** field must be updated to reflect the amount of work being pushed into the target period. When you make crew assignments to *unscheduled* requirements, a reason code is required for some actions, such as assigning a crew in the current period, confirming metrics, and changing the period to next.

Changing a period also affects related labor schedules. When you select the *Assign Crew* action, a period may be indirectly changed if the crew is changed. The following scenarios describe what would happen in each change period situation relative to an existing, individual schedule:

• If you did not make assignments to the labor schedule rows in the task and the internal task status is not *Work in Progress*, then the affected rows will be updated with the new period.

• If you made assignments to the labor schedule rows, procured the row, or the internal task status is *Work In Progress*, then the new schedule rows will be generated to reflect the change in period.

In both situations, individual resources must be rescheduled by accessing the Work Order component or the Labor Assignment Workbench. If the carryover hours are different from the original period's duration, these hours will be equally distributed to the scheduled rows, and the remainder will be added to the last row.

**Note:** You can only assign crews to rows in previous periods if the period is not the period before the current period. To assign a crew to a past period, you must select the **Allow Override Metrics** check box on the User Preferences, Maintenance Management page.

#### Change Status

Select to change the task status and access the Change Status page, where you can change the task status of the selected labor requirement rows. Optionally, you can add a note on the Change Status page about the change of status and select a **Notify Scheduler** check box to notify the scheduler about the change. If you selected multiple rows for the same task, the information passed on to the Change Status page only passes one row per task. However, the status change affects all of the rows associated with the task. The status change is updated in the **Task Status** field for the selected rows.

Changing to another status in the Work Order task affects the fields in the Crew Scheduling Workbench. When you set the task status to *Complete*, these updates occur:

- Carryover hours for all of the task's labor requirements are set to zero if they are not already zero.
- The completed date for all of the task's labor requirements is set to the task's completion date for all rows with a blank **Completed Date** field and with carryover hours greater than zero.

**Note:** When the carryover hours for all of the task labor requirement rows are zero, the system does not automatically update the task status to *Complete*.

#### • Confirm Metrics

Select to update the **Crew Schedule Status** field for the selected rows to *Schedule Confirmed*. In past or current periods, you must select the **Update Crew Schedule Metrics** check box on the User Preferences - Maintenance Management page to enable a user to perform this action. The action only applies to rows with a **Crew Schedule Status** value of either *Unplanned/Emergency* or *Scheduled*. This action will update the confirmed schedule hours in the **Crew Capacity** grid. When you save the page, these changes are saved in the Crew Capacity Plan.

#### • Create Labor Schedules

Select to create labor schedule rows on the Schedules page of the work order from the selected Labor Requirement rows. This action works the same as when you select the **Copy from Requirements** button in the work order, except that this action only applies to labor resources. This action creates labor schedule rows for labor requirements that are not yet copied or scheduled in the work order.

### • Go to Labor Assignment WB

Select to transfer to the Labor Assignments Workbench.

See Using the Labor Assignment Workbench.

### • Go to PM Projections

Select to transfer to the Preventive Maintenance View Projection Summary component after you select a preventive maintenance projection Process Instance.

#### • Remove from Schedule

Select to remove the selected rows from the schedule, thereby canceling the crew from the row and the period. If you select this action in a current or previous period, the system prompts you for a **Reason Code** and **Description.** If labor schedule rows that are based on the selected labor requirement rows exist in the work order and you select the *Remove from Schedule* action, then:

- If you have not assigned labor schedule rows for the task or if the task status is not *Work in Progress*, then the labor schedule rows are not affected.
- If you assigned the labor schedule rows for the task or if the task status is *Work in Progress*, then new labor schedule rows will be generated.

## • Report Completed Date

Select to update the **Completed Date** field and change the carryover hours for the selected rows to zero. After selecting the action, select the date that the task was completed. The primary purpose of selecting a completed date is to indicate in the system that the assignment was completed. You cannot update carryover hours or enter a completed date if the **Crew Schedule Status** for the row is *Unscheduled*.

# • Update Carryover Hours

Select to change the value in the **Carryover Hours** field of the selected rows. You can enter a number greater than zero in the field that appears. If you enter zero to update the carryover hours, a **Completed date** field appears because setting the carryover hours to zero indicates that the work was completed, which triggers the need to enter the completed date. You will receive an error if the selected rows are unscheduled and you enter carryover hours, a completed date, or both.

#### Update Completed Man Hours

Select to change the completed man hours for the selected rows to the value that you enter in the field associated with this action.

#### Update Scheduled Hours

Select to change the scheduled hours for the selected rows to the value that you enter in the field associated with this action. When you select the *Scheduled Hours* action and enter scheduled hours for the selected rows, the system updates the scheduled hours in the **Crew Capacity** grid as long as the crew, craft, and period in the selected rows also appear in the **Crew Capacity** grid. This action should issue an error if the rows are unscheduled. If the rows selected are confirmed, then the action should issue an error that does not allow this value to change.

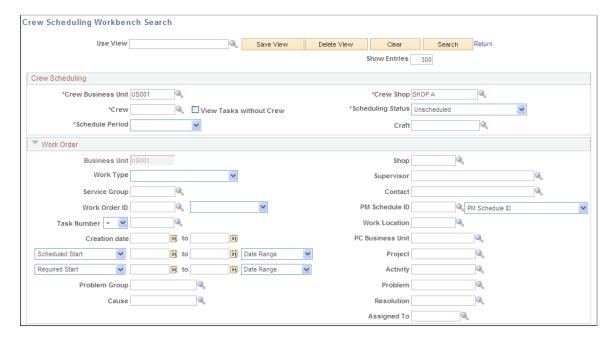
# **Crew Scheduling Workbench Search Page**

Use the Crew Scheduling Workbench Search page (WM\_CREW\_SRCH\_SEC) to enter search criteria to search for a crew and work orders to schedule.

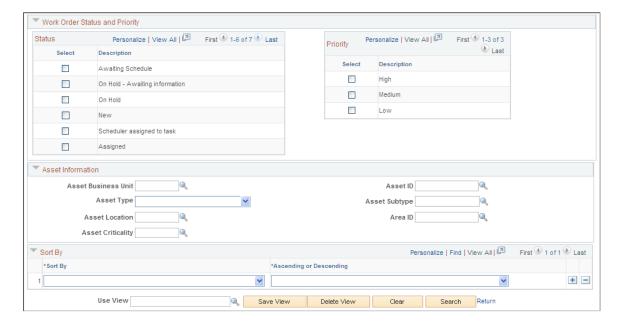
Navigation:

## Maintenance Management > Workbenches > Crew Scheduling Workbench

This example illustrates the fields and controls on the Crew Scheduling Workbench Search page (1 of 2). You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Crew Scheduling Workbench Search page (2 of 2). You can find definitions for the fields and controls later on this page.



Field or Control	Description
Use View	Select an existing saved view as your search criteria.
Save View	Click this button if you change the criteria in a view or create a view of new search criteria. If you modified an existing view, the system asks if you want to override the view. If this is a new view, the system saves the view with the new name that you enter in the <b>Use View</b> field.
Delete View	Click this button to delete the current view. The system asks if you are sure that you want to delete the view.
Clear	Click this button to clear all the field values in a view.
Search	Click this button after entering any required or additional search criteria. The system searches for and displays a crew capacity plan for the selected crew and period and displays any work orders in the workbench grids that are either scheduled or can be scheduled based on the criteria.
Return	Click this link to return to the workbench.

# **Crew Scheduling Search Criteria**

Field or Control	Description
Crew Business Unit	Select the work order business unit associated with a crew.  The system searches for work order tasks associated with this selected business unit for unscheduled work orders, and for labor requirements associated with this business unit value for scheduled and carryover work orders. This is a required field.
Crew Shop	Select the shop to which this crew is assigned. The system searches for this selected shop value in work order tasks associated with this shop for unscheduled work orders, and searches for this selected shop value in the labor requirements for scheduled and carryover work orders. This is a required field.
Crew	Select a crew associated with the crew business unit and shop. The system searches for work order tasks that have the selected crew value in the Preferred Crew field of a task for unscheduled work orders. It searches for this selected crew value in the Crew field of a task's labor requirements for scheduled and carryover work order tasks. This is a required field.

Field or Control	Description
View Tasks without Crew	Select this check box to search for and display any unscheduled work orders with tasks that do not have a default value in the Preferred Crew field of a work order task.
Scheduling Status	Select:
	• Unscheduled
	Select this option to search for work order labor requirements in which crews are not yet assigned. The selected schedule period is not included in the search criteria because unscheduled work orders are not yet assigned to a period.
	• Carryover Work
	Select this option to search for all work orders with labor requirements tasks that have unfinished work
	<b>Note:</b> Unfinished work refers to crew assignments for which the completed date is blank and carryover hours exist.
	Review Entire Crew Schedule
	Select this option to work in conjunction with the values in the business unit, shop, crew, and period fields to display all work orders that are scheduled to the specified crew. It has a complete view of the scheduled work prior to confirming the work, which enables you to verify all of the schedules, including those that you might otherwise have missed.
	Note: When you select this value, all other search criteriother than those mentioned above are disabled and contain their default values.
	• Scheduled
	Select this option to search for work orders that are assigned a crew. The crew schedule status of the rows that appear can be <i>Unplanned, Scheduled,</i> or <i>Schedule Confirmed</i> .

Field or Control	Description
Schedule Period	Select one of these periods:
	Previous Period
	This period immediately precedes the current period.
	Current Period
	This period is determined by the current date (today's date), which must fall within the period's start and end dates.
	Next Period
	This period immediately follows the current period.
	Following Period
	This period follows the <i>Next Period</i> .
	Specific Period
	Selecting this option enables you to enter a specific period start date.
	The previous, next, and following period options depend on the period that the system identifies as the current period for the crew. If the system does not identify the current period, you can only select a specific period.
Craft	Select a craft to display labor requirements associated with this specific craft.

## Work Order Search Criteria

The fields in this group box are common to all work orders and work order tasks. Select the criteria to narrow your search for specific work orders. If you specify a shop, the system searches for the shop specified in the work order header information.

See <u>Understanding Work Orders</u>.

# **Work Order Status and Priority Search Criteria**

You can search for work orders based on selecting one or more user-defined work order task statuses that have an internal status of:

- Open
- On Hold
- Awaiting Schedule

- Scheduled
- Work in Progress

You can also select one or all of the work order priorities to use in your search.

See Defining Work Order Statuses.

## **Asset Information**

Select the asset information to narrow your search to display work orders and work order tasks based on specific asset characteristics and attributes.

See <u>Understanding Work Orders</u>.

# Sort By Search Criteria

Field or Control	Description
Sort By	Select one of the following fields and select whether you want to sort the field values in the Crew Scheduling Workbench in either <i>Ascending</i> or <i>Descending</i> order:
	Asset Area
	Asset Criticality
	Asset ID - Description
	Asset Location
	Completed Date
	• Craft
	• Crew
	Crew End Date
	Crew End Time
	Crew Schedule Status
	Crew Start Date
	Crew Start Time
	• Priority
	Required End Date
	Required End Time
	Required Start Date
	Required Start Time
	Requirement Line Number
	Task Description
	Task Status
	Work Order ID
	Work Order Type
	Important! You can add rows to select more than one field name.

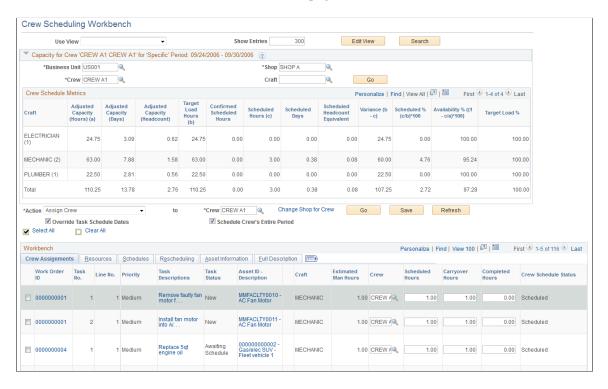
# **Crew Scheduling Workbench Page**

Use the Crew Scheduling Workbench page (WM\_CREW\_SCHD\_WB) to schedule crews to work order task labor requirement lines.

Navigation:

## Maintenance Management > Workbenches > Crew Scheduling Workbench

This example illustrates the fields and controls on the Crew Scheduling Workbench page. You can find definitions for the fields and controls later on this page.



# **Capacity for Crew**

Field or Control	Description
Crew Business Unit	Select the work order business unit associated with the shop that contains the crew for which you want to display capacity.
Crew Shop	Select the shop that contains the crew for which you want to display capacity.
Crew	Select the crew for which you want to display capacity.
Craft	Select a craft associated with the selected crew if you want to display capacity for only one craft.  This field is optional.

Field or Control	Description
Go	Click this button after entering all or some of the search criteria (business unit, shop, crew, craft) associated with a crew. This action enables you to display the crew capacity data for a different crew.
Adjusted Capacity (Hours)	Displays the adjusted capacity in hours, which is set up as part of the metrics for the crew and period. It typically represents the crew's: Total shift hours for the period – Any time off (vacation, holidays, sick days and more)
Adjusted Capacity (Days)	Displays the adjusted capacity in days, which is set up as part of the metrics for the crew and period. It typically represents the crew's: (Total shift hours for the period – Any time off) / Standard day hours defined in the crew's shop
Adjusted Capacity (Headcount)	Displays the adjusted capacity headcount, which is set up as part of the metrics for the crew and period. It typically represents the crew's: The adjusted capacity days / The number of days in the schedule period
Target Hours	Displays the calculated target load hours in which Target load hours = Adjusted capacity (hours) * Target load %
Confirmed Scheduled Hours	Displays the number of hours from the crew schedule that are confirmed for the period. Scheduled hours are confirmed when you select the <i>Confirm Metrics</i> action, which updates the data in the crew capacity plan based on the selected rows.
Scheduled Hours	Displays the total number of hours for which a craft is scheduled for the period.
	Assigning a crew to a requirement, updating scheduled hours, or changing a period updates the value in this field.
Scheduled Days	Displays the total number of days for which a craft is scheduled. Scheduled days = Scheduled hours / Standard number of hours in workday in the crew's shop
Scheduled Headcount Equivalent	Displays the total headcount for which a craft is scheduled.  Scheduled headcount = (Scheduled hours / Standard number of hours in workday in the crew's shop) / Number of days in the period based on the shift

Field or Control	Description
Variance (b – c)	Displays the difference between the scheduled hours and the target load hours.
Scheduled % (c/b * 100)	Displays the actual schedule load relative to the target load hours. Scheduled % = (Scheduled hours / Target load hours) * 100
Availability % (1– c/a) * 100	Displays the actual schedule load relative to the adjusted capacity. Availability % = (1 – Scheduled hours / Adjusted capacity hours) * 100
Target Load %	Displays the crew's expected load against the adjusted capacity in terms of percentage for all planned work. Typically, it is set below 100 percent to accommodate any unplanned and emergency entries that may occur throughout the period.

See <u>Understanding Crew Capacity Planning</u>.

# **Actions**

This section describes each selected action and its relationship to the Crew Scheduling Workbench.

Field or Control	Description
Action	Select work order rows in the workbench and select an action to perform on the selected rows. Values are:
	Assign Crew
	Selecting this action displays:
	<ul> <li>A to Crew: field in which you can select the crew that you want to assign to the selected work orders task rows. The crew specified in the search criteria appears as the default crew in the field.</li> </ul>
	A Change Shop for Crew link, which you can clie to access the Change Shop to Identify Crew page, where you select a different Crew Shop in which associate a crew.
	See <u>Understanding Crew Scheduling</u> .
	An Override Task's Schedule Dates check box, which is selected by default.
	If you do not select this check box, the crew assignment may result in error on some or all of th selected rows if the crew start or end dates fall off date range established by the task's scheduled start and end dates. You cannot change the task schedul dates after the crew is scheduled. If this check box selected, the task schedule dates expand or collaps to fit the period to which the crews are scheduled.
	See <u>Understanding Crew Scheduling</u> .
	A Schedule Crew's Entire Period check box. If y select this check box, the system sets the crew end date to the period end date.
	• Reason
	Select a reason code that explains why you are assigning the crew. Reason codes and descriptions are saved in the Reschedule History.
	Note: This field appears on the page when the peri specified is <i>Current</i> or a period previous to the current period, or when the crew scheduling status <i>Carryover Work</i> .

ld or Control	Description
	Enter a more detailed description of why you are assigning this crew.
	<b>Note:</b> This field appears on the page when the period specified is <i>Current</i> or a period previous to the current period, or when the crew scheduling status is <i>Carryover Work</i> .
	Change Crew End Date/Time
	Selecting this action displays:
	A to field in which you can enter or select a new crew end date, which is updated in the Schedules grid for the selected rows.
	<ul> <li>A blank field in which you can enter a new crew end time, which is updated in the Schedules grid for the selected rows.</li> </ul>
	Note: The time field is not required to perform the action. If you leave the field blank, the crew end times of the selected rows do not appear as overridden.
	An Override Task Schedule Dates check box is selected and can be changed.
	A Reason field in which you must select a reason code whenever a resource is moved to another period.
	Note: This field appears on the page when the period specified is <i>Current</i> or a period previous to the current period, or when the crew scheduling status is <i>Carryover Work</i> .
	A Description field in which you can enter a longer description for the change.
	<b>Note:</b> This field appears on the page when the period specified is <i>Current</i> or a period previous to the current period, or when the crew scheduling status is <i>Carryover Work</i> .
	Change Crew Start Date/Time
	Selecting this action displays:

ield or Control	Description
	<ul> <li>A to field in which you can enter or select a new crew start date, which is updated on the Schedules tab for the selected rows.</li> <li>A blank field in which you can enter a new crew start</li> </ul>
	Note: The time field is not required to perform the action. If you leave the field blank, the crew end times of the selected rows do not appear as
	overridden.
	An Override Task Schedule Dates check box is selected and can be changed.
	A Reason field in which you must select a reason code whenever a scheduled resource is moved to another period.
	Note: This field appears on the page when the period specified is <i>Current</i> or a period previous to the current period, or when the crew scheduling status in <i>Carryover Work</i> .
	Important! Before you can move a requirement to another period, you must first assign the requirement to a crew.
	A <b>Description</b> field in which you can optionally enter a longer description for the change.
	<b>Note:</b> This field appears on the page when the period specified is <i>Current</i> or a period previous to the current period, or when the crew scheduling status in <i>Carryover Work</i> .
	Change Period
	Selecting this action displays:
	• A <b>to</b> field in which you can select a value of <i>Curren Period</i> , which transfers the rows to the current period; <i>Next Period</i> , which transfers the rows to the next period relative to the current period; <i>Following Period</i> , which transfers the rows to the following period relative to the current period; <i>Previous Perio</i> which transfers the rows to the previous period

d or Control	Description
	relative to the current period; <i>Specific Period</i> , which transfers the rows to the period specified in the field that appears next to the period.
	An Override Task's Schedule Dates check box, which is selected by default.
	See <u>Understanding Crew Scheduling</u> .
	A Schedule Crew's Entire Period check box.
	• Reason.
	• Description.
	Change Status
	Select to change the task status to any available task status:
	• Open
	Awaiting Schedule
	• Hold
	• Scheduled
	Work in Progress
	• Canceled
	You can notify the scheduler using the Change Status page of the status change.
	Important! Selecting a task status displays the Change Status page for the selected rows. If you selected multiple rows for the same task, only one row representing all of these rows appears on the Change Status page. When you change the status of this row, the system changes the status of all of the rows associated with the task, whether you selected them or not. When you select <b>OK</b> , you are returned to the Crew Scheduling Workbench.  Once you select a status, the Change Status page validates the status transitions and displays an error if the status change is not valid.
	Create Labor Schedules
	Select to create Labor Schedule rows from the selected requirement rows, which can be subsequently displayed in the Labor Assignments workbench and in the Schedules

Field or Control	Description
	page Labor Schedules tab of the work order. This action works like copying requirements to the schedule rows in the Work Order component. Selecting this action automatically saves the component.  • Go to Labor Assignment WB (go to labor assignment workbench)  Select to display the Labor Assignment Workbench, pass in the selected crew and schedule period, and automatically execute the search to display the labor schedule rows.  • Go to PM Projections  Select to display the View Projections component search page. Enter a PM Projection Process Instance number at click Go to directly access the PM Projections based on this process instance.
	Remove from Schedule
	Select to cancel the crew assignment from the row and t period:
	• Reason
	• Description
	See <u>Understanding Crew Scheduling</u> .
	Report Completed Date
	Select to display a date field in which you can select the date that the selected rows were completed. When you click the <b>Go</b> button, this date is updated in the <b>Complet</b> field in the grid of the Schedules tab for each row. You can change this date. Any carryover hours are set to zero and all the fields in the Crew Schedules Workbench are locked except for the <b>Completed Date</b> field.
	Important! Selecting Report Completed Date should be the last thing you do in the Crew Scheduling Workbench Its selection does not change the task status to complete in the work order. You access the task in the Technician Workbench to change the task status to complete.  However, you must make sure that the actual dates are updated in the work order.  You can set a task to complete from the Crew Scheduling Workbench if all validations for setting a task to complete passed.

Field or Control	Description
	<ul> <li>Update Carryover Hours  Enter carryover hours, then the Completed (date) field appears, for which you can select the date on which the task was completed for the rows.</li> <li>Update Completed Man Hours  Select to display a to field in which you can enter the number of man hours that it took to complete the selected task row.</li> <li>Update Schedule Hours  Select to display a to field in which you can enter the number of schedule hours that it took to complete the selected task row.</li> <li>Confirm Metrics  Select to update the metrics in the crew capacity grid if the crew and period in the grid match the crew and period in the row. The system does not update the actual capacity in the database until you save the Crew Scheduling Workbench.</li> </ul>
Go	Click this button to perform the selected action, validate the action for the selected rows, and display warning, error, and informational messages on the Message tab, which only appears when messages are generated.
	Important! Clicking the Go button does not save the changes resulting from the action. You must click the Save button.
Save	Click this button to save the Crew Scheduling Workbench.  This action also updates the crew schedule metrics in the appropriate crew capacity plan.
Refresh	Click this button to refresh changes made on the Assignments tab and to update the Availability tab. This action causes deferred processing in field changes to proceed.

# Crew Assignments Tab — Crew Scheduling Workbench Page

Use the Crew Assignments tab on the Crew Scheduling Workbench page to view the crew assignments.

Navigation:

### Maintenance Management Workbenches > Crew Scheduling Workbench

This example illustrates the fields and controls on the Crew Scheduling Workbench page: Crew Assignments tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Work Order ID	Click this link to access this specific work order in the Work Order component.
Task No. (task number)	Identifies a task associated with each work order ID (display-only field).
Line No. (line number)	Identifies the labor requirement line number associated with this task (display-only field).
Priority	Displays the level of priority of the work order associated with this task (display-only field).
Task Descriptions	Click this link to access the WO Task Descriptions secondary page, which displays the work order ID, business unit, and task description.
	Note: Select the Full Description tab to view the full description entered in the work order and each task.
Task Status	Displays the current status of the work order task. You can change the status of each task line by selecting the row and selecting an action of <i>Change Status</i> .
Asset ID Description	Click this link to access the Asset Information page, which lists the characteristics and attributes of the asset along with a long description of the asset.

Field or Control	Description
<b>^</b>	Click this <b>Warranties</b> icon to display the Asset Warranties page, where you can create a warranty claim or apply a warranty template to the claim. This icon appears when an asset has active warranties.
	See <u>Understanding Warranty Claim Management in PeopleSoft Maintenance Management</u> .
<b>~</b>	Displays this <b>Hazardous</b> icon if an asset is associated with any hazardous regulations (display-only field).
Craft	Identifies each craft assigned to a task row based on the work order labor requirements definition (display-only field).
Estimated Man Hours	Displays the labor requirement hours from the work order.
Crew	Select a crew to perform a crew assignment, if desired. This field is also changed when you select one or more rows, select the <i>Assign Crew</i> action, and select a different crew. If you select the <i>Remove from Schedule</i> action, this <b>Crew</b> field is blank.
Scheduled Hours	Enter or update the hours on the task that are scheduled for the selected crew. This field value is updated when you select one or more rows and select the <i>Update Scheduled Hours</i> action.
	<b>Note:</b> You must enter a positive value, which can exceed the estimated duration of the task. This field is available for entry as long as you do not select Report Completed Date for this row.
Carryover Hours	You can update the number of remaining hours that are still available to schedule for the crew. You can carry over these hours to the next period, if desired. You can also select one or more rows, and select the <i>Update Carryover Hours</i> action to update the carryover hours for each selected row.
	Note: You must enter a positive value, which can exceed the estimated duration of the task. This field is available until you mark the row completed using the <i>Report Completed Date</i> action. You must also have the <b>Report Crew Carryover Hours</b> check box selected for the user in the user preferences.
Completed Hours	Enter the number of hours that have been completed. These hours are usually reported by technicians. You can also select one or more rows and the <i>Update Completed Hours</i> action to update this field value.

Field or Control	Description
Crew Schedule Status	Displays one of these values to indicate the current status of the crew schedule:  • Unscheduled  This is the default value, which appears when a labor requirement row is generated.  • Unplanned/Emergency  This value applies to a labor requirement row if a crew is assigned to the current or any past periods.  • Scheduled  This value applies to a labor requirement row if a crew is
	<ul><li>assigned to any future periods (next, following, beyond).</li><li>Schedule Confirmed</li></ul>
	This value applies to a labor requirement row when the metrics in the crew capacity plan are updated for this row upon selecting the <i>Confirm Metrics</i> action.  See <u>Understanding Crew Scheduling</u> .

# Resources Tab — Crew Scheduling Workbench Page

Use the Resources tab on the Crew Scheduling Workbench page to view the resources.

Navigation:

#### Maintenance Management > Workbenches > Crew Scheduling Workbench

This example illustrates the fields and controls on the Crew Scheduling Workbench page: Resources tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Change Shop for Crew	Click this link to access a secondary page to change the shop associated with the selected crew to another shop to which the crew is assigned.
	Important! If you change the shop for the crew at the task level, the cost and bill rates for these rows are still determined by the shop specified in the header of the work order.
Labor	Displays a <i>Yes</i> or <i>No</i> for each row, which indicates whether or not labor resources are scheduled for the selected work order task row. Clicking the link (Yes or No) takes you to the Schedules page and the <b>Labor Schedules</b> grid in the work order.
Inventory	Displays a <i>Yes</i> or <i>No</i> for each row, which indicates whether or not inventory parts are scheduled for the selected work order task row. Clicking the link (Yes or No) takes you to the Schedules page and the <b>Inventory Schedules</b> grid in the work order.
	Note: This field does not appear if PeopleSoft Inventory is not installed.
Purchase/On-Hand	Displays a <i>Yes</i> or <i>No</i> for each row, which indicates whether or not non-inventory and open description labor, material, and tools are scheduled to be purchased or are on-hand for the selected work order task row. Clicking the link (Yes or No) takes you to the Schedules page and the <b>Purchase/On-Hand Schedules</b> grid in the work order.
Tools	Displays a <i>Yes</i> or <i>No</i> for each row, which indicates whether or not tool resources are scheduled for the selected work order task row. Clicking the link (Yes or No) takes you to the Schedules page and the <b>Tool Schedules</b> grid in the work order.

# Schedules Tab — Crew Scheduling Workbench Page

Use the Schedules tab on the Crew Scheduling Workbench page to view the schedules.

Navigation:

Maintenance Management > Workbenches > Crew Scheduling Workbench

This example illustrates the fields and controls on the Crew Scheduling Workbench page: Schedules tab. You can find definitions for the fields and controls later on this page.



The required start and end dates and times that appear for each craft are defined in the work order task labor requirements. They appear only in this grid.

Field or Control	Description
Crew Start	When you assign a crew to a row, this field displays the start date of the period. You can change the data in this field by selecting the action <i>Change Crew Start Date and Time</i> or by changing the value in one row.
	Important! If you change this date in a single row to a date outside the Schedule dates in the work order task, the system validates the change based on whether the Override Task Schedule Dates check box is selected. When you select the Change Crew Start Date and Time action, you can select the check box that enables you to override the task scheduled dates. However, the check box is not available if you change the dates for a single row. If you change the Crew Start date field directly in the workbench for a single row, then the system validates the field value based on whether the Override Tasks Schedule Dates option was selected or not the last time the Override Tasks Schedule Dates option was applied to selected rows of the workbench. If the check box was selected, then the system issues a warning that the scheduled dates on the task may change. If the check box was not selected, the system issues an error indicating that the change in the crew start and end dates for the row are outside of the range of the scheduled dates for the task.
Start Time	When you assign a crew to a row, this field displays the crew's shift start time for the corresponding day of the week in which the crew start date falls. You can change the data in this field by selecting the action <i>Change Crew Start Date and Time</i> .
Crew End	When you assign a crew to a row, this field displays the start date of the period plus the difference between the required start and end dates. You can change the data in this field by selecting the action <i>Change Crew End Date and Time</i> . Refer to the note under <b>Crew Start Date</b> when changing the date for a single row outside of the task schedule date.

Field or Control	Description
End Time	When you assign a crew to a row, this field displays the crew's shift end time for the corresponding day of the week in which the crew end date falls. You can change the data in this field by selecting the action <i>Change Crew End Date and Time</i> .
Completed	Displays the date that the crew completed the task. This field is automatically updated if the work order task status is changed to complete. You can select the action <i>Report Complete Date</i> to update this field or update a single row. The available fields in the row on each grid become unavailable except for this field. Carryover hours are set to zero.

# Full Description Tab — Crew Scheduling Workbench Page

Use the Full Description Tab on the Crew Scheduling Workbench Page to view full description.

Navigation:

#### Maintenance Management > Workbenches > Crew Scheduling Workbench

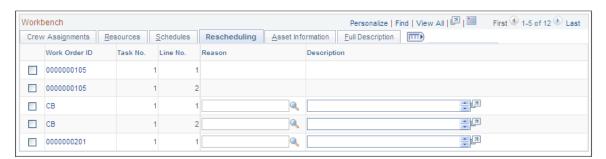
Field or Control	Description
Work Order Description	Displays the full description entered in the work order header of the Work Order component.
Task Description	Displays the full description entered for each task on the Requirements page or Schedules page of the Work Order component.

# Rescheduling Tab — Crew Scheduling Workbench Page

Navigation:

#### Maintenance Management > Workbenches > Crew Scheduling Workbench

This example illustrates the fields and controls on the Crew Scheduling Workbench page: Rescheduling tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Reason	Enter a reason for rescheduling a crew assignment in this field. This field is only used if you reschedule a row and need to move the date into the Rescheduling History.  Note: You set up reason codes in Set Up Financials/ Supply Chain > Product Related > Maintenance Management > Setup > Crew Rescheduling Reason Codes.
Description	Displays the description associated with the selected reason.

# **Asset Information Tab — Crew Scheduling Workbench Page**

Navigation:

#### (Maintenance Management > Workbenches > Crew Scheduling Workbench)

This example illustrates the fields and controls on the Crew Scheduling Workbench page: Asset Information tab. You can find definitions for the fields and controls later on this page.



This tab displays the asset information entered for the work order task.

Field or Control	Description
<b>1</b>	Click the <b>Calendar</b> icon to display the Asset Monthly Schedule page, which displays dates and times that the asset may not be available for scheduling or enables you to add dates and times that the asset is unavailable.
View Work History	Click this link to display the Work Order History page for the asset. The work order history of the asset identifies the work order, task and task description, task status, required start and end dates, completed date, and close date for the task as they become available.

Field or Control	Description
Asset Maintenance History	Click this link to display the Asset Service/Repair History search page of the Review Maintenance History component in PeopleSoft Asset Management. If the asset has a maintenance history, the Maintenance History by Type page displays the description, date and time, and responsible party for the maintenance on the Maintenance tab; the material, labor, and other costs on the Cost tab; and the task description, work order ID, work order business unit, and task number on the Work Order tab.

### Messages Tab — Crew Scheduling Workbench Page

Navigation:

#### Maintenance Management > Workbenches > Crew Scheduling Workbench

This example illustrates the fields and controls on the Crew Scheduling Workbench page: Messages tab. You can find definitions for the fields and controls later on this page.



The Messages tab is visible when you execute an action and one of the selected rows issues a message as a result of the action, or when you modify a field in a row. The system displays an error, warning, or information message icon in the selected row that has a message, and the message is described on the Message tab.

Field or Control	Description
	Displays a <b>Warning</b> icon if a warning message is available on the Messages page. If at least one of the messages is a warning and none of the rows has an error message, then the action will take place.
	Displays an <b>Error</b> icon if an error message is available on the Messages page. If at least one of the messages is an error, then the action will not take place.

Field or Control	Description
6	Displays an <b>Information</b> icon if an informational message is available on the Messages page. If the messages are informational and no error messages occurred, then the action will take place.

# **Using the Labor Assignment Workbench**

This section provides an overview of the Labor Assignment Workbench and discusses how to use the Labor Assignment Workbench Search page, determine employee availability, perform assignment actions on multiple task rows, define the Assignments tab of the Labor Assignment Workbench, define the Schedules tab of the Labor Assignment Workbench, define the Asset Information tab of the Labor Assignment Workbench, use the Full Description tab of the Labor Assignment Workbench, and define the Distributions tab of the Labor Assignment Workbench.

# Pages Used by the Labor Assignment Workbench

Page Name	Definition Name	Usage
Labor Assignment Workbench Search Page	WM_LABOR_SRCH_SEC	Search for crew and non-crew schedules in which to assign labor.
Labor Assignment Workbench Page	WM_LABOR_ASSIGN_WB	Review crew member and non-crew member availability in order to make labor assignments to schedule rows.
Monthly Schedule	RS_SCHED_MONTH	Review and modify the task details in an employee's monthly and daily schedules.
Task Details	RS_SCHED_APPT	Add or modify the task details for an employee.
Daily Schedule	RS_SCHED_DAILY	Review assignments for a specific date entered on the Task Details page.
Work Order	WM_WO_HDR	Review, modify, and update the work order.
Work Order Task Descriptions	WM_WO_LA_TSK_SEC	Review the description of the work order task.
Labor Distributions	WM_LBAW_DIST_SEC	Review and update the labor ChartField distribution.

### **Understanding the Labor Assignment Workbench**

The Labor Assignment Workbench is typically used to assign technicians to tasks that have been previously scheduled to crews using the Crew Scheduling Workbench. The workbench enables you to view the availability and load of each crew member for each day of the schedule period and allocate the workload appropriately to multiple work orders and their associated tasks at one time. As you assign crew members to tasks, the Availability tab is automatically updated with these changes. In addition, you are not limited to assigning crew members to work order tasks. You can also assign technicians to non-crew related work orders, as well as assign a technician who is not assigned to a crew to a crew scheduled work order. When you save the assignments on the workbench, the system updates the labor schedule rows in the work order and updates each technician's resource calendar with the new assignments.

You are not required to use the Labor Assignment Workbench to assign technicians associated with a crew to tasks. You can also make these assignments by accessing a single work order using the Work Order component. However, the Labor Assignment Workbench streamlines the scheduling process and enables you to maximize resource utilization.

To use the Labor Assignment Workbench for non-crew scheduled work orders, you must first create labor schedules for each work order.

The Labor Assignment Workbench consists of:

- A search page, which enables you to search for work order labor schedules within a schedule period.
- A resource availability tab, which shows the availability and load of each crew member (crew scheduled) or shop resource (non-crew scheduled) for each day of the schedule period.
- The workbench, which lists the work order labor schedule lines requiring technician assignments.

You can perform mass updates to the workbench grid by applying various actions to selected rows, or you can update the grid manually, the same way you update the labor schedules grids in the work order.

The Availability tab takes into account the employee's shift and availability and considers the schedule dates and total available hours each day based on the resource's calendar. Refreshing the tab after making changes to the labor schedule assignments updates each employee's displayed availability but does not adjust the start and end dates and times on the labor schedules. Saving the page updates each affected Resource Schedule with the assignments and adjusts the start and end dates and times as needed. Making assignments on this workbench follows the same rules and performs the same updates to the system as does making the assignments in the work order component.

The following examples show how the Availability tab changes as assignments are made. Each example is for the employee John Clark, who:

- Works Monday through Friday.
- Works a shift from 8 a.m. to 12 p.m. and from 1 p.m. to 5 p.m.

### **Labor Assignment Example 1**

Based on the initial Availability tab, which indicates the number of hours *not* assigned to John Clark, he is free every day between 12 noon. and 6 pm.

John's supervisor assigns him to Task/Line #: WO002/1 scheduled from 1/2/06 10:00 a.m. to 1/3/06 5:00 p.m. with a duration of 10 hours.

The system creates these entries on his calendar:

- 1/2/06 10:00 a.m. to 12:00 p.m. (2 hours)
- 1/2/06 01:00 p.m. to 05:00 p.m. (4 hours)
- 1/3/06 08:00 a.m. to 12:00 p.m. (4 hours)

This table shows the results of refreshing the Availability tab based on this assignment:

Action	Employee	Base Capacity	Assigned	Load%	1/2/06	1/3/06	1/4/06	1/5/06	1/6/06
Initial Display	John Clark	40.00	0.00	0	8.00	8.00	8.00	8.00	8.00
After Assignment	John Clark	40.00	10.00	25	2.00	4.00	8.00	8.00	8.00

### **Labor Assignment Example 2**

Assumption: John Clark is assigned a task on 1/3/06 from 10:00 a.m. to 12:00 p.m. The rest of the days in the week, he is available.

John's supervisor attempts to assign him to Task /Line #: WO002/1, which is scheduled from 1/2/06 10:00 a.m. to 1/3/06 5:00 p.m. Task duration is 10 hours.

However, the system issues an error message because two hours in the morning of 1/3/06 are already assigned. To correct this problem, the supervisor selects the **Overbooking** check box, which enables him to assign the additional two hours.

The system creates these entries on John Clark's calendar:

- 1/2/06 10:00 a.m. to 12:00 p.m. (2 hours)
- 1/2/06 01:00 p.m. to 05:00 p.m. (4 hours)
- 1/3/06 08:00 a.m. to 12:00 p.m. (4 hours)

This table shows the results of refreshing the Availability tab based on this assignment:

Action	Employee	Base Capacity	Assigned	Load%	1/2/06	1/3/06	1/4/06	1/5/06	1/6/06
Initial Display	John Clark	40.00	2.00	5	8.00	6.00	8.00	8.00	8.00

Action	Employee	Base Capacity	Assigned	Load%	1/2/06	1/3/06	1/4/06	1/5/06	1/6/06
After Assignment	John Clark	40.00	12.00	30	2.00	2.00	8.00	8.00	8.00

#### **Labor Assignment Example 3**

John Clark's supervisor attempts to assign him to these five tasks, which start on the same day:

- Task/Line # WO002/1: scheduled from 1/2/06 8:00 a.m. to 1/3/06 5:00 p.m. Task duration is 10 hours.
- Task/Line # WO002/2: scheduled from 1/2/06 8:00 a.m. to 1/3/06 5:00 p.m. Task duration is 12 hours.
- Task/Line # WO002/3: scheduled from 1/2/06 8:00 a.m. to 1/3/06 5:00 p.m. Task duration is 8 hours.
- Task/Line # WO002/4: scheduled from 1/2/06 8:00 a.m. to 1/3/06 5:00 p.m. Task duration is 8 hours.
- Task/Line # WO002/5: scheduled from 1/2/06 8:00 a.m. to 1/3/06 5:00 p.m. Task duration is 8 hours.

The supervisor receives an error message that John has a scheduling conflict. To correct this problem, the supervisor selects the **Overbooking** check box, which enables him to assign John Clark to the work order task with these entries on John Clark's calendar:

- Task/Line # WO002/1
  - 1/2/06 8:00 a.m. to 12:00 p.m. (4 hours)
  - 1/2/06 1:00 p.m. to 5:00 p.m. (4 hours)
  - 1/3/06 8:00 a.m. to 10:00 a.m. (2 hours)
- Task/Line # WO002/2
  - 1/2/06 8:00 a.m. to 12:00 p.m. (4 hours)
  - 1/2/06 1:00 p.m. to 5:00 p.m. (4 hours)
  - 1/3/06 8:00 a.m. to 12:00 a.m. (4 hours)
- Task/Line # WO002/3
  - 1/2/06 8:00 a.m. to 12:00 p.m. (4 hours)
  - 1/2/06 1:00 p.m. to 5:00 p.m. (4 hours)
- Task/Line # WO002/4
  - 1/2/06 8:00 a.m. to 12:00 p.m. (4 hours)
  - 1/2/06 1:00 p.m. to 5:00 p.m. (4 hours)

- Task/Line # WO002/5
  - 1/2/06 8:00 a.m. to 12:00 p.m. (4 hours)
  - 1/2/06 1:00 p.m. to 5:00 p.m. (4 hours)

**Important!** The Availability tab, like the PeopleSoft Resource Management calendar, allows overbooking up to the shift total (8 hours) each day for each task. The system does not limit the total number of overbooked hours for all tasks each day.

Refreshing the Availability tab based on this assignment:

Action	Employee	Base Capacity	Assigned	Load%	1/2/06	1/3/06	1/4/06	1/5/06	1/6/06
Initial Display	John Clark	40.00	0.00	0	8.00	8.00	8.00	8.00	8.00
After Assignment	John Clark	40.00	46.00	115	-32.00	2.00	8.00	8.00	8.00

**Note:** Typically, a supervisor will not allow this much overbooking for one day. This scenario is an example of how a supervisor can move past the error by selecting overbooking. Instead, a supervisor might adjust the assignments to encompass the entire period.

### **Labor Assignment Example 4**

John Clark is assigned two tasks spanning the entire period of one week:

- Task/Line # WO002/1: scheduled from 1/2/06 8:00 a.m. to 1/6/06 5:00 p.m. Task duration is 10 hours.
- Task/Line # WO002/2: scheduled from 1/2/06 8:00 a.m. to 1/6/06 5:00 p.m. Task duration is 12 hours.

If the scheduler does not select overbooking, then John Clark will be assigned to the tasks, and these entries will be added to his calendar:

- Task/Line # WO002/1
  - 1/2/06 8:00 a.m. to 12:00 p.m. (4 hours)
  - 1/2/06 1:00 p.m. to 5:00 p.m. (4 hours)
  - 1/3/06 8:00 a.m. to 10:00 a.m. (2 hours)
- Task/Line # WO002/2
  - 1/3/06 10:00 a.m. to 12:00 p.m. (2 hours)
  - 1/3/06 1:00 p.m. to 5:00 p.m. (4 hours)
  - 1/4/06 8:00 a.m. to 12:00 p.m. (4 hours)

• 1/4/06 1:00 p.m. to 3:00 p.m. (2 hours)

Refreshing the Availability tab based on this assignment:

Action	Employee	Base Capacity	Assigned	Load%	1/2/06	1/3/06	1/4/06	1/5/06	1/6/06
Initial Display	John Clark	40.00	0.00	0	8.00	8.00	8.00	8.00	8.00
After Assignment	John Clark	40.00	22.00	55	0.00	0.00	2.00	8.00	8.00

### **Labor Assignment Workbench Search Page**

Use the Labor Assignment Workbench Search page (WM\_LABOR\_SRCH\_SEC) to search for crew and non-crew schedules in which to assign labor.

Navigation:

# Maintenance Management > Workbenches > Labor Assignment Workbench > Labor Assignment Workbench Search

This example illustrates the fields and controls on the Labor Assignment Workbench Search page. You can find definitions for the fields and controls later on this page.



The Labor Assignment Workbench Search page is similar to the Crew Scheduling Workbench Search page.

F	ield or Control	Description
U	se View	Select an existing saved view as your search criteria.

Field or Control	Description
Save View	Click this button if you change the criteria in a view or create a view of new search criteria. If you modified an existing view, the system asks if you want to override the view. If this is a new view, the system saves the view with the name you enter in the <b>Use View</b> field.
Delete View	Click this button to delete the current view. The system asks if you are sure that you want to delete the view.
Clear	Click this button to clear all the field values in a view.
Search	Click this button after entering any required or additional search criteria. The system searches for and displays the availability for the selected crew and period, and it displays work orders in the workbench grids that are either assigned or can be assigned based on the criteria.
Return	Click this link to return to the workbench.

Field or Control	Description
View Mode	Select a value.
	Crew Scheduled
	Select this value to find work orders that are scheduled to a crew. The Crew Scheduling, Work Order, Work Order Status and Priority, Asset Information, and Sort By group boxes will appear. In the Crew Scheduling group box, enter:
	Crew business unit (This value is provided by default from the business unit on the User Preferences - Maintenance Management page.)
	Crew shop
	• Crew
	Schedule period
	The <b>Craft</b> field is not required, but you can use it to narrow your search. When you click the <b>Search</b> button after defining your search criteria, the resources on the <b>Availability</b> grid will initially be restricted to the resources for the crew selected on the search page. To display all of the shop resources, clear the crew in the <b>Availability</b> grid and click the <b>Go</b> button.
	Non-Crew Scheduled
	Select this value to find work orders that are not yet scheduled to a crew. The Work Order, Work Order Status and Priority, Asset Information, and Sort By group boxes will appear. In the Work Order group box, enter:
	Business unit (work order)
	• Shop
	When you click the <b>Search</b> button after defining your noncrew scheduled search criteria, all of the resources assigned to the shop and work order labor schedule lines that fall within the selected search criteria appear in the <b>Availability</b> grid.  See <u>Crew Scheduling Workbench Search Page</u> .

Field or Control	Description
Sort By	Select a field name and select whether you want to sort the field values in either <i>Ascending</i> or <i>Descending</i> order. Values are:
	Asset Area
	Asset Criticality
	Asset Description
	Asset Location
	• Craft
	Employee ID
	Resource Line Number
	Scheduled End Date
	Scheduled End Time
	Scheduled Start Date
	Scheduled Start Time
	Task Description
	Task Number
	Task Status
	Work Order ID

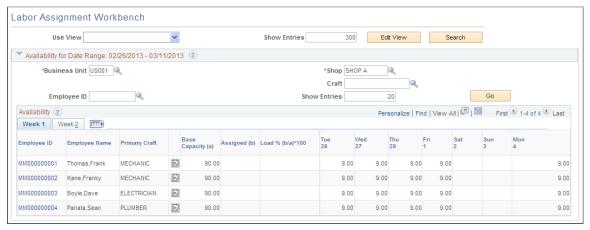
# **Labor Assignment Workbench Page**

Use the **Availability** grid on the Labor Assignment Workbench page. to view labor availability as per weeks.

Navigation:

Maintenance Management > Workbenches > Labor Assignment Workbench > Labor Assignment Workbench

This example illustrates the fields and controls on the Labor Assignment Workbench page: Availability grid. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Business Unit	Select a business unit to override the default business unit.  The default business unit is derived from the Labor Assignment Workbench Search criteria.
Shop	Select a shop to override, if necessary, the default shop.  The default shop is derived from the Crew Scheduled Labor Assignment Workbench Search criteria if the Crew Scheduled View Mode is selected.  Alternatively, the default shop is derived from the Non-Crew Scheduled Labor Assignment Workbench Search criteria if the Non-Crew Scheduled View Mode is selected.
Crew	Select a crew to override, if necessary, the default crew value, which is derived from the Crew Scheduled Labor Assignment Workbench search criteria. Initially, only the crew resources appear on this page. However, you can clear the crew ID in this field and click the <b>Go</b> button to list all shop resources.  Note: If the search criteria is Non-Crew Scheduled, then this field does not appear.
Craft	Enter a craft or select a craft to override, if necessary, the default craft value, which is derived from either the Crew Scheduled or Non-Crew Scheduled Labor Assignment Workbench Search criteria. When you click the <b>Go</b> button, the system displays only the employees assigned to the selected shop for that craft.  This field is optional.

Field or Control	Description
Employee ID	Select a specific employee to check the availability of only that person. You can select any employee, as long as the employee is assigned to a shop.
Go	Click this button to refresh the <b>Availability</b> grid with any changes to the search fields listed previously. Only the <b>Business Unit</b> and <b>Shop</b> fields are required search fields. This button allows you to change the resource search criteria to either refine the list of resources within the shop and crew selected for scheduling or to view resource availability in other shops and crews.

### **Availability Grid**

The number of tabs depends on the number of days in the period, and periods are divided into weeks. You can see from one to five weekly tabs, depending on the scheduling period. The metrics in this grid show the availability and load of each crew member for each day of the schedule period. Assigning employees to selected rows in the workbench or changing the schedule dates or hours in those rows automatically refreshes the **Availability** grid.

Field or Control	Description
31,	Click the Calendar icon to access the monthly schedule for the employee. Click a date to access the Task Details page, where you can add a new assignment, such as a meeting. You can access the daily schedule from the Task Details page.
Base Capacity (a)	Displays the total available hours for the schedule period before assignments are made. Base capacity is equal to the standard working hours minus appointments, such as vacations, holidays, and meetings.
Assigned (b)	Displays the total hours that this resource is assigned for this schedule period. Data is retrieved from the resource's calendar table.
Load % (b/a) * 100	Displays the percentage value equal to the assigned hours divided by the base capacity hours.

Field or Control	Description
Mon (date), Tue (date), Wed (date), Thu (date), Fri (date), Sat (date), and Sun (date)	Displays the number of remaining hours in which the employee is available each day. Remaining hours are equal to the available hours for the day minus the hours assigned for that day. If the day is overbooked, the hours will appear as negative values in red. Days when the employee doesn't work (for example, weekends and holidays) will be blank. A zero will appear for days that are fully booked but not overbooked.

# **Labor Assignment Workbench Page**

Use the Labor Assignment Workbench page (WM\_LABOR\_ASSIGN\_WB) to review crew member and non-crew member availability in order to make labor assignments to schedule rows.

Navigation:

Maintenance Management > Workbenches > Labor Assignment Workbench > Labor Assignment Workbench

Field or Control	Description
Action	Select the labor schedule rows to which you want to apply this action and select one of these available actions:
	Assign Resource
	The to Employee ID field will appear.
	Select an employee ID to assign to the selected rows. Thi action updates the <b>Employee ID</b> field on the Assignment tab of the workbench for each selected row.
	Cancel Assignment
	Selecting this action cancels previously saved assignments to selected rows. It also clears unsaved assignments to selected rows.
	• Change Schedule End Dt/Tm (change schedule end date/time)
	The <b>to</b> (date) and (time) fields appear.
	Select the date and time to update the <b>Scheduled End Date</b> and <b>End Time</b> fields for each selected row on the Schedules tab of the workbench.
	• Change Schedule StartDt/Tm (change schedule end date/time)
	The to (date) and (time) fields appear.
	Select the date and time to update the <b>Scheduled Start Date</b> and <b>Start Time</b> fields for each selected row on the Schedules tab of the workbench.
	Change Status
	A field appears in which you can select a user-defined task status that is set up to match an internal task status. When you select a task status from the list to change the task status for selected rows, the system verifies whether the change is valid. Values are:
	• Open
	Awaiting Schedule
	• Hold
	• Scheduled
	Work in Progress
	• Canceled
	• Complete
	• Closed
	Use the Change Status page to notify the scheduler of the status change.

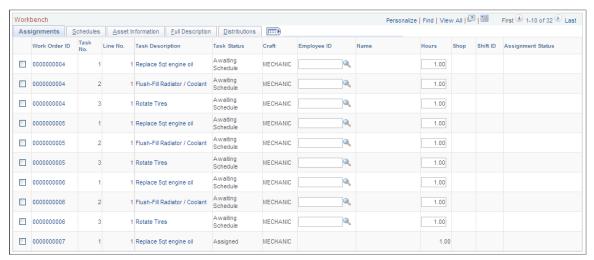
Field or Control	Description
	Important! Selecting a task status displays the Change Status page for the selected rows. If you selected multiple rows for the same task, only one row representing all of these rows will appear on the Change Status page. When you change the status of this row, the system changes the status of all of the rows associated with the task, whether you selected them or not. When you select <b>OK</b> , you are returned to the Labor Assignment Workbench.
Go	Click this button to apply the action to the selected rows.  Note: The Availability grid is updated based on the action you perform. If you enter data outside the date range of the Availability grid, then the grid does not show the change. If you change the schedule date or hours for which an assignment is not yet made, then the grid does not show the change.
Save	Click this button to save the Labor Assignments Workbench page, which updates the Labor Schedules rows in the work order. It also updates the resource calendar with the new assignments.
Refresh	Click this button to refresh changes made in the <b>Assignments</b> grid and update the <b>Availability</b> grid. This action causes deferred processing on field changes to proceed.

# Assignments Tab — Labor Assignment Workbench Page

Navigation:

 $\label{eq:maintenance Management} \begin{tabular}{ll} Maintenance Management > Workbench > Labor Assignment Workbench > Labor Assi$ 

This example illustrates the fields and controls on the Labor Assignment Workbench page: Assignments tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Task No. (task number)	Identifies the task number associated with the work order ID to which an employee is assigned.
Line No. (line number)	Identifies the line (row) number of the labor schedule in the work order to which an employee is assigned.
Task Status	Displays the current work order task status. This field is updated if you select the <i>Change Status</i> action for one or more selected rows.
Craft	Displays the craft associated with the labor schedules for this task line in the work order.
Employee ID	Select the employee (resource) that you want to assign to this row. Alternatively, select one or more rows and then select the <i>Assign Resource</i> action and an employee ID to update the selected rows.
	Note: The employee must be set up as a resource in a shop.
Hours	Change the hours that the selected employee will work on this task from the default hours, which are derived from the labor requirements and labor schedules in the work order.
Shop	Displays the shop associated with the employee when you select an employee ID.
Shift	Displays the shift associated with the employee in the shop when you select an employee ID.

Field or Control	Description
Overbook	Select this check box to enable manual overbooking of the labor schedule row. This field is controlled by the <b>Overbooking Resources</b> group box on the Shop Definition page. If the <b>Require Manual Override</b> field in the shop is not selected, then this field is not available for selection in this <b>Workbench - Assignment</b> grid and overbooking is always allowed. If the <b>Require Manual Override</b> field is selected, then this check box becomes available for selection in this Workbench - Assignment grid and the user controls overbooking.

**Important!** If you see an informational, warning, or error message icon on one or more of the selected rows, select the Message tab that appears and read the message associated with the icon. This Message tab works the same way that it does in the Crew Scheduling Workbench.

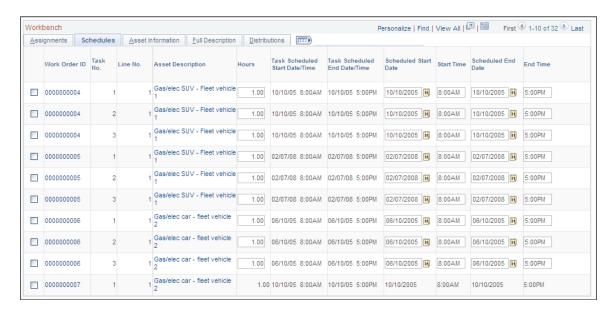
See <u>Understanding Crew Scheduling</u>.

### Schedules Tab — Labor Assignment Workbench Page

Navigation:

(Maintenance Management > Workbenches > Labor Assignment Workbench > Labor Assignment Workbench)

This example illustrates the fields and controls on the Labor Assignment Workbench page: Schedules tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Asset Description	Click this link to access the Asset Information page, which describes the characteristics (type, subtype, manufacturer ID, model) of the asset selected for the work order task. Other information includes the AM business unit, asset ID, serial number, tag number, asset criticality, and if the asset is a component of another asset.
Task Scheduled Start Date/Time	Displays the date and time the task on the work order was scheduled to start.
Task Scheduled End Date/Time	Displays the date and time the task on the work order was scheduled to end.
Scheduled Start	Select a new start date for a row. You can also select one or more rows and select the <i>Change Scheduled Start Dt/Tm</i> action to update this field and the <b>Start Time</b> field.
Start Time	Enter a new start time for a row. Selecting the <i>Change Scheduled Start Dt/Tm</i> action also updates one or more selected rows.
Scheduled End	Select a new end date for a row. You can also select one or more rows and select the <i>Change Scheduled End Dt/Tm</i> action to update this field and the <b>End Time</b> field.
End Time	Enter a new end time for a row. Selecting the <i>Change</i> Scheduled End Dt/Tm action also updates one or more selected rows.

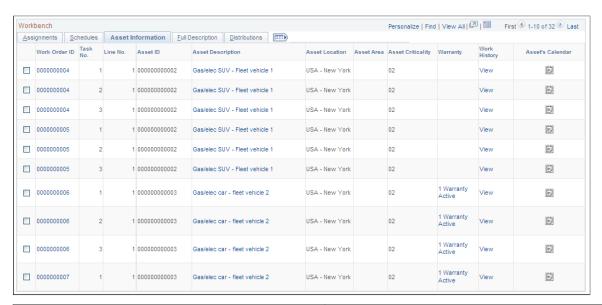
**Note:** If the labor schedules are associated with a crew, the default values that appear in these fields are derived from the crew scheduled start and end dates and times. If the labor schedules are associated with a non-crew scheduled work order, the default values are derived from the task scheduled start and end dates and times in the work order.

# Asset Information Tab — Labor Assignment Schedule Page

Navigation:

(Maintenance Management > Workbenches > Labor Assignment Workbench > Labor Assignment Workbench)

This example illustrates the fields and controls on the Labor Assignment Workbench page: Asset Information tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Asset Location	Displays the location of the asset associated with the task.
Asset Area	Displays the asset area of the asset associated with the task.
Asset Criticality	Displays the level of criticality of the asset associated with the task.
Warranty	Click this link to access the Asset Warranties page if the asset associated with the task has any warranties. You can add warranties and use this information to create warranty claims for this asset based on this task by accessing Maintenance Management > Warranty Claim > Generate Warranty Claim
	See <u>Understanding Warranty Claim Management in</u> PeopleSoft Maintenance Management.
Work History	Click this link to view the Work History page for the asset associated with the task.
Asset's Calendar	Click the calendar icon to access the calendar for the asset associated with this task. The calendar displays the availability of the asset.

# Full Description Tab — Labor Assignment Workbench Page

Navigation:

# Maintenance Management > Workbenches > Labor Assignment Workbench > Labor Assignment Workbench select the Full Description tab.

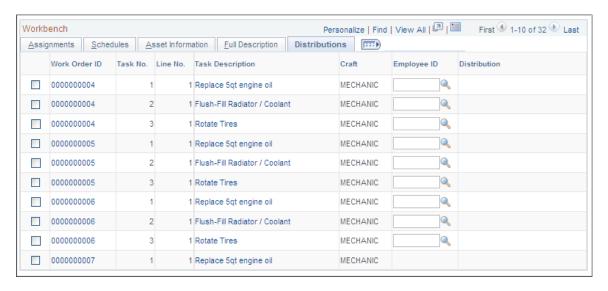
Field or Control	Description
Work Order Description	Displays the full description of the work order, which you entered on the Work Order page of the Work Order Component.
Task Description	Displays the full description of each work order task, which you entered on either the Requirements or Schedules page of the Work Order Component.

### Distributions Tab — Labor Assignment Workbench Page

Navigation:

Select the Distributions tab on the Labor Assignment Workbench page

This example illustrates the fields and controls on the Labor Assignment Workbench page: Distributions tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Distributions	Click this link to display the Labor Distributions page. You can modify the assigned values, if necessary.
	Note: This tab appears if the View and Update Task Accounting check box is selected on the User Preferences - Maintenance Management page for the user.
	See Setting Up ChartField Distributions for PeopleSoft  Maintenance Management.
	See "User Preferences - Maintenance Management Page" (Application Fundamentals).

# **Using Crew Schedule Metrics**

This section discusses how to review adjusted crew schedule metrics, review system crew schedule metrics, and use the Crew Schedule Compliance Revision page.

# **Pages Used to Use Crew Schedule Metrics**

Page Name	Definition Name	Usage
Crew Schedule Metrics Page	WM_CREWSCHED_MT1	Review the crew schedule metrics that were adjusted by the scheduler.
System Metrics tab — Crew Schedule Metrics Page	WM_CREWSCHED_MT1	Review the crew schedule metrics generated by the system for one or more crews.
Crew Schedule Compliance Revision Page	WM_CREWSCHED_MT2	Review and adjust the crew schedule metrics for each craft that comprises a crew.
Crew Schedule Compliance Revision — Last Updated Page	WM_CREWSCHED_MT2	Review the name of the user who updated the schedule metrics, and the date and time that the metrics were updated.

# **Crew Schedule Metrics Page**

Use the Crew Schedule Metrics page (WM\_CREWSCHED\_MT1) to review the crew schedule metrics that were adjusted by the scheduler.

Navigation:

**Maintenance Management** > **Crew Schedule** > **Crew Schedule Metrics.** Select the Adjusted Metrics tab.

This example illustrates the fields and controls on the Crew Schedule Metrics page - Adjusted Metrics tab. You can find definitions for the fields and controls later on this page.



You must select the business unit, shop, and period start date range, and click the **Search** button to display data on the Crew Schedule Metrics tabs. Select a crew, if more than one crew is associated with the shop, to display their schedule metrics.

Field or Control	Description
Confirmed Scheduled Hours (a)	Displays the number of confirmed hours for the period from the crew schedule. At the end of the planning phase, when all schedules should be confirmed, the confirmed scheduled hours should match the scheduled hours. During the current period, when unplanned or emergency work comes in, the scheduled hours and the confirmed scheduled hours may not match. However, when the unplanned and emergency work is confirmed using the override metrics capability, these hours become part of the confirmed scheduled hours total for each craft in the crew. This figure is derived from the Crew Scheduling Workbench schedule metrics.  Note: A user must be authorized in the User Preferences - Maintenance Management page to override metrics in the Crew Schedule Workbench.
Total Scheduled Hours	Displays the number of work order task hours actually scheduled for the crew for the schedule period.
Adjusted Target % Load (adjusted target percentage load)	Displays the crew's expected load against the adjusted capacity in terms of percentage for all planned work based on the crew scheduler's knowledge of the crew. Typically, the target load is set below 100.00 percent to accommodate unplanned entries that may occur during the period. This adjusted figure is derived from the crew capacity plan.

Field or Control	Description
Adjusted Capacity (Hours)	Displays the crew's total shift hours for the period less any time taken off for appointments, vacation, and so on. This adjusted figure is derived from the crew capacity plan.
Adjusted Comp Sched Hours (b) (adjusted completed scheduled hours [b])  Adjusted Completed Hours (c)	Displays the credit given for any completed scheduled tasks for the specified schedule period. This credit is equal to the scheduled hours for the task. If the tasks were not scheduled for the specific period, then the completed scheduled hours would be zero. Initially, this field equals the completed scheduled hours, which are updated by the Maintenance Schedule Completion Metrics Report process. This process can only be run by authorized users who have the <b>Update Crew Schedule Metrics</b> check box selected on the User Preferences - Maintenance Management page. This authorization enables the user to update the metrics online and run the Maintenance Schedule Completion Metrics report.  See PeopleSoft Maintenance Management Reports: A to Z.  Displays the adjusted total hours completed, which is credit given for any completed tasks during the specified schedule
	period (scheduled or unscheduled work). This credit is equal to the scheduled hours for the task. Initially, this field is equal to the completed hours updated by the Maintenance Schedule Completion Metrics Report process.
Schedule Compliance % (b/a)	Displays the percentage of scheduled hours that were completed during the schedule period. This percentage is derived by dividing the adjusted completed scheduled hours by the confirmed scheduled hours for the schedule period.
% Scheduled (b/c)	Displays the percentage of scheduled work completed during the schedule period. This percentage is derived by dividing the adjusted completed scheduled hours by the adjusted completed hours. This value is a measure of how much scheduled work is being completed by the crew compared with the total work completed.
Update Metrics	Click this link to access the Crew Schedule Compliance Revision page.

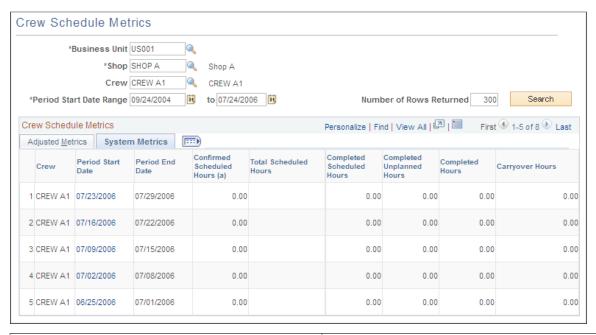
# System Metrics tab — Crew Schedule Metrics Page

Use the Crew Schedule Metrics page (WM\_CREWSCHED\_MT1) to review the crew schedule metrics generated by the system for one or more crews.

Navigation:

Select the System Metrics tab.

This example illustrates the fields and controls on the Crew Schedule Metrics page - System Metrics tab. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Completed Scheduled Hours	Displays the credit given for any completed scheduled tasks for the schedule period. This credit is equal to the assigned hours for the task. If the task was not scheduled for the schedule period, then the completed scheduled hours equal zero. An authorized users runs the Maintenance Schedule Completion Metrics Report process, which updates this field. Users authorized to perform this action must be set up in the User Preferences - Maintenance Management page.
Completed Unplanned Hours	Displays the total number of hours that the crew spent to complete unplanned work order tasks during the scheduling period.
	Note: This figure accounts for only completed unplanned work. If the work is not completed (100 percent complete), it is not added to this field. The completed hours entered by users on the Crew Scheduling Workbench determines the value of the completed unplanned hours.
Completed Hours	Displays the number of hours credited to a completed (planned or unplanned) task for the schedule period. The credit equals the scheduled hours for the task. The Maintenance Schedule Completion Metrics Report Process updates this field when you select the <b>Update Schedule Metrics</b> check box and run the process.
Carryover Hours	Displays the total hours remaining for all of the scheduled work order tasks that the crew could not complete within the scheduled period.

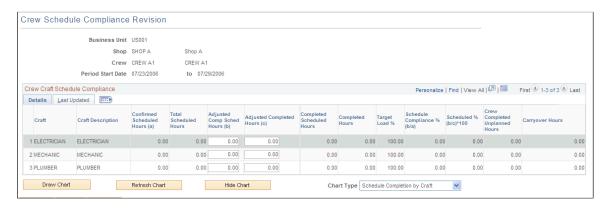
### **Crew Schedule Compliance Revision Page**

Use the Crew Schedule Compliance Revision page (WM\_CREWSCHED\_MT2) to review and adjust the crew schedule metrics for each craft that comprises a crew.

Navigation:

Click the **Update Metrics** link on the Adjusted Metrics tab of the Crew Schedule Metrics page.

This example illustrates the fields and controls on the Crew Schedule Compliance Revision page. You can find definitions for the fields and controls later on this page.



#### **Details Tab**

When you click the **Period Start Date** link or the **Update Metrics** link on the Crew Schedule Metrics Adjusted Metrics tab, the Crew Schedule Compliance Revision page displays the Details tab. This tab provides a detailed breakdown of the Crew Schedule Metrics Adjusted and System Metrics information by craft. You can update the adjusted completed scheduled hours and the adjusted completed hours values if you are authorized (that is, if the **Update Crew Schedule Metrics** check box is selected for your user ID on the User Preferences - Maintenance Management page. If it is not selected, these fields are unavailable for update.)

### **Last Updated Tab**

This tab displays the name of the user, and the date and time that the adjusted completed scheduled hours and the adjusted completed hours were updated for each craft. Once users have updated these values, if you run the Schedule Maintenance Completion Report process and select the Updating Schedule Metrics Option, the system will not override these updated values.

### **Completion Charts**

The system provides two charts that display the data.

Field or Control	Description
Draw Chart	Select a chart type and click this button to display the graphic chart of the Crew Schedule Compliance data.

Field or Control	Description
Refresh Chart	Click this button to refresh the chart data. Refresh when you update the data.
Hide Chart	Click this button to hide the chart.
Chart Type	Select one of the following charts:  • Schedule Completion by Craft  This chart enables users to quickly view the schedule completion data in graphic form. It shows total scheduled hours, completed scheduled hours, completed unplanned hours, and carryover hours for each craft in a selected crew schedule.  • Overall Completion Chart  This chart enables users to quickly view completed scheduled work, completed unplanned work, and carryover work for a selected crew in graphic form.

# **Reviewing Crew Rescheduling History**

This section discusses how to update the rescheduling history for a crew.

### Pages Used to Review the Crew Rescheduling History

Page Name	Definition Name	Usage
Rescheduling History Page	WM_RESCHED_HST	Review and update the rescheduling history for a crew.
Reschedule Comment Page	WM_RESCHED_COMMENT	Enter a detailed explanation for the rescheduling of a specific work order task line.

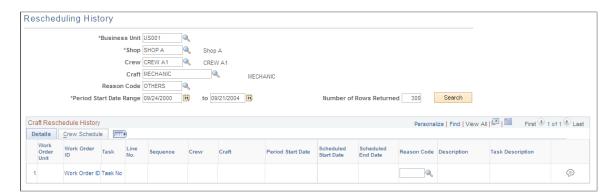
### **Rescheduling History Page**

Use the Rescheduling History page (WM\_RESCHED\_HST) to review and update the rescheduling history for a crew.

Navigation:

Maintenance Management > Crew Schedule > Crew Reschedule History > Rescheduling History

This example illustrates the fields and controls on the Rescheduling History page. You can find definitions for the fields and controls later on this page.



At a minimum, you must enter the business unit, shop, and period start date and click the **Search** button to display all of the work order tasks, which were rescheduled for a crew in the Craft Reschedule History grids. The search field enables you to narrow your search.

#### **Crew Reschedule History Details Grid**

The Details tab has a grid that lists the details of work order tasks assigned to a crew that were rescheduled. It also shows the reason codes and the descriptions for the rescheduling action.

Field or Control	Description
Reason Code	Select another reason code to override the code in the field, if desired.
	Click the <b>Comment</b> icon to access the Reschedule Comment page, where you can add a more complete explanation of why a task line was rescheduled for this crew.

#### Craft Reschedule History Crew Schedule Grid

Select the Crew Schedule tab on the Rescheduling History page to review the crew schedule status, scheduled hours, crew completed hours, and carryover hours for a rescheduled task.

## **Chapter 21**

# Understanding Asset Retirement and Component Changeout in PeopleSoft Maintenance Management

## **Asset Retirement in PeopleSoft Maintenance Management**

During the course of an organization's operations, physical assets deteriorate and are ultimately retired when the cost of maintaining the asset exceeds the cost of disposing, retiring, and replacing the asset. Depending on the size and complexity of the asset, an organization may need to demolish and remove it during the retirement process, and possibly sell, auction, or donate the asset. You can retire an asset directly in PeopleSoft Project Costing without using Oracle's PeopleSoft Maintenance Management. While this process is useful for the partial retirement of assets, it requires substantial user intervention and time. To expedite the full retirement of an asset, however, you can create a work order and identify the asset action as *Retire* for the work order task in PeopleSoft Maintenance Management. PeopleSoft Maintenance Management triggers a process in PeopleSoft Project Costing to automatically perform a full retirement of the asset with little or no user involvement.

In PeopleSoft Maintenance Management, the two methods for retiring an asset using a work order are:

- Retire an asset using a work order associated with a work order-managed project.
- Retire an asset using a work order associated with a Project Costing-managed project.

Specific rules apply to the retirement of an asset in PeopleSoft Maintenance Management:

- PeopleSoft Maintenance Management only performs full retirement financial assets.
- You must set up the Work Order Management options in the Asset Management business unit Interface Options page.
- If the asset is marked Retire in PeopleSoft Maintenance Management, then it will be retired from PeopleSoft Maintenance Management.
- PeopleSoft Project Costing processes the cost of removal based on the retirement filter set up in PeopleSoft Project Costing.

#### **Related Links**

<sup>&</sup>quot;Retiring Financial Assets" (PeopleSoft Asset Management)

<sup>&</sup>quot;Integrating Asset Management with Maintenance Management" (Asset Lifecycle Management Fundamentals)

## Asset Retirement Using a Work Order Associated with a Work Ordermanaged Project

When you create a work order task associated with a work order-managed project to retire an asset, there are basic setup requirements:

- Set up the work order-managed project in PeopleSoft Project Costing.
- Set up the filter rules and criteria for the Project Costing business unit.
- Set up project activity in PeopleSoft Project Costing to derive the asset identification from the work order. The user can enter the filter in the Work Order Task Accounting page, which is updated in PeopleSoft Project Costing when you perform a batch close of the work order (WM CLOSE).

#### Asset retirement workflow:

- 1. Create a work order in PeopleSoft Maintenance Management.
- 2. Create a work order task in PeopleSoft Maintenance Management for a work order-managed project.
  - The project activity is automatically generated.
- 3. Select *Retire* as the asset action for the work order task and select the labor, inventory, purchased and on-hand materials, and tools required for the removal, and then execute the work order task.
- 4. Change the work order task status to *complete*.

This action updates the asset integration rules and the status for the activity in PeopleSoft Project Costing to *Retirement*.

This action updates PeopleSoft Asset Management for processing asset transactions and creates staging information for PeopleSoft Asset Management to process. The retirement of the asset is completed by the PeopleSoft Asset Management transaction loader process.

5. Close the work order.

This process triggers PeopleSoft Project Costing to send the costs of transaction related to retirement to PeopleSoft Asset Management.

## Asset Retirement Using a Work Order Associated with a Project Costingmanaged Project

An organization normally creates a project in PeopleSoft Project Costing that involves the retirement of large-scale assets. Usually these projects can last more than a few days, involve multiple assets, and entail a complex effort that must be actively managed. Project managers can create work orders from PeopleSoft Project Costing that authorize work order tasks that involve the demolition and removal of assets.

When a work order is created from a Project Costing-managed project to retire an asset, the user selects the asset action *Retire* for a work order task on the Requirements page or the Schedules page of the work order, selects the Retirement radio button and the retirement filter directly in PeopleSoft Project Costing. The work order does not drive the cost of the transaction for this type of retirement. Instead the costs are sent directly to PeopleSoft Project Costing without closing the work order. PeopleSoft Project Costing integration rules determine when to send the cost of retirement from PeopleSoft Project Costing to PeopleSoft Asset Management.

## **Component Changeout in PeopleSoft Maintenance Management**

A component changeout involves the swapping of asset components when the failure or replacement of a component is required to maintain a parent asset and extend or retain a parent asset's useful life. You replace a component with a like component. The characteristics and attributes of the new component are associated with the parent asset.

Specific rules apply to a component changeout:

- A component changeout only applies to capitalized child financial assets. You must update changeouts of smaller, non-financial assets directly in PeopleSoft Asset Management.
- A replacement component must have the same asset profile as the components being replaced.
- A replacement component inherits the asset custodian, location, parent asset, and ChartField designation of the replaced component.
- You can mark each asset as repairable or not repairable in PeopleSoft Asset Management, which means that an asset is repaired or overhauled for use in another asset in the future.
- You must establish the default ChartField mapping rules necessary to accommodate asset component changeout transfers in the PeopleSoft Asset Management warehouse on the Warehouse Mapping page.
- Warranties apply to assets involved in a component changeout as they do for all assets on other work order transactions.

To perform a component changeout:

1. Remove the asset component. (Task 1)

As part of the removal process, you can:

- Update the asset disposal information on Work Order Task Accounting page.
- Retire the asset component. Retirement can have various methods of disposal, such as the selling
  of an asset.
- Remove the asset for reuse. (Send it back to the Asset Repository.)

If the asset is marked repairable, when you select *Remove* for the asset action, you can select a check box indicating that the asset needs repair. (This check box only appears if the asset is marked as repairable in PeopleSoft Asset Management.) When the check box is selected and the work order task is completed, PeopleSoft Maintenance Management notifies PeopleSoft Asset Management that the asset needs repair.

2. Install another asset component to replace the one that was removed. (Task 2)

When you select the asset action *Install*, the Asset Action: Install page displays where you can indicate that this is a replacement. You identify the *parent component* into which you are installing the new component and select the *removed component*. If the component was removed using a different work order, the work order ID displays along with a description of the removal. You can select an

asset that is marked for removal or an asset that is marked for retirement to indicate which asset is being replaced.

Additional rules and principles that apply to component changeouts include:

- You can use two work orders to remove and then install a component, or you can create two work
  order tasks. You can add the work order task to install a component as long as the task to remove a
  component is not marked complete.
- Spare parts can be defined as non-financial assets in the asset repository. If these parts are used in
  the performance of a component changeout, the costs do not flow into PeopleSoft Project Costing.
  If a non-financial component is required to repair a component and you want the costs to flow to
  PeopleSoft Project Costing, then you must set the non-financial asset up as either an inventory or noninventory item.
- If you select parts to repair an asset and the part is not a capitalized (financial) asset in PeopleSoft Asset Management, then it is treated like any other inventory or non-inventory part used to repair an asset. This is not treated as component changeout.
- If a technician removes an inventoried item during a repair, then the inventory personnel must use Express Putaway in PeopleSoft Inventory to enter the part into stock and also must put the part in an inventory storage area location identified as non-nettable if the part is damaged or not available for use. Typically parts that need repair are stored in a non-nettable location so that the quantity does not affect the available quantity.
- You can create a work order without a target asset to capture the costs of the labor and parts needed
  to repair the inventoried part. Once you repair the part, inventory personnel can move it to a nettable
  storage area location for reuse.
- For inventoried parts that you remove from an asset so that you can repair the parts, you probably want to enter them in PeopleSoft Inventory under a new item ID and identify then as non-cost items. Identifying the items as non-cost items ensures that when and if you issue the refurbished item to a work order, it will not result in an expense transaction, since the part was previously accounted for in a prior financial transaction.

#### Related Links

"Understanding Inventory Material Storage Structures" (PeopleSoft Inventory)

## **Component Changeout to Remove and Install Assets**

When a work order task is used to remove or install an asset, the processing works the same way it does for any other work order task. The costs of removing or installing the component are sent to the feeder systems (Inventory, PeopleSoft Payables, PeopleSoft Travel and Expenses, and PeopleSoft Project Costing (tools transaction), which generate the accounting entries that are sent to PeopleSoft Project Costing.

When the status of the removal, retirement, or the install task is changed to *Complete* the work order sends data to PeopleSoft Asset Management. When the work order task is closed, the Cost Summarization process is run automatically and the actual costs are sent from PeopleSoft Project Costing PeopleSoft Maintenance Management.

## **Completing Work Order Tasks**

## **Understanding Work Order Task Completion**

Once a work order is scheduled, technicians access their assigned work order tasks and perform specific activities in order to complete each task. PeopleSoft Maintenance Management enables technicians to access their assigned tasks in three ways:

- Accessing the task using the Technician Workbench.
- Accessing the task in the assigned resource's monthly schedule.
- Receiving a hard copy of the task.

As work on a work order task progresses, a technician or authorized maintenance administrator enters each technician's labor time, personal time (non-work order), usage of tools, and the management of materials for the task. Work order task completion may also require adding labor, materials, and tools to a work order task after it is scheduled and in process.

Once the labor, materials, and tool actuals are entered on the Technician Workbench, these actual transactions are sent to the appropriate subsystem for processing.

- Work order labor time and personal time are sent PeopleSoft Expenses.
- Inventory items are processed in PeopleSoft Inventory.
- Purchased items are processed in PeopleSoft Purchasing, eProcurement, and Payables.
- Tool usage is processed in PeopleSoft Project Costing.

PeopleSoft Project Costing collects these values from the subsystems for work order time, inventory items, purchased items, and tool usage, and calculates the actual costs. Peoplesoft Maintenance Management summarizes these actual costs to the Cost page of the work order for analysis and reporting.

This section discusses:

- Prerequisites for using the Technician Workbench.
- The Technician Workbench.
- Labor time entry.
- Time entry staging and processing.
- Materials management.
- Tools usage.
- Meter readings.

- Procedures.
- · Causal parts.
- Crew assignment time reporting.

## **Prerequisites for Using the Technician Workbench**

You must complete these prerequisites before using the Technician Workbench.

• Set up specific options on the User Preferences – Maintenance Management page.

You must authorize specific users (technicians and administrative personnel) to perform activities on the Technician Workbench by selecting specific options on the User Preferences – Maintenance Management page.

See "User Preferences - Maintenance Management Page" (Application Fundamentals).

Allow access to other's tasks.

You must select this option to allow a user to enter work order task information for more than one technician.

#### Time Reported Method

You can select either *Elapsed* or *Punch Time* as the time reporting method that will apply to this user and any technicians for whom this user will report time. The selected value applies to the work order task time entries only on the Time Entry page of the Technician Workbench.

**Important!** This User Preferences option does not apply to personal time entries. All personal time entries automatically display in Elapsed Time format, regardless of which value you select on the User Preferences - Maintenance Management page.

- Set up these parameters to enable time entry on the Technician Workbench.
  - Set up employees, who are eligible to enter time, in both PeopleSoft Maintenance Management and in PeopleSoft Expenses.

These employees are set up on the Organizational Data page (Travel and Expenses > Update Profile) and the Employee Job page (Maintenance Management > Labor Administration > Manage Employee Data).

- Set up employees, who are authorized to enter time, as resources in PeopleSoft Maintenance Management.
- Add the general ledger business unit for each employee, for whom time is entered for a
  work order task, on the General Ledger Integration page of the Integration Template (Set Up
  Financials/Supply Chain > Product Related > Project Option > Integration Templates).

Integration templates enable you to share multiple business units across one project. You can post transactions for a project only to the general ledger business units that are specified in the integration template that is assigned to the project. In PeopleSoft Maintenance Management, this is the project that is used to create a work order.

- Set up Time Reporting Codes (TRC) for use for entering personal time (Set Up Financials/Supply Chain, Product Related, Expenses, Mapping, Time Reporting Codes).
- Set up a PeopleSoft Expenses business unit (Set Up Financials/Supply Chain, Business Unit Related, Expenses, Expenses Definition) for each general ledger business unit that appears in the employee data of each employee for whom time will be entered on the Technician Workbench or the Work Order Completion component.
- Select the Time Reporting Options for each general ledger business unit that you set up on the
  Expenses Definition Business Unit 2 page (Set Up Financials/Supply Chain > Business Unit
  Related > Expenses > Expenses Definition)
- Optionally set up PeopleSoft Time and Labor, if you want to process personal time entered on the Technician Workbench.

**Note:** If you do not set up PeopleSoft Time and Labor for personal time entries, the hours collected are for your information only.

- Optionally set up PeopleSoft Payroll, if you want the personal time entries entered on the Technician Workbench to flow from PeopleSoft Time and Labor to PeopleSoft Payroll.
- Grant authorization to users who are authorized to enter time in the Technician Workbench using Manage Expenses Security in PeopleSoft Expenses.
- Set up the Billing Type and the Billing Action in the **Time and Expenses** > **Employee Information** > **Update Profile.**
- Select whether you want to display the Project Time Grid (collects time to send to PeopleSoft Project Costing), or the Policy Time Grid (collects personal time to send to PeopleSoft Time and Labor), or both time grids in the Time Entry page on the Technician Workbench. (Set Up Financials/Supply Chain, Business Unit Related, Expenses, Expenses Definition, Business Unit 2 page.)
- Set up inventory entry and processing parameters.

Set up the Transaction Accounting Rules for the Work Order Usage Group (231) in Cost Accounting for the Inventory business unit.

- Set up tool usage processing.
  - The cost and bill rates for tool usage are based on either the rates set up for the asset type and subtype on the Tool Rates page of the shop or the rates defined for the asset subtype in PeopleSoft Asset Management, Physical Definitions, Asset Subtype.
  - The PeopleSoft Maintenance Management Tools Usage (TUG) System Analysis Type is set up in Installation Options, Project Costing Integration.

## The Technician Workbench

Typically, after the scheduler schedules work order tasks for a work order, technicians can access the Technician Workbench and search for their assigned tasks. You can customize which fields appear and

the order that they appear in to meet your organization's specific needs. To simplify the task of locating assigned work order tasks, you can set up and save search criteria for later use. You can then review the task information and complete the task.

**Note:** Schedulers can also skip online labor assignments and print a hard copy to give to the technicians assigned to the work order task.

Using the Technician Workbench, the technician or an authorized maintenance administrator can:

- Access the technician's monthly, weekly, and daily calendar.
- Enter labor time spent on the task, personal (non-work order related) time, or both.
- Enter quantities used and manage the pickup and return of inventory materials for the task.

**Note:** Use the link to Inventory, Fulfill Work Orders, Issue to Work Orders component to issue materials for work orders.

- Enter the tools to be used for the task
- Review and modify the check list and attachments, and review the instructions associated with a work order task.
- Enter meter readings for the asset that is being maintained or repaired.
- Enter any causal parts related to the task.
- Report crew assignment time for tasks assigned to crews.
- Access a GIS map location for a work order task.

This activity is only possible you selected the GIS Integration check box in the work order business unit and completed the set up requirements for integration with ESRI.

- Change the status of one work order task or multiple work order tasks at the same time.
- Print assignments and informational reports.
- Access a specific work order or task in the work order component.
- Update the location, area, or offline status of an asset.
- Add notes to the task.
- View and update supplemental data associated with a task.
- Enter or modify actual start and end dates and time for a selected work order task or multiple work order tasks at the same time.
- If authorized, enter planned and actual downtime for the asset being repaired or maintained.
- Enter or modify problem, cause, and resolution (PCR) codes for a selected work order task or multiple work order tasks at the same time.

**Note:** The level of security set up for a user determines the user's level of access to the Scheduling page. Technicians normally do not have access to modify schedules.

The each work order task by selecting each tab in the Work Order Tasks grid. These tabs include:

- A Details tab on which you can:
  - Directly access the Scheduling page for a work order task, and add or modify the task and the resource schedules.
  - View details about the work order and the work order task.
  - Determine whether the asset is being installed, removed, or retired.
  - Review the status of the task.
- A Details 2 tab on which you can view the:
  - Assignment.
  - Scheduled and required start and end dates and times.
  - Asset business unit and location.
  - Project information about the work order.
  - Names of the supervisor, lead person, and scheduler for the task.
- A Full Description tab on which you can view the full description that was entered for each work order and the full description for each work order task.
- A Task Actual Dates/Times tab on which you can enter the actual start and end dates and times for
  each task, and click a link that enables you to enter, modify, and review planned and actual downtime
  for the asset associated with each task.

You can also make mass changes to actual dates for multiple tasks by selecting the **Mass Change** button, which displays a secondary page that enables you to perform mass changes to actual dates, times, and PCR data.

• A Failure Reporting tab, where you can select a problem group PCR for each task if this information was not entered on the work order task Requirements page.

You can override any default PCR values derived from the work order task requirements. You can also click the **Mass Change** button to access a secondary page, where you can make mass changes to PCR codes for more than one task.

**Important!** Click the Customize link on the Work Order Tasks group box bar to access the Personalize Column and Sort Order page on which you can customize columns that appear on each tab and select the sort order of the data as ascending or descending.

**Note:** Use the Work Progress Tracking Inquiry to track the progress of a work order.

See <u>Using the Work Progress Tracking Inquiry</u>.

#### **Status Transitions**

Technicians can change the status of assigned tasks on the Technician Workbench. You can select multiple tasks and select a status in the **Change Status** field. The selected status applies the tasks selected on the Technician Workbench. You can also leave the Change Status field blank and change each status individually. When you click the **Go** button, a Change Status page appears, where you can change each of the individual task statuses for selected tasks. You can also review editing errors, add notes, and notify the scheduler about the status change.

Users (technicians and schedulers) must be set up in User Preferences as authorized to complete and close a work order task or work order they can change the status of a work order task or work order to *Complete* or *Closed*. Authorized users can return a Closed task to a status of *Complete*. Authorized users can return a Complete task to *Open - Incomplete*. You cannot cancel tasks from the Technician Workbench or the Work Order Workbench. *Canceled* and *Closed* tasks are display-only. A status that is set up with an internal status of *Cancel* will not appear on the list of available statuses in the Technician Workbench.

Edits exist that prevent you from changing the status of a work order task to *Complete* if the work order has inventory on a pick plan or it has an open peg. The task statuses are not actually changed until you select **OK** from the task status change page.

Important! The sample data that accompanies your PeopleSoft Maintenance Management application contains a user-defined status of Incomplete with an internal status of Open. If Set completed WO to Incomplete is enabled in User Preferences, you can reverse a task status from Complete to Incomplete. You may notice that the sample data that accompanies your PeopleSoft Maintenance Management application displays a user-defined status of *Canceled - Work started but no longer needed*. However, if you review the setup of this status in Set Up Financials/Supply Chain > Product Related > Maintenance Management > Setup > MM Work Order Status you will see that the internal status is *Complete*.

## **Service Requests**

When technicians access their work order task assignments in the Technician Workbench, a link that appears at the top of the page indicates a specific number of open service requests that are assigned to them. The link only appears if they have at least one open service request assigned.

Agents can assign service requests to technicians with or without a work order. When an agent assigns a technician to a service request that is not associated with a work order, the technician does not record labor time or material and tool usage. In many organizations, any routine task that takes less than 15 minutes to complete is a simple service request and does not require the creation of a work order. In this instance, the technician accesses the service request and changes the status to *Complete* once the work is done. This link in the Technician Workbench enables a user to access all service requests assigned to the resource, regardless of whether they are associated with a work order.

## **Labor and Personal (Non-Work Order) Time Entry**

An authorized user can enter two categories of time on the Time Entry page of the Technician Workbench in PeopleSoft Maintenance Management:

- · Labor time.
- Personal time.

## **Labor Time Entry**

In the section, Prerequisites for Using the Technician Workbench, you were instructed to select one of two time entry methods for entering labor time on the User Preferences – Maintenance Management page for each type of user:

Punch time.

This method requires that you enter each date worked and enter a start and end time for each date, depending on the specified time reporting period. A punch time formatted grid appears on the Time Entry page of the Technician Workbench.

Elapsed time.

This time method requires that you enter time worked for each day of a specified time reporting period. An elapsed time formatted grid appears on the Time Entry page of the Technician Workbench.

The time entry method that you select in the User Preferences, Maintenance Management page only affects how work order task time entries are entered on the Time Entry page of the Technician Workbench. Personal time entries always display on the Work Order Elapsed (Punch) Time in the Elapsed Time format below the work order time entries format, which you selected in User Preferences.

## Personal (Non-Work Order) Time Entry

Technicians or an authorized maintenance administrator can also enter personal (non-work order time) such as sick time, jury duty, vacation and more, using the Time Entry component on the Technician Workbench. This user enters personal time using time reporting codes, which are set up in PeopleSoft Expenses.

Personal time is always entered as elapsed time and is not affected by your selection of a time entry method in User Preferences. However, if you selected the punch time method on User Preferences, Maintenance Management page, and you selected the Both Time Grids option on the PeopleSoft Expenses Business Unit Definition – Project 2 page, a punch time formatted grid will appear on the Time Entry page of the Technician Workbench to enable an authorized user to enter work order time entry and an elapsed time formatted grid will appear on the same page to enable an authorized user to enter personal time.

If you selected the elapsed time method in User Preferences for work order labor time entries, then an elapsed time formatted grid will appear for work order time entry, and an elapsed time grid formatted grid appears for personal time entry on the Time Entry page of the Technician Workbench.

When an authorized user enters personal time on the Technician Workbench in PeopleSoft Maintenance Management, these hours are either kept on the time sheet for informational purposes or published to PeopleSoft Time and Labor.

See Staging Time Entries.

## Rules for Entering Labor and Personal (Non-Work Order) Time

A user must be authorized on the User Preferences – Maintenance Management page to enter labor time and personal time for the employees who are assigned to perform a work order task. You must also use Manage Expenses Security in PeopleSoft Expenses to grant authorization to the user who enters time in the Technician Workbench

Anyone who enters time in the Technician Workbench must be set up as a resource in PeopleSoft Maintenance Management and in PeopleSoft Expenses. If a resource is not set up in PeopleSoft Expenses, no time sheet will be available in the technician's workbench for this resource.

Personnel who are authorized to enter time on the Technician Workbench:

- Cannot enter time against a closed or canceled work order task.
- Can enter time associated with a work order task, personal time, or both depending on the option selected for the Expenses business unit Definition component.
- Cannot change the labor billing rate and cost rate.

These rates are predefined in either the work order business unit or the shop associated with the work order.

- Can enter no more than 24 hours for each time entry date.
- Cannot enter overlapping time in punch time entry within the same date time range on a time sheet.

Time sheets for elapsed time only allow time entry for one task at a time.

**Note:** No relationship in the system exists between overbooking resources in a task listed in the Labor Schedules grid of the work order and entering time for resources.

- Can enter time and make previous period time entry adjustments up to the time that a work order task is closed.
- Cannot enter negative time.

**Important!** All time entries are based on local time, and the system does not perform time conversions. It also does not validate holidays and weekends. However, you can enter personal time against a Holiday reason code on the personal time entry grid.

After an authorized user submits work order task time entries on the Technician Workbench, this user must stage the work order time entries in PeopleSoft Maintenance Management to ready them for transfer to PeopleSoft Project Costing. The user selects the Stage Time to Project Costing option on the Stage Time Entries page. After the actual costs are generated in PeopleSoft Project Costing, the user can run the Cost Summarization process in PeopleSoft Maintenance Management to add the total actual costs for the work order tasks to the Costs page of the work order.

See Staging Time Entries.

See "Understanding Security for PeopleSoft Expenses" (PeopleSoft Expenses).

See "General Integration Page" (PeopleSoft Project Costing).

## Time Entry Staging and Processing

Once a user enters the time for a work order task or personal time, using either the punch time or elapsed time entry method, on the Technician Workbench and submits the entries for posting, the Expense Post status for labor in the Technician Workbench changes to *Posted*. The time keeper must then stage the time entries into the PeopleSoft Expenses staging tables, where the labor hours are picked up by PeopleSoft Project Costing. PeopleSoft Project Costing uses the pricing engine and rate sets to price the labor costs. Transaction costs are stored in the PROJ\_RESOURCE table. PeopleSoft Project Costing applies its rules, capitalizes the costs in PeopleSoft Asset Management, if appropriate, and posts the costs to the general ledger business unit associated with the work order business unit. When you run the Cost Summarization process in PeopleSoft Maintenance Management, PeopleSoft Project Costing updates the total actual costs for the work order task stored on the Costs page of the work order.

Once the time entries are entered, the time keeper accesses the Stage Time Entries component (Maintenance Management, Work Order Management, Work Order Processing) and select from these options:

#### Stage Work Order/Project Time to Project Costing

When you select this check box, the EX\_TRAN\_PRWM Application Engine application stages all work order time entries to the EX\_PROJ\_RES\_STG table. Users then run the Project Costing Cost Collection process PC\_EX\_TO\_PC to move the work order time entry data to PeopleSoft Project Costing. The calculated cost is updated in the PeopleSoft Project Costing PROJ\_RESOURCE table. The PeopleSoft Project Costing pricing engine (PC\_PRICE) either marks up or discounts the costs for applicable chargebacks. When you run the PeopleSoft Maintenance Management Cost Summarization process (WM\_SUMMCOST) or the work order is closed, these actual labor costs, which are calculated by PeopleSoft Project Costing, are updated on the Cost page of the work order.

#### • Publish Personal Time to Time and Labor

When you select this check box, the system publishes personal hours (non-work order) to PeopleSoft Time & Labor, which calculates the employee's actual time and typically sends it on to a payroll application.

Note: If you select this check box, the system automatically selects the Stage Work Order/Project Time to Project Costing check box, even if you did not select it. However, if you select the Stage Work Order/Project Time to Project Costing check box and do not select the Publish Personal Time to Time and Labor check box, the system will only process the work order time entries using the Stage Work Order/Project Time to Project Costing option and will not process any personal time (non-work order) entries, which then are informational only.

#### Publish Work Order/Project Time and Personal Time to Time and Labor

If you select this check box, the previous two check boxes that appear in the Staging/Publishing Options group box become inactive, and the system publishes work order time entries and personal (non-work order) hours to PeopleSoft Time and Labor. You would normally select this check box if you wanted to publish both the work order time and the personal time hours to PeopleSoft Time and Labor, which will calculate the actual costs for the hours, stage the work order entries in Project Costing, and typically send them on to a payroll application.

If PeopleSoft Time and Labor and PeopleSoft Payroll are not installed, this personal time is used for information only.

You can stage time for all business units during one run or specified business units.

If you installed PeopleSoft Expenses and use its full functionality, you can set up PeopleSoft Expenses workflow to enable the approval of time entries. If you do not install and use PeopleSoft Expenses, then all time entries that you submit from the PeopleSoft Maintenance Management Technician Workbench are considered pre-approved.

See documentation PeopleSoft Time and Labor

See documentation PeopleSoft Payroll for North America

#### **Prior Period Adjustments**

When you submit and stage work order labor and personal (non-work order) time entries for the first time, the system assigns a version number of 1 to the entries. However, you may need to modify time entries that you submitted and staged in a previous period. To adjust prior period time entries, select the **Time Entry** link in the Technician Workbench and search for the entries based on a specified start date. You can modify and save the entries as often as you want without affecting the version number. Saving the entries enables you to exit the workbench and to return to them and make further modifications before you process them. When you finally submit and stage the entries again, the new version number for the record will be 2. You can modify prior period time entries any number of times, and each time you submit and stage them they will be assigned a new version number. Once a work order task is closed, you can no longer adjust prior period time entries.

## **Materials Management**

Users can access the Materials page in the Technician Workbench component to:

- View and gather materials.
- Acquire additional materials.
- Return materials.

Before beginning an assigned task, a technician can access the Technician Workbench and view a list of the materials assigned to the work order task. The Materials page lists inventory materials, floor stock, and purchased and on-hand materials identified on the Schedules page of the work order. If desired, the technician can print a detailed list of the materials needed for the task. The printout specifies which materials will be delivered and which materials the technician needs to obtain from the inventory store.

The combination of the item type and delivery instructions provides a technician with the information needed to gather the materials and provides PeopleSoft Inventory with the delivery instructions for the materials. Delivery instructions are updated by the planner or scheduler and can include special handling instructions. A truck icon, which appears in the task line, indicates that materials are to be delivered to the work location.

Based on PeopleSoft Maintenance Management user preferences, a technician can also generate and print a picking plan for materials that require gathering from the inventory store. The technician takes this plan to the inventory store, and the inventory clerk uses the plan to locate the items needed for the task and gives them to the technician. A scheduler can also generate a picking plan, which enables PeopleSoft Inventory to pick the items ahead of time.

If additional quantities of materials are needed, the technician can:

- Ask the scheduler to reserve additional quantities of materials in PeopleSoft Inventory. Once these
  materials are added to the schedule, the technician can list them in the Technician Workbench and
  generate another picking plan to obtain them from PeopleSoft Inventory.
- Enter a direct issue in PeopleSoft Inventory from the Technician Workbench for the unscheduled items, if the technician has access to the Issue to Work Orders component. PeopleSoft Inventory creates an issue transaction, which updates one or more Inventory lines for a task in the work order.

If the materials ordered are shorted or damaged, the technician must contact the delivery store, where the inventory personnel handle the problem and update the PeopleSoft Inventory system. Inventory items that are not in stock are automatically ordered and replenished through the PeopleSoft Inventory system. If the items are needed immediately, the technician can contact the scheduler, who can create a purchase order to order the items. If the materials are critical to the progress of the work order task, then the technician, scheduler, or planner can put the task on hold until the materials are received.

You can enter the quantity of materials used on the Materials page of the Technician Workbench (Maintenance Management > Workbenches > Technician Workbench > click the Materials link for one or more work order tasks) for materials already scheduled for a task and for materials added on the Technician Workbench after the work order task was scheduled. Used Qty may be entered for both Inventory/Floor Stock and Purchase Order/On-Hand Materials.

**Note:** This field is primarily informational. However, the Used Qty (quantity) field is included in the PeopleSoft Query definitions, which enables users to add to their own customized reports.

Materials must be returned to PeopleSoft Inventory when they are not needed for the task, are damaged or defective, or the task is cancelled. The return processes are:

Return the materials to PeopleSoft Inventory.

Access the Issue to a Work Order page from the Technician Workbench and select the **Return Parts** check box. This transaction reduces the quantity issued on the materials list in PeopleSoft Maintenance Management for the work order task.

PeopleSoft Inventory takes care of the return details.

• Return the materials to the shop.

The scheduler or other authorized personnel typically handles the return via PeopleSoft Purchasing or Receiving.

See "InterUnit and RMA Receiving - Receipt Header Page" (PeopleSoft Inventory).

#### **Inventory Cost Collection**

Inventory usage is tracked in the Technician Workbench as information. Once you schedule inventory parts for a work order and the Inventory parts are committed and reserved in PeopleSoft Inventory, a pick plan is run to select the items from PeopleSoft Inventory and then PeopleSoft Inventory issues the items (parts). Inventory transactions are created based on the issuance of the items (parts). The processing steps are:

1. Set up transaction group 231, Work Order Usage, in Cost Accounting, Transaction Accounting Rules.

PeopleSoft Cost Management has its own rules for accounting for inventory issues. The rules can vary by storage area locations. PeopleSoft Maintenance Management has standard rules for the distribution

ChartField values for issues. The Accounting Rules page enables you to set up the debits and credits for an issue from PeopleSoft Inventory. The debit is a basic expense account, and the credit is an inventory account.

2. Access Cost Accounting, Inventory and Mfg Accounting, Create Accounting Entries, Cost Accounting Creation to create cost accounting entries to stage data to the PeopleSoft Project Costing tables (CM ACCOUNTING LN).

You can run this process for a specific transaction group, an Inventory business unit, and a book name. Review the output to ensure that the data was staged.

**Note:** Make sure the accounting date is far enough in the future.

- 3. Access Project Costing, Cost Collection, Inventory to pull the Inventory costs into PeopleSoft Project Costing to run the PC IN TO PC process.
- 4. Access Project Costing, Interactive Reports, Manager Transaction Review and select the Cost Review page to see that Inventory actual costs were loaded into the PROJ RESOURCE table.
- 5. Run the Cost Summarization process to view the actual Inventory costs on the Actuals page of the work order.

**Note:** If you close the work order, the Cost Summarization process runs automatically.

See "Understanding Work Order Item Fulfillment from PeopleSoft Inventory" (PeopleSoft Inventory).

## **Tool Usage**

To complete a task, a technician typically returns checked-out tools and enters tools usage in the Technician Workbench; recording tools usage is optional. A user can only access the Tool Usage link if the Record Actuals Tools Usage check box is selected on the Definition page of any work order business units that are associated with the work orders listed in the Technician Workbench.

In the Technician Workbench, users can:

- Enter tools usage for work order tasks up to the time that a work order task is closed.
- Insert a new row, select a tool, and enter the actual start and end dates and the tool usage, if either
  the business unit or shop does not allow the scheduling of tools or additional unscheduled tools were
  needed to complete the task.

The system backfills the schedule and distribution fields after an unscheduled entry is saved in the Technician Workbench.

• Update a tool usage record.

**Note:** To maintain the ability to differentiate between scheduled usage and actual usage, a user cannot delete a tool usage record. However, a user can enter actual usage in a row as zero to indicate that the tool was not used, even though it was scheduled for the task. Each task tool resource can have only one transaction, and each revision replaces or updates the previous record; therefore, no record of each incremental change is kept. Users enter a new row with a negative value or a positive value to adjust the quantity of a previous record.

When you enter tool usage in the Technician Workbench or the Work Order Completion component, you enter the quantity used and the transaction dates. You can override the default values of the tool costs and bill rates, which are derived from the asset type and subtype, or the shop's Tool Rates page. If authorized in user references, you can override the distribution values for the assigned row on the work order task. If a difference exists between the currency code for the tool rates in PeopleSoft Asset Management and the currency code in the work order business unit, then the tool costs that appear in PeopleSoft Maintenance Management are always converted to the currency specified in the work order business unit. The system updates the tools schedule and actuals table with the actual quantity that is used when the technician saves the entry. These values appear on the Actuals page of the work order.

After the tools data is entered on the Technician Workbench:

• You run the Cost Collection process for PeopleSoft Maintenance Management in Project Costing (Project Costing > Cost Collection > PeopleSoft Maintenance Management) to pull the data into the PROJ\_RESOURCE table.

**Note:** The actual tools rows in the Technician Workbench cannot be modified after PeopleSoft Project Costing pulls the data into the PROJ RESOURCE table.

- The GL Distribution status changes to *HOLD* in PeopleSoft Project Costing.
- You run the Cost Summarization process in PeopleSoft Maintenance Management (or close the work order to run the process automatically) to display the actual tool costs on the Costs page of the work order.
- If you close the work order, the GL Distribution *HOLD* status is removed to enable the calculation of chargebacks and the distribution of accounting entries to the PeopleSoft General Ledger from PeopleSoft Project Costing.

See "Work Order Labor and Tools Usage Costs" (PeopleSoft Project Costing).

See Work Order Task Accounting.

## **Meter Readings**

You can enter meter readings in the Technician Workbench for the asset associated with the work order task if that asset is defined as a metered asset in PeopleSoft Asset Management. Typically, meter readings are entered for preventive maintenance work orders, but they also can be entered for any type of work order against an asset that has a meter. You can also indicate if this is the first reading for the asset after a replacement or a rollover. This information updates the PeopleSoft Asset Management Meter Reading History for the asset.

#### **Procedures**

The Procedures page in the Technician Workbench enables a technician to update the checklist, review the instructions, and open, add, and delete any attachments associated with a work order task. You can also review service request attachments, if the work order is associated with a service request. You must complete the required checklist items before you can change the task status to *Complete*.

## **Causal Parts**

You access the Causal Parts page in the Technician Workbench to record the parts that caused the problem for which the work order was created. A causal part can be an inventory item, an asset, or an open text description. This information is included in an existing warranty claim.

## **Crew Assignment Time Reporting**

Select this tab on the Technician Workbench to:

- Report the completion date for a crew-scheduled task.
- Update carryover hours for a crew-scheduled task.
- Update completed labor hours for a crew-scheduled task.

You can select multiple rows and apply an action to those rows, or you can enter data for each row. If the completed hours are equal to the carryover hours and you save the page, the carryover hours field changes to zero. When you save the data, the system updates the corresponding crew assignments. These changes will be reflected in the Crew Scheduling Workbench, when you select the same crew assignments, and in the Labor Requirements grid when you access the affected work order.

**Important!** Since you enter crew assignment time based on each craft, you must enter time for each employee either in the Technician Workbench or the Work Order Completion component.

## Using the Technician Workbench to Complete Work Order Tasks

To complete work order tasks, use the Technician Workbench (WM\_WOE\_WB1) component.

This section discusses how to use the Technician Workbench, enter punch time for a work order task, enter elapsed time for a work order task, enter personal (non-work order) time, enter actual labor hours for a work order task, mass change actual hours for multiple work orders, enter materials, enter tool usage, enter meter readings, review procedures, enter causal parts, report crew assignment time, and print work order tasks detail reports.

# Pages Used to Complete Work Order Tasks Using the Technician Workbench

Page Name	Definition Name	Usage
Technician Workbench Page	WM_WOE_WB	Select, search, update, and print work order tasks.
Technician Workbench - Task Search Page	WM_TSK_SRCH_SEC	Perform ad-hoc views (searches), and save and delete views.
Change Status	WM_WOE_STATUS	Perform a mass status change.

Page Name	Definition Name	Usage
Work Order Task Detail Report Options Page	WM_RPT_OPTNS	Select specific options and reports that you want to print.
Workbench Mass Change	WM_WOE_MASS_SEC	Change the actual dates and times, the PCR codes, or both for multiple work order tasks.
Work Order Details	WM_WOE_DETAIL	Review the work order header information, work order task details, and dates for a selected task.
Asset	WM_WOE_ASSET	Add or modify the asset's offline status, location, area, and effective date.
Asset Warranties	ASSET_WARRANTY	Display the warranties associated with the specified asset. If a warranty does not exist, users with update access to the page can create a warranty for the asset using the Warranty template.
Notes	WM_TSK_NOTES	Review or add notes about the task.
Supplemental Data	WM_WOE_SD	Review or update supplemental data associated with the task.
Downtime Entry	WM_WO_DOWNTIME	View, modify, and add downtime for an asset associated with a work order task.
Checklist	WM_WOE_CKLST	Select a check box to indicate that the pre-task or post-task step has completed.
Work Order Task Elapsed Time Entry Page	WM_ETIME_ENTRY	Enter elapsed time entries for this work order task.
Work Order Task Punch Time Entry Page	WM_PTIME_ENTRY	Enter punch time for the work order task.
Materials Page	WM_WOE_MTLS	Review inventory and floor stock scheduled for the task, issue the selected materials to the work order, generate a pick plan, and directly access the Schedules page of a selected work order task.
Work Order Task Tools Usage Entry	WM_TLS_USAGE	Enter the dates and times a tool was used and the quantity used for a work order task.

Page Name	Definition Name	Usage
Meter Readings Page	WM_WOE_METER	Enter meter readings and view a meter trend chart for the asset on which the work order task was performed.
Advanced Options	AM_MTR_ADV_OPTIONS	Review reading details for the selected asset.
Procedures Page	WM_WOE_LIST	Review the work order checklist, instructions, and attachments associated with a task.
Causal Parts Page	WM_WOE_CAUSAL_PART	Enter one or more parts responsible for causing the failure or the need for the task.
Report Crew Assignment Time Page	WM_CS_RPRTHRS_WB	Enter carryover hours, completed hours, and the completed date for a crew assigned to a task.
WO Issue Search	IN_WO_ISS_SEARCH	Enter criteria to search for inventory materials scheduled for work orders associated with a specific inventory and work order business unit.
WO Issue Location	IN_WO_ISS_LOC	Issue inventory to a technician from a specific inventory location.
WO Issue Summary	IN_WO_ISS_SUMMARY	Review the total quantities of an item requested, allocated, and issued in PeopleSoft Inventory for a work order task.
Downtime Entry	WM_WO_DOWNTIME	Enter planned and actual downtime for an asset associated with a task.
ESRI Map	ESRI_MAP_PG	Locates the selected task locations on an ESRI map.
Asset Information	WM_WO_ASSET_SEC	Review detail information concerning the reason that the asset is considered hazardous.
Work Order Failure Tracking	WM_WO_FAIL_TRACK	Add a new failure event describing the failure of the asset associated with a work order task, or review an existing failure event.

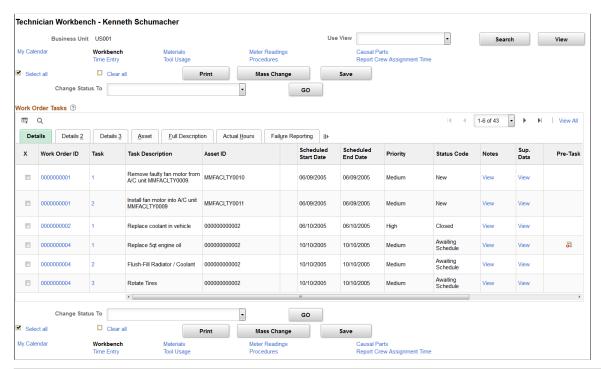
## **Technician Workbench Page**

Use the Technician Workbench page (WM\_WOE\_WB) to select, search, update, and print work order tasks.

Navigation:

#### Maintenance Management > Workbenches > Technician Workbench

This example illustrates the fields and controls on the Technician Workbench. You can find definitions for the fields and controls later on this page.



Field or Control	Description
You have "n" Service Request(s)	Click this link to access the Service Request Inbox page, which lists the service requests assigned to this technician. This list includes service requests associated with a work order and service requests in which the agent assigned the task to a technician without creating a work order.
	Important! This field only appears on the Technician Workbench page if one or more work orders is associated with a service request.

Field or Control	Description
Use View and View	Click the <b>View</b> button to access the Task Search page, where you enter and select criteria to narrow your task search.
	Note: When you select the Actual Start date and the Scheduled Start or Scheduled End date on the Task Search page associated with the Technician Workbench, the system searches against the actual start date for a labor task line and the scheduled start or end date for a labor task line. When you select these dates on the Work Order Workbench Task Search page or the Work Progress Tracking Task Search page, the system searches against the actual start date for the work order task and the scheduled start or end date of the work order task.
	See Work Order Workbench - Task Search Page.
My Calendar	Click this link to access the technician's monthly calendar. You must create the technician as a PeopleSoft Maintenance Management resource in PeopleSoft Resource Management.
	Note: The calendar that appears when you click this link is the calendar of the user who logs into the system. If this person is the technician, then the technician's calendar displays. If this person is an administrator with authorization to enter data for one or more technicians, then the administrator's calendar appears.
Workbench	Click this link in other pages that you can access from the workbench, such as the Work Order Task Punch Time Entry page, to return to the Technician Workbench page.
Time Entry	Click this link to access either the Work Order Task Punch Time Entry page or the Work Order Task Elapsed Time Entry page to enter work order and personal (non-work order) time for a selected task.
	Important! You must add all of the general ledger business units that are assigned to employees in the on the Organizational Data page (Travel and Expenses, Update Profile) and the Employee Job page (Maintenance Management, Labor Administration, Manage Employee Data) to the Project Costing Integration template that is associated with the project that was used to create the work order. You must also use the business unit assigned to each employee to set up the Expenses business unit on the Expenses Definition page (Set Up Financials/Supply Chain, Business Unit, Expenses Definition).
	See <u>Labor and Personal (Non-Work Order) Time Entry</u> .
Materials	Click this link to access the Materials page.

Field or Control	Description
Tool Usage	Click this link to access the Tool Usage page.  See <u>Tool Usage</u> .
Meter Readings	Click this link to access the Meter Readings page.  See Meter Readings.
Procedures	Click this link to access the Procedures page.  See <u>Procedures</u> .
Causal Parts	Click this link to access the Causal Parts page.  See <u>Causal Parts</u> .
Report Crew Assignment Time	Click this link to access the Report Crew Assignment Time page.  See Crew Assignment Time Reporting.
Print	Click this button to access the Work Order Task Detail report options page.  See Work Order Task Detail Report Options Page.
Mass Change	Click this link to access the Workbench Mass Change page, where you can change the actual dates and times, the PCR codes, or both for one or more work order tasks that you selected on the Technician Workbench page. If the Allow Mass Change Hours check box is selected on the User Preferences page, you can enter the actual hours worked for a group of assets across many work orders at the same time. You can only update tasks that are not canceled or closed.  If the PCR codes of the selected work order tasks are the same, the Problem Group, Problem Code, and Cause Code, and Passalution codes are pre populated in the mass change fields.
	Resolution codes are pre-populated in the mass change fields.  Otherwise, you need to manually enter values in the fields.  Note: To display the Actual Hours field, the Allow Mass Change Hours check box must be selected on the User Preferences page.

Field or Control	Description
Save	Click this button to update the actual date and time including the start date, end date, start time, and end time for a task.  Actual hours time entries are submitted immediately for posting.
	<b>Note:</b> Only one actual hours entry type is allowed. If you need to add more entries when posted entries already exist, use the Time Entry option.
Map Selected Tasks	Click this button to display the location of selected work order tasks on an ESRI map. Once the map displays, you can click on each location to display additional information about the work order and work order task.
	Important! This button only displays if you selected the GIS Integration check box on the Integration page of the work order business unit associated with the work order task.
Change Status To and Go	Select a status from the drop-down list and click <b>Go</b> to access the Change Status page.

**Important!** All of the previously listed links require the selection of at least one task on the Technician Workbench page.

## **Change Status**

Select a status and one or more work order tasks, and click the **Go** button to access this page, where you can update multiple tasks with the same status at the same time. Optionally, you can leave the **Change Status to** field blank if you want to change each of the selected tasks individually to a different status. Each task is listed with these fields:

Field or Control	Description
Task Status	Displays the current status of the task.
Change Status To	Displays the status that you selected in the <b>Change Status To</b> field on the Technician Workbench page. If the status is canceled, then the field displays a <i>Canceled</i> status that is readonly. All status changes are edited immediately upon being changed.
	Note: You cannot change the status to <i>Complete</i> until all the items on the checklist are completed and the actual start and end dates and time for the task are entered.

Field or Control	Description
Notify Scheduler	Click this check box to send an email and note to the scheduler that you changed the status for a work order task.
Note	Enter a note explaining why you changed the status. You can click the Dictionary icon to check your spelling. If a note is entered, that note is added to the Task Notes. If Notify Scheduler is selected, then this note is also sent by email to the scheduler.

If the Enable Actual Hours check box is selected when you change the status of a work order task to Completed, a warning message is displayed if the work order task has no timesheet, and Actual Start and End dates specified. If you click OK, the status changes to Complete, and the Actual Start and End dates are set to the current day.

If the enable Actual Hours check box is not selected, you must enter the Actual Start Date, Actual Start Time, Actual End Date, and Actual End Time on Technician Workbench - Task Actual Dates/Times tab.

#### **Work Order Task - Details**

Select this tab to review and modify task attributes.

**Note:** You can click the **Customize** link at the top of this grid and select any columns in any order that you want to appear in the **Details** grid and the **Details** 2 grid.

Field or Control	Description
Work Order ID	Select a task and click this link to access the Work Order Details page, where you can review the work order header information, work order notes, some task details, and task dates for the selected task.
Task	Click a task number link to access the selected task on the Work Order - Schedules page. The user's access to data in the work order depends on the user's security profile.  See <u>Understanding Resource Scheduling</u> .
Asset	Click this link to access the Asset page, where you can add or modify whether the asset is offline, add or modify the asset's location and area, and indicate the date from which these changes are effective.

Field or Control	Description
Hazardous icon	Click this hazardous icon, which indicates that the selected asset for the work order task is hazardous, to access the Asset Information page. You can review the Hazardous Asset Codes and Comments group boxes, which provide details concerning the reason this asset is considered hazardous.
Warranty icon	This icon indicates that warranties are associated with the selected asset for the work order task.
Asset Action	Appears if the asset is being removed, installed, retired, or not changed in the task.
Notes	Click the <b>View</b> link to access the Notes page, where you can review notes associated with the selected task.
Sup. Data (supplemental data)	Click the <b>View</b> link to access the Supplemental Data page. Supplemental data is often set up by an organization to handle hazardous waste requirements.  See <u>Understanding Supplemental Data</u> .
	Click either the <b>Pre-task checklist</b> button or the <b>Post-task checklist</b> button to access the Checklist page, where you can select a <b>Completed</b> check box to indicate that you completed the task. When you select the check box, your (the technician's) name and the time and date that you completed the task appear on the page. You can override the information in these fields if necessary.

#### Work Order Task - Details 2

Select the Details 2 tab to review the name of the technician assigned to a task; the task's resource line number in the **Labor Schedules** grid; the work order's required start and end dates and times; the Asset Management business unit and task location of the asset; the project information for the work order; the shop; and the names of the lead person, supervisor, and scheduler assigned to the task.

## **Full Description**

Select the Full Description tab to review the full description of the work order and the full description of each work order task that were entered in the Work Order component. If authorized, you can click the Task number link to access the Schedules page of the work order where you can modify both of these work order and the work order task descriptions.

Chapter 22 Completing Work Order Tasks

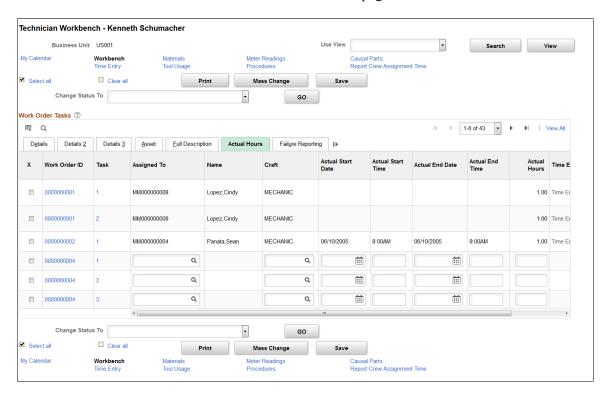
#### **Work Order Task - Actual Hours**

Select the Actual Hours tab to enter actual labor hours for a work order task. You can divide the actual hours worked on a group of assets across many work orders and specify the time spent on individual tasks.

#### Navigation:

Click the Actual Hours tab on the Technician Workbench page.

This example illustrates the fields and controls on the Technician Workbench - Actual Hours Page. You can find definitions for the fields and controls later on this page.



On the Search page, if the Assigned To filed is blank, then the Actual Hours tab displays the last labor resource schedules for the task. If the Assigned To field value on the Search page and that on the Technician Workbench page are the same, then the tab displays the labor schedules assigned to the employee.

Field or Control	Description
Assigned To	Select an employee ID to assign the work order task. This field is read-only if a timesheet already exists for the work order task and resource line number.
	Note: To enable this field, you must select the Allow Access to Other's Tasks option on the User Preferences page.
Name	Displays the selected employee's name.

Field or Control	Description
Craft	Select a craft for the employee. This field is read-only if a timesheet already exists for the work order task and resource line number.
	Note: To enable this field, you must select the Allow Access to Other's Tasks option on the User Preferences page.
Actual Start Date, Actual Start Time, Actual End Date, and Actual End Time	Select the Task Actual Dates/Times tab to enter the start and end dates and times when the task was actually performed. These fields are read-only when you close or cancel a work order task.
	Note: You can update the actual task dates and times for one or more tasks at the same time by clicking the Mass Change button.  These fields are read-only if a timesheet already exists for the work order task and resource line number.
Actual Hours	Enter the actual hours worked on the task.
	Note: This field is enabled only if no timesheet has been created for the employee.

Field or Control	Description
Time Entry Source	Displays the source of the timesheet. The available options are:
	Actual Hours: Displays if the hours were entered using the Actual Hours tab.
	Time Entry: Displays if the hours were entered using the Time Entry link.
	Multiple Sources: Displays if the hours were entered using more than one type of time entry source. The possible sources are:
	Time Entry
	Actual Hours
	Work Order Completion
	Mobile Work Order
	You can view the time entries by clicking the particular time entry source link.
	<b>Note:</b> The link is enabled only if you enter multiple time entries for the employee.

## Work Order Task - Failure Reporting

Select the problem group and PCR codes associated with this task. This information is used for searching and for tracking the task. If you selected these values on the Requirements page of the work order, then the default values appear in the Technician Workbench fields. You can override the default values.

You can click a Failure ID link to access the Work Order Failure Tracking page to add or review the failure information for an asset associated with a work order task

**Note:** You can update the PCR codes for one or more tasks at the same time by clicking the **Mass Change** button.

See <u>Understanding PCR Setup and Tracking</u>.

## Work Order Task - Inspection

Select the Inspection tab to access the instantiated asset inspection for the work order task. This allows the technician to quickly find the newly instantiated inspections and work on the various inspection activities assigned to them.

Click the **Inspection ID** link to access the Inspection details page, where you can review and work on the inspection activity details.

## **Technician Workbench - Task Search Page**

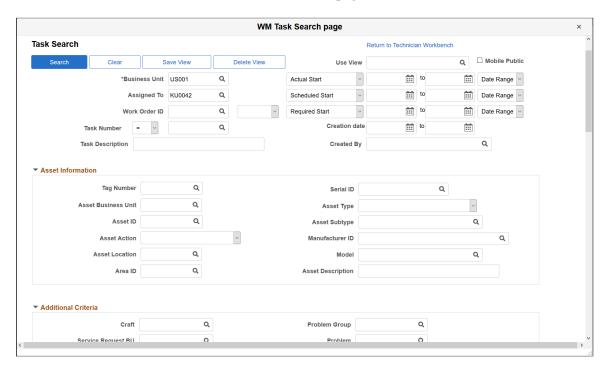
Use the Technician Workbench - Task Search page (WM\_TSK\_SRCH\_SEC) to perform ad-hoc views (searches), and save and delete views.

Navigation:

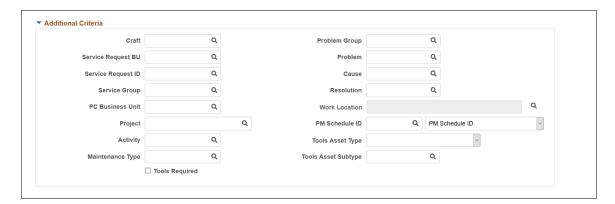
#### Maintenance Management > Workbenches > Technician Workbench

Click the **Search** button on the Technician Workbench page.

This example illustrates the fields and controls on the Technician Workbench - Task Search page. You can find definitions for the fields and controls later on this page.

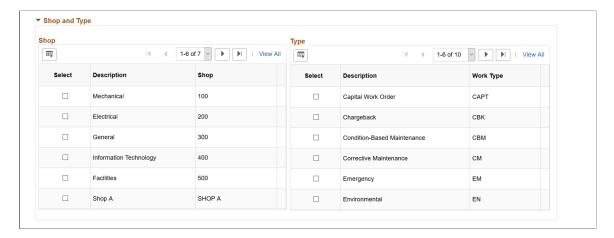


This example illustrates the fields and controls on the Task Search page. You can find definitions for the fields and controls later on this page.

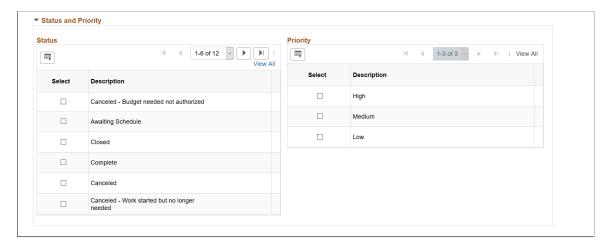


Chapter 22 Completing Work Order Tasks

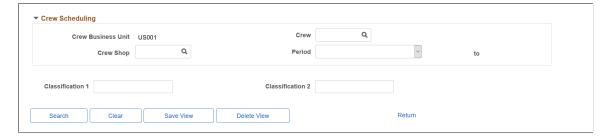
This example illustrates the fields and controls on the Task Search page. You can find definitions for the fields and controls later on this page.



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When you click the **Save View** button, you save the named view for later use. To search for a saved view, select the view name in the **Use View** field and click the **Search** button. The resulting tasks will appear in the **Work Order Tasks** grid. Alternatively, to perform an ad hoc search, enter any search criteria in the Task Search page without saving the view and click the **Search** button.

Field or Control	Description
Search	Click this button to search for work orders or work order tasks based on the search criteria that you enter on the page. You can select search criteria without saving the view or select search criteria and use <b>Save View</b> button to save that criteria and reuse it.
Clear	Click this button to clear any existing search criteria from the page. You can select new search criteria and click the <b>Save</b> View button to reuse this new search criteria.
Save View	Select search criteria and click this button to name and save the view for reuse.
Delete View	Click this button to delete the current saved view.
Use View	Search for a saved view and click the <b>Search</b> button to search for work orders and work order tasks that fall within the search criteria for that view.
Mobile Public	Select this option to make the saved view available to all Technicians using Mobile devices. If this option is selected the <b>Assigned To</b> field is replaced with an <b>Assigned To Current Technician</b> check box. If this check box is also selected, then the Mobile Public view will only return tasks that are assigned as a scheduled labor resource to the technician who is executing the Search View.
	Important! This only applies to technicians who work for organizations that have integrated a third-party mobile device with PeopleSoft Maintenance Management Web Services.

You can include any of the remaining fields on the Task Search page as search criteria to narrow your search for work order tasks.

Note: Business Unit is not required for searches.

## **Work Order Task Punch Time Entry Page**

Use the Work Order Task Punch Time Entry page (WM\_PTIME\_ENTRY) to enter punch time for the work order task.

Navigation:

Click the Time Entry link on the Technician Workbench page.

Field or Control	Description
Time Report ID	Generates the next available unique number when you save the entry.
Version Number	Indicates how many times a time entry was submitted. The default value for the first time sheet created is zero. The version number increases by one with each additional submission of a time sheet. Clicking the <b>Save</b> button does not increase the version number; it retains any changes until you are ready to submit the record again.
Period End Date	Displays the date based on whether the employee's time is reported daily, weekly, biweekly, or semimonthly. The time period is set up in the employee's data.
	See <u>Update Employee Data - Personal Data Page</u> .
Time Report Status	The default value is <i>Pending</i> before submission and <i>Approved</i> after you click the <b>Submit for Posting</b> button.
Time Report Period	Displays the time reporting period that you selected on the Expenses Definition – Business Unit 2 page (Set Up Financials/Supply Chain > Business Unit > Expenses > Expenses Definition > Business Unit 2.  ) These Time Reporting Period values are available for selection on the Expenses Definition – Business Unit 2 page.
	• Daily
	• Weekly
	Biweekly
	• Semimonthly
Expenses Post Status	Displays <i>Yes</i> if time entry transactions that you submitted to PeopleSoft Expenses are posted, and <i>No</i> if the transactions are not posted.
	Note: PeopleSoft Maintenance Management does not use the Not Appl (not applied) value.
Save for Later	Click this button to temporarily save this time report without submitting it. You can modify the page before you submit it for posting.
	<b>Note:</b> When you click this button, the system compares the work order and work order task dates, times, and other information with the information entered. It does not let you continue until the time entry rows are corrected.

Field or Control	Description
Submit For Posting	Click this button to submit the time report transaction to PeopleSoft Expenses, where accounting transactions are processed and sent to PeopleSoft General Ledger, and costs are generated and sent to PeopleSoft Project Costing.
	Note: When you click this button, the system compares the work order and work order task dates, times, and other information with the information entered. It does not let you continue until the time entry rows are corrected. Access to this button can be controlled from user preferences.
Print	Click this button to access the Work Order Task Detail Report Options page, from which you can select various reports to print.
Time Quantity	Displays the total hours entered for this employee.
Update Total	Click this button to update the total time entered, which appears in the <b>Total Work Order Hours</b> field. You can continue to click this button to view a running total of the time entered for an employee.

## **Time Sheet**

Select the Time Sheet tab in the Enter total hours worked on work order task group box.

Field or Control	Description
Business Unit, Work Order ID, and Task Number	Select these values if this employee was not scheduled in the system to work on this work order. If this employee was scheduled and assigned to various work orders and tasks in the Schedules page of the work order, then all of the assigned tasks and their associated work order IDs and business units are listed for this employee.
Resource Line	Displays the line in the <b>Labor Schedules</b> grid on which this resource was assigned in the Schedules page of the work order.
Craft	Select a craft for this employee if this employee was not scheduled ahead of time. Displays the employee's craft, if the employee was scheduled ahead of time. You can override this value, which is used to identify the rate by which the hours are multiplied to determine the labor cost.
Date Worked	Select the date that this employee worked on the task.

Field or Control	Description
Start Time and End Time	Select the start and end times that the employee worked on this task.
	Note: When you click the Save for Later button or the Submit for Posting button, the system displays messages if the date and times entered here are outside of the dates scheduled for the task or do not reflect the dates and times entered in the Labor Schedules row for this employee.

#### **Distributions**

Select the Distributions tab in the **Enter total hours worked on work order task** grid to display the ChartField distributions that are associated with the resource line. If this a new resource line (actuals entries only), then default distributions are derived from a distribution template. You can override these values, if necessary.

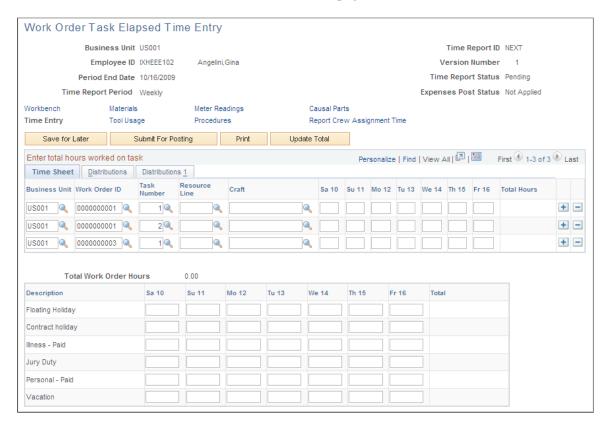
## **Work Order Task Elapsed Time Entry Page**

Use the Work Order Task Elapsed Time Entry page (WM\_ETIME\_ENTRY) to enter elapsed time entries for this work order task.

Navigation:

Click the **Time Entry** link on the Technician Workbench page.

This example illustrates the fields and controls on the Work Order Task Punch Time Entry page. You can find definitions for the fields and controls later on this page.



The fields in the header and the buttons on this page work the same way that they do in the Work Order Task Punch Time Entry page.

#### Time Sheet

Select the Time Sheet tab to enter elapsed time for work order tasks on which this employee worked. In elapsed time entry, you enter the hours worked on specific days of the week based on the **Period End Date** and **Time Report Period.** 

- If **Time Report Period** is *Daily*, then a single day appears in the **Work Order Task Elapsed Time Entry, Time Sheet** grid.
- If **Time Report Period** is *Weekly*, then the days of the week appear in the **Work Order Task Elapsed Time Entry, Time Sheet** grid.
- If **Time Report Period** is *Biweekly*, use the **Previous Week** and **Next Week**buttons to transfer to the previous week or next week for the week not currently shown.
- If **Time Report Period** is *Semimonthly*, the time entry is the same as for the biweekly page.

However, you can click the **Next** button twice from the first week and arrive at the last week, which may have just one day available for time entry, depending on the month.

#### **Distributions**

Select the Distributions tab, which displays the ChartField distributions that are associated with the resource line. If this a new resource line (actuals entries only), then the distributions are derived form a distribution template. You can override these values, if necessary.

### **Time Entry Page**

Navigation:

Click the **Time Entry** link on the Technician Workbench.

**Note:** The personal time entry fields appear on this page if you selected either the **Both Time Grids** or **Policy Time Grid Only** buttons on the Business Unit 2 page of the Expenses Definition component.

Field or Control	Description
Description	Displays Time Reporting Codes (TRC), which are set up on the Time Reporting Code page (Set Up Financials/Supply Chain, Product Related, Expenses, Mapping, Time Reporting Code).
Total Personal Hours	Click the <b>Update Total</b> button to display the total personal (non-work order) hours entered for this employee for this time period.
Grand Total	Click the <b>Update Total</b> button to display the sum of the work order task hours plus the (non-work order) personal time hours entered for this Technician.

#### **Related Links**

Work Order Task Elapsed Time Entry Page

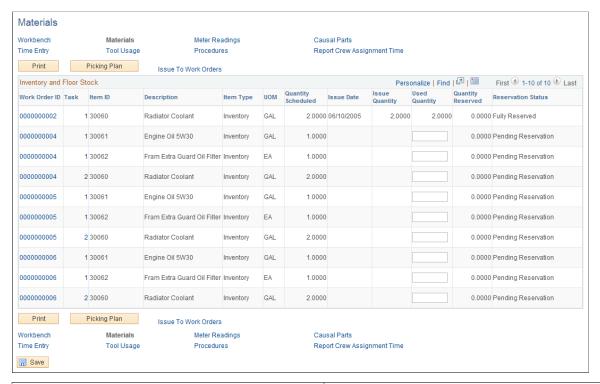
## **Materials Page**

Use the Materials page (WM\_WOE\_MTLS) to review inventory and floor stock scheduled for the task, issue the selected materials to the work order, generate a pick plan, and directly access the Schedules page of a selected work order task.

Navigation:

Click the **Materials** link on the Technician Workbench page.

This example illustrates the fields and controls on the Materials page. You can find definitions for the fields and controls later on this page.



Field or Control	Description	
Print	Click this button to print reports from the Work Order Task Report Options page.	
Picking Plan	Click this button to generate a picking plan for selected materials for PeopleSoft Inventory based on the predefined Picking Plan run control in user preferences.	
Issue To Work Orders	Click this link to access the Issue to Work Order Search page, where you enter details to issue the item to the work order task. Once the item is issued, the Issue Date and Issue Quantity fields appear in the Inventory and Floor Stock grid.	

### **Inventory and Floor Stock**

This grid displays each inventory item or floor stock item that was entered for the selected work order tasks.

Field or Control	Description
Used Quantity	Enter the quantity of this item that was used.

Field or Control	Description
Delivery Truck icon and Delivery Instructions	Displays delivery instructions informing PeopleSoft Inventory which materials to deliver and where to deliver them. Delivery instructions, along with the <b>Delivered Y/N</b> flag (appears as a delivery truck icon) for materials, are updated by the planner or scheduler to indicate where materials need to be delivered. These instructions might also include special handling instructions (such as a fork lift is needed). The <b>Delivered Y/N</b> flag indicates which materials are typically delivered to the work location. You can indicate how you want the materials delivered in the <b>Inventory Schedules</b> grid and the <b>Purchase/On-Hand Schedules</b> grid of the work order task.

#### **Purchase Order and On Hand Materials**

This grid appears on the Materials page of the Technician Workbench if you selected any materials that need purchasing or are on hand for a work order task. The grid displays the **Resource Type**, **UOM** (unit of measure) and **Quantity Required** for the task and the **Due Date** or date the materials are needed.

Field or Control	Description		
Used Quantity	Enter the quantity that was used for the task. If the <b>UOM</b> for the selected item is $EA$ (each), you will receive an error if you enter a partial quantity (quantity value with a decimal) in this field. This field is informational only. However, a query was established for this field, which enables your organization to add it to your customized reports.		

This grid also defines the staging status of the requisition or the purchase order that may have been created for materials selected for a task, and indicates if the material is on hand.

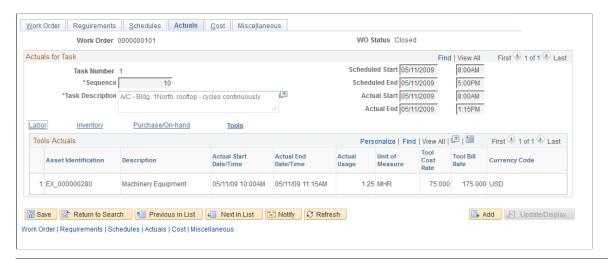
### **Tool Usage Page**

Use the Work Order Task Tools Usage Entry page (WM\_TLS\_USAGE) to enter the dates and times a tool was used and the quantity used for a work order task.

Navigation:

Click the **Tool Usage** link on the Technician Workbench page.

This example illustrates the fields and controls on the Tool Usage page. You can find definitions for the fields and controls later on this page.



Field or Control	Description			
Asset ID	Select or override the asset ID (Serial ID, VIN, or Asset Tag Number) for the tool. A default value appears if a value was selected in the <b>Tool Schedules</b> grid of the work order task. A description of the tool also appears. The selected asset must be flagged as a tool.			
	Note: For unplanned tool usage (tool requirements were not defined or scheduled), when you select this value, default values are applied to the Asset Type, Subtype, Manufacturer ID, and Model fields, if applicable. These fields are not visible from the Technician Workbench page.			
Quantity Used	Enter the quantity used. For example, if the cost to use a truck is 10 cents per mile and the truck traveled 20 miles during the task, then the quantity used is the total number of miles (20) that the truck traveled for the task. This quantity is multiplied times 10 cents per mile to arrive at the total cost of the tool usage: 2.00 USD.			
Actual Start Date, Start Time, Actual End Date, and End Date	Enter the actual start and end dates and times in which the tool was used for a work order task.			
Actual Duration	Displays the actual duration of the task based on the actual start dates and time values converted to hours divided by the <b>Quantity Used</b> value. This calculation depends on the unit of measure (UOM) that applies to the tool.			

#### **Tools Cost**

Select the **Tools Cost** grid on the Tool Usage page.

Field or Control	Description		
Tool Cost Rate and Tool	Override the default Tool Cost Rate and Tool Bill Rate values, as necessary. The default value is derived from the values entered on the Tool Rates page of the shop.		
Transaction Date	Override the default system date, as necessary.		
Distribution	Click this link to access the ChartField distribution page for tools to be processed in PeopleSoft Project Costing.		

## **Meter Readings Page**

Use the Meter Readings page (WM\_WOE\_METER) to enter meter readings and view a meter trend chart for the asset on which the work order task was performed.

Navigation:

Click the Meter Readings link on the Technician Workbench page.

Technicians update the meter readings of an asset to reflect usage information.

Field or Control	Description			
	Click this icon to activate the fields in a row of the <b>Current Reading</b> grid.			
Date and Time	Enter the date and time of the meter reading for the asset of the work order task.			
Meter Type	Select the type of meter from which you took the reading, such as an odometer.			
Reading and UOM (unit of measure)	Enter the meter reading. The <b>UOM</b> value is determined by the asset and the type of meter that you select.			
Change	If a prior meter reading exists, the difference between the current reading and the prior reading appears in this field.			
Prior Reading	This value appears if a prior meter reading was available in the PeopleSoft Asset Management Meter Reading History for the selected meter and asset.			
Advanced Options	Click this link to access the Advanced Options page.			

Field or Control	Description
	Click this icon to access the Meter Readings Trend Chart.

### **Advanced Options**

Use the Advanced Options page (AM\_MTR\_ADV\_OPTIONS) to review reading details for the selected asset.

Navigation:

Click the Advanced link in the Current Meter Readings grid of the Meter Readings page.

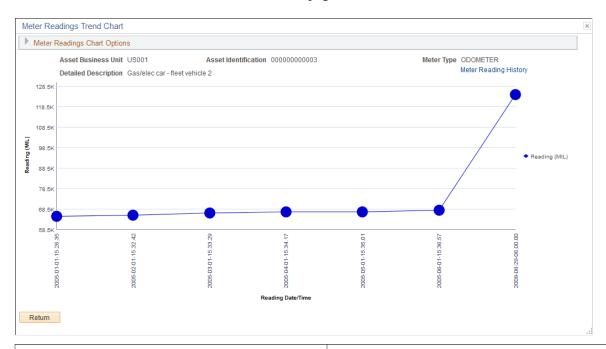
Field or Control	Description
Rollover	Select this check box only if this is the first meter reading performed after a rollover.
Replaced	Select this check box only if this is the first meter reading performed after the meter was replaced (for example, a new odometer in a company car). If you select this check box, you must enter a value for the accumulated reading.
Accumulated Reading	Enter a value in this field if you selected <b>Replaced.</b> You must enter the previous reading on the old meter to track the actual overall mileage.

## **Meter Readings Trend Chart**

Navigation:

Click the **Chart** icon on the Meter Readings page

This example illustrates the fields and controls on the Meter Reading Trend Chart page. You can find definitions for the fields and controls later on this page.



Field or Control	Description			
Start Date	Select the beginning date for the meter readings that you want to appear on the Meter Readings Trend Chart.			
Upper Limit for Chart Y Axis	Enter the upper limit (Readings/KWH) that you want to appear on the Y axis of the Meter Readings Trend Chart.			
End Date	Select the last date for the meter readings that you want to appear on the Meter Readings Trend Chart.			
Upper Limit for Chart X Axis	Enter the upper limit (Reading Date/Time) that you want to appear on the X axis of the Meter Readings Trend Chart.			
Last Readings to Chart	Indicates the total number of readings that appeared on the chart starting with the latest readings.			
Chart Readings	Click this button to display the Meter Readings Trend Chart based on the values you entered for the Meter Readings Chart Options.			
Clear	Click this button to clear the Meter Readings Chart Options fields.			

This chart compares the meter readings that were read on the odometer of this vehicle every 200 miles, and each date and time the meter readings were taken.

### **Procedures Page**

Use the Procedures page (WM\_WOE\_LIST) to review the work order checklist, instructions, and attachments associated with a task.

Navigation:

Click the **Procedures** link on the Technician Workbench page.

This example illustrates the fields and controls on the Procedures page. You can find definitions for the fields and controls later on this page.

Procedure	es					
Workbench Time Entry		Materials Tool Usage	Meter Readings Procedures	Causal Parts Report Crew Assignment Time		
Procedures				Persona	lize   Find   🗇	First 1-12 of 12 Last
Work Order ID	Task	Description		Checklist	Instructions	Attachments
000000001	1	1 Remove faulty fan motor from A/C unit MMFACLTY0009.				View
0000000001	2	2 Install fan motor into A/C unit MMFACLTY0009				View
0000000002	1	1 Replace coolant in vehicle				View
0000000004	1	1 Replace 5qt engine oil		View	View	View
0000000004	2	2 Flush-Fill Radiator / Coolant				View
000000004	3	3 Rotate Tires				View
0000000005	1	1 Replace 5qt engine oil		View	View	View
0000000005	2	Flush-Fill Radiator	Coolant			View
0000000005	3	Rotate Tires				View
000000006	1	Replace 5qt engine	oil	View	View	View
000000006	2	Flush-Fill Radiator	Coolant			View
000000006	3	Rotate Tires				View
Print						
Workbench Time Entry		Materials Tool Usage	Meter Readings Procedures	Causal Parts Report Crew Assignment Time		

Field or Control	Description
Checklist, Instructions, and Attachments	Select to access the checklist, instructions, and attachments pages associated with the work order task. If the work order is associated with a service request, you can view the service request attachments. You can also access the task and add instructions or checklist items via the Work Order component. You must call up the task again to access the view links for any additional procedures that you added to the task.

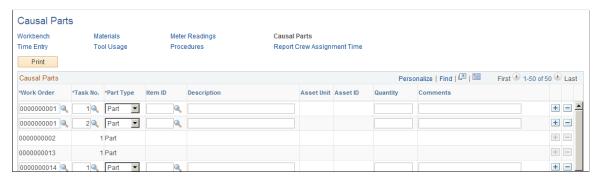
## **Causal Parts Page**

Use the Causal Parts page (WM\_WOE\_CAUSAL\_PART) to enter one or more parts responsible for causing the failure or the need for the task.

Navigation:

Click the Causal Parts link on the Technician Workbench page.

This example illustrates the fields and controls on the Causal Parts page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Part Type	Select if this causal part is either an inventory item, an asset, or a description. Values are:  • Part  If you select this value, then the inventory Item ID field is enabled so that you can select the item that caused the problem.  • Asset  If you select this value, then the Asset Unit and Asset ID fields are enabled so that you can select the asset that
Quantity	Enter the number of parts or assets that caused the problem.

## **Report Crew Assignment Time Page**

Use the Report Crew Assignment Time page (WM\_CS\_RPRTHRS\_WB) to enter carryover hours, completed hours, and the completed date for a crew assigned to a task.

Navigation:

Click the **Report Crew Assignment Time** link on the Technician Workbench page.

Field or Control	Description
Action	Select the rows that you want to affect with this action, and then select one of these actions:  • Report Completed Date
	Report Completed Date  Select this value to display a date field, where you can select the date the selected work order task row was completed.
	Select the <b>Go</b> button to perform the action and update the rows.
	Update Carryover Hours
	Select this value to display these fields:
	• To
	Enter the number of carryover hours to update the selected rows.
	• Completed
	The date the work was completed appears in this field. You can override this date.
	Select the <b>Go</b> button to perform the action and update the rows.
	Update Completed Man Hours
	Select this value to display the <b>To</b> field, where you can enter the completed labor hours for the selected rows.
	Select the <b>Go</b> button to perform the action and update the rows.

### **Crew Assignments**

Click the Crew Assignments tab on the Report Crew Assignment Time page.

Field or Control	Description
Work Order, Task No, Task Line, Task Descriptions, Task Status, Asset ID, Craft, Estimated Man Hours, and Crew	The field values for each row are derived from the work order and from the Crew Scheduling Workbench.
Carryover Hours	Displays the carryover hours. If you enter a completed date, then the carryover hours are zero. You can enter a value in each row or you can update the carryover hours for one or more rows by selecting the <i>Update Carryover Hours</i> action.

Field or Control	Description
Completed Hours	Enter the number of hours of work completed for each row. You can also select the row and the <i>Update Completed Man Hours</i> action to update one or more rows at the same time.
Completed	Select the date on which the hours were completed for each row. You can also select one or more rows and the <i>Report Completed Date</i> action to perform this activity. When this field is populated, the carryover hours in the row are set to zero.

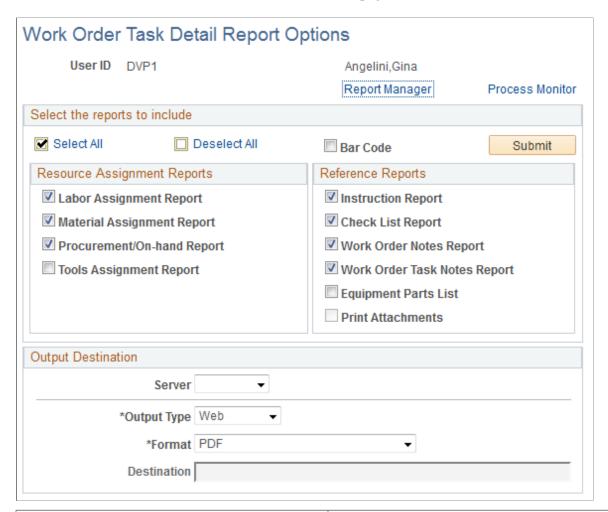
## **Work Order Task Detail Report Options Page**

Use the Work Order Task Detail Report Options page (WM\_RPT\_OPTNS) to select specific options and reports that you want to print.

Navigation:

Click the **Print** button on the Technician Workbench page.

This example illustrates the fields and controls on the Work Order Task Detail Report Options page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Bar Code	Select this option to print work order information such as the work order business unit, the work order ID, the task ID, and the resource line number for materials in bar code format for selected reports. For inventory items, the barcode is printed in the Scheduled Materials section. The storeroom clerk can then scan a resource line directly from the materials list and match it with the items committed to the work order task.
Server	Select the Process Scheduler server on which to run the report process. If left blank, the default Process Scheduler server will be used.  When the Print Attachments check box is selected, you must choose a Server that has an additional component application for attachment printing installed for the attachments to print correctly.

Field or Control	Description
Output Type	Select the Output Type of the report. Typically, the Output Types of Printer or Web will be used.  When the Print Attachments check box is selected, the Output Type will default to Printer option and will be disabled.
Format	The available list of report formats depends on the Output Type selected.  When the Print Attachments check box is selected, the Format will default to the report format for Printer option and will be disabled.
Destination	Specify the destination for the selected Output Type.  For Output Type option of Printer, specify the destination printer name. You can select a printer name from the list of configured printers. The printers can be setup on the Work Order Options Page. Work Order Options are specific to a SetID and hence the printer names displayed can be restricted by the business unit. Printer setup is optional.  Note: An incorrectly entered printer destination will result in an error in the Work Order Task Details report process. The process will then need to be submitted again. Use the printer setup option on the Work Order Options page to avoid entering an incorrect printer name.

**Note:** The Work Order Task Detail Report Options are automatically retained from the last successful request. These options appear as the default values when the user returns to the page.

#### **Printing Attachments**

The Work Order Print Attachment option allows you to print many different types of Work Order and Work Order Task attachments. The Print attachment feature utilizes an additional component application to print a wide array of attachment document types.

For additional information, refer *PeopleSoft Financials / Supply Chain Management 9.1 Feature Pack March 2011 Installation*, Installing PeopleSoft Maintenance Management 9.1 Work Order Attachment Print set of topics.

To enable the Print Attachments option, you must select the Work Order Attachment Print Installed option on the Installation Options – Maintenance Management page (Set Up Financials/Supply Chain, Install, Installation Options – Maintenance Management) after successfully installing an additional component application for attachment printing.

To Print Work Order and Work Order Task attachments, select the Print Attachments check box. This option will print all Work Order and Work Order Task attachments for the given Work Orders and Work Order Tasks.

Select your Server (a Process Scheduler server with the additional component application for attachment printing installed) and enter the printer name in the Destination field. Press the Submit button to submit the Work Order Task Details report request process. One report process instance is generated per Work Order and all its tasks. After the request has been successfully submitted the last report process instance is displayed under the Output Destination box.

Click on the Process Monitor link to view the Run Status of the report processes.

The process name for the Work Order Task Details report with attachments is WMONLATT. For grouping and printing your Work Order and Work Order Task attachments in the appropriate order, each Work Order and its tasks selected will generate a separate Process Scheduler report process. Each process will run in sequential order with all the other processes remaining in Blocked status until the previous process completes.

The following SQL code will be useful in identifying which Work Orders and Tasks have processes that are yet to complete successfully in case of any issues with the Work Order Task Details report process:

```
SELECT P.PRCSINSTANCE, P.RUNSTATUSDESCR, R.BUSINESS_UNIT, R.WO_ID, R.WO_TASK_ID FROM PS_WM_WOE_RPT_CRIT R, PS_PMN_PRCSLIST P
WHERE R.PROCESS_INSTANCE = P.PRCSINSTANCE
ORDER BY P.PRCSINSTANCE DESC, R.BUSINESS UNIT, R.WO ID, R.WO TASK ID;
```

## **Completing Work Order Inspections**

After creating an inspection instance for a parent work order task, you can work on the inspection to complete it. The process of working on the inspection involves performing the required data entry for the various activities one at a time, in sequence, to move the inspection through its lifecycle to completion.

**Note:** You must complete the activities in the specified order and ensure that the status of the previous activity is set to Completed before you begin the subsequent activities.

Each inspection activity has its own status to indicate its progression. The aggregate status of all inspection activities in turn determines the status of the overall inspection instance. The available set of Activity Statuses includes:

- Created The default status of a new unassigned activity for which data entry has not started.
- Assigned The next status of an activity that has an Employee ID assigned and saved for it.
- In Progress The next status of an assigned activity for which data entry or processing has started.
- Completed The final status of an activity for which data entry and/or processing has completed.

If a technician or inspector explicitly terminates an inspection that is created, assigned, or in progress, then the inspection header displays the status as Terminated.

**Note:** Work Order inspection header status does not display the status as Completed until you complete all activities of the particular inspection.

To complete the work order inspection activities, use the Work Order Inspection (WM WO INSPECTION) component.

Chapter 22 Completing Work Order Tasks

### **Pages Used to Complete Work Order Inspection**

Page Name	Definition Name	Usage
WO Inspection Page	WM_WO_INSPECT_MAIN	View work order details, inspection details, assign employees to activities, and view the total time spent on the activities.
Work Order Inspection-Activity Detail Page	WM_WO_INSPECT_ACTV	Check the activity steps and capture the required data.

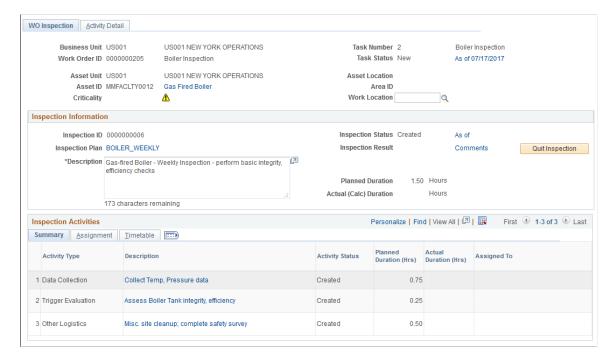
## **WO Inspection Page**

Use the WO Inspection page (WM\_WO\_INSPECT\_MAIN) to view the parent work order task details, view the asset inspection information including activity details, assign labor resources to perform the activities, and view the total time spent on the inspection activities.

Navigation:

#### Maintenance Management > Work Order Management > Work Order Inspection

This example illustrates the fields and controls on the WO Inspection page. You can find definitions for the fields and controls later on this page.



## **Work Order Inspection Header**

Field or Control	Description
Business Unit and Work Order ID	Displays the business unit associated with the work order and the work order task to which this inspection instance is linked.
Asset Unit	Displays the business unit to which the asset is assigned.
Asset ID	Displays the Asset ID that is specified in the Asset LookUp Field on the work order business unit Definition page. Click the <b>Asset Information</b> link to view the details about the asset.
Criticality	Displays how critical the asset is to the operation of the organization. A Warranty icon or Hazardous icon appear next to an asset's criticality code. You can click the Warranty icon and access the Asset Warranties page for this asset to check if the warranty covers the repair or partial repair of this asset. You can click the Hazardous icon and access the Asset Information page, which provides more information about any hazardous condition related to the selected asset.
Task Number	Displays the work order task number.
Task Status and As of link	Displays the current work order status. The date that the task was created displays as a link. Click this link to review the Task Status History page.
Asset Location	Displays the current location of the selected asset.
Work Location	Displays the work location where the current inspection is conducted.

## **Inspection Information**

Field or Control	Description
Inspection ID	Displays the inspection ID number.
Inspection Plan	Displays the selected inspection plan. Click to view the details.
Description	Displays the description about the inspection plan.

Field or Control	Description
Inspection Status	Displays the current status of the inspection. Click the As of date link to view the inspection status history.
	The status of inspection activities include:
	Created: The default initial status of an activity.
	Assigned: The activity status after assigning an employee to it.
	In Progress: The activity status when you begin the data entry.
	Completed: The final activity status after you enter all the required data and save the activity.
Inspection Result	Displays the result of the inspection after its completion.
Comments	Displays the comments about the inspection. Click the link to view or enter any comments.
Planned Duration	Displays the total hours planned to complete all the activities of the inspection.
Actual Duration	Displays the total elapsed time taken to complete all the activities of the inspection.
Quit Inspection	Click to terminate the inspection before its completion.
	While quitting an inspection you can either choose to retain all the data you collected for tracking purpose or terminate the entire inspection without retaining any data. In such cases, the Inspection status ID is displayed as Terminated.

## **Inspection Activities – Summary Tab**

Use this tab to view the overall summary of the inspection instance.

Field or Control	Description
Activity type	Displays the type of inspection activity to be performed.

Field or Control	Description
Description	Displays a brief description of the activity as specified in the inspection plan. Click the link to navigate to the Activity Details page and start entering data for the activity.
Activity Status	Displays the latest status of the activity.
Planned Duration	Displays the total time estimated for the activity in the inspection plan.
Actual Duration	Displays the total elapsed time taken to complete all the activities of the inspection.
Assigned To	Displays the employee's name assigned to perform the activity.

### **Inspection Activities – Assignment Tab**

After creating the inspection, use this tab to assign employees to perform the activities. After assigning the employees and saving the details, the Summary tab displays the assigned employee's name against each activity.

Field or Control	Description
Default Craft	Select the craft that is preferred to complete the specific activity. By default, the field displays the craft (if any) specified in the inspection plan.
	Note: This field allows modifications only until you select an employee to perform the craft.

Field or Control	Description
Employee ID	<ul> <li>Select the employee to perform this activity. The prompt table displays valid employees based on the following criteria:</li> <li>If the Default Craft field is populated and the inspection's parent work order task has one or more labor resources for the same craft already assigned, then the prompt table displays only the pre-assigned resources.</li> <li>If the Default Craft field is populated and task labor resource has not been pre-assigned for this craft, then the prompt table displays all eligible primary and non-primary craft employees.</li> <li>If the Default Craft field is not populated, the table displays all the eligible employees as defined in the PeopleSoft Maintenance Management system.</li> </ul>
	Note: To perform any activity, it is mandatory that you first assign an employee for it.
Employee Name	Displays the selected employee's name.

#### **Inspection Activities – Timetable Tab**

Use this tab to track the actual start and end date time to complete each activity.

Field or Control	Description
Activity Start Date Time	Displays the date and time when you started the activity.
Activity End Date Time	Displays the date and time when you completed the activity.
Actual Duration	Displays the total elapsed time taken to complete the activity.

## **Work Order Inspection-Activity Detail Page**

Use the Work Order Inspection-Activity Detail Page (WM\_WO\_INSPECT\_ACTV) to individually work on different activities created for the inspection.

**Note:** It is recommended that you complete the activity steps in the specified sequence. You cannot perform data collection or trigger evaluation activity steps, until you mark any Before Activity type checklist items as completed. Any After Activity type checklist items must be marked completed before you set the status of particular activity to Completed.

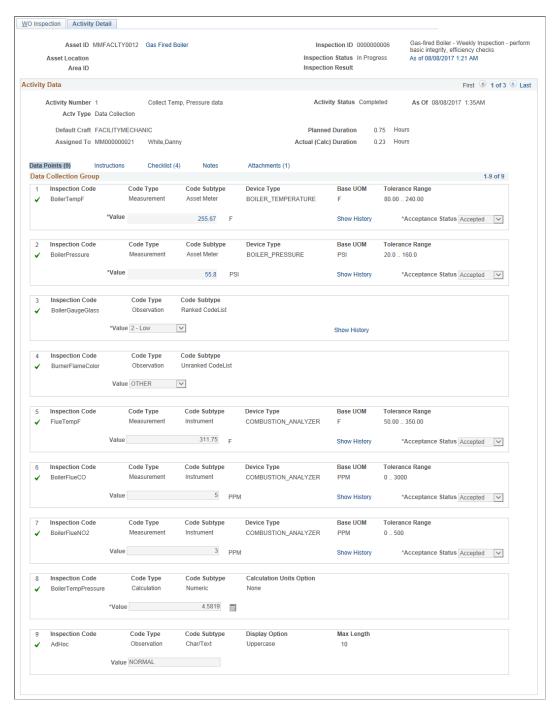
Navigation:

#### Maintenance Management > Work Order Management > Work Order Inspection

Click the Activity Detail tab.

You can also click the activity description link on the WO Inspection page.

This example illustrates the fields and controls on the Work Order Inspection-Activity Detail page. You can find definitions for the fields and controls later on this page.



For each activity, the label of the primary data label link varies. The Data Collection activity displays the label as Data Points. For the Trigger Evaluation Activity, the label is Triggers, and for the Other

Logistics activity, it is Other. Before beginning an activity, check the instructions, checklist items, notes, and attachments links. If the Checklist contains any Before Activity steps, finish them to proceed with data collection. Otherwise, a message displays prompting you to complete the required checklist items.

### **Data Collection Activity**

The Data Collection activity enables to record various inspection code values that represent both quantitative and qualitative asset attribute values. You can enter numeric values according to the actual decimal precision displayed on the asset meter or measuring device. After entering the required values, you can analyze them using the evaluation activities to detect the asset failure or exception conditions. For a Data Collection activity, the numbers associated with the Data Points label indicate the total number of steps to be performed to complete the activity.

Field or Control	Description
Value	Click the Enter Meter Reading link. In the new window displayed, click the <b>Activate</b> option to enable the Reading field. Enter the value and click Apply, and then click OK. The value field displays the data entered.
	For measurements codes with tolerance range specified, enter a value within the limits specified.
Show History	Click this link to view the previous readings captured for this inspection code and compare the current value with them.  If enabled for a particular inspection code, you can view a maximum of 5 values recorded previously.
Acceptance Status	Select the Accepted or Rejected option. The Acceptance status options are enabled after you enter the meter reading value.  If you accept the value, a green check mark appears to indicate
	that the entry is completed. If you reject the value, a red x replaces the green check mark.
	Select the Accepted or Rejected value to:
	Double-check the critical values entered.
	Complete data collection during exceptional conditions.
	Note: The Accepted status overrides the normal validations and accepts the exceptional values logged.
Calculate icon	Click this icon to calculate the numeric calculation data values

Field or Control	Description
Save	Click to save the values entered and complete the activity.  Confirm the activity completion in the confirmation message displayed.
	Note: Before you save the activity details, complete the required After Activity type checklist items, if any.
	The summary tab of the WO Inspection page displays the Activity Status as Completed and a green check mark appears. Now, you can proceed to the next activity.

#### **Trigger Evaluation Activity**

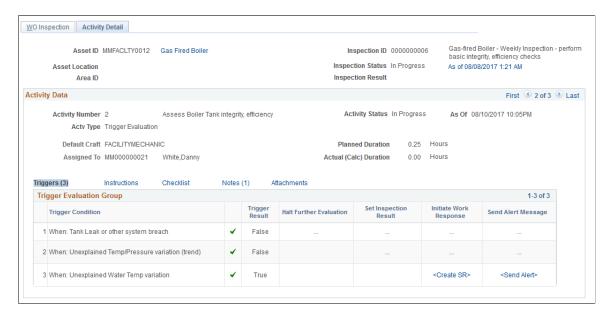
The Trigger Evaluation activity type enables you to execute one or more trigger type calculation code formulas in a series of steps for the activity to identify the failure or exception conditions of the target asset. If the trigger condition returns a True value, you can take a necessary or appropriate response action. The work response actions include creating a work order, service request, or scheduling a one-time PM work order.

The number associated with the Triggers label indicate the number of trigger conditions to be executed for the trigger evaluation activity.

#### Navigation:

Click the description for the Trigger Evaluation activity or select the Show next row arrow in the Activity Data group box.

This example illustrates the fields and controls on the Work Order Inspection-Data Collection Activity Detail page. You can find definitions for the fields and controls later on this page.



Different pre-execution icons for the trigger evaluation activity include:

Field or Control	Description
<b>©</b>	The Pending Previous Activity icon indicates that you need to complete the preceding activity to start working on this activity step.
<b>Y</b>	The Pending Activity Assignment icon indicates that the execution of an activity step is blocked until the status of the parent activity is set to Assigned.
0	The Ready to Evaluate icon indicates that the activity step is ready for evaluation.
	Note: To execute the evaluation, this is the only icon you can click. The evaluation steps are executed sequentially until the first exception (True or Error) is detected.
0	The Pending Prior Evaluation Step icon indicates that the execution is prevented for this activity step until the preceding activity step is evaluated.

Different post-execution icons for the trigger evaluation activity include:

Field or Control	Description
<b>✓</b>	The Completed Evaluation icon indicates the successful execution of the activity step.
<b>↔</b>	The Skipped Evaluation icon indicates that execution is skipped for an activity step due to the Halt Further Evaluation option being triggered for a prior evaluation step in the same activity.
	The Invalid Expression icon indicates that an evaluation step cannot be executed or the execution of an evaluation step failed. This returns the trigger result value as Error.

The Trigger Evaluation grid displays the following fields:

Field or Control	Description
Trigger Result	Displays the result of the trigger evaluation activity. The possible evaluation results are False, True, or Error.

Field or Control	Description
Halt further Evaluation	Indicates that you can skip any subsequent evaluation steps if the trigger result is True and the field displays Yes.
Set Inspection Result	Displays the inspection result as set in the inspection plan for a True result.
Initiate Work Response	Displays the work response action set in the inspection plan for a True result.  Performing a work response action is optional. You can complete the activity without performing a work response action.  See Initiating Work Response Actions.
Send Alert Message	Indicates that the user can send an alert message for a True or Error result, according to the default parameters established in the inspection plan.

#### Other Logistics Activity

Check the Other Logistics activity type for details consisting only of instructions, checklist items, notes and attachments.

## **Initiating Work Response Actions**

For a True evaluation result, you can creating a service request, a work order, or schedule a one-time PM work order as set in the inspection plan to notify the respective roles about severity of the asset exception conditions. You can also send alert messages that briefly describe the nature of the problem detected. If the evaluation result is Error, you can only send an alert message to the defined alert roles.

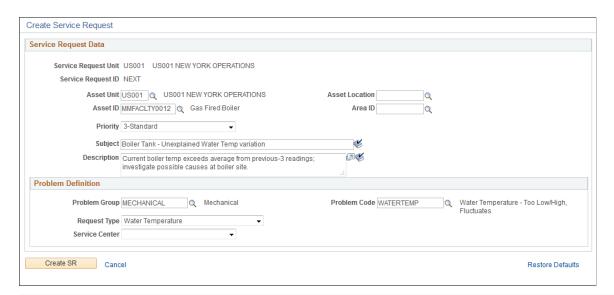
### **Create Service Request Page**

Use the Create Service Request page (WM\_WO\_INSP\_CREA\_SR) to review or modify service request parameters defined in the inspection plan for a particular trigger condition if the trigger evaluation steps returns a True result.

Navigation:

Click the Create SR link in the Initiate Work Response column of the trigger exception condition.

This example illustrates the fields and controls on the Create Service Request page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Asset Unit, Asset ID, Asset Location, and Area ID	Displays the asset data of target asset as set in the inspection plan. You can modify the values if required.
Priority	Displays the priority for the service request. Change the priority if required.
Subject and Description	Displays the subject and description for the service request. You can modify the details as required.
Problem Group and Problem Code	Displays the category and the code defined for the problem.  The fields help to narrow your search for the available request types. You can modify this details if the problem detected is different.
Request Type	Displays options that best describes this service request problem.
Service Center	Displays the service center to route the service request to the location where the agent works.
Restore Defaults	Click this link if you want to reset the original values defined in the inspection plan.

Enter the required details and click the Create SR button to create the service request.

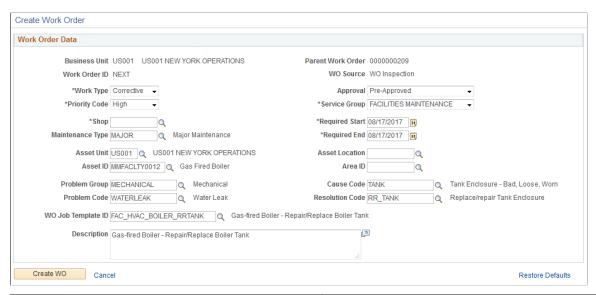
### **Create Work Order Page**

Use the Create Work Order page (WM\_WO\_HDR) to create a work order if a particular trigger condition result displays the initiate work response action as Create WO. By default, the Create Work Order page populates the details based on the exception indicated by the trigger condition. You can modify them if required.

#### Navigation:

Click the Create WO link in the Initiate Work Response column of the trigger exception condition.

This example illustrates the fields and controls on the Create Work Order page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Business Unit	Displays the work order business unit.
Parent Work Order	Displays the parent work order ID to which an inspection plan is associated.
Work Order ID	Displays NEXT as the default work order ID. When the work order is saved, a numeric value replaces this.
WO Source	Displays the source for a new work order.
Work Type	Displays the work type specified in the inspection plan. You can modify this value if required.
Approval	Displays the work order approval status.

Field or Control	Description
Priority Code	Displays the work order urgency level.
Service Group	Displays the category that best describes the work order.
Shop	Displays the shop ID assigned for this business unit.
Maintenance Type	Displays the work order maintenance type as defined in the inspection plan. You can change this if needed.
Required Start and Required End	Displays the start and end dates of the work order.
Asset Unit, Asset ID, Asset Location, and Area ID	Displays the asset data of target asset as set in the inspection plan. You can modify the values if required.
Problem Group and Problem Code	Displays the category and the code defined for the problem. You can modify this details if the problem detected is different.
Cause Code	Displays the cause code based on the problem code. You can select a possible cause for the problem.
Resolution Code	Displays the resolution code based on the cause code. Select a possible resolution for this problem.
WO Job Template ID	Displays the job template ID from which the associated task and resource requirements will be copied to the new work order.
Description	Modify the problem description if required.
Create WO	Click this button after entering all the required details to create a new work order.
Restore Defaults	Click this link if you want to reset the original values defined in the inspection plan.

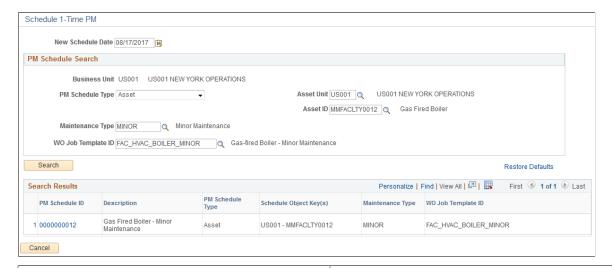
## **Schedule 1-Time PM Page**

Use the Schedule 1–Time PM page (WM\_PM\_SCHD) to schdule PM work orders if a particular trigger condition result displays the initiate work response action as Sched PM. When you run the Preventive Maintenance process, it generates work orders depending on the way that you set up your preventive maintenance schedules.

#### Navigation:

Click the **Sched PM** link in the Initiate Work Response Column of the of the trigger exception condition.

This example illustrates the fields and controls on the Create 1–Time PM page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
New Schedule Date	Enter the date for the new PM schedule.
PM Schedule Search group box	<ul> <li>By default, displays the values as set in the inspection plan.</li> <li>Schedule Type - Displays the PM schedule type.</li> <li>Asset Unit and Asset ID - Displays the asset data of target asset.</li> <li>Maintenance Type - Displays the type of service maintenance and maintenance procedures that should be followed for a particular asset.</li> <li>WO Job Template ID - Displays the job template ID from which the associated task and resource requirements will be copied to the new work order.</li> </ul>
Search	Click this button to search for the most appropriate PM schedule ID to be updated to override its scheduled date to process the PM schedule on the newly scheduled date.

Field or Control	Description
Search Results group box	Displays an appropriate PM schedule ID on the basis of the PM Schedule Search group box details. Click the desired PM Schedule ID to access its definition and accept or save the proposed schedule change.  After saving the Activity Details page replaces the Sched PM link with the updated PM schedule ID.

**Note:** To generate PM Work orders, the Generate PM Asset Inspections option must be selected in the Work Order Definition page.

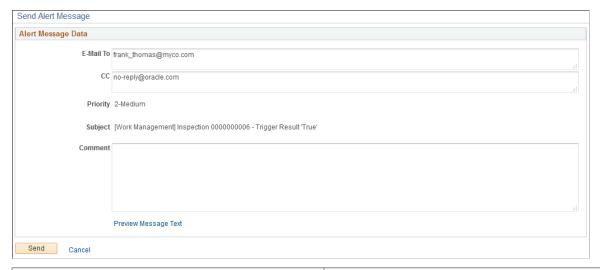
#### Send Alert Message

Use the Send Alert Message (WM\_WO\_INSP\_SAM\_SEC) to optionally send alert messages with a subject line and message body content indicating the precise nature of the problem detected to a targeted set of key personnel based on their organizational roles and responsibilities. The Send Alert option displayed for a trigger exception condition indicates that the option is set in the inspection plan for the particular trigger condition. At any point prior to activity completion, you can optionally access this link to finalize and send an email notification according to the default parameters established in the inspection plan.

#### Navigation:

Click the **Send Alert** link if displayed in the Send Alert Message column of the of the trigger exception condition.

This example illustrates the fields and controls on the Send Alert Message page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
E-Mail To	Enter the primary recipient's email address.

Field or Control	Description
Сс	Enter the email address of other recipients.
Priority	Displays the message's priority level as set in the inspection plan.
Subject	Displays the message's subject as set in the inspection plan.
Comment	Enter your comments about the problem.
Preview Message Text	Click this link to view the final message content. The message will display the latest inspection values.
Send	Click this button to send the message.

# **Staging Time Entries**

This section discusses how to stage time entries for Project Costing processing. To stage time entries, use the Stage Time Entries (RUN\_EXTRNPRC\_WM) component.

## **Pages Used to Stage Time Entries**

Page Name	Definition Name	Usage
Stage Time Entries Page	RUN_EXTRNPRC_WM	Stage time entries for PeopleSoft Project Costing processing.
Selected Business Units Page	RUN_EXTRNPRC_BU	Select the business units that are associated with the time entries.
List	PSRF_REPORTS_CHRON	List generated reports.
Explorer	PSRF_REPORT_VIEWER	Display a selected report.
Administration	CDM_CONTLIST	Review the attributes of listed reports.
Archives	CDM_CONTLIST_ARCH	Review archived reports.
Process List	PMN_PRCSLIST	View the status of jobs that are processing.

Chapter 22 Completing Work Order Tasks

Page Name	Definition Name	Usage
Server List	PMN_SRVRLIST	View and access servers.

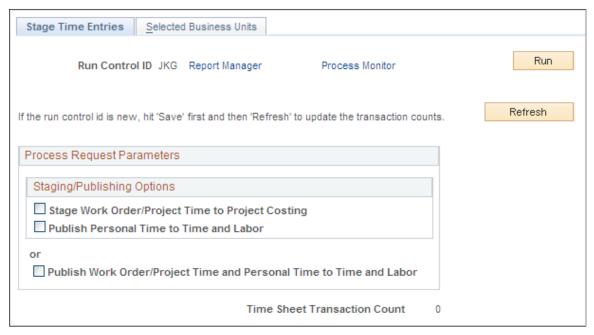
### **Stage Time Entries Page**

Use the Stage Time Entries page (RUN\_EXTRNPRC\_WM) to stage time entries for PeopleSoft Project Costing processing.

Navigation:

# Maintenance Management > Work Order Management > Work Order Processing > Stage Time Entries

This example illustrates the fields and controls on the Stage Time Entries page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Stage Work Order/Project Time to Project Costing	Select this check box to stage all work order task time entries to the Expenses staging table (EX_PROJ_RES_STG).

Field or Control	Description
Publish Personal Time to Time and Labor	Select this option to publish personal time (non-work order) to PeopleSoft Time and Labor.
	Note: This process is optional. However, if you select this check box, the system automatically selects the Stage Work Order/Project Time to Project Costing check box above it.
	Important! The work order information is not carried over to the PeopleSoft Time and Labor application.
Publish Work Order/Project Time and Personal Time to Time and Labor	Select this check box to publish both the work order task time entries and personal time entries only to the PeopleSoft Time and Labor application.

See Time Entry Staging and Processing.

## **Selected Business Units Page**

Use the Selected Business Units page (RUN\_EXTRNPRC\_BU) to select the business units that are associated with the time entries.

Navigation:

Select the Selected Business Units tab.

Select one or more business units that are associated with the time entries that you want to stage.

## **Expediting Work Order Completion**

This section provides an overview of the Work Order Completion Component and discusses how to use the Work Order Completion component.

### **Pages Used to Expedite Work Order Completion**

Page Name	Definition Name	Usage
Work Order Completion Page	WM_WO_ACT	Enter data to complete a work order.
Tool Usage	WM_TLS_USAGE	Enter actual tool usage for a work order.
Materials	WM_WOE_MTLS	Enter the quantities of materials used for each work order task and issue materials, as necessary.

Page Name	Definition Name	Usage
Meter Readings	WM_WOE_METER	Enter the meter readings for the asset associated with the work order.
Causal Parts	WM_WOE_CAUSAL_PART	Enter the parts that caused the problem addressed in the work order.
Mass Change	WM_WOE_MASS_SEC	Update the actual dates, times, and PCR codes for each work order task.
Change Status	WM_WOE_STATUS	Change the status of one or more selected work order tasks and optionally notify the scheduler of the change.
Checklist	WM_WOE_CKLST	Identify items listed on the checklist that have been completed.
Work Order Task Notes	WM_TSK_NOTES	Review and add notes associated with the work order task.
Downtime Entry	WM_WO_DOWNTIME	Enter actual asset downtime.
Asset Information	WM_WO_ASSET_SEC	Review detailed information about the asset.
Work Order Failure Tracking	WM_WO_FAIL_TRACK	Add or review details concerning a work order failure event associated with an asset selected for the work order or a work order task.
WO Issue Search	IN_WO_ISS_SEARCH	Select a pick plan or enter a work order ID as search criteria.
WO Issue Location	IN_WO_ISS_LOC	Enter the parts quantity issued and the quantity returned.
WO Issue Summary	IN_WO_ISS_SUMMARY	Review the total quantities requested, reserved, allocated, and issued.
Labor Distributions	WM_LBRACT_DIST_SEC	Review or modify the labor distribution ChartFields.

## **Understanding the Work Order Completion Component**

The Work Order Completion component enables you to expedite the entry of labor time, inventory usage and returns, and tool usage for the tasks associated with a selected work order.

To submit a time sheet for posting in the Work Order Completion component, you must set up the Time sheet Default page for each shop associated with the resources for which you are entering time. The time sheet prefix is used to generate a time sheet within Work Order Completion so as to bypass Expenses and go directly to the Expenses integration table for Project Costing. The time sheet prefix combined with the time sheet ID is a unique number. The PeopleSoft Expenses to Project Costing integration table indicates when a row is directly populated from PeopleSoft Maintenance Management.

#### · Labor Time

Before you can enter time on the Work Order Completion component, work orders must be approved. You enter the actual start and end dates and times for every technician assigned to any of the tasks associated with the selected work order in the Technician Workbench. You can also add and remove unscheduled time entry rows to each task. After creating these entries, if authorized, you can select the Submit For Posting button. The system automatically stages the transactions in the PeopleSoft Expenses to Project Costing integration table until Cost Collection for PeopleSoft Expenses is run in PeopleSoft Project Costing, which collects the time information for each resource and stores it in the PROJ\_RESOURCE table. The PeopleSoft Project Costing cost collection process also performs pricing on the time data. You must run the Cost Summarization process to see these actual labor costs updated in the Costs page of the work order.

**Note:** You can enter time on the Work Order Completion component at any time.

**Important!** Labor time entered for a labor resource per Work Order Task on the Work Order Completion component cannot be updated on the Technician Workbench Time Entry page, and labor time entered on the Technician Workbench Time Entry page cannot be updated on the Work Order Completion component. Also, selecting the **Elapsed Time** or **Punch Time** option on the User Preferences, Maintenance Management page does not apply to the Work Order Completion component.

See <u>Understanding the Work Order Completion Component</u>.

#### Tools Usage

Click the **Tool Usage** link on the Work Order Completion page to access the Tool Usage page, where you can enter the actual start and end dates and times for tool usage for each task associated with a selected work order. The transaction processing for these entries is the same as it is for the Technician Workbench.

See <u>Understanding the Work Order Completion Component</u>.

#### • Material Usage and Return

Click the **Materials** link on the Work Order Completion page to access the Materials page, where you can enter the quantities of inventory items used for each work order task in the selected work order. This grid also indicates the quantity of the item that was reserved and the reservation status of each item. You can also create a picking plan for selected items.

If more inventory materials are needed for the tasks associated with the selected work order and you have access to the Issue to Work Orders component, click the **Issue to Work Orders** link on the Materials page to enter a direct issue in PeopleSoft Inventory for the unscheduled items. PeopleSoft Inventory creates an issue transaction, which updates one or more inventory lines for a task in the work order.

You can also click the **Print** button, add a bar code, and print:

- Labor Assignment Report
- Material Assignment Report
- Procurement/On-Hand Report
- Tools Assignment Report
- Instruction Report
- Check List Report
- Work Order Task Notes Report
- Equipment Parts List
- Attachments

#### Meter Readings

If the work order is for preventive maintenance for an asset that is based on meter readings, click the **Meter Readings** link to access the Meter Readings page. You can update the current meter readings that are associated with the asset and, if you click the **Advanced Options** link, see detailed readings, such as the accumulated reading. You can also click a link to access the Meter Reading History in PeopleSoft Asset Management and to view a Meter Reading trend chart.

#### Causal Parts

Click the **Causal Parts** link to enter assets or item parts that caused each task in the selected work order to be opened. This information does not update a Warranty Claim created in the work order.

Users can change the status of assigned tasks in the Work Order Completion component. If you wish to change all the tasks to the same status, you can select that status from the dropdown menu. When you click the Go button, a Change Status page displays where you can change each of the individual statuses for selected tasks. You can also review any editing errors, add notes, and notify the scheduler concerning the status change. Users must be set up in User Preferences as authorized to complete and close a work order task or work order before they can change the status of a work order task or work order to Complete or Closed. These authorized users can change a Closed task back to a status of Complete. You cannot cancel tasks from the Work Order Completion component. Canceled and Closed tasks appear as display only. A status that is set up with an internal status of Cancel, will not appear on the list of available statuses. There are edits that prevent you from changing the status of a work order task to Complete if the work order has inventory on a pick plan or has an open peg.

**Important!** You may notice that the sample data that accompanies your PeopleSoft Maintenance Management application displays a user-defined status of Canceled - Work started but no longer needed. However, if you review the setup of this status in Set Up Financials/Supply Chain, Product Related, Maintenance Management, Setup, Work Order Status, you will see that the internal status is Complete.

You can access the checklist associated with each task to mark the steps as complete. You can review and modify existing notes and, if authorized, enter planned and actual downtime for the asset being maintained or repaired.

**Note:** You cannot perform prior period adjustments on the Work Order Completion component.

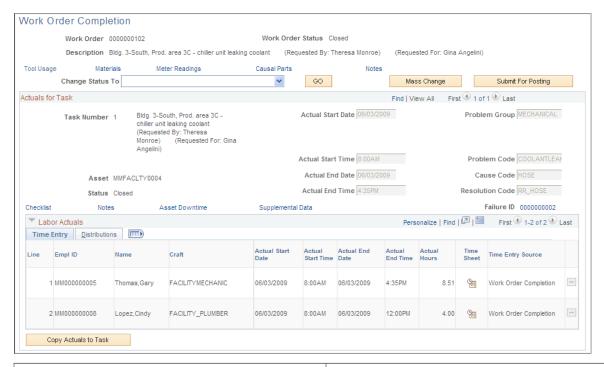
### **Work Order Completion Page**

Use the Work Order Completion page (WM\_WO\_ACT) to enter data to complete a work order.

Navigation:

#### Maintenance Management > Work Order Management > Work Order Completion

This example illustrates the fields and controls on the Work Order Completion Component. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Tool Usage	Click this link to access the Tool Usage page, where you enter actual tool usage for this work order task.  See <u>Tool Usage Page</u> .
Materials	Click this link to access the Materials page, where you enter actual quantities of items used. You can also click the <b>Issue</b> link to issue additional materials to the work order or to enter returned items.  See <u>Materials Page</u> .
Meter Readings	Click this link to access the Meter Readings page, where you enter the current meter readings for the asset.  See Meter Readings Page.

Field or Control	Description
Causal Parts	Click this link to access the Causal Parts page, where you enter any assets or asset components that caused the task problem.  See <u>Causal Parts Page</u> .
Mobile Updates Pending	This link is appears on the page if a task or any task-level data such as Materials, Checklists, and more have been sent to a mobile device from Maintenance Management and an update to that data has not been received from the mobile device since the last date and time that the previous update was sent. In this case, the task is considered to have an update pending.
Change Status To	Select the status to which you want to change the status for all of the work order's tasks. Only authorized users can change the status to Complete or Closed. The status rules for the work order apply to this component.
Go	Click this button to access the Change Status page where you can select a status for one or more work order tasks associated with this work order. You can also select the Notify Scheduler check box and add a note concerning the reason for the status change. An email is sent to the scheduler of the work order task.
Mass Change	Click this button to access the Mass Change page, where you can update the actual start dates and times, the PCR values, or both for all of the work order tasks.
	You select the Update Actuals Dates/Time check box and enter dates and times in these fields:
	Actual Start Date
	Actual Start Time
	Actual End Date
	Actual End Time
	You can select Apply to Labor Actuals check box to allow the entered actuals to be copied not just to the task actuals but also down to the next level of the labor actuals. If the fields are editable, the mass change actuals will be copied into the fields, regardless of whether data was already entered.
	You select the Update P-C-R Codes check box and enter the PCR codes in these fields:
	Problem Group
	Problem Code
	Cause Code
	Resolution Code

Field or Control	Description
Submit For Posting	Click this button to submit the time entries for posting in PeopleSoft Expenses. Only users who have the <b>Allow Submit Time for Posting</b> check box selected on the User Preferences - Maintenance Management page can access this button.
	Note: Once you submit the time sheet directly to the staging tables for Project Costing from the Work Order Completion component, you cannot modify the data posted. If you need to adjust the data, then you must enter a new line of labor data with the corresponding positive or negative adjustment.
	When a task is set to complete status and the complete actuals for any labor lines have been entered but have not been submitted for posting, the user will receive a reminder message when returning from the Task Status Change page on whether they would like to submit those actuals to Project Costing for posting.
	See Expediting Work Order Completion.
Checklist	Click this link to access the Checklist page, where you select completed tasks.
	See <u>Procedures</u> .
Notes	Click this link to access the Work Order Task Notes page, where you can review existing task notes and add new notes.
	See <u>Procedures Page</u> .
Asset Downtime	Click this link to access the Downtime Entry page, where you can enter the planned and actual downtime of the asset. You can also click a link to access the Asset History page from this page.
	See <u>Asset Downtime</u> .
Actual Start Date, Actual Start Time, Actual End Date, and Actual End Time	Enter the actual start and end dates and times for the work order task.
Problem Group, Problem Code, Cause Code, and Resolution Code	Select a problem group and PCR codes for this work order task, if applicable.
Failure ID	Click this link to access the Work Order Failure Tracking page and add or review the details of a failure event associated with an asset selected for the work order or a work order task. This information is used by the PeopleSoft Maintenance Management Failure Analysis component to enable you to perform a meaningful analysis of system-calculated metrics-based on the tracking of failure events associated with a work order task.
	See Work Order Failure Tracking Page.

Field or Control	Description
Inspection ID	Click this link to access the inspection instance created for the work order task. You can review or complete an inspection instance before setting the parent task's status to Completed. You cannot set the parent task's status to Completed until you complete the associated inspection tasks.
Copy Actuals to Task	Click this button to copy the appropriate labor actuals to the task actuals (if task actuals are enterable). For all the labor actuals entered for a given task, the earliest labor actuals are copied as the task start actuals and the latest labor actuals are copied as the task end actuals.

# **Labor Actuals Time Entry and Distribution**

Select the Labor Actuals Time Entry tab on the Work Order Completion page.

Field or Control	Description
Employee ID	Select a resource for whom to enter time. This field is available for resources that you add to the task. If labor is already scheduled for the work order task, an Employee ID appears in this field.
Craft	Select a craft for the resource. This field is available when you add a resource to the task. If labor is already scheduled for the work order task, a craft ID appears in this field. This field is provided by default if a primary craft is already specified for the resource.
Actual Start Date, Actual Start Time, Actual End Date, and Actual End Time	Select the actual dates and times that each resource worked on the task. The actual start date and time must be less than or equal to the actual task end date and time. The actual end date and time must be greater than or equal to the actual task start date and time.
Duration	Enter the number of hours the employee worked on the task.  This value is required in order to submit time for posting.

Field or Control	Description
Distribution	Click this link on the Distributions tab to access the Distribution page, which displays the distribution data entered by default into the labor schedule row. You can override these values.
	Note: The Distributions tab does not appear unless you select the View and Update Accounting check box on the User Preferences - Maintenance Management page for selected users.
Time Entry Source	Displays the component from which the Labor Actuals were entered. The component names will be either Work Order Completion or Technician Workbench. If no actuals have been entered and saved, the time entry source value will be blank.  The Time Entry options include:  • Work Order Completion - indicates that the time entered using the Work Order Completion component.  • Actual Hours - indicates that the time entered using the Technician Workbench - Actual Hours tab.  • Time Entry - indicates that the time entered using the Technician Workbench - Time Entry page.  • Mobile Work Order - indicates that the time entered using the Mobile Technician - My Tasks page.

## **Chapter 23**

# Using Mobile Technician Fluid User Interface

# **Understanding Mobile Technician**

The Mobile Technician workbench allows field technicians to view and update work order tasks and to create new work orders from any device. Additionally, technicians gain visibility to tasks on the basis of their priority, scheduled date, and weekly time entries. Technicians can perform asset inspections while out in the field. They can also view organizational notices.

The Quick Work Order component allows you to create and update a basic work order quickly using. The process also involves defining work order header information and adding tasks and resources to the work order.

The My Inspections component allows technicians to use their smartphone or tablet to collect and evaluate inspection data immediately and efficiently on-site and on-time.

PeopleTools documentation regarding the PeopleSoft Fluid User Interface includes:

- PeopleTools: Fluid User Interface Developer's Guide.
- PeopleTools: Applications User's Guide, Working With PeopleSoft Fluid User Interface.

Click to watch a short video about PeopleSoft Fluid User Interface - Getting Started.

Click to watch a short video about PeopleSoft Mobile Technician.

Click to view a Video Feature Overview about Mobile Asset Inspections.

## **Using Mobile Technician**

This topic discusses how to use the Mobile Technician fluid user interface to complete work order tasks.

# Pages Used to Complete Work Order Tasks Using Mobile Technician

Page Name	Definition Name	Usage
Mobile Technician Home Page	-	Access the different mobile technician fluid pages, such as My Tasks, Quick Work Order, Notices, My inspections, and so forth.

Page Name	Definition Name	Usage
Notices Page	WM_MBL_NOTICE_FL	View notices and announcements to the technicians.
My Tasks Page	WM_WOE_WB_FL	Select, search, and update work order tasks.
My Tasks - Apply Mass Changes	WM_MASS_CHG_SCF	Enter the work order status, hours and date worked, and PCR codes to apply to the selected tasks.
My Tasks - Task Filter Page	WM_TSK_SRCH_SCF	Perform ad-hoc searches, and save and delete views.
Weekly Time Entry Page	WM_TIME_ENTRY_FL	Log work order task and personal hours.
Weekly Time Entry - Allocate Hours Page	WM_TE_MASS_UPD_SCF	Complete the hours fields for selected tasks on the Weekly Time Entry page en mass.
Work Order Details Page	WM_TIME_DTL_SCF	Add work order task details.
WO Task/Personal Hours Page	WM_TIME_QFILL_SCF	Add work order tasks or personal (non-work order time) to the Weekly Time Entry.
My Tasks - Task Details Page	WM_TSK_DETAIL_FL	View the task and asset details, and change the task status.
My Tasks – Quick Complete Page	WM_WO_STATUS_FL	Quickly complete the task and enter the total hours you spent on the task.
My Tasks - Time Entry Hours Page	WM_WO_TIME_FL	Enter the total weekly labor time for the specific work order task. You can enter the time worked for each day of a specified time reporting period.
My Tasks - Checklist Page	WM_WOE_CKLST_FL	View the checklists associated with the task and mark steps as complete
My Tasks - Instructions Page	WM_WOE_INST_FL	View any instructions added for the task.

Page Name	Definition Name	Usage
My Tasks - Materials Page	WM_TSK_MATL_FL	View and edit inventory and purchase/ on-hand items that are scheduled for the task.
		You can also add materials, generate a pick plan, and issue inventory parts to the work order task.
Issue Inventory Parts Page	WM_TSK_INV_ISS_FL	View inventory parts available for issuing.
		You can also edit item quantity and the Process and Pick Line Complete options.
My Tasks - Services Page	WM_TSK_SRVC_FL	View information about any procured services scheduled for the task.
My Tasks - Meter Readings Page	WM_WOE_METER_FL	Enter the meter readings and view the meter readings history for the asset for which the work order task is performed.
My Tasks - Problem Codes Page	WM_WO_PCR_FL	lassify the issue that caused the task by entering the predefined problem group, problem, cause, and resolution (PCR) codes for a selected work order task.
My Tasks - Downtime Page	WM_WO_DOWNTIME_FL	View modify, and add downtime for an asset associated with a work order task.
My Tasks - Tool Usage Page	WM_TLS_USAGE_FL	Enter the usage of checked-out tools for the work order tasks.
My Tasks - Task Notes Page	WM_TSK_NOTES_FL	Review the existing task notes associated with the work order task and add new notes.
My Tasks - Attachments Page	WM_WOE_ATTACH_FL	View, add, and delete attachments associated with the work order task.
Quick Work Order Page	WM_WO_SEARCH_FL	View or update work orders or create basic work orders quickly.
Work Order - Task Details Page	WM_TASK_DTL_FL	View or modify the details of the work order.
Quick Work Order - Filter Work Orders Page	WM_QWO_FILTER_SCF	Search for a particular work order by entering the required search criteria.

Page Name	Definition Name	Usage
Add Work Order Page	WM_WO_ADD_FL	Create a new work order.
Service Request Inbox Page	WM_REQST_INBX_FL	Create, locate, and access service requests assigned to agents and technicians.
My Inspections Page	WM_WO_INSP_LIST_FL	View the list of inspections assigned to the technician.
Scheduled Tasks Pivot Page	PTPG_NUI_VWR	View the scheduled work order tasks to be completed by a specific date.
Tasks by Priority Pivot Page	PTPG_NUI_VWR	View tasks to be completed according to their priority.
WO Time Entries Pivot Page	PTPG_NUI_VWR	View the total hours the technician entered for each week.
Asset Search Page	WM_ASSET_SRCH_SCF	Search for assets to associate with the work order.

## **Mobile Technician Home Page**

Use the Mobile Technician page to access to different pages such as My Tasks, Quick Work Order, Notices, My inspections, Open Tasks by Priority, Open Tasks, My Service Requests, and Scan Asset to complete the work order tasks assigned to them.

Navigation:

Fluid Home > Mobile Technician

This example illustrates the fields and controls on the Mobile Technician Home page.

## My Tasks Page

Use the My Tasks page (WM\_WOE\_WB\_FL) to select, search, and update the assigned work order tasks and perform specific activities to complete each task.

Navigation:

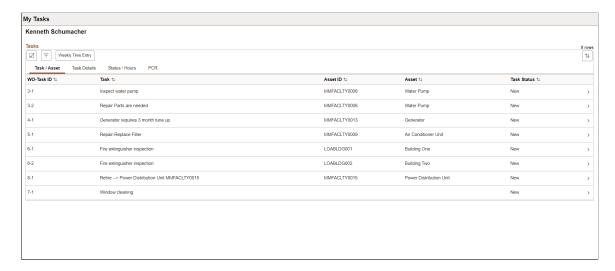
#### Fluid Home > Mobile Technician > My Tasks

The My Tasks page lists the tasks in stacked layout. Each row contains only one subset of the work order. Only one task can be selected and updated at a time. Select each row to view or update the task and asset details.

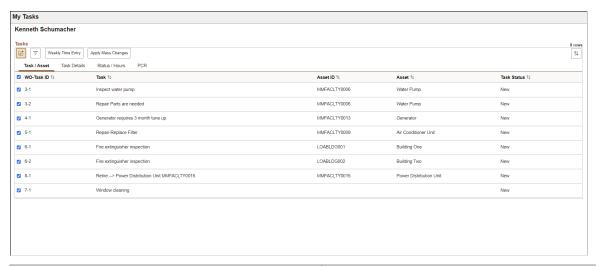
Navigation:

Select the My Tasks tile on the Mobile Technician Home page.

This example illustrates the fields and controls on the My Tasks Page. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the My Tasks Page with all tasks selected. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Task Tab	Select the Task/Asset, Task Details, Status/Hours, or PCR tabs to view the required task details.
Multi-Select	Select to add a check box next to all tasks. This check box allows to select or deselect individual tasks.  All tasks can be selected or deselected at once using the <b>Select All</b> check box on the header row. Closed or Canceled tasks can not be selected.
=	Select to access the Task Filter page to perform ad-hoc views (searches), and save and delete views.

Field or Control	Description
Weekly Time Entry	Select to access the Weekly Time Entry Page and log work order task hours. All selected rows are transferred to the Weekly Time Entry page.  This button works together with the Select All check box.
Apply Mass Changes	Select to apply mass changes to all selected rows.  This button appears when the <b>Multi-Select</b> is enabled.
	Select to view the column sort options. The sort options listed are based on the column headers displayed in the Tasks grid. By default, the tasks are sorted by Start Date in ascending order.
	Indicates that the scheduled date is lesser than the current date.
(Details/More icon)	Select <b>More</b> to access the My Tasks - Task Details Page and view task and asset details.

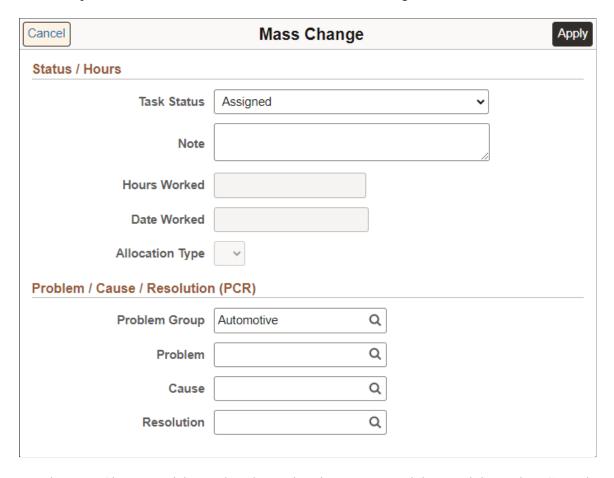
# My Tasks - Apply Mass Changes

Use the Apply Mass Changes (WM\_MASS\_CHG\_SCF) option to update the work order status, PCR codes, and date/time-hours worked on multiple work order tasks simultaneously.

Navigation:

My Tasks > Apply Mass Changes

This example illustrates the fields and controls on the Mass Change modal.



Use the Mass Change modal to update the work order status, actual dates and times, the PCR codes, or all for one or more work order tasks that you selected on the My Tasks page.

You can enter the actual hours worked for a group of assets across many work orders at the same time.

Use Allocation Type to split or copy the Hours Worked across the selected tasks. You can only update tasks that are not canceled or closed.

Select **Apply** after making the required changes to view the updates on the My Tasks page.

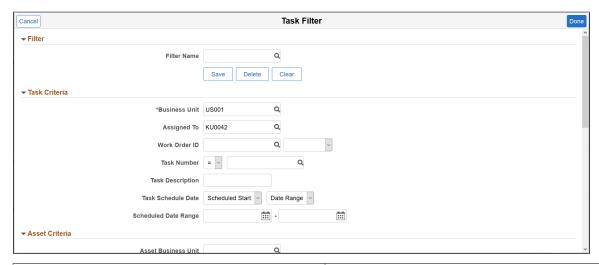
## My Tasks - Task Filter Page

Use the My Tasks - Task Filter page (WM\_TSK\_SRCH\_SCF) to perform ad-hoc views (searches), and save and delete views.

Navigation:

Fluid Home > Mobile Technician > My Tasks > Select Filter button

This example illustrates the fields and controls on the My Tasks - Task Filter Page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Save	Enter search criteria and click this button to save it for reuse.
Delete	Click to delete the current saved view.
Clear	Click to clear any existing search criteria from the page.
Done	Click to search for work order tasks based on the search criteria like filter name, task criteria, asset criteria etc. that you enter on the page.

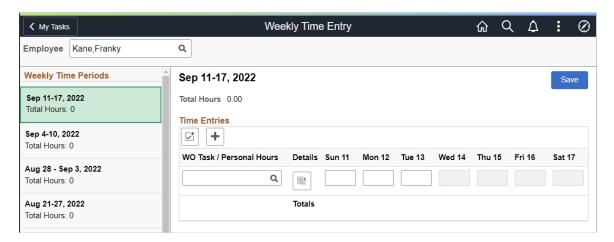
# **Weekly Time Entry Page**

Use the Weekly Time Entry page (WM\_TIME\_ENTRY\_FL) to log work order task and personal hours.

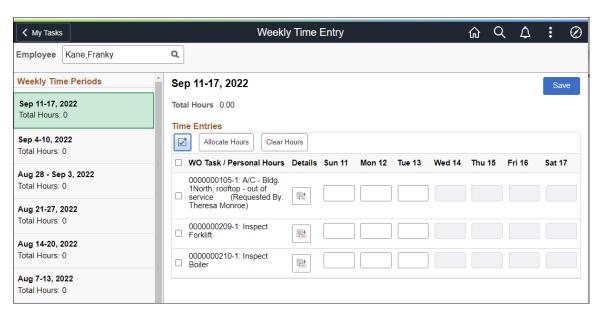
Navigation:

Fluid Home > Mobile Technician > My Tasks > Select Weekly Time Entry button > Weekly Time Entry

This example illustrates the fields and controls on the Weekly Time Entry page. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Weekly Time Entry page after selecting the Update Selected Rows button. You can find definitions for the fields and controls later on this page.



The Weekly Time Entry page provides a Fluid user interface for logging work order task and personal hours. The Weekly Time Periods panel displays the current week, as well as the past 11 time periods. Select past or present time periods to view or update the entries.

The right side of the page displays the selected weekly period and the fields necessary to log work order task or personal hours. Future date fields are disabled.

PeopleSoft recommends that you log work order task hours using only the My Task time entry pages - Weekly Time Entry, Time Entry Hours, or Quick Complete. However, if you do log work order hours in either of the following locations, this page displays those entries here as well:

- Classic Technician Workbench
- Classic Work Order Completion

Unlike classic time entry using the Technician Workbench, Weekly Time Entry does not require you to submit time for posting. When you save changes to the page, time entries are saved to the MM Schedule Labor table and the Expenses staging table. You can update time entries as often as necessary, and the updates are immediately available to the Cost Collection process.

Field or Control	Description
Employee	Select the employee for which you want to log work order task hours.
(Update Selected Rows)	Select to display the <b>Select all rows</b> check box, and the <b>Allocate Hours</b> and <b>Clear Hours</b> buttons.
(Add Time Line)	Select to add new work order tasks or personal non-work-order time to the Weekly Time Entry.  When you add a work order row, a prompt displays that allows you to access the WO Task/Personal Hours Page, where you can specify the work order tasks or personal time codes you want to add.
Allocate Hours	Select to access the Weekly Time Entry - Allocate Hours Page.
	Note: Select the Update Selected Rows button to activate this button.
Clear Hours	Select to clear work order rows. Only rows that have their check box selected are cleared.
	Note: You must use the Update Selected Rows button to enable check boxes for the work order rows.
Source	Displays the time entry source. For example, whether you logged time entry task hours using Classic Technician Workbench, Weekly Time Entry, and so forth.  This column is only visible when time entry task hours are entered outside of My Tasks (that is, when hours are logged using Classic Technician Workbench or Classic Work Order Completion).
(Details)	Select to access the Work Order Details page and add resource line, craft, and comment details to the task.
Time Entries (Date fields)	Enter work order task hours for each day of the week, for a given date.  Future date fields are disabled.

Field or Control	Description
Totals	Displays total daily task hours for the work order after hours are entered.
Save	Select to save changes to the work order time entries.

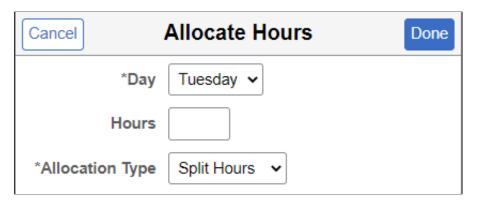
## **Weekly Time Entry - Allocate Hours Page**

Use the Allocate Hours page (WM\_TE\_MASS\_UPD\_SCF) to complete the hours fields for selected tasks on the Weekly Time Entry page en mass.

#### **Navigation:**

Fluid Home > Mobile Technician > My Tasks > Select Weekly Time Entry button > Weekly Time Entry. Select the Update Selected Rows button, select multiple rows, then select the Allocate Hours button.

This example illustrates the fields and controls when selecting the Allocate Hours button. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Day	The system defaults to the current day of the week. You can change the day if needed.
Allocation Type	<ul> <li>Copy Hours - select to copy the value entered in the Hours field to all selected tasks.</li> <li>Split Hours - select to split the value entered in the Hours field evenly across all selected tasks.</li> <li>If the number of hours entered does not split evenly, the system allocates the remaining hours evenly from the first task to the last task in increments of 0.01.</li> </ul>

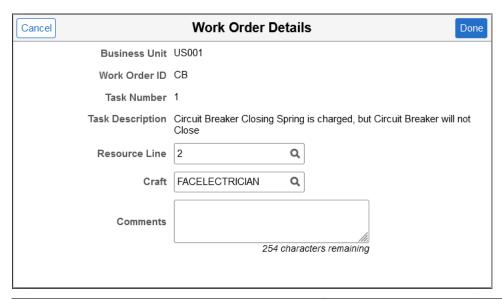
## **Work Order Details Page**

Use the Work Order Details page (WM TIME DTL SCF) to add work order task details.

Navigation:

Fluid Home > Mobile Technician > My Tasks > Select Weekly Time Entry button > Weekly Time Entry > Select Details > Work Order Details

This example illustrates the fields and controls on the Work Order Details page.



Field or Control	Description
Resource Line	Select the resource line on which this resource was assigned in the Schedules page of the work order.
Craft	Select a craft for the employee.

**Note:** If you do not update this page, values for **Resource Line** and **Craft** are automatically assigned.

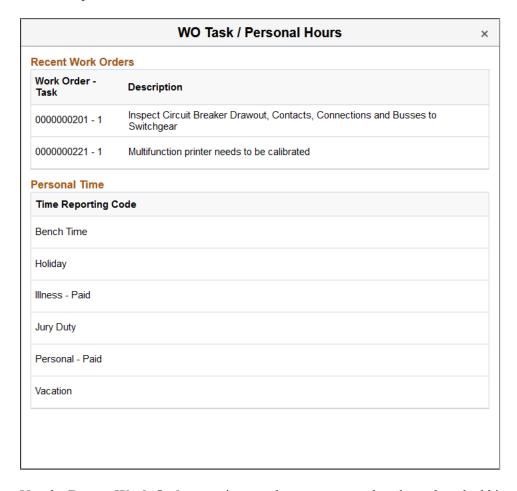
# **WO Task/Personal Hours Page**

Use the WO Task/Personal Hours page (WM\_TIME\_QFILL\_SCF) to add work order tasks or personal (non-work order time) to the Weekly Time Entry.

Navigation:

Fluid Home > Mobile Technician > My Tasks > Select Weekly Time Entry button > Weekly Time Entry > Select Add Time Line > Select Work Order Task/Personal Hours prompt > WO Task/Personal Hours

This example illustrates the fields and controls on the Work Order Task/Personal Hours page.



Use the **Recent Work Orders** section to select a recent work order task and add it to the Weekly Time Entry.

Use the **Personal Time** section to select a personal time reporting code (such as *Jury Duty* or *Vacation*) and add it to the Weekly Time Entry.

For more information about entering personal time, see <u>Labor and Personal (Non-Work Order) Time Entry</u>.

For more information about setting up time reporting codes, see "Setting Up Time Reporting Codes" (PeopleSoft Expenses).

## My Tasks - Task Details Page

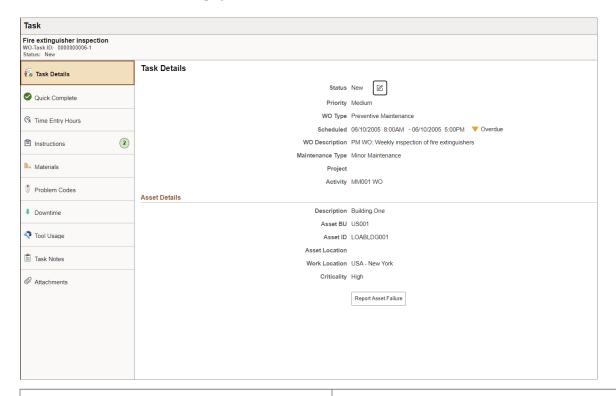
Use the Task Details page (WM\_TSK\_DETAIL\_FL) to view the task and asset details, and change the task status. This is the default page displayed when you select a task on the My Tasks page.

Navigation:

Fluid Home > Mobile Technician > My Tasks > Select a work order task > Task Details

Below the page header, you can view a brief task description, task ID, and the current status of the task. The left pane lists the activities that you can perform for the selected task. These activities are non-sequential.

This example illustrates the fields and controls on the Task Details Page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Z'	Click to access the Update Status page to change the status of the task.
	Select the new status. You can optionally enter a note explaining why you changed the status and notify the scheduler.
Warranties icon	Indicates that warranties are associated with the selected asset for the work order task.
Report Asset Failure	Select to access the Report Asset Failure page to report a failure for the task's target asset.

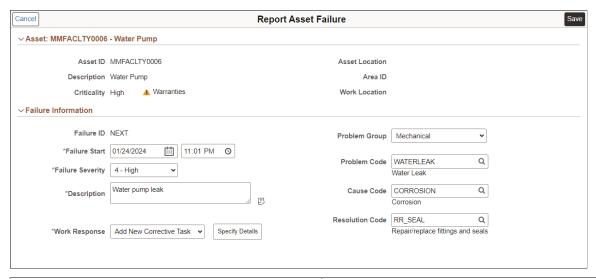
### **Report Asset Failure Page**

Use the Report Asset Failure page (WM\_TSK\_REPTFAIL\_FL) to log an asset failure event and optionally create the appropriate corrective transaction. These include creating a new work order to schedule and perform the necessary repair work, adding a new corrective task to the work order reporting the failure, or else creating a service request to investigate and resolve the problem.

Navigation:

#### **Task Details > Report Asset Failure**

This example illustrates the fields and controls on the Report Asset Failure page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Asset	Displays the basic information of the particular target asset in the label. Asset Information group box is initially collapsed, the Technician can optionally expand the group box to reveal more detailed asset information that could be useful in determining the severity of the failure and the optimal work response.
Failure ID	Identifies a specific failure event (instance) created when component is saved. Default value is keyword 'NEXT'
Failure Start	Shows the date and time of the failure event. Current date and time is displayed by default which can be edited by the user.
Failure Severity	Select the code value which describes the relative seriousness of the failure occurrence.
Description	Enter the description of the failure event.

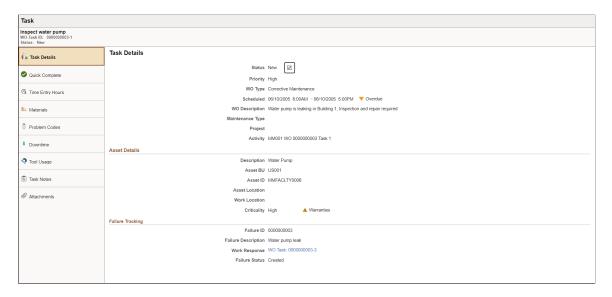
Field or Control	Description
Work Response	Select the required follow-on work transaction from the drop-down list. Choices are:
Problem Group	Select the Problem Group. It is an optional field and defaults to Problem Group specified for the parent task.
Problem Code	Select the Problem Code from all the valid codes in hierarchy defined for Problem Group entered.
Cause Code	Select the Cause Code from all the valid codes in hierarchy defined for Problem Code entered.
Resolution Code	Select the Resolution Code from all the valid codes in hierarchy defined for Cause Code entered.
Specify Details	Selecting an option other than <i>None</i> for the <b>Work Response</b> field causes a corresponding <b>Specify Details</b> button to appear.  On modal return, the Report Asset Failure page shows:  Create Work Order  Add New Corrective Task  Create Service Request

Select **Done** on the Specify Details modal to save the corrective action required for the respective asset failure.

The Report Asset Failure page shows a **Edit Details** button in place of the **Specify Details** button and allows the user to make changes to the details entered.

**Save** the Report Asset Failure page to complete the creation of a new Work Order, Corrective Task, or Service Request and return to Task Details page to view the Failure Tracking.

This example illustrates the fields and controls on the Task Details page after reporting an asset failure.



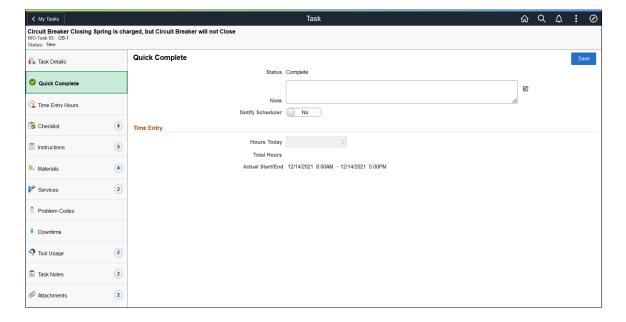
## My Tasks - Quick Complete Page

Use the Quick Complete page (WM\_WO\_STATUS\_FL) to quickly complete the task and enter the total hours you spent on the task.

Navigation:

#### Fluid Home > Mobile Technician > My Tasks > Select a work order task > Quick Complete

This example illustrates the fields and controls on the Quick Complete page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Status	Displays the status as Complete when the Save button is clicked.
Note	Enter a note explaining about the task completion.
Notify Scheduler	Select Yes to send an email and note to the scheduler.
Hours Today	Enter the hours you spent on the task on the current date.
Total Hours	Displays the total hours you spent on the task.
	Note: If the total hours is 0, the Actual Start/End field defaults to the current date. When you click the Save button a message is displayed to indicate that you have not entered the time for the task and whether you want to complete the task.
Actual Start/End	Displays the actual start and end date and time based on the total hours entered and the time when they were entered.

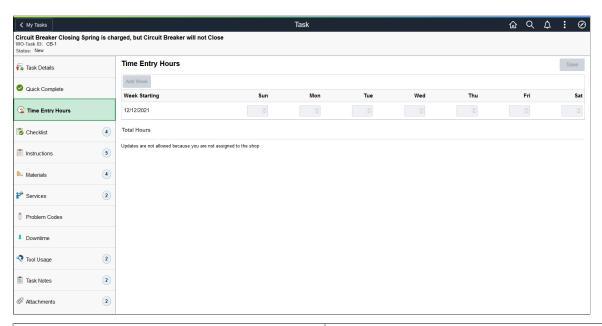
## **My Tasks - Time Entry Hours Page**

Use the Time Entry Hours page (WM\_WO\_TIME\_FL) to enter the total weekly labor time for the specific work order task. You can enter the time worked for each day of a specified time reporting period. By default, the current week is displayed even if it is blank and the future days will be disabled. Hours worked for the previous weeks will be displayed in the grid. You can increment or decrement hours to any day of any week.

Navigation:

Fluid Home > Mobile Technician > My Tasks > Select a work order task > Time Entry Hours

This example illustrates the fields and controls on the Time Entry Hours page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Add Week	Select to add a week prior to the oldest week in the grid.
	Note: When you duplicate a week or add a future week, an error message is displayed.
Total Hours	Displays the total hours entered for the work order task. It is displayed after you click the Save button.
Save	Click to save all the modifications and stage time entries for posting.
	Note: Time entries are staged immediately similar to Work Order Completion time entries. The Work Order Completion page will list the time entries where the Time Entry Source will be Mobile Work Order.

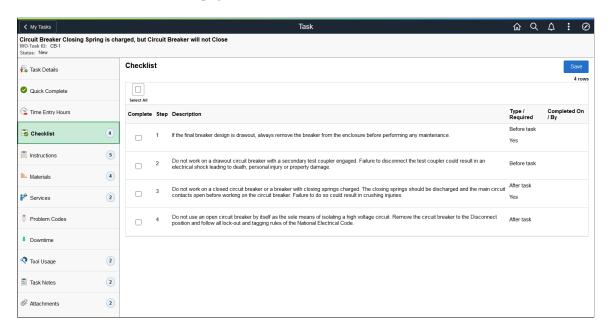
# My Tasks - Checklist Page

Use the Checklist page (WM\_WOE\_CKLST\_FL) to view the checklists associated with the task and to mark the steps as complete. When you select the Complete check box, your (the technician's) name and the time and date that you completed the task appear on the page.

Navigation:

Fluid Home > Mobile Technician > My Tasks > Select a work order task > Checklist

This example illustrates the fields and controls on the Checklist page. You can find definitions for the fields and controls later on this page.



You must complete the required checklist items before you change the task status to Complete. If the task has no checklist items, this activity does not appear on the left pane.

Field or Control	Description
Select All check box	Select this check box if you want to select all the listed items at once.
Complete check box	Select this check box for each list item to complete the task. You can also click anywhere on the row to complete the task.

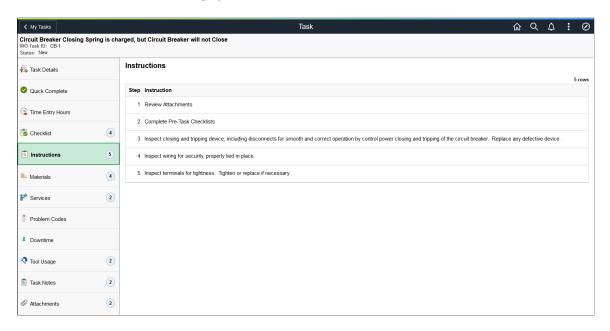
## **My Tasks - Instructions Page**

Use the Instructions page (WM\_WOE\_INST\_FL) to view any instructions added for the task.

Navigation:

Fluid Home > Mobile Technician > My Tasks > Select a work order task > Instructions

This example illustrates the fields and controls on the Instructions page. You can find definitions for the fields and controls later on this page.



If there are no instructions, this activity does not appear on the left pane.

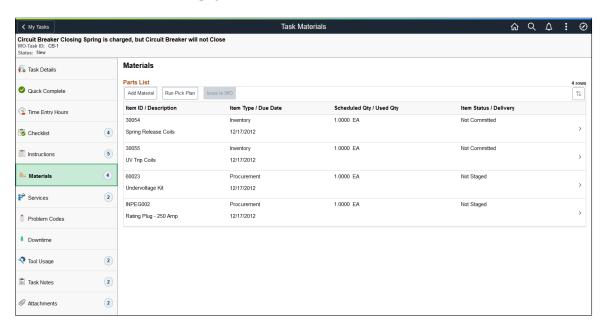
## **My Tasks - Materials Page**

Use the Materials page (WM\_TSK\_MATL\_FL) to view and edit inventory and purchase/on-hand items that are scheduled for the task. You can also add materials, generate a pick plan, and issue inventory parts to the work order task.

Navigation:

Fluid Home > Mobile Technician > My Tasks > Select a work order task > Materials

This example illustrates the fields and controls on the Materials page. You can find definitions for the fields and controls later on this page.



Select an inventory or floor stock row to access the **Inventory Detail page** and edit item quantity and delivery instructions. You can also view item status details, such as commit status and pick batch ID.

Select a procurement or on-hand row to access the **Purchase/On-Hand Detail page** and edit item details, such as scheduled or used quantity, due date, and delivery instructions. You can also indicate whether the item is an on-hand item.

Field or Control	Description
Add Material	Select this button to access the Add Material - Lookup page and search for items to add to the parts list.
	When you select an inventory item in the lookup page, the Inventory Detail page appears and allows you to enter additional information for the item, such as scheduled quantity and need date.
	When you select a procurement item in the lookup page, the Purchase/On-Hand Detail page appears and allows you to enter additional information for the item.
	This button is only visible when you select <b>View Scheduled Resources</b> on the "User Preferences - Maintenance Management Page" (Application Fundamentals), plus at least one of the following options:
	Authorized to Enter Inventory
	• or Authorized to Procure
	The button is only available when the task status is either <i>new</i> or <i>awaiting schedule</i> .

Field or Control	Description
Run Pick Plan	Select this button to generate a picking plan for the materials in the pick list.  This button is only visible when the <b>Run Picking Plan</b> option is selected on the "User Preferences - Maintenance Management Page" (Application Fundamentals):  This button is only available when the task status is <i>New, Awaiting Schedule, Assigned,</i> or <i>WIP,</i> and at least one pickeligible item exists.
Issue to WO (Issue to Work Oder)	Select this button to access the <u>Issue Inventory Parts Page</u> and view inventory parts available for issuing. You can also edit item quantity and the Process and Pick Line Complete options.  This button is only visible when:  the <b>Run Picking Plan</b> option is selected on the "User Preferences - Maintenance Management Page" (Application Fundamentals).  the user is authorized to access the Work Order - Issue Parts (IN_WO_ISSUES) menu item.  This button is only available when the task status is <i>New, Awaiting Schedule, Assigned,</i> or <i>WIP,</i> and at least one issuelligible item exists. An item must be pre-picked to be eligible.
Item ID/Description	Displays the item ID and description for the inventory or procurement item.
Item Type/Due Date	Displays the item type and due date for the inventory or purchase/on-hand item.  Item type values are:  • Inventory  • Floor Stock (specific item type related to inventory)  • Procurement  • On Hand (specific item type related to procurement)
Scheduled Qty/Used Qty(Scheduled Quantity/Used Quantity)	Displays the item scheduled quantity and used quantity for the inventory or purchase/on-hand item.
Item Status/Delivery	Displays the item status and delivery instructions for the inventory or purchase/on-hand item.  Item status indicates its overall lifecycle status, and is derived from multiple status attributes.

# **Issue Inventory Parts Page**

Use the Issue Inventory Parts page (WM\_TSK\_INV\_ISS\_FL) to view inventory parts available for issuing. You can also edit item quantity and the Process and Pick Line Complete options.

Navigation:

Fluid Home > Mobile Technician > My Tasks > Select a work order task > Materials > Select the Issue to WO button

This example illustrates the fields and controls on the Issue Inventory Parts page.



Select Save to confirm item quantities and the Process and Pick Line Complete option selections.

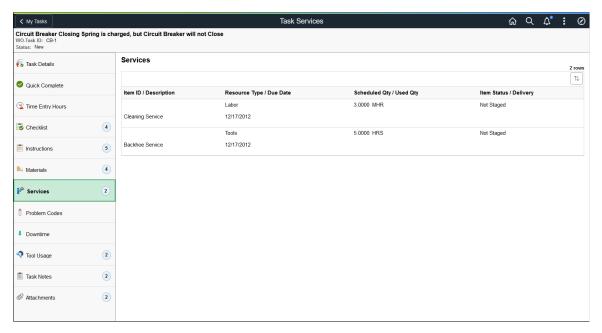
## My Tasks - Services Page

Use the Services page (WM\_TSK\_SRVC\_FL) to view information about procured services scheduled for the task.

Navigation:

Fluid Home > Mobile Technician > My Tasks > Select a work order task > Services

This example illustrates the fields and controls on the Services page.



## My Tasks - Meter Readings Page

Use Meter Readings page (WM\_WOE\_METER\_FL) to enter the meter readings and view the meter readings history for the asset for which the work order task is performed. Technicians update the meter readings of an asset to reflect usage information.

Navigation:

Fluid Home > Mobile Technician > My Tasks > Select a work order task > Meter Readings

For more information, see Meter Readings.

## **My Tasks - Problem Codes Page**

Use the Problem Codes page (WM\_WO\_PCR\_FL) to classify the issue that caused the task by entering the predefined problem group, problem, cause, and resolution (PCR) codes for a selected work order task.

Navigation:

Fluid Home > Mobile Technician > My Tasks > Select a work order task > Problem Codes

Field or Control	Description
Problem group	Select the user-defined problem group that describes the overall nature of the problem.
Problem	Select the problem or the nature of the maintenance or repair issue.

Field or Control	Description
Cause	Select the cause or underlying reason for a specific problem.
Resolution	Select the resolution or solution to the problem as reflected in the work task detail and overall job content of the work order.

# **My Tasks - Downtime Page**

Use the Downtime page (WM\_WO\_DOWNTIME\_FL) to view modify, and add downtime for an asset associated with a work order task. Planned downtime entry is read-only.

Navigation:

Fluid Home > Mobile Technician > My Tasks > Select a work order task > Downtime

Field or Control	Description
Actual	Displays the actual time that it took to repair the asset.
Planned	Displays the proposed time that you think the asset will be not available for use.
Add	Click to add a new actual downtime entry. Select a reason for the downtime and enter the actual dates and times that the asset was down and the number of hours that it was down.

To update an existing actual downtime, click on the specific row and modify the details as required. If there is no asset associated with the task, the downtime activity does not appear on the left pane.

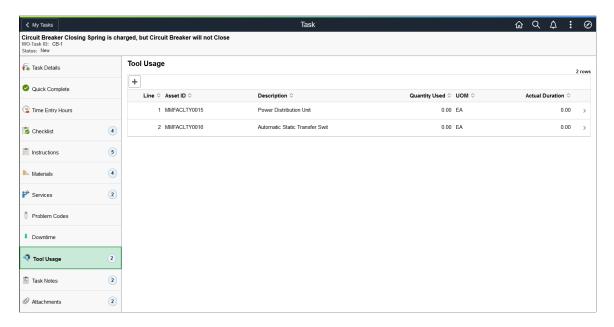
# My Tasks - Tool Usage Page

Use the Tool Usage page (WM\_TLS\_USAGE\_FL) to enter the usage of checked-out tools for the work order tasks.

Navigation:

Fluid Home > Mobile Technician > My Tasks > Select a work order task > Tool Usage

This example illustrates the fields and controls on the Tool Usage page. You can find definitions for the fields and controls later on this page.



To update an existing entry, select the specific row and modify the details as required. Click the Add button to insert a new tool usage row. Select the tool, quantity used, and the actual start and end dates and the actual duration.

For more information, see **Tool Usage**.

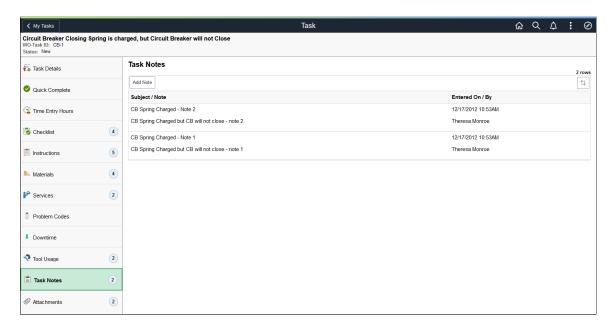
## My Tasks - Task Notes Page

Use the Task Notes page (WM\_TSK\_NOTES\_FL) to review the existing task notes associated with the work order task and add new notes.

Navigation:

Fluid Home > Mobile Technician > My Tasks > Select a work order task > Task Notes

This example illustrates the fields and controls on the Task Notes page. You can find definitions for the fields and controls later on this page.



Click the Add Note button to add notes to the work order task. You can send notes to the scheduler.

**Note:** When you add a new note, the Send to Requester filed appears if the work order was created from a service request and the requester has an email address in their User Profile. If the notes are added to the service requests, the Needs Reply field appears and can be responded by the requester.

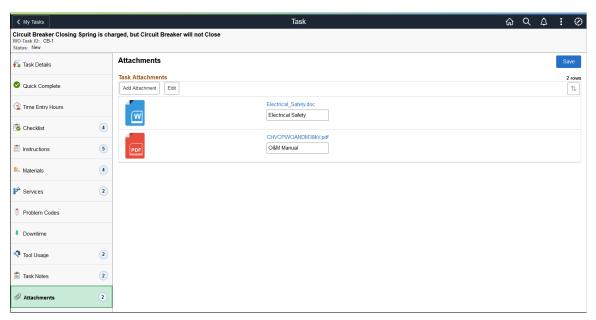
## My Tasks - Attachments Page

Use the Attachments page (WM\_WOE\_ATTACH\_FL) to view, add, and delete attachments associated with the work order task. To view an attachment, click the attachment image or the link.

Navigation:

Fluid Home > Mobile Technician > My Tasks > Select a work order task > Attachments

This example illustrates the fields and controls on the Attachments page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Add Attachment	Click to browse and upload any files essential to this service request, such as a screen shot of an error message, an authorization from a manager to move, or an image of the readings, taken with the device's camera, from a piece of equipment.
Edit	Click to enable the deletion of the attachments. To delete an attachment, click the Delete button.

**Note:** You can also review service request attachments, if the work order is associated with a service request. Similarly, if there are work order header attachments, the Work Order Attachments grid displays. Service Request Attachments and Work Order Attachments are read-only.

## **Notices Page**

Use the Notices page (WM\_MBL\_NOTICE\_FL) to view notices and announcements to all mobile technicians.

Navigation:

Select the Notices tile on the Mobile Technician Home page.

Select a notice from the left pane to view its details.

For more information about updating the notices, see "Notices/ Annountement Page" (Application Fundamentals).

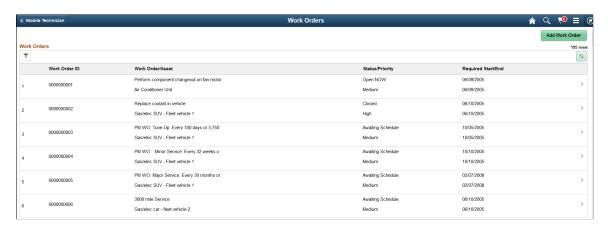
## **Quick Work Order Page**

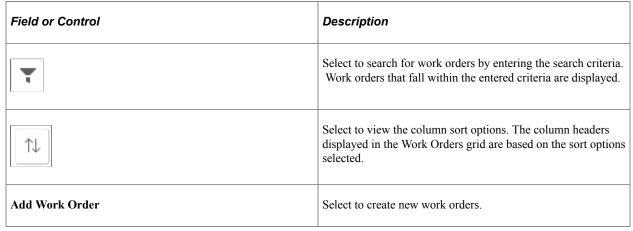
Use the Work Orders page (WM\_WO\_SEARCH\_FL) to view or update existing work orders, work order tasks, and requirements of each work order and to update them if required. You can also create a new work order and add tasks and requirements to the new work order.

Navigation:

#### Fluid Home > Mobile Technician > Quick Work Order

This example illustrates the fields and controls on the Work Orders Page. You can find definitions for the fields and controls later on this page.





To view the details of a work order or to update it, click anywhere on a work order row.

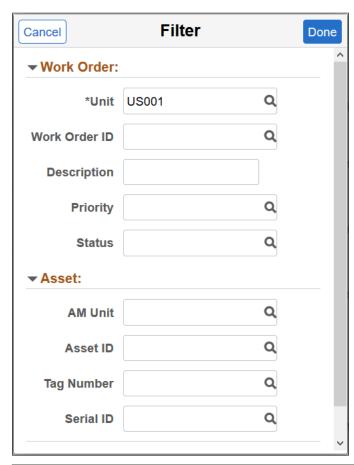
# **Quick Work Order - Filter Work Orders Page**

Use the Quick Work Order - Filter Work Orders page (WM\_QWO\_FILTER\_SCF) to search for a particular work order by entering the required search criteria. The last used search criteria is saved automatically and reused when you access the Filter page the next time.

Navigation:

Select the Filter icon on the Quick Work Order page.

This example illustrates the fields and controls on the Quick Work Order - Filter Work Orders Page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Clear	Click to delete the existing field values. All fields except the business unit field will be cleared.
Done	Click to apply the search criteria.
Cancel	Click to return to the Work Orders page without applying the filters.

**Note:** AM Business Unit and Status are not required for searches.

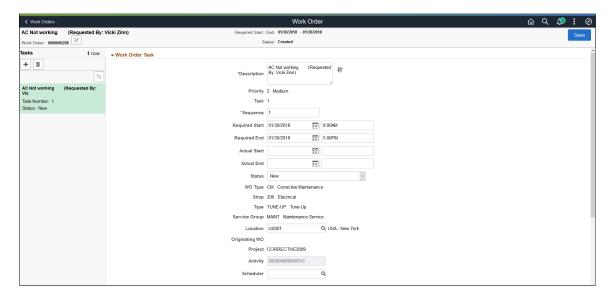
# Work Order - Task Details Page

Use the Work Order - Task Details page (WM\_TASK\_DTL\_FL) to view or modify the details of the work order. For each work order, the assets and the resources needed for the work order tasks are displayed under the Asset Details and Resource Requirements sections.

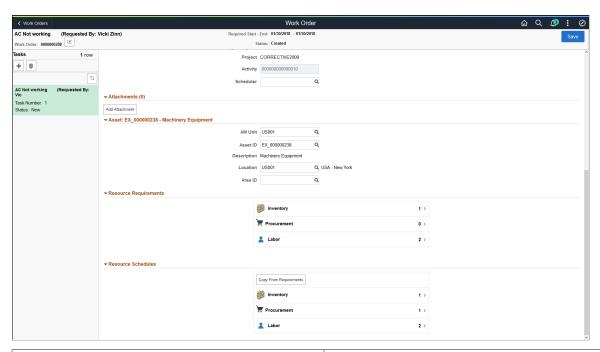
Navigation:

Select a work order on the Work Orders page.

This example illustrates the fields and controls on the Work Order - Task Details page. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Work Order - Task Details page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
	Click to modify the details of the work order.

Field or Control	Description
+	Click to add a new task to the work order.
	Click to delete a task from the work order.

#### **Attachments**

Use this section to add attachments to the work order task.

#### Asset

Use this section to edit asset information for the work order task.

#### **Resource Requirements**

Use this section to edit labor, inventory, and procurement resource requirements for the work order task.

#### Resource Schedules

Use this section to edit labor, inventory, and procurement resource schedules for the work order task.

Use **Copy From Requirements** to copy requirements information to the schedules.

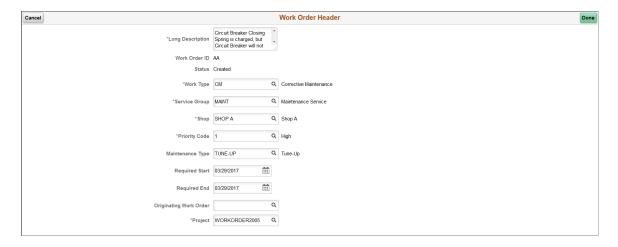
## **Work Order Header Information Page**

Use the Work Order Header page (WM\_QWO\_HDR\_SCF) to provide an overall information about the work order such as description, status, and maintenance type.

Navigation:

Select the Edit icon on the Work Order page.

This example illustrates the fields and controls on the Work Order Header Page.



**Note:** You cannot directly modify the status of the header. The work order status is indirectly changed when you change the work order task status and is only changed when you save the work order.

For more information, see The Work Order Header.

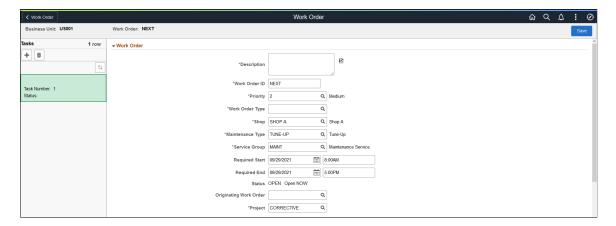
### **Add Work Order Page**

Use the Add Work Order page (WM\_WO\_ADD\_FL) to create a new work order. While creating a work order you can define the work order header information, work order tasks, Asset details, and the resource requirements for each work order task. Work order tasks within the work order specifically define all aspects of each activity that is needed to create a work order.

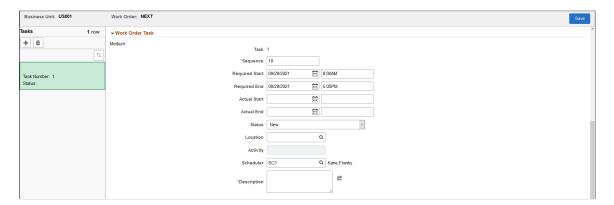
#### Navigation:

Select the Add Work Order button on the Work Orders page.

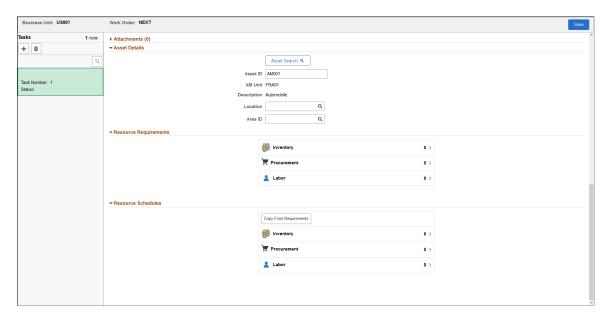
This example illustrates the fields and controls on the Add a Work Order Page (1 of 3). You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Add a Work Order Page (2 of 3). You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Add a Work Order Page (3 of 3). You can find definitions for the fields and controls later on this page.



#### **Work Order**

Field or Control	Description
Description	Enter a description of the problem being addressed by this work order.
Work Order ID	If the selected business unit indicates auto-numbering, then the system assigns the NEXT number after the last Work Order ID created. If auto-numbering is not selected for the business unit, you can enter a number manually.

Field or Control	Description
Priority	Set a priority to sort and track work orders based on their level of importance.
Work Order Type	Select tentative user-defined value for the type of work order you are creating. Typical work order types are:  Corrective Maintenance (CM)  Capital(CAPT)  Preventive Maintenance (PM)
Shop	Select the primary shop. Shops group and manage the labor and tool resources that are defined in the work order.
Maintenance Type	Select the type of maintenance required for the asset associated with the work order.
Service Group	Select a service group for defining specific work order behaviors.
Required Start and Required End	Select the start and end dates and times.
Status	Displays the overall work order status. The work order status reflects the most outstanding status of the work order task statuses. You cannot directly change this work order header status.
Originating Work Order	Select the work order that this work order originated from.  For example, if a work order is closed and there is still work pending, you can create a new work order and indicate that it originated from the closed work order.
Project	Select the project to which your work order is associated with.

## **Work Order Task**

Field or Control	Description
Description	Enter a brief description about the task to be performed.

Field or Control	Description
Task	Displays the system generated number for each task.
Sequence	Enter the number that represents the numerical order within the work order in which to complete this task.
Required Start and Required End	Select the start and end dates and times by when the task should be completed.
Status	Select the user-defined status for this task based on the statuses in the list.
Location	Select the location where this work order task should be performed.
Activity	Displays the value based on the project.
Scheduler	Select the scheduler code. The name of the selected scheduler appears on the page.

Another option to create a new task is to click the Add icon on the left pane.

To delete a task from the work order, select the task to be deleted and click the Delete icon on the left pane. Confirm deletion in the message displayed.

#### **Asset Details**

Field or Control	Description
Asset Search	Click to access the <u>Asset Search Page</u> and search for assets to associate with the work order.
	You can search across all Asset Management business units, and by description, status, asset ID, serial ID, and tag number.
	All other fields in the Asset Details section populate automatically once you select an asset from the Asset Search page.
Asset ID	Displays the asset ID associated with the work order.
AM Unit (Asset Management Business Unit)	Displays the business unit associated with the asset, based on the selected asset ID.

Field or Control	Description
Description	Displays the description based on the selected asset ID.
Location	Displays the current location of the asset, based on the selected asset ID.
Area ID	Displays the specific area in which the asset is located, based on the selected asset ID.

#### **Resource Requirements**

Field or Control	Description
Inventory	Click to add the required inventory items for a work order task. You can enter the planned quantity, unit of measure, and supplier reference for each inventory item.
Procurement	Click to add the specific materials, tools, and labor to be purchased for a work order task.
Labor	Click to add the labor resources for a work order task. Select the quantity and schedule hours to the selected resources. You can also assign the task to yourself.
Attachment	Click to add attachments pertaining to the work order such as drawings, schemas, and more.

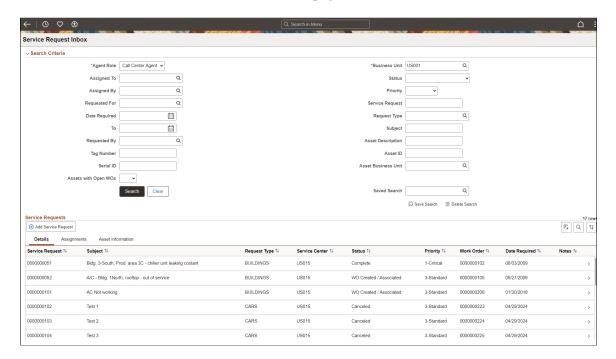
## **Service Request Inbox Page**

Use the Service Request Inbox page (WM\_REQST\_INBX\_FL) to locate and access service requests assigned to agents and technicians.

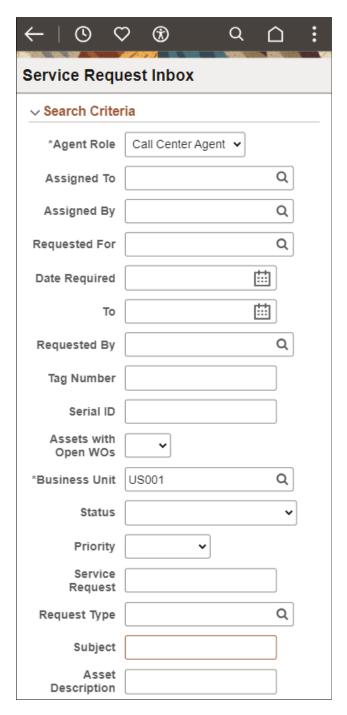
Navigation:

Fluid Home > Mobile Technician > Service Request Inbox

This example illustrates the fields and controls on the Service Request Inbox page. You can find definitions for the fields and controls later on this page.



This example illustrates the Service Request Inbox page on a Smartphone.



The Service Requests section displays a list of service requests. Select a service request to review its details. It also enables you to review assignments

The Details tab displays the request type, service center, status, priority, the work order ID, the date required, and an indicator that a requester has replied to a service request note from the agent or technician.

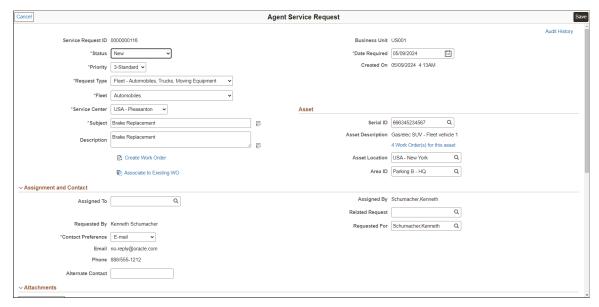
The Assignments tab displays service request fields, which include the subject, request type, related request, requested for, assigned by, and assigned to fields.

**Note:** Once a work order technician links to the Service Request Inbox from the Mobile Technician workbench, the **Assigned To** field contains the technician's name and lists only this technician's assigned service requests.

The Asset Information tab displays asset information associated with each service request, which includes the asset description, tag number, serial ID, asset ID, AM business unit, and open work orders.

Select **Add Service Request** to create a new service request using Agent Service Request page.

This example illustrates the fields and controls on the Agent Service Request page. You can find definitions for the fields and controls later on this page.

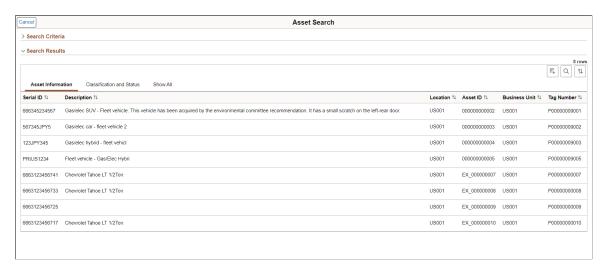


Field or Control	Description
Save	Select to save the service request and a service request ID is generated.
	Important! You cannot create a work order until you save the service request.
Create Work Order	Select to create a work order from a service request.
Associate to Existing WO (Associate to Existing Work Order)	Select to add this service request to an existing work order.  This button only appears when:  The service request status is either new or in progress.  The work order ID is unpopulated.  One or more open work orders exist for the target asset.  The Request Type problem tree and target asset ID have been specified.

Field or Control	Description
Unassociate WO (Unassociate Work Order)	Select to remove the association between this service request and the existing work order you selected.  This button only appears when:
	The service request is associated with an existing work order.
	The service request is a follow on request (that is, the service request must be an additional request, secondary to the primary request).
	The work order must have a status other than 'Completed' or 'Canceled.'

Use the **Asset Search** page to enter search criteria and click the Search button to display a list of assets that fall within the entered criteria.

This example illustrates the fields and controls on the Asset Search page.

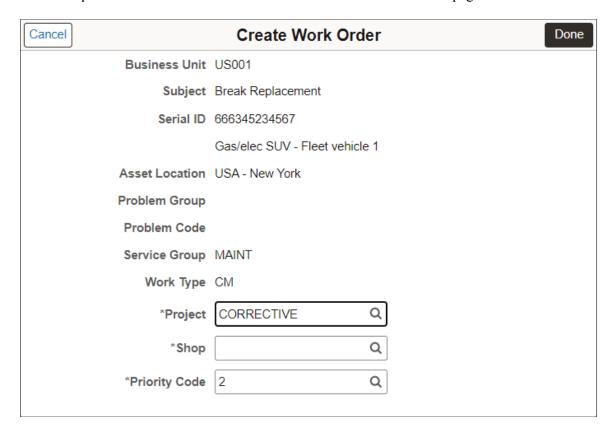


The asset linked to the service request, will display the number of work orders linked with that asset as a hyperlink. This hyperlink is available only for large and medium form-factor and not available on smartphones.

Select the **Create Work Order** to create a work order from a service request if the service request cannot be solved by the agent or technician without requiring a work order.

Use the Create Work Order page to identify the shop to associate with this work order and modify the priority of the work order, if necessary.

This example illustrates the fields and controls on the Create Work Order page.

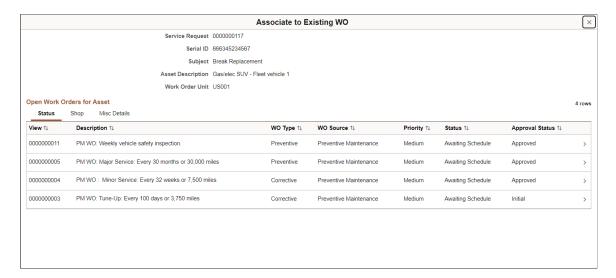


Select **Done** to create the work order and the **Work Order ID** field on the service request is updated and serves as a link to the work order.

**Note:** This work order is not automatically submitted for approval. It is available to the planner to review and submit it for approval, if necessary.

Select the **Associate to Existing WO** to add the service request to an existing work order. This page displays the work order type, service request problem match, and approval status to help determine which work order is appropriate for the selected service request.

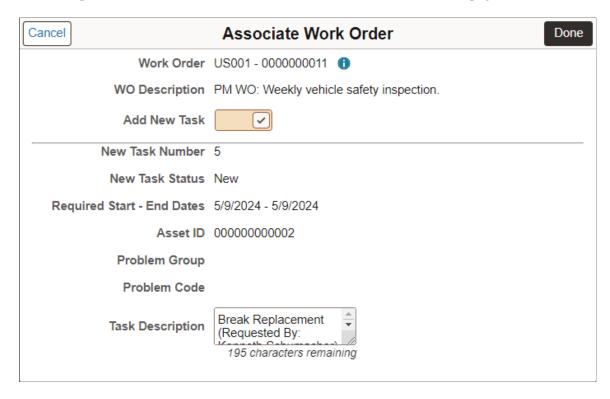
This example illustrates the fields and controls on the Associate to Existing WO page.



Select the desired work order to access the Associate Work Order page and indicate whether a new task should be added to the work order.

Select **Done** on the Associate Work Order page to confirm your work order selection.

This example illustrates the fields and controls on the Associate Work Order page.



## **My Inspections Page**

Use the My Inspections page (WM\_WO\_INSP\_LIST\_FL) to view the inspections assigned to you and start working on them.

By default, the My Inspections tile is added to the Mobile Technician Home page when the feature is installed. However, it can be added to any home page as required.

**Note:** You must set up inspection plan templates and create actual inspection instances before using this feature. Also, internet connectivity should be ensured while working on mobile inspections.

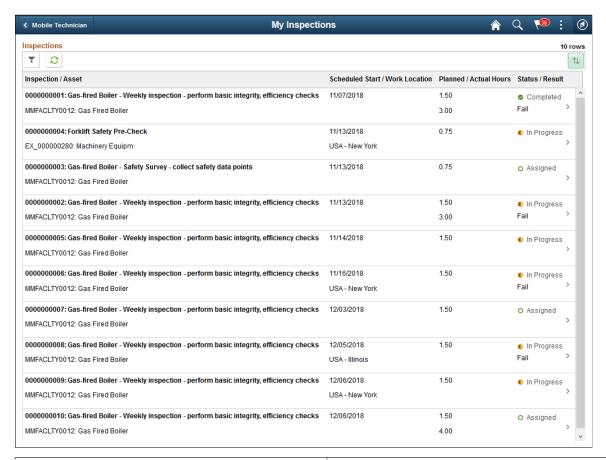
The following are some key functional differences in the fluid version, as opposed to the classic version:

- The status of mobile inspections can be Assigned, In Progress, or Completed. Classic inspections also include inspections with Created (unassigned) status.
- Activity checklists are split into separate Pre-Checklist and Post-Checklist items.
- Trigger Evaluation activity work response actions are slightly different for mobile inspections. In
  some cases, this means that the capabilities to make parameter changes and review the resulting
  transactions have been streamlined over what is available in the Classic version. For example, the
  Schedule one-time PM action performs its update directly. It does not provide the option to review the
  PM Schedule content that has been modified.
- Each inspection activity includes a separate Activity Completion sub step. Technicians must change the status of an activity to Completed before moving on to the next inspection activity.

Navigation:

Fluid Home > Mobile Technician > My Inspections

This example illustrates the fields and controls on the My Inspections page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Filter icon	Select the Filter icon to narrow down the list of inspections. To search for inspections, you can enter the inspection criteria or the asset criteria as required.
	The system always saves the last used filter criteria and restores it the next time you select the Filter icon or the Refresh icon.
Refresh icon	Select the Refresh icon to quickly update the inspections list.
Sort icon	Select the Sort icon and choose the required column header to sort the inspections list. The Sort option displays all the column headers of the inspection list.
	By default, the list is sorted by Scheduled Start Date in ascending order.

Field or Control	Description	
Inspection/Asset	Lists all the inspections assigned to you. Each inspection displays the inspection ID and its description. You can also find the asset ID and description.	
	Note: Asset ID may be replaced with Tag Number or Serial ID depending on the WO business unit setting.	
Scheduled Start/Work Location	Displays the start date of the inspection and the work location.	
Planned/Actual Hours	Displays the estimated duration for completing the inspection and the actual time taken for its completion.	
Status/Result	Displays the current status (Assigned, In Progress, and Completed) and result of the inspection.	
Details icon	Select to view the details of the inspection.	

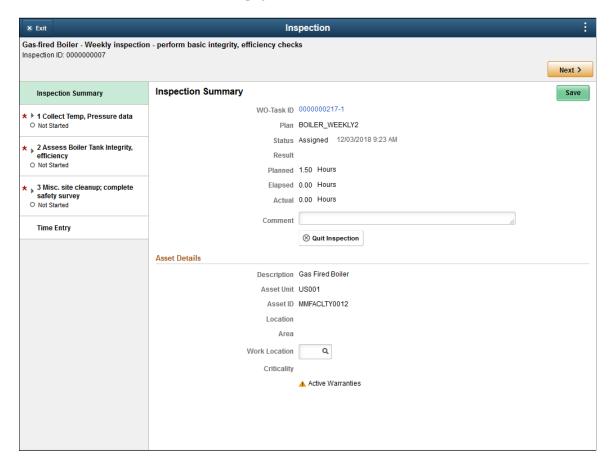
## **Inspection Summary Page**

Use the Inspection Summary page (WM\_WO\_INSP\_SUMM\_FL) to view the summary of the selected inspection and start working on it. The left pane displays the inspection activities defined on the inspection plan template.

Navigation:

Select an inspection on the My Inspections page.

This example illustrates the fields and controls on the Inspection Summary page. You can find definitions for the fields and controls later on this page.



The inspection page header displays a brief description about the inspection and the inspection ID. Besides inspection summary, the page displays the main inspection activities and the time entry option in the left pane. Select each activity to view its sub steps such as Data Points, Trigger Evaluation, Checklists, Instructions, Attachments, and Notes. Notes, Attachments, and Activity Completion sub steps are always included for the inspections. The Checklist activity sub step can contain both Pre-Checklist and Post-Checklist items. You must complete the activities in the specified order. Select the Next and Previous buttons to navigate through the inspection sub steps or select the steps in the left pane. The Red asterisk icon indicates that the step is mandatory.

Use the Time Entry option to log the total weekly labor time.

Field or Control	Description
WO-Task ID	Displays the WO Task ID to which the inspection is linked. Select this ID to view the Task Details page.
Plan	Displays the inspection plan template.

Field or Control	Description	
Status	Displays the current status of the inspection. It can be:  • Assigned: The inspection status after assigning an employee to it.  • In Progress: The inspection status when you begin the data entry.  • Completed: The final inspection status after you enter all the required data and complete all activities.	
Result	Displays the result of the inspection after its completion.	
Planned	Displays the total hours planned to complete all the activities of the inspection.	
Elapsed	Displays the total amount of time elapsed while completing the inspection. It is only for informational purpose and can be edited if required.	
Actual	Displays the total actual time entered by the technician to complete all the activities of the inspection.	
Comment	Displays the comments about the inspection. You can update it if required.	
Quit Inspection	Select to terminate the inspection before its completion.	
	Note: While quitting an inspection, you can either choose to retain all the data you collected for tracking purpose or terminate the entire inspection without retaining any data. In such cases, the Inspection header displays the status as Terminated.	
Description	Displays a description about the asset being inspected.	
Asset Unit	Displays the business unit to which the asset is assigned.	
Asset ID	Displays the Asset ID that is specified in the Asset LookUp Field on the work order business unit Definition page.	
Location	Displays the current location of the asset.	
Area	Displays the current area of the asset.	
Work Location	Displays the work location of the inspection.	

Field or Control	Description
Criticality	Displays how critical the asset is to the organization's operation.
	Note: A Warranty icon or Hazardous icon will appear next to an asset's criticality code if there are active warranties or the asset is hazardous.

To start an inspection activity, select the Next button or select the first activity in the left pane.

#### Inspection - Pre-Checklist Items

The Pre-Checklist Items include any steps to be performed before conducting the inspection. You cannot proceed to the next sub-step until you complete this step. This sub step does not appear in case of no checklist items.

The instructions are read-only. Select the Complete check box of an instruction to mark it as completed. Complete all the required steps and save your changes. The sub step status changes to Complete when you finish saving the required checklist items.

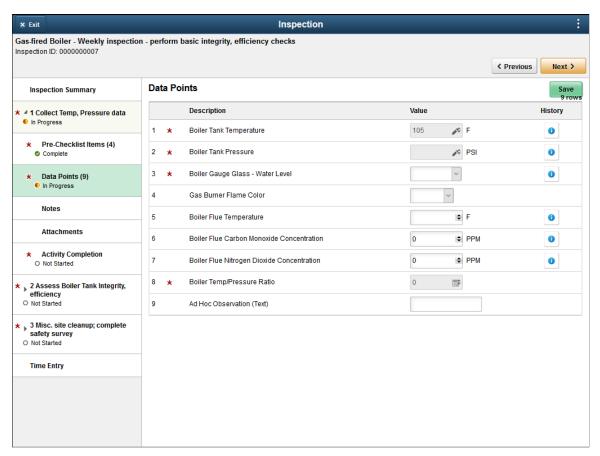
#### Inspection - Data Points Page

Data collection activity involves collecting and entering various inspection data.

Navigation:

Select the Data Points sub step in the left pane.

This example illustrates the fields and controls on the Inspection – Data Points page. You can find definitions for the fields and controls later on this page.



Field or Control	Description	
Description	Displays the inspection codes defined on the inspection plan.	
Value	Enter values for each inspection code.	
	The Edit icon indicates a meter reading. Select the icon, enter the reading in the Add Meter Reading window, and save it.	
	For measurements codes with tolerance range specified, enter a value within the limits specified.	
	Select the Calculate icon to calculate the numeric calculation data values.	
History	Select this link to view the Asset Data Collection History page. If enabled for a particular inspection code, you can view a maximum of 5 values recorded previously for this inspection code. You can compare the current value with the previous readings.	

After entering all the required values, save the activity.

See Data Collection Activity — Work Order Inspection-Activity Detail Page.

#### Inspection- Notes and Attachments Page

Select the Notes and Attachments sub steps to view or add any notes or attachments about the activity.

#### **Inspection – Activity Completion Page**

After performing all the required sub steps, you can change the status of the activity to Completed and move on to the next inspection activity.

Navigation:

Select Activity Completion in the left pane.

Field or Control	Description
Activity Status	Select the Completed status from the drop-down list.
Planned	Displays the planned hours to complete the activity.
Elapsed	Displays the total amount of time since you initiated the first activity step.

Change the status and save the activity. The status of the activity changes to Completed. Next, you can select the subsequent activity in the left pane.

#### Inspection - Evaluation Triggers Page

In the Trigger Evaluation step, you can run the saved data points to identify the failure or exception conditions of the target asset.

Navigation:

Select the Evaluation Triggers step in the left pane.

Inspection Gas-fired Boiler - Weekly inspection - perform basic integrity, efficiency checks Previous Next > **Evaluation Triggers** Inspection Summary Save × ▶ 1 Collect Temp, Pressure data Trigger Result Inspection Result Trigger Condition Initiate Work Send Alert Evaluation 1 × Tank leak or other system breach WO: 0000000213 11/13/2018 8:56PM ★ 2 Assess Boiler Tank Integrity, efficiency
 Complete Unexplained temperature/pressure → Skip ★ Evaluation Triggers (3)
 Omplete ★ Unexplained water temperature variation 

→ Skip Notes (1) Attachments ★ 3 Misc. site cleanup; complete safety survey
○ Complete Time Entry

This example illustrates the fields and controls on the Inspection – Evaluation Triggers page.

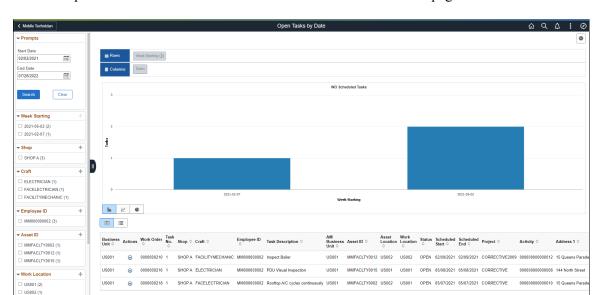
See Trigger Evaluation Activity — Work Order Inspection-Activity Detail Page.

## **Scheduled Tasks Pivot Page**

Use the Scheduled Tasks page to view a pivot grid of work order tasks by their scheduled date.

Navigation:

Select the Open WO Tasks by Date tile on the Mobile Technician Home page.



This example illustrates the fields and controls on the Scheduled Tasks page.

**Note:** The pivot grid is displayed based on the default date range configured on the <u>Open Work Orders Page</u>.

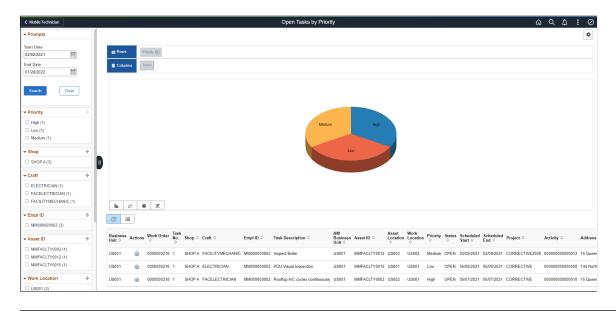
## **Tasks by Priority Pivot Page**

Use the Tasks by Priority page to view a pivot grid of work order tasks on the basis of their priority.

Navigation:

Select the Open WOs by Priority tile on the Mobile Technician Home page.

This example illustrates the fields and controls on the Tasks by Priority Page.



**Note:** The pivot grid is displayed based on the default date range configured on the <u>Open Work Orders Page</u>.

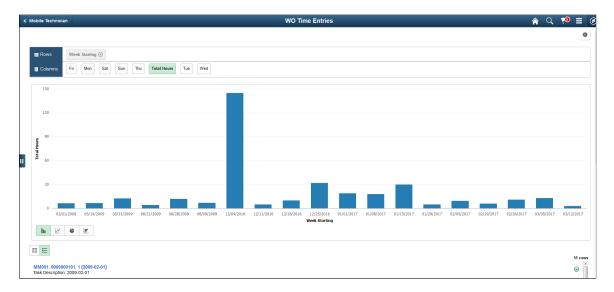
## **WO Time Entries Pivot Page**

Use the WO Time Entries page to view a pivot grid of total hours the technician entered for each week.

Navigation:

Select the Weekly WO Time Entry tile on the Mobile Technician Home page.

This example illustrates the fields and controls on the WO Time Entries Page.



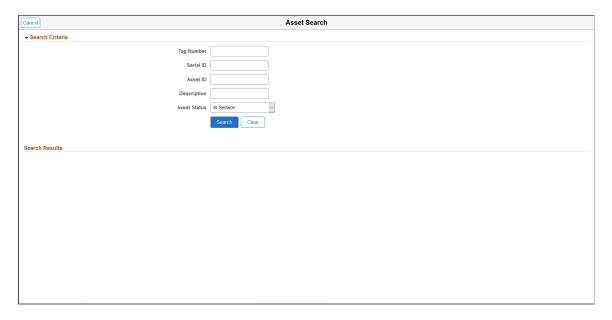
## **Asset Search Page**

Use the Asset Search page (WM\_ASSET\_SRCH\_SCF) to search for assets to associate with the work order.

Navigation:

Select Asset Search on the Add Work Order page.

This example illustrates the fields and controls on the Asset Search Page.



Use this page to search across all Asset Management business units, and by asset description, status, asset ID, serial ID, and tag number.

## **Using Open Work Orders Page**

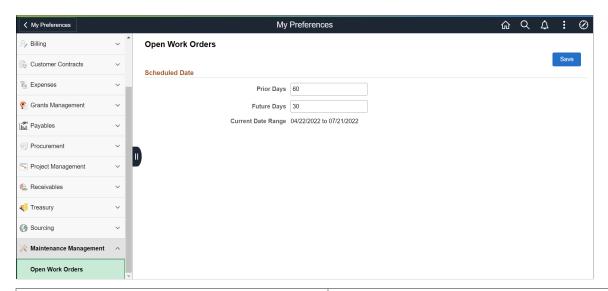
Use this page to provide the default time frame for the <u>Open Work Order Tasks by Date</u> and <u>Open Work</u> Order Tasks by Priority pivot grids to display the number of open work order tasks.

User can configure the default time frame of the open tasks scheduled in prior, current, and future weeks.

Navigation:

Select Fluid Home > Employee Self Service > My Preferences > Maintenance Management > Open Work Orders.

This example illustrates the fields and controls on the Open Work Orders page.



Field or Control	Description
Prior Days	Enter the number of days from when you want to see the open work order tasks.
Future Days	Enter the number of days till when you want to see the open work order tasks.
Date Range	Depending on the entered number of days (Prior and Future Days), the date range is calculated and displayed.

# Closing Service Requests, Work Order Tasks, and Work Orders

## **Understanding Service Request and Work Order Close**

This section discusses:

- Service request close.
- Work order task close.
- Work order close.

## **Service Request Close**

Employees and non-employees can create service requests using a self-service page, or an agent can create a service request for a requester based on the agent's knowledge of an existing problem. Once either a requester or the agent creates a service request:

• The agent can send a technician to resolve an easy problem without a work order, such as adding toner to a printer or moving one piece of furniture in an office, or the agent can resolve a problem, such as changing a user's ID.

Once the agent or technician resolves this type of service request, the agent adds a note about the work performed, changes the status to complete, and saves the page, which automatically sends an email informing the requester that the service request is complete and that the request will be closed in N days. The number of days until the service request is closed (N days) is set up in the service request business unit Definition page. The requester can:

- Click the link in the email to access the self-service service request update page and reopen the service request.
- Manually change the status of the service request to closed.
- Allow N days to pass and the system closes the service request automatically.

**Note:** All service requests with a status of complete are closed automatically whenever the Work Order Close batch process is run on the date the number of close days expires for the service request (the process must be run with the **Transaction Type** field set to *All* or *Service Request*). Typically, the Work Order Close process is run once or twice a day depending on volume.

• If the agent cannot easily resolve the problem, the agent can create a work order to resolve it.

When either the technician or the agent changes the status of the work order to complete:

- A notification is sent to the requester providing a summary of work performed and the number of days before the service request automatically closes.
- If the requester reopens the service request within the allowable number of days before the close, the agent can close the service request and create a new service request and a new work order.

For example, the value in the **Days to Close** field is 20 for service request business unit SRBU1 and the following service requests are marked complete on the dates in the following table:

Service Request	Completion Date	Service Request automatically closes on:
SR001	01/01/2005	21st January 2005
		Note: The requester or agent can manually close this service request on or before this date.
SR002	01/10/2005	30th January 2005
		Note: The requester or agent can manually close this service request on or before this date.
SR003	12/31/2004	19th January 2005
		Note: The requester or agent can manually close this service request on or before this date.

Once a service request is canceled or closed, the fields in the service request are display only.

## Closing of Work Order Tasks and Work Orders

Once a user changes the status of a work order task to complete, then the user can close the task. To close a work order task:

• An authorized user can manually change the status of the task from Complete to Closed, based on the established Maintenance Management page in User Preferences.

This status marks the task for closure so that when you run the Work Order Close process (WM\_CLOSE), the system ignores the Close Days (grace period) in the work order business unit or work order type and closes the task. If chargebacks are associated with the task, the system runs an edit to ensure that a project activity owning organization is specified.

**Note:** This setup in User Preferences - Maintenance Management only determines whether a specific user can set the work order task to complete or close. It does not prevent a user from running the batch Work Order Close process. You must set up PeopleTools Security if you want to prevent a user from running the batch Work Order Close process.

- When you run the Work Order Close (WM\_CLOSE) batch process, the system automatically closes
  a task with a status of Complete after the expiration of the close days (grace period) specified in the
  work order business unit or the work order type. If no activity occurs against the work order task
  based on the defined close days, then the task is subject to closing.
  - For example, if the close days interval is 10 and the completion date of the task is July 1, 2005, then the Work Order Close batch process automatically closes the task after 10 days when you run Work Order Close (WM\_CLOSE) process. If other tasks are open for the work order, the process only closes the one task and leaves the others open. When all the tasks are closed, then the work order is closed when you run the Work Order Close (WM\_CLOSE) batch process.
- The user runs the Work Order Close batch process (WM\_CLOSE) for the work order, which closes all tasks associated with the work order as long as they have a status of complete and the number of close days (grace period) has expired.

When you manually change the status of a work order task to Close, you can no longer add any costs to the work order task in feeder systems such as PeopleSoft Purchasing, PeopleSoft Expenses and PeopleSoft Inventory.

For example, you can no longer create a purchase order from the work order task or create a purchase order directly from PeopleSoft Purchasing and associate it with a work order task once the work order task is closed. However, if you created existing purchase orders or requisitions before changing the status of the task to Complete and PeopleSoft Purchasing has not processed them, then these purchase orders and requisitions can continue to process the costs. This condition remains true for any work order task transactions that reside in any of the subsystems associated with PeopleSoft Maintenance Management.

#### Work Order Close (WM\_CLOSE) Batch Processing

When you run the Work Order Close (WM CLOSE) batch process:

- The process triggers the Cost Summarization process, which summarizes the actual costs for labor, materials, and tools for the work order and each work order task based on the work order task and displays them in the Cost page of the work order.
  - See <u>Understanding Work Order Task Completion</u>.
  - See <u>Understanding Cost Summarization</u>.
- The process updates the asset maintenance costs and the total asset downtime hours, which is a total of all the downtime entered in the work order task in PeopleSoft Asset Management Maintenance History.
- The process applies project activity asset integration rules for work order managed projects; these rules include:
  - Evaluating the capitalization limit specified for each work order task to determine if the dollar amount is subject to capitalization.
  - Updating the asset integration rules and retirement rules in PeopleSoft Project Costing, including filters, for asset capitalization and retirement.
- The process applies chargeback rules for tasks associated with work order managed projects; these rules include:

- Validating the project activity owning organization information is entered in the work order task if the work order tasks are marked for chargeback.
- Updating the distribution status for the work order task rows in PeopleSoft Project Costing to enable these rules to be available for chargeback accounting generation if applicable.

You must close a work order task to generate chargeback accounting entries.

**Note:** If an asset is not associated with a work order task, then the process does not update PeopleSoft Asset Management.

You can only close a work order if the status of each of the work order tasks associated with the work order is closed or canceled. If any work order tasks are incomplete, the process does not close the work order. If technicians with pending time sheets are assigned to a work order task, the process does not close the work order task. Work order tasks that are associated with an asset require a defined maintenance type.

**Note:** Standing work orders are an exception to this rule. You select a check box in the Miscellaneous page of the work order to identify that the work order is a standing work order.

See Using the Work Order Miscellaneous Page.

#### **Capitalization Processing for Work Order Tasks**

If a work order task is associated with a work order managed project, the Work Order Close process (WM\_CLOSE) verifies that an asset is associated with the work order task and that the task is set up for asset capitalization in the PeopleSoft Maintenance Management Task Accounting page. If the currency specified for the asset in PeopleSoft Asset Management is different that the currency specified in the work order business unit, the Work Order Close (WM\_CLOSE) converts the cost from the currency specified in PeopleSoft Maintenance Management to the cost for currency specified in the Asset Management business unit. The process checks the capitalization limit on the work order task. Based on the capitalization limit, if the task is eligible for capitalization, the process selects (activates) the Capitalization Switch for the PeopleSoft Project Costing project activity that is associated with in the work order task and also updates the Filter ID with the capitalization filter selected for the work order task in the PeopleSoft Maintenance Management Task Accounting page. However, the Work Order Close process (WM\_CLOSE) does not run the Capitalization process. The Capitalization process is run separately in PeopleSoft Project Costing, Assets, Express Capitalization Process. Once this process is run, you must run the Cost Summarization process to view the capitalization costs in the PeopleSoft Maintenance Management, Inquiries and Reports, Capitalization inquiry.

**Important!** PeopleSoft Project Costing only capitalizes financial assets.

See "Understanding Asset Capitalization Processes" (PeopleSoft Project Costing).

#### Chargeback Processing for Work Order Tasks (WO Managed Only)

During the execution of a work order task that is associated with a work order managed project, each of the subsystems and the tools transactions in PeopleSoft Maintenance Management sends the labor, inventory, payables, and tools transaction costs to the PROJ\_RESOURCE table. When the Project Costing Pricing engine prices a work order task transaction, the Pricing engine updates the GL DISTRIB STATUS in the PROJ\_RESOURCE table to hold, which prevents the Project Costing

Project Accounting engine from selecting these rows. When the Work Order Close (WM\_CLOSE) process runs for a work order task, the process updates the GL\_DISTRIB\_STATUS to costed. The accounting engine can then pick up the costed rows to generate chargeback accounting entries to post in the PeopleSoft General Ledger. The costs are charged back to the organization indicated in the ChartField distribution row in PeopleSoft Maintenance Management.

See "Understanding the Pricing Process" (PeopleSoft Project Costing).

#### **Retirement Processing for Work Order Tasks**

When the Work Order Close process (WM\_CLOSE) closes a work order task associated with a work order managed project that involves the retirement of the asset, then the process initiates the retirement cost flow. When you select the information for asset capitalization and chargebacks on the Work Order Task Accounting page, the information is updated on the project activity when the work order is closed.

See "Retiring Assets" (PeopleSoft Project Costing).

See "Understanding Integration with PeopleSoft Maintenance Management" (PeopleSoft Project Costing).

#### **Asset Maintenance History**

The Work Order Close (WM\_CLOSE) process updates the asset maintenance costs and the total asset downtime hours, which is a total of all the downtime entered for a work order task, in PeopleSoft Asset Maintenance History. The Maintenance Cost Data Extraction process (WM\_ASSETCOST) extracts the costs from the Asset Maintenance History. Run this process on a regular basis, selecting the appropriate parameters, to enables the Maintenance Cost Inquiry to display the latest maintenance cost information.

See Using the Asset Maintenance History Inquiry.

# Running WM\_CLOSE for Service Requests, Work Order Tasks, and Work Orders

To close work orders, work order tasks, and service requests use the Close Work Order (WM CLOSE REQUEST) component.

This section describes how to close work orders, work order tasks, and service requests.

## Page Used to Run the Close Process for Service Requests, Work Order Tasks, and Work Orders

Page Name	Definition Name	Usage
Close Work Order Page	WM_CLOSE_RQST	Close service requests, work order tasks, or work orders.

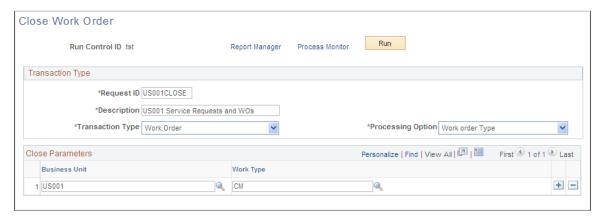
## **Close Work Order Page**

Use the Close Work Order page (WM\_CLOSE\_RQST) to close service requests, work order tasks, or work orders.

#### Navigation:

Maintenance Management, Work Order Management, Work Order Processing, Close Work Order

This example illustrates the fields and controls on the Close Work Order page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Transaction Type	<ul> <li>Select: <ul> <li>All (Work Order and Request)</li> </ul> </li> <li>Select this value for the value All to appear in the Processing Option field. This selection enables you to close all eligible service requests, work order tasks, and work orders.</li> <li>Service Request <ul> <li>Select this value for the value All to appear in the Processing Option field. This selection enables you to close all eligible service requests.</li> </ul> </li> <li>Work Order <ul> <li>Select this value and select one of the Processing Options listed below to close all work orders that are eligible to close that fall within the selected processing option value.</li> </ul> </li> </ul>

Field or Control	Description	
Processing Option	<ul> <li>Select Work Order as the transaction type and then select:</li> <li>All to close all eligible work orders in the system.</li> <li>Bus. Unit (business unit) to display the Close Parameters group box.</li> <li>You can add and select one or more business units for which you want to close eligible work orders.</li> <li>Group to display the Close Parameters group box.</li> <li>You can add and select one or more business units and associate each business unit with a service group for which you want to close eligible work orders.</li> <li>Shop to display the Close Parameters group box.</li> <li>You can add and select one or more business units and associate each business unit with a shop for which you want to close eligible work orders.</li> <li>Task to display the Close Parameters group box.</li> <li>You can add and select one or more business units and associate each business unit with a work order ID and a task number that you want to close.</li> <li>WO Type (work order type) to display the Close Parameters group box.</li> <li>You can add and select one or more business units and associate each business unit with a work order ID and a task number that you want to close.</li> <li>You can add and select one or more business units and associate each business unit with a work order type for which you want to close eligible work orders.</li> </ul>	
	<ul> <li>Work Order to display the Close Parameters group box.</li> <li>You can add and select one or more business units and associate each business unit with a work order ID that yo want to close.</li> </ul>	
Run	Click this button to run the Work Order Close process (WM _CLOSE). Click the <b>Process Monitor</b> button to monitor the processing and click the <i>Report Options</i> button to access and manage any reports associated with the process.	

See the product documentation for PeopleTools: Process Scheduler

## **Running the Cost Summarization Process**

To run the Cost Summarization process, use the Cost Summarization (WM\_SUMCOST\_RUN) component.

This section provides an overview of cost summarization and discusses how to summarize costs and view the results of the Cost Summarization process in the work order.

### **Pages Used to Run the Cost Summarization Process**

Page Name	Definition Name	Usage
Cost Summarization Page	WM_SUMCOST_RUN	Run the Cost Summarization process (WM_SUMMCOST) to update total actual costs generated in PeopleSoft Project Costing in the Cost page of the work order.
Work Order - Cost Page	WM_WO_COST	Review the total estimated, scheduled, and actual costs in a work order.

## **Understanding Cost Summarization**

The Cost Summarization process in PeopleSoft Maintenance Management enables you to see up-to-date actual costs whenever you need to in the Cost page of the work order. This process uses the Cost Collection application engine in PeopleSoft Project Costing to gather the labor, inventory, purchasing, and tools actual costs, and it updates the Cost page of the work order. The actual costs for a work order are collected for the number of days you entered in the Days for Cost Collection field of the work order business unit after the work order is closed. The work order header, task, and all resource rows are updated with the task information. The Cost Summarization process also performs any currency conversions. In addition, if the capitalization process was run in PeopleSoft Project Costing for assets specified in the work order, then these costs appear on the Capitalization inquiry in PeopleSoft Maintenance Management when you run the Cost Summarization process.

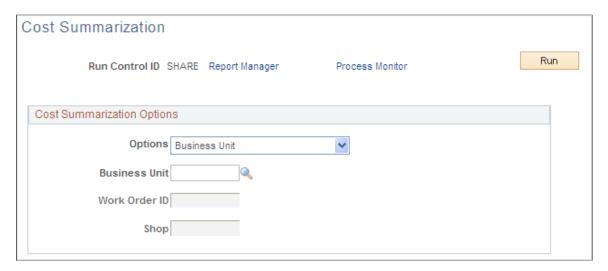
## **Cost Summarization Page**

Use the Cost Summarization page (WM\_SUMCOST\_RUN) to run the Cost Summarization process (WM\_SUMMCOST) to update total actual costs generated in PeopleSoft Project Costing in the Cost page of the work order.

Navigation:

Maintenance Management, Work Order Management, Work Order Processing, Cost Summarization

This example illustrates the fields and controls on the Cost Summarization page. You can find definitions for the fields and controls later on this page.



**Important!** The Cost Summarization process updates only the actual costs for the work order. The estimated costs are based on the task resource requirements, and the scheduled costs are based on the scheduled resources.

Field or Control	Description
Options	<ul> <li>Select one of these options:</li> <li>All to summarize costs for all work orders and all shops associated with all business units.</li> <li>Business Unit to enable the Business Unit field, where you can select the work order business unit associated with the work orders for which you want to summarize costs.</li> <li>Shop to enable the Shop field, where you can select the shop associated with the work order for which you want to summarize the costs.</li> <li>Work Order to enable the Work Order ID field, where you can select the specific work order for which you want to summarize the costs.</li> </ul>
Run	Click this button to run the WM_SUMMCOST process.

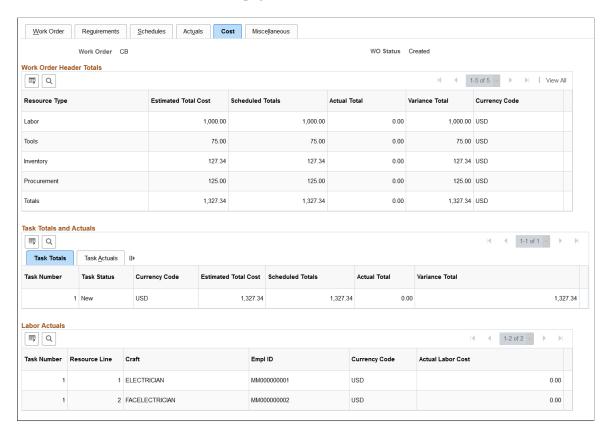
## **Work Order - Cost Page**

Use the Work Order - Cost page (WM\_WO\_COST) to review the total estimated, scheduled, and actual costs in a work order.

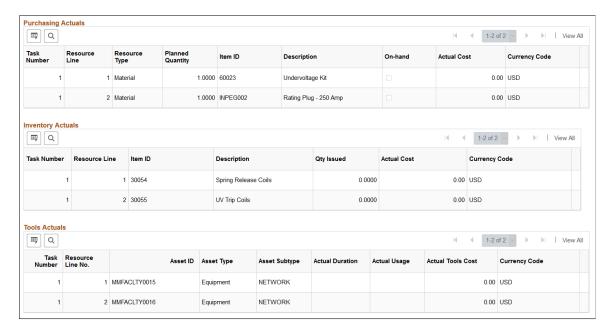
Navigation:

Select Maintenance Management, Work Order Management, Work Order, and click the Cost tab.

This example illustrates the fields and controls on the Work Order - Cost page. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Work Order - Cost page. You can find definitions for the fields and controls later on this page.



#### **Work Order Header Totals**

Field or Control	Description
Estimated Total Costs	Displays a value if you calculated estimated costs for each resource row for each task in the Requirements page. This value is updated when you save the work order requirements.
Scheduled Totals	Displays a value if you calculated the scheduled costs for each resource row for each task on the Schedules page. This value is updated when you save the work order Schedules page.
Actual Total	Displays a value when you enter the time, material, and tool usage amounts in the Technician Workbench. When you run the Cost Summarization process, the total costs are collected in PeopleSoft Project Costing, and they appear in these fields.

#### **Task Totals and Actuals**

This grid displays the total estimated and scheduled costs for each work order task when you enter the resources lines and save the requirements for estimated costs and the schedules for scheduled costs. The total actual costs for each task are derived from PeopleSoft Project Costing when you run the Cost Summarization process and the variance is calculated. The system calculates a variance between the estimated costs and the actual costs.

#### **Labor Actuals**

This grid displays the total actual labor costs for each employee assigned to a work order task line. These costs appear based on running the Cost Summarization process. The Cost Summarization process is automatically run when a work order is closed.

#### **Material Actuals**

This grid displays the total actual inventory costs for each work order task line. These costs appear based on running the Cost Summarization process. The Cost Summarization process is automatically run when a work order is closed.

#### **Purchasing Actuals**

This grid displays the total actual purchasing costs for each work order task line. These costs appear based on running the Cost Summarization process. The Cost Summarization process is automatically run when a work order is closed. In addition, the On-Hand column identifies the non-inventory items already available for completing work order tasks.

#### **Tools Actuals**

This grid displays the total actual tool costs for each work order task line. These costs appear based on running the Cost Summarization process. The Cost Summarization process is automatically run when a work order is closed.

#### **Chapter 25**

# **Understanding the Maintenance Management WorkCenter**

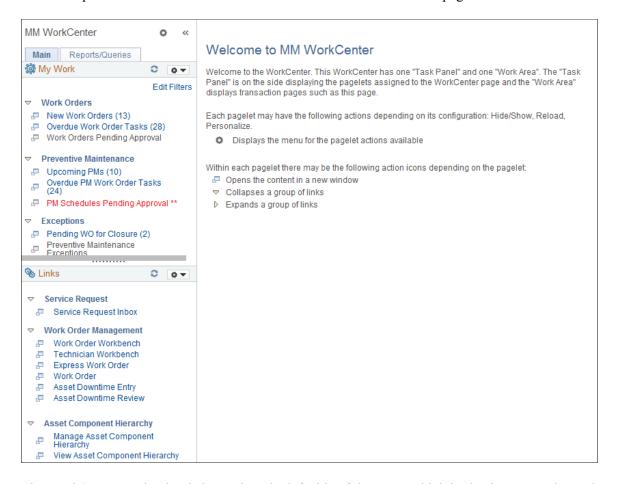
### **Understanding the Maintenance Management WorkCenter**

Maintenance Management WorkCenter will help maintenance planners and schedulers organize their work more effectively. Having quick access to various work order and preventive maintenance condition monitoring alerts and exceptions, maintenance planners and schedulers not only gain better visibility into the status of critical work orders and preventive maintenance schedules but also the ability to act quickly.

The Maintenance Management WorkCenter delivers alerts that each maintenance planner or scheduler can configure to highlight new work orders, overdue work order tasks, upcoming preventive maintenance, overdue preventive maintenance, and more. As proper maintenance of assets has a direct effect on an organization's bottom line and often has serious implications for regulatory reporting and personnel safety, the Maintenance Management WorkCenter is a key tool for helping organizations track and run maintenance in a timely fashion.

For a general understanding of WorkCenter and how to set up WorkCenter as an end user, see "Understanding WorkCenters and Dashboards" (Enterprise Components).

This example illustrates the fields and controls on the MM WorkCenter page.

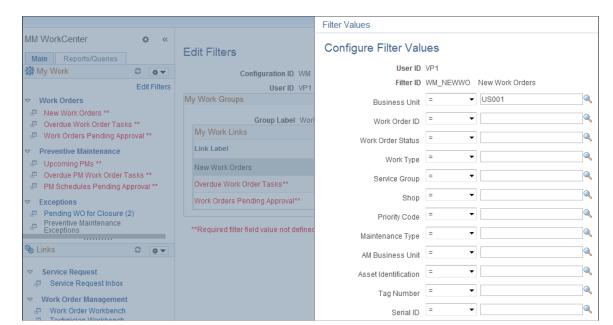


The WorkCenter navigation is located on the left side of the page, which is also known as the Task Panel. It includes two main tabs: Main and Reports/Queries.

Within the two primary tabs in the WorkCenter, the pagelets included are:

- Main:
  - My Work
  - Links
- Reports/Queries:
  - Queries
  - Reports/Processes

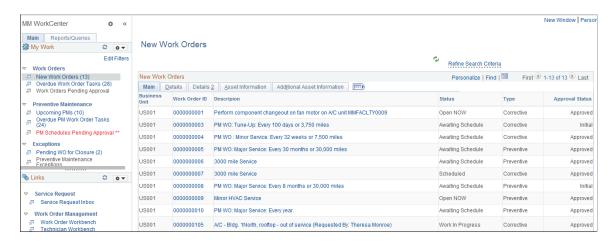
A central Work Area displays the transactions related to the pagelets in the task panel. When using WorkCenter for the first time, users enter some filter criteria to view results for the pagelets. Users configure the filter values In the Edit Filters page.



This example illustrates the fields and controls on the Configure Filter Values page.

Once the filter values are configured, users can view data in the work area corresponding to the pagelet clicked in the task panel. The number of records matching the filter criteria for every pagelet is indicated in parenthesis next to the pagelet name. A user cannot access a pagelet if no data matches the filter criteria.

This example illustrates the New Work Orders page after a user has configured the filter values.



# **Understanding the My Work Pagelet**

The My Work section of the Main tab includes links to pages that the user may access frequently, such as work orders. By default, all users can access all of the delivered components; however, system administrators can control access for the exceptions using User, Role, and Permission List security at the WorkCenter framework setup level.

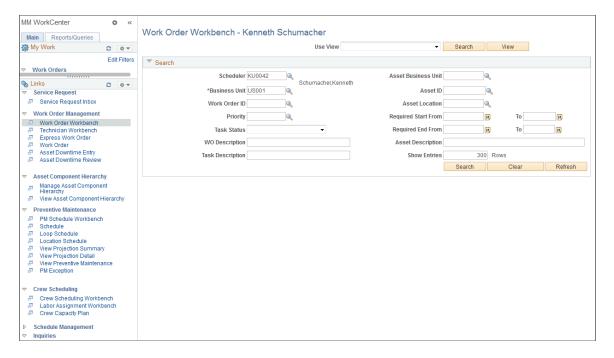
The My Work section in the Maintenance Management WorkCenter is divided into three groups:

- Work Orders
- Preventive Maintenance
- Exceptions

#### **Understanding the Links Pagelet**

The Links section of the Main tab includes links to pages related to Service Request, Work Order Management, Asset Component Hierarchy, Preventive Maintenance, Crew Scheduling, Schedule Management, and Inquiries. Users can click any link in the Links pagelet section to view the corresponding page in the work area. A system administrator can determine a list of links that are available to end users in this section. The end user can personalize required links that they want to appear in their WorkCenter.

This example illustrates the fields and controls on the Links page.



Each group in this pagelet has these links delivered:

Group	Link Label
Service Request	Service Request Inbox

Group	Link Label
Work Order Management	<ul> <li>Work Order Workbench</li> <li>Technician Workbench</li> <li>Express Work Order</li> <li>Work Order</li> <li>Asset Downtime Entry</li> <li>Asset Downtime Review</li> </ul>
Asset Component Hierarchy	Manage Asset Component Hierarchy     View Asset Component Hierarchy
Preventive Maintenance	<ul> <li>PM Schedule Workbench</li> <li>Schedule</li> <li>Loop Schedule</li> <li>Location Schedule</li> <li>Maintenance Loop</li> <li>View Projection Summary</li> <li>View Projection Detail</li> <li>View Preventive Maintenance</li> <li>PM Exception</li> </ul>
Crew Scheduling	<ul> <li>Crew Scheduling Workbench</li> <li>Labor Assignment Workbench</li> <li>Crew Capacity Plan</li> </ul>
Schedule Management	Resource Monthly Schedule     Asset Monthly Schedule

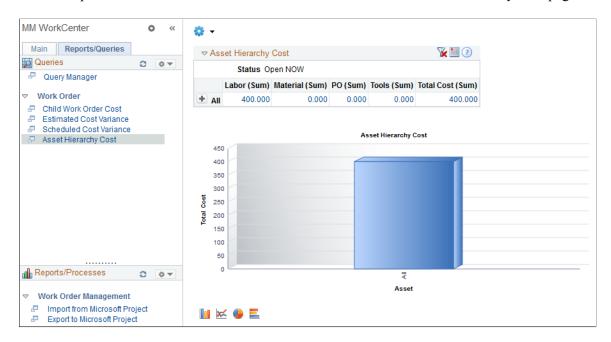
Group	Link Label
Inquiries	Asset Maintenance History
	Asset Maintenance Cost Inquiry
	Work Order History
	Work Order Progress Tracking
	Work Order Procurement Inquiry
	Chargeback
	Capitalization
	Crew Schedule Inquiry
	Failure Analysis

See "Working With and Personalizing the Classic Links Pagelet As an End User" (Application Fundamentals)

### **Understanding the Queries Pagelet**

The Query section of the Reports/Queries tab include links to Query Manager, sample queries, and Pivot Grids. When a query link is selected, the results appear in the work area of the WorkCenter or in a new window. Query results can be saved to Microsoft Excel.

This example illustrates the fields and controls on the Pivot Grid — Asset Hierarchy Cost page.



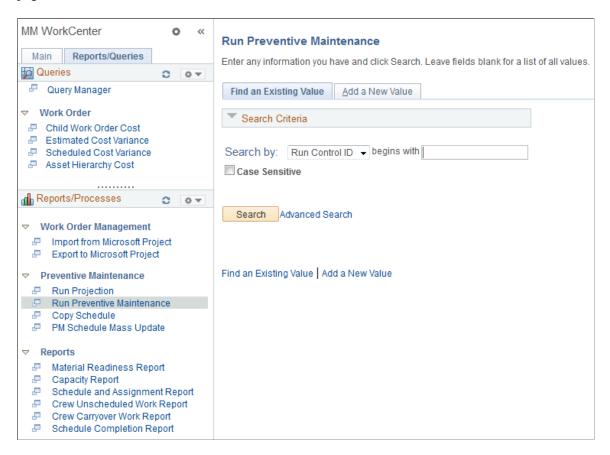
Pivot Grids display information about the work order cost, maintenance cost for the asset, estimated cost variance, and scheduled cost variance. Data appears in graphical format and is based on the filter criteria entered by the user.

See "Working With and Personalizing the Classic Queries Pagelet As an End User" (Application Fundamentals).

### **Understanding the Reports/Processes Pagelet**

The Reports and Processes section of the Reports/Queries tab includes links to reports and processes. The links take you to the run control page for reports, processes, and the reporting console. The system administrator determines whether an end user can configure their pagelet or not. The objective of this pagelet is to minimize the number of clicks to access reports or processes and the results.

This example illustrates the fields and controls on the Reports/Processes — Run Preventive Maintenance page.



The Reports/Processes section is divided into three groups:

Group	Link Label
Work Order Management	Import to Microsoft Project     Export to Microsoft Project

Group	Link Label
Preventive Maintenance	Run Projection
	Run Preventive Maintenance
	Copy Schedule
	PM Schedule Mass Update
Reports	Material Readiness Report
	Capacity Report
	Schedule and Assignment Report
	Crew Unscheduled Work Report
	Crew Carryover Work Report
	Schedule Completion Report

See "Working With and Personalizing the Classic Reports and Processes Pagelet As an End User" (Application Fundamentals)

# **Understanding the Maintenance Management WorkCenter Dashboard**

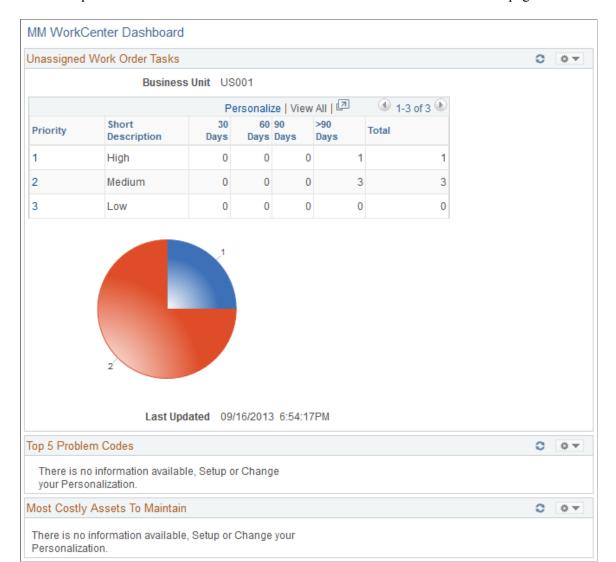
A dashboard is a collection of information summaries that enable users to monitor different objects and data. Multiple grids display various data, such as unassigned work order tasks and top problem codes. You can select and edit required work orders from the dashboard.

Use the MM WorkCenter Dashboard to view work order details quickly.

Navigation:

Maintenance Management > MM WorkCenter > Links > Maintenance Management Dashboard

Maintenance Management > MM WorkCenter Dashboard



This example illustrates the fields and controls on the MM WorkCenter Dashboard page.

The primary purpose of the dashboard is to display a series of pagelets that provide metrics and pivot grids. The summary pagelets available in the Maintenance Management WorkCenter Dashboard are:

- Unassigned Work Order Tasks
- Top 5 Problem Codes
- Most Costly Assets To Maintain

Users can configure the pagelets that appear in the dashboard. Users can configure the data that appears in the pagelets based on certain criteria.

#### **Chapter 26**

# Using the Maintenance Management WorkCenter

### **Working With Work Orders**

Work Orders includes the following components:

- New Work Orders
- Overdue Work Order Tasks
- Work Orders Pending Approval

Work Orders pagelets display all the details about new work orders, overdue work order tasks, and pending approval work orders. Users can view and edit certain fields.

#### Pages Used to View and Edit Work Orders

Page Name	Definition Name	Usage
New Work Orders Page	WM_HDR_APP_GRID	View and edit new work orders.
Overdue Work Order Tasks Page	WM_HDR_APP_GRID	View and edit overdue work order tasks.
Work Orders Pending Approval Page	WM_HDR_APP_GRID	View and edit work orders pending approval.
		Maintenance Management > MM WorkCenter > Work Orders > Work Orders Pending Approval

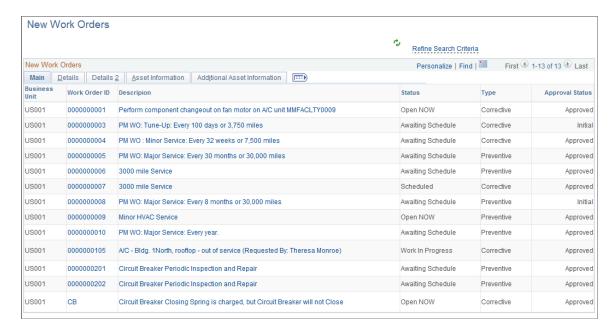
#### **New Work Orders Page**

Use the New Work Orders page to view and edit new work orders.

Navigation:

Maintenance Management > MM WorkCenter > Work Orders > New Work Orders

This example illustrates the fields and controls on the New Work Orders page.



The New Work Orders page displays all the new work order details, such as work order ID and approval status. The data that appears is based on the search criteria defined in the Search Criteria page. Users can modify the search criteria by clicking the **Refine Search Criteria** link. Users can choose to display work orders based on work order creation date or required start date. In the filter criteria, they can also specify the number of days that qualifies the work order to be new.

The **New Work Orders** grid includes five tabs: Main, Details, Details 2, Asset Information, and Additional Asset Information. In every tab, some fields—such as Work Order ID and Description—have links that users can click to access the Work Order page, which opens in a new window.

Field or Control	Description
Refine Search Criteria	Click to view and edit the predefined filter criteria for new work orders. Defined search criteria are:
	Business Unit
	Work Order ID
	Work Order Status
	Work Type
	Service Group
	• Shop
	Priority Code
	Maintenance Type
	AM Business Unit
	Asset Identification
	Tag Number
	Serial ID
	• VIN
	Asset Type
	Asset Subtype
	Asset Criticality
	Asset Location
	Area ID
	Created On
	Manufacturer Name
	• Model
	Days Past Creation Date
	Product Version
	Required Start
	Required End
	Days Past Required Start
	Days Past Required End
	Approval Status
	Work Order Source

Field or Control	Description
	• Scheduler
3	Click this icon to refresh the grid.

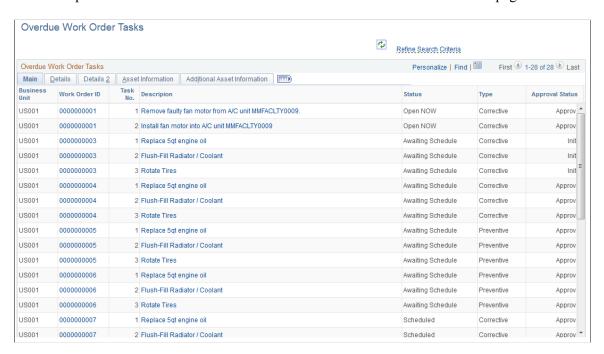
#### **Overdue Work Order Tasks Page**

Use the Overdue Work Order Tasks page to view and edit overdue work order tasks.

Navigation:

Maintenance Management > MM WorkCenter > Work Orders > Overdue Work Order Tasks

This example illustrates the fields and controls on the Overdue Work Order Tasks page.



The Overdue Work Order Tasks page displays work order details pertaining to overdue work order tasks. The data that appears is based on the search criteria defined in the Search Criteria page. Users can modify the search criteria by clicking the **Refine Search Criteria** link. Users can choose to display work orders based on work order creation date, required start date, scheduled start date, or actual start date. In the filter criteria, they can also specify the number of days that qualifies the work order as overdue.

The **Overdue Work Order Tasks** grid include five tabs: Main, Details 2, Asset Information, and Additional Asset Information. In every tab, some fields—such as Work Order ID and Description—have links that users can click to access the Work Order page, which opens in a new window.

Field or Control	Description
Refine Search Criteria	Click to view and edit the predefined filter criteria for the overdue work order tasks. Defined search criteria are:
	Business Unit
	Work Order ID
	Task Status
	Work Type
	Service Group
	• Shop
	Priority Code
	Maintenance Type
	AM Business Unit
	Asset Identification
	Tag Number
	Serial ID
	• VIN
	Asset Type
	Asset Subtype
	Asset Criticality
	Asset Location
	Area ID
	Created On
	Manufacturer Name
	• Model
	Product Version
	Required Start
	Required End
	Days Past Required Start
	Days Past Required End
	Scheduled Start Date
	Scheduled End Date
	Days Past Schedule Start

Field or Control	Description
	Days Past Schedule End
	Actual Start Date
	Actual End Date
	Days Past Actual Start
	Days Past Actual End
	Approval Status
	Work Order Source
	Scheduler
	Click this icon to refresh the grid.

# **Working With Preventive Maintenance**

Preventive Maintenance includes the following components:

- Upcoming PMs
- Overdue PM Work Order Tasks
- PM Schedules Pending Approval

Preventive Maintenance pagelets display all the details about upcoming PMs, overdue preventive maintenance work order tasks, and PM schedules pending approval. Users can view and edit certain fields.

### Pages Used to View and Edit PMs

Page Name	Definition Name	Usage
Upcoming PMs Page	WM_HDR_APP_GRID	View and edit upcoming PMs.
Overdue PM Work Order Tasks Page	WM_HDR_APP_GRID	View and edit overdue PM work order tasks.
PM Schedules Pending Approval Page	WM_HDR_APP_GRID	View and edit PM schedules pending approval.

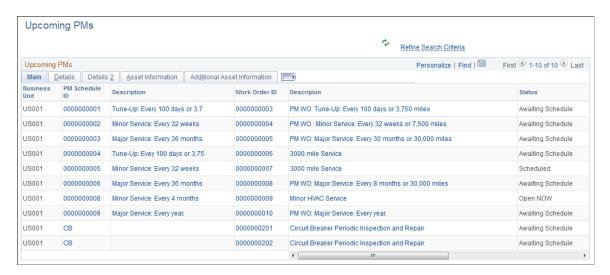
#### **Upcoming PMs Page**

Use the Upcoming PMs page to view and edit upcoming PMs.

#### Navigation:

#### Maintenance Management > MM WorkCenter > Preventive Maintenance > Upcoming PMs

This example illustrates the fields and controls on the Upcoming PMs page.



The Upcoming PMs page displays details, such as PM Schedule ID and Work Order ID. It provides maintenance organizations with an outline about projected PMs that are due within a specified number of days. The data that appears is based on the search criteria defined in the Search Criteria page. Users can modify the search criteria by clicking the **Refine Search Criteria** link.

The **Upcoming PMs** grid has five tabs: Main, Details, Details 2, Asset Information, and Additional Asset Information. In every tab, some fields—such as PM Schedule ID, Work Order ID, and Description—have links that users can click to access the Work Order page or Schedule page, which opens in a new window.

Field or Control	Description
Refine Search Criteria	Click to view and edit the predefined filter criteria for the upcoming PMs. Defined search criteria are:
	Business Unit
	PM Schedule ID
	Work Order ID
	Work Order Status
	Maintenance Type
	• Shop
	AM Business Unit
	Asset Identification
	Tag Number
	Serial ID
	• VIN
	Asset Type
	Asset Subtype
	Asset Criticality
	Asset Location
	Area ID
	Maintenance Loop ID
	Location Code
	Maintenance Due Date
	Days Past Due Date
	• Scheduler
<b>*</b>	Click this icon to refresh the grid.

### **Overdue PM Work Order Tasks Page**

Use the Overdue PM Work Order Tasks page to view and edit overdue PM work order tasks.

Navigation:

Maintenance Management > MM WorkCenter > Preventive Maintenance > Overdue PM Work Order Tasks

Schedule

Schedule

US001

US001

0000000005

0000000005

Minor Service: Every 32 weeks

Minor Service: Every 32 weeks

Overdue PM Work Order Tasks Refine Search Criteria Overdue PM Work Order Tasks Personalize | Find | First 1-24 of 24 Last 
 Main
 Details
 Details 2
 Asset Information
 Additional Asset Information
 PM Schedule ID Description Work Order ID Descripion US001 0000000001 Tune-Up: Every 100 days or 3,7 0000000003 Awaiting 1 Replace 5qt engine oil US001 0000000001 Tune-Up: Every 100 days or 3,7 0000000003 2 Flush-Fill Radiator / Coolant Awaiting US001 0000000001 Tune-Up: Every 100 days or 3,7 000000003 3 Rotate Tires Awaiting US001 0000000002 Minor Service: Every 32 weeks 0000000004 1 Replace 5qt engine oil Awaiting US001 0000000002 2 Flush-Fill Radiator / Coolant Minor Service: Every 32 weeks 0000000004 Awaiting US001 0000000002 Minor Service: Every 32 weeks 0000000004 3 Rotate Tires Awaiting US001 0000000003 Major Service: Every 36 months 0000000005 1 Replace 5qt engine oil Awaiting US001 0000000003 2 Flush-Fill Radiator / Coolant US001 000000003 Major Service: Every 36 months 0000000005 3 Rotate Tires Awaiting US001 0000000004 Tune-Up: Evey 100 days or 3,75 0000000006 1 Replace 5qt engine oil Awaiting US001 0000000004 Tune-Up: Evey 100 days or 3,75 0000000006 2 Flush-Fill Radiator / Coolant Awaiting US001 0000000004 Tune-Up: Evey 100 days or 3,75 000000006 US001 0000000005 Minor Service: Every 32 weeks 0000000007 1 Replace 5qt engine oil Schedule

0000000007

0000000007

This example illustrates the fields and controls on the Overdue PM Work Order Tasks page.

The Overdue PM Work Order Tasks page displays details such as PM Schedule ID and Work Order ID. It provides maintenance organizations with a quick view of overdue PMs. The data that appears is based on the search criteria defined in the Search Criteria page. Users can modify the search criteria by clicking the **Refine Search Criteria** link.

2 Flush-Fill Radiator / Coolant

3 Rotate Tires

The **Overdue PM Work Order Tasks** grid includes five tabs: Main, Details, Details 2, Asset Information, and Additional Asset Information. In every tab, some fields—such as PM Schedule ID, Work Order ID, and Description—have links that users can click to access the Work Order page or Schedule page, which opens in a new window.

Field or Control	Description	
Refine Search Criteria	Click to view and edit the predefined filter criteria for the overdue PM work order tasks. Defined search criteria are:	
	Business Unit	
	Work Order ID	
	Task Status	
	Work Type	
	Service Group	
	• Shop	
	Priority Code	
	Maintenance Type	
	AM Business Unit	
	Asset Identification	
	Tag Number	
	Serial ID	
	• VIN	
	Asset Type	
	Asset Subtype	
	Asset Criticality	
	Asset Location	
	Area ID	
	Location Code	
	Maintenance Loop ID	
	Maintenance Due Date	
	• Model	
	Product Version	
	Required Start	
	Required End	
	Days Past Required Start	
	Days Past Required End	
	Scheduled Start Date	
	Scheduled End Date	

Field or Control	Description	
	Days Past Schedule Start	
	Days Past Schedule End	
	Actual Start Date	
	Actual End Date	
	Days Past Actual Start	
	Days Past Actual End	
	Scheduler	
3	Click this icon to refresh the grid.	

#### **PM Schedules Pending Approval Page**

Use the PM Schedules Pending Approval page to view and edit PM schedules pending approval.

Navigation:

Maintenance Management > MM WorkCenter > Preventive Maintenance > PM Schedule Pending Approval

This example illustrates the fields and controls on the PM Schedules Pending Approval page.



The PM Schedules Pending Approval page displays PM schedules pending approval based on filter criteria defined in the Search Criteria page. Users can modify the search criteria by clicking the **Refine Search Criteria** link.

The **PM Schedules Pending Approval** grid includes four tabs: Main, Details, Asset Information, and Additional Asset Information. In every tab, some fields—such as PM Schedule ID and Description—have links that users can click to access the Schedule page, which opens in a new window.

# **Working With Exceptions**

Exceptions include the following components:

- Pending WO for Closure
- Preventive Maintenance Exceptions

#### Pages Used to View and Edit Exceptions

Page Name	Definition Name	Usage
Pending WO for Closure Page	WM_HDR_APP_GRID	View and edit pending work orders for closure transactions.
Preventive Maintenance Exceptions Page	WM_HDR_APP_GRID	View and edit preventive maintenance exceptions transactions.

#### **Pending WO for Closure Page**

Use the Pending WO for Closure page to view and edit pending work orders for closure transactions.

Navigation:

Maintenance Management > MM WorkCenter > Exceptions > Pending WO for Closure

This example illustrates the fields and controls on the Pending WO for Closure page.



This exception provides maintenance planners, schedulers, and coordinators a quick view of work orders with all tasks completed but not closed. Data that appears on this page is based on filter criteria defined in the Search Criteria page. Users can modify the search criteria by clicking the **Refine Search Criteria** link.

The **Pending WO for Closure** grid include five tabs: Main, Details, Details 2, Asset Information, and Additional Asset Information. In every tab, some fields—such as Work Order ID and Description—have links that users can click to access the Work Order page, which opens in a new window.

Field or Control	Description	
Refine Search Criteria	Click to view and edit the predefined filter criteria for the exceptions. Defined search criteria are:	
	Business Unit	
	Work Order ID	
	Work Type	
	Service Group	
	• Shop	
	Priority Code	
	Maintenance Type	
	AM Business Unit	
	Asset Identification	
	Tag Number	
	Serial ID	
	• VIN	
	Asset Type	
	Asset Subtype	
	Asset Criticality	
	Asset Location	
	Area ID	
	Asset Location	
	• Model	
	Asset Criticality	
· ·	Click this icon to refresh the grid.	

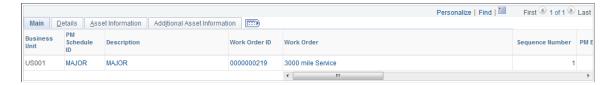
# **Preventive Maintenance Exceptions Page**

Use the Preventive Maintenance Exceptions page to view and edit preventive maintenance exceptions transactions.

Navigation:

**Maintenance Management** > **MM WorkCenter** > **Exceptions** > **Preventive Maintenance Exceptions** 

This example illustrates the fields and controls on the Preventive Maintenance Exceptions page.



This exception displays preventive maintenance processing exceptions based on filter criteria defined in the Search Criteria page. Users can modify the search criteria by clicking the **Refine Search Criteria** link. Users can review the exception transactions that appear on this page and take an appropriate action, such as canceling the work order.

The **Preventive Maintenance Exceptions** grid includes four tabs: Main, Details, Asset Information, and Additional Asset Information. In every tab, some fields—such as PM Schedule ID, Work Order ID, and Description—have links that users can click to access the particular Schedule page or Work Order page, which opens in a new window.

See "Configuring Pagelets" (Enterprise Components).

# Setting Up and Performing Work Order Failure Tracking and Analysis

### **Understanding Work Order Failure Tracking and Analysis**

PeopleSoft Maintenance Management provides users the capability to track and analyze equipment failure incidents for various operational and regulatory needs, such as health, safety, and environmental compliance. These failure incidents are defined as failure events in a work order which are directly tied to a target asset that has failed in a work order task.

You can analyze these asset failures to:

- Help prevent recurrence or minimize the number of future incidents.
- Reduce associated downtime and repair costs.
- Measure and track both asset reliability and maintenance and repair effectiveness.
- Support repair versus replace decisions.
- Support related planning and budget allocation activities for constrained maintenance resources.

To accomplish these goals, PeopleSoft Maintenance Management enables users to set up failure severity and failure impact codes to define data that describes, quantifies, and qualifies asset failure events from the various perspectives of the Work Order, Work Order Completion, or Technician Workbench components. You can analyze failure events based on specific detail or summary criteria in Failure Analysis inquiry, where you can discover trends and relationships affecting future failure occurrence, asset reliability, and maintenance and repair effectiveness measures. Failure tracking and analysis are optional activities that can assist supervisors and managers to carefully manage their assets.

#### Failure Tracking Setup

You define failure severity and failure impact codes based on the requirements of your organization. When you perform a failure analysis, you can select failure severity and failure impact codes to search for specific failure events to analyze on the Failure Analysis page. PeopleSoft Maintenance Management delivers sample data that contains examples of these two types of failure codes. You can use this sample data to help you define your own failure codes.

You must set up failure severity codes for your organization before you can track failure events in PeopleSoft Maintenance Management. Each code describes the seriousness of the asset failure to your organization. For example, you could define failure severity codes as critical, high, medium, low, or none or with numerical values. You are required to select a failure severity code on the Work Order Failure Tracking page.

Failure impact codes are useful for identifying how the failure of an asset will affect specific organization circumstances or requirements such as hazardous conditions or materials, health issues, safety issues, and more. You can assign more than one failure impact code to a failure event on the Work Order Failure Tracking page. However, you are not required to set up or use failure impact codes to complete the Work Order Failure Tracking page.

#### **Failure Event Definition and Tracking**

Once the failure impact and severity codes are established, you can enter, maintain and review the data associated with an asset failure event in the Work Order Failure Tracking component. You can create a failure event directly from the Work Order, the Work Order Completion, and the Technician Workbench components. A failure event is defined based on the failure or problems of an asset selected for a work order task. While tracking failure events is an optional activity and is only appropriate for certain critical assets or classes of assets within an organization, defining failure events will enable your organization to obtain additional information that quantifies and qualifies the nature of an asset's failure.

When you create a failure event from the Work Order, the Work Order Completion, or the Technician Workbench components, the system automatically assigns the next Failure ID in the system to the failure event. You cannot override this value. When you save the Work Order Failure Tracking page, the system updates this failure ID number in the Last Failure ID field on the Definition page of the work order business unit associated with the failure event.

If you create a failure event from the Work Order Failure Tracking component, you can accept NEXT as the default for the Failure ID and the system assigns the next failure ID to the failure event. You can also override NEXT with a unique failure ID. A unique failure ID is not tracked on the Definition page of the work order business unit.

If you entered a unique failure ID for one failure event, and created the next failure event from the work order, which automatically assigns a failure ID number, when you save the Work Order Failure Tracking page, the number generated is automatically updated in the Last Failure ID field on the Definition page of the work order business unit.

In addition to failure ID, the Work Order Failure Tracking page consists of:

- Information about the work order, work order task, and the asset associated with the failure event.
- Problem reporting information.
- Detail information describing the failure event.
- Failure impact information.
- Asset downtime information.
- A list of causal parts.
- Meter reading data.
- Warranty claim information.

Much of this data is replicated form the work order task data. It appears in this component to enable you to review or update any of this data that may have a bearing on the failure event without returning to the work order. You can also this data as search values in the Failure Analysis component.

However, you can, at a minimum, log a failure event by selecting a severity code and the start date for the failure.

You can access the Work Order Failure Tracking page to update or review an existing failure event or add a new failure event from the:

· Work Order page.

Click the Problem Reporting tab of the Work Order Tasks group box on the Work Order page (Maintenance Management > Work Order Management > Work Order tab).

Maintenance Management Center > Work Order Management > Work Order > Work Order page.

See Work Order Failure Tracking Page.

• Work Order Requirements page.

Access the Problem Reporting group box of the Requirements page. (Maintenance Management > Work Order Management > Requirements) tab.

See Creating Work Order Tasks.

Work Order Completion page.

Access the Work Order Completion page. (Maintenance Management > Work Order Management > Work Order Completion.)

See Work Order Completion Page.

Technician Workbench page.

Access the Failure Reporting tab in the Work Order Tasks group box of the Technician Workbench page. (Maintenance Management > Workbenches > Technician Workbench > Technician Workbench page.)

See <u>Using the Technician Workbench to Complete Work Order Tasks</u>.

• Work Order Failure Tracking, Add a new value page.

Access the Work Order Failure Tracking page. (Maintenance Management > Work Order Management > Work Order Failure Tracking > Work order Failure Tracking page.)

See Work Order Failure Tracking Page.

#### **Failure Analysis**

The PeopleSoft Maintenance Management Failure Analysis component enables you to perform a meaningful analysis of system-calculated metrics based on the tracking of failure events associated with a work order task. You can easily search and group the asset failure event data that you want to analyze. When the system calculates the metrics and displays the data for the selected asset failure events, the resulting data may include:

- Total Failure Count.
- Mean Time (Days) Between Failure (MTBF).

- Mean Time (Hours) to Repair (MTTR).
- Mean Cost (Currency) to Repair (MCR).
- Mean Reading (Meter Units) Between Failures.

To analyze one or more asset failure events, you:

- Enter the search criteria for the failure event data that you want to analyze.
- Select the appropriate analysis method by:
  - Selecting an analysis option from the available list of failure events.

The default option for a new search is Failure Event (Detail), which shows all of the failure events that match your search criteria. You can choose one of the summary options that provide different summary views of the detail failure event data.

- Selecting the failure event data that you want to analyze from the search results.
- Selecting the **Show Totals** button to display the failure event totals based on the selected analysis method.
- Creating a chart based on the select data.

# **Setting Up for Work Order Failure Tracking and Analysis**

This section discusses how to set up failure severity codes and set up failure impact codes.

#### Pages Used to Set Up for Work Order Failure Tracking and Analysis

Page Name	Definition Name	Usage
Failure Severity Page	WM_FAILURE_SEVRTY	Set up failure severity codes for work order failure tracking and analysis.
Failure Impact Page	WM_FAILURE_IMPACT	Set up failure impact codes for work order failure tracking and analysis.
Failure Impact Notes Page	WM_WO_FAILIMPC_SEC	Add notes about the impact of this failure on the organization.
Failure Causal Parts Page	WM_WO_FAILCAUS_SEC	Add comments about the selected causal part, such as the part has corroded.

#### **Failure Severity Page**

Use the Failure Severity page (WM\_FAILURE\_SEVRTY) to set up failure severity codes for work order failure tracking and analysis.

Navigation:

Set Up Financials/Supply Chain, Product Related, Maintenance Management, Set Up, Failure Severity, Failure Severity page.

This example illustrates the fields and controls on the Failure Severity page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
SetID and Failure Severity	Select a <b>SetID</b> and enter a code, which can contain up to five characters, that best represents a level of the severity of an asset failure to your organization on the Add a New Value page. For example, you can set up code values of: 0 (none) 1 (minor), 2 (low), 3 (medium), 4 (high), and 5 (critical).
Description and Short Description	Enter a meaningful long and short description of this failure severity code such as Critical, High, Medium. These are both required fields.

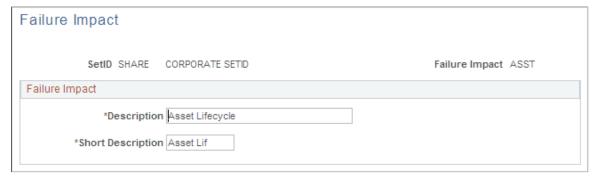
#### **Failure Impact Page**

Use the Failure Impact page (WM\_FAILURE\_IMPACT) to set up failure impact codes for work order failure tracking and analysis.

Navigation:

Set Up Financials/Supply Chain, Product Related, Maintenance Management, Set Up, Failure Impact, Failure Impact page.

This example illustrates the fields and controls on the Failure Impact page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
SetID and Failure Impact	Select a SetID and enter an identifiable code to define a circumstance or requirement that can be impacted by a failure event on the Failure Impact Codes - Add a New Value page. For example ENV to represent Environment or ASST to represent Asset Lifecycle.
Description and Short Description  Enter a long and a short meaningful description failure impact code such as Environmental impact codes to define a failure impact code, these a fields.	
	Note: You can assign more than one failure impact code to a failure event on the Work Order Failure Tracking page.  However, failure impact codes are not required to complete the Work Order Failure Tracking page.

# **Adding and Reviewing a Failure Event**

This section discusses how to define a failure event.

#### Pages Used to Add and Review a Failure Event

Page Name	Definition Name	Navigation	Usage
Work Order Failure Tracking Page	WM_WO_FAIL_TRACK	Maintenance Management, Work Order Management, Work Order Failure Tracking, Work Order Failure Tracking page.	Add or modify a failure event.

Page Name	Definition Name	Navigation	Usage
Work Order	WM_WO_HDR	Maintenance Management, Work Order Management, Work Order, select the Work Order tab, click the Failure ID Add link in the Work Order Tasks, Problem Reporting grid.	Access the Work Order Failure Tracking page and to add or review a failure event.  The Add link is only accessible after you specify the target asset of the work order task.
Work Order - Requirements	WM_WO_TASK_RQMT	Maintenance Management, Work Order Management, Work Order, select the Requirements tab, click the Failure ID: Add link in the Problem Reporting group box.	Access the Work Order Failure Tracking page to add or review a failure event.  The Add link is only accessible after you specify the target asset of the work order task.
Work Order Completion	WM_WO_ACT	Maintenance Management, Work Order Management, Work Order Completion, Work Order Completion page, click the Failure ID: Add link.	Access the Work Order Failure Tracking page to add or review a failure event.
Technician Workbench	WM_WOE_WB	Maintenance Management, Workbenches, Technician Workbench, Technician Workbench page, select the Failure Reporting tab in the Work Order Tasks group box, click the <b>Add</b> link in the Failure ID column.	Access the Work Order Failure Tracking page to add or review a failure event.
Task Status History	WM_TASKSTATUS_SEC	Click the As of date on the Work Order Failure Tracking page.	Displays a grid containing the history of status changes including the date and time the status was changed and the name of the user who changed the status.
Asset Information	WM_WO_ASSET_SEC	<ul> <li>Click the link associated with the asset's description.</li> <li>Click the Hazardous icon next to the Criticality field.</li> </ul>	Review details about the attributes of the selected asset.
Asset Warranties	ASSET_WARRANTY	Click the Warranty icon on the Work Order Failure Tracking page.	Review to find out if the warranty covers the repair or partial repair of the selected asset.

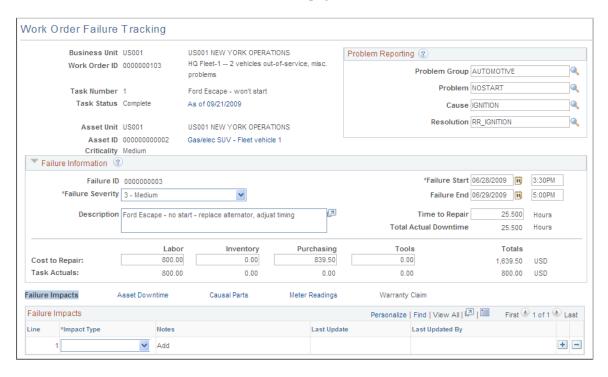
#### **Work Order Failure Tracking Page**

Use the Work Order Failure Tracking page (WM WO FAIL TRACK) to add or modify a failure event.

#### Navigation:

Maintenance Management, Work Order Management, Work Order Failure Tracking, Work Order Failure Tracking page.

This example illustrates the fields and controls on the Work Order Failure Tracking page. You can find definitions for the fields and controls later on this page.



Refer to Creating a Work Order set of topics for a complete description of creating a failure event.

See Work Order Failure Tracking Page.

# Performing a Failure Analysis

This section discusses how to search for failure event data to analyze, specify a failure analysis method, review the Totals grid data, and create an analysis chart.

#### Pages Used to Perform a Failure Analysis

Page Name	Definition Name	Usage
Failure Analysis Page	WM_FAIL_ANLYS_INQ	Search for failure event data to analyze.

Page Name	Definition Name	Usage
Failure Analysis – Save/Restore Criteria Page	WM_FLEXSRCH_MAINT	Save the search criteria entered on the Failure Analysis page or select a previously saved version of the search criteria.

#### **Failure Analysis Page**

Use the Failure Analysis page (WM FAIL ANLYS INQ) to search for failure event data to analyze.

#### Navigation:

Maintenance Management, Inquiries and Reports, Failure Analysis, Failure Analysis page.

This example illustrates the fields and controls on the Feature Analysis page - Search Criteria. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Field Name	Click the downward arrow and select a field name from the list of field names related to the failure events that you want to use in your analysis. Fields in the drop down list with an asterisk (*) indicate the possibility of a one or one to many matches, while fields without an asterisk indicate a one to one match.  For example, if you select Failure Impact* as the Field Name value and you indicate that it is Equal To a specific value, the system will search for any failure events that have at least that specific failure impact value. However, there may be other impact values that could also be associated with a particular failure event.
Equal To	Based on the field name you selected, select a specific value for this field.  Depending on the value that you select for the Field Name, the Single field or Range of fields will appear in a drop down list, a prompt, a date prompt, or with no controls.

Field or Control	Description
Single Value	Select this option if you select a value in the <b>Equal To</b> field and you want the search to include that one selected value.  You can also select this option if you select a blank value for the Equal To field and you want the search to include all values for the field name. For example, if you select Business Unit for the Field Name value and leave the Equal To field value blank, then the system will search for failure events associated with all business units.
Range of Values	Select this option if you selected a value for the Equal To field and want the system to search for failure events located within a specific range of values. You can specify only the <b>From Value</b> and leave the <b>To Value</b> blank and the system will search for values greater than or equal (>=) to the <b>From Value</b> . When you specify the <b>To Value</b> and leave the <b>From</b> value blank and the system will search for values equal to or less than (=<) the <b>To Value</b> .
	For example, if you select Business Unit as the Field Name value, and you select BU0001 as the <b>Equal To</b> value, when you click this <b>Range of Values</b> button, the <b>Equal To</b> field name changes to a <b>From Value</b> and a <b>To Value</b> field. If you already selected BU0001 as the From Value, you can select from the list of business units, such as BU0001, BU0002, BU0003, BU0004, BU0005, and BU0006, and select BU0004 for the <b>To Value</b> field. This indicates that the system will include from BU0001 to BU0004 in the search for associated failure event data when you click the Search button. You can also leave the <b>To Value</b> blank and the system will search for all business units greater than or equal to the <b>From Value</b> .
	Note: When you select a Field Name such as Asset ID as your search criteria, you must select an Asset BU before you can select a specific value for the asset ID.  You can add more than one row and select different search criteria to narrow your search for failure events.
Search	Click this button to search for failure events based on the selected search criteria.
Reset Criteria	Click this link to reset the search criteria to its default setting.
Save/Restore Criteria	Click this link to display the Failure Analysis – Save/Restore Criteria page.
	Note: If the search criteria includes more than one row, the system includes all the rows when you restore the specified search criteria.

#### Saving and Restoring Search Criteria

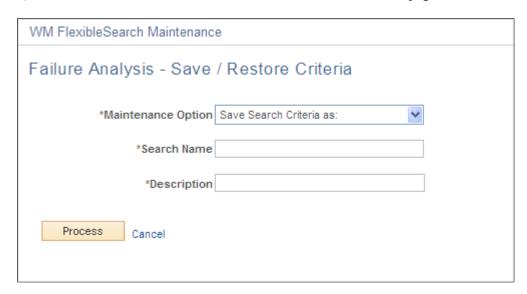
You can save current search criteria or restore a saved search by selecting the appropriate option on this page. If you restore a saved search, the search criteria will include all rows included in the search criteria.

Use the Failure Analysis – Save/Restore Criteria page (WM\_FLEXSRCH\_MAINT) to save the search criteria entered on the Failure Analysis page or select a previously saved version of the search criteria.

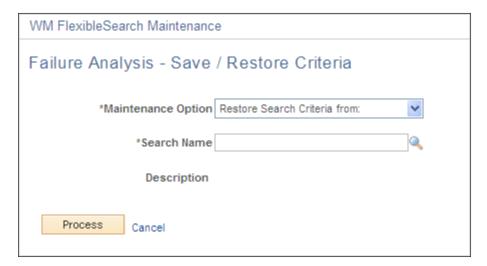
#### Navigation:

Click the Save/Restore link on the Failure Analysis page.

This example illustrates the fields and controls on the Failure Analysis - Save/Restore Criteria page (1 of 2). You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Failure Analysis - Save/Restore Criteria page (2 of 2). You can find definitions for the fields and controls later on this page.



Field or Control	Description
Maintenance Option	Select one of these options:
	Restore Search Criteria from:
	Select this option to enable the <b>Search Name</b> field.  Select the name of a previously saved search criteria. A description of this Search Name option appears as read only the Description field.
	Click the <b>Process</b> button to update the Failure Analysis page with the restored criteria.
	Save Search Criteria as:
	Select this option to enable you to enter a search name and description in the <b>Search Name</b> and <b>Description</b> fields for the search criteria that currently appears on the Failure Analysis page.
	Click the <b>Process</b> button to save the current search criteria under the name that you entered.
Cancel	Click to return to the Failure Analysis page.

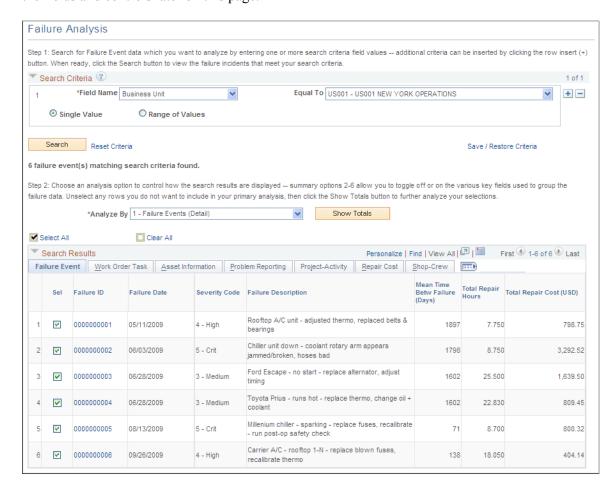
# Failure Analysis Page

After you click the Search button, the system displays the search results. You can select all or some of the search results to include in your analysis. This type of analysis is good for ad hoc queries. You can conduct a failure analysis for many different combinations of detail and summary data.

Navigation:

Click the **Search** button on the Failure Analysis page

This example illustrates the fields and controls on the Failure Analysis page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Analyze By	Click the downward arrow and select one of these values:  1 - Failure Events (Details) ID.  Select this value to display the Search Results by Failure. This is the default selection following a new search.  2 - Asset Identifier  Select this value to summarize the retrieved failure events by the asset identifier keys: AM business unit, asset ID, asset location, area ID.  3 - Asset Classification  Select this value to display the Search Results based on asset classifications.  4 - Problem Classification  Select this value to display the Search Results based on problem categories.  5 - Project-Activity ID  Select this value to display the Search Results based on project and activity IDs.  6 - Shop-Crew Assignment  Select this value to display the Search Results based on crew assignment criteria.

Field or Control	Description
Summarize By	The buttons that appear in this group box enable you to contro the columns that appear in the Search Results grid so that you can group the summary data in different ways for your analysis.
	This group box appears or does not appear depending on value that you selected in the <b>Analyze By</b> field.
	If the value you selected in the <b>Analyze By</b> field is:
	• 1 - Failure Events (Detail)
	The Summarize By group box does not appear on the page.
	• 2 - Asset Identifier
	These buttons appear in the Summarize By group box:
	AM Business Unit
	• Asset Identification
	Asset Location
	• Area ID
	If you select a green button and the button changes to a red x then that value's column does not appear in the selected searce results. In other words, you can toggle a particular key field on or off to include or exclude that field in the summarized results.
	For example, if you select the green button next to Asset Identification, a red x replaces the green button, then the Asse Identification column does not appear in the selected search results. If you select the red x next to Asset Identification and the red x is replaced with a green button, then the Asset Identification column reappears in the selected search results.
	In addition, if you select the green button for AM Business Unit and the green button for Asset Location, these buttons at each replaced by a red x, and the AM Business Unit and Asset Location columns do not appear in the selected search results
	• 3 - Asset Classification
	These field names appear with green buttons next to ther in the Summarize By group box:
	Asset Type
	Asset Subtype
	• Manufacturer
	• Model
	• 4 - Problem Classification

Field or Control	Description
	These field names appear with green buttons next to them in the Summarize By group box:
	Problem Group
	• Problem Code
	Cause Code
	• Resolution Code
	• 5 - Problem - Activity ID
	These field names appear with green buttons next to them in the Summarize By group box:
	PC Business Unit
	• Project
	• Activity
	6 - Shop-Crew Assignment
	These field names appear with green buttons next to them in the Summarize By group box:
	Crew Business Unit
	Crew Shop
	• Crew
	• Supervisor
Show Totals/Hide Totals	Once you have selected the type of analysis you want to conduct, as well as determined the summary columns (if applicable), select the <b>Show Totals</b> button to display a grid of failure data totals based on your selected search results.
	When you select the <b>Show Totals</b> button, the button name changes to <b>Hide Totals</b> . When you click the <b>Hide Totals</b> button, the grid of failure data totals is hidden and the <b>Show Totals</b> button replaces the <b>Hide Totals</b> button.

### **Analysis Totals grid - Failure Analysis Page**

The totals grid data is calculated based on your selection in the Analyze By field, selection of the Summarize By buttons (if applicable), and the number of selected rows

Navigation:

Click the **Show Totals** button to display the totals grid on the Failure Analysis page.

This example illustrates the fields and controls on the Analysis Totals grid - Failure Analysis page. You can find definitions for the fields and controls later on this page.



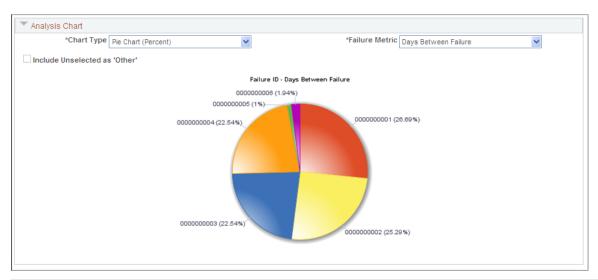
Field or Control	Description
Totals Of	This column contains these row:  • Selected Details  • Unselected Details  • All Details
Record Count	Displays the number of records included for each row value.
Failure Count	Displays the total number of failures events based on the row and the selected failure data rows.
Mean Time Betw Failure (Days) (mean time between failure)	Displays the mean number of days between failures for the Selected Details, the Deselected Details, and All Details.  This metric is based calculating the individual days between a failure, which subtracts the start date of a subsequent failure event from the start date of a prior failure event. These individual days between a failure event are summed and divided by the total number of failure events.
Mean Time to Repair (Hrs) (hours)	Displays the mean number of hours that it takes to repair the failure. This metric is based on the number of hours entered in the <b>Time to Repair</b> field on the Work Order Failure Tracking page.  A Mean Meter Units Betw Failure column will appear to the right of Mean Time to Repair, if you specified a single meter type as part of the search criteria. The column label will display Meter Type, Meter Units Betw Failure, and Meter UOM.
Mean Cost to Repair	This amount is calculated based on the Cost to Repair value entered on the Work Order Failure Tracking page for the Selected Details, the Deselected Details, and All Details.

# **Analysis Chart group box - Failure Analysis Page**

Navigation:

Click the Analysis Chart group box on the Failure Analysis page. (Scroll to the Analysis Chart group box on the Failure Analysis page.)

This example illustrates the fields and controls on the Analysis Chart group box - Failure Analysis page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Chart Type	Select one of these types of charts:  • Bar Chart  • Pie Chart (Percent)  • Stacked Bar Chart  If you select Stacked Bar Chart, in addition to Failure Metric, a second Group By field I appears, which enables you to choose the underlying attribute describing the segments or composition of the bar. A stacked bar chart may be particularly useful in highlighting lower-level relationships between various task or failure attributes and the primary failure metric.
Failure Metric	Select the type of failure metric that you want to appear on the selected chart:  • Cost to Repair  • Days Between Failures  • Failure Count  • Time to Repair  • Units Between Failure  This metric appears the search criteria included meter type.

Field or Control	Description			
Include Unselected as 'Other'	Select this check box to include the deselected data values in the chart.			
	Selecting this option displays the deselected results data as a single pie slice or bar labelled as OTHER.			

# Reviewing PeopleSoft Maintenance Management Inquiries

# **Understanding PeopleSoft Maintenance Management Inquiries**

PeopleSoft Maintenance Management provides the following online inquiries:

• Asset Maintenance History inquiry.

The asset maintenance history inquiry displays the cost of maintenance for an asset. If the asset has a parent component, you can choose to roll up the child asset component cost to the parent asset.

Asset Maintenance Cost Inquiry.

The Asset Maintenance Cost Inquiry component enables you to analyze work order and non-work order related asset maintenance costs for assets based on a specified time frame.

• Work Order History inquiry.

The Work Order History inquiry component enables you to view the estimated and actual cost of maintenance by business unit and shops. You can use this information to examine maintenance costs, plan budgets, and define cost anomalies. This inquiry is also helpful in identifying the general percent variance on the work order cost spread out over business units and shops.

Work Progress Tracking inquiry.

Work Progress Tracking component identifies which work order tasks are behind schedule. To determine if a work order task is behind schedule, the system calculates the difference between the scheduled end date and the actual end date, the scheduled start date and actual start date, both or either of those dates. This enables the users to identify which work order tasks are consistently behind schedule and why so that they can remedy the cause of delays.

Purchasing and Pegging inquiry.

Use pegging to associate specific supply, purchase requisitions, or purchase orders with work order demand. This essentially reserves the supply for that specific work order. Users can review the Purchasing and Pegging inquiry component to see if the supply is pegged and the work order to which it is pegged.

When items are in short supply, organizations peg higher priority work order demands to specific supply to ensure that those demands are satisfied. This also enables the organization to schedule work orders more accurately. The Purchasing and Pegging inquiry component also displays all of the associated requisitions and purchase orders that may exist for a given work order task.

Chargeback inquiry.

You use the Chargeback inquiry component to view costs that are generated based on work order transactions that are charged back to another general ledger business unit, department, account, and alternate account instead of the general ledger business unit that is specified in the work order business unit. The costs for labor, inventory and so on, go through PeopleSoft Travel and Expenses, PeopleSoft Inventory, PeopleSoft Purchasing, and PeopleSoft Payables and are then sent to PeopleSoft Project Costing, which calculates the chargebacks based on specific rules defined. Then the costs are sent to the general ledger business unit, department, accounts, and alternate accounts, which is different from the general ledger business unit specified in the work order business unit.

#### See Work Order Task Accounting.

Capitalization inquiry.

The Capitalization inquiry component enables you to view costs associated with maintenance and repairs in PeopleSoft Maintenance Management. Because the costs of these repairs can affect the value of the asset, you can set up rules in PeopleSoft Maintenance Management that flags specific assets so that PeopleSoft Project Costing applies certain rate types that look at the work order costs used to capitalize the asset. PeopleSoft Project Costing also generates capitalization costs.

Crew Schedule Inquiry.

Using the Crew Schedule inquiry component users can view crew schedules using a date range. This inquiry enables users to search and view crew schedules across schedule periods, including all future and past schedules for a given crew. Users can drill down to the work order component to review parts availability, the requirements for each resource, and the work order resource schedules in detail.

• Failure Analysis Inquiry.

Failure Analysis inquiry provides users the capability to select, group and analyze stored failure tracking data for a variety of useful metrics. Users can discover trends and relationships affecting future failure occurrence, asset reliability, and maintenance and repair effectiveness measures.

See Understanding Work Order Failure Tracking and Analysis.

# **Using the Asset Maintenance History Inquiry**

This section discusses how to review asset maintenance history.

### **Pages Used to Review Asset Maintenance History**

Page Name	Definition Name	Usage	
Asset Search Page	WM_CINQ_ASSET	Search for assets associated with work orders.	
Asset Maintenance History - Summary Page	WM_CINQ_ASSET_R1	Review the maintenance history of assets associated with work orders.	

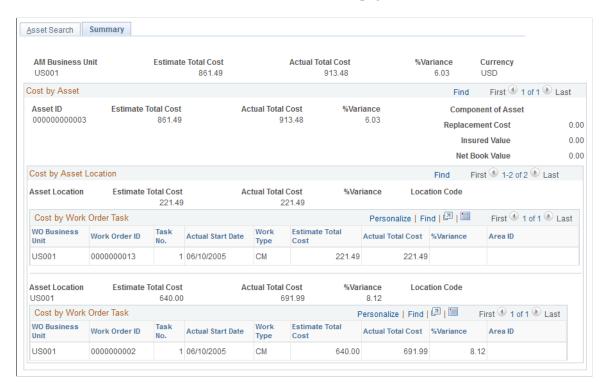
### **Asset Maintenance History - Summary Page**

Use the Asset Maintenance History - Summary page (WM\_CINQ\_ASSET\_R1) to review the maintenance history of assets associated with work orders.

Navigation:

#### Maintenance Management > Inquiries and Reports > Asset Maintenance History > Summary

This example illustrates the fields and controls on the Asset Maintenance History - Summary page. You can find definitions for the fields and controls later on this page.



#### **Asset Search**

Use the Asset Search page to search for a single asset using the **Asset Search** link or a group of assets based on the search criteria that you enter on this page.

#### Summary

The summary page displays the data associated with your search criteria. Whether you search for a single asset or a group of assets, the system displays a list consisting of a summary of the estimated total cost of repairs and maintenance associated with a work order ID and the total actual cost of maintenance and repairs associated with the asset. You can also view the replacement cost, insured value, and the net book value of that asset.

You can manually add maintenance entries in PeopleSoft Asset Management. The manual entries are not related to PeopleSoft Maintenance Management because a work order is not created for this maintenance. The overall cost includes all costs associated for both the entries that Maintenance manually entered in PeopleSoft Asset Management, and any work orders created for the asset in PeopleSoft Maintenance Management.

# **Performing an Asset Maintenance Cost Analysis**

This section presents an overview of the Asset Maintenance Cost Inquiry and discusses how to set up for asset maintenance cost analysis reporting, run the Maintenance Cost Data Extraction Process (WM\_ASSETCOST), select assets for maintenance cost analysis, review maintenance costs by specified dimensions, chart maintenance costs by specified dimension or period, review maintenance costs by asset, chart maintenance cost data by asset or period, and review asset maintenance costs by work order.

### Pages Used to Analyze the Asset Maintenance Cost Inquiry

Page Name	Definition Name	Usage
Maintenance Management Reporting Setup Page	WM_REPORTING_SETUP	Specify the monthly, quarterly, and yearly summary calendars, which the system uses when it runs the Maintenance Cost Data Extraction Process (WM_ASSETCOST) and enables you to view the Asset Maintenance Cost Inquiry
Maintenance Cost Data Extraction Process Page	WM_COST_RUN_OPT	Extracts and summarizes all of the asset cost history data to use to perform an online asset cost maintenance analysis for work order and non-work order related assets the first time it is run. Subsequent runs should extract only new cost history or recently updated cost history.
Asset Selection	WM_ASSET_COST_SRCH	Search for assets to analyze using the Asset Maintenance Cost Inquiry.
Asset Search	WM_ASSET_SRCH_SEC	Identify the assets that you want to include in an asset cost group.
Cost Analysis Page	WM_COST_ANALYSIS	Search for the assets that you want to display and analyze on this page based on one or more specific dimensions.
Statistics	ASSET_MAINT_02	Enter estimated and actual costs for a selected asset.
Asset Cost by Meter Type	WM_COST_BY_MTRTYPE	Review the total actual cost, total usage, and cost per unit of usage for each meter type associated with an asset.
Maintenance Cost by Asset	WM_COST_BY_ASSET	Review the work order and non-work order related maintenance costs for a specific asset.

Page Name	Definition Name	Usage		
Asset Information	WM_WO_ASSET_SEC	Review information associated with a selected asset.		
Asset Cost by Component	WM_COST_BY_COMP	Review the component's description and costs associated with a selected asset.		
Asset Cost by Maintenance Type	WM_COST_BY_MAINT	Review costs by maintenance type associated with the selected asset.		
Maintenance Cost by Work Order	WM_COST_BY_WO3	Review any work order costs associated with the selected asset.		

### **Asset Maintenance Cost Inquiry Overview**

Use the Asset Maintenance Cost Inquiry in PeopleSoft Maintenance Management to analyze work order and non-work order related asset maintenance costs for assets based on a specified time frame. The work order costs are based on work orders that are closed in PeopleSoft Maintenance Management and updated in the Asset Maintenance History. The non-work order costs are entered manually in the Track Service and Repairs component in PeopleSoft Asset Management. Both work order and non-work order costs are derived from the Asset Maintenance History in PeopleSoft Asset Management and comprise the overall costs in the Asset Maintenance Cost Inquiry.

You can specify an asset dimension and time frame and view the total summary maintenance costs and detail maintenance costs for the specified dimension such as asset type and subtype for an asset group or for all assets. You can also drill down from the Cost Analysis page for a selected asset cost dimension to view the individual asset costs within that dimension on the Cost by Asset page. In addition, you can drill down from the Cost by Asset page for a selected asset to view all the work order and non-work order data associated with the selected asset on the Cost by WO (work order) page.

If you only want to view the costs by asset, you can select the Cost By Asset tab, enter the appropriate search criteria and view the asset costs. If you only want to view the costs by work order, you can select the Cost By WO tab, enter the appropriate search criteria and view any work orders or non-work orders associated with one or more assets.

The Asset Maintenance Cost Analysis divides the cost per unit of usage, such as run time hours or miles driven into the maintenance cost per vehicle. This metric enables you to compare which assets are costing more or less than others to maintain. The maintenance planner can examine other factors, such as the manufacturer, the location, the region in which the asset is operated, the skill level of the maintenance technicians repairing the vehicles, the way the vehicles are operated, and more to determine various methods for lowering the cost of maintenance.

The Asset Maintenance Cost Inquiry enables you to:

- Create one or more asset cost groups and analyze the maintenance costs for assets in a specific group.
- Perform an asset search based on selected asset criteria.
- View a maintenance cost summary and detail costs of all of the assets within a specified dimensions.

- Analyze asset maintenance costs based on a various dimensions.
- Analyze asset maintenance cost per unit of usage.
- View the asset maintenance cost per unit of usage by meter type.
- View the asset maintenance cost for a selected asset.
- View the asset maintenance cost by maintenance type.
- View asset maintenance cost by work order.
- View the maintenance costs associated with child (component) assets for a selected parent asset and given time frame.

This is the component cost roll-up to the parent asset based on maintenance history and asset hierarchy structure history.

#### **Reporting Setup**

Before you can run the Maintenance Cost Data Extraction process (WM\_ASSETCOST) and view the Asset Maintenance Cost Inquiry, you must set up monthly, quarterly, and yearly summary calendars and specify these calendars on the Maintenance Management Reporting Setup component. The Maintenance Cost Data Extraction process uses this information to extract asset maintenance cost data for the Asset Maintenance Cost Inquiry. You do not change this calendar setup once you run the extraction process and summarize the data. If you change the reporting calendar, you must run the cost extraction process again to refresh all cost data.

#### **Maintenance Cost Data Extraction Process**

You run the Maintenance Cost Data Extraction process (WM\_ASSETCOST) based on how you set up the summary calendars in the Reporting Setup component. The first time that you run the Maintenance Cost Data Extraction process, it should extract and summarize all of the asset cost history data to use to perform an online asset maintenance cost analysis for work order and non-work order related assets. Ideally, any subsequent run should extract only new cost history or recently updated cost history.

The system can easily detect all newly added cost history, but cannot detect recently updated cost history. The Track Service and Repairs component in PeopleSoft Asset Management enables you to add new costs associated with an asset, as well as update work order maintenance costs that are generated by the WO Close process (WM\_CLOSE). To accommodate this restriction, when you run the Maintenance Cost Data Extraction process, you can specify the number of months of data to refresh in the subsequent run while keeping all older data in tact on the Maintenance Cost Data Extraction Process run control page. This helps to maximize the processing performance. You can also refresh all cost data, which refreshes all previously extracted cost data as if you are running the process for the first time.

When you run the process, you can select a check box to:

- Refresh the Date Sequence table by specifying the number of years into the past for the process to generate the date and populate the date sequence.
- Refresh all previously flattened asset hierarchy data.

If this data is not refreshed, the system processes the asset hierarchy that was changed since the previous run.

• Refresh all previously extracted maintenance cost data.

If you choose not to extract all of this data, you can enter the number of months of cost history data for the process to refresh.

**Note:** You should set this process to run in the background on a regular basis on the Process Scheduler Request page.

When the extraction process runs, it extracts the asset maintenance costs for both work order and non-work order maintenance for all assets including the costs associated with the components of the assets. The process:

- Calls the Generate Date Dimension process based on the request parameter.
- Calls the Flatten Asset Hierarchy Process (WM ASSETHIER).
- Extracts the asset cost information (work order, non-work order, and asset component costs) from the transaction tables.

The Asset Maintenance History records provide the costs, which are populated either by the Work Order Close process in PeopleSoft Maintenance Management or by manual user data entry on the Track Service and Repairs component in PeopleSoft Asset Management.

#### How to Determine the Cost Per Unit of Usage

Cost per unit of usage is determined based on the total maintenance cost (both work order and non-work order costs) and total usage (both work order and non-work order usage) captured during the analysis period.

Work Order Related Cost

If the cost is related to the work order, the system uses the work order task close date to determine whether to include these costs in the cost analysis. For example, if a work order task is closed on 02/02/2005 and the analysis time frame is Q2 2005 then the system will include the work order task cost.

Non-Work Order Related Cost

If the cost is non-work order related (entered manually by the user in the PeopleSoft Asset Management Track Service and Repairs component), the system uses the maintenance date associated with the cost entry in the Asset Maintenance Cost History table to determine whether to include this cost in the cost analysis.

This table describes how the unit costs are calculated. The work order related costs are based on the close date of the work order and the non-work order related costs are based on the maintenance date in the Track Service and Repairs component in PeopleSoft Asset Management.

	1/1/2006	2/15/2006	6/20/2006	7/1/2006	12/12/2006	12/31/2006	2/15/2007
Miles Usage		100	300	400	500		150
Cost (USD)		1,000.00		2,000.00			1,000.00

	1/1/2006	2/15/2006	6/20/2006	7/1/2006	12/12/2006	12/31/2006	2/15/2007
		WO Related	WO Related	Non-WO Related	Non-WO Related		WO Related
Analysis Period		Total Usage	Total Cost	Unit Cost			
2006 – Q1		100	1,000.00	10.00			
2006 – Q2		300					
2006 – Q3		400	2,000.00	5.00			
2006 – Q4		500					
2006		1300	3,000.00	2.31			
2007		150	1,000.00	6.67			

### **Cost Analysis Charts**

Based on the data you choose to analyze, you can create charts to view these costs in a graphic format. These charts include:

Cost by Analysis Dimension chart

This charts the asset maintenance costs for a specified number of specific categories that fall under the asset dimension that you select to display in the Asset Cost by Dimension grid. For example, if the dimension is asset type and subtype, you might want to display the maintenance costs of the asset types facility, hardware, and software on chart.

Total Cost by Period chart

This charts the asset maintenance costs for each period for a specified number of periods. This data is based on the specified dimension data and the periods that appear in the Asset Cost by Dimension grid.

• Estimated, Total, or Unit Cost by Asset chart.

This charts either the estimated, total, or unit cost for a selected number of assets from the Asset Cost grid.

• Estimated, Total Cost, or Unit Cost by Period chart.

This charts the estimated, total, or unit cost for a selected number of periods for assets that appear in the Asset Cost grid.

### **Maintenance Management Reporting Setup Page**

Use the Maintenance Management Reporting Setup page (WM\_REPORTING\_SETUP) to specify the monthly, quarterly, and yearly summary calendars, which the system uses when it runs the Maintenance Cost Data Extraction Process.

Navigation:

Set Up Financials/Supply Chain > Product Related > Maintenance Management > Setup > MM Reporting Setup > Maintenance Management Reporting Setup

This example illustrates the fields and controls on the Maintenance Management Reporting Setup page. You can find definitions for the fields and controls later on this page.



**Note:** Fiscal calendars are set up in the sample data and are usually set up when you set up all of your financial data.

Field or Control	Description
SetID	Enter the SetID associated with the cost analysis data that you want to analyze.
Monthly Calendar	Select the monthly fiscal calendar to apply when running the Maintenance Cost Data Extraction process.
Quarterly Calendar	Select the quarterly fiscal calendar to apply when running the Maintenance Cost Data Extraction process.
Yearly Calendar	Select the yearly fiscal calendar to apply when running the Maintenance Cost Data Extraction process.

### **Maintenance Cost Data Extraction Process Page**

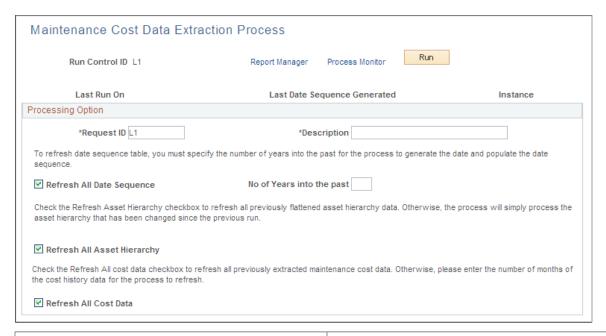
Use the Maintenance Cost Data Extraction Process page (WM\_COST\_RUN\_OPT) to extracts and summarizes all of the asset cost history data to use to perform an online asset cost maintenance analysis for work order and non-work order related assets the first time it is run.

Subsequent runs should extract only new cost history or recently updated cost history.

#### Navigation:

Maintenance Management, Work Order Management, Work Order Processing, Maintenance Cost Extraction

This example illustrates the fields and controls on the Maintenance Cost Data Extraction Process page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Last Run On	Displays the date and time that this process was last run.  If this is the first run of this process, this field is blank.
Last Date Sequence Generated	Displays the date of the last date sequence that the system processed.
Instance	Displays a process instance number after you run this process. If a second process instance number appears to the right of the Last Date Sequence Generated field, this is the process instance generated for the run prior to this current process run. In other words, this process instance number appears if the process has been run before.  You can click the <b>Process Monitor</b> link to view the status of the process on the Process Server tab. You can also review the Server List and click the Details list to review the various
	details regarding each process instance.
Request ID	Enter this ID on the Extract Maintenance Cost - Add a New Value when you add a run control ID. You can change this ID on the Maintenance Cost Data Extraction page.

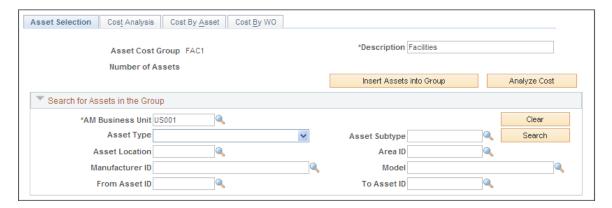
Field or Control	Description
Description	Enter the description of the <b>Request ID</b> .
Refresh All Date Sequence	Select this check box to refresh the date sequence table.
No of years into the past (number of years into the past)	Enter the number of past years that you want to include in the date sequence refresh process.
Refresh All Asset Hierarchy	Select this check box to refresh all previously flattened asset hierarchy data. Otherwise, the system processes only the asset hierarchies that were changed since the previous run.
Refresh All Cost Data	Select this check box to refresh all previously extracted maintenance cost data, or leave this check box blank to display the No of Months of Cost Data check box.
No of Months of Cost Data (number of months of cost data)	Enter the number of months of cost that you want to refresh.
Run	Click this button to run the Maintenance Cost Data Extraction process (WM_ASSETCOST).

### **Asset Maintenance Cost Inquiry - Asset Selection Page**

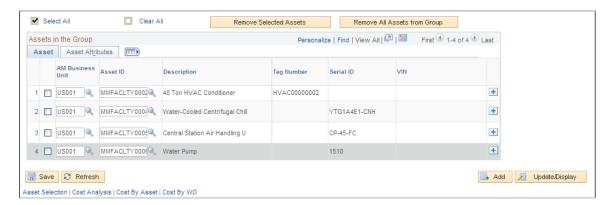
Navigation:

#### Maintenance Management > Inquiries and Reports > Asset Maintenance Cost Inquiry

This example illustrates the fields and controls on the Asset Maintenance Cost Inquiry - Asset Selection page (1 of 2). You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Asset Maintenance Cost Inquiry - Asset Selection page (2 of 2). You can find definitions for the fields and controls later on this page.



To create an Asset Cost Group on the Asset Maintenance Cost Inquiry - Add a New Value tab by entering a name for the Asset Cost Group and clicking the Add button.

Field or Control	Description
Asset Cost Group	The name of the <b>Asset Cost Group</b> that you created on the Add a New Value page appears in this field.
Description	Enter a description of this Asset Cost Group.
Number of Assets	This is the total number of assets in the group and is updated when you search for and select the assets that you want to include in this group, click the <b>Insert Assets into Group</b> button, and save the page.
Insert Assets into Group	Click this button to search for and select the assets that you want to include in this group.  The Asset Search page appears where you can select asset
	search criteria to narrow your search and click the <b>Search</b> button.
	A list of assets appear in the <b>Search Results</b> grid.
	You can also select the assets that you want to include in the asset cost group and click the <b>Copy Selected Assets</b> button.
	<b>Note:</b> If an asset is associated with an asset component hierarchy, the Hierarchy icon displays in the Search results for the asset. You can click this icon to access the Asset Component Hierarchy page and view the asset hierarchy structure.
	Note: You can add only three hundred assets to a group at a time due to the page restrictions.

Field or Control	Description
Search for Assets in the Group	Use this group box when you access an existing asset cost group and want to search for specific assets within this group. Select the asset criteria to narrow your search and click the Search button inside the group box. Only the assets within this asset cost group that meet your search criteria appear on the Assets Selected for Analysis grid.
Assets in the Group	Select the assets that you want to analyze in this grid before you click the <b>Analyze Assets</b> button.
Remove Selected Assets	Select the assets that you want to remove from the asset cost group from the Assets Selected for Analysis grid and click this button to remove those assets.
Remove All Assets from Group	Click this button to remove all of the assets in this asset cost group. A page appears asking if you are sure you want to remove all the assets in the group. If you select <b>Yes</b> , all of the assets in this asset cost group are removed.
Analyze Assets	Click this button to display the Maintenance Cost Analysis tab in order to perform the maintenance cost analysis.

See <u>Asset Search Page (WM\_ASSET\_SRCH\_SEC)</u>.

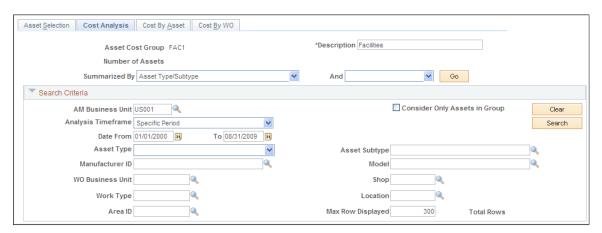
# **Cost Analysis Page**

Use the Cost Analysis page (WM\_COST\_ANALYSIS) to search for the assets that you want to display and analyze on this page based on one or more specific dimensions.

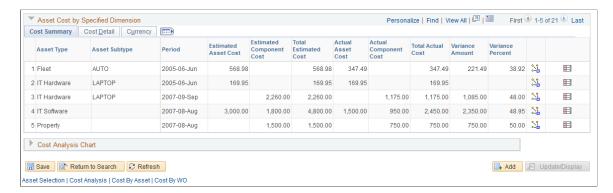
#### Navigation:

Maintenance Management, Inquiries and Reports, Asset Maintenance Cost Inquiry, select the Cost Analysis tab.

This example illustrates the fields and controls on the Asset Cost Analysis Inquiry - Cost Analysis page (1 of 4). You can find definitions for the fields and controls later on this page.



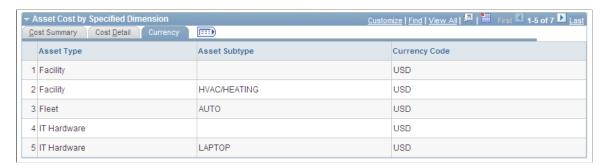
This example illustrates the fields and controls on the Asset Cost Analysis Inquiry - Cost Summary grid - Cost Analysis page (2 of 4). You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Asset Cost Analysis Inquiry - Cost Detail grid - Cost Analysis page (3 of 4). You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Asset Cost Analysis Inquiry - Currency grid - Cost Analysis page (4 of 4). You can find definitions for the fields and controls later on this page.



Field or Control	Description
Summarized By	Click the down arrow to display and select one of these options:
	Area ID
	Asset Type/Subtype
	• Location
	Manufacturer/Model
	• Shop
	The system does not perform a unit cost analysis for a shop.
	Work Order Type
	The system does not perform a unit cost analysis for a work order type.
And	Click the down arrow to display and select one of these options:
	Blank (none)
	Select the blank field and the system summarizes the data by the timeframe specified in the search criteria.
	Accounting Period
	The system summarizes the data by fiscal accounting period.
	Fiscal Quarter
	The system summarizes the data by fiscal quarter.
	Fiscal Year
	The system summarizes the data by fiscal year.
Go	Click this button after selecting the previous two dimension values.
	Any asset maintenance costs that fall under the selected criteria appear on the tabs in the <b>Asset Cost by Specified Dimension</b> group box.
	Note: Use the Search Criteria group box described below to narrow your search criteria to expand the number of assets or just assets in the selected group before you select this button.

### **Search Criteria**

Use this **Search Criteria** group box to narrow your search for all assets or just assets within this group to display in the **Asset Cost by Specified Dimension** group box.

Field or Control	Description
Consider Only Assets in Group	Select this check box to only include assets in the specified group in the search. Remove the check mark to include all assets included in the search criteria.
Analysis Timeframe	<ul> <li>Current Fiscal Quarter  Displays the From and To dates of the selected calendar's current fiscal quarter.</li> <li>Last Accounting Period  Displays the From and To dates of the selected calendar last accounting period.</li> <li>Last Fiscal Quarter  Displays the From and To dates of the selected calendar's last fiscal quarter.</li> <li>Last Fiscal Year  Displays the From and To dates of the selected calendar's last fiscal year.</li> <li>Specific Period  After selecting this option, enter the Date From and To dates for a specific period. The default Date From date that appears is the beginning of the accounting period based on the reporting monthly calendar setup, and the To date field is blank.</li> <li>Year to Date  Displays the date From as the beginning of the current fiscal year and the To date as the end date of the current fiscal year, based on the Fiscal Year defined in the system. For example, from 01/01/2008 to 12/31/2008.</li> </ul>
Max Rows Displayed (maximum rows displayed)	Enter the maximum number of rows that you want to display in the Asset Cost by Specified Dimension group box. You can enter any number you want. Refer to the example in the description of the <b>Total Rows</b> field.

Field or Control	Description
Total Rows	Displays the total number of rows that meet the search criteria. If you choose to display a subset of the total row, you specify a number in the Max Rows Displayed field. For example, if 2000 rows are returned from the search, and you entered 200 in the Max Rows Displayed field, then the Total Rows field value will be 2000, but the number of rows that display on the page will be 200. You can enter any value you want for the Max Rows Displayed field.  Note: This field and the one above it also appear on the Maintenance Cost By Asset and Maintenance Cost By Work
	Order pages.

# **Asset Cost by Specified Dimension**

Asset costs display in the grid fields of these tabs.

Field or Control	Description
Cost Summary	Click this tab to display a summary of the asset maintenance costs for assets associated with work orders and assets entered manually in PeopleSoft Asset Management. The grid fields are based on the dimensions that you specified at the top of the page. The system obtains the estimated costs from the Asset Maintenance History records. The Work Order Close (WM_CLOSE) process, which processes the scheduled costs, and manual entries in the PeopleSoft Asset Management Track Service and Repairs component update these Asset Maintenance History records. The system displays the following summarized information:
	• Period
	Displays the period based on your specifications in the summarization options and search criteria. If you do not select a value in the Summarized By <b>And</b> field, this column does not appear in the grid.
	Estimated Asset Cost
	Displays the sum of all the resource estimated costs including labor, tools, materials, purchasing, and other costs for all of the assets included in the cost dimension and period. The costs for work order related assets are derived from the scheduled cost data of closed work orders, which are updated in the Asset Maintenance History records. The estimated costs for non-work order related assets is derived from the data entered in the Track Service and Repairs component in PeopleSoft Asset Management.
	• Estimated Component Cost
	Displays the sum of all the resource estimated costs including labor, tools, materials, purchasing, and other costs for all of the component assets included in the selected cost dimension and period.
	Note: Only parent assets can have component costs.
	Total Estimated Cost
	<b>Note:</b> This is the sum of the Estimated Asset Cost and the Estimated Component Cost values.
	Actual Asset Cost
	Displays the sum of all the resource actual asset costs including labor, tools, materials, purchasing, and other

Field or Control	Description
	costs associated directly with the maintenance of the asset. If the assets within the specified summarization dimension are associated with a work order, the actual costs are derived after the work order is closed and the data is update in the Asset Maintenance History record. Non-work order actual costs are derived from values entered manually by users in the Track Service and Repairs component in PeopleSoft Asset Management.
	Actual Component Cost
	Displays the sum of all the resource actual component costs including labor, tools, materials, purchasing, and other costs associated with the component assets.
	Note: Only parent assets can have component costs.
	Total Actual Cost
	Displays the sum of the Actual Asset Cost and the Actual Component Cost.
	Variance Amount
	Displays the variance between the estimated and actual cost amounts.
	Variance Percent
	Displays the percentage of variance between the estimated and actual cost amounts.
	Unit Cost by Meter icon
	Click this icon to access the Asset Maintenance Cost by Meter Type page for a specific row. This page lists the Meter Types associated with assets in the selected dimension, and the Total Actual Costs, the Total Usage, the Cost per Unit of Usage, and the Currency for each meter type. The costs are based on the time frame selected in the Search Criteria of the Maintenance Cost Analysis page and the selected row.
	• View Cost by Asset icon.
	Click this icon to display and access the Maintenance Cost by Asset tab (page.)

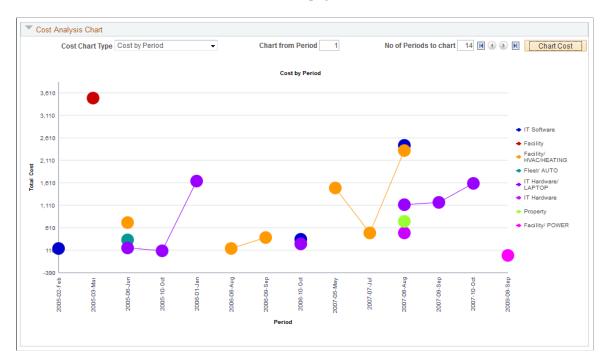
Field or Control	Description
Cost Detail	Select this tab to view a summary of the detail values based on the selected dimension and period. The fields on this tab are:  Estimated Labor Cost  Estimated Materials Cost  Estimated Purchase Cost  Estimated Tools Cost  Estimated Other Cost  Materials Cost  Purchase Cost  Tools Cost  Other Cost
Currency	Select this tab to view the currency associated with these summarized asset maintenance costs. This is the base currency derived from the Asset Management business unit and the default book, such as CORP, associated with Asset Management business unit.

# **Charting Maintenance Costs by Specified Dimension or Period Data**

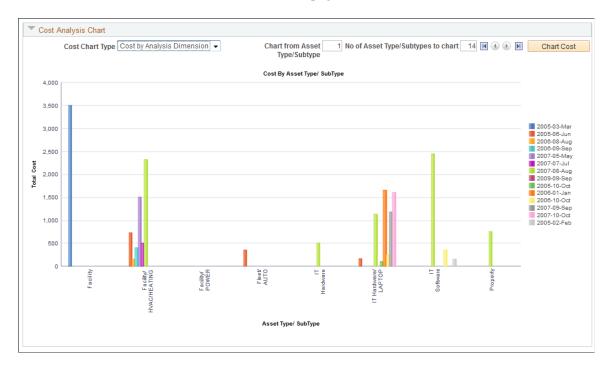
Navigation:

Click the Cost Analysis Chart group box (click the down arrow) to select options that result in the display of various charts of the summary asset maintenance cost data.

This example illustrates the fields and controls on the Cost Analysis Chart by Period. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Cost Analysis Chart by Dimension. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Cost Chart Type	Click the down arrow to identify if you want to create a <i>Cost Analysis by Dimension</i> chart or a <i>Cost by Period</i> chart.
	Select:
	Cost Analysis by Dimension
	Select to create a chart based on the data that appears on the Asset Cost by Specified Dimension grids after running the Asset Maintenance Cost process for one of these dimensions selected in the <b>Summarized By</b> field at the top of the page, which include <i>Area ID</i> , <i>Asset Type/Subtype, Location, Manufacturer/Model, Shop</i> , and <i>Work Order Type</i> .
	Cost by Period
	Select this option to create a chart based on the select Summarized By dimension listed above, such as asset type/subtype, and one of the values selected in the Analysis Timeframe field, which include Current Fiscal Quarter, Last Accounting Period, Last Fiscal Quarter, Last Fiscal Year, Specific Period and Year to Date. Dates first four options
	Important! Use the scroll arrows to the left of the Chart Cost button to view any additional Cost Dimensions or Periods depending on the selected chart type. For example, if you indicated that you wanted to chart the total costs of twelve asset type/subtypes, and only four asset types/subtypes appear on the first page of the chart, click the arrow to scroll through the remaining pages of the chart to view the total costs for the remaining eight asset type/subtypes.

# **Charting Cost by Period**

-		
Field or Control	Description	
Cost by Period	Select this option to create a chart based on the values selected for <b>Summarize By</b> fields and the <b>Analysis Timeframe</b> field. For example if you chose Asset Type/Subtype, Fiscal Quarter, and specified a period from 01/01/2008 to 12/31/2009 clicked the <b>Chart Cost</b> button,	
	After you select the <i>Cost by Period</i> option, the <b>Chart From</b> Period and <b>No of Periods to Chart</b> fields appear on the chart.	
	Do <i>not</i> enter any values in these two fields the first time you create a chart. Click the <b>Chart Cost</b> button. This will chart all data in the Asset Cost by Specific Dimension grid. The <b>No of Periods</b> to chart field will be updated with the total number of distinct periods in the grid.	
	The system displays the total costs per period for total number of periods included in the Asset Cost by Dimension data for each asset dimension. Each dimension is identified by a different color.	
	For example, you select:	
	Asset Type/Subtype for the Summarized By: field.	
	• Fiscal Quarters for the And: field.	
	Specific Period for the Analysis Timeframe field.	
	• 01/01/2000 for the <b>Date From:</b> field.	
	• 01/01/2008 for the <b>To:</b> field	
	The Go button to run the Asset Cost Maintenance Analysis process.	
	The resulting cost data appears on the Asset Cost by Specified Dimension grids with each dimension broken down by the specified period characteristics, or based on our example the cost of each Asset Type/Subtype dimension (12) per quarter over a period of seven years.	
	• Select Cost by Period as the Chart Type.	
	Click the Chart Cost button.	
	The chart displays the total cost by period for of each the dimensions.	
	In the example the first chart created displays the total cost per quarter over a period of seven years for each of the 12 asset cost/subtypes dimensions. The twelve	

Field or Control	Description
	dimensions are represented by 12 different colors of lines defined on the chart.  To narrow the amount of data that appears on the chart enter data in the Chart From Period and No of Periods to Chart fields.
Chart From Period	Enter the number of the period from which you want to start charting.  Based on our example, if you enter 1, the first period on the X axis of the chart will be Q1, 2000 for each of the asset type/subtypes.
No of Periods to Chart (number of periods to chart)	Enter the total number of periods that you want to appear on the X axis of the chart for each of the asset type/subtypes.  Based on our example, if you enter 12, the periods that display on the X axis of the chart will be:  • Q1 2000  • Q2 2000  • Q3 2000  • Q4 2000  • Q4 2001  • Q2 2001  • Q4 2001  • Q4 2002  • Q4 2002  • D4 2002  • D4 2002  This chart will display the total cost per period for the previous listed 12 periods, with each of the 12 dimensions represented by a different colored line.

# **Charting Cost Analysis by Dimension**

Field or Control	Description
Cost Analysis by Dimension	Select this value from the Chart Type dropdown list.
	When you select this option, the system will create a chart based on the data that appears on the Asset Cost by Specified Dimension grids after running the Asset Maintenance Cost process for one of the following dimensions:
	Asset Type/Subtype
	Manufacturer/Model
	Location
	Area ID
	Shop
	WO Type
	After you select Cost Analysis by Dimension, the fields Char From (cost dimension such as Asset Type/Subtype) and No of (cost dimension such as Asset Type/Subtypes appear.
	The first time you create the chart, leave these fields blank an click the <b>Chart Cost</b> button.
	Assume that you selected Asset Type/Subtypes as the cost dimension for the analysis. When you click the <b>Chart Cost</b> button, the system charts the Total Costs on the Y axis for eac asset type/subtype on the X axis that were included in the data after you ran the Asset Cost Analysis process.
	For example, after clicking the Chart Cost button for the asset type/subtype dimension, the chart displays the following asset type/subtypes on the X axis of the chart.
	Facility
	Facility/HVAC Heating
	Fleet/Auto
	Fleet/Truck
	IT Hardware
	IT Hardware/ Laptop
	IT Software
	Property

Field or Control	Description
	Property/Building
	Equipment
	Equipment/Network
	Machinery
	The amount of data in a chart containing a large number of asset type/subtypes may difficult to read. To narrow the number of asset type/subtypes that you want to appear on the chart and make it easier to read, you now enter numbers in the additional fields that appear on the chart.
Chart From (Cost Dimension)	Enter the number of the cost dimension from which to start charting.
	The field name that displays is based on the cost dimension value that was selected for the analysis. For our example, the field name appears as <b>Chart From Asset Type/Subtype</b>
	Enter the number of asset type/subtypes you want to chart from based on the total number that appeared on the first chart you created.
	In the example twelve asset types/subtypes appeared on the first chart that was run. Now it is required to start the next chart from IT Hardware, which is the fifth asset type/subtype in the X axis of the original chart. Therefore, enter 5 in the Chart From Asset Type/Subtype field.
	Note: The cost dimension (e.g. Asset Type/Subtype, Location, etc.) will be in alphabetical order on the X-Axis of the chart. This field indicates the Nth cost dimension from which the chart will start.

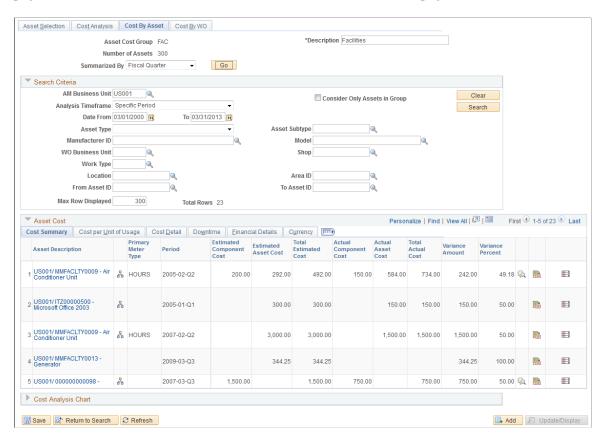
Field or Control	Description
No of (Cost Dimensions) (number of cost dimensions)	Continuing with our example, this field name appears as <b>No of Type/Subtypes.</b>
	Enter the number of asset type/subtypes that you want to view on the X axis of your chart based on the number you entered in the <b>Chart From Asset Type/Subtype</b> field.
	Based on the example, assume that it is necessary to chart the total costs for the asset type/subtypes: IT Hardware, IT Hardware/Laptop, IT Software. Since 5 was entered in the previous field to start counting from, enter 3 in this field.
	Click the <b>Chart Cost</b> button again, the chart displays the total costs for IT Hardware as the first value on the X axis, then the total costs for IT Hardware/Laptop as the next value on the X axis, and the total costs for IT Software as the final value on the X axis.
	Important! If your data includes a large number of cost dimensions (for example, 30 asset type/subtypes), you can click the arrows to the left of the Chart Cost button to view all of the charted data.
Chart Cost	Click the <b>Chart Cost</b> button to display the chart based on the selected and entered criteria such as chart type, chart from period/dimension and more.
	Important! Use the scroll arrows to the left of the Chart Cost button to view any additional Cost Dimensions or Periods depending on the selected chart type. For example, if you indicated that you wanted to chart the total costs of twelve asset type/subtypes, and only four asset types/subtypes appear on the first page of the chart, click the arrow to scroll through the remaining pages of the chart to view the total costs for the remaining eight asset type/subtypes.

# **Costs by Asset Page**

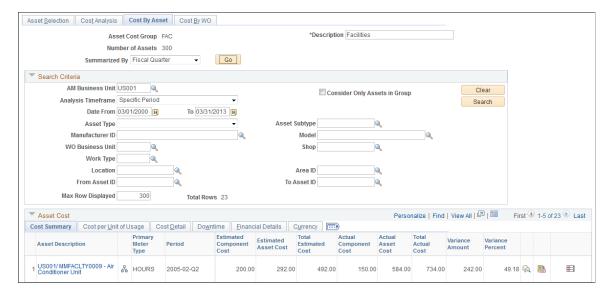
Navigation:

Maintenance Management > Inquiries and Reports > Asset Maintenance Cost Inquiry, select the Cost by Asset tab; or drill down by clicking the View Cost by Asset icon for a selected dimension on the Cost Analysis tab.

This example illustrates the fields and controls on the Select Cost by Asset tab to display Cost By Asset page. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Select Asset Cost by Specified Dimension Row to access the Cost By Asset page. You can find definitions for the fields and controls later on this page.



### **Selecting the Cost By Asset Tab**

When you select the Cost by Asset tab to access the Cost By Asset page, you can search for an view the costs of multiple assets either within the asset cost group, specify a subset of assets within the asset cost group, or include assets outside the group. Selecting this tab enables you manipulate the search criteria

according to your specifications. or for all assets in the system. Setting up a subset of assets enables you can to perform a more detailed side-by-side analysis using the subsequent data and charting capabilities.

#### Selecting the View Costs by Asset Icon for a Row on the Cost Analysis Page

Field or Control	Description
	Click the View Cost by Asset icon for a row in the Asset Cost by Specified Dimension grid on the Cost by Analysis tab. The asset cost data for the selected row appears on the Cost by Asset page as display-only. You can not modify this information.
	When you click the View Cost By Asset icon for a specific row in the Asset Cost by Dimension grid on the Cost Analysis page, the Cost By Asset page displays assets in the Asset Cost grid based on the criteria that you originally specified for that row on the Cost Analysis page. You cannot modify the search criteria on the Cost By Asset page. The only assets that appear in the Asset Cost grid are the assets that fall within the dimensions that you specified on the Cost Analysis search page. This presents a much narrower range of assets to analyze and chart.
	For example, if you analyze the cost by asset type and subtype and select a row where the asset type and subtype is Fleet/AUTO and the period is April, 2003-04, when you click the Maintenance Cost by Asset icon to drill down to the asset level view, only assets and cost data belonging to the Fleet/AUTO asset type and subtype and fall within the cost for period April, 2003-04 appear on the Maintenance Cost by Asset page.

### **Reviewing the Cost by Asset Page**

Whether you access the Cost By Asset page by selecting the Cost By Asset tab or clicking the View Cost by Asset icon, an Asset Cost grid appears on the page with these tabs.

Field or Control	Description
Cost Summary	This tab displays the summarized estimated, total estimated, actual, total actual costs, along with the variance for each asset that displays in the grid. If you selected the Cost By Asset tab, these costs will be summarized based on the specification you selected on this page. If you selected the View Cost by Asset icon, these costs will be summarized based on the dimensions that you specified on the Cost Analysis page.
	In addition, you can:
	Click each asset's link in the grid to view the Asset     Information page, which describes the basic information about the asset.
	Click the View Cost by Maintenance Type icon for each asset's row and access the Asset Cost by Maintenance Type page. This page the displays Cost Summary, Cost Detail, Downtime, and Currency tabs for each maintenance type associated with the selected asset in the specified time frame.
	Click the View Cost by Work Order icon for each asset's row to display the Cost By WO (work order) tab for the work order and work order tasks associated with the selected asset only.
	The Cost By WO tab displays a WO (work order) Task Cost grid lists each work order and work order task associated with the selected asset during the specified time frame. This gird displays the work order information related to the selected asset on Cost Summary, Cost Detail, Downtime, Currency, and Full Description tabs.
	You can click the <b>Work Order ID</b> link to view the specific work order and its tasks. You can also click the <b>Asset Description</b> link to access the Asset Information page, which contains a detailed description of the asset along with other asset information.
Cost by Unit of Usage tab	Click this tab to display the cost by unit of usage if the asset is associated with a meter. If the asset is associated with an meter, you can click the <b>Unit Cost by Meter Type</b> icon to display the Asset Cost by Meter Type page.
	The Asset Cost by Meter Type page lists each type of meter associated with the specified asset based on the selected criteria and the total actual cost, total usage, unit of usage, and the cost per unit of usage for each meter.

Field or Control	Description
Cost Detail tab	Click this tab to display the estimated and actual labor, materials, purchases, tools, and other costs associated with this asset.
Downtime tab	Click this tab to display the estimated and actual downtime entered for this asset based on the specified time frame.
Financial Details tab	Click this tab to display the replacement costs, net book value and insured value of each asset.
Currency tab	Click this tab to display the currency code that applies to each asset.

# **Cost By Asset Page**

Use the Maintenance Cost by Asset page (WM\_COST\_BY\_ASSET) to review the work order and non-work order related maintenance costs for a specific asset.

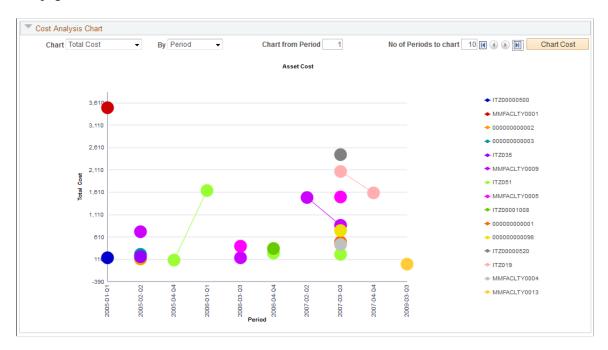
Navigation:

On the Cost By Asset page (tab), click the Cost Analysis Chart arrow.

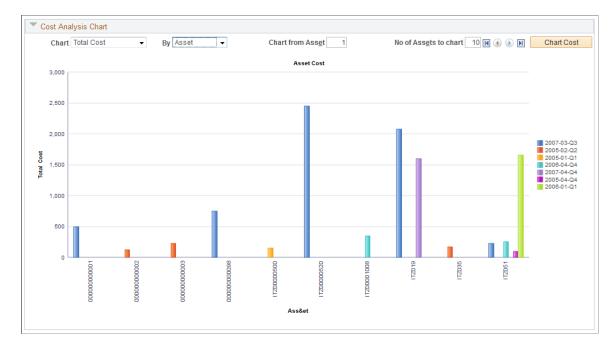
#### Navigation:

- Maintenance Management, Inquiries and Reports, Asset Maintenance Cost Inquiry, select the Maintenance Cost by Asset tab.
- Click the Maintenance Cost by Asset icon for a selected row on the Maintenance Cost Analysis page for an asset.

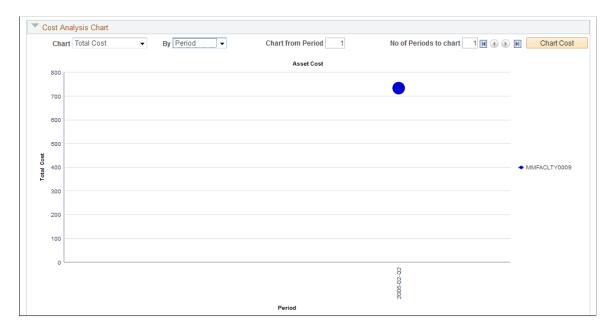
This example illustrates the fields and controls on the Cost Analysis Chart - Total Cost by Period chart based on selection of the Cost by Asset tab. You can find definitions for the fields and controls later on this page.



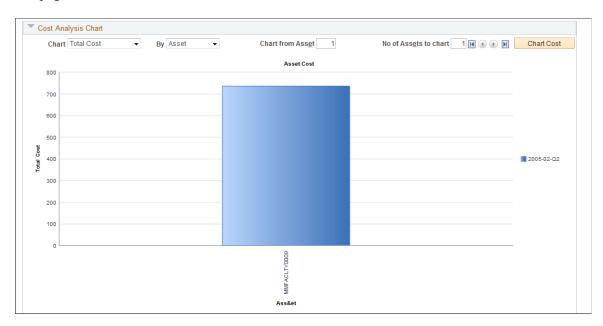
This example illustrates the fields and controls on the Cost Analysis Chart - Total Cost by Asset chart based on selection of the Cost By Asset Tab. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Cost Analysis Chart - Total Cost by Period chart based on selection of View Cost by Asset icon. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Cost Analysis Chart - Total Cost by Asset chart based on selection of View Cost by Asset icon. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Chart	<ul> <li>These field determine the Y axis of the chart. Select one of these values:</li> <li>Est Cost (estimated cost)</li> <li>Displays the estimated costs for one or more assets depending on the number of assets listed in the Asset Cost grids based on your specifications in the Summarized By field and the Search Criteria on the Maintenance Cost by Asset page and running the Asset Maintenance Cost Analysis process.</li> <li>Total Cost</li> <li>Displays the total costs for one or more assets depending on the number of assets listed in the Asset Cost grids based on your specifications in the Summarized By field and the Search Criteria on the Maintenance Cost by Asset page and running the Asset Maintenance Cost Analysis process.</li> <li>Unit Cost</li> <li>Displays the unit cost for one or more assets depending on the number of assets listed in the Asset Cost grids based on your specifications in the Summarized By field and the Search Criteria on the Maintenance Cost by Asset page and running the Asset Maintenance Cost Analysis process.</li> </ul>
Ву	These fields determine the X axis of the chart. Select one of these values.  • Asset  After selecting one of the values listed previously for the Chart: field, when you select this value and click the Chart Cost button, a chart displays either the estimated cost, total cost, or unit cost for each asset listed in the Asset Cost grids. The assets are all listed in alphabetical order on the X axis.  • Period  After selecting one of the values listed previously for the Chart: field, when you select this value and click the Chart Cost button, a chart displays either the estimated cost, total cost, or unit cost per period for each asset listed in the Asset Cost grids.

## **Charting Estimated, Total, or Unit Costs by Asset**

If you selected estimated, total, or unit cost and *asset* as the values to chart by, you should click the Chart Cost button to display the costs for all of the assets listed in the Asset Cost grids. This helps you determine the value that you want to enter in these fields:

Field or Control	Description
Chart from Asset	Enter the number of the asset from which you want to start charting the data.
	For example, if ten assets appeared in the first chart that you ran and you wanted to view the chart starting with the 3rd asset, you enter a 3 in this field. The chart will display with the third asset appearing on the X axis in the first position.
No of Assets to chart	Enter the number of assets to chart.
	For example, if ten assets appeared in the first chart that you ran and you only want to view 5 of them on the chart, then you enter 5 in this field. The chart will display five assets starting with the asset number you indicated in the <b>Chart from Asset</b> field. Based on our example, the chart will display the estimated, total, or unit costs (depending on your selection) for assets 3, 4, 5, 6, and 7.
Chart Cost	Click this button to display the charted asset cost data.

## Charting Estimated, Total, or Unit Cost by Period

If you selected estimated, total, or unit cost and period as the values to chart by, you should click the Chart Cost button to display the costs for all periods listed for the assets in the Asset Cost grids. This helps you determine the value that you want to enter in these fields:

Field or Control	Description
Chart from Period	Enter the period number from which you want to start charting the data.
	For example, if you select Fiscal Year for the Summarized By field, Specified for the Timeframe Analysis field, 01/01/2000 for the <b>Date From:</b> field and 01/01/2008 for the To: field, when you run the Asset Maintenance Cost Analysis process (select the <b>Go</b> button), the system will display asset cost data for eight fiscal years for each asset in the Asset Cost grids.
	Fiscal Year for the Summarized By field.
	Specified for the Timeframe Analysis field.
	• 01/01/2000 for the <b>Date From:</b> field.
	• 01/01/2008 for the <b>To:</b> field.
	Click the Go button to run the Asset Maintenance Cost Analysis process.
	The system displays cost data for each asset for eight fiscal years.
	If you enter 4 as the period to chart from, the 4th year (2003 — 2004) will appear as the first period on the X axis of the chart.
No of Periods to chart (number of periods chart)	Enter the number of periods to chart. This value will depend on the timeframe that you chose on the Maintenance Cost Analysis page.
	Continuing with our example, if the data that appeared in Asset Cost grids was eight fiscal years, when you enter 4 into this field and click the <b>Chart Cost</b> button, the chart will display the fiscal years 2003, 2004, 2005, 2006, and 2007 on the X axis of the chart. The Y axis of the chart will be the Estimated Cost, Total Cost, or Unit Cost depending on the value you selected in the Chart: field. Each asset's line is color coded on the chart.
Chart Cost	Click this button to display the charted asset cost data.

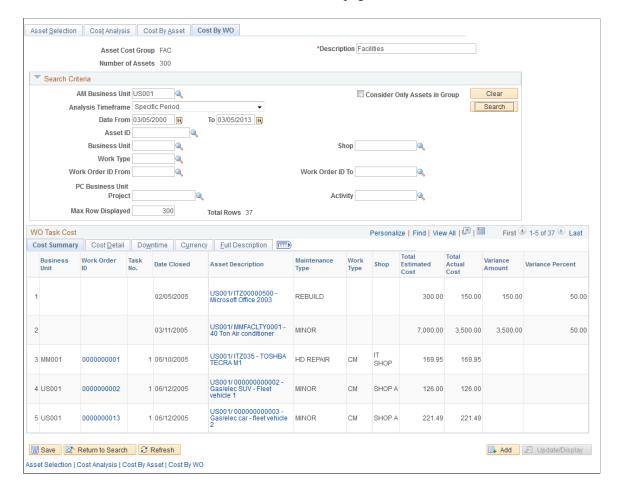
# Cost By WO (work order) Page

Use the Maintenance Cost by Work Order page (WM\_COST\_BY\_WO3) to review any work order costs associated with the selected asset.

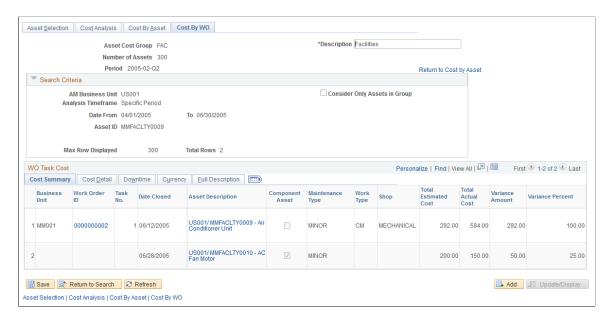
Navigation:

- Maintenance Management, Inquiries and Reports, Asset Maintenance Cost Inquiry, select the Maintenance Cost by Work Order tab.
- Click the View Cost by Work Order icon for a selected asset row.

This example illustrates the fields and controls on the Cost By Work Order page - tab selection. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Cost By Work Order page - View Cost by Work Order icon selection. You can find definitions for the fields and controls later on this page.



You can view work order and work order task information associated with one or more assets, depending how you access the page.

#### Selecting the Cost by Work Order Tab

Select the Maintenance Costs by Work Order tab to access the page. There may be times that you are only interested in viewing the work order costs associated with all assets within the specified group or based on all assets in the system based on specific search criteria. You indicate whether you want to consider assets in the group or all assets and enter the appropriate search criteria to display all work orders and non-workorder associated with assets that fall within your search criteria. The costs are derived from the asset maintenance history records, which are populated by either the Work Order Close process or by users, who enter the data manually in the Track Service and Repairs component in PeopleSoft Asset Management.

# Clicking the View Cost by Work Order Icon to Access the Cost by Work Order Page

Field or Control	Description
View Cost by Work Order	Click this View Cost by Work Order icon in an asset's row on the Cost by Asset, Asset Cost, Cost Summary tab to display the Cost by WO (work order) page. When you access this page using the icon, the Search Criteria group box information is display-only. This information displays the specified dimensions and information that you selected on the Cost Analysis page.

Field or Control	Description
VO Task Cost	This group box displays a list of the work order and non-work order costs associated with a selected asset. It contains these tabs:
	Cost Summary tab.
	Business Unit
	Displays the work order business unit.
	Note: If this is a non-work order asset cost, this field is blank.
	Work Order ID (work order identification)
	Displays the work order ID associated with the
	<b>Note:</b> If this is a non-work order asset cost, this fie is blank.
	Task No (task number)
	Displays the work order task number associated wi the asset.
	<b>Note:</b> If this is a non-work order asset cost, this fie is blank.
	• Date Closed
	Displays the date that the work order associated wing this asset was closed. This information derived from the Asset Maintenance History records, which were updated when the work order was closed.
	The date that appears for non-work order related assets is derived from the maintenance date as entered in the Track Service and Repairs component of the PeopleSoft Asset Management.
	• Asset Description
	Click this link to access the Asset Information page which describes the asset.
	Component Asset
	Displays as selected if the asset associated with the work order or non-work order related asset is part or

Field or Control	Description
	an asset hierarchy. If the check box is blank, the asset is not part of an asset hierarchy.  Note: This check box will not appear in the regular
	mode. This appears only when you drill down from the Maintenance Cost by Asset page.  • Maintenance Type, Work Type, Shop
	Displays these values which are associated with the work order and are required to create a work order.
	Total Estimated Cost
	Displays the total estimated costs (labor, materials, purchase, and tool) derived from the Requirements page of the work order associated with the asset.
	Total Actual Cost
	Displays the total actual work order costs after the work order is closed and the costs are updated in the Maintenance Cost History record in PeopleSoft Asset Management. Non-work order actual costs are derived from values entered by the user in the Track Service and Repairs component in PeopleSoft Asset Management.
	Variance Amount, Variance Percent
	Displays the difference between the estimated and actual costs along and the estimated cost divided by the actual cost to determine the percentage of variance.
	Cost Detail tab.
	Displays the estimated and actual labor, material, purchase, tool cost details associated with a work order task, along with the sum of these costs.
	Users enters this data in the Track Service and Repairs component in PeopleSoft Asset Management for non-work order related assets.
	Downtime tab.
	Displays the estimated and actual time an asset was down for a work order. The system derives this data from the downtime that you enter for an asset in the work order, or

Field or Control	Description
	from downtime entered by a user in the Track Service and Repairs component in PeopleSoft Asset Management.
	Currency tab
	Lists the currency code associated with the asset in Asset Management for both work order and non-work order asset costs.
	Full Description tab.
	Displays the complete description as it appears in the work order header and in each work order task.

# **Reviewing the Work Order Task Cost Grid**

Field or Control	Description
WO Task Cost	This group box displays a list of the work order and non-work order costs associated with a selected asset. It contains these tabs:
	Cost Summary tab.
	Business Unit
	Displays the work order business unit.
	Note: If this is a non-work order asset cost, this field is blank.
	Work Order ID (work order identification)
	Displays the work order ID associated with the
	Note: If this is a non-work order asset cost, this field is blank.
	Task No (task number)
	Displays the work order task number associated wi the asset.
	<b>Note:</b> If this is a non-work order asset cost, this fie is blank.
	• Date Closed
	Displays the date that the work order associated wire this asset was closed. This information derived from the Asset Maintenance History records, which were updated when the work order was closed.
	The date that appears for non-work order related assets is derived from the maintenance date as entered in the Track Service and Repairs componer of the PeopleSoft Asset Management.
	Asset Description
	Click this link to access the Asset Information page which describes the asset.
	Component Asset

field or Control	Description
	Displays as selected if the asset associated with the work order or non-work order related asset is part of an asset hierarchy. If the check box is blank, the asset is not part of an asset hierarchy.
	Note: This check box will not appear in the regular mode. This appears only when you drill down from the Maintenance Cost by Asset page.
	Maintenance Type, Work Type, Shop
	Displays these values which are associated with the work order and are required to create a work order.
	Total Estimated Cost
	Displays the total estimated costs (labor, materials, purchase, and tool) derived from the Requirements page of the work order associated with the asset.
	Total Actual Cost
	Displays the total actual work order costs after the work order is closed and the costs are updated in the Maintenance Cost History record in PeopleSoft Asset Management. Non-work order actual costs are derived from values entered by the user in the Track Service and Repairs component in PeopleSoft Asset Management.
	Variance Amount, Variance Percent
	Displays the difference between the estimated and actual costs along and the estimated cost divided by the actual cost to determine the percentage of variance.
	Cost Detail tab.
	Displays the estimated and actual labor, material, purchase, tool cost details associated with a work order task, along with the sum of these costs.
	Users enters this data in the Track Service and Repairs component in PeopleSoft Asset Management for non-work order related assets.
	Downtime tab.
	Displays the estimated and actual time an asset was down for a work order. The system derives this data from the

Field or Control	Description	
	downtime that you enter for an asset in the work order, or from downtime entered by a user in the Track Service and Repairs component in PeopleSoft Asset Management.	
	Currency tab	
	Lists the currency code associated with the asset in Asset Management for both work order and non-work order asset costs.	
	Full Description tab.	
	Displays the complete description as it appears in the work order header and in each work order task.	

# **Using the Work Order History Inquiry**

This section discusses how to review the work order history inquiry.

# Pages Used to Review the Work Order History Inquiry

Page Name	Definition Name	Usage
Work Order Search Page	WM_CINQ_WO	Set up search criteria and search for work order history information.
Work Order History - Summary Page	WM_CINQ_WO_R1	Review the summary cost information for one or more work orders.

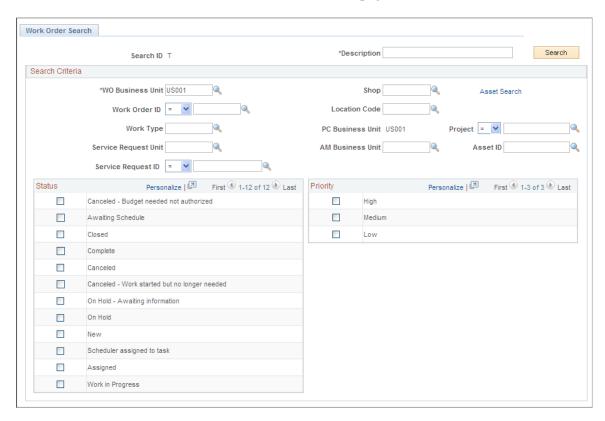
## **Work Order History - Summary Page**

Use the Work Order History - Summary page (WM\_CINQ\_WO\_R1) to review the summary cost information for one or more work orders.

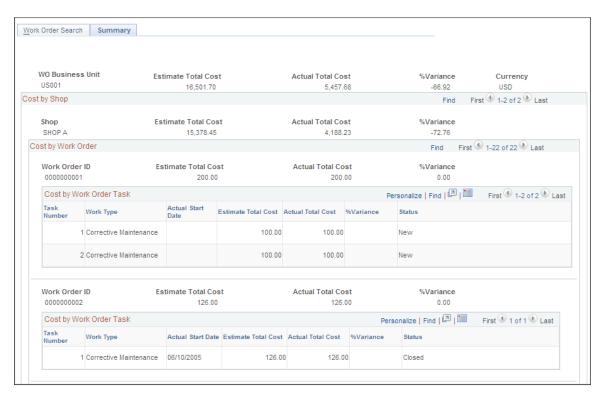
Navigation:

Maintenance Management > Inquiries and Reports > Work Order History > Summary

This example illustrates the fields and controls on the Work Order History - Work Order Search page. You can find definitions for the fields and controls later on this page.



This example illustrates the fields and controls on the Work Order History - Summary page. You can find definitions for the fields and controls later on this page.



#### Work Order Search

You can identify a specific work order ID to search for or enter search criteria based on a work order business unit, which includes the capability to search for work orders associated with a specific project or a specific asset. You can also search for work orders based on the work order status and priority.

#### Summary

After you complete the search, the top of the page displays a sum total of the estimated costs, actual costs, and the percentage of variance between the two for all work orders listed on the page.

Following these totals, the page displays a breakdown of the total estimated and actual costs and the variance for each work order, and the total estimated and actual costs and variance for each work order task on the page. The start date and status also appear for each task. The page displays the work orders based on the shop with which they are associated.

# **Using the Work Progress Tracking Inquiry**

These topics discuss how to track work progress.

## **Pages Used to Track Work Progress**

Page Name	Definition Name	Usage
Work Progress Tracking Page	WM_WOE_TWP	Review work order progress.
(Resource Name) Workbench	WM_WOTSK_WORKBENCH	Search for and review work order tasks assigned to a specific technician.
Work Order Details	WM_WOE_DETAIL	Displays the work order header and task details.
Schedules	WM_WO_TASK_SCHED	Review the details of the selected task in the work order.

## **Work Progress Tracking Page**

Use the Work Progress Tracking page (WM WOE TWP) to review work order progress.

Navigation:

Maintenance Management > Inquiries and Reports > Work Progress Tracking

Field or Control	Description
Task Search View	Select a view that you previously created to narrow your search for work order tasks that are behind schedule.
View	Click this button to access the Task Search page where you specify the criteria used to search for certain work order tasks. On this page, you can also select the basis date to determine whether tasks are considered behind schedule for the inquiry based on the scheduled start date (the task started late), scheduled end date (the task ended late), both or either of those dates. When you save this search page and name the view, it becomes available for selection in the <b>Task Search View</b> drop-down list. This eliminates the need to specify the search criteria multiple times.  See <u>Work Order Workbench - Task Search Page</u> .

#### Results

When you click the **Search** button, a summary of the results of the search appear in the Results group box.

Field or Control	Description
Total	Displays the total number of work order tasks that were considered based on the search.
Workbench	Click this link to access the Work Order Workbench and view a list of all the tasks returned by the search.
Total Behind Schedule	Displays the total number of the work order tasks in the list and that are thus behind schedule. Only those tasks that are behind schedule are listed.
Percent behind	Displays the percentage of the considered tasks that are behind schedule for the given search.

#### **Tasks Behind Schedule**

Lists the tasks that are behind schedule based on your search.

• Select the **Details** tab to view work order ID, work order task number, the scheduled end date, the actual end date for the task, and the number of end days each task is behind.

If the task has not ended, the actual end date is blank, and the end days behind is the difference between the scheduled end date and the current date. This same logic applies if you chose the scheduled start date as your basis date. In that case, the actual start date or current date is used in the days behind calculation.

Click the **Work Order ID** link to display the Work Order Details page, which consists of the work order header details associated with the selected task, any work order header notes, and a list of all of the tasks that are associated with the work order. A description of each task, the task's status, and any asset information appears in the Task Details grid. The scheduled start and end dates and times of each task appears in Task Dates grid.

You can also click the **Task** number link on in the Details grid to access the actual task in the Schedules page of the work order.

• Select the Details 2 tab to view additional details about each task, including the shop ID, scheduler's name, specific asset information, and project information associated with the work order task.

# **Using the Work Order Procurement Inquiry**

This section discusses how to review the Pegging and Purchasing Inquiry.

## Pages Used to Review the Work Order Procurement Inquiry

Page Name	Definition Name	Usage
Work Order Procurement Inquiry Page	WM_WO_PO_INQ	Review any quantities pegged for the work order using purchase orders and requisitions.

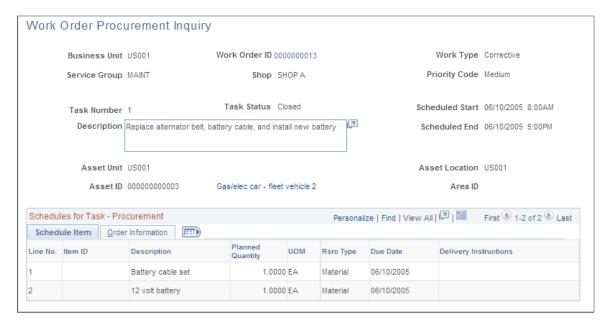
## **Work Order Procurement Inquiry Page**

Use the Work Order Procurement Inquiry page (WM\_WO\_PO\_INQ) to review any quantities pegged for the work order using purchase orders and requisitions.

Navigation:

Maintenance Management > Inquiries and Reports > Purchasing and Pegging Inquiry

This example illustrates the fields and controls on the Work Order Procurement Inquiry page. You can find definitions for the fields and controls later on this page.



The Work Order Procurement Inquiry provides a view into any requisition and purchase order transactions that are either created using a work order or created in PeopleSoft Purchasing and tied back from the requisition or purchase order to a work order. You can select a specific work order and task on the Work Order Procurement Inquiry search page. The work order header information and the work order task number and description appear at the top of the Work Order Procurement Inquiry page. The Schedules for Task - Procurement grid lists each Scheduled Purchase/On-Hand resource item for the work order task in the first grid tab, and the corresponding Purchasing requisition or purchase order information in the second grid tab.

Field or Control	Description
Business Unit	Identifies the business unit associated with the purchase order created.
Scheduled Start and Scheduled End	Displays the scheduled start date and the end date for the work order.

#### Schedule Item tab

Field or Control	Description
Item ID	Displays the item ID for each item on the work order task.
Description	Displays the description of the item for the work order task.

Field or Control	Description
Planned Quantity	Displays the quantity of the item that you want to purchase or is on hand.
UOM (unit of measure)	Displays the UOM of the item selected.
RSRC Type (resource type)	Displays the type of the resource item. The options are Material, Labor, or Tool.
Due Date	Displays the date the quantity is needed for the work order task.
Delivery Instructions	Displays the delivery instructions for PeopleSoft Inventory to know where and how you want to obtain the selected item for the work order task.

#### **Order Information tab**

Field or Control	Description
Order	Displays the purchase order ID.
Line/Sched/Distrib	Identifies the purchase order line number, the purchase order schedule associated with the line number and the distribution line number for the purchase order respectively.
Sched Date (schedule date)	Displays the date of the schedule.
Peg Status	Displays the pegging status. The options are: Open, Not Pegged, Completed or Canceled.
Qty Available (quantity available)	Indicates the quantity available that is requested for the work order.
Pegged Qty (pegged quantity)	Indicates the quantity of the resource that is reserved based on this purchase order for this work order task line.

# **Using the Chargeback Inquiry**

This section describes how to review the chargeback inquiry.

## Pages Used to Use the Chargeback Inquiry

Page Name	Definition Name	Usage
Chargeback Search Page	WM_CINQ_CHBK	Search for chargebacks associated with work orders.
Chargeback - Summary Page	WM_CINQ_CHRG_R1	Review a summary of chargebacks associated with work orders.
Chargeback - Detail Page	WM_CINQ_CHRG_D	Displays detail information for chargebacks.

## **Chargeback - Summary Page**

Use the Chargeback - Summary page (WM\_CINQ\_CHRG\_R1) to review a summary of chargebacks associated with work orders.

Navigation:

Maintenance Management > Inquiries and Reports > Chargeback Inquiry > Summary

#### **Chargeback Search**

Use the Chargeback Search page to view chargeback cost to other general ledger business units for completed work orders. You can filter your search or specify a criteria.

### Summary

The Chargeback - Summary inquiry page displays the summarized chargeback debit and credit amounts by work order business unit, shop, and then totals for each respective general ledger business unit under each shop. The actual costs for labor, inventory, and non-inventory items are processed and sent to PeopleSoft Project Costing, which calculates the chargebacks based on the accounting rules. The Chargeback Search page for the inquiry enables criteria to be entered to view a specific population of data. The inquiry also provides the **View Detail** button to see the specific work orders that made up the debit and credit balances

# **Using the Capitalization Inquiry**

This section discusses how to use the capitalization inquiry.

## Pages Used to Review the Capitalization Inquiry

Page Name	Definition Name	Usage
Capitalization Search Page	WM_CINQ_CAP	Search for work orders with capitalization costs.
Capitalization - Summary Page	WM_CINQ_CAP_R1	Review a summary of capitalization costs associated with work orders.
Capitalization - Detail Page	WM_CINQ_CAP_D	Displays the detail associated with a specific work order.

## **Capitalization - Summary Page**

Use the Capitalization - Summary page (WM\_CINQ\_CAP\_R1) to review a summary of capitalization costs associated with work orders.

Navigation:

Maintenance Management > Inquiries and Reports > Capitalization Inquiry > Summary

#### **Capitalization Search**

You can identify a specific asset ID to search for or enter search criteria based on a work order business unit, which includes all assets on a work order related to the work order business unit. You can also search by shop, Asset Management business unit, asset type, asset subtype, manufacturer ID, model, location, asset area ID, and work order closure date.

#### Summary

Depending on your search criteria, you can view the total amount for all assets to be capitalized, the actual total cost, and the associated details for that search criteria. For example, if you search by the work order business unit, the system displays all assets associated with that business unit and the sum of all capitalization costs and the actual total cost. Following these totals is a grid displaying the breakdown of the total amount to be capitalized and actual total cost by the asset business unit, asset type, asset subtype, and so on.

If you filter your search criteria by selecting an Asset Management business unit and asset ID, the system displays the total amount capitalized and the actual total cost for that specific asset ID, broken down by work order IDs and costs for each work order ID. This inquiry helps to identify the amount of capital work performed and the actual expenses for each shop and business unit.

**Important!** Select Maintenance Management, Work Order Management, Work Order Processing and run the Cost Summarization process after you run the Capitalization process in order for the amount to be capitalized values to appear on this inquiry.

# **Using the Crew Schedule Inquiry**

This section discusses how to review the Crew Schedule Inquiry.

## Pages Used to Use the Crew Schedule Inquiry

Page Name	Definition Name	Navigation	Usage
Crew Schedule Work Inquiry Page	WM_CS_INQ	Maintenance Management > Inquiries and Reports > Crew Schedule Inquiry	Review the past, current, and future schedules for a selected crew.
Work Order	WM_WO_HDR	<ul> <li>Click the Work Order         ID link on the Crew         Schedule Work Inquiry         page - Crew Assignment         tab.</li> <li>Maintenance         Management &gt; Work         Order Management &gt;         Work Order</li> </ul>	Access and update the work order depending on user authorizations.
WO Task Description	WM_TSK_DESC2_SEC	Click the <b>Task Description</b> link on the Crew Schedule Work Inquiry page - Crew Assignment tab.	Review the work order ID, business unit, task number, and description associated with a selected task.
Schedules	WM_WO_TASK_SCHED	Click the <b>Yes</b> or <b>No</b> link associated with Labor, Tools, Inventory, or Purchase/ On-Hand on the Crew Schedule Work Inquiry page - Resources tab.	Access the Labor Schedules grids, Tool Schedules grids, Inventory Schedules grids, or Purchase/On-Hand Schedules grids on the Schedules page in the Work Order and update if authorized to do so.
Asset Information	WM_WO_ASSET_SEC	Click the <b>Asset ID</b> - <b>Descriptions</b> link on the Crew Schedule Work Inquiry page - Asset Information tab.	Review information about the asset selected for a task.

## **Crew Schedule Work Inquiry Page**

Use the Crew Schedule Work Inquiry page (WM\_CS\_INQ) to review the past, current, and future schedules for a selected crew.

Navigation:

Maintenance Management > Inquiries and Reports > Crew Schedule Inquiry

You must select a work order business unit, shop, crew and period range start date to search for a crew schedule inquiry. Selecting a craft is optional. If you do not select an end date to the period range, the system displays all schedules with dates equal to or greater than the period range start date.

When you click the **Search** button, a list of work orders and their associated tasks, which are scheduled and approved for the selected crew displays based on the start date (and end date, if selected) that you entered. This inquiry enables you to view the work order task, its scheduled start/end date time, completed date, associated resources, and asset information if authorized.

# **Using Supplemental Data**

# **Understanding Supplemental Data**

Because every organization has different data requirements for work orders based upon unique business processes and regulatory issues, PeopleSoft Maintenance Management includes the Supplemental Data component to provide a way to define additional work-order related data. This component enables system administrators to extend the information that is stored for an object without requiring modifications to the object's base table (record) and without requiring additional PeopleCode or PeopleTools customizations. The supplemental data framework uses the PeopleSoft Common Components Active Analytic Framework (AAF) to define the business rules for the additional data.

Supplemental data is valuable when you want to capture information about a subset of object instances with fields that are relevant only to these particular object instances. Objects include records, pages and components, which you must configure specifically to accept supplemental data. For example, PeopleSoft defines and enables the Service Request, Work Order Header, and Work Order Task to include supplemental data for PeopleSoft Maintenance Management. Supplemental data may be a field that is embedded in the page or displays on a secondary page. PeopleSoft defines and registers both the supplemental data store records associated with a base record and the components to be used for supplemental data. Be aware that adding any additional objects is regarded as a customization and requires familiarity with PeopleTools.

When you set up supplemental data, you define records and fields and map them to a data storage record. These definitions are not stored in the PeopleTools metadata tables but in the supplemental data's own metadata tables. You define supplemental data page elements to display on the page in two columns. You must also group supplemental data fields within a display group for display purposes. You assign display groups to pages that are enabled for supplemental data. Once you have made this designation, you can define the conditions under which the application should use the supplemental data. You may perform a search on one display group. The pages within the Supplemental Data component enable you to accomplish these tasks.

#### **Considerations and Limitations**

The decision to add supplemental data to your application should be based on how applicable the data objects are to instances of the object. If the data objects apply to a significant number of instances of the object, then it may be better to add a field to the table using Application Designer instead of using attributes to capture the data. If the data elements apply to a much smaller percentage of the objects, then attributes may be the solution. While supplemental data provides a large amount of flexibility in terms of adding data elements without changing the underlying data model, you should consider the following limitations when you are evaluating whether to implement supplemental data:

 Supplemental data does not fall under the normal upgrade capabilities that are provided with PeopleTools.

Because supplemental data records are not a type of PeopleTools object, you cannot use the standard upgrade facilities that are provided by PeopleTools, such as the Upgrade Copy or Upgrade Compare

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process, to upgrade supplemental data from one database to another. The mechanism for migrating supplemental data is to extract the data from the source database and move the data to the target database, which can be accomplished, for example, by using Data Mover or a similar tool. PeopleSoft does not deliver any utilities, such as data mover scripts, for migrating supplemental data.

- Because supplemental data records are stored in separate tables (distinct from the base table), it can be difficult to incorporate supplemental information into reports.
- Supplemental data can only be displayed in a two-column format.
- Performance issues can occur if you have too many supplemental data records in the system.

Use supplemental data only if the data elements are truly dynamic in nature or if they apply to certain instances of an object. Never use supplemental data simply because it is easier to create than standard PeopleTools fields.

#### **Terms**

The following terms are used when discussing supplemental data:

Term	Definition
Supplemental Data Field	Defined in the Supplemental Data Record, mapped to fields of the data store record. Also referred to as "Field" in the context of supplemental data setup.
Display Group	Grouping of supplemental data fields, for display purpose.
Supplemental Data Page	The page where supplemental data will be displayed or entered in runtime. Also referred to as <i>Page</i> in the context of supplemental data setup.
Supplemental Data Record	Logical data model for supplemental data. Also referred to as <i>Record</i> in the context of supplemental data setup.
Supplemental Data Store	The physical table where supplemental data is stored. Also referred to as <i>Data Store</i> or <i>Data Store Record</i> .
Search Record	Record that saves search criteria for the base record.
Supplemental Search Record	Record that saves search criteria for the base record. The criteria are based on the supplemental data defined for the base record.

#### **Supplemental Data Record Details**

The Supplemental Data components, Register Record and Register Component are system-defined by PeopleSoft. The purpose of these options is to associate the supplemental data storage and optional

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search records with a PeopleSoft Maintenance Management base record and a PeopleSoft Maintenance Management component.

For each base PeopleSoft Maintenance Management record, there is an associated supplemental data storage record:

Base Record	Supplemental Data Storage Record
WM_WO_HDR	WM_WO_HDR_SD
WM_WO_TSK	WM_WO_TSK_SD
WM_WR_HDR	WM_WR_HDR_SD

The following components and pages are enabled for supplemental data. There are AAF contexts and terms defined for the components. You can define an AAF condition to show different display groups based on business rules.

Component	Page	Base Record
WM_ADD_WR_SS	WM_WORK_REQUEST_SS	WM_WR_HDR
WM_ADD_WR_WIZARD	WM_WR_SUMMARY_WIZ	WM_WR_HDR
WM_ADD_WR_WIZARD	WM_WR_SUPLDATA_WIZ	WM_WR_HDR
WM_WO	WM_TSK_SD_SEC	WM_WO_TSK
WM_WO	WM_WO_DETAIL	WM_WO_HDR
WM_WO	WM_WOHDR_SD_SEC	WM_WO_HDR
WM_WO_WR	WM_WOHDR_SD_SEC	WM_WO_HDR
WM_WOE_SD	WM_WOE_SD	WM_WO_TSK
WM_WORK_REQUEST	WM_WORK_REQUEST	WM_WR_HDR

The following delivered system data enables users to search work order tasks based on a work order header's supplemental data. There can be supplemental display groups with no AAF condition on a search page. Since the advanced search page is implemented as a secondary page, which users can invoke from the main page, you need to have the same assignment for these two pages:

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Base Record	Storage Record	Base Search Record	Supplemental Data Search Record
WM_WO_HDR	WM_WO_HDR_SD	WM_TSK_SRCH	WM_TSK_SRCH_SD

The system stores the search criteria in the Supplemental Data Search Record using the same mapping defined for the Supplemental Record. There are no AAF contexts and terms defined for the components used for the search:

Component	Page	Base Record
WM_WOE_TWP	WM_TSK_SRCH_SEC	WM_WO_HDR
WM_WOE_TWP	WM_WOE_TWP	WM_WO_HDR
WM_WOE_WB1	WM_TSK_SRCH_SEC	WM_WO_HDR
WM_WOE_WB1	WM_WOE_WB	WM_WO_HDR
WM_WOTSK_WORKBENCH	WM_TSK_SRCH_SEC	WM_WO_HDR
WM_WOTSK_WORKBENCH	WM_WOTSK_WORKBENCH	WM_WO_HDR

#### Example

PeopleSoft Maintenance Management serves as an excellent example of how supplemental data is set up and used in an application. For example, an organization may need to create work orders to assign and schedule resources to repair vehicles and uses PeopleSoft Maintenance Management. Part of this repair process includes the requirement to track any hazardous waste that was created while performing this work. This organization wants a Hazardous Waste group box to display, which contains the fields labeled as Date Generated (DATE), Description (DESCR), Notes (NOTES), Quantity (QTY), Unit of Measure (UOM), and Waste Code (WASTE\_CD) when you create or update a work order task for this type of work.

Based on the registered records and components, you access the Define Record component and define each supplemental data record such as PS\_HAZARD\_WASTE, associate it with a supplemental data stored record, such as WM\_WO\_TSK\_SD, and add all the field names and their associated details that you want to include in this record. Based on the hazardous waste example, you would add the fields: DATE, DESCR, NOTES, QTY, UOM, and WASTE\_CD. You create a field name (WASTE\_CD), a field label (Waste Code), select how the field will be used (code), the field length displays based on the field's use type (4 displays for code), and select a supplemental database field (SD\_TEXT\_4\_1) in which to store each field's data. Since the use type for the field in this example is *code*, an additional group box displays where you can define all the field values and the order in which you want each value to display on the drop-down list For example, the WASTE\_CD values might be D001, D002, D003, D004, D005, D006. Initially the status in the Record page is *In Design*. You must change the status in the Record page to *Activated* before saving the data and exiting this option.

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**Note:** If you access the Define Record component for an existing record, you must change the status field to *In Design* before making any changes. After you add the new field, you must change the status field back to *Activated* before saving and exiting the component.

Once you have defined and activated all of your fields, you must access the Define Display Group component and create a display group, such as PS\_HAZARD\_WASTE, and associate it with a base record, such as WM\_WO\_TSK. You then must identify the fields and their associated records that you want to appear in either the left or the right column of the page. If a label is not associated with the field name, you may enter a label here. For example, for the PS\_HAZARD\_WASTE record, you might want to put the fields DATE, DESCR, and NOTES fields in the right column, and the QTY, UOM, and WASTE CD fields in the left column.

Once you create a display group, you associate one or more of the display groups that you created to a component, such as the WM\_WO component. This is also where you identify whether the condition is editable or read-only. If the condition is editable, you may access the condition term page where you may edit and add conditions for this display group. When you access the Work Order component in PeopleSoft Maintenance Management and access the WM\_WO\_DETAIL page, the supplemental data group box containing the supplemental data fields appear on the page.

# **Establishing Supplemental Data**

To establish supplemental data, use the following components:

- Register Record (FS SD REG REC) component.
- Register Component (FS SD REG COMP) component.
- Define Record (FS\_SD\_RECDEFN) component.
- Define Display Group (FS SD GRPDEFN) component.
- Assign Display Group (FS SD PAGE GRP) component.

This section discusses how to define a supplemental data record, define and map supplemental data record fields to data store records, specify details for supplemental data record files, define a supplemental data display group, assign a supplemental data display group, and define conditions for display groups.

## Pages Used to Set Up Supplemental Data

Page Name	Definition Name	Usage
Register Record Page	SD_REG_REC	Registers the supplemental data base record and optionally registers the record that saves the search criteria for the base record.  This is PeopleSoft system-defined data and is not set up by users. It should not be modified.

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Page Name	Definition Name	Usage
Register Component Page	SD_REG_COMP	Registers and enables the component and the pages for supplemental data.  This is PeopleSoft system-defined data
		and is not set up by users. It should not be modified.
Define Record - Record Page	SD_RECDEFN	Defines the supplemental data record associated with the base record and identifies where to store this record.
Define Record - Fields Summary Page	SD_RECFLD	Maps fields to the data storage fields.
Define Record - Fields Detail Page	SD_RECFLD_DTL	Defines a field's detail information.
Define Display Group Page	SD_GRPDEFN	Defines a display group and associates any records and fields, as well as identifies the order in which the fields appear on the page.
Assign Display Group Page	SD_PAGE_GRP	Assigns one or more display groups to a supplemental data-enabled component and page.
Assign Display Group - Conditions Page	SD_PHRASE_SEC	Specify conditions that control when a display group appears.
	SD_TERM_SEC	

## **Define Record - Record Page**

Use the Define Record - Record page (SD\_RECDEFN) to defines the supplemental data record associated with the base record and identifies where to store this record.

Navigation:

Set Up Financials/Supply Chain > Product Related > Maintenance Management > Supplemental Data > Define Record > Record

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This example illustrates the fields and controls on the Define Record - Record page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Record	Enter a name for a supplemental data record. For example a possible supplemental data record name used for PeopleSoft Maintenance Management may be PS_WASTE.
Base Record	Select a base record on the Define Record page to associate with this supplemental data record. For example, a PeopleSoft Maintenance Management base record is WM_WO_TSK.
Status	Select a status of <i>In Design</i> during the time that you are defining this record. Change the status to <i>Activated</i> to indicate that you completed mapping the supplemental data fields.
	Note: If you update a record, before you add a field or make changes to a record, you must change this status back to <i>In Design</i> . When you have completed the modification, you must change the status back to <i>Activated</i> before saving and exiting the component.
Data Store Record	Select one of the data store records that you previously registered that you want to use to store this supplemental data record. For example, the data store record for this supplemental data record in PeopleSoft Maintenance Management is WM_WO_TSK_SD.
Recycle Cache	Select the check box to clear the cache when you save the configuration.

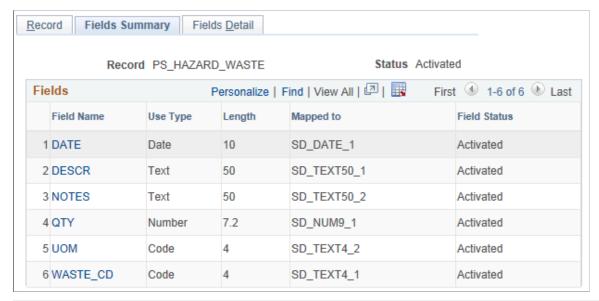
# **Define Record - Fields Summary Page**

Use the Define Record - Fields Summary page (SD\_RECFLD) to maps fields to the data storage fields. Navigation:

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# Set Up Financials/Supply Chain > Product Related > Maintenance Management > Supplemental Data > Define Record > and select the Fields Summary tab.

This example illustrates the fields and controls on the Define Record - Fields Summary page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Field Name, Use Type, Length, Mapped to and Field Status	Click the <b>Field Name</b> link to access the Fields Detail page. The remaining fields on this page are all defined in the Fields Detail page. Once you finish adding all the fields and their descriptions on the Field Details page, and change the <b>Status</b> value in the Record page to <i>Activated</i> , each new field name and its characteristics appear on this summary page. You may then click on each field name and access the field name's detail information in the Define Record - Fields Detail page.

## **Define Record - Fields Detail Page**

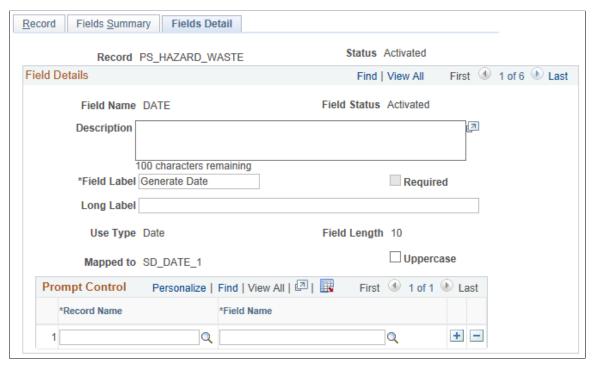
Use the Define Record - Fields Detail page (SD RECFLD DTL) to defines a field's detail information.

#### Navigation:

- Set Up Financials/Supply Chain > Product Related > Maintenance Management > Supplemental Data > Define Record > Fields Detail
- Click a field name on the Define Record Fields Summary page.

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This example illustrates the fields and controls on the Define Record - Fields Detail page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Field Name	Enter a name for the supplemental data field and a description of the field. For example, in PeopleSoft Maintenance Management this field might be called WASTE_CD.
Field Label	Enter the a label to display on the page for this field. For example, in PeopleSoft Maintenance Management this field might be <i>Waste Code</i> .
Use Type	Select one of the following based on how the field will be used:  • Code
	• Number
	Signed Number     Text
	<ul><li>Time</li><li>Date</li></ul>
	<ul><li> Prompt</li><li> Section</li></ul>
	• Yes/No

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Field or Control	Description
Field Length	<ul> <li>Select a length based on the selected Use Type:</li> <li>If the use type is a number or signed number consisting of an integer or decimal position, the field lengths may only be: 9.0, 7.2, and 15.4.</li> <li>If the use type is text, the field length may be 4, 20, 50, or 100.</li> <li>If you select any of the remaining use types, each type's field length is dictated by the specific length of the selected use type.</li> </ul>
Mapped To	Select the data store field to which you want to map this field.

**Note:** Once you change the status to *Activated* on the Record page, the information listed above, with the exception of the description and field label, becomes read-only and cannot be modified.

#### Codes

This group box displays if you selected *code* as a **Use Type** and identifies a list of code values for a drop-down list.

Field or Control	Description
Sequence	Enter a number to represent the order in which you want to see these codes listed in a drop-down list or lookup page.
Field Value and Translate Long Name	Enter each valid code in this list along with the text that you want to appear on the list when the drop-down list displays.
Field Status	Displays the current status of the field. Initially this value will be <i>In Design</i> . The value changes to <i>Activated</i> after you change the record status to <i>Activated</i> on the Define Record - Record page.
Reorder	Click this button to assign each code a unique sequential number and reorganize the sequence numbers in top-down numerical order.

## **Define Display Group Page**

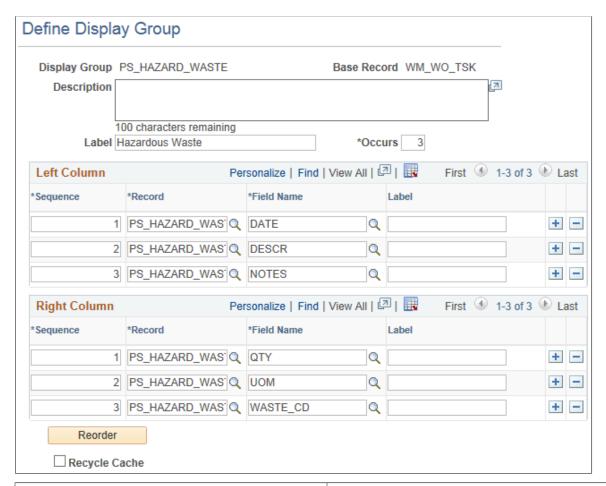
Use the Define Display Group page (SD\_GRPDEFN) to defines a display group and associates any records and fields, as well as identifies the order in which the fields appear on the page.

Navigation:

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# Set Up Financials/Supply Chain > Product Related > Maintenance Management > Supplemental Data > MM Define Display Group

This example illustrates the fields and controls on the Define Display Group page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Display Group	Select a base record to associate this new display group with and enter a name for this display group in the Define Display Group Add page.
Label	Enter a label for the display group data group box.
Occurs	Enter the number of rows of data to display in the group box.
Recycle Cache	Select the check box to clear the cache when you save the configuration.

#### Left and Right Columns

The supplemental fields that you want to appear on a page are defined in left and right columns.

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Field or Control	Description
Sequence, Record, Field Name, and Label	Select the record and field name, enter a label that you want to display on the page for the field name for each supplemental data field. Enter a sequence number to determine the order in which the fields should display on the page for each column.

#### **Assign Display Group Page**

Use the Assign Display Group page (SD\_PAGE\_GRP) to assigns one or more display groups to a supplemental data-enabled component and page.

Navigation:

Set Up Financials/Supply Chain > Product Related > Maintenance Management > Supplemental Data > MM Assign Display Group

This example illustrates the fields and controls on the Assign Display Group page. You can find definitions for the fields and controls later on this page.



Field or Control	Description
Component Name and Market	Select the component that is enabled for supplemental data and with which you want to associate a supplemental data display group in the Assign Display Group Search page. The <b>Market</b> for which this component was defined displays as read-only along with the <b>Component Name</b> .

#### **Enabled Pages and Display Groups**

This group box displays the name of the pages within the component that are enabled for supplemental data, their associated base record, and any associated display groups. You may also add the display groups that you want to appear in this component and page.

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Field or Control	Description
Sequence, Display Group, Use	Add a supplemental data display group that you want to associate with this component and this page, and select whether you want the text associated with the display group to be <i>Editable</i> or <i>Read-only</i> .
User Friendly Text	Describes the condition associated with this display group in easy to understand terminology.
	Click the <b>Edit</b> icon to access the Assign Display Group - Conditions page where you can establish conditions that control when a display group appears. For example, you could set a condition so that a display group appears only when there is a hazardous asset associated with a work order task, or when the work order is of the type <i>CM</i> (corrective maintenance).
	Click the Clear icon to remove the condition that is associated with this display group.

**Note:** If the supplemental data page is registered as a search page, then you may add only one display group to the page; you must select 1 as the value in the **Occurs** field for the selected display group; you must define all fields for this display group for the same record definition; and you must map this record to a data store record defined with a Search Supplemental Search record. With PeopleSoft Maintenance Management, you can only search based on supplemental data for the Work Order Header.

#### **Assign Display Group - Conditions Page**

Use the Assign Display Group - Conditions page (SD\_PHRASE\_SEC) to specify conditions that control when a display group appears.

Navigation:

Click the Edit icon on the Assign Display Group page.

Supplemental data depends on the Active Analytics Framework (AAF) to define and resolve the conditions for a supplemental data display group. AAF is a PeopleSoft Enterprise Component that includes the following components:

- Data Library Framework.
- Rule Evaluation Engine.
- Rule Builder Framework.
- Action Framework.

PeopleSoft Maintenance Management utilizes all of these AAF components with the exception of the Action Framework.

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You define a condition using a combination of a term, an operator, and a value or term. A term is a non-technical name that refers to the information (data) that can be retrieved or computed and is the object evaluated within a condition. This page enables you to build conditions by viewing and selecting the terms, operators, and value/term that define the condition.

To add a condition:

- 1 Select a term
- 2. Select an operator.
- 3. Enter or select values or terms to define the right side of the condition equation, if required by the selected operator.

**Note:** To add conditions for values derived from control tables that are keyed by SetID (for example, Work Type, Service Group ID), you must use one of the "in list" operators (is in list, or is not in list).

There are two modes that you can use to specify conditions:

#### Basic.

This is the default mode. When you select this option, the Select Subject Area group box appears, with a folder hierarchy of subjects. Navigate through the subjects and select one to view the terms available in an adjacent group box. Click a term to select it and insert it into the condition.

If the criteria you define includes more than one condition row, the system uses AND logic for the conditions, therefore all of the conditions must be met for the criteria to evaluate as true.

#### Advanced.

This mode enables you to group condition rows using parenthesis, specify the logical operator for each condition row (AND, OR), and specify terms as values in the right-hand side of the condition equation.

Field or Control	Description
Switch to Advanced Mode	Click to activate advanced mode.
Switch to Basic Mode	Click to activate basic mode.
Switch to Search Mode	Click to activate search mode, where you can execute a search for defined terms.
Switch to Browse Mode	Click to activate browse mode, where you can browse defined terms.
Select Term	Click to insert the term into the condition.
Term	Displays the term name used in the condition that is evaluated against the Value.

Chapter 29 Using Supplemental Data

Field or Control	Description
Operator	Select the operator to use for the condition. The list of available operators depends on the term upon which the condition is based.
Value	Displays the value to which the Term is compared.
Done	Click to create the condition and return to the Assign Display Group page.
Cancel	Click to cancel building the condition.

Using Supplemental Data Chapter 29

# Scenarios for PeopleSoft Maintenance Management

### **Understanding Troubleshooting**

Oracle recommends scenarios of how to use some of the features within PeopleSoft Maintenance Management. These real-life examples describe some of the intended uses of these features, enabling you to understand how these features might be applied to your own organization.

The real-life scenarios described within this documentation may not conform to the business rules and procedures within your organization. Do not construe these examples as consulting or implementation advise for your specific industry or your individual organization. You should adapt or disregard the information presented here based on the needs of your organization. Oracle does not guarantee that the information included here will work as intended within your customized environment.

### **Example: Setting Up Smart Tags in a Problem Tree**

Some organizations assign a tag number consisting of a series of codes to an asset in PeopleSoft Asset Management to enable users to easily identify the asset. This tag number is subdivided into groups of characters, where each group represents a particular attribute or type of asset. PeopleSoft Maintenance Management refers to these tag numbers as Smart Tags.

For example, smart tag number C4BFGMTR0002. The groups of characters and the values that they represent are:

- C4 Combustion Turbine 4.
- BFG Boiler Flue Gas System.
- MTR Motor.
- 0002 sequential equipment number.

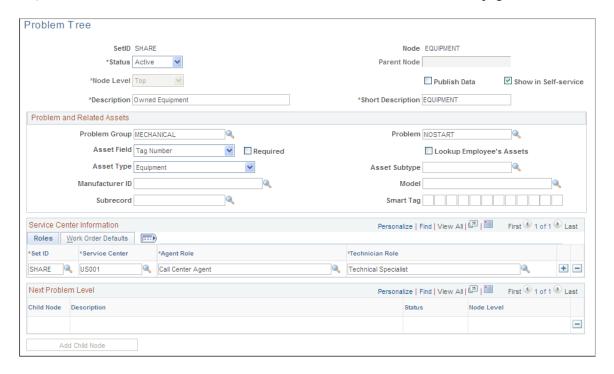
Once the assets are set up in PeopleSoft Asset Management, users can set up these codes on successive levels of a problem tree in PeopleSoft Maintenance Management. When users enter a service request, they can narrow the list of eligible service request assets based on the smart code set up in the problem tree. User associate the code with a problem group, problem, service center and work order criteria on the problem tree.

Users set up a problem tree, select a problem group, problem, service center and work order criteria, and set up each level of the problem tree based on the character groups that comprise the smart tag. When users enter a service request, the problem tree setup enables the user to search for an asset based on the character group levels.

These pages demonstrate how to set up the problem tree using smart tags and how a user can enter a service request and narrow their search for an asset using smart tags.

- 1. Access PeopleSoft Asset Management and make sure that the assets are set up under the Asset Type of Equipment. In our example, these assets are: C4BFGMTR001, C4BFGMTR002, C4BFGMTR003.
- 2. Access Set Up Financials/Supply Chain, Product Related, Maintenance Management, Problem Cause Resolution Setup, Problem Tree.
- 3. Set up the top parent node as EQUIPMENT.

This example illustrates the fields and controls on the Problem Tree: EQUIPMENT - Top Node: EQUIPMENT. You can find definitions for the fields and controls later on this page.



Select the following information:

Description: Owned Equipment

• Short Description: EQUIPMENT

Problem Group: MECHANICAL

Problem: No Start

Asset Lookup Field: Tag Number

Asset Type: Equipment

Service Center Information:

1. Roles – SetID: SHARE

2. Roles – Service Center: US001

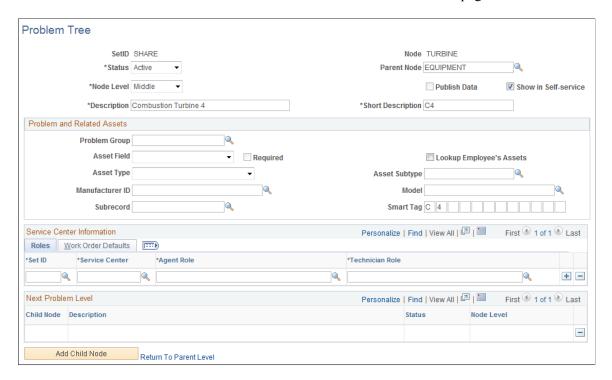
3. Roles – Agent Role: Call Center Agent

- 4. Roles Technician Role: Technical Specialist
- 5. Work Order Defaults Business Unit: US001
- 6. Work Order Defaults Service Group: MAINT (maintenance)
- 7. Work Order Defaults Work Type: CM (corrective maintenance)
- 8. Work Order Defaults Priority: 1

#### Click Save.

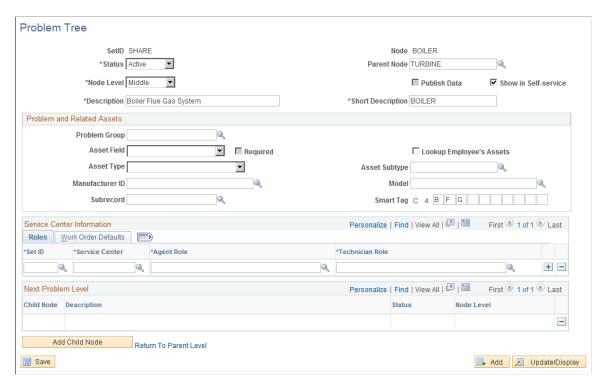
4. Click the Add Child Node button and add TURBINE as the Middle Node.

This example illustrates the fields and controls on the Problem Tree: EQUIPMENT - Middle Node: TURBINE. You can find definitions for the fields and controls later on this page.



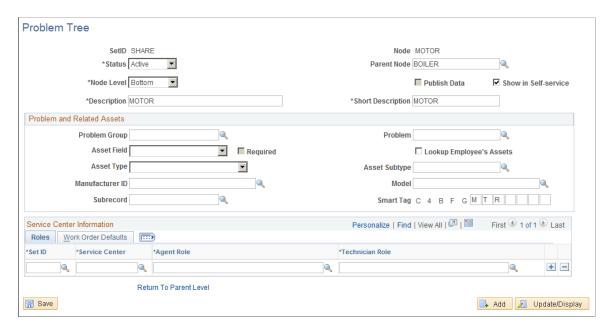
- Notice that EQUIPMENT displays as the Parent Node.
- Enter the description: Combustion Turbine 4.
- Enter the short description: C4
- Enter C 4 in the Smart Tag field and save the page.
- 5. Click the Add Child Node button and enter BOILER as the Middle Node.

This example illustrates the fields and controls on the Problem Tree: EQUIPMENT - Middle Node: Boiler. You can find definitions for the fields and controls later on this page.



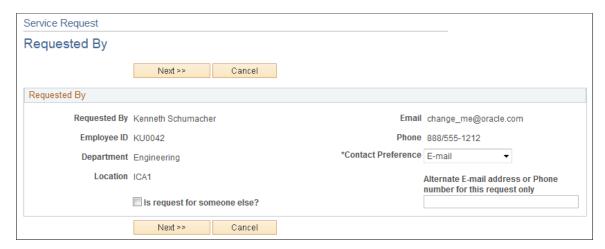
- Notice that Turbine is the Parent Node.
- Enter Boiler Flue Gas System as the long description and BOILER as the short description.
- Enter BFG in the Smart Tag and save the page.
- 6. Click the Add Child Node button and enter MOTOR as the Bottom Node.

This example illustrates the fields and controls on the Problem Tree: EQUIPMENT - Bottom Node: Motor. You can find definitions for the fields and controls later on this page.



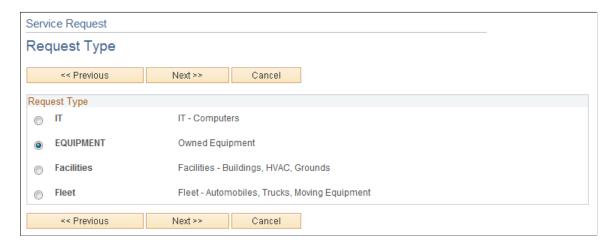
- Enter the long and short descriptions as MOTOR.
- Enter MTR in the Smart Tag field and save the page.
- 7. Let's create a service request to repair one of these C4BFGMTR assets. Access Employee Self-Service, Service Request, Service Request Wizard.

This example illustrates the fields and controls on the Service Request Requested By page. You can find definitions for the fields and controls later on this page.



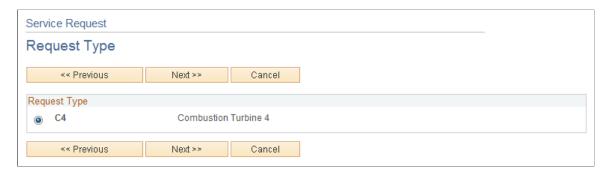
8. The Requested By page defaults the information based on the person signed on to the system. Employees and non-employees can create a service request. Click Next to continue.

This example illustrates the fields and controls on the Service Request - Request Type page 1. You can find definitions for the fields and controls later on this page.



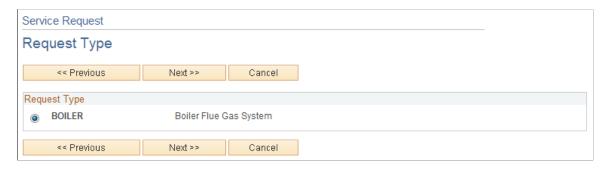
9. Click the EQUIPMENT radio button as the type of service request and click the Next button. This field displays because EQUIPMENT as the top node of the Problem Tree has been set up.

This example illustrates the fields and controls on the Service Request - Request Type page 2. You can find definitions for the fields and controls later on this page.



10. Based on the EQUIPMENT problem tree middle node that is set up, C4 displays to narrow down the type of equipment that needs repair. Click the C4 radio button and click the Next button.

This example illustrates the fields and controls on the Service Request - Request Type page 3. You can find definitions for the fields and controls later on this page.



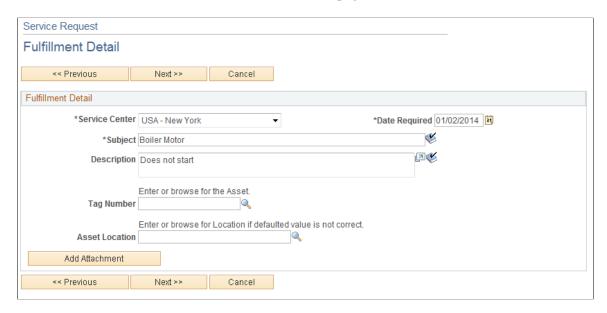
11. Based on the EQUIPMENT Problem Tree middle node that is set up, BOILER displays to narrow down the type of C4 equipment that needs repair. Click the BOILER radio button and click the Next button.

This example illustrates the fields and controls on the Service Request - Request Type page 4. You can find definitions for the fields and controls later on this page.



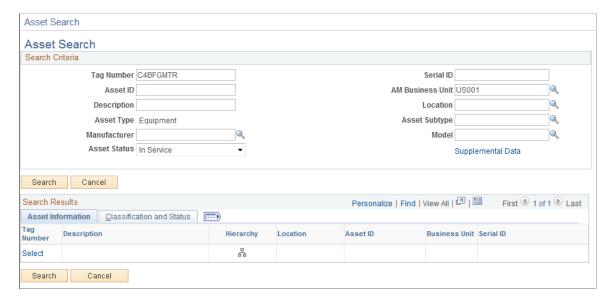
12. Based on the EQUIPMENT Problem Tree bottom node that is set up, MOTOR displays to narrow down the type of C4 boilers that need repair.

This example illustrates the fields and controls on the Service Request - Fulfillment Detail page. You can find definitions for the fields and controls later on this page.



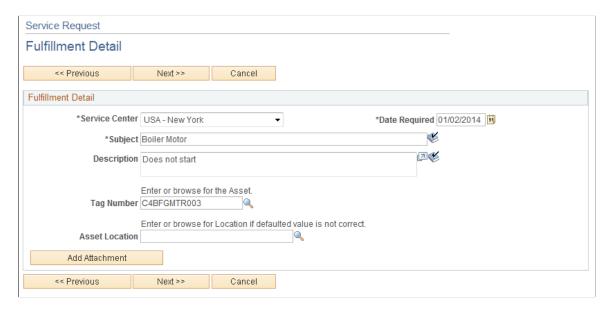
- 13. After narrowing our search based on selecting options from the EQUIPMENT problem tree:
- Select Service Center: USA-New York.
- Select the Required Date for the repair: Current system date is the default value.
- Enter a subject (optional): Boiler Motor.
- Enter a description (optional): Does not start.
- Select the Tag number search icon to search for the tag number of the asset that you repaired.

This example illustrates the fields and controls on the Asset Search page. You can find definitions for the fields and controls later on this page.



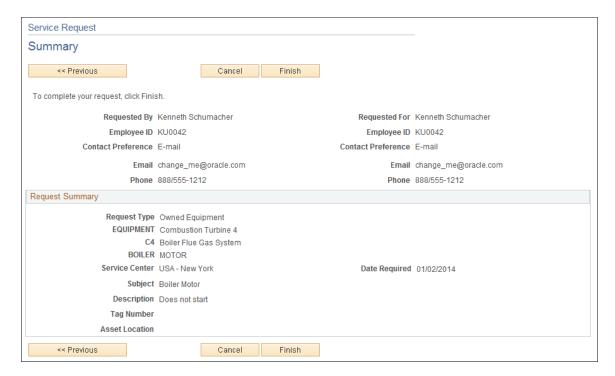
15. At the top of the Asset Search page, you can enter the asset characteristics to narrow your search for the tag number. In this case C4 is entered for the Tag Number and Search button clicked. Three assets that are set up in PeopleSoft Asset Management display as the results of the search. Select C4BFGMTR003 as the tag number for the asset that needs repair and click the Search button.

Service Request Fulfillment Detail with Tag Number page



16. The Service Request – Fulfillment Detail page displays again with in the Tag Number and Asset Location fields. Click the Next button to continue.

This example illustrates the fields and controls on the Service Request - Summary page. You can find definitions for the fields and controls later on this page.



17. The Service Request - Summary page displays. Review this page for accuracy. If there are errors, you can click the Previous button to make changes. If the information is correct, click the Finish button.

This example illustrates the fields and controls on the Service Request - Submit Confirmation page. You can find definitions for the fields and controls later on this page.



18. A page displaying the Service Request ID and check mark indicating that the submission of this service request was successful displays. Click the OK button to complete this service request. This service request will now appear in the My Service Requests component.

See <u>Understanding Service Request Creation and Use</u>.

### **Examples: Processing Linked PM Schedules**

You can select one of these methods to link secondary schedules to a primary schedule:

- Days Tolerance.
- Linking by Cycle.

This section presents examples of how each of these methods are processed using the Preventive Maintenance or Projection process.

#### **Examples: Linking PM Schedules Using the Days Tolerance Method**

When the Preventive Maintenance or Projection process schedules maintenance, and you defined secondary schedules with the days tolerance method, the system compares the calculated due date of the primary schedule due date to due date of each linked secondary schedule and:

- Links the scheduled maintenances if the dates are the same.
- Links the scheduled maintenances if the difference between the dates is less than or equal to the days tolerance defined on the linked secondary schedule.

**Note:** The due date of the primary schedule can be a number of days earlier or later than the due date of the secondary schedule as long as the number of days is within the specified days tolerance.

- Does not link the maintenances if neither of these scenarios occur.
- Example 1

Major service due date: 05/22/2009

• Minor service due date: 05/25/2009

• Current date: 05/22/2009

• Days tolerance: 7 days

• Maintenances will be linked.

• Example 2

Major service due date: 05/22/2009

Minor service due date: 05/31/2009

• Current date: 05/22/2009

Days tolerance: 7 days

• Maintenances will NOT be linked.

• Example 3

• Major service due date: 05/26/2009

Minor service due date: 05/22/2009

• Current date: 05/22/2009

• Days tolerance: 7 days

Maintenances will be linked.

Example 4

• Major service due date: 05/22/2009

Minor service due date: 05/22/2009

• Current date: 05/22/2009

Days tolerance: 7 days

• Maintenances will be linked.

#### **Examples: Linking PM Schedules Using the Linking by Cycle Method**

When maintenances are scheduled through the Preventive Maintenance or Projection process, and there are secondary schedules defined using the linking by cycle method, the system will calculate the current occurrence field of the cycle each time a secondary schedule becomes due. The formula is the current occurrence = current occurrence + 1. The process compares the current occurrence to the cycle occurrences. If they are the same, the process will link the maintenances, reset current occurrence, and add 1 to current cycle field. If the cycle occurrences are not the same, the process will not link the maintenances.

Since maintenances can be scheduled for multiple due dates in the future using the Projection process, the process will continue to calculate the current occurrence and compare the current occurrence to the cycle occurrences for each secondary projection.

- Example 1
- Major service's due date: It doesn't matter.
- Minor Service due date: 05/22/2009
- Current date: 05/22/2009
- Current occurrence: Last occurrence + 1 = 4
- Cycle total occurrences: 4
- Current cycle: Current cycle +1
- Maintenances will be linked.
- Example 2
- Major service's due date: It doesn't matter.
- Minor Service due date: 05/22/2009
- Current date: 05/22/2009
- Current occurrence: Last occurrence + 1 = 2
- Cycle total occurrences: 4
- Current cycle remains the same.
- Maintenances will NOT be linked.
- Example 3
- Major service's due date: It doesn't matter.
- Minor Service due date: 05/31/2009
- Current date: 05/22/2009
- Current occurrence remains the same.
- Cycle total occurrences: 4
- Current cycle remains the same.
- Maintenances will NOT be linked.

See <u>Understanding Preventive Maintenance Work Orders</u>.

# **Configuring Batch Processes**

### **Configuring Temporary Tables for Batch Processing**

When you run batch processes in parallel, you risk data contention and deadlocks on temporary tables. To avoid this, PeopleTools enables you to dedicate specific instances of temporary tables for each process. When PeopleSoft Application Engine manages a dedicated temporary table instance, it controls the locking of the table before use and the unlocking of the table after use.

When you decide how many temporary table instances to dedicate for a process, consider the number of temporary tables that the process uses. More instances result in more copies of the temporary tables on the system. For example, if a process uses 25 temporary tables and you have 10 instances for a process, you will have 250 temporary tables on the system.

If you run processes in parallel and all of the dedicated temporary table instances are in use, the performance of the process decreases. You need to find a balance that works for your organization.

**Note:** When you specify the number of instances, PeopleSoft Application Designer displays a list of the temporary tables for the process. Use the list to determine how many temporary tables each process uses.

Specify how many temporary table instances to dedicate for each of the following batch PeopleSoft Application Engine processes that can run in parallel in PeopleSoft Maintenance Management:

- Cost Summarization (WM SUMMCOST)
- Create Resources Program (RS CW)

**Note:** If you have licensed the PeopleSoft Resource Management application, you may already have configured it for temporary table instances, as this process is shared by both PeopleSoft Resource Management and PeopleSoft Maintenance Management.

- Export to Microsoft Project (WM MSP)
- Preventive Maintenance Process and Projections (WM PM)
- Stage Time Entries (EX\_TRAN\_PRCS)

**Note:** If you have licensed the PeopleSoft Travel and Expenses application, you may already have configured it for temporary table instances, as this process is shared by both PeopleSoft Travel and Expenses and PeopleSoft Maintenance Management.

- Work Order Close (WM CLOSE)
- Maintenance Schedule Completion Report (WM SCHEDCOMP)

The PeopleTools documentation discusses the usage of temporary tables in detail and describes how to specify the number of instances.

Configuring Batch Processes Chapter 31

If you run any of the PeopleSoft General Ledger COBOL processes, also configure the temporary tables for those processes. The documentation *PeopleSoft General Ledger* discusses how to do this in detail.

See the product documentation for PeopleTools: Application Engine

#### **Related Links**

"Understanding Optimal General Ledger Performance" (PeopleSoft General Ledger)

### **Chapter 32**

# Delivered Workflows for PeopleSoft Maintenance Management

# **Delivered Workflows for PeopleSoft Maintenance Management**

This section discusses Oracle's PeopleSoft Maintenance Management workflows.

#### **Assignment Approval**

This section discusses the approval of labor resource assignments.

#### **Description**

Information Type	Description
Event Description	Work Order assignment workflow options are configured on the Maintenance Management Options page. If workflow is enabled in the Options page for Work Order labor assignments, it is only triggered if the resource is assigned to a work order task that is outside of the resource's shop.

Information Type	Description
Action Description	If the assignment approval option is turned on at the work order business unit option level, assignment workflow is initiated when a technician is assigned to a work order in a shop different than the technician's shop. In this case, the assignment is set to pending approval and sent to the resource's supervisor's worklist for approval. The supervisor can navigate to the Assignment Approval page by clicking the link in the worklist. The supervisor can then navigate from this Assignment Approval page to the work order associated with the assignment by clicking the work order or the work order task link. The Assignment Approval page for work order assignment displays the work order business unit, shop, resource's craft, shop manager's name, work order ID, work order task, resource type, and resource line number. The supervisor can approve or reject the assignment in this page. If the supervisor approves the assignment, the assignment, the status is set to Assigned. If the supervisor rejects the assignment, the status is set to Rejected. Both the resource's supervisor and the resource may be sent an email based on the notification method specified on the Maintenance Management Options page.
	Important! The supervisor must exist as an employee in the system by using the Update Employee Data - Employee Job page.
Notification Method	Worklist or email.
	Note: A work list or email notification is not sent to the user who changes the assignment. For example, a work list item is not sent to the resource supervisor to approve a new assignment if the resource supervisor is the person who originally submitted the assignment.

# **Workflow Objects**

Information Type	Description
Business Process	Assignment Approval (RS_ASSIGN_APPROVAL).
Activity	Assignment Approval (WM_ASSIGN_APPROVAL).

# **Work Order Approval**

This section discusses work order approval workflow.

Work Order Approval workflow uses the Supply Chain Management Common Approval Framework.

#### **Description**

Information Type	Description
Event Description	If the work order workflow approval option is enabled for a business unit or work order type, then when a user creates the work order and clicks the <b>Submit for Approval</b> button, the system triggers the approval workflow process.
Action Description	A user initiates the Work Order Approval process by clicking the Submit for Approval button. The user can access the approval map prior to submitting the work order for approval. The approval tasks are routed to each of the approvers to enable them to approve or deny the work order. If the approver approves the work order, the approval task is routed to the next approver, if needed. If the approver denies the work order, the Work Order Approval process is terminated. The user who submitted the work order for approval is notified of the denial and can optionally revise the work order and initiate the Work Order Approval process again. Users can also add ad hoc reviewers and approvers to the approval flow for a work order.
Notification Method	Worklist item and email.

#### **Chapter 33**

# **Analyzing Maintenance Management Using PeopleSoft Insights**

### **Analyzing Maintenance Management Using PeopleSoft Insights**

PeopleSoft Maintenance Management delivers two Insights dashboards that help users with business intelligence analytics. These dashboards are *Work Order Labor Assignments* and *Work Order Asset Maintenance History*.

# Pages Used to Analyze Maintenance Management Using PeopleSoft Insights

Page Name	Definition Name	Usage
Work Order Labor Assignments  Dashboard		Analyze technician and shop labor assignments, and unassigned work order tasks.
Work Order Asset Maintenance History  Dashboard		Analyze labor time and cost associated with maintaining different asset types.

## **Accessing Maintenance Management Insights Dashboards**

To access Maintenance Management Insights Dashboards, add these tiles to any Fluid homepage:

This example illustrates the Work Order Labor tile



This example illustrates the Work Order Asset Maintenance tile



For more information about how to add a tile to a PeopleSoft Fluid Home page, see:

- 'Working with the Fluid User Interface' in the PeopleTools Accessibility Guide.
- 'Working with Fluid Homepages and Dashboards' in the PeopleTools Applications User's Guide.
- "Adding Homepages and Tiles" (Application Fundamentals)

For more information about PeopleSoft delivered Insights dashboards, definitions, privileges, and roles, see "Understanding PeopleSoft Insights Using PeopleSoft Search Framework" (Application Fundamentals)

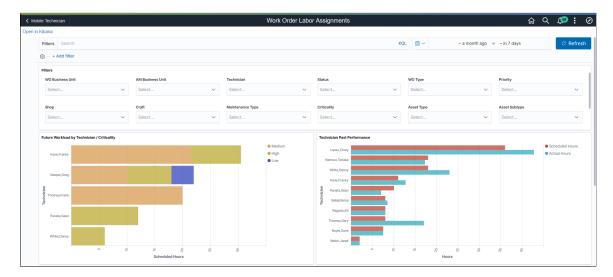
#### **Work Order Labor Assignments Dashboard**

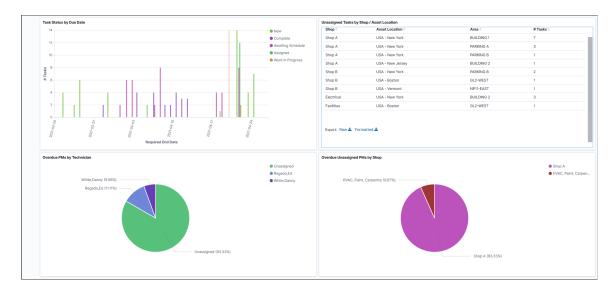
Use the Work Order Labor Assignments dashboard to analyze technician and shop labor assignments, and unassigned work order tasks.

Navigation:

#### Select the Work Order Labor tile

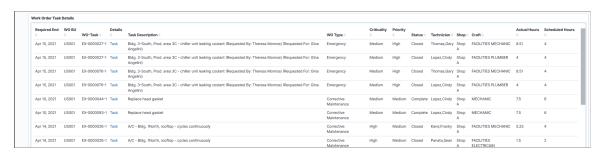
This example illustrates the fields and controls on the Work Order Labor Assignments dashboard.





This example illustrates the fields and controls on the Work Order Labor Assignments dashboard.

This example illustrates the fields and controls on the Work Order Labor Assignments dashboard.



The visualizations and data displayed on the Work Order Labor Assignments dashboard can be filtered based on the delivered filters, such as **Work Order Business Unit**, **Asset Management Business Unit**, **Work Order Type**, and **Technician**. Multiple filter values can be selected. For example, you can select multiple business units from the **Work Order Business Unit** filter. Data can also be filtered by selecting any categorical data within a visualization (for example, an individual bar in a bar graph).

The following visualizations are part of this dashboard:

• Future Workload by Technician/Criticality: Provides a view of technicians with the highest number of scheduled labor hours. The descending horizontal stacked bar chart evaluates the part-to-whole comparison of scheduled labor hours by asset criticality. This visualization only reflects work order task assignments with a required end date in the future. It does not include work order task assignments with a required end date in the past.

The horizontal axis represents scheduled labor hours, and the vertical axis lists technicians. The date dimension for scheduled labor hours is the work order task required end date within the timeframe selected.

This visualization can help answer which technicians have the highest scheduled labor hours and how much of their time is spent working on the most critical assets.

• *Technician Past Performance*: Provides a comparison of technician scheduled hours and actual hours for work order tasks with a required end date in the past. This visualization does not include work orders with a required end date in the future.

The multi-series horizontal bar chart has technician names along the vertical axis and labor hours along the horizontal axis.

This visualization can help answer whether actual hours exceed scheduled hours, or if certain technicians are scheduled for more hours than others.

• *Task Status by Due Date*: Provides a view of task status by required due date. Each vertical bar in the graph represents a task status type (for example, Work in Progress).

This visualization can help determine whether a work order task status aligns with required end dates. It can also help identify past due tasks that have not advanced beyond a certain status.

• *Unassigned Tasks by Shop/Asset Location*: Provides an analysis of the shops with the highest number of unassigned work order tasks, by asset location and area ID.

This visualization can help determine the shops with the highest number of unassigned work order tasks, or the asset locations (and area IDs) with unassigned work order tasks

• Overdue PMs by Technician (Overdue Preventive Maintenance by Technician): Provides a view of technicians (including unassigned) with the highest number of overdue preventive maintenance work order tasks with a required end date within the timeframe selected.

When you use this visualization in combination with the Work Order Task Details table, you can determine asset criticality, scheduled labor hours, and whether any time has been recorded for the preventive maintenance work order tasks.

• Overdue Unassigned PMs by Shop (Overdue Unassigned Preventive Maintenance by Shop): Provides an analysis of preventive maintenance not yet assigned (not yet started). This visualization displays shops with overdue preventive maintenance work order tasks with a required end date within the timeframe selected.

When you use this visualization in combination with the Work Order Task Details table, you can determine the criticality of the assets associated with the preventive maintenance as well as the work order priority.

• Work Order Task Details: Displays a list of work order tasks making up the data shown in the visualizations. Use the **Task** link to access the Work Order Page and view further details about the work order or modify information as needed.

Each visualization can be viewed separately in full screen. You can also drill down for more information using the **Inspect** option. That data can be downloaded as a CSV file.

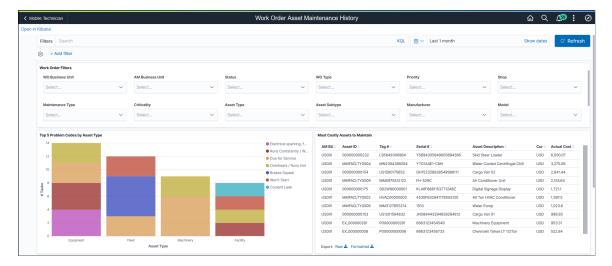
#### **Work Order Asset Maintenance History Dashboard**

Use the Work Order Asset Maintenance History dashboard to analyze labor time and cost associated with maintaining different asset types.

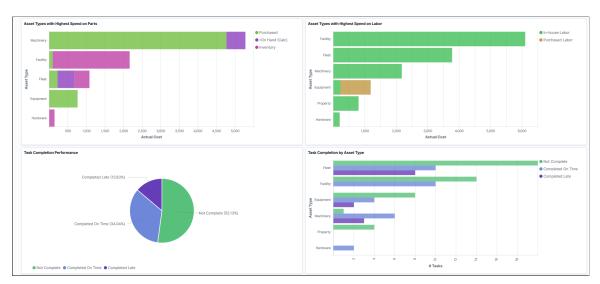
Navigation:

Select the Work Order Asset Maintenance tile

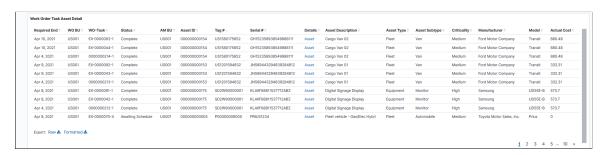
This example illustrates the fields and controls on the Work Order Asset Maintenance History dashboard



This example illustrates the fields and controls on the Work Order Asset Maintenance History dashboard.



This example illustrates the fields and controls on the Work Order Asset Maintenance History dashboard.



The visualizations and data displayed on the Work Order Asset Maintenance History dashboard can be filtered based on the delivered filters, such as **Work Order Business Unit**, **Asset Management Business Unit**, **Work Order Type**, and **Maintenance Type**. Multiple filter values can be selected. For example, you can select multiple business units from the **Work Order Business Unit** filter. Data can also be filtered by selecting any categorical data within a visualization (for example, an individual bar in a bar graph). In addition, you can search for available filters or add additional filters.

The following visualizations are part of this dashboard:

• *Top 5 Problem Codes by Asset Type*: Provides a view of the top five problem codes by asset types with the most work orders, filtered by required end date within the timeframe selected.

The stacked bar chart represents the number of work order tasks associated with each of the top 5 problem codes. The horizontal axis represents asset types.

- *Most Costly Assets to Maintain*: Provides an analysis of the ten most costly assets to maintain for the selected timeframe.
- Asset Types with Highest Spend on Parts: Provides an analysis of the top ten asset types with the highest spend on parts.

The horizontal stacked bar chart allows you to evaluate the proportion of inventory, procurement (purchased), and on-hand parts used for work order tasks. The vertical axis lists the asset types, while the horizontal axis represents actual cost.

**Note:** The cost of on-hand parts is calculated based on the unit cost on the work order schedule and the used quantity recorded as actuals.

• Asset Types with Highest Spend on Labor: Provides an analysis of the top ten asset types with the highest spend on labor. This includes both in-house labor and contracted labor.

The horizontal stacked bar chart displays asset types along the vertical axis and actual cost along the horizontal axis. The stacked bars allow you to evaluate the part-to-whole comparison of in-house and contracted labor for the asset types with the highest spend on labor. The time dimension used is the work order task required end date.

- *Task Completion Performance*: Provides insight into the work order completion status. This pie chart displays the percentage of work order tasks completed on time, completed late, and not completed. The time dimension used is the work order task required end date.
- *Task Completion by Asset Type*: Provides an analysis of the top ten asset types with the highest number of work order tasks with required end dates within the timeframe selected.
  - The multi-series horizontal bar chart displays one bar for each of the completion statuses—completed on time, completed late, and not completed. The vertical axis lists the asset types and the horizontal axis displays the number of tasks. The chart displays in descending order based on asset types with the most tasks.
- Work Order Task Asset Detail: Displays a list of work order task assets making up the data shown in the visualizations. Use the Asset link to access the "Define Asset Operational Information Asset Information Page" (PeopleSoft Asset Management) and view further details about the asset or modify information as needed.

Each visualization can be viewed separately in full screen. You can also drill down for more information using the **Inspect** option. That data can be downloaded as a CSV file.

#### **Chapter 34**

# PeopleSoft Maintenance Management Reports

# PeopleSoft Maintenance Management Reports: A to Z

This table list Oracle's PeopleSoft Maintenance Management reports, sorted alphanumerically by report ID. The reports listed are all BI Publisher reports. If you need more information about a report, refer to the report details at the end of this troubleshooting section.

Report ID and Report Name	Description	Navigation	Run Control Page
WM10001  Work Order Task Detail Report	Lists work order task detail information for each work order task. The report displays different sections depending on the selected reporting options. These reporting options are: Labor Assignment Report, Material Assignment Report, Procurement/On-hand Report, Tool Assignment Report, Instruction Report, Check List Report, Work Order Notes Report, Task Notes Report, Equipment Parts List and Attachments. When there is no information available for the selected reporting option for the selected tasks, the report does not include the corresponding report section.  See PeopleSoft Maintenance Management Selected Reports.	Maintenance Management > Work Order Management > Work Order > Work Order  Click Print on the Work Order page.  Maintenance Management > Workbenches > Scheduling Workbench > <scheduler's name=""> Workbench Click Print on the <scheduler's name=""> Workbench page.  Maintenance Management &gt; Workbench page.  Maintenance Management &gt; Workbench some some some some some some some some</scheduler's></scheduler's>	WM_RPT_OPTNS

Report ID and Report Name	Description	Navigation	Run Control Page
WM10001  Work Order Task Detail Report (run from run control page)	Lists work order task detail information for work order tasks that meet the selection criteria on the Work Order Task Detail Report Options run control page. The report displays different sections depending on the selected reporting options. These reporting options are:  Labor Assignment Report, Material Assignment Report, Procurement/On-hand Report, Tool Assignment Report, Instruction Report, Check List Report, Work Order Notes Report, Task Notes Report, Equipment Parts List and Attachments. When there is no information available for the selected reporting option for the selected tasks, the report does not include the corresponding report section.	Maintenance Management > Work Order Management > Print Work Order > Work Order Task Detail Report Options	WM_WO_RPT
WM11000  Work Order Task Material Readiness Report	Describes the ongoing availability of needed inventory materials and other non-inventory/procured material items and services. The report indicates, for scheduled work order tasks selected over an (expected) relatively tight analysis date range, whether the tasks are material ready or not, and with the optional identification of any item exceptions that are not ready accompanied by an explanatory reason.	Maintenance Management, Inquiries and Reports, Material Readiness Report	WM_WO_MATREADY_ RPT

Report ID and Report Name	Description	Navigation	Run Control Page
WM20000 Preventive Maintenance Report	List all preventive maintenance (PM) schedule transactions that match the search criteria on the Preventive Maintenance Inquiry page. The report shows the maintenance percentage for each PM schedule, the next due reading, and the due date. The report shows work order information if a work order exists for the PM schedule transaction.	Maintenance Management, Preventive Maintenance, View Preventive Maintenance, Preventive Maintenance Inquiry  Click <b>Print</b> on the Preventive Maintenance Inquiry page.	WM_PM
WM20001  Preventive Maintenance by Process Instance Report	Lists all PM schedule transactions that were processed in a specific process instance of the Preventive Maintenance process (WM_PM) and shows the maintenance percentage. The report displays the due reading and due date, the asset description, tag number, and serial ID fields. It also includes work order information if the process created a work order.	Maintenance Management > Preventive Maintenance > Run Preventive Maintenance > Selection	WM_PM_RUN_SEL
WM20002 PM Projection Report	Displays projection information, which includes the work order and Asset Management business units, asset, asset location, type, asset description, tag number, serial ID, due date, SetID, loop, and projection ID after running the Projection process.	Maintenance Management, Preventive Maintenance, Run Projection	WM_PM_RUN_SEL
WM30000 Crew Availability Report	Provides information on the crew's base capacity, adjusted capacity hours, target load, confirmed scheduled hours, variance between the confirmed scheduled hours and scheduled hours and the percentage of scheduled hours, availability, and target load by Business Unit, Shop, Crew, period and lead craft.	Maintenance Management, Inquiries and Reports, Crew Schedule Reports, Crew Capacity Report	WM_CREW_CAPACI_REQ

Report ID and Report Name	Description	Navigation	Run Control Page
WM30001  Crew Schedule (and Assignment) Report	Describes the load of work by craft within each crew and includes the work order, task, status, priority, target equipment and the hours assigned to a craft in the specified schedule period by business unit and shop. It also describes employee task assignments, scheduled start and end dates and times, and actual hours worked. It also shows the employee ID, name and scheduled start/ end date time when include detail option is selected when requesting the report to run. If the Include Detail check box is not selected, the report will not display crew assignments.	Maintenance Management, Inquiries and Reports, Crew Schedule Reports, Crew Schedule & Assignment Rpt	WM_CREW_SCHED_REQ
WM30003  Maintenance Schedule Completion Report	. The report show the completion status of all the work order tasks that were scheduled for the crew to complete in the schedule periods and all unplanned/emergency tasks assigned to crew during those periods.  This report helps users measure how well the crews comply with the schedule for the schedule period.  Users should be able to determine the following: 1)  Unscheduled/emergency work that are completed within the period— For example, when completed scheduled hours are zero and completed hours are identified by the Unplanned Column on the report.  2) Completed Scheduled Work - For example, when both completed scheduled hours are greater than zero. 3)  Scheduled Work that is not completed and becomes carryover work (These tasks are indicated by the Carryover column on the report).	Maintenance Management, Inquiries and Reports, Crew Schedule Reports, Crew Schedule Completion Rpt	WM_SCHED_RPT_REQ

Report ID and Report Name	Description	Navigation	Run Control Page
WM30004 Unscheduled Report	Lists all the work orders currently not scheduled to crews. It is used for review during the scheduling meeting and lists work orders by business unit, shop, and preferred crew.	Maintenance Management, Inquiries and Reports, Crew Schedule Reports, Crew Unscheduled Work Report	WM_UNSCHEDULED_REQ
WM30005 Crew Carryover Work Report	Lists the crew scheduled work orders not yet completed by the targeted date, which should be rescheduled / carried over to the next period. It displays the assigned craft, schedule dates, and carryover hours by business unit, shop, and crew.	Maintenance Management, Inquiries and Reports, Crew Schedule Reports, Crew Carry Over Work Report	WM_CARRYOVER_REQ
WM50000 Warranty Claim	Shows the current warranty claim information. It displays the claim sender information, the supplier contact information, a list of failure and cost details, and the supporting meter readings.	Maintenance Management > Warranty Claim > Update Warranty Claim > Claim Summary  Click Print on the Claim Summary page.	WM_CLAIM_HDR

#### **PeopleSoft Maintenance Management Selected Reports**

This section provides detailed information about individual reports. The reports are listed alphabetically by report ID.

#### WM10001 - Work Order Task Detail Report

The report include several sections depending on the reporting option that you select on the Work Order Task Detail Report Options page. The report includes each section only if there is corresponding information in the system. These are the report sections:

- Work Order Notes: Select **Work Order Notes Report** check box on the Work Order Task Detail Report Options page to include this section.
  - Displays work order header notes.
- Work Order Task Labor Schedule: Select Labor Assignment Report check box on the Work Order Task Detail Report Options page to include this section.
  - Lists the staffing assignments including scheduled and actual start and end dates.
- Work Order Task Inventory Schedule: Select **Material Assignment Report** check box on the Work Order Task Detail Report Options page to include this section.

Lists the materials assigned to the work order and work order tasks.

 Work Order Task Purchase/On-hand: Select Procurement On-hand Report check box on the Work Order Task Detail Report Options page to include this section.

Lists the procured materials assigned to the work order and work order tasks.

• Work Order Task Tools Schedule: Select **Tools Assignment Report** check box on the Work Order Task Detail Report Options page to include this section.

Lists the tools assigned to the work order tasks, including the asset, scheduled dates, and actual start and end dates information.

• Work Order Task Instructions: Select **Instructions Report** check box on the Work Order Task Detail Report Options page to include this section.

Lists the instructions associated with the work order and work order tasks, including sequence and step information.

• Work Order Task Checklist: Select **Check List Report** check box on the Work Order Task Detail Report Options page to include this section.

Lists the check lists related to the work order and work order tasks, including sequence and step information.

Work Order Task Notes: Select Work Order Task Notes Report check box on the Work Order Task
Detail Report Options page to include this section.

Displays work order task notes.

• Equipment Part List: Select **Equipment Parts List** to include this section.

Lists equipment parts, quantity required, and unit of measure (UOM).

• Print Attachments: Select **Print Attachments** to print the attachments for the given Work Order and Tasks on the report.

If you run the report from the Work Order page, it contains the information for each work order task associated with the work order. If you run the report from the scheduler's workbench or the technician's workbench, it contains information for each selected work order task.

If you run the report from the Work Order Task Detail Report Options run control page, it includes information for all work order tasks for the work orders that meet the selection criteria in the **Report Request Parameters** group box.

**Note:** To print bar codes, you must install the appropriate barcode font, such as Code 39 True Type Font, on the process scheduler.

#### **Related Links**

Work Order Task Detail Report Options Page