

# Oracle® Enterprise Asset Management

Implementation Guide

Release 11*i*

**Part No. B13595-01**

February 2004

Oracle Enterprise Asset Management Implementation Guide, Release 11i

Part No. B13595-01

Copyright © 2004 Oracle. All rights reserved.

Primary Authors: Amy Sonczalla

Contributors: Connie Afshar, Naveen Gupta, Suresh Sundaram, Amit Mondal, Jeffery Plachta, Andy Binsley.

The Programs (which include both the software and documentation) contain proprietary information; they are provided under a license agreement containing restrictions on use and disclosure and are also protected by copyright, patent, and other intellectual and industrial property laws. Reverse engineering, disassembly, or decompilation of the Programs, except to the extent required to obtain interoperability with other independently created software or as specified by law, is prohibited.

The information contained in this document is subject to change without notice. If you find any problems in the documentation, please report them to us in writing. This document is not warranted to be error-free. Except as may be expressly permitted in your license agreement for these Programs, no part of these Programs may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose.

If the Programs are delivered to the United States Government or anyone licensing or using the Programs on behalf of the United States Government, the following notice is applicable:

U.S. GOVERNMENT RIGHTS Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the Programs, including documentation and technical data, shall be subject to the licensing restrictions set forth in the applicable Oracle license agreement, and, to the extent applicable, the additional rights set forth in FAR 52.227-19, Commercial Computer Software--Restricted Rights (June 1987). Oracle Corporation, 500 Oracle Parkway, Redwood City, CA 94065.

The Programs are not intended for use in any nuclear, aviation, mass transit, medical, or other inherently dangerous applications. It shall be the licensee's responsibility to take all appropriate fail-safe, backup, redundancy and other measures to ensure the safe use of such applications if the Programs are used for such purposes, and we disclaim liability for any damages caused by such use of the Programs.

The Programs may provide links to Web sites and access to content, products, and services from third parties. Oracle is not responsible for the availability of, or any content provided on, third-party Web sites. You bear all risks associated with the use of such content. If you choose to purchase any products or services from a third party, the relationship is directly between you and the third party. Oracle is not responsible for: (a) the quality of third-party products or services; or (b) fulfilling any of the terms of the agreement with the third party, including delivery of products or services and warranty obligations related to purchased products or services. Oracle is not responsible for any loss or damage of any sort that you may incur from dealing with any third party.

Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

---

---

# Contents

<b>Send Us Your Comments .....</b>	<b>ix</b>
<b>Preface.....</b>	<b>xi</b>
How To Use This Guide .....	xii
Other Information Sources .....	xiv
Installation and System Administration .....	xvii
Training and Support.....	xx
Do Not Use Database Tools to Modify Oracle Applications Data .....	xxi
About Oracle .....	xxi
Your Feedback.....	xxii
<b>1 Oracle Enterprise Asset Management Overview</b>	
<b>Overview of Oracle Enterprise Asset Management.....</b>	<b>1-2</b>
Asset Management .....	1-3
eAM Work Management.....	1-4
<b>Integration with Other Oracle Application Products .....</b>	<b>1-6</b>
Required Products.....	1-6
Optional Products.....	1-6
<b>2 Process Flows</b>	
<b>Work Execution Implementation Flow.....</b>	<b>2-2</b>
<b>Preventive Maintenance Implementation Flow .....</b>	<b>2-3</b>

### 3 Setting Up

<b>Before You Begin</b> .....	3-3
Overview of Setting Up .....	3-3
Related Product Setup Steps .....	3-3
Oracle Enterprise Asset Management Implementation Checklist .....	3-4
<b>Oracle Enterprise Asset Management Setup Overview</b> .....	3-9
<b>Organization Setup</b> .....	3-12
Setting Up Organizations .....	3-12
Enabling Organizations for Enterprise Asset Management.....	3-14
Defining eAM Parameters.....	3-16
<b>General eAM Setup</b> .....	3-21
Setting Up Areas .....	3-21
Defining Departments and Resources .....	3-22
Defining Department Approvers .....	3-26
Defining Miscellaneous Documents .....	3-27
<b>Defining Lookups</b> .....	3-29
Activity Types .....	3-29
Activity Causes .....	3-31
Activity Sources .....	3-32
Cost Category Codes.....	3-34
Criticality Codes.....	3-35
Work Request Statuses.....	3-37
Work Request Types .....	3-39
Work Order and Work Request Priority Codes.....	3-40
Work Order Reconciliation Codes .....	3-42
Work Order Types.....	3-43
<b>Asset Setup</b> .....	3-46
Setting Up Category Codes .....	3-46
Defining Maintained Groups.....	3-49
Defining Activities.....	3-51
Activity Association Templates .....	3-62
Setting Up Attributes .....	3-64
Defining Asset Documents.....	3-68
Defining Asset Numbers (Maintained Numbers).....	3-69
Defining Asset Routes.....	3-76

Setting Up Asset Bills of Material .....	3-79
Defining Asset Statuses .....	3-82
<b>Using the Activity Workbench</b> .....	3-84
Navigating the Activity Workbench.....	3-84
Defining Maintenance Routes .....	3-93
Setting Up Maintenance Bills of Material .....	3-99
Associating Maintained Numbers with Activities .....	3-101
<b>Rebuildable Item Setup</b> .....	3-105
Defining Rebuildable Items .....	3-105
Defining Rebuildable Serial Numbers.....	3-108
Rebuildable Item/Activity Association .....	3-110
<b>Preventive Maintenance Setup</b> .....	3-113
Defining Meter Templates.....	3-113
Defining Meters .....	3-115
Associating Meter Templates with Maintained Groups.....	3-118
Associating Meters with Maintained Numbers .....	3-119
Defining Set Names.....	3-121
Defining a Preventive Maintenance Template.....	3-122
Entering Preventive Maintenance Schedule Definitions .....	3-129
<b>eAM Planning and Scheduling</b> .....	3-141
eAM Planning .....	3-141
eAM Scheduling .....	3-148
<b>Quality Integration Setup</b> .....	3-150
Creating Collection Elements .....	3-150
Creating eAM Quality Collection Plans .....	3-155
<b>Outside Processing Integration Setup</b> .....	3-160
Setting Up Outside Service Processing .....	3-160
<b>Cost Management Integration Setup</b> .....	3-170
eAM Costing Methods and Mappings .....	3-170
Setting Up Cost Categories .....	3-172
Setting Up eAM Cost Management .....	3-174
<b>Process and Discrete Manufacturing Integration Setup</b> .....	3-177
Organization Setup.....	3-177
Associating Assets with Production Equipment .....	3-179
<b>Project Manufacturing Integration Setup</b> .....	3-181

Project Definition .....	3-181
<b>Property Manager Integration Setup .....</b>	<b>3-187</b>
Setting Up eAM Prerequisites.....	3-187
Running the Export Process.....	3-187
<b>Oracle Time and Labor Integration Setup .....</b>	<b>3-190</b>
<b>Setting Up the Integration.....</b>	<b>3-191</b>
Defining Persons as Users .....	3-191
Creating Eligibility Criteria.....	3-192
<b>Order Management Integration Setup .....</b>	<b>3-197</b>
Setting Up Parameters .....	3-197
Setting Up Item Costs and Prices .....	3-198
Service Attribute Setup.....	3-203
Setting Up Billable Material .....	3-204
Setting Up a Billable Resource.....	3-206
Setting Up a Billable Activity.....	3-209

## 4 Profile Options

<b>Profile Option Summary .....</b>	<b>4-2</b>
Profile Option Details.....	4-3
<b>Profile Options in Other Applications .....</b>	<b>4-6</b>
Profile Option Details.....	4-6

## 5 Open Interfaces and APIs

<b>eAM Interfaces and APIs.....</b>	<b>5-2</b>
eAM Item Open Interface .....	5-2
eAM Asset Number Open Interface .....	5-8
eAM Asset Genealogy Open Interface .....	5-15
eAM Meter Reading Open Interface.....	5-17
Meter Reading API.....	5-21
Preventive Maintenance Definition API.....	5-23
Activity Creation API.....	5-28
Maintenance Object Instantiation API.....	5-40
Work Order Business API .....	5-41

**A Windows and Navigation Paths**

**Windows and Navigation Paths..... A-1**

**Glossary**

**Index**



---

---

# Send Us Your Comments

**Oracle Enterprise Asset Management Implementation Guide, Release 11i**

**Part No. B13595-01**

Oracle welcomes your comments and suggestions on the quality and usefulness of this document. Your input is an important part of the information used for revision.

- Did you find any errors?
- Is the information clearly presented?
- Do you need more information? If so, where?
- Are the examples correct? Do you need more examples?
- What features did you like most?

If you find any errors or have any other suggestions for improvement, please indicate the document title and part number, and the chapter, section, and page number (if available). You can send comments to us in the following ways:

- Electronic mail: [appsdoc\\_us@oracle.com](mailto:appsdoc_us@oracle.com)
- FAX: (650) 506-7200 Attn: Oracle Applications Documentation Manager
- Postal service:  
Oracle Corporation  
Oracle Applications Documentation Manager  
500 Oracle Parkway  
Redwood Shores, CA 94065  
USA

If you would like a reply, please give your name, address, telephone number, and (optionally) electronic mail address.

If you have problems with the software, please contact your local Oracle Support Services.



---

---

# Preface

Welcome to the Oracle Enterprise Asset Management Implementation Guide, Release 11i.

This guide assumes you have a working knowledge of the following:

- The principles and customary practices of your business area.
- Oracle Enterprise Asset Management.

If you have never used Oracle Receivables or Oracle Enterprise Asset Management, Oracle suggests you attend one or more of the Oracle Applications training classes available through Oracle University.

- Oracle Self-Service Web Applications.

To learn more about Oracle Self-Service Web Applications, read the *Oracle Self-Service Web Applications Implementation Manual*.

- The Oracle Applications graphical user interface.

To learn more about the Oracle Applications graphical user interface, read the *Oracle Applications User's Guide*.

See [Other Information Sources](#) for more information about Oracle Applications product information.

## How To Use This Guide

The Oracle Enterprise Asset Management Implementation Guide contains the information you need to understand and use Oracle Enterprise Asset Management. This guide contains four chapters:

- [Chapter 1](#) provides an overview of Oracle Enterprise Asset Management.
- [Chapter 2](#) illustrates the major business flows within Oracle Enterprise Asset Management.
- [Chapter 3](#) describes the setup procedures.
- [Chapter 4](#) discusses profile options.
- [Chapter 5](#) lists and describes all APIs and Open Interfaces used by Oracle Enterprise Asset Management.
- [Chapter A](#) provides the necessary navigation paths.

## **Documentation Accessibility**

Our goal is to make Oracle products, services, and supporting documentation accessible, with good usability, to the disabled community. To that end, our documentation includes features that make information available to users of assistive technology. This documentation is available in HTML format, and contains markup to facilitate access by the disabled community. Standards will continue to evolve over time, and Oracle is actively engaged with other market-leading technology vendors to address technical obstacles so that our documentation can be accessible to all of our customers. For additional information, visit the Oracle Accessibility Program Web site at <http://www.oracle.com/accessibility/>

### **Accessibility of Code Examples in Documentation**

JAWS, a Windows screen reader, may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, JAWS may not always read a line of text that consists solely of a bracket or brace.

### **Accessibility of Links to External Web Sites in Documentation**

This documentation may contain links to Web sites of other companies or organizations that Oracle does not own or control. Oracle neither evaluates nor makes any representations regarding the accessibility of these Web sites.

## Other Information Sources

You can choose from many sources of information, including documentation, training, and support services, to increase your knowledge and understanding of Oracle Enterprise Asset Management.

If this guide refers you to other Oracle Applications documentation, use only the Release 11*i* versions of those guides.

### Online Documentation

All Oracle Applications documentation is available online (HTML or PDF).

- **PDF Documentation**- See the Online Documentation CD for current PDF documentation for your product with each release. This Documentation CD is also available on Oracle*MetaLink* and is updated frequently.
- 
- **Online Help** - You can refer to Oracle Applications Help for current HTML online help for your product. Oracle provides patchable online help, which you can apply to your system for updated implementation and end user documentation. No system downtime is required to apply online help.
- **Release Content Document** - See the Release Content Document for descriptions of new features available by release. The Release Content Document is available on Oracle*MetaLink*.
- **About document** - Refer to the About document for information about your release, including feature updates, installation information, and new documentation or documentation patches that you can download. The About document is available on Oracle*MetaLink*.

### Related Guides

Oracle Enterprise Asset Management shares business and setup information with other Oracle Applications products. Therefore, you may want to refer to other guides when you set up and use Oracle Enterprise Asset Management.

You can read the guides online by choosing Library from the expandable menu on your HTML help window, by reading from the Oracle Applications Document Library CD included in your media pack, or by using a Web browser with a URL that your system administrator provides.

If you require printed guides, you can purchase them from the Oracle Store at <http://oraclestore.oracle.com>.

## Guides Related to All Products

### **Oracle Applications User's Guide**

This guide explains how to enter data, query, run reports, and navigate using the graphical user interface (GUI). This guide also includes information on setting user profiles, as well as running and reviewing reports and concurrent processes.

You can access this user's guide online by choosing "Getting Started with Oracle Applications" from any Oracle Applications help file.

## Guides Related to This Product

### **Oracle Assets User's Guide**

This guide defines an asset, describes key information Oracle Assets stores for each asset, and explains how to define them. The concepts and tasks related to maintaining and retiring assets are detailed, and information regarding depreciation, depreciation projections, what-if depreciation, and the depreciation transaction archive purge feature is discussed. Asset accounting, tax accounting features, and capital budgeting are described in detail.

### **Oracle Bills of Material User's Guide**

This guide describes how to create various bills of material to maximize efficiency, improve quality, and lower costs for the most sophisticated manufacturing and/or maintenance environments. By detailing integrated product structure and processes, flexible product and process definition, and configuration management, this guide enables you to manage product details within and across multiple sites.

### **Oracle Cost Management User's Guide**

This guide contains information about setting up Oracle Cost Management, as well as other integrated applications. The guide explains how to define, view, and purge item cost information, and the processes common to both standard and average costing. Standard, Average, FIFO, and project manufacturing costing methods are detailed, including how transactions are costed. Flow manufacturing, periodic costing, and period close functions are all discussed in detail.

### **Oracle Enterprise Asset Management User's Guide**

This guide discusses maintenance work orders, how to manage them, and eAM's preventive maintenance solution. eAM's integration points and how to use them are described in detail.

### **Oracle Human Resources User's Guide**

This user's guide explains the setup procedures you need to perform in order to successfully implement Oracle HRMS in your enterprise.

### **Oracle Internet Procurement Implementation Guide**

Use this guide for further direction on enabling internal users to independently order items from both internal and external catalogs.

### **Oracle Inventory User's Guide**

This guide describes how to define items and item information, perform receiving and inventory transactions, maintain cost control, plan items, perform cycle counting and physical inventories, and set up Oracle Inventory.

### **Oracle Work In Process User's Guide**

This guide describes how Oracle Work in Process provides a complete production management system. Specifically, this guide describes how discrete, repetitive, assemble-to-order, project, flow, and mixed manufacturing environments are supported.

# Installation and System Administration

## **Oracle Applications Concepts**

This guide provides an introduction to the concepts, features, technology stack, architecture, and terminology for Oracle Applications Release 11*i*. It provides a useful first book to read before an installation of Oracle Applications. This guide also introduces the concepts behind Applications-wide features such as Business Intelligence (BIS), languages and character sets, and Self-Service Web Applications.

## **Installing Oracle Applications**

This guide provides instructions for managing the installation of Oracle Applications products. In Release 11*i*, much of the installation process is handled using Oracle Rapid Install, which minimizes the time to install Oracle Applications and the Oracle technology stack by automating many of the required steps. This guide contains instructions for using Oracle Rapid Install and lists the tasks you need to perform to finish your installation. You should use this guide in conjunction with individual product user guides and implementation guides.

## **Oracle Applications Implementation Wizard User Guide**

If you are implementing more than one Oracle product, you can use the Oracle Applications Implementation Wizard to coordinate your setup activities. This guide describes how to use the wizard.

## **Upgrading Oracle Applications**

Refer to this guide if you are upgrading your Oracle Applications Release 10.7 or Release 11.0 products to Release 11*i*. This guide describes the upgrade process and lists database and product-specific upgrade tasks. You must be either at Release 10.7 (NCA, SmartClient, or character mode) or Release 11.0, to upgrade to Release 11*i*. You cannot upgrade to Release 11*i* directly from releases prior to 10.7.

## **“About” Document**

For information about implementation and user documentation, instructions for applying patches, new and changed setup steps, and descriptions of software updates, refer to the “About” document for your product. “About” documents are available on Oracle *MetaLink* for most products starting with Release 11.5.8.

## **Maintaining Oracle Applications**

Use this guide to help you run the various AD utilities, such as AutoUpgrade, AutoPatch, AD Administration, AD Controller, AD Relink, License Manager, and others. It contains how-to steps, screenshots, and other information that you need to run the AD utilities. This guide also provides information on maintaining the Oracle applications file system and database.

## **Oracle Applications System Administrator's Guide**

This guide provides planning and reference information for the Oracle Applications System Administrator. It contains information on how to define security, customize menus and online help, and manage concurrent processing.

## **Oracle Alert User's Guide**

This guide explains how to define periodic and event alerts to monitor the status of your Oracle Applications data.

## **Oracle Applications Developer's Guide**

This guide contains the coding standards followed by the Oracle Applications development staff and describes the Oracle Application Object Library components that are needed to implement the Oracle Applications user interface described in the *Oracle Applications User Interface Standards for Forms-Based Products*. This manual also provides information to help you build your custom Oracle Forms Developer forms so that the forms integrate with Oracle Applications.

## **Oracle Applications User Interface Standards for Forms-Based Products**

This guide contains the user interface (UI) standards followed by the Oracle Applications development staff. It describes the UI for the Oracle Applications products and how to apply this UI to the design of an application built by using Oracle Forms.

## **Other Implementation Documentation**

### **Oracle Applications Product Update Notes**

Use this guide as a reference for upgrading an installation of Oracle Applications. It provides a history of the changes to individual Oracle Applications products between Release 11.0 and Release 11*i*. It includes new features, enhancements, and changes made to database objects, profile options, and seed data for this interval.

### **Oracle Workflow Administrator's Guide**

This guide explains how to complete the setup steps necessary for any Oracle Applications product that includes workflow-enabled processes, as well as how to monitor the progress of runtime workflow processes.

### **Oracle Workflow Developer's Guide**

This guide explains how to define new workflow business processes and customize existing Oracle Applications-embedded workflow processes. It also describes how to define and customize business events and event subscriptions.

### **Oracle Workflow User's Guide**

This guide describes how Oracle Applications users can view and respond to workflow notifications and monitor the progress of their workflow processes.

### **Oracle Workflow API Reference**

This guide describes the APIs provided for developers and administrators to access Oracle Workflow.

### **Oracle Applications Flexfields Guide**

This guide provides flexfields planning, setup and reference information for the Oracle Enterprise Asset Management implementation team, as well as for users responsible for the ongoing maintenance of Oracle Applications product data. This guide also provides information on creating custom reports on flexfields data.

### **Oracle eTechnical Reference Manuals**

Each eTechnical Reference Manual (eTRM) contains database diagrams and a detailed description of database tables, forms, reports, and programs for a specific Oracle Applications product. This information helps you convert data from your existing applications, integrate Oracle Applications data with non-Oracle applications, and write custom reports for Oracle Applications products. Oracle eTRM is available on Oracle *Metalink*

### **Oracle Applications Message Manual**

This manual describes all Oracle Applications messages. This manual is available in HTML format on the documentation CD-ROM for Release 11*i*.

# Training and Support

## **Training**

Oracle offers a complete set of training courses to help you and your staff master Oracle Enterprise Asset Management and reach full productivity quickly. These courses are organized into functional learning paths, so you take only those courses appropriate to your job or area of responsibility.

You have a choice of educational environments. You can attend courses offered by Oracle University at any one of our many education centers, you can arrange for our trainers to teach at your facility, or you can use Oracle Learning Network (OLN), Oracle University's online education utility. In addition, Oracle training professionals can tailor standard courses or develop custom courses to meet your needs. For example, you may want to use your organization structure, terminology, and data as examples in a customized training session delivered at your own facility.

## **Support**

From on-site support to central support, our team of experienced professionals provides the help and information you need to keep Oracle Enterprise Asset Management working for you. This team includes your technical representative, account manager, and Oracle's large staff of consultants and support specialists with expertise in your business area, managing an Oracle server, and your hardware and software environment.

## Do Not Use Database Tools to Modify Oracle Applications Data

***Oracle STRONGLY RECOMMENDS that you never use SQL\*Plus, Oracle Data Browser, database triggers, or any other tool to modify Oracle Applications data unless otherwise instructed.***

Oracle provides powerful tools you can use to create, store, change, retrieve, and maintain information in an Oracle database. But if you use Oracle tools such as SQL\*Plus to modify Oracle Applications data, you risk destroying the integrity of your data and you lose the ability to audit changes to your data.

Because Oracle Applications tables are interrelated, any change you make using Oracle Applications can update many tables at once. But when you modify Oracle Applications data using anything other than Oracle Applications, you may change a row in one table without making corresponding changes in related tables. If your tables get out of synchronization with each other, you risk retrieving erroneous information and you risk unpredictable results throughout Oracle Applications.

When you use Oracle Applications to modify your data, Oracle Applications automatically checks that your changes are valid. Oracle Applications also keeps track of who changes information. If you enter information into database tables using database tools, you may store invalid information. You also lose the ability to track who has changed your information because SQL\*Plus and other database tools do not keep a record of changes.

## About Oracle

Oracle develops and markets an integrated line of software products for database management, applications development, decision support, and office automation, as well as Oracle Applications, an integrated suite of more than 160 software modules for financial management, supply chain management, manufacturing, project systems, human resources and customer relationship management.

Oracle products are available for mainframes, minicomputers, personal computers, network computers and personal digital assistants, allowing organizations to integrate different computers, different operating systems, different networks, and even different database management systems, into a single, unified computing and information resource.

Oracle is the world's leading supplier of software for information management, and the world's second largest software company. Oracle offers its database, tools, and applications products, along with related consulting, education, and support services, in over 145 countries around the world.

## Your Feedback

Thank you for using Oracle Enterprise Asset Management and this implementation guide.

Oracle values your comments and feedback. In this guide is a reader's comment form that you can use to explain what you like or dislike about Oracle Enterprise Asset Management or this user guide. Mail your comments to the following address or call us directly at (650) 506-7000.

Oracle Applications Documentation Manager  
Oracle Corporation  
500 Oracle Parkway  
Redwood Shores, CA 94065  
U.S.A.

Or, send electronic mail to [mfgdoccomments\\_us@oracle.com](mailto:mfgdoccomments_us@oracle.com).

---

---

# Oracle Enterprise Asset Management Overview

Oracle Enterprise Asset Management (eAM) is part of Oracle's 11i E-Business Suite and addresses the comprehensive and routine asset maintenance requirements of asset intensive organizations. Using eAM, organizations can efficiently maintain both assets, such as vehicles, cranes and HVAC systems, as well as rotatable inventory items, such as motors and engines. To measure performance and optimize maintenance operations, all maintenance costs and work history are tracked at the asset level. This chapter contains the following topics:

- ❑ [Overview of Oracle Enterprise Asset Management](#) on page 1-2
- ❑ [Asset Management](#) on page 1-3
- ❑ [eAM Work Management](#) on page 1-4
- ❑ [Integration with Other Oracle Application Products](#) on page 1-6
- ❑ [Required Products](#) on page 1-6
- ❑ [Optional Products](#) on page 1-6

## Overview of Oracle Enterprise Asset Management

Oracle Enterprise Asset Management (eAM) is a part of Oracle's E-Business Suite, providing organizations with the tools to create and implement maintenance procedures for both assets and rebuildable inventory items. Maintenance procedures are an integral part of an organization's complete asset lifecycle management strategy, enabling an organization to optimize asset utilization. eAM enables users to optimally plan and schedule maintenance activities with minimal disruption to an organization's operations or production. Importantly, it improves resource efficiency, enhances maintenance quality, tracks work history, and records all maintenance costs.

Oracle eAM tracks the performance of assets (including rebuildable, rotatable inventory items) using meters, quality plans, and condition monitoring systems. By effectively monitoring an asset's operating condition, effective preventive maintenance strategies can be implemented. In addition to creating preventive maintenance schedules, users can create alternative maintenance strategies for seasonal or production capacity changes.

eAM's comprehensive maintenance functionality supports asset lifecycle strategies for asset intensive industries, including Metals/Mining, Manufacturing, Pulp/Paper, Petrochemicals, Facilities, and Education. eAM eliminates the need for spreadsheets and disparate data repositories, by enabling companies to manage reactive, planned, preventive maintenance, and adopt a centralized, proactive strategy for managing asset maintenance across an enterprise.

eAM enables an organization to do the following:

- Create a preventive maintenance strategy
- Maximize resource availability, including both equipment and labor
- Optimize scheduling and resource efficiency
- Integrate with Oracle's E-Business Suite for enterprise-wide solutions

The following topics are included in this section:

- [Asset Management](#) on page 1-3
- [eAM Work Management](#) on page 1-4

## Asset Management

eAM eliminates the need for point solutions that offer a limited, "flat" view of an asset by expanding the visibility and ownership of an asset throughout an entire organization. Different entities may describe an asset in several ways:

- fixed asset to an accounting department
- leased asset to facilities management
- piece of production equipment to operations
- inventory item to materials management
- maintainable asset to mechanical engineers

eAM incorporates the above views of an asset through a single entity. An asset is an entity for which users can report problems. Assets can be cooling towers, cranes, buses, buildings, conveyors, or anything that needs work. eAM provides the flexibility to address the many types of assets through the definition of the following:

- asset groups and attributes
- asset links to an enterprise
- asset costs and work history
- asset activities and meters

By first establishing Maintained Groups, you can define assets and asset characteristics that can be inherited by the assets belonging to that group. Detailed information, such as nameplate data, engineering specifications, property detail, and other searchable characteristics are defined with asset attribute elements and values. Maintained Groups also define a default master bill of materials (BOM) for assets. This BOM can be edited for specific assets. Virtual assets can be designed to create a network of assets or routings. This combines several assets to a single work activity.

Oracle eAM enables you to quickly identify plants and facilities using an Asset Navigator (See: [Assets](#), *Oracle Enterprise Asset Management User's Guide*). You can view details of an asset, such as cost, hierarchal (parent/child) information, and launch transactions. You can also view current or historical configurations, and work details of an asset. As rotatable, inventory items of an asset are removed and re-installed from an asset, the asset genealogy and parent/child meter readings are recorded automatically. Attributes, such as cost history, bills of material, and document attachments can be associated with a specific asset.

## Asset Hierarchies

You can focus on an asset hierarchy, or a set of parent/child relationships of an asset. You can view all associated asset information such as asset details, bill of material, work orders, maintenance activities, quality plans, maintenance costs, contract services, and work order history. You can view cost information for one asset, or view rolled-up costs of its children assets.

### See Also:

Asset Setup on page 3-46

Obtaining Asset Information, *Oracle Enterprise Asset Management User's Guide*

Viewing Asset Details, *Oracle Enterprise Asset Management User's Guide*

Displaying the Asset Hierarchy, *Oracle Enterprise Asset Management User's Guide*

Viewing and Updating the Configuration History, *Oracle Enterprise Asset Management User's Guide*

Viewing Cost Information, *Oracle Enterprise Asset Management User's Guide*

Viewing Associated Work Requests, *Oracle Enterprise Asset Management User's Guide*

Viewing Quality Information, *Oracle Enterprise Asset Management User's Guide*

## eAM Work Management

Preventive and Predictive Maintenance strategies are supported by eAM. Preventive Maintenance can be based on Day or Runtime intervals, as well as a specific list of dates, for both assets and inventory items. Organizations that practice Predictive Maintenance can monitor and scrutinize maintenance work history and performance trends with quality plans. They can also study asset conditions by monitoring systems. By combining these strategies, an organization can establish a maintenance strategy that ensures minimal downtime. Oracle Enterprise Asset Management enables you to monitor reliability and predict the need for maintenance in the future. You can identify any breach of performance defined by engineering and immediately alert maintenance, monitor conditions of an asset, collect meter readings, forecast the frequency at which preventive maintenance should be performed, and establish Run to Failure schedules and forecasts, based on predicted failures.

Oracle eAM enables operations and maintenance staff to create work requests to report any problems with an asset. To avoid duplicate work orders for the same issue, you can review any outstanding work requests that are currently assigned to an asset.

A supervisor can approve, place on hold, or reject a work request. An approved work request can be linked to a work order. The status of a work request is then updated when it is linked to a work order.

**See Also:**

[Obtaining Work Request Information](#), *Oracle Enterprise Asset Management User's Guide*

[Creating and Updating Work Requests](#), *Oracle Enterprise Asset Management User's Guide*

[Work Orders](#), *Oracle Enterprise Asset Management User's Guide*

## Integration with Other Oracle Application Products

Oracle Enterprise Asset Management is part of the Oracle E-Business suite, and directly integrates with Oracle Manufacturing, Oracle Purchasing, Oracle Property Management, Oracle Quality, Oracle Inventory, Oracle Human Resources, Oracle Financials, Oracle Fixed Assets, and Oracle Projects. This enables you to strategically monitor resource and cost planning throughout the enterprise. Improvement programs can be enforced and reviewed to ensure compliance with industry standards by tracking problems through to resolution.

A well-planned maintenance environment depends on the ability of key personnel to view available inventory items, equipment, and skilled personnel. Because eAM is an enterprise solution, you can view the resource availability for assets that are used by operations and coordinate maintenance work to minimize operation disruption. Most importantly, Oracle eAM is designed for the maintenance user who performs the work. Using Oracle's Maintenance User, trades people and supervisors with minimum training can easily perform their work.

### Required Products

In order to implement Enterprise Asset Management, you must have the following required products installed:

- Oracle Inventory
- Oracle Bills of Material
- Oracle Human Resources
- Oracle Cost Management
- Oracle Manufacturing Scheduling
- Oracle Quality
- Oracle Work In Process

### Optional Products

In order to implement Enterprise Asset Management, the following products are not required, however, they are useful in the overall robust eAM solution:

- Oracle Master Scheduling/MRP
- Oracle Property Management
- Oracle Financials

- Oracle Fixed Assets
- Oracle iProcurement
- Oracle Projects
- Oracle Project Manufacturing
- Oracle Purchasing
- Oracle Order Management
- Oracle Time and Labor



---

---

## Process Flows

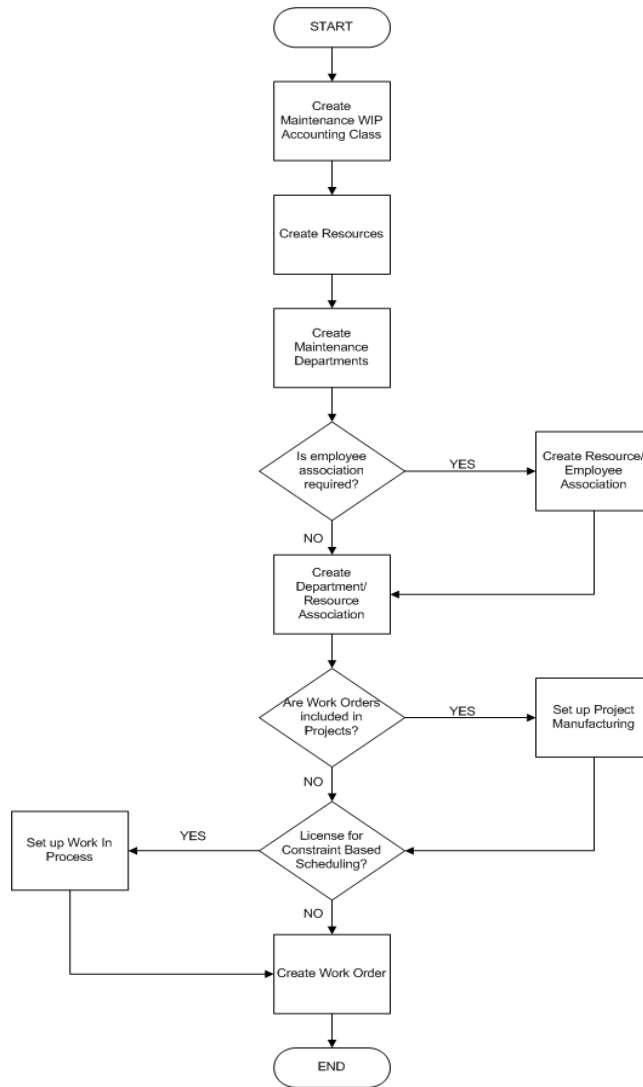
This chapter uses process flow diagrams to illustrate the Work Execution and Preventive Maintenance processes. It includes the following topics:

- ❑ [Work Execution Implementation Flow](#) on page 2-2
- ❑ [Preventive Maintenance Implementation Flow](#) on page 2-3

# Work Execution Implementation Flow

Figure 2-1 Work Execution Implementation Flow

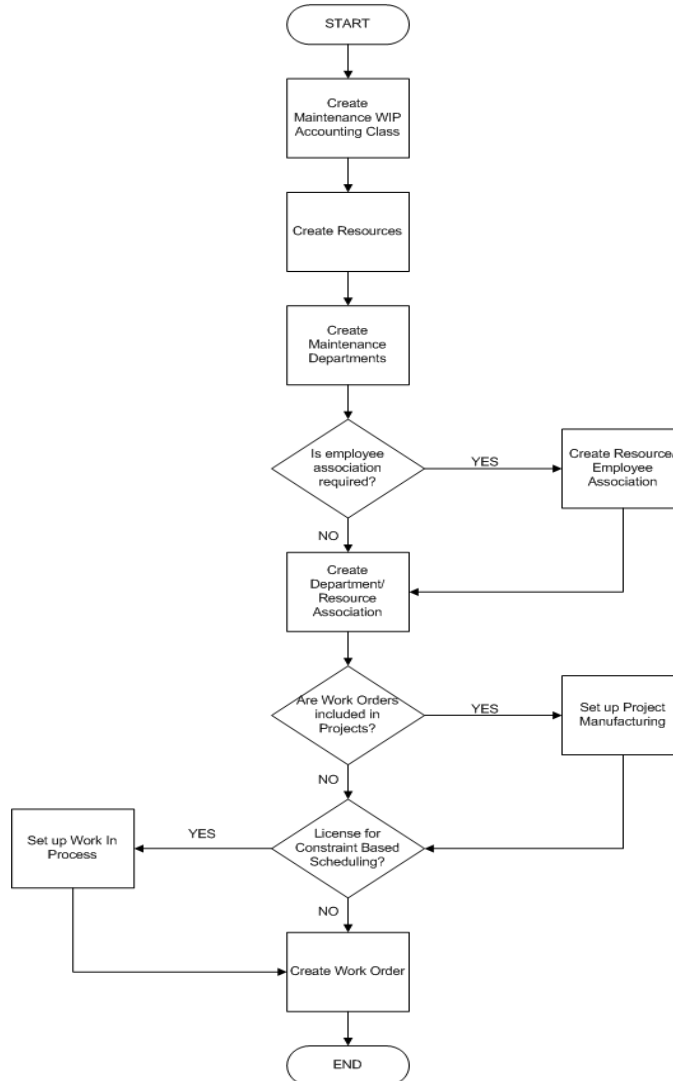
## Work Execution Implementation Flow



# Preventive Maintenance Implementation Flow

Figure 2–2 Preventive Maintenance Implementation Flow

## Work Execution Implementation Flow





This chapter discusses setting up the Oracle Enterprise Asset Management system, including the following topics:

- ❑ [Before You Begin](#) on page 3-3
- ❑ [Overview of Setting Up](#) on page 3-3
- ❑ [Related Product Setup Steps](#) on page 3-3
- ❑ [Oracle Enterprise Asset Management Implementation Checklist](#) on page 3-4
- ❑ [Organization Setup](#) on page 3-12
- ❑ [General eAM Setup](#) on page 3-21
- ❑ [Defining Lookups](#) on page 3-29
- ❑ [Asset Setup](#) on page 3-46
- ❑ [Using the Activity Workbench](#) on page 3-84
- ❑ [Rebuildable Item Setup](#) on page 3-105
- ❑ [Preventive Maintenance Setup](#) on page 3-113
- ❑ [eAM Planning and Scheduling](#) on page 3-141
- ❑ [Quality Integration Setup](#) on page 3-150
- ❑ [Creating Collection Elements](#) on page 3-150
- ❑ [Outside Processing Integration Setup](#) on page 3-160
- ❑ [Cost Management Integration Setup](#) on page 3-170
- ❑ [Process and Discrete Manufacturing Integration Setup](#) on page 3-177
- ❑ [Project Manufacturing Integration Setup](#) on page 3-181

- 
- ❑ [Property Manager Integration Setup](#) on page 3-187
  - ❑ [Oracle Time and Labor Integration Setup](#) on page 3-190
  - ❑ [Order Management Integration Setup](#) on page 3-197

## Before You Begin

As you plan your implementation of Oracle Enterprise Asset Management (eAM), Oracle recommends that you consider the implementation issues discussed in this section. By carefully planning your implementation, you can save time and reduce errors.

## Overview of Setting Up

This section contains a checklist that includes each task that you need to perform to complete the implementation of Oracle Enterprise Asset Management. It lists the steps required to implement Oracle Enterprise Asset Management, along with advanced implementation topics for you to consider.

The setup checklist is organized into several sub-sections.

When you install Oracle Enterprise Asset Management, the installation process automatically creates two responsibilities: Oracle Enterprise Asset Management and Maintenance User. The Oracle Enterprise Asset Management is a super user responsibility. It includes the necessary functions to set up and implement Oracle Enterprise Asset Management.

Before you set up Oracle Enterprise Asset Management, you must set up the users and assign the appropriate responsibilities for the implementation.

### See Also:

*Oracle Applications System Administrator's Guide*

## Related Product Setup Steps

Oracle Enterprise Asset Management setup includes various setup steps within Oracle Applications products. These steps are discussed in detail in the Overview of Setting Up sections of the respective Oracle Product user's guides.

### Setting Up Underlying Oracle Applications Technology

The Implementation Wizard guides you through the entire Oracle Applications setup, including system administration. However, if you do not use the Implementation Wizard, you need to complete several other setup steps, including:

- Performing system-wide setup tasks, such as configuring concurrent managers and printers

- Managing data security, which includes setting up responsibilities to enable access to a specific set of business data and complete a specific set of transactions, and assigning individual users to one or more of these responsibilities
- Setting up Oracle Workflow

---



---

**Note:** If you plan to use Work Requests for reporting maintenance problems in Oracle Enterprise Asset Management, and those Work Requests need approval by a maintenance department user, then you should set up Oracle Workflow.

---



---

**See Also:**

*Oracle Applications System Administrator's Guide*

*Oracle Workflow User's Guide*

## Oracle Enterprise Asset Management Implementation Checklist

The following tables summarize a checklist of each step you need to follow to implement Oracle Enterprise Asset Management. They include setup steps for data that may be shared with other Oracle Applications, but is required by Oracle Enterprise Asset Management. If you have already defined this information when setting up other Oracle Applications, you can skip those steps.

Since some implementation steps build upon information you define in other implementation steps, you should perform the steps in the order listed.

**Table 3–1 Organization Setup Steps**

Description	Required
Step 1 - Set Up eAM Organizations	Y
Step 2 - Enable Organizations for eAM	Y
Step 3 - Define WIP Accounting Class of type Maintenance	Y
Step 4 - Define eAM Parameters	Y

**Table 3–2 General eAM Setup Steps**

Description	Required
Step 5 - Set Up Areas	N

**Table 3–2 General eAM Setup Steps**

<b>Description</b>	<b>Required</b>
Step 6 - Define Departments and Resources	Y
Step 7 - Define Department Approvers	N
Step 8 - Define Miscellaneous Documents	N

**Table 3–3 Lookup Table Setup Steps**

<b>Description</b>	<b>Required</b>
Step 9 - Define Activity Types	N
Step 10 - Define Activity Causes	N
Step 11 - Define Activity Sources	N
Step 12 - Define Cost Category Codes	N
Step 13 - Define Asset Criticality Codes	N
Step 14 - Define Work Request Status Codes	N
Step 15 - Define Work Request Type Codes	N
Step 16 - Define Work Priority Codes	N
Step 17 - Define Work Order Reconciliation Codes	N
Step 18 - Define Work Order Type Codes	N

**Table 3–4 Asset Setup Steps**

<b>Description</b>	<b>Required</b>
Step 19 - Set Up Category Codes and Sets	Y
Step 20 - Define Maintained Groups	Y
Step 21 - Define Attributes	N
Step 22 - Define Asset Numbers	Y
Step 23 - Define Asset Documents	N
Step 24 - Define Activities	N
Step 25 - Associate Assets with Activities	N
Step 26 - Define Asset Routes	N

**Table 3–4 Asset Setup Steps**

<b>Description</b>	<b>Required</b>
Step 27 - Define Asset Bills of Material	N
Step 28 - Define Maintenance Routes	N
Step 29 - Define Maintenance BOMs	N

**Table 3–5 Rebuildable Item Setup Steps**

<b>Description</b>	<b>Required</b>
Step 30 - Define Rebuildable Items	N
Step 31 - Associate Rebuildable Items with Activities	N

**Table 3–6 Preventive Maintenance Setup Steps**

<b>Description</b>	<b>Required</b>
Step 32 - Define Meters	N
Step 33 - Associate Meters with Assets	N
Step 34 - Define PM Schedule Definitions	N
Step 35 - Define Suppression Activities	N

**Table 3–7 Planning and Scheduling Setup Steps**

<b>Description</b>	<b>Required</b>
Step 36 - Define Master Demand Schedule Name	N
Step 37 - Define Material Requirements Plan Name	N
Step 38 - Define Plan Options	N
Step 39 - Enable eAM Scheduling	N

**Table 3–8 Quality Integration Setup Steps**

<b>Description</b>	<b>Required</b>
Step 40 - Create Collection Elements	N
Step 41 - Create eAM Collection Plans	N

**Table 3–9 Outside Processing Integration Setup Steps**

<b>Description</b>	<b>Required</b>
Step 42 - Set Up Outside Service Processing	N

**Table 3–10 Cost Management Integration Setup Steps**

<b>Description</b>	<b>Required</b>
Step 43 - Set Up eAM Cost Management	N

**Table 3–11 Process and Discrete Manufacturing Integration Setup Steps**

<b>Description</b>	<b>Required</b>
Step 44 - Set Up Organization to Integrate	N
Step 45 - Associate Assets with Production Equipment	N

**Table 3–12 Project Manufacturing Integration Setup Steps**

<b>Description</b>	<b>Required</b>
Step 46 - Set Up Project Parameters for eAM Enabled Organizations	Y
Step 47 - Define Projects	N

**Table 3–13 Property Manager Integration Setup Steps**

<b>Description</b>	<b>Required</b>
Step 48 - Run the Export Process	N

**Table 3–14 Time and Labor Integration Setup Steps**

<b>Description</b>	<b>Required</b>
Step 49 - Define Persons as Users	N
Step 50 - Create Eligibility Criteria	N

**Table 3–15** *Order Management Integration Setup Steps*

<b>Description</b>	<b>Required</b>
Step 51 - Set Up Parameters	N
Step 52 - Set Up Item Costs and Prices	N
Step 53 - Set Up Billable Material	N
Step 54 - Set Up a Billable Resource	N
Step 55 - Set Up a Billable Activity	N

## Oracle Enterprise Asset Management Setup Overview

Oracle Enterprise Asset Management (eAM) can have unique setups for each organization. This includes parameters, user defined lookups, and Attributes. During the implementation process, the implementation team should discuss system and user options for Enterprise Asset Management. The user that is implementing Enterprise Asset Management should also have determined the structure of their organizations and user access through Oracle System Administrator. This chapter covers the following topics:

- [Organization Setup](#) on page 3-12
  - [Setting Up Organizations](#)
  - [Enabling Organizations for Enterprise Asset Management](#)
  - [Defining eAM Parameters](#)
- [General Enterprise Asset Management Setup](#) on page 3-21
  - [Setting Up Areas](#)
  - [Defining Departments and Resources](#)
  - [Defining Department Approvers](#)
  - [Defining Miscellaneous Documents](#)
- [Defining Lookups](#) on page 3-29
  - [Activity Types](#)
  - [Activity Causes](#)
  - [Activity Sources](#)
  - [Cost Category Codes](#)
  - [Criticality Codes](#)
  - [Work Request Statuses](#)
  - [Work Request Types](#)
  - [Work Order and Work Request Priority Codes](#)
  - [Work Order Reconciliation Codes](#)
  - [Work Order Types](#)
- [Asset Setup](#) on page 3-46

- Setting Up Category Codes
- Defining Maintained Groups
- Defining Activities
- Activity Association Templates
- Setting Up Attributes
- Defining Asset Documents
- Defining Asset Numbers (Maintained Numbers)
- Defining Asset Routes
- Setting Up Asset Bills of Material
- Using the Activity Workbench on page 3-84
  - Navigating the Activity Workbench
  - Defining Maintenance Routes
  - Setting Up Maintenance Bills of Material
  - Associating Maintained Numbers with Activities
- Rebuildable Item Setup on page 3-105
  - Defining Rebuildable Items
  - Defining Rebuildable Serial Numbers
  - Rebuildable Item/Activity Association
- Preventive Maintenance Setup on page 3-113
  - Defining Meter Templates
  - Defining Meters
  - Associating Meter Templates with Maintained Groups
  - Associating Meters with Maintained Numbers
  - Defining Set Names
  - Defining a Preventive Maintenance Template
  - Entering Preventive Maintenance Schedule Definitions
- eAM Planning and Scheduling on page 3-141
  - eAM Planning

- eAM Scheduling
- **Quality Integration Setup on page 3-150**
  - Creating Collection Elements
  - Creating eAM Quality Collection Plans
- **Outside Processing Integration Setup on page 3-160**
  - Setting Up Outside Service Processing
- **Cost Management Integration Setup on page 3-170**
  - eAM Costing Methods and Mappings
  - Setting Up Cost Categories
  - Setting Up eAM Cost Management
- **Process and Discrete Manufacturing Integration Setup on page 3-177**
  - Organization Setup
  - Associating Assets with Production Equipment
- **Project Manufacturing Integration Setup on page 3-181**
  - Project Definition
- **Property Manager Integration Setup on page 3-187**
  - Setting Up eAM Prerequisites
  - Running the Export Process
- **Oracle Time and Labor Integration Setup on page 3-190**
  - Defining Persons as Users
  - Creating Eligibility Criteria
- **Order Management Integration Setup on page 3-197**
  - Setting Up Parameters
  - Setting Up Item Costs and Prices
  - Setting Up Billable Material
  - Setting Up a Billable Resource
  - Setting Up a Billable Activity

## Organization Setup

Organization setup is required before you can set up any additional Enterprise Asset Management information. Tasks include:

- [Setting Up Organizations](#) on page 3-12
- [Enabling Organizations for Enterprise Asset Management](#) on page 3-14
- [Defining eAM Parameters](#) on page 3-16

### Setting Up Organizations

A valid organization is a requirement for Enterprise Asset Management setup. Decisions are made during implementation as to which organization(s) will be enabled for Enterprise Asset Management. If the decided upon organization(s) already exists, you can skip this section and proceed to [Enabling Organizations for Enterprise Asset Management](#) on page 3-14.

#### To set up Organizations:

1. From the Inventory Responsibility, navigate to the [Organization](#) window. In the Find Organization window, select New.

Figure 3–1 Organization Window

The screenshot shows the 'Organization' window with the following fields and values:

- Name: **Seattle Maintenance**
- Type: **Plant**
- Dates: From **01-JAN-1990**, To: [ ]
- Location: **Seattle Maintenance**
- Internal or External: **Internal**
- Location Address: **3455 108th Ave...Seattle.WA.98101.King.United States.....**
- Internal Address: [ ]
- Organization Classifications:
 

Name	Enabled
Asset Organization	<input checked="" type="checkbox"/>
HR Organization	<input checked="" type="checkbox"/>
Inventory Organization	<input checked="" type="checkbox"/>
Others	

2. Enter an organization Name.
3. Select an organization Type from the list of values. For information on Type, Dates region fields, Location, Internal or External, Location Address, and Internal Address fields, See: [Creating an Organization](#), *Oracle Human Resources User's Guide*.
4. Save your work. A valid Location needs to be set up before you can save (See: [Creating an Organization](#), *Oracle Human Resources User's Guide*).
5. In the Organization Classifications region, establish this organization as an Inventory Organization. From the Name field list of values, select Inventory Organization.

---

**Note:** The only requirement for creating an eAM organization is that it is classified as an Inventory Organization. However, you can classify an eAM as other product organizations, as well.

---

6. Save your work.

**See Also:**

[Creating an Organization](#), *Oracle Human Resources User's Guide*

## Enabling Organizations for Enterprise Asset Management

Before you begin implementing Enterprise Asset Management (eAM), you must decide which organizations will be eAM enabled. A valid organization must exist before you can enable the organization for Enterprise Asset Management (See: [Setting Up Organizations](#) on page 3-12).

### To define an Enterprise Asset Management enabled organization:

You can create a new Enterprise Asset Management enabled organization, or convert an existing organization to an Enterprise Asset Management enabled organization. Oracle recommends that you keep Enterprise Asset Management organizations separate from production organizations. Enterprise Asset Management parameters have been added to the Inventory Parameters tab, within the Organization Parameters window.

1. From the Enterprise Asset Management responsibility, navigate to the [Organization Parameters](#) window.

Figure 3–2 Organization Parameters Window

The screenshot shows the 'Organization Parameters (EM1)' window with the following fields and options:

- Organization Code: **EM1**
- Item Master Organization: **Vision Operations**
- Calendar: **Vision01**
- Process Enabled
- Process Organization: [Empty]
- Demand Class: [Empty]
- Move Order Timeout Period: [Empty] Days
- Move Order Timeout Action: **Approve automatically**
- Locator Control: **Determined at Subinventory le...**
- Allow Negative Balances
- WMS Enabled
- Quality Skipping Inspection Control
- EAM Enabled
- EAM Organization: **EM1** **Seattle Maintenance**
- Capacity section:
  - Load Weight: [Empty] UOM: [Empty]
  - Volume: [Empty] UOM: [Empty]

2. Enter a valid organization code. For information on how to create a valid organization, See: [Setting Up Organizations](#) on page 3-12.
3. Select the EAM Enabled check box to enable Enterprise Asset Management for this organization. This check box cannot be cleared after Enterprise Asset Management items or Enterprise Asset Management parameters are defined in the current organization.
4. If Enterprise Asset Management is enabled for the current organization, the EAM Organization field will default and cannot be updated; the current organization code will default.

For organizations that are not Enterprise Asset Management enabled, you can populate the EAM Organization field with an Enterprise Asset Management enabled organization code. The designated eAM organization will be used to maintain equipment items for the designated production organization. For example, if the current organization is a production organization, this is how you would identify a maintenance organization to associate with the production organization (See also: [Overview of eAM Process and Discrete Manufacturing](#), *Oracle Enterprise Asset Management User's Guide*). This field can be updated if asset equipment association does not exist in this organization.

5. For instructions on the remaining fields, See: [Organization Parameters Window](#), *Oracle Inventory User's Guide*.
6. Save your work.

## Defining eAM Parameters

Now that you have established an Enterprise Asset Management enabled organization, you need to set up specific Enterprise Asset Management parameters that determine organization level defaults for individual transactions. You will set up information, such as Maintained Number defaults, Cost defaults, Work Request information, and Work Order defaults.

**To define Enterprise Asset Management parameters:**

1. Navigate to the [Enterprise Asset Management Parameters](#) window.

Figure 3–3 Enterprise Asset Management Parameters

Enterprise Asset Management Parameters (EM1)

**Asset Number Defaults**

Asset Number Auto Generation

**Cost Defaults**

Cost Element **Equipment** Cost Category **Maintenance**

**Request**

Request Type **Work Request**

**Work Request**

Auto Approve  
 Extended Log

**Work Order Defaults**

WIP Accounting Class **MaintWAC** Maintenance Wip Accounting C  
Easy Work Order Prefix **EZ**  
Work Order Prefix **WO**  
Default Department   Auto Firm on Release  
 Enable Material Issue Requests  Invoice Billable Items Only

**Account Defaults**

Maintenance Offset **01-520-7530-0000-000**

2. Optionally, indicate whether this organization has system generated asset numbers within individual asset groups. See: [Defining Maintained Groups](#) on page 3-49. You can specify the starting serial number within the Organization Parameters window, and/or the Master Item window when defining Asset Groups. If the starting serial number is defined for the Asset Group, this definition will overwrite the starting serial number within the Organization Parameters.
3. The Cost Defaults region represents default cost information for future Work Orders, without defined cost elements within the Work Order.

Select an Enterprise Asset Management Cost Element to indicate how to capture cost overheads, and any miscellaneous resource costs. Valid values are Equipment, Labor, and Material. See: [Overview of eAM Cost Management](#), *Oracle Enterprise Asset Management User's Guide*.

4. Select a Cost Category to use as the default for departments that do not have a cost category defined. Department costs are then posted to the appropriate cost elements. Valid values are Maintenance, Operations, Contract, and any other values that you might have added within the extensible lookup table. See: [Overview of eAM Cost Management](#), *Oracle Enterprise Asset Management User's Guide*.
5. Select a Request Type from the list of values. The type selected (Work Request or Service Request) is the request type generated. An organization can utilize either Service Requests or Work Request, but not both. The Service Request can be associated to a maintenance Work Order within Enterprise Asset Management. An organization can change from one request type to the other, as long as there are no existing, open requests.
6. Indicate whether Work Requests are automatically approved upon creation, or if every user, with the responsibility assigned to the asset's current owning department, will get a notification via Workflow (See: *Oracle Applications 11i Workflow* and [Defining Department Approvers](#) on page 3-26). This notification can be viewed within self service, within the responsibility you use to log in.  
  
If the Auto Approve check box is selected, Work Requests are created with a status of Awaiting Work Order. If the check box is not selected, Work Requests are created with a status of Open.

---

---

**Note:** A Work Request status needs to be Awaiting Work Order before it can be linked to a Work Order. The Awaiting Work Order status means that the Work Request is approved.

---

---

7. If you choose the Extended Log check box, the system will keep an audit trail of records, when defining or updating Work Requests.
8. From the list of values, select the WIP Accounting Class default to ensure that Work Orders generated within Enterprise Asset Management will have an established account code structure assigned, to accept charges incurred by that Work Order. The WIP accounting class codes available in the list of values will be of type, Maintenance. If a Maintenance type WIP accounting class does not exist, you can define a new one (See: [Defining WIP Accounting Classes](#), *Oracle Work in Process User's Guide*).

---

---

**Note:** Oracle Cost Management handles maintenance Work Orders as non-standard, expense jobs.

---

---

9. Optionally, enter an Easy Work Order Prefix. See: [Creating Easy Work Orders](#), *Oracle Enterprise Asset Management User's Guide*. This enables your organization to identify Work Orders that are not planned, but rather created as an unplanned Work Order response to an asset failure.
10. Optionally, enter a Work Order Prefix. A prefix enables your organization to identify routine Work Orders.
11. Optionally, select a Default Department. Oracle recommends that you select a default department. This department defaults to maintenance Work Orders as they are entered. If a department does not exist on a Work Order, it cannot be released.
12. If you select the Auto Firm On Release check box, the dates on the Work Order cannot be re-scheduled automatically.
13. Indicate whether Material Issue Requests are enabled.
14. Indicate whether only billable items are invoiceable.

If the Invoice Billable Items Only check box is selected, only billable items can be invoiced. However, the item needs to be invoiceable (Invoiceable Item and Invoice Enabled check boxes selected within the Master Item window. See: [Invoicing Attribute Group](#), *Oracle Inventory User's Guide*.) and the Billing Type check box needs to be selected (See: [Order Management Integration Setup](#) on page 3-197).

If the Invoice Billable Items Only check box is not selected, any item can be invoiced if they are invoiceable within the Master Item window (Invoiceable Item and Invoice Enabled check boxes selected within the Master Item window. See: [Invoicing Attribute Group](#), *Oracle Inventory User's Guide*.)the item only needs to be invoiceable

15. Within the Account Defaults region, select a Maintenance Offset account. You can create or break a Parent/Child (hierarchy) relationship that exists between an Asset Number and a Serialized Rebuildable, manually using the Configuration History page. This account records what is sent to Inventory when a Rebuildable is removed from an Asset, and then brought back into Inventory.

For example, if the relationship is broken, the Asset or Rebuildable is sent to either Scrap or Inventory. If the Rebuildable is sent to Inventory, the accounting is as follows:

```

Dr. Inventory
   Cr. Maintenance Offset

```

**16. Save your work.**

## General eAM Setup

General Enterprise Asset Management Setup tasks include the following:

- [Setting Up Areas](#) on page 3-21
- [Defining Departments and Resources](#) on page 3-22
- [Defining Department Approvers](#) on page 3-26
- [Defining Miscellaneous Documents](#) on page 3-27

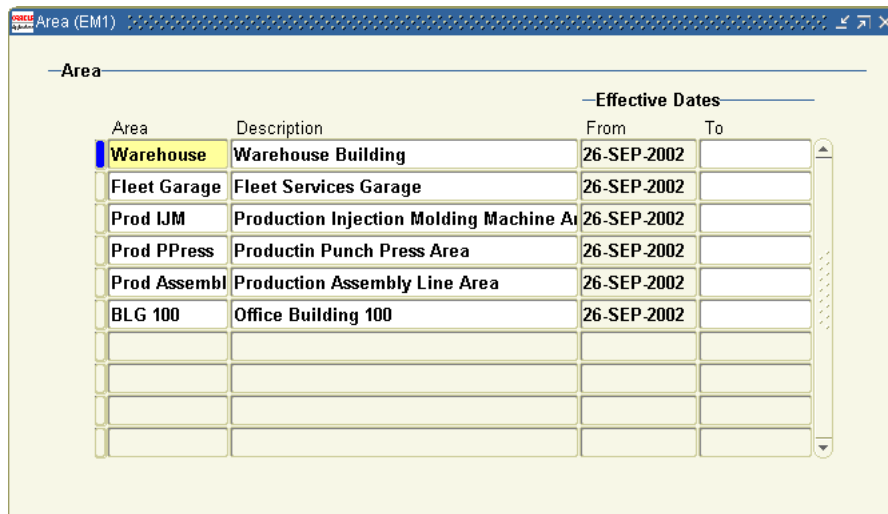
### Setting Up Areas

You use Areas to logically sort assets by the zones in which they reside. Areas divide the maintenance plant or facility into zones, which help to track and account for assets. Areas will later be associated with an asset.

To set up Areas:

1. Navigate to the [Area](#) window.

**Figure 3–4 Area Window**



Area		Effective Dates	
Area	Description	From	To
Warehouse	Warehouse Building	26-SEP-2002	
Fleet Garage	Fleet Services Garage	26-SEP-2002	
Prod IJM	Production Injection Molding Machine A	26-SEP-2002	
Prod PPress	Productin Punch Press Area	26-SEP-2002	
Prod Assembl	Production Assembly Line Area	26-SEP-2002	
BLG 100	Office Building 100	26-SEP-2002	

2. Using the Add icon from the tool bar, add an area.

3. Enter a Description for this location.
4. Save your work.

## Defining Departments and Resources

A department represents a crew within your organization. A crew can include people, machines, or suppliers. Departments are also used to collect costs, apply overhead, and compare load to capacity. You assign a department to each operation of a routing and assign resources that are available for that department. The department assigned to each operation of a routing also becomes the assigned department of the corresponding operation within the Work Order, assuming the Work Order is using the routing.

Resources are defined before departments. For information on defining resources, See: [Defining Resources](#), *Oracle Bills of Material User's Guide*. When you define a department, you specify available resources. A resource represents a craft. You can enter multiple resources for each department. For each resource, you can specify the shifts that the resource is available. For each resource shift, you can also specify capacity modifications that change the available hours per day, units per day, or workdays.

To define departments (crews) and resources (crafts):

1. Navigate to the [Departments](#) window.

**Figure 3–5** *Departments Window*

Department	F-Maint	
Description	Fleet Services Maintenance	
Cost Category	Maintenance	
Class	Maint Dept	Maintenance Departments
Location	Seattle Mainte	Seattle Manufacturing Maintenance Organization
Project Expenditure Org		
Inactive On		

[ ]

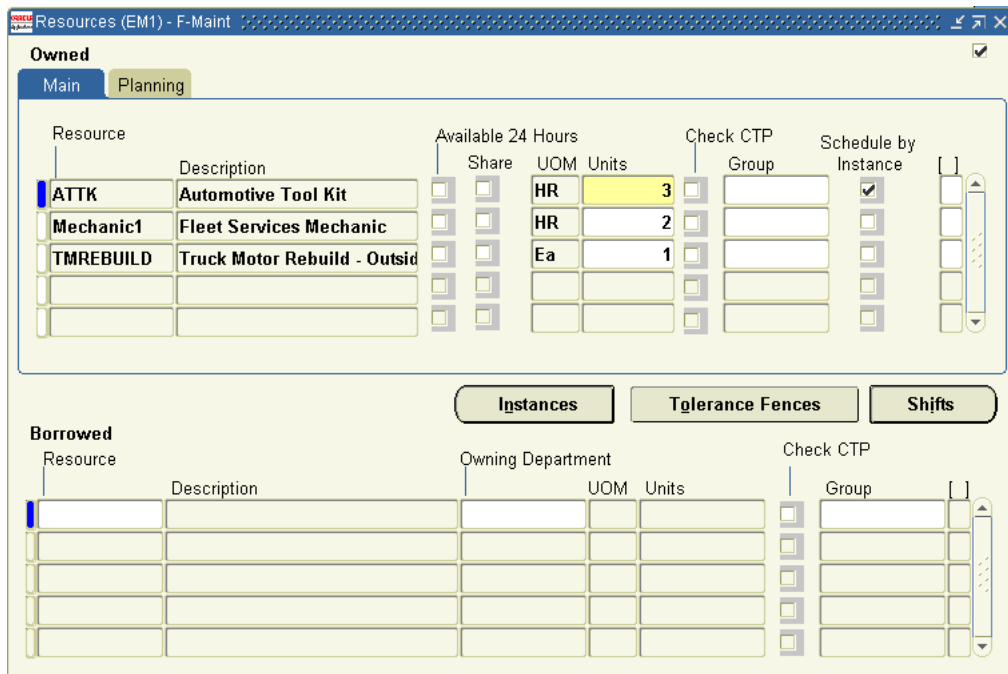
Rates Resources

2. Enter a name for the Department, unique to the Organization.
3. Optionally, select a department Class from the list of values (See: [Creating Department Classes](#), *Oracle Bills of Material User's Guide*).
4. Select a Location from the list of values. You are required to enter a location for a department if it is the receiving department following outside processing (See: [Overview of eAM Contractor Services](#) on page 3-160 and [Outside Processing](#), *Oracle Work in Process User's Guide*).
5. Enter a Project Expenditure Organization.
6. Optionally, enter an Inactive On date on which you can no longer assign this department to routing operations.

For instructions on all remaining fields, See: [Defining a Department](#), *Oracle Bills of Material User's Guide (Bills of Material, Routings, Departments)*.

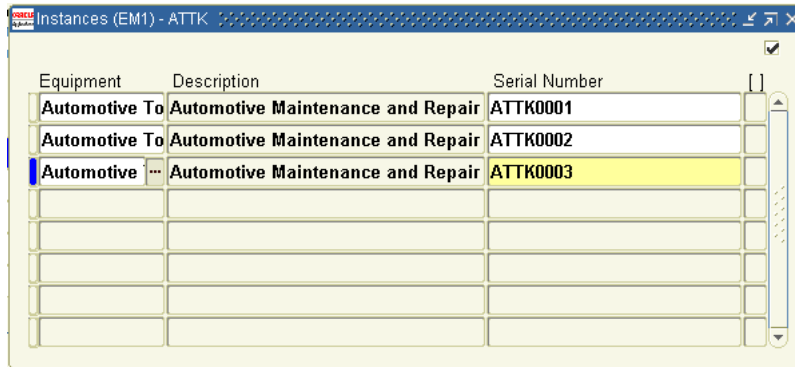
7. Choose Resources to add resources or crafts to the current department.

**Figure 3–6 Resources Window**



8. Enter the Resource to assign to the current department.
9. Optionally, for owned resources, indicate whether the resource is available 24 hours a day. You cannot assign shifts to a resource that is available 24 hours a day.
10. For owned resources, indicate whether this department can share the resource and capacity with other departments.
11. For borrowed resources, enter the Owning Department.
12. Enter the number of capacity Units (resource units) available for this department, for example, the number of machines for a machine resource.  
  
Each resource can be assigned to any number of departments; multiple resources can be assigned to each department.
13. Optionally, enter a resource Group for the resource in this department.
14. Optionally, select the Check ATP check box to indicate that this resource will be used in a Capable to Promise (CTP) check (See: [Capable to Promise](#), *Oracle Master Scheduling/MRP and Supply Chain Planning User's Guide*).
15. Optionally, select the Schedule by Instance check box to indicate whether the department resource should be scheduled at the instance level (specific employee name or piece of equipment).
16. Select the Planning tabbed region. Optionally, enter an Exception Set. The exception sets that you assign help to identify capacity problems (See: [Planning Exception Sets](#), *Oracle Master Scheduling/MRP and Supply Chain Planning User's Guide*).
17. Choose Instances to add employees or equipment to the current resource. An instance is a specific employee name or piece of equipment.

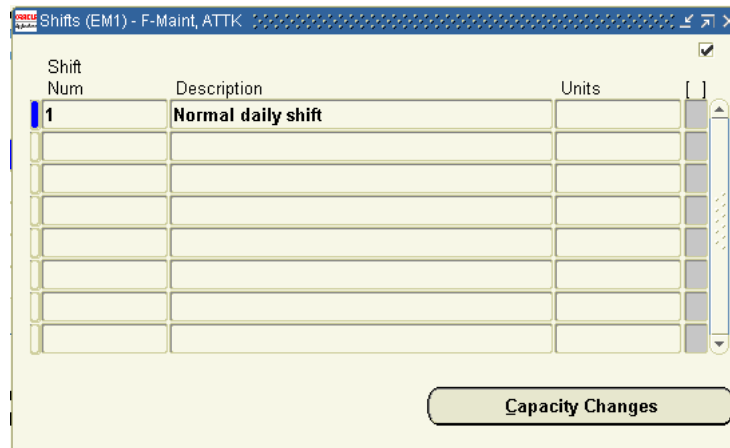
Figure 3–7 Instances Window



Equipment	Description	Serial Number
Automotive To	Automotive Maintenance and Repair	ATTK0001
Automotive To	Automotive Maintenance and Repair	ATTK0002
Automotive	Automotive Maintenance and Repair	ATTK0003

18. Choose Shifts for owned resources that are not available 24 hours a day. This enables you to assign and update shift information for the resource, and define capacity changes for a shift.

Figure 3–8 Shifts Window



Shift Num	Description	Units
1	Normal daily shift	

**Capacity Changes**

- a. Select a Shift Number from the list of values.

The shifts available are those assigned to the workday calendar, assigned to the current organization.

- b. Choose Capacity Changes to define capacity changes for a shift.

**See Also:**

For more information, See: [Assigning Resources to a Department](#), *Oracle Bills of Material User's Guide (Bills of Material, Routings, Departments)*.

## Defining Department Approvers

With a responsibility assigned to the current asset's owing department, you can set up department approvers so that Work Request notifications can be sent to each approver, through Oracle Workflow (See: [Defining Departments and Resources](#) on page 3-22 and [Defining Asset Numbers](#) on page 3-69). Approvers can view these notifications on the Enterprise Asset Management Self Service Maintenance Home Page (See: [Home Page](#), *Oracle Enterprise Asset Management User's Guide*). Everyone who receives the notification can access the Work Request to change the status, or add additional information to the log of the Work Request. After one user approves the Work Request, the notification will be removed from the users' notification lists, and the Work Request status will change from Open to Awaiting Work Order.

A Work Request can also be rejected. If an approver rejects a Work Request, the notification will be removed from that approver's notification list. You can also re-assign a notification to another user for approval or additional information, for example, the originator may need to provide additional information on the Work Request.

### To define Department Approvers:

1. Navigate to the [Department Approvers](#) window.
2. Select a Responsibility Name from the list of values. A department can be assigned to only one responsibility.

Figure 3–9 Department Approvers Window

Department	Description
W-Maint	Warehouse Maintenance
Prd Maint	Production Maintenance
Fac Maint	Facilities Maintenance
F-Maint	Fleet Services Maintenance
Operations	Operations
Contractor	Contractor

3. In the Departments region, select a Department from the list of values. You can select an unlimited number of departments.
4. Save your work.

**See Also:**

[Work Requests](#), *Oracle Enterprise Asset Management User's Guide*

[Home Page](#), *Oracle Enterprise Asset Management User's Guide*

*Oracle Applications 11i Workflow*

**Defining Miscellaneous Documents**

You can create text and files, such as spreadsheets, graphics, and OLE objects. You can attach these documents to a maintenance Work Order, asset, or operation.

**To define miscellaneous documents:**

1. Navigate to the [Miscellaneous Documents](#) window.

**Figure 3–10** *Miscellaneous Documents Window*

The screenshot shows a window titled "Miscellaneous Documents" with the following fields and controls:

- Category:** A text field containing "Miscellaneous".
- Description:** An empty text field.
- Source:** A section containing:
  - Data Type:** A text field.
  - File:** A large empty text area.
- Usage:** A section containing three radio buttons:
  - Standard
  - Template
  - One-Time
- Security:** A section containing:
  - Type:** A dropdown menu with "Organization" selected.
  - Owner:** A text field containing "Seattle Maintenance".
  - Share
- Effective Dates:** A section containing two text fields:
  - From:** An empty text field.
  - To:** An empty text field.
- Magnification:** A text field containing "100%" with a checkmark icon to its right.
- A large empty rectangular area at the bottom of the window, likely a preview or content area.

2. Select a Data Type from the list of values.

**See Also:**

For information on all fields, See: [Working With Attachments](#), *Oracle Applications User's Guide*

## Defining Lookups

Lookup codes need to be decided upon and defined during the implementation process. Lookup codes fall within three categories: extensible, user defined, or system defined. If a lookup code is extensible, the existing lookup codes cannot be modified, but new codes can be added to the table. If lookup codes are user defined, all codes can be modified. If lookup codes are system defined, the existing codes cannot be modified, and new codes cannot be added to the table.

You will define Asset Lookups, Work Request Lookups, and Work Order Lookups.

This section includes the following topics:

- [Activity Types](#) on page 3-29
- [Activity Causes](#) on page 3-31
- [Activity Sources](#) on page 3-32
- [Cost Category Codes](#) on page 3-34
- [Criticality Codes](#) on page 3-35
- [Work Request Statuses](#) on page 3-37
- [Work Request Types](#) on page 3-39
- [Work Order and Work Request Priority Codes](#) on page 3-40
- [Work Order Reconciliation Codes](#) on page 3-42
- [Work Order Types](#) on page 3-43

### Activity Types

Activity Types are used to describe the type of maintenance work that is performed on an asset (See: [Defining Activities](#) on page 3-51). For example, Inspections, Lubrications, Overhauls, Calibration, and Repetitive work. Activity Types are extensible (See: [Defining Lookups](#) on page 3-29).

**To define activity types:**

1. Navigate to the [Oracle Manufacturing Lookups](#) window.

Figure 3–11 Oracle Manufacturing Lookups Window

The screenshot shows the Oracle Manufacturing Lookups window. At the top, there are fields for Type (MTL\_EAM\_ACTIVITY\_TYPE), Meaning (Activity Type), Application (Oracle Inventory), and Description (Asset Activity Types). To the right, there is an Access Level section with radio buttons for User, Extensible (selected), and System. Below this is a table with columns for Code, Meaning, Description, Tag, From, To, and Enabled. The table contains 11 rows of data, with the row for Code 21 (Janitorial) highlighted in yellow.

Code	Meaning	Description	Tag	From	To	Enabled
1	Maintenance	Maintenance		26-JUN-2000		<input checked="" type="checkbox"/>
10	Calibration	Calibration		10-SEP-2003		<input checked="" type="checkbox"/>
11	Contracted	Contracted Service		10-SEP-2003		<input checked="" type="checkbox"/>
2	Replacement	Replacement		26-JUN-2000		<input checked="" type="checkbox"/>
20	Service	Service		23-OCT-2003		<input checked="" type="checkbox"/>
21	Janitorial	Janitorial		30-OCT-2003		<input checked="" type="checkbox"/>
3	Inspection	Inspection		25-JUN-2001		<input checked="" type="checkbox"/>
4	Lubrication	Lubrication		25-JUN-2001		<input checked="" type="checkbox"/>
5	Repetitive	Repetitive		25-JUN-2001		<input checked="" type="checkbox"/>
6	Rebuild	Rebuild Spare		25-JUN-2001		<input checked="" type="checkbox"/>

2. Select the flashlight Find icon.
3. Select MTL\_EAM\_ACTIVITY\_TYPE from the Type list of values.
4. Enter a numeric value in the Code field. Oracle recommends that you enter values in increments of 10, enabling you to easily add codes later.

---

**Warning: Do not use alpha codes. Entry of alpha codes will cause database errors in the application.**

---

5. Enter the Meaning of the code, for example, Lubrication.
6. Enter a Description for the code.
7. Optionally, enter a Tag to categorize lookup values. This field is informational only.
8. The Effective From Date will default as the system date, but you can update this. Optionally, enter a Effective To Date to indicate an expiration of the code.

9. Select the Enabled check box to enable this code for Enterprise Asset Management.
10. Save your work.

## Activity Causes

Activity Cause codes are reasons for an asset failure. For example, Preventive, Normal Wear, Rework, and Breakdown. This information enables you to understand the dynamics that affect an asset's ability to perform. They establish critical data that can be used for reporting and analysis of asset failure causes and the frequency of such conditions. Asset Cause Codes are referenced when setting up an Activity (See: [Defining Activities](#) on page 3-51). Activity Cause codes are extensible (See: [Defining Lookups](#) on page 3-29).

To define activity cause codes:

1. Navigate to the [Oracle Manufacturing Lookups](#) window.

**Figure 3–12 Activity Cause Codes**

Code	Meaning	Description	Tag	From	To	Enabled
1	Breakdown	Breakdown		26-JUN-2000		<input checked="" type="checkbox"/>
10	Accident	Accident		30-OCT-2003		<input checked="" type="checkbox"/>
2	Preventive	Preventive		26-JUN-2000		<input checked="" type="checkbox"/>
20	Health & Safety	Health and Safety		20-NOV-2003		<input checked="" type="checkbox"/>
3	Modification	Modification		15-JUN-2001		<input checked="" type="checkbox"/>
4	Non-Equipment Work	Non-Equipment Work		15-JUN-2001		<input checked="" type="checkbox"/>
5	Normal Wear	Normal Wear		25-JUN-2001		<input checked="" type="checkbox"/>
6	Vandalism	Vandalism		25-JUN-2001		<input checked="" type="checkbox"/>
7	Rework	Rework		25-JUN-2001		<input checked="" type="checkbox"/>
8	Damage	Damage		06-FEB-2003		<input checked="" type="checkbox"/>

2. Select MTL\_EAM\_ACTIVITY\_CAUSE from the Type list of values.
3. Enter a numeric value in the Code field. Oracle recommends that you enter values in increments of 10, enabling you to easily add codes later.

---

---

**Warning: Do not use alpha codes. Entry of alpha codes will cause database errors in the application.**

---

---

4. Enter the Meaning of the code, for example, Breakdown.
5. Enter a Description for the code.
6. Optionally, enter a Tag to categorize lookup values. This field is informational only.
7. The Effective From Date will default as the system date, but you can update this. Optionally, enter a Effective To Date to indicate an expiration of the code.
8. Select the Enabled check box to enable this code for Enterprise Asset Management.
9. Save your work.

## Activity Sources

Activity Source codes are reasons activities need to be executed. For example, Warranty Compliance, OSHA Compliance, or Military Specification Requirements. Activity Source Codes are referenced when setting up an Activity (See: [Defining Activities](#) on page 3-51). Activity Source codes are extensible (See: [Defining Lookups](#) on page 3-29).

### To define activity source codes:

1. Navigate to the [Oracle Manufacturing Lookups](#) window.

Figure 3–13 Activity Source Codes

Code	Meaning	Description	Tag	From	To	Enabled	
10	Regulatory	Regulatory Compliance		07-JUL-2003		<input checked="" type="checkbox"/>	<input type="checkbox"/>
20	Warranty	Warranty Compliance		07-JUL-2003		<input checked="" type="checkbox"/>	<input type="checkbox"/>
30	Routine	Routine		01-AUG-2003		<input checked="" type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>

2. Select MTL\_EAM\_ACTIVITY\_SOURCE from the Type list of values.
3. Enter a numeric value in the Code field. Oracle recommends that you enter values in increments of 10, enabling you to easily add codes later.

---

**Warning: Do not use alpha codes. Entry of alpha codes will cause database errors in the application.**

---

4. Enter the Meaning of the code, for example, Breakdown.
5. Enter a Description for the code.
6. Optionally, enter a Tag to categorize lookup values. This field is informational only.
7. The Effective From Date will default as the system date, but you can update this. Optionally, enter a Effective To Date to indicate an expiration of the code.

8. Select the Enabled check box to enable this code for Enterprise Asset Management.
9. Save your work.

## Cost Category Codes

Cost Category codes are used as the default for departments that do not have a cost category defined. Department costs are then posted to the appropriate cost elements. Valid values are Maintenance, Operations, Contract, and any other values that you might have added within this extensible lookup table. See: [Overview of eAM Cost Management, Oracle Enterprise Asset Management User's Guide](#).

To define cost category codes:

1. Navigate to the [Oracle Manufacturing Lookups](#) window.

**Figure 3–14 Cost Category Codes**

Oracle Manufacturing Lookups

Type: BOM\_EAM\_COST\_CATEGORY  
 Meaning: BOM\_EAM\_COST\_CATEGORY  
 Application: Oracle Bills of Material  
 Description: Enterprise Asset Management Cost Category

Access Level:  
 User  
 Extensible  
 System

— Effective Dates — Enabled

Code	Meaning	Description	Tag	From	To	Enabled
1	Maintenance	Maintenance				<input checked="" type="checkbox"/>
2	Operations	Operations				<input checked="" type="checkbox"/>
3	Contract	Contract				<input checked="" type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>

2. Select BOM\_EAM\_COST\_CATEGORY from the Type list of values.

3. Enter a numeric value in the Code field. Oracle recommends that you enter values in increments of 10, enabling you to easily add codes later.

---

---

**Warning: Do not use alpha codes. Entry of alpha codes will cause database errors in the application.**

---

---

4. Enter the Meaning of the code, for example, High.
5. Enter a Description for the code.
6. Optionally, enter a Tag to categorize lookup values. This field is informational only.
7. The Effective From Date will default as the system date, but you can update this. Optionally, enter a Effective To Date to indicate an expiration of the code.
8. Select the Enabled check box to enable this code for Enterprise Asset Management.
9. Save your work.

## Criticality Codes

Criticality Codes suggest the importance of an asset to an organization. For example, High and Low. An asset that has a direct impact on production or that is difficult to replace may be considered a critical asset. Asset criticality helps you to determine the urgency of requested work. Asset Criticality Codes are referenced when defining an asset (See: [Defining Asset Numbers](#) on page 3-69). Asset Criticality Codes are extensible (See: [Defining Lookups](#) on page 3-29).

### To define asset criticality codes:

1. Navigate to the [Oracle Manufacturing Lookups](#) window.

Figure 3–15 Asset Criticality Codes

Oracle Manufacturing Lookups

Type:

Meaning:

Application:

Description:

Access Level

User

Extensible

System

— Effective Dates — Enabled

Code	Meaning	Description	Tag	From	To	Enabled
1	High	High		26-JUN-2000		<input checked="" type="checkbox"/>
2	Medium	Medium		26-JUN-2000		<input checked="" type="checkbox"/>
3	Normal	Normal		26-JUN-2000		<input checked="" type="checkbox"/>
4	Low	Low		26-JUN-2000		<input checked="" type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>

2. Select MTL\_EAM\_ASSET\_CRITICALITY from the Type list of values.
3. Enter a numeric value in the Code field. Oracle recommends that you enter values in increments of 10, enabling you to easily add codes later.

---

**Warning: Do not use alpha codes. Entry of alpha codes will cause database errors in the application.**

---

4. Enter the Meaning of the code, for example, High.
5. Enter a Description for the code.
6. Optionally, enter a Tag to categorize lookup values. This field is informational only.
7. The Effective From Date will default as the system date, but you can update this. Optionally, enter a Effective To Date to indicate an expiration of the code.

8. Select the Enabled check box to enable this code for Enterprise Asset Management.
9. Save your work.

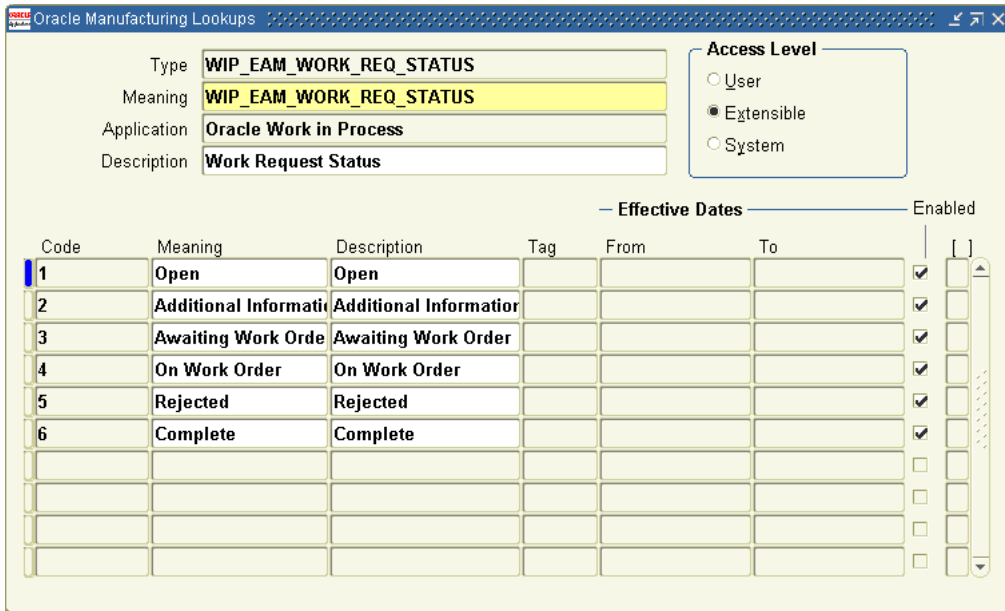
## Work Request Statuses

Work Request Approval is the process of changing a Work Request status from Open to Awaiting Work Order. Maintenance Work Orders can only be linked to Work Requests with a status of Awaiting Work Order. When defining the Enterprise Asset Management parameters (See: [Defining eAM Parameters](#) on page 3-16), if the Auto Approve check box is selected, Work Requests are created with an automatic status of Awaiting Work Order, for that organization. If the check box is not selected, Work Requests are created with a status of Open; any user who receives the notification (See: [Defining Department Approvers](#) on page 3-26) can change the Work Request status to Awaiting Work Order. A plant or facility might need to include additional statuses. Currently, the workflow cannot be customized to work with user-defined Work Request statuses. Work Request Approval statuses are extensible (See: [Defining Lookups](#) on page 3-29).

### To define Work Request statuses:

1. Navigate to the [Oracle Manufacturing Lookups](#) window.

Figure 3–16 Work Request Statuses



2. Select WIP\_EAM\_WORK\_REQ\_STATUS from the Type list of values.
3. Optionally, add additional Codes to the pre-existing list of codes. The codes that are pre-existing cannot be deleted, however their Meanings can be modified.

---

**Warning: Do not use alpha codes. Entry of alpha codes will cause database errors in the application.**

---

4. Enter the Meaning of the code, for example, Open.
5. Enter a Description for the code.
6. Optionally, enter a Tag to categorize lookup values. This field is informational only.
7. Optionally, enter Effective From and To Dates to indicate an expiration of the code.
8. Select the Enabled check box to enable this code for Enterprise Asset Management.

9. Save your work.

## Work Request Types

Work Request Types describe and categorize Work Requests. For example, Manual, System, Routine, Capital, and Furniture. Work Request Types are user defined (See: [Defining Lookups](#) on page 3-29).

To define a Work Request type:

1. Navigate to the [Oracle Manufacturing Lookups](#) window.

**Figure 3–17 Work Request Types**

Code	Meaning	Description	Tag	From	To	Enabled
10	Manual	Manually Created		02-JUL-2002		<input checked="" type="checkbox"/>
20	System	System Generated		02-JUL-2002		<input checked="" type="checkbox"/>
30	Routine	Routine Work Approva		02-JUL-2002		<input checked="" type="checkbox"/>
40	Capital	Capital Work Approva		02-JUL-2002		<input checked="" type="checkbox"/>
50	Move Order	Internal Office Change		02-JUL-2002		<input checked="" type="checkbox"/>
60	Furniture	Furniture Request		02-JUL-2002		<input checked="" type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>

2. Select WIP\_EAM\_WORK\_REQ\_TYPE from the Type list of values.
3. Enter a numeric value in the Code field. Oracle recommends that you enter values in increments of 10, enabling you to easily add codes later.

---

---

**Warning: Do not use alpha codes. Entry of alpha codes will cause database errors in the application.**

---

---

4. Enter the Meaning of the code, for example, Manual.
5. Enter a Description for the code.
6. Optionally, enter a Tag to categorize lookup values. This field is informational only.
7. The Effective From Date will default as the system date, but you can update this. Optionally, enter a Effective To Date to indicate an expiration of the code.
8. Select the Enabled check box to enable this code for Enterprise Asset Management.
9. Save your work.

## Work Order and Work Request Priority Codes

Work Order Priority Codes contribute to the organization and execution of Work Orders. For example, High, Medium, and Low, or 1,2, and 3, respectively. Typically, a priority is assigned by the people entering Work Requests and Work Orders. The planner or supervisor compares this priority to the asset criticality (See: [Asset Criticality Codes](#) on page 3-35). These codes can be entered when creating Activity associations, Work Orders, and Work Requests. Typically, a priority is assigned by the person that enters the Work Request and its related Work Order. Priority specified during Activity association becomes the Work Order priority when a Work Order is created, using the Activity Association (See: [Routine Work Orders](#), *Oracle Enterprise Asset Management User's Guide* and [Work Requests](#), *Oracle Enterprise Asset Management User's Guide*). Work Order Priority Codes are extensible (See: [Defining Lookups](#) on page 3-29).

### To create Work Order priority codes:

1. Navigate to the [Oracle Manufacturing Lookups](#) window.

Figure 3–18 Priority Codes

Oracle Manufacturing Lookups

Type:

User Name:

Application:

Description:

Access Level:

User

Extensible

System

Effective Dates

Code	Meaning	Description	Tag	From	To	Enabled
1	High	High		07-FEB-2002		<input checked="" type="checkbox"/>
2	Low	Low		07-FEB-2002		<input checked="" type="checkbox"/>
3	Medium	Medium		07-FEB-2002		<input checked="" type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>

2. Select WIP\_EAM\_ACTIVITY\_PRIORITY from the Type list of values.
3. Optionally, add additional Codes to the pre-existing list of codes. The codes that are pre-existing cannot be deleted, however their Meanings can be modified.

---

**Warning: Do not use alpha codes. Entry of alpha codes will cause database errors in the application.**

---

4. Enter the Meaning of the code, for example, High.
5. Enter a Description for the code.
6. Optionally, enter a Tag to categorize lookup values. This field is informational only.
7. The Effective From Date will default as the system date, but you can update this. Optionally, enter a Effective To Date to indicate an expiration of the code.

8. Select the Enabled check box to enable this code for Enterprise Asset Management.
9. Save your work.

## Work Order Reconciliation Codes

Reconciliation Codes detail how Work Orders and operations were completed. These codes usually fall within two categories: Completed as Planned or Partial Completion. You can further define the condition within these two types of completion statuses. These codes enable you to evaluate Work Orders by percentage completed or delayed, and if they were delayed, the reason for the delay. Reconciliation Codes are user defined (See: [Defining Lookups](#) on page 3-29).

To define Work Order reconciliation codes:

1. Navigate to the [Oracle Manufacturing Lookups](#) window.

**Figure 3–19 Work Order Reconciliation Codes**

The screenshot shows the Oracle Manufacturing Lookups window. The 'Type' field is set to 'WIP\_EAM\_RECONCILIATION\_CODE', 'Meaning' is 'EAM Reconciliation Code', and 'Application' is 'Oracle Work in Process'. The 'Access Level' section has 'Extensible' selected. Below the fields is a table with the following data:

Code	Meaning	Description	Tag	From	To	Enabled
10	Fixed Completely	Fixed Completeley		25-SEP-2002		✓
20	Partial Repair	Partially Fixed		25-SEP-2002		✓
30	Mfg Service Call	Contact Manufacturer		25-SEP-2002		✓
40	Scrap	Scrap asset - not feas		25-SEP-2002		✓
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>

2. Select WIP\_EAM\_RECONCILIATION\_CODE from the Type list of values.

3. Enter a numeric value in the Code field. Oracle recommends that you enter values in increments of 10, enabling you to easily add codes later.

---

---

**Warning: Do not use alpha codes. Entry of alpha codes will cause database errors in the application.**

---

---

4. Enter the Meaning of the code, for example, Fixed Completely.
5. Enter a Description for the code.
6. Optionally, enter a Tag to categorize lookup values. This field is informational only.
7. The Effective From Date will default as the system date, but you can update this. Optionally, enter a Effective To Date to indicate an expiration of the code.
8. Select the Enabled check box to enable this code for Enterprise Asset Management.
9. Save your work.

## Work Order Types

Work Order Types enable you to differentiate Work Orders. For example, Routine, and Rebuild. Maintenance management can use this information to sort and monitor work activity for reporting and budgeting. Work Order Types are referenced in the Activity and Work Order.

Work Order Types are created manually or automatically. For example, Rebuildable Work Orders can be created automatically or manually (See: [Rebuild Work Orders](#), *Oracle Enterprise Asset Management User's Guide*). Preventive Maintenance Work Orders are created automatically, based on meter readings (See: [Preventive Maintenance Work Orders](#), *Oracle Enterprise Asset Management User's Guide*).

Work Order Types are extensible (See: [Defining Lookups](#) on page 3-29).

### To define Work Order types:

1. Navigate to the [Oracle Manufacturing Lookups](#) window.

Figure 3–20 Work Order Types

Code	Meaning	Description	Tag	From	To	Enabled
1	Routine	Routine		13-MAR-2002		<input checked="" type="checkbox"/>
10	Equipment Order Ca	Equipment Order Call		06-MAY-2002		<input type="checkbox"/>
11	Budget Work Order	Budget Work Order		09-MAY-2002		<input checked="" type="checkbox"/>
2	Standing	Standing		13-MAR-2002		<input checked="" type="checkbox"/>
3	Preventive	Preventive		13-MAR-2002		<input checked="" type="checkbox"/>
4	Reactive	Reactive		13-MAR-2002		<input checked="" type="checkbox"/>
5	Residential New Bus	Residential New Busir		19-MAR-2002		<input checked="" type="checkbox"/>
6	C&I New Business	C&I New Business		19-MAR-2002		<input checked="" type="checkbox"/>
7	Property Damages	Property Damages		19-MAR-2002		<input checked="" type="checkbox"/>
8	Mandatory Relocatio	Mandatory Relocation		19-MAR-2002		<input checked="" type="checkbox"/>

2. Select WIP\_EAM\_WORK\_ORDER\_TYPE from the Type list of values.
3. Enter a numeric value in the Code field. Oracle recommends that you enter values in increments of 10, enabling you to easily add codes later.

---

**Warning: Do not use alpha codes. Entry of alpha codes will cause database errors in the application.**

---

4. Enter the Meaning of the code, for example, Routine.
5. Enter a Description for the code.
6. Optionally, enter a Tag to categorize lookup values. This field is informational only.
7. The Effective From Date will default as the system date, but you can update this. Optionally, enter a Effective To Date to indicate an expiration of the code.

8. Select the Enabled check box to enable this code for Enterprise Asset Management.
9. Save your work.

## Asset Setup

Asset Setup includes the following tasks:

- [Setting Up Category Codes](#) on page 3-46
- [Defining Maintained Groups](#) on page 3-49
- [Defining Activities](#) on page 3-51
- [Activity Association Templates](#) on page 3-62
- [Setting Up Attribute Groups](#) on page 3-64
- [Defining Asset Documents](#) on page 3-68
- [Defining Asset Numbers \(Maintained Numbers\)](#) on page 3-69
- [Defining Asset Routes](#) on page 3-76
- [Setting Up Asset Bills of Material](#) on page 3-79

### Setting Up Category Codes

Category codes are used as naming conventions for assets by creating classes and subclasses. They are user defined, and used to logically group assets, simplifying the search for Maintained Numbers.

For example, Cranes can be classified by several different types, such as Overhead Cranes, Jib Cranes, and Mobile Cranes. You can query using the class CRANE, which will display all assets defined as Cranes within that organization. If you enter CRANES.JIB, the system would then narrow the results to just those assets defined as Jib Cranes. With both queries, you can identify assets based on familiar names, rather than numbers.

Category codes are first defined, then added to the Enterprise Asset Management Category Set. After they belong to this category set, they can be associated with Maintained Groups, which tie to individual assets.

#### To set up Category Codes:

1. Navigate to the [Find Categories](#) window. You can find existing category codes, or create new ones.
2. Choose New.

Figure 3–21 Categories Window

Structure Name	Category	Description	Enabled	Inactive On	Enabled for iProcurement	Viewable by Supplier
Asset Management	Asset.Asset	Default Asset Group	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Asset Management	BLDG100.Room100	Building 100 room 100	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Asset Management	Distribution.Comp	Distribution Compres	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Asset Management	Distribution.Electri	Electric Distributin c	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Asset Management	Distribution.Gas	Gas Distribution com	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Asset Management	Distribution.Mains	Distribution main lin	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Asset Management	Distribution.Overh	Distribution overhea	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Asset Management	Distribution.Pole	Distribution Poles	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Asset Management	Distribution.Reg S	Distribution regulato	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Asset Management	Distribution.Servic	Distribution Electric	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

3. Select the Asset Management category to create a new Class.Subclass from the Structure Name list of values.
4. Enter in a new Category, for example TRUCK.FRKLFT.
5. Add a long Description for this category.
6. Optionally, select the Enabled check box to indicate that this category is enabled.
7. Optionally, enter an Inactive On date.
8. Optionally, select the Enabled for iProcurement check box to indicate that this category is enabled for iProcurement.
9. Optionally, select the Viewable by Supplier check box to indicate that this category can be viewed by the Supplier.
10. Save your work.

### To set up Category Sets:

To associate Category Codes (TRUCK.FRKLFT) with a Maintained Group, you must first define the item category relationship through the Category Sets menu option.

1. Navigate to the [Category Sets](#) window.

Figure 3–22 Category Sets Window

Category Sets

Name **Enterprise Asset Management**

Description **Enterprise Asset Management Category Set**

Flex Structure **Asset Management**

Controlled At **Master Level**

Default Category **Maintenance Supply.Supply**

Allow Multiple Item Category Assignments

Enforce List of Valid Categories

Category

- BLDG100.Room100
- Distribution.Electric
- Distribution.Gas
- Distribution.Mains
- Distribution.Reg Station
- Distribution.Service-Electric
- Distribution.Service-Gas

Category People      Assign

2. Select the flashlight icon from the tools menu, then select Enterprise Asset Management from the list of values.
3. A description is defaulted, but you can optionally change it.
4. Select Asset Management from the Flex Structure list of values.
5. Indicate the Controlled At level. Valid values are Master Level, and Organization Level.
6. Enter a Default Category code for assets that are not associated with Maintained Groups.
7. If you select Allow Multiple Item Category Assignments, you can define a series of categories, such as Crane.Jib, and Crane.Overhead, that can be associated to a single Asset Group.
8. If you select Enforce List of Valid Categories, you will prevent users from entering incorrect categories that are not associated with the Asset Group associated with the asset being created.

9. Enter the Category Codes that you want to associate with this category set.
10. Select Assign to display a table enabling you to associate the categories with a Maintained Group.
11. Save your work.

**See Also:**

[Defining Categories](#), *Oracle Inventory User's Guide*

[Defining Category Sets](#), *Oracle Inventory User's Guide*

## Defining Maintained Groups

During implementation, Maintained Group (Asset Group or Rebuildable Item) names should be established. Maintained Groups represent groups of assets that are virtually identical. Generally, a Maintained Group is defined for each Manufacturer and Model Number combination. Examples include Acme Model 123 Pump and Ford F150 2002 Truck.

---

---

**Note:** If you have assets in your organization that are virtually identical (for example, the same manufacturer and model), you should consider creating a Maintained Group for those assets.

---

---

### To set up Maintained Groups:

1. Navigate to the [Maintained Group \(Master Item\)](#) window. The Master Item window is used to create Maintained Groups, Activities, and Rebuildable Items.

Figure 3–23 Master Item Window

The screenshot shows the Oracle Master Item (V1) window with the following details:

- Organization:** V1 Vision Operations
- Item:** Fork Lifts
- Description:** Fork Lift Asset Group
- Display Attributes:** Master (radio), Org (radio), All (radio, selected)
- Navigation Tabs:** Main, Inventory, Bills of Material, Asset Management (selected), Costing, Purchasing, Receiving, Physical Attributes
- Asset Item Type:** Asset Group
- Asset Activity Properties:**
  - Activity Type: [ ]
  - Activity Cause: [ ]
  - Activity Source: [ ]
  - Shutdown Type: [ ]
  - Activity Notification Required

2. Enter the Maintained Group name in the Item field.
3. Enter a Description for this Maintained Group, up to 240 characters.
4. Use the @Asset Group template to quickly apply attribute values, and to ensure that the appropriate attributes are applied.
  - a. Select TOOLS from the Tools menu. From the drop down list, select COPY FROM.
  - b. Select the @Asset Group template from the list of values.

---

**Note:** You can create Maintained Groups using the template described above, or you can copy an Maintained Group from an existing Maintained Group (See: [Defining Items, Oracle Inventory User's Guide](#)).

---

The following table presents the necessary attribute values that are applied automatically to the Maintained Group, when using the template:

**Figure 3–24 Maintained Group Attributes**

Attribute	Value
User Item Type	Asset Group
Item Status	Active
Inventory Item	Enabled
Transactable	Disabled
Serial Number Generation	Predefined
Effectivity Control	Model/Unit Number
EAM Item Type	Asset Group

5. Access the Inventory Tab. In the Serial region, select Predefined for the Generation value.
6. Define a Starting Prefix and Starting Number for this Maintained Group. When a new asset is created for this Maintained Group, the system will default the prefix, along with the starting number sequence.
7. Optionally, select the paperclip Attachments icon to attach relevant documents, such as drawings, standard procedures, and reference guides, to this Maintained Group. You can attach file, URL, and text attachments.
8. Save your work.

**To associate Maintained Groups with multiple organizations:**

1. From the [Master Item](#) window, select TOOLS from the Tools menu.
2. Select Organization Assignment.
3. Enter additional organizations in the available table.
4. After saving your work, you can create Assets for this Maintained Group.

## Defining Activities

Activities provide you with a standard template of jobs, which can be applied to Work Orders, such as Routine or Preventive Maintenance. After these Activity

Templates are created, they can be associated with one or more Asset Numbers or Rebuildables (See: [Activity Association](#) on page 3-62 and [Rebuildable Item/Activity Association](#) on page 3-110). They also need to be associated to a maintenance BOM (See: [Setting Up Activity Bills of Material](#) on page 3-99) and activity routing (See: [Defining Asset Routes](#) on page 3-93), containing the materials and resources needed for operations, respectively. When Work Orders are created for assets associated to the Activity, the material and resources associated with the current Activity automatically copy to the Work Orders created.

There are three methods you can use to create an Activity. You can create an Activity within the Master Activity (Master Item) window, create Activities from the Activity Workbench, and create Activities from within a Maintenance Work Order.

### To set up Activities within the Master Activity window:

1. Navigate to the [Activity \(Master Item\)](#) window. The Master Item window is used to create Maintained Groups, Activities, and rebuildable.

**Figure 3–25 Master Item Window**

Organization: V1 Vision Operations

Item: 15000 Mile Maint

Description: 15000 Mile Truck Maintenance [ ... ]

Display Attributes:  Master  Org  All

Main Inventory Bills of Material **Asset Management** Costing Purchasing Receiving Physical Attributes

Asset Item Type: Asset Activity

**Asset Activity Properties**

Activity Type: Maintenance

Activity Cause: Normal Wear

Activity Source: [ ]

Shutdown Type: Required

Activity Notification Required

2. Enter the name of the Activity in the Item field.
3. Enter a Description for this Activity, up to 240 characters.
4. Use the @Activity template to quickly apply attribute values, and to ensure that the appropriate attributes are applied.
  - a. Select TOOLS from the Tools menu. From the drop down list, select COPY FROM.
  - b. Select the @Activity template from the list of values.

---

**Note:** You can create Activities using the template described above, or you can copy an Activity from an existing Activity (See: [Defining Items](#), *Oracle Inventory User's Guide*).

---

The following table presents the necessary attribute values that are applied automatically to the Activity, when using the template:

**Figure 3–26 Activity Attributes**

Attribute	Value
User Item Type	Activity
Item Status	Active
Inventory Item	Enabled
EAM Item Type	Activity

5. Select the Asset Management tabbed region.
 

In the Activity Property region, optionally enter an Activity Type to indicate the type of maintenance for this Activity. It is used when defining a Work Order. It should remain generic, and should not describe in detail the job to be done. For example, Inspection, Overhaul, Lubrication, Repair, Servicing, or Cleaning.
6. Optionally, select an Activity Cause from the list of values, to specify what situation caused this work to be generated. For example, Breakdown, Vandalism, Normal Wear, or Settings.
7. Optionally, select an Activity Source from the list of values. Activity Source codes are reasons activities need to be executed. For example, Warranty

Compliance, OSHA Compliance, or Military Specification Requirements. See: [Activity Sources](#) on page 3-32.

8. Optionally, select a Shutdown Type from the list of values. This indicates whether a shutdown is necessary to perform this maintenance activity. For example Required, and Not Required. This field is informational only.
9. Optionally, select the Activity Notification Required field to indicate whether the asset requiring work is mobile, and needs to be brought into the shop for repairs. This field is for information only.
10. Optionally, select the paperclip Attachments icon to attach relevant documents, such as drawings, standard procedures, and reference guides, to this Activity. You can attach file, URL, and text attachments.
11. Save your work. After saving your work, this Activity can be associated with an asset (See: [Activity Association](#) on page 3-62).

**To associate Activities to multiple organizations:**

1. From the [Master Item](#) window, select TOOLS from the Tools menu.
2. Select Organization Assignment.
3. Enter additional organizations in the available window.
4. Save your work.

---

---

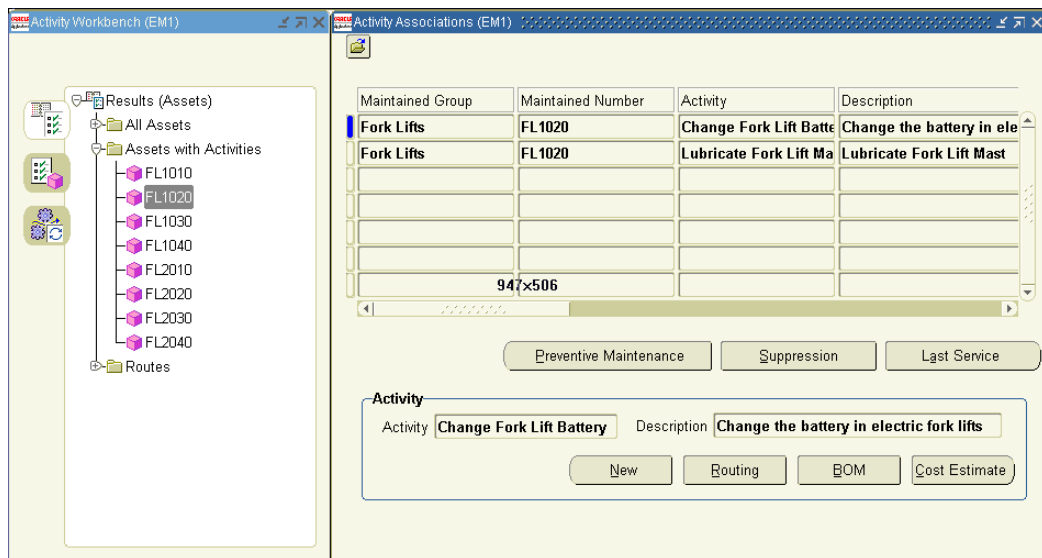
**Note:** Multiple Work Orders (See: [eAM Work Orders](#), *Oracle Enterprise Asset Management User's Guide*) associated with the same Activity cannot be at a Released status, at the same time (See: [eAM Work Order Statuses](#), *Oracle Enterprise Asset Management User's Guide*).

---

---

**To set up Activities using the Activity Workbench:**

1. Navigate to the Activity Workbench window.
2. Choose Launch.

**Figure 3–27 Activity Associations**

3. To create an Activity, choose New.

**Figure 3–28 Create Activity Window**

**Create Activity (EM1)**

Activity Name

Description

Template

**Activity Properties**

Activity Type

Shutdown Type

Activity Cause

Activity Source

Activity Notification

**Copy Options**

Copy From

**Activity**

Activity

BOM

Routing

Association

**Work Order**

Work Order

Operation

Material

Resource

Association

4. Enter an Activity Name.
5. Enter an Activity Description.
6. Choose an activity Template from the list of values. This will automatically bring in the properties associated with an Activity. The @Activity template is created for you, however you can create your own Activity Templates, as well.
7. Within the Activity Properties region, optionally select an Activity Type. The value in this field will default from the Template properties above.
8. Within the Activity Properties region, optionally select an Shutdown Type. The value in this field will default from the Template properties above. This field is informational only until a future release.
9. Within the Activity Properties region, optionally select an Activity Cause. The value in this field will default from the Template properties above.
10. Within the Activity Properties region, optionally select an Activity Source. The value in this field will default from the Template properties above.

11. The Activity Notification check box is informational only until a future release.
12. Within the Copy Options region, optionally select the entity to copy information from. Valid values are Activity and Work Order. If you select Activity, the values within the Activity region are relevant, and the values within the Work Order region are irrelevant. If you select Work Order, the values within the Work Order region are relevant, and the values within the Activity region are irrelevant.
13. Within the Activity region, if Activity is populated in the Copy From field, optionally select an Activity name.
14. Within the Activity region, if Activity is populated in the Copy From field, optionally select the BOM check box to indicate that the Maintenance Bill of Material, associated with the current Activity within the Activity region, will copy to the new Activity Name.  

For example, in the screen shot above, the Maintenance Bill of Material associated with the 3000 Mile Truck Maint will copy to Oil Change.
15. Within the Activity region, if Activity is populated in the Copy From field, optionally select the Routing check box to indicate that routings, associated with the current Activity within the Activity region, will copy to the new Activity Name.  

For example, in the screen shot above, routings associated with the 3000 Mile Truck Maint will copy to Oil Change.
16. Within the Activity region, if Activity is populated in the Copy From field, select All or None from the Association list of values.
  - *All*: All Asset and Rebuildable associations, associated with the current Activity within the Activity region, will copy to the new Activity.
  - *None*: No Asset and Rebuildable associations, associated with the current Activity within the Activity region, will copy to the new Activity.
17. Within the Work Order region, if Work Order is populated in the Copy From field, select an existing maintenance Work Order from the list of values.
18. Within the Work Order region, if Work Order is populated in the Copy From field, select All or None from the Operation list of values.
  - *All*: All operations associated with the current Work Order, populated in the Work Order field, will copy to the new Activity.
  - *None*: No operations associated with the current Work Order, populated in the Work Order field, will copy to the new Activity.

19. Within the Work Order region, if Work Order is populated in the Copy From field, select All, Issued, or None from the Material list of values.
  - *All*: All material associated with the current Work Order, populated in the Work Order field, will copy to the new Activity.
  - *Issued*: Only material issued to the current Work Order, populated in the Work Order field, will copy to the new Activity.
  - *None*: No material associated with the current Work Order, populated in the Work Order field, will copy to the new Activity.
20. Within the Work Order region, if Work Order is populated in the Copy From field, select All, Issued, or None from the Resource list of values.
  - *All*: All resources associated with the current Work Order will copy to the new Activity.
  - *Issued*: Only resources issued to the current Work Order will copy to the new Activity.
  - *None*: No resources associated with the current Work Order will copy to the new Activity.
21. Within the Work Order region, if Work Order is populated in the Copy From field, select None, Current, or All from the Association list of values.
  - *None*: No Assets and Rebuildables, associated with the current Work Order, will associate with the new Activity.
  - *Current*: An Asset and/or Rebuildable, associated with the current Work Order, will associate with the new Activity.
  - *All*: All Assets and/or Rebuildables, associated with the current Work Order's Activity, will associate with the new Activity.
22. Save your work. After saving, the new Activity is automatically assigned to the current organization.

**See Also:**

For more information on how to take advantage of the Activity Workbench functionality, See: [Using the Activity Workbench](#) on page 3-84.

**To associate Assets with Activities:**

After you have defined Maintained Groups (See: [Defining Maintained Groups](#) on page 3-49), Assets (See: [Defining Asset Numbers \(Maintained Numbers\)](#) on

page 3-69), and Activities, you can associate the Activities with assets and/or rebuildables. However, you can streamline the creation of Activities and associations using an Activity Association Template (See: [Activity Association Templates](#) on page 3-62). Assets need to be associated with Activities before entering the Activity into a Preventive Maintenance Schedule (See: [Entering PM Scheduling Definitions](#) on page 3-129).

---

---

**Note:** The Activity Workbench is generally used to streamline your Activity setups, including Maintained Number/Activity associations (See: [Using the Activity Workbench](#) on page 3-84). Also, you can streamline the creation of Activity associations using an Activity Association Template. For example, when you create a Maintained Group, and then Maintained Numbers within that group, you do not need to utilize the Association window to associate those Maintained Numbers with an Activity. If you create an Activity Association Template, the Activity that you associate with the current Maintained Number's Maintained Group will automatically determine the Activity that is associated with the current Maintained Number (See: [Activity Association Templates](#) on page 3-62).

---

---

1. Navigate to the [Activity Association](#) window.

Figure 3–29 Activity Association Window

Activity Association (EM1)

Activity: 3000 Mile Truck Maint  
 Description: 3000 Mile Truck Maintenance

—Associations—

Main Activity

Item Type	Maintained Group	Maintained Number	Priority	Effective Dates		
				From	To	
Asset	Vehicles	DTF35000		09-OCT-2002		
Asset	Vehicles	DTF35001		12-NOV-2002		
Rebuildable	F350Y2000 Rk	F350Y2000RBL		04-NOV-2003		

2. Select an Activity from the list of values.
3. Within the Main tabbed region, select Asset or Rebuildable from the Item Type list of values. This field works directly with the Maintained Group and Maintained Item fields. If Asset is selected, the Maintained Group refers to the Asset Group, and the Maintained Number refers to the Asset Number. If Rebuildable is selected, the Maintained Group refers to the Rebuildable Item, and the Maintained Number refers to the specific serial numbers for the current Rebuildable Item.
4. Select a Maintained Group from the list of values. If Asset is populated in the Item Type field, Asset Groups are available in the list of values.
5. Select a Maintained Number from the list of values. Only Maintained Numbers associated with the previously selected Maintained Group will be available. Maintained Numbers are always serial controlled. If you had selected a Non-serialized Rebuildable in the Maintained Group field, then the Maintained Number field is not required.

6. Optionally, select a Priority Code from the list of values. This field is for information only.
7. Optionally, enter Effective Dates. If the Effective From field is left blank, it will default to the system date. If the Effective To field is left blank, it will default to NULL.
8. Within the Activity tabbed region, the Activity Cause will default from the Activity definition (See: [Defining Activities](#) on page 3-51), specifying what situation caused this work to be generated. For example, Breakdown, Vandalism, Normal Wear, or Settings. Optionally, you can select an Activity Cause from the list of values to update this field.
9. The Activity Type will default from the Activity definition (See: [Defining Activities](#) on page 3-51). This code indicates the type of maintenance activity needed to be done for this Activity. It is used when defining a job or a standard job. This code should remain generic, and should not describe in detail the job to be done. For example, Inspection, Overhaul, Lubrication, Repair, Servicing, or Cleaning. Optionally, you can select an Activity Type from the list of values to update this field.
10. Optionally, select the Tagging Required check box to indicate whether tag out procedures are required. The Area may need to be secured for operations required for carrying out a Work Order. Tags are generally printed and placed on an asset, warning the plant that the asset is shutdown, and should not be started. This check box helps the planner isolate those jobs that require a tagout. This is for information only.
11. The Owning Department responsible for this activity or asset will default from the Asset Number definition (See: [Defining Asset Numbers](#) on page 3-69). Optionally, you can update this field by selecting an owning department from the list of values. This is normally a Planner or Supervisor.
12. Optionally, select a Shutdown Type from the list of values. This indicates whether a shutdown is necessary to perform this maintenance activity. For example Required, and Not Required. This field is informational only. This value defaults from the Master Activity information that was created within the Master Item window. See: [Defining Activities](#) on page 3-51.
13. Optionally, select a WIP Accounting Class from the list of values. You can over-write the value that defaults from the Enterprise Asset Management Parameters information, for the current organization. See: [Defining eAM Parameters](#) on page 3-16.

14. Optionally, select an Activity Source from the list of values. Activity Source codes are reasons activities need to be executed. For example, Warranty Compliance, OSHA Compliance, or Military Specification Requirements. See: [Activity Sources](#) on page 3-32. This value will default from the Master Activity information that was created within the Master Item window. See: [Defining Activities](#) on page 3-51.
15. Save your work.

**See Also:**

[Rebuildable/Activity Association](#) on page 3-110

## Activity Association Templates

You can streamline the creation of Activity associations using an Activity Association Template. For example, when you create a Maintained Group, and then Maintained Numbers within that group, you do not need to utilize the Association window to associate those Maintained Numbers with an Activity. If you create an Activity Association Template, the Activity that you associate with the current Maintained Number's Maintained Group will automatically determine the Activity that is associated with the current Maintained Number.

---

---

**Note:** The Activity Workbench is generally used to streamline your Activity setups, including Activity Association Templates (See: [Using the Activity Workbench](#) on page 3-84).

---

---

**To create activity templates:**

1. Navigate to the [Activity Association Template](#) window.

**Figure 3–30 Activity Association Template Window**

Activity Association Template

Activity:

Description:

—Associations—

Main | Activity

Item Type	Maintained Group	Priority	— Effective Dates —	
			From	To
Asset	Fork Lifts	Medium	04-NOV-2003	

2. Select a valid Activity from the Activity list of values. The Activity needs to already have been created within the Master Item window.
3. Within the Main tabbed region, select an Item Type of Asset or Rebuildable.
4. Select a Maintained Group from the list of values. After this record is saved, this Maintained Group will be associated with the current Activity. Every Maintained Number created within the current Maintained Group will automatically be associated with the current Activity.
5. Optionally, select a Priority code from the list of values. This value will default from the Master Activity information created within the Master Item window.
6. Optionally, enter Effectivity Dates for this Activity Template.
7. Within the Activity tabbed region, you can optionally select an Activity Cause from the list of values. This value specifies what situation caused this work to be generated. For example, Breakdown, Vandalism, Normal Wear, or Settings. This value defaults from the Master Activity information created within the Master Item window. See: [Defining Activities](#) on page 3-51.

8. Optionally, select an Activity Type from the list of values. This code indicates the type of maintenance for this Activity. It is used when defining a Work Order. It should remain generic, and should not describe in detail the job to be done. For example, Inspection, Overhaul, Lubrication, Repair, Servicing, or Cleaning. This value defaults from the Master Activity information created within the Master Item window. See: [Defining Activities](#) on page 3-51.
9. Optionally, select the Tagging Required check box to indicate whether tag out procedures are required. The Area might need to be secured for operations required for carrying out a Work Order. Tags are generally printed and placed on an asset, warning the plant that the asset is shutdown, and should not be started. This check box helps the planner isolate those jobs that require a tagout. This is for information only.
10. Optionally, select an Owning Department from the list of values. This value defaults from the Enterprise Asset Management Parameters information for the current organization. See: [Defining eAM Parameters](#) on page 3-16.
11. Optionally, select a Shutdown Type from the list of values. This indicates whether a shutdown is necessary to perform this maintenance activity. For example Required, and Not Required. This field is informational only. This value defaults from the Master Activity information that was created within the Master Item window. See: [Defining Activities](#) on page 3-51.
12. Optionally, select a WIP Accounting Class from the list of values. This value defaults from the Enterprise Asset Management Parameters information for the current organization. See: [Defining eAM Parameters](#) on page 3-16.
13. Optionally select an Activity Source from the list of values. Activity Source codes are reasons activities need to be executed. For example, Warranty Compliance, OSHA Compliance, or Military Specification Requirements. See: [Activity Sources](#) on page 3-32. This value will default from the Master Activity information that was created within the Master Item window. See: [Defining Activities](#) on page 3-51.
14. Save your work.

## Setting Up Attributes

You can define common characteristics data specific to Asset Groups, such as Facility Information, Engineering Specifications, Regulation Requirements, Horsepower, Voltage, and Square Footage, by creating Attribute Groups using descriptive flexfields. After the Attribute Group is created, you can then assign it to a Maintained Group. This enables you to define additional characteristics data

when defining an asset associated with the Maintained Group. This provides extensive query capabilities. Attribute groups are descriptive flexfields, defined by segments and values.

For example, you can define an Attribute Group, Front Loader Nameplate data. This group can then be associated with the CARS Maintained Group. When defining an asset within the CARS Maintained Group, you can optionally utilize the attributes to specify nameplate data (specified data such as make, year, and model) for the asset. This creates a simplified way of entering specified data (See: [Defining Asset Numbers](#) on page 3-69) related to a specific Maintained Group.

### To set up Attributes:

1. Navigate to the [Descriptive Flexfield Segments](#) window.

**Figure 3–31 Descriptive Flexfield Segments Window**

Code	Name	Description	Enabled
Global Data Elements	Global Data Elements	Global Data Element Context	<input checked="" type="checkbox"/>
CAP	CAP		<input checked="" type="checkbox"/>
NEWATTRIB	NEWATTRIB	NEW ATTRIBUTE	<input checked="" type="checkbox"/>
Plate Details	Plate Details	Plate Details	<input checked="" type="checkbox"/>
<b>NAMEPLATE</b>	<b>NAMEPLATE</b>	<b>Front Loader NamePlate Data</b>	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

2. Select the flashlight icon from the tool bar. From the list of values, select the Oracle Inventory Application with the Title, Asset Attributes.

3. Unfreeze the Flexfield Definition by deselecting the Freeze Flexfield Definition check box.
4. In the Context Field Values region, select a row, then click the New icon. A blank row will be added for you to create an attribute group.
5. Enter the attribute group name in the Code field.
6. Optionally, enter a Description for this attribute group.
7. Select Segments to add attributes to the attribute group you just created.

**Figure 3–32 Segments Summary Window**

Number	Name	Window Prompt	Column	Value Set	Enabled
1	Make	Make	C_ATTRIBUTE1	10/Number	<input checked="" type="checkbox"/>
2	Model	Model	C_ATTRIBUTE2	15 Characters	<input checked="" type="checkbox"/>
3	Year	Year	C_ATTRIBUTE3	10/Number	<input checked="" type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>

8. Enter a Number to sequence the data.
9. Define the Name of the specific attribute. The Window Prompt will default to this name.
10. Select a Column value from the list of values.
11. Select a Value Set from the list of values, or optionally, select Value Set to create a new one.
12. If the Displayed check box is selected, this attribute will display to the user when defining data for an asset within the Maintained Group (for example,

CARS) associated with the attribute group (for example, NAMEPLATE) that this attribute (for example, Make) resides in.

13. Optionally, select the Enabled check box to enable the attribute to be available when defining assets (See: [Defining Asset Numbers](#) on page 3-69).
14. Save your work, and return to the Descriptive Flexfield Segments window.
15. Select the Freeze Flexfield Definition check box. Failure to do this will prevent you from querying the segments from the Attribute window.
16. Save your work.

**See Also:**

*Oracle Applications Flexfield User's Guide*

**To associate the Attribute Group with a Maintained Group:**

1. Navigate to the [Attributes Assignment](#) window.

In the below example, any asset created within the CARS Maintained Group will have the NAMEPLATE attribute group available as an option for data entry.

**Figure 3–33 Attributes Assignment Window**

Asset Group

Description

**Attribute Group**

Attribute Group Code	Attribute Group Name	Description	Enabled
NAMEPLATE	NAMEPLATE	Front Loader NamePlate Data	<input checked="" type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>

2. Select a Maintained Group from the list of values. See: [Defining Maintained Groups](#) on page 3-49.
3. Select an Attribute group from the Attribute Group Code list of values.  
You can have an unlimited number of Attribute Groups associated with an asset.
4. Save your work.

## Defining Asset Documents

You can attach existing documents to an asset, and create text to associate with an asset. You can attach text and files, such as spreadsheets, graphics, and OLE objects. When creating a Work Order for an asset with attachments, the asset's attachments will attach to the Work Order for that asset. For this to function, the appropriate attachment category, Asset Attachments (1), must be associated with the attachment function, EAMWOMDF (See: [Working With Attachments, Oracle Applications User's Guide](#)).

To define asset documents:

1. Navigate to the [EAM Asset Documents](#) window.

**Figure 3–34** EAM Asset Documents Window

The screenshot shows the 'EAM Asset Documents' window with the following fields and options:

- Category:** Asset Attachments
- Description:** (Empty text field)
- Source:**
  - Data Type:** (Empty text field)
  - File:** (Empty text field)
- Usage:**
  - Standard
  - Template
  - One-Time
- Security:**
  - Type:** Organization
  - Owner:** Seattle Maintenance
  - Share
- Effective Dates:**
  - From:** (Empty text field)
  - To:** (Empty text field)
- Magnification:** 100%

The main content area is a large empty white box with a vertical scrollbar on the right side.

2. Select a Data Type from the list of values.

**See Also:**

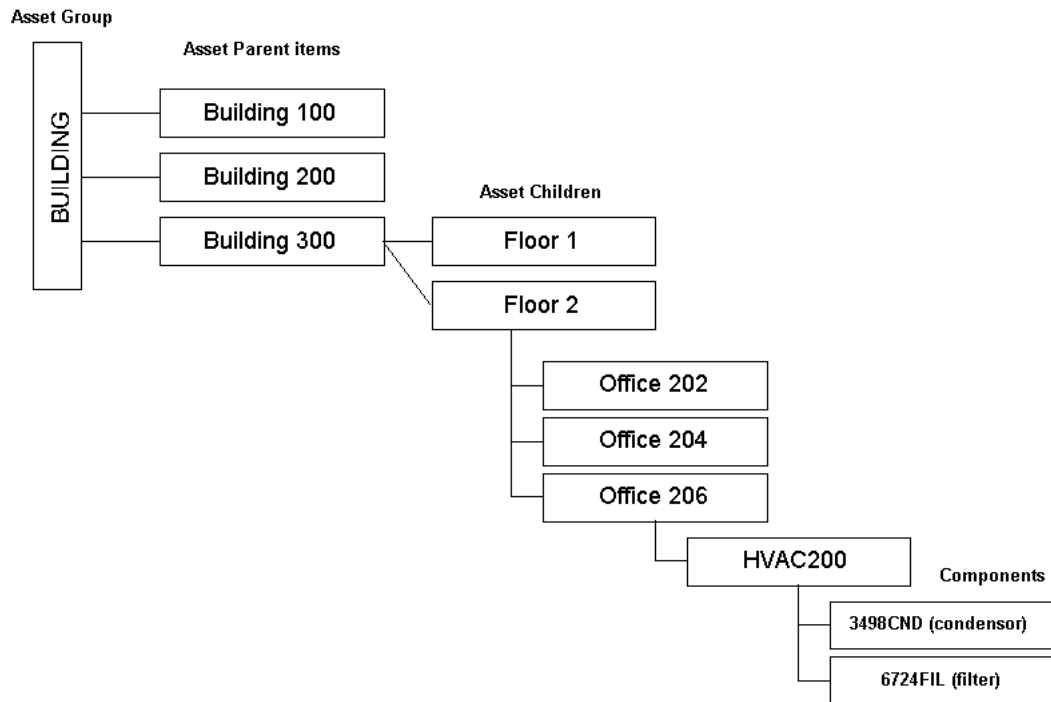
For information on all fields, See: [Working With Attachments](#), *Oracle Applications User's Guide*

## Defining Asset Numbers (Maintained Numbers)

Enterprise Asset Management provides three methods in which you can enter a new asset. You can create them individually, by copying information from an existing asset, utilize the multiple asset entry method, or use the Import Asset Number interface (See: *Oracle Manufacturing APIs and Open Interfaces Manual*).

You must first set up an Maintained Group, before defining Maintained Numbers. See: [Defining Maintained Groups](#) on page 3-49. The diagram below illustrates the parent/child (asset hierarchy) relationship that can be created when creating Maintained Numbers. In this example, the Maintained Group is BUILDING, containing the Maintained Numbers Building 100, Building 200, and Building 300. Those Maintained Numbers have their own child assets, Floor 1 and Floor 2. Those Maintained Numbers have their own child assets, Floor 1 and Floor 2.

**Figure 3–35 Hierarchy Example**



**To set up assets individually:**

1. Navigate to the [Define Asset Numbers](#) window.

Figure 3–36 Define Asset Numbers Window

2. Select a Maintained Group from the list of values. This Maintained Group will be associated with this asset.

---

**Note:** After a Maintained Group is associated with an asset and then saved, it cannot be changed.

---

3. Enter a Maintained Number if you do not have them automatically generated, or accept or modify the default, if you have automatic generation enabled (See: [Defining eAM Parameters](#) on page 3-16).

After an asset has been saved, it cannot be deleted. The asset can only be deactivated if there are no open Work Orders for the asset, or if the asset is not part of an asset hierarchy.

4. Optionally, enter an Asset Description, up to 240 characters.

5. Optionally, associate this asset to an Asset Category. This is the Class and Subclass code, such as CRANE.OVERHEAD or BUILDING.FLOOR. See: [Setting Up Category Codes and Sets](#) on page 3-46.
6. Within the Main tabbed region, you can optionally select an Owning Department for this asset from the list of values. This represents the crew responsible for the asset. Notifications, regarding Work Requests, are sent to everyone with a responsibility assigned to the Work Request's associated asset's current owning department (See: [Defining Department Approvers](#) on page 3-26 and [Defining Asset Numbers \(Maintained Numbers\)](#) on page 3-69).
7. Optionally, select a Criticality code from the list of values, indicating the importance of the asset to the organization. This field is for information only.
8. Optionally, select a WIP Accounting Class from the list of values. This will identify the Expense cost elements associated with the work performed, such as materials, labor, and resources.
9. Optionally, enter the Area where this asset resides. This is a user defined listing of logical areas of work. For example, North Plant, East Wing, or Area 1 (See: [Setting Up Areas](#) on page 3-21).
10. Indicate whether this asset is maintainable. If the Maintainable check box is selected, you can create Work Requests and Work Orders for this asset.

For example, an asset can be created for cost-tracking purposes. We may want to see the cost for all top level assets in an asset hierarchy, but we do not want to maintain those assets. In this situation, do not select this check box.

---

---

**Note:** After Work Orders are created for this asset, this check box cannot be cleared unless those Work Orders are at Complete, Canceled or Closed statuses.

---

---

11. In the Production Equipment region, optionally enter a Production Organization. The list of values displays the production inventory organizations maintained by the current asset's organization. See: [Enabling Organizations for Enterprise Asset Management](#) on page 3-14 for information on designating eAM organizations to be used to maintain equipment items for designated production organizations.
12. Select an Item from the list of values. This is mandatory if you populated the Production Organization field. Only items that were defined with an equipment template (See: [Item Templates](#), *Oracle Inventory User's Guide*), or with the

---

Equipment item attribute enabled (See: [Physical Attributes](#), *Oracle Inventory User's Guide*), will be available.

13. Enter a Serial Number. This is mandatory if you populated the Production Organization field. This is the specific name of the component within the Equipment Type, defined above.
14. In the Parent Asset region, optionally enter a Maintained Group. This defines asset hierarchy information, enabling you to review all cost associated with an asset or asset hierarchal view.
15. Enter a parent Maintained Number. This defines asset hierarchy information. If a Maintained Group was created in step 14, then this field is mandatory. For example, in the diagram example above, you would need to enter Building 100 in this field if you were currently defining the Floor 1 asset.
16. Optionally, enter the Fixed Asset region information if Oracle Fixed Assets is installed. This is Enterprise Asset Management's integration with Fixed Assets. Enter a Category, which is a grouping of fixed assets, defined within Oracle Fixed Assets. This category is tied to a set of books, and must be the same set of books that is assigned to the current Enterprise Asset Management organization. See: [Setting Up Asset Categories](#), *Oracle Assets User's Guide*.
17. Optionally, enter the Number if Oracle Fixed Assets is installed. This represents a fixed Maintained Number that belongs to a fixed asset category, associated with the asset.
18. The Property Management fields, Location Name, and Location Code, will default from a Property Manager export process (Export Locations to Enterprise Asset Management) if Oracle Property Management is installed. These fields are not updateable. The Location Code and Maintained Number fields reflect as the same number, and cannot be changed.

---

**Note:** Before the above information can be passed from Property Manager into Enterprise Asset Management, Maintained Groups need to first be established. See: [Defining Maintained Groups](#) on page 3-49, and [Setting Up eAM Prerequisites](#), *Oracle Enterprise Asset Management User's Guide*.

---

19. You can select Resource Usage only if the fields in the Production Equipment region are populated. This enables you to view production Work Orders using the equipment that corresponds with this Maintained Number as a resource.

20. Optionally, select Attributes to enter attribute values for the asset (See: [Setting Up Attributes](#) on page 3-64).

Only existing, enabled Attribute Groups will display (See: [Setting Up Attributes](#) on page 3-64). These Attribute Groups are optional; you do not need to enter values for all existing Attribute Groups. From this window, you cannot generate Attribute Groups.

21. Optionally, select Associate Activity to directly associate this Asset with an Activity. See: [Activity Association](#) on page 3-62.
22. Optionally, enter file, URL, or text attachments to this asset by choosing the paperclip Attachments icon. You can then choose Document Catalog to add asset specific documents. See: [Defining Asset Documents](#) on page 3-68.
23. Save your work.

#### To copy assets from existing assets:

You can copy asset information from existing assets. When you use this method, everything will copy to the new asset, including attributes and attachments.

1. Navigate to the [Define Asset Numbers](#) window.
2. Select a Maintained Group from the list of values. This Maintained Group will be associated with this asset.
3. Enter a Maintained Number if you do not have them automatically generated, or accept or modify the default, if you have automatic generation enabled (See: [Defining eAM Parameters](#) on page 3-16). After an asset has been saved, it cannot be deleted. The asset can be deactivated if there are no open Work Orders for the asset, or if the asset is not part of an asset hierarchy.
4. Optionally, enter an Asset Description, up to 240 characters.
5. From the Tools menu within the Tool bar, select Copy Maintained Unit from.
6. Select the desired asset from the list of values.
7. Optionally, associate this Asset to an Asset Category. This is the Class and Subclass code, such as CRANE.OVERHEAD, or BUILDING.FLOOR. See: [Setting Up Category Codes and Sets](#) on page 3-46.
8. Select an Owning Department for this asset from the list of values. E-mail notifications, regarding Work Requests, are sent to everyone with a responsibility assigned to the Work Request's associated asset's owning department (See: [Defining Department Approvers](#) on page 3-26 and [Defining Maintained Numbers](#) on page 3-69).

9. Save your work.

### To utilize the multiple asset entry method:

1. Navigate to the [Define Asset Numbers](#) window.
2. Select the flashlight Find icon, displaying the Find Asset Number window.
3. Select Find to display the Asset Numbers window.

**Figure 3–37 Asset Numbers Window**

The screenshot shows a window titled "Asset Numbers (EAM)" with a table of asset information. The table has seven columns: Asset Group, Asset Group Description, Asset Number, Asset Description, Asset Category, Owning Department, and Asset Criticality. The data is as follows:

Asset Group	Asset Group Description	Asset Number	Asset Description	Asset Category	Owning Department	Asset Criticality
OFFICE PARK	OFFICE PARK	%OP%			BLDG LOC	
RTU	Roof Top Air C	001			CENTER 1	High
RTU	Roof Top Air C	002			PJ76A	High
RTU	Roof Top Air C	003			PJ76A	High
MD-80	ND-80	0822	MD-80 Tail % 0		PJ82A	High
EFP	Electronic Fue	1			OPERATIONS	
BUILDING	ORACLE BUIL	123200BD	COLORADO SF		PJ85A	
ACCUMLTR-F/	FARVAL ACCU	1234			ACRMCC	
FMUs	Fuel Modulatir	1959-02			PJ22A	High
3100	Indicating/Rec	31-41-01-01	Data Acquisitic		CENTER 1	
3100	Indicating/Rec	31-41-01-10	Data Acquisitic		CENTER 1	
3100	Indicating/Rec	31-41-02-01	EICAS Display		CENTER 1	

At the bottom of the window, there are buttons for "Attributes", "Associate Activity", "Resource Usage", "New", and "Open".

4. Using this tabular format, you can enter multiple assets at once.

After an asset has been saved, it cannot be deleted. The asset can only be deactivated if there are no open Work Orders for the asset, or if the asset is not part of an asset hierarchy.

5. Optionally, enter file, URL, or text attachments to this asset by choosing the paperclip Attachments icon. You can then choose Document Catalog to add asset specific documents. See: [Defining Asset Documents](#) on page 3-68
6. Save your work.

**To deactivate an asset:**

1. Navigate to the [Define Asset Numbers](#) window.
2. Select the flashlight Find icon, displaying the Find Asset Number window.
3. Choose Find to display the Asset Numbers window.
4. Select the asset to deactivate.
5. From the Tools menu, select De-Activate Maintained Unit.
6. Save your work.

---

---

**Note:** After an Asset has been deactivated, it cannot be reactivated. Deactivated Assets do not appear in Oracle Enterprise Asset Management user interfaces.

---

---

## Defining Asset Routes

You might need to perform an Activity on multiple Maintained Numbers. To eliminate the possibility of creating multiple Work Orders for the same Activity, you can define Asset Routes. You can define a Preventive Maintenance schedule for your Asset Route to specify when an Activity should be scheduled for the Asset Route. Only day interval rules can be defined for Asset Routes (See: [Preventive Maintenance Scheduling](#) on page 3-122).

**To define Asset Routes:**

1. Navigate to the [Define Asset Route](#) window.

Figure 3–38 Define Asset Route Window

Define Asset Route (EM1)

Maintained Group

Maintained Number

Asset Category

[ ]

Main Production Others

Owning Department  ...

Criticality

WIP Accounting Class

Area

Maintainable

Parent

Item Type

Maintained Group

Maintained Number

Asset Route Attributes Resource Usage Associate Activity

2. Select a Maintained Group from the list of values.
3. Enter the name of the Asset Route in the Maintained Number field.
4. Optionally, associate this Asset Route to an Asset Category. This is the Class and Subclass code, such as CRANE.OVERHEAD or BUILDING.FLOOR. See: [Setting Up Category Codes and Sets](#) on page 3-46.
5. Within the Main tabbed region, you can optionally select an Owning Department for this Asset Route from the list of values. This represents the crew responsible for the asset. Notifications, regarding Work Requests, are sent to everyone with a responsibility assigned to the Work Request's associated asset's current owning department (See: [Defining Department Approvers](#) on page 3-26 and [Defining Asset Numbers \(Maintained Numbers\)](#) on page 3-69).
6. Optionally, select a Criticality code from the list of values, indicating the importance of the Asset Route to the organization. This field is for information only.

7. Optionally, select a WIP Accounting Class from the list of values. This will identify the Expense cost elements associated with the work performed, such as materials, labor, and resources.
8. Optionally, enter the Area where this Asset Route resides. This is a user defined listing of logical areas of work. For example, North Plant, East Wing, or Area 1 (See: [Setting Up Areas](#) on page 3-21).
9. Indicate whether this Asset Route is maintainable. If the Maintainable check box is selected, you can create Work Requests and Work Orders for this Asset Route.
10. Choose Asset Route to display the Asset Route window.

**Figure 3–39 Asset Route Window**

The screenshot shows the 'Asset List (EM1)' window. At the top, there are two rows of input fields. The first row has 'Maintained Group' set to 'Fork Lifts' and 'Fork Lift Asset Group'. The second row has 'Asset Route' set to 'FL28'. Below this is a section titled 'Associated Asset Numbers' which contains a table with columns for 'Maintained Group', 'Maintained Number', 'From', 'To', and a checkbox. The first row in the table is highlighted in yellow and contains the following data: 'Fork Lifts', 'FL1010', '04-NOV-2003', and an empty checkbox. There are several empty rows below it.

Maintained Group	Maintained Number	From	To	[ ]
Fork Lifts	FL1010	04-NOV-2003		<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>

11. In the Associated Asset Numbers region, select a Maintained Group from the list of values.
12. Select a Maintained Number from the list of values. Only Maintained Numbers associated with the previously selected Maintained Group will be available.  
You can associate an unlimited number of Maintained Numbers.

13. Optionally, enter Effective Dates. If the Effective Date From field is left blank, the system date will default.
14. Save your work.

---

---

**Note:** Only Maintained Numbers can be associated with Asset Routes. An Asset Route cannot be associated with another Asset Route.

---

---

## Setting Up Asset Bills of Material

You can identify and select the required items that make up an asset. A bill of material (BOM) can be used to list all items and components that make up a particular asset, and can be defined for each Maintained Group. The items defined on an asset BOM are standard inventory components (See: [Defining Items](#), *Oracle Inventory User's Guide*).

---

---

**Note:** Even if you are not using Project Manufacturing applications, Project Parameters must be defined for your eAM enabled organization to successfully create Asset Groups. This is required because an Asset BOM is of type Model/Unit Effective and this BOM type is currently allowed only if PJM organization parameters are set up for the eAM enabled organization to which the Asset Group has been assigned. To define Project Parameters, open the Project Parameters window using Project Manufacturing Super User responsibility and without entering any data in the window, save the record. If you plan to use Project Manufacturing, see: [Project Manufacturing Integration Setup](#) on page 3-181 for information on defining Project Parameters.

---

---

### To set up an Asset BOM:

1. Navigate to the [Bills of Material](#) window.

Figure 3–40 Bills of Material Window

The screenshot shows the Oracle Bills of Material (EM1) window. The main header contains the following fields:

- Item: Fork Lifts
- Fork Lift Asset Group
- UOM: Ea
- Alternate: [ ]
- Revision: 0
- Date: 04-NOV-2003 15:19:39
- Display: Future and Current
- Implemented Only

The window has several tabs: Main, Date Effectivity, Serial Effectivity, ECO, Component Details, Material Control, and Order Management. The Main tab is active, showing a tree view of the bill of materials:

- Item Seq: 10
  - Operation Seq: 1
    - Component: Motor - Electric Fork
      - Item Description: Electric Fork Lift Motor
      - Revision: 0
      - UOM: Ea
      - Quantity: 1
    - Component: Motor - Propane Fork
      - Item Description: Propane Fork Lift Motor
      - Revision: 0
      - UOM: Ea
      - Quantity: 1
    - Component: Battery - Electric For
      - Item Description: Power Battery For Electric Fork Li
      - Revision: 0
      - UOM: Ea
      - Quantity: 1
    - Component: Battery - Propane Fo
      - Item Description: Battery (electrical systems) for Pro
      - Revision: 0
      - UOM: Ea
      - Quantity: 1
    - Component: Fuel Tank - Propane
      - Item Description: Fuel Tanks for Propane Fork Lifts
      - Revision: 0
      - UOM: Ea
      - Quantity: 1

At the bottom of the window, there are buttons for Substitutes, Designators, Operations, Bill Details, and Revision.

2. Select a Maintained Group from the Item field list of values.
3. Within the Main tabbed region, the Item Sequence and an Operation Sequence will default.
4. Enter the inventory Component to make up the Maintained Number.
5. Enter the Quantity of that component necessary for the asset.
6. Select the Serial Effectivity tabbed region.

Figure 3–41 Bills of Material Window

Item Seq	Operation Seq	Component	From	To	Disabled
10	1	Motor - Electric Fork	FL1010	FL1040	<input type="checkbox"/>
20	1	Motor - Propane Fork	FL2010	FLB2040	<input type="checkbox"/>
30	1	Battery - Electric For	FL1010	FL1040	<input type="checkbox"/>
40	1	Battery - Propane Fo	FL2010	FL2040	<input type="checkbox"/>
50	1	Fuel Tank - Propane	FL2010	FL2040	<input type="checkbox"/>

7. Select the Maintained Number (Maintained Numbers are always serialized) from the list of values that the inventory items are going to be associated to, in the From and To fields. Only Maintained Numbers associated with the current Maintained Group are available.

If the Component is installed in all Maintained Numbers within the Maintained Group, enter 0 in the From field, and leave the To field blank.

8. Save your work.

#### See Also:

For information on all remaining fields, See: [Creating a Bill of Material](#), *Oracle Bills of Material User's Guide*

## Defining Asset Statuses

Shutdown of an asset is sometimes necessary to perform a maintenance Activity. You can create new shutdown information associated with an asset, or view existing shutdown history information already recorded to an asset. Shutdown information consists of start and end dates, work order numbers requiring maintenance on the asset, and specific operation sequences. At the time of completing a Work Order to its operations, you can view asset shutdown information in the Asset Status window.

All shutdown information entered within the Asset Status window is for informational purposes only.

**To view and define shutdown information for an asset:**

1. Navigate to the [Asset Status](#) window.

**Figure 3–42** Asset Status Window

The screenshot shows the 'Asset Status (EM1)' window. At the top, there are search fields for 'Maintained Number' (FL1020), 'Maintained Group' (Fork Lifts), 'Start Date', and 'End Date'. A 'Find' button is located to the right. Below the search fields is a section titled 'Shutdown Details' containing a table with the following columns: Start Date, End Date, Work Order, Op Seq, and Shutdown Description. The first row of the table is highlighted in yellow and contains the following data: Start Date: 04-NOV-2003, End Date: 30-NOV-2004, Work Order: Fork Lift 1020, Op Seq: 10, and Shutdown Description: (empty).

Start Date	End Date	Work Order	Op Seq	Shutdown Description
04-NOV-2003	30-NOV-2004	Fork Lift 1020	10	

2. Select an Asset Number from the list of values.

3. Choose Find. All shutdown information for the current asset appears in the Shutdown Details region.
4. To add new shutdown information for the current asset, Select a Start Date from the list of values.
5. Select an End Date from the list of values.
6. Optionally, associate the shutdown information to a specific work order requiring maintenance on the current asset. Only work orders created for the current asset are available from the list of values.
7. Optionally, associate shutdown information to the operation level of a work order by choosing a specific Operation Sequence.
8. Optionally, enter a Shutdown Description.
9. Save your work.

## Using the Activity Workbench

You can use a single program to manage your organization's Activity functions. Using the Activity Workbench, you can create (See: [Defining Activities](#) on page 3-51), query, and manage Activities. You can create Maintenance Routes and Maintenance Bills of Material, associated with your Activities. You can create various copy functions within a single Activity, across multiple Activities, as well as between Work Orders and Activities. These copy functions save time and standardize processes across your organization.

This section includes the following topics:

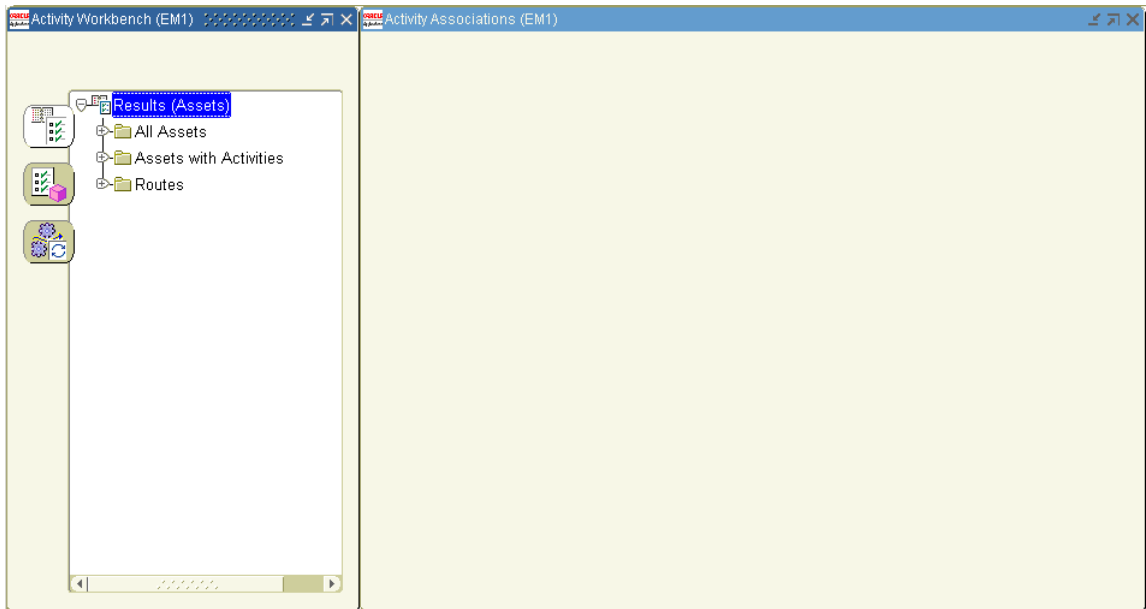
- [Navigating the Activity Workbench](#) on page 3-84
- [Defining Maintenance Routes](#) on page 3-93
- [Setting Up Maintenance Bills of Material](#) on page 3-99
- [Associating Maintained Numbers with Activities](#) on page 3-101

## Navigating the Activity Workbench

The Activity Workbench enables you to manage all of your organization's Activity functions. You can create, query, and manage Activities. Within the Activity Workbench, you can create or update a PM Schedule, create or update an Activity Suppression, and view or enter Last Service information.

### To navigate the Activity Workbench:

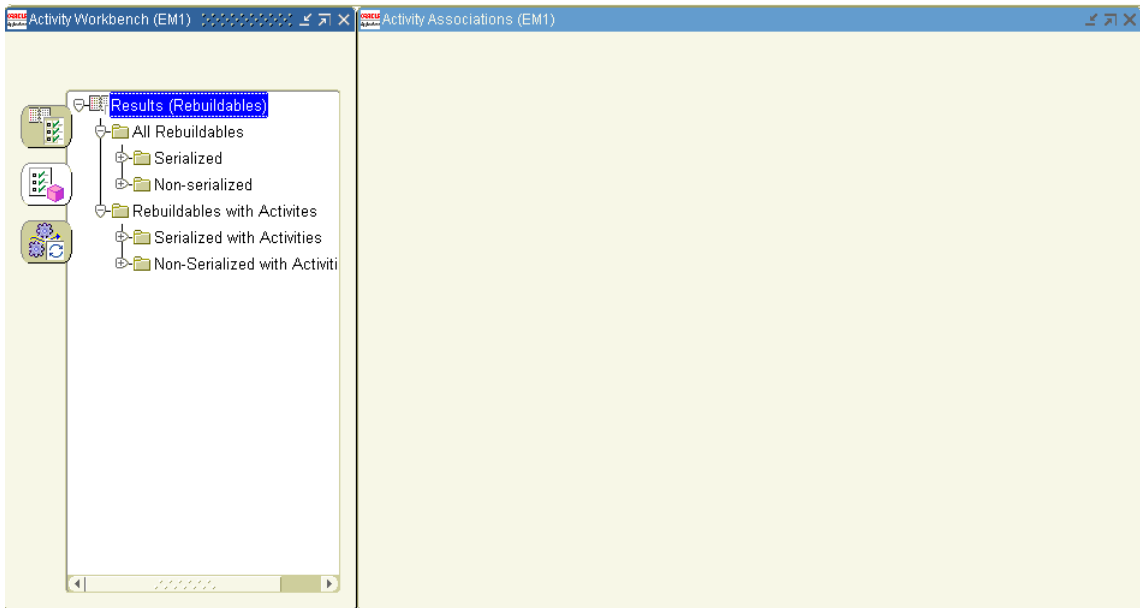
1. Navigate to the [Activity Workbench](#) window.
2. Optionally, narrow your data selection by selecting criteria within the Activity Workbench window. If you make selections, you will be able to view only those selections after you launch the Activity Workbench.
3. Choose Launch.
4. Optionally, select the Results (Assets) tab.

**Figure 3–43 Results (Assets) tab, Activity Workbench Window**

5. Optionally, expand the Results (Assets) folder.
  - a. Optionally, expand the All Assets folder to display all Asset Numbers, based on your chosen selection criteria, within the Activity Workbench window. You can select an asset and view related Activity information within the corresponding Activity Associations window. Within the corresponding Activity Associations window, you can associate Activities to the current asset.
  - b. Optionally, expand the Assets with Activities folder to display all Asset Numbers that are currently associated with one or more Activities, based on your chosen selection criteria, within the Activity Workbench window. You can select an asset and view related Activity information within the corresponding Activity Associations window. Within the corresponding Activity Associations window, you can create or update preventive maintenance schedule definitions, create or update Suppression definitions, view or update last service information, view the parts list, view or update the maintenance routing, and view cost estimations for an Asset Number and Activity combination.

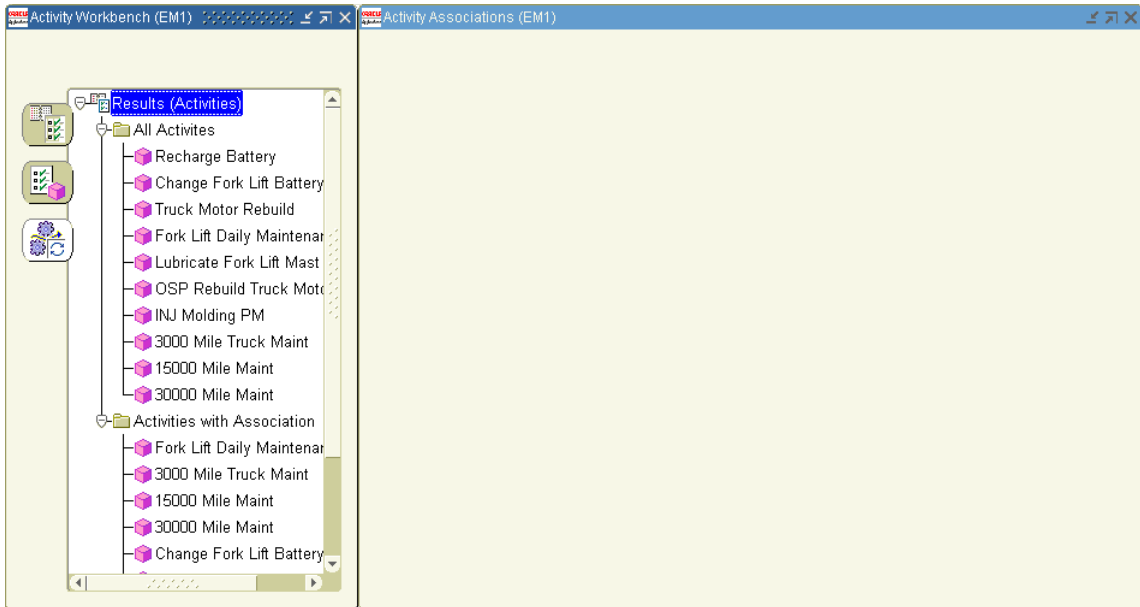
- c. Optionally, expand the Routes folder to display all Asset Routes that are currently associated with one or more Activities, based on your chosen selection criteria, within the Activity Workbench window. You can select an Asset Route and view related Activity information within the corresponding Activity Associations window. Within the corresponding Activity Associations window, you can create or update preventive maintenance schedule definitions, create or update Suppression definitions, view or update last service information, view the parts list required to perform the associated Activity, view or update the maintenance routing, and view cost estimations for an Asset Number and Activity combination (See: [Defining Asset Routes](#) on page 3-76).
6. Optionally, select the Results (Rebuildables) tab.

**Figure 3-44 Results (Rebuildables) tab, Activity Workbench Window**



7. Optionally, expand the Results (Rebuildables) folder.
        8. Optionally, expand the All Rebuildables folder.

- a. Optionally, expand the Serialized folder to display all Serialized Rebuildables, based on your chosen selection criteria, within the Activity Workbench window. You can select a Serialized Rebuildable and view related Activity information within the corresponding Activity Associations window. Within the corresponding Activity Associations window, you can associate Activities to the current Serialized Rebuildable.
  - b. Optionally, expand the Non-serialized folder to display all Non-serialized Rebuildables, based on your chosen selection criteria, within the Activity Workbench window. You can select a Non-serialized Rebuildable and view related Activity information within the corresponding Activity Associations window. Within the corresponding Activity Associations window, you can associate Activities to the current Serialized Non-rebuildable.
9. Optionally, select the Rebuildables with Activities folder.
  - a. Optionally, expand the Serialized with Activities folder to display all Serialized Rebuildables that are currently associated with one or more Activities, based on your chosen selection criteria, within the Activity Workbench window. You can select a Serialized Rebuildable and view related Activity information within the corresponding Activity Associations window. Within the corresponding Activity Associations window, you can create or update preventive maintenance schedule definitions, create or update Suppression definitions, view or update last service information, view the parts list, view or update the maintenance routing, and view cost estimations for a Serialized Rebuildable and Activity combination.
  - b. Optionally, expand the Non-serialized with Activities folder to display all Non-serialized Rebuildables that are currently associated with one or more Activities, based on your chosen selection criteria, within the Activity Workbench window. You can select a Non-serialized Rebuildable and view related Activity information within the corresponding Activity Associations window. Within the corresponding Activity Associations window, you can create or update preventive maintenance schedule definitions, create or update Suppression definitions, view or update last service information, view the parts list, view or update the maintenance routing, and view cost estimations for a Serialized Rebuildable and Activity combination.
10. Optionally, select the Results (Activities) tab.

**Figure 3–45 Results (Activities) tab, Activity Workbench Window**

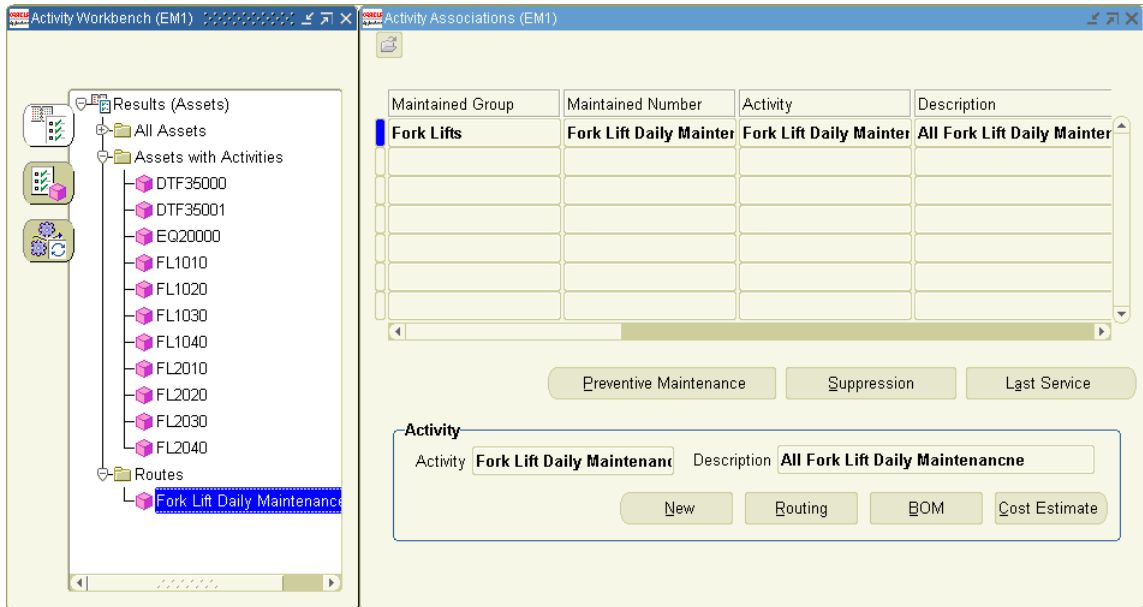
11. Optionally, expand the All Activities folder to display all valid Activities, based on your chosen selection criteria, within the Activity Workbench window. You can select an Activity and view its related Activity information within the corresponding Activity Associations window, if an association exists. You can associate a Maintained Number with the current, selected Activity using the corresponding Activity Associations window. You can select an Activity within the Activity Workbench pane, and then view its related information within the corresponding Activity Associations window. For a selected Activity, you can create a new Activity, create or update its associated Maintenance Routing, create or update the associated Maintenance BOM, and view cost estimations.
12. Optionally, expand the Activities with Association folder to display all Activities that are associated with a Maintained Number, based on your chosen selection criteria, within the Activity Workbench window. You can select an Activity within the Activity Workbench pane, and then view its related information within the corresponding Activity Associations window. For a selected Activity, you can create a new Activity, create or update its associated Maintenance Routing, create or update the associated Maintenance BOM, and view cost estimations.

**To create or update a PM schedule definition:**

You can create or update a Preventive Maintenance (PM) Schedule definition for Activity/Maintained Number and Activity/Asset Route combinations.

13. Within the Activity Workbench pane, select any one of the three tabs: Results (Assets), Results (Rebuildables), or Results (Activities).

**Figure 3–46 Activity Workbench Window**



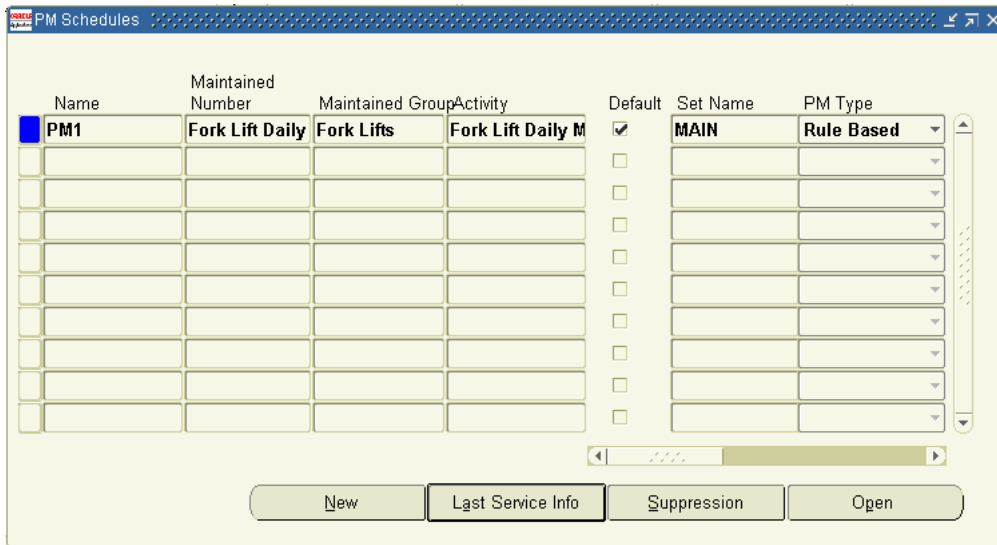
14. If you selected Results (Assets), expand either the Assets with Activities or Routes folders, then select an Asset Number or Route, respectively. You cannot create or update a PM Schedule definition for a Maintained Number that is not associated with an Activity.

If you selected Results (Rebuildables), expand the Rebuildables with Activities folder, expand either the Serialized with Activities or Non-serialized with Activities folder, then select a Serialized or Non-serialized Rebuildable, respectively. You cannot create or update a PM Schedule definition for a Maintained Number that is not associated with an Activity.

If you selected Results (Activities), expand the Activities with Association folder, then select an Activity.

15. Choose Preventive Maintenance. The PM Schedules window displays all PM Schedule definitions for the current Activity/Maintained Number or Activity/Asset Route combination.
  - a. Optionally, choose New to create a new PM Schedule definition.
  - b. Optionally, choose Last Service Information to create or update Last Service Information.
  - c. Optionally, choose Suppression to create or update a suppression definition, associated with the current Activity/Maintained Number or Activity/Asset Route combination.
  - d. Optionally, select a PM Schedule definition, then choose Open to view its details.

**Figure 3–47 PM Schedules Window**



16. Close the window.

17. Save your work.

**See Also:**

For more information regarding PM Schedules, See: [Preventive Maintenance Setup](#) on page 3-113.

**To create or update an activity suppression:**

You can create or update suppression definitions for Activity/Maintained Number and Activity/Asset Route combinations.

18. Within the Activity Workbench pane, select any one of the three tabs: Results (Assets), Results (Rebuildables), or Results (Activities).
19. If you selected Results (Assets), expand either the Assets with Activities or Routes folders, then select the Asset Number or Route, respectively. You cannot create or update a suppression definition for a Maintained Number that is not associated with an Activity.

If you selected Results (Rebuildables), expand the Rebuildables with Activities folder, expand either the Serialized with Activities or Non-serialized with Activities folder, then select a Serialized or Non-serialized Rebuildable, respectively. You cannot create or update a suppression definition for a Maintained Number that is not associated with an Activity.

If you selected Results (Activities), expand the Activities with Association folder, then select an Activity.

20. Choose Suppression.

**Figure 3–48** *Suppression Window*

The screenshot shows a window titled "Suppression (EM1)". It contains several input fields and a table.

Fields:

- Item Type: **Asset** (dropdown menu)
- Maintained Number: **Fork Lift Daily Mainter** | **Daily maint for all fork lifts / propane and**
- Maintained Group: **Fork Lifts** | **Fork Lift Asset Group**
- Activity: **Fork Lift Daily Mainter** | **All Fork Lift Daily Maintenancne**

There is a checked checkbox below the Activity field.

Table:

Suppressed Activity	Description

21. Add or update the Suppression Activity associated with the current Activity.
22. Save your work.

**See Also:**

For more information regarding suppression activities, See: [To create a suppression activity](#): on page 3-113.

**To view or update last service information:**

You can view or update last service information for Activity/Maintained Number and Activity/Asset Route combinations.

23. Within the Activity Workbench pane, select any one of the three tabs: Results (Assets), Results (Rebuildables), or Results (Activities).
24. If you selected Results (Assets), expand either the Assets with Activities or Routes folders, then select the Asset Number or Route, respectively.

If you selected Results (Rebuildables), expand the Rebuildables with Activities folder, then expand either the Serialized with Activities or Non-serialized with

Activities folder, and finally select a Serialized or Non-serialized Rebuildable, respectively.

If you selected Results (Activities), expand the Activities with Association folder, then select an Activity.

25. Choose Last Service Info to view or update last service information.

**Figure 3–49 Last Service Information Window**

Meter Name	Usage Rate	UOM	Description	Last Service Reading
FL1020 Hour Meter	5	HR	Fork Lift 1020 Usage Hour	900

26. Save your work.

#### See Also:

For more information regarding last service information, See: [Entering Preventive Maintenance Schedule Definitions](#) on page 3-129.

## Defining Maintenance Routes

Operations are the instructions or tasks to perform a repair. Because each operation is associated with a department, each operation contains assigned resources, for example, trades people, outside service providers, and equipment (See: [Defining](#)

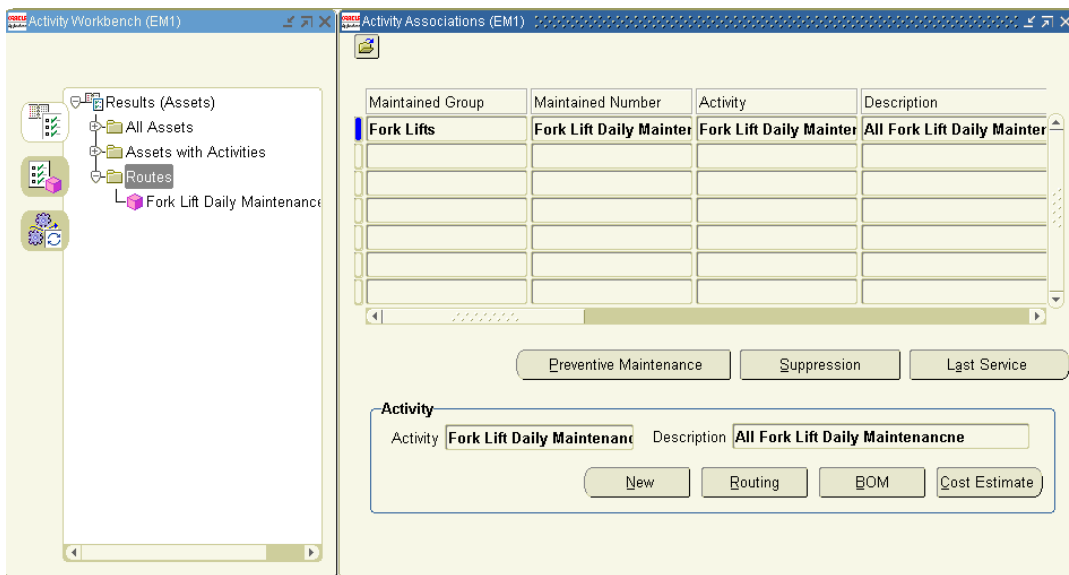
[Departments and Resources](#) on page 3-26). A Maintenance Route is the set of operations or jobs necessary to perform an Activity. When a Work Order is created for an Activity, the Maintenance Route corresponding to the Activity explodes to the Work Order (See: [Defining Activities](#) on page 3-51); all operations specified in the Maintenance Route are copied to the Work Order as its operations.

Maintenance Routes are not Asset Routes. For information on Asset Routes, See: [Defining Asset Routes](#) on page 3-76.

Enterprise Asset Management operations differ from manufacturing operations because manufacturing operations must be performed sequentially, whereas eAM operations do not need to be performed sequentially. In Enterprise Asset Management, operations may not be sequential. You can specify that one operation is dependent on another. Also, it is possible that two unrelated operations can happen concurrently. One operation can be dependent on multiple operations. Multiple operations can be dependent on only one operation. The dependency may not be totally connected.

**To define a maintenance route:**

1. Navigate to the [Activity Workbench](#) window.
2. Choose Launch.

**Figure 3–50 Activity Workbench Window**

3. Within the Activity Workbench pane, select the Activity for which you wish to create the Routing.
4. Choose Routing.

Figure 3–51 Routings Window

Item: Fork Lift Daily Maintainer, All Fork Lift Daily Maintenance UOM: Ea

Alternate:   Capable To Promise

Revision: 0 Date: 04-NOV-2003 15:30:21 [ ]

Display: Future and Current  Implemented Only

**Operations**

Main | Date Effectivity | WIP | ECO | Description

Seq	Code	Department	Option Dependent	Lead Time %
10	F10	<input type="checkbox"/> W-Maint	<input type="checkbox"/>	<input type="text"/>
20	F20	<input checked="" type="checkbox"/> W-Maint	<input type="checkbox"/>	<input type="text"/>
30	F30	<input checked="" type="checkbox"/> W-Maint	<input type="checkbox"/>	<input type="text"/>
40	F40	<input checked="" type="checkbox"/> W-Maint	<input type="checkbox"/>	<input type="text"/>
50	F50	<input checked="" type="checkbox"/> W-Maint	<input type="checkbox"/>	<input type="text"/>

Routing Details | Routing Network | Operation Resources

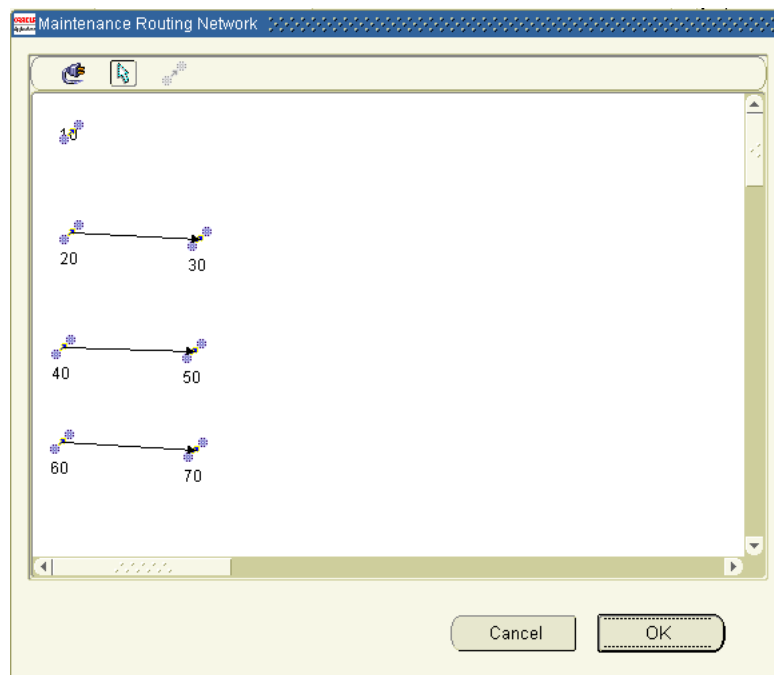
5. Select an Activity from the Item list of values.
6. Within the Main tabbed region, enter an operation Sequence, or let the system automatically generate it for you, according to your profile setup (See: [Item and Operation Sequence](#), *Oracle Bills of Material User's Guide*).
7. To copy or reference standard operations into a routing, use the operation Code list of values. You can define a new standard operation by selecting Standard Operations from the Tools menu.

If you use a standard operation code, the operation information for that code will be copied into the current operation. You can then update that information as desired (See: [Creating a Standard Operation](#), *Oracle Bills of Material User's Guide*).

8. Select a Department from the list of values, where the operation will be performed.

9. Select the Referenced check box to indicate that any changes to standard operations will be reflected in the routing. If the standard operation is selected, this check box is selected by default.
10. The Effective date will default to the system date, but you can optionally change this (See: [Effective Date Fields](#), *Oracle Bills of Material User's Guide*).
11. Optionally, enter a Disabled date to indicate the current operation's expiration.
12. Select the Description tabbed region. Enter a Description for the current operation.
13. Optionally, choose Routing Network to view the operation dependencies for the current asset route.

**Figure 3–52** Maintenance Routing Network Window



Operations can be scheduled to run in parallel, sequence, or through dependent steps. In the screen shot above, for example, Operations 20, 30, 40, and 50 are dependent on Operation 10, since there is a line connecting the operations.

These operations also run in parallel to each other. The operation numbers identify the sequence that they need to be performed (See: [Preparing Work Order Operations](#), *Oracle Enterprise Asset Management User's Guide*).

14. Optionally, select an operation, then choose Operation Resources to view the resources associated with the current department attached to this operation (See: [Defining Departments and Resources](#) on page 3-22). Optionally, you can modify the resources listed (See: [Assigning Operation Resources](#), *Oracle Bills of Material User's Guide*).

**Figure 3–53 Operation Resource Window**

Operation Resources (EM1) - 10

Item: **Fork Lift Daily Maintainer**      Alternate:

Sequence: **10**      Effective Date: **16-OCT-2002 00:00:00**

Resources

Main    Scheduling    Costing

Seq	Resource	UOM	Basis	Usage	Inverse
10	FliftMech	HR	Item	.05	20
20	FKTK	HR	Item	1	1

15. Save your work.

**See Also:**

For information on all remaining fields, See: [Creating a Routing](#), *Oracle Bills of Material User's Guide*.

For information on defining Activities using the Activity Workbench, See: [Defining Activities](#) on page 3-51.

## Setting Up Maintenance Bills of Material

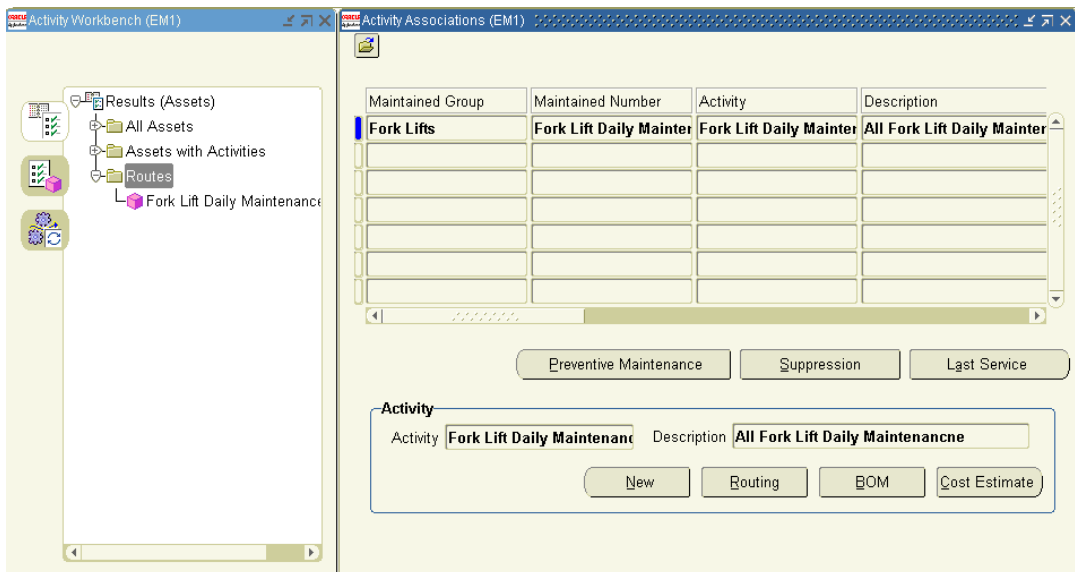
You can identify and select the required items used by an Activity. A bill of material (BOM) can be used to list all items needed to perform a particular Activity, and can be defined for each Activity. For example, you might have an Activity titled, Fork Lift Daily Maintenance. The items necessary to perform this Activity include water, fork lift lubrication oil, filled propane tanks, and shop rags. As Maintenance BOMs are created, they are associated to an Activity (See: [Defining Activities](#) on page 3-51).

When a Work Order is created for an Activity, the Maintenance BOM corresponding to the Activity explodes to the Work Order (See: [Defining Activities](#) on page 3-51); all components specified in the Maintenance BOM are copied to the Work Order as material requirements.

To set up an maintenance BOM:

1. Navigate to the [Activity Workbench](#) window.
2. Choose Launch.

**Figure 3–54** Activity Workbench Window



3. Within the Activity Workbench pane, select the Activity for which you wish to define the Bill of Material.
4. Choose BOM.

**Figure 3–55 Bills of Material Window**

Item Seq	Operation Seq	Component	Item Description	Revision	UOM	Quantity	Auto R	En
10	1	Water	Water for Fork Lift Battery	0	GAL	5		
20	1	Fork Lift Lubrication	Lubrication for Masts	0	Ea	5		
30	1	Filled Propane Tank	Fuel for Propane Fork Lifts	0	Ea	4		
40	1	Shop Rags	Shop Rags for Clean up	0	Ea	5		

Buttons at the bottom: Substitutes, Designators, Operations, Bill Details, Revision

5. Select an Activity from the Item field list of values.
6. Select the Main tabbed region. The Item Sequence will default.
7. Enter the Operation Sequence that this Component (material item necessary for the operation sequence, NOT rebuildable item) is needed for (See: [Defining Maintenance Routes](#) on page 3-93).
8. Enter necessary Components and their Quantities that are required to perform the Activity. You can enter an unlimited number of material items.

---

---

**Note:** This is referring to the material items necessary for the Activity.

---

---

9. Optionally, select the Date Effectivity tabbed region to specify effectivity dates per component.
10. Save your work.

**See Also:**

For information on all remaining fields, See: [Creating a Bill of Material](#), *Oracle Bills of Material User's Guide*.

For information on defining Activities using the Activity Workbench, See: [Defining Activities](#) on page 3-51.

## Associating Maintained Numbers with Activities

After you have defined Maintained Groups (See: [Defining Maintained Groups](#) on page 3-49), Maintained Numbers (See: [Defining Asset Numbers \(Maintained Numbers\)](#) on page 3-69 and [Defining Rebuildable Serial Numbers](#) on page 3-108, and Activities (See: [Defining Activities](#) on page 3-51), you can associate the Activities with assets and/or rebuildables. However, you can streamline the creation of Activities and associations using an Activity Association Template (See: [Activity Association Templates](#) on page 3-62). Assets need to be associated with Activities before entering the Activity into a Preventive Maintenance Schedule (See: [Entering PM Scheduling Definitions](#) on page 3-129).

---

---

**Note:** You can streamline the creation of Activity associations using an Activity Association Template. For example, when you create a Maintained Group, and then Maintained Numbers within that group, you do not need to utilize the Association window to associate those Maintained Numbers with an Activity. If you create an Activity Association Template, the Activity that you associate with the current Maintained Number's Maintained Group will automatically determine the Activity that is associated with the current Maintained Number (See: [Activity Association Templates](#) on page 3-62).

---

---

To associate Maintained Numbers (assets or rebuildables) with Activities using the Activity Workbench:

1. Navigate to the [Activity Workbench](#) window.

**Figure 3–56** Activity Workbench Window

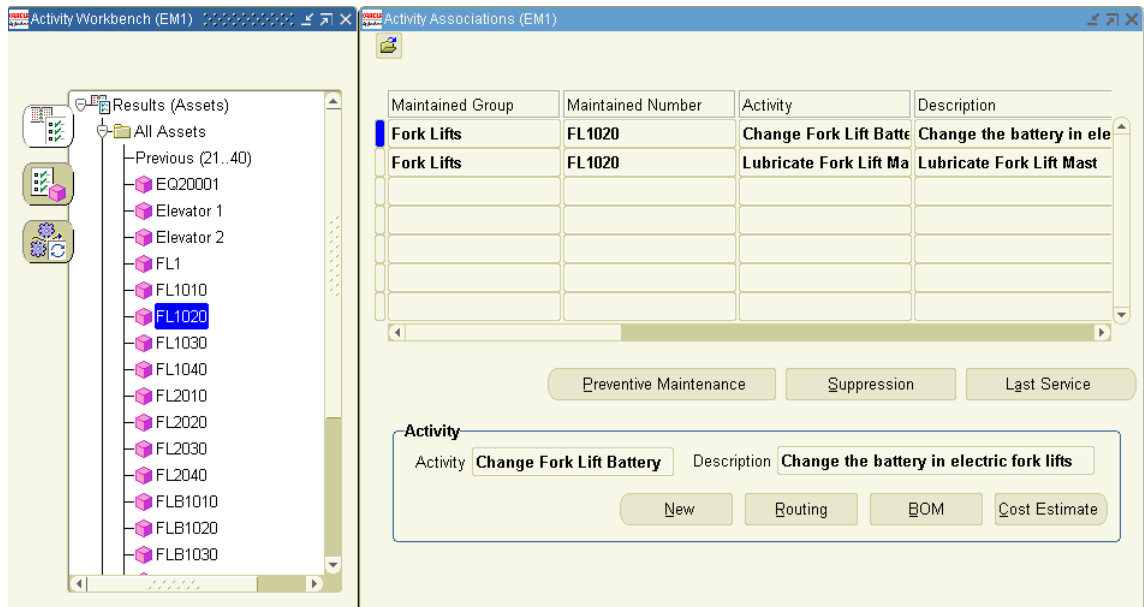
The screenshot shows the 'Activity Workbench (EM1)' window. It features a title bar with the Oracle logo and window controls. The main area is divided into several sections:

- Item Type:** A dropdown menu currently set to 'Asset'.
- Maintained Number:** A text input field.
- Maintained Group:** A text input field.
- Area:** A text input field.
- Asset Category:** A text input field.
- Owning Department:** A text input field.
- Include Children:** A checkbox.
- Activity:** A section containing:
  - Activity:** A text input field.
  - Activity Type:** A text input field.
  - Activity Source:** A text input field.
  - Shutdown Type:** A text input field.
  - Activity Cause:** A text input field.

At the bottom right, there are two buttons: 'New' and 'Launch'.

2. Select Asset or Rebuildable from the Item Type list of values. This item type determines the type of Maintained Number you are associating with the Activity.
3. Optionally, narrow your data selection by selecting the Maintained Number you intend to associate with an Activity.
4. Optionally, narrow your data selection by selecting and Activity from the list of values.
5. Choose Launch.

Figure 3-57 Activity Workbench and Activity Associations Window



6. Depending on the Item Type chosen while performing step 2, select the corresponding tab within the Activity Workbench pane. For example, if you selected an Item Type of Asset, select the Results (Assets) tab. If you selected an Item Type of Rebuildable, select the Results (Rebuildables) tab.
7. Expand the All Assets (within the Results (Assets) tab) or All Rebuildables (within the Results (Rebuildables) tab) folder. If you specified a Maintained Number while performing step 3, only that Maintained Number will display.
8. Select a Maintained Number by highlighting it. The Activity Associations window appears. If the Maintained Number is already associated with one or more Activities, those rows display within the window.
9. Select the next available row and then select a Maintained Group from the list of values.
10. Select a Maintained Number from the list of values. Only Maintained Numbers associated with the previously selected Maintained Group will be available. Maintained Numbers are always serial controlled. If you had selected a

Non-serialized Rebuildable in the Maintained Group field, then the Maintained Number field is not required.

11. Select an Activity from the list of values.
12. Save your work.

**See Also:**

For information on the remaining fields, See: [Defining Activities](#) on page 3-51.

## Rebuildable Item Setup

Rebuildable Item Setup tasks include:

- [Defining Rebuildable Items](#) on page 3-105
- [Defining Rebuildable Serial Numbers](#) on page 3-108
- [Rebuildable Item/Activity Association](#) on page 3-110

### Defining Rebuildable Items

Items that are installed, removed, and refurbished are referred to as Rebuildable Items. Examples of Rebuildable Items include motors, control boxes, and computer boards. Rebuildable Items may need to be removed or refurbished while a parent Asset is maintained. Rebuildable Items are inventory items; you have the option to serialize them.

**To set up rebuild items:**

1. Navigate to the [Rebuildable Item \(Master Item\)](#) window. The Master Item window is used to create Maintained Groups, Activities, and Rebuildable Items.

Figure 3–58 Master Item Window

The screenshot shows the Oracle Master Item (V1) window with the following details:

- Organization: V1 Vision Operations
- Item: Fork Lift Battery
- Description: Batteries used for electric Fork Lifts
- Display Attributes: Master (unselected), Org (unselected), All (selected)
- Navigation tabs: Main, Inventory, Bills of Material, Asset Management (selected), Costing, Purchasing, Receiving, Physical Attributes
- Asset Item Type: Rebuildable
- Asset Activity Properties:
  - Activity Type: [ ]
  - Activity Cause: [ ]
  - Activity Source: [ ]
  - Shutdown Type: [ ]
  - Activity Notification Required

2. Enter the Rebuildable Item name in the Item field.
3. Enter a Description for this Rebuildable Item, up to 240 characters.
4. Use the @Rebuildable template to quickly apply attribute values, and to ensure that the appropriate attributes are applied.
  - a. Select TOOLS from the Tools menu. From the drop down list, select COPY FROM.
  - b. Select the @Rebuildable template from the list of values.

---

**Note:** You can create Rebuildable Items using the template described above, or you can copy a Rebuildable Item from an existing Rebuildable Item (See: [Defining Items, Oracle Inventory User's Guide](#)).

---

The following table presents the necessary attribute values that are applied automatically to the Activity, when using the template:

**Figure 3–59 Rebuildable Item Attributes**

Attribute	Value
User Item Type	Rebuildable
Item Status	Active
Inventory Item	Enabled
Transactable	Enabled
EAM Item Type	Rebuildable

5. Optionally, select the paperclip Attachments icon to attach relevant documents, such as drawings, standard procedures, and reference guides, to this Rebuildable Item. You can attach file, URL, and text attachments.
6. Optionally, select the Inventory tab to define a Non-Serialized Rebuildable Item. Within the Generation field, select No Control. If you wish to define a Serialized Rebuildable Item, select one of the other options available, based on your business needs. Valid values include No Control, Predefined, At Receipt, and At Sales Order Issue.
7. Save your work.

#### To associate rebuildable items to multiple organizations:

1. From the [Master Item](#) window, select TOOLS from the Tools menu.
2. Select Organization Assignment.
3. Enter additional organizations in the available window.
4. Save your work. After saving your work, this Rebuildable Item can be associated with an Activity (See: [Rebuildable Item/Activity Association](#) on page 3-110).

#### See Also:

[Defining Items](#), *Oracle Inventory User's Guide*

## Defining Rebuildable Serial Numbers

To set up rebuildable serial numbers individually:

1. Navigate to the [Define Rebuildable Serial Numbers](#) window.

**Figure 3–60** Define Rebuildable Serial Numbers Window

Define Rebuildable Serial Number (EM1)

Maintained Group

Maintained Number

[ ]

Main Production Others

Owning Department  Area

Criticality

WIP Accounting Class

Parent

Item Type

Maintained Group

Maintained Number

Revision

Current Status

Subinventory

Locator

Instantiate Associate Activity

2. Select a Maintained Group from the list of values. This is the Maintained Group (Rebuildable Item) you are associating with the Rebuildable Serial Number you are currently creating.

---

**Note:** After a Maintained Group (Rebuildable Item) is associated with an Rebuildable Serial Number and then saved, it cannot be changed.

---

3. Enter a Maintained Number (Rebuildable Serial Number) if you do not have them automatically generated, or accept or modify the default, if you have automatic generation enabled (See: [Defining eAM Parameters](#) on page 3-16).
4. Optionally, enter a description for the Rebuildable Serial Number of up to 240 characters.
5. Within the Main tabbed region, you can optionally select an Owning Department for this Rebuildable Serial Number from the list of values. This represents the crew responsible for the Rebuildable Serial Number (Maintained Number). Notifications, regarding Work Requests, are sent to everyone with a responsibility assigned to the Work Request's associated Maintained Number's current owning department (See: [Defining Department Approvers](#) on page 3-26 and [Defining Asset Numbers \(Maintained Numbers\)](#) on page 3-69).
6. Optionally, enter the Area where this Maintained Number resides. This is a user defined listing of logical areas of work. For example, North Plant, East Wing, or Area 1 (See: [Setting Up Areas](#) on page 3-21).
7. Optionally, select a Criticality code from the list of values, indicating the importance of the Maintained Number to the organization. This field is for information only.
8. Optionally, select a WIP Accounting Class from the list of values. This will identify the Expense cost elements associated with the work performed, such as materials, labor, and resources.
9. Save your work. Notice that the Current Status is Defined but not used.

**To establish a rebuildable serial number in Inventory:**

10. To add this item to a Subinventory, select a Subinventory from the list of values. If the selected Subinventory has a Locator, you must also enter a Locator.
11. Choose Instantiate to automatically activate a Miscellaneous Receipt process. This process creates inventory for the Maintained Number (Rebuildable Serial Number), in the selected Subinventory and Locator.

---

---

**Note:** As part of the Instantiate process, if Preventive Maintenance, Activity, and/or Meter Templates are associated with the current Maintained Group (Rebuildable Item), an association instance is automatically created for the current Maintained Number (Rebuildable Serial Number) and that Activity, and/or Meter and Preventive Maintenance Schedule, respectively.

---

---

The Instantiate process is a one-time-process only. After the process is successful, the Current Status of the Maintained Number changes to Resides in stores, and the Instantiate option is disabled.

12. Optionally, choose Associate Activity to associate the current Maintained Number (Rebuildable Serial Number) to an Activity.

**See Also:**

Defining Subinventories, *Oracle Inventory User's Guide*

Defining Stock Locators, *Oracle Inventory User's Guide*

[Associating Maintained Numbers with Activities](#) on page 3-101

## Rebuildable Item/Activity Association

After you have defined Rebuildable Items (See: [Defining Rebuildable Items](#) on page 3-105) and Activities (See: [Defining Activities](#) on page 3-51), you can associate Activities to the Rebuildable Items. For example, you may have a Rebuild Engine Activity, and an Engine Rebuildable Item. After you create a Rebuild Work Order (See: [Rebuild Work Orders](#), *Oracle Enterprise Asset Management User's Guide*) for the engine, the associated Rebuild Engine Activity will attach its associated maintenance BOM (material) and maintenance routing (resources) to the Work Order (See: [Defining Maintenance Routes](#) on page 3-93 and [Setting Up Maintenance Bills of Material](#) on page 3-99).

---

---

**Note:** Activity association for Serialized Rebuildable Items can be streamlined by using Activity Association Templates. If an Activity Template is defined for a Rebuildable Item, the activity association automatically creates when a new Serial Number is created for that Item, within the maintenance organization.

---

---

### To associate Rebuildable Items with Activities:

1. Navigate to the [Activity Association](#) window.

Figure 3-61 Activity Association Window

Activity Association (EM1)

Activity:

Description:

—Associations—

Main Activity

Item Type	Maintained Group	Maintained Number	Priority	— Effective Dates —	
				From	To
Asset	Fork Lifts	FL1010		31-OCT-2002	
Asset	Fork Lifts	FL1020		31-OCT-2002	
Asset	Fork Lifts	FL1030		31-OCT-2002	
Asset	Fork Lifts	FL1040		31-OCT-2002	
Rebuildable	Fork Lift Batt	Battery1007		04-NOV-2003	

2. Select an Activity from the list of values.
3. Within the Main tabbed region, select Rebuildable from the Item Type list of values.
4. Select a Rebuildable Item from the Maintained Group list of values.
5. If the Rebuildable Item is serial number controlled (See: [Defining Rebuildable Items](#) on page 3-105), select a Rebuildable Serial Number from the Maintained Number list of values.
6. Optionally, select a Priority Code from the list of values. This field is for information only.
7. Optionally enter Effective Dates. If the Effective From field is left blank, it will default to the system date. If the Effective To field is left blank, it will default to NULL.
8. Within the Activity tabbed region, the Activity Cause will default from the Activity definition (See: [Defining Activities](#) on page 3-51), specifying what situation caused this work to be generated. For example, Breakdown,

Vandalism, Normal Wear, or Settings. Optionally, you can select an Activity Cause from the list of values to update this field.

9. The Activity Type will default from the Activity definition (See: [Defining Activities](#) on page 3-51). This code indicates the type of maintenance activity needed to be performed for this Activity. It is used when defining a job or a standard job. It should remain generic, and should not describe in detail the job to be done. For example, Inspection, Overhaul, Lubrication, Repair, Servicing or Cleaning. Optionally, you can select an Activity Type from the list of values to update this field.
10. Optionally, select the Tagging Required check box to indicate whether tag out procedures are required. For example, associated documents may need to be printed along with the Activity. This field will be used in future functionality.
11. The Owning Department field is used when associating Maintained Numbers to Activities (See: [Activity Association](#) on page 3-51).
12. Save your work.

## Preventive Maintenance Setup

eAM can generate Work Orders automatically based on meter readings, runtime and/or calendar days. An example of meter-based preventive maintenance is your car's oil changes. Most car manufacturers recommend that you change your engine oil every 3,000 miles or six months, whichever comes first.

To set up the above scenario, you would first define your car's odometer as a meter. Next, you would associate that meter to an asset (your car), using the Asset Meter Association window. After you have associated the meter to the asset, you can associate the Maintenance Activity (oil change) that should occur, based on the meters you have defined. This is done via Preventive Maintenance Scheduling.

This section includes the following topics:

- [Defining Meter Templates](#) on page 3-113
- [Defining Meters](#) on page 3-115
- [Associating Meter Templates with Maintained Groups](#) on page 3-118
- [Associating Meters with Maintained Numbers](#) on page 3-119
- [Defining Set Names](#) on page 3-121
- [Defining a Preventive Maintenance Template](#) on page 3-122
- [Entering Preventive Maintenance Schedule Definitions](#) on page 3-129

### Defining Meter Templates

There are two ways to create meters. You can create them within the Meter Definition window, or create them using a Meter Template window. If you create Meters using the Meter Definition window (See: [Defining Meters](#) on page 3-115), you will need to associate that meter definition with individual Maintained Numbers manually. If you utilize the Meter Template definition functionality, you can associate that Meter Template with Maintained Groups. After the association is created, when a Maintained Number (Asset Numbers or Rebuildable Serial Numbers) is created within that Maintained Group (Asset Group or Rebuildable Item), the system will automatically create a new instance of the meter, associated with the specific Maintained Number. This enables you to streamline your meter setup. However, the meters are not created retroactively; it applies only to Maintained Numbers created after the Meter Template was created.

### To define Meter Templates:

1. Navigate to the [Meter Template](#) window.

**Figure 3–62** *Meter Template Window*

Name	Description	UOM	Value Change	[ ]
Odometer Template	Odometer Template	MI	Ascending	

2. Enter a unique meter template Name.
3. Enter the Description of the Meter Template.
4. Select a unit of measure (UOM) from the list of values. After the meter is created, this field cannot be updated.
5. Select whether the meter readings will be Ascending, Descending, or Fluctuating. If you choose blank from the drop down list, the meter reading can fluctuate. A fluctuating meter reading is one that can go up and down, for example, a temperature gauge. As production units pass through meters, meter readings increment. Another example of an ascending meter is a car odometer. Some liquid dispensers start full and record decreasing readings as material is used.

---

**Note:** If the meter is fluctuating, then it cannot be used in Preventive Maintenance scheduling.

---

6. If you select the Used in Scheduling check box, the meter will be used in Preventive Maintenance Scheduling. If there are any scheduling rules associated with this meter, this check box cannot be cleared. If this is a fluctuating meter, this check box is disabled. If the Used in Scheduling check box is selected, the Usage Rate (per day) and Use Past Reading fields become mandatory.
7. Enter a usage Rate (per day). This field works in conjunction with the Use Past Readings field to support historical readings prior to eAM implementation. It supplies the system benchmark data that can be used to set the occurrence of scheduled PMs. Rate per day is referred to in the absence of a sufficient value in the Use Past Reading field.

This field is mandatory only if you have selected the Used in Scheduling check box.

8. Enter a value for the number of past readings. This value designates how many readings prior the scheduler should go to for calculating the usage rate. If there is an insufficient number of readings (for example four, instead of the required five), the system will continue the calculation based on the usage Rate per day entered.

This field is mandatory only if you have selected the Used in Scheduling check box.

---

---

**Note:** If you enter a value of 1, the system will perpetually calculate at the usage Rate per day.

---

---

9. Select the meter effectivity dates. If left blank, the meter is effective all of the time. You can disable a meter effective on a specific date by selecting a To date.
10. Save your work.

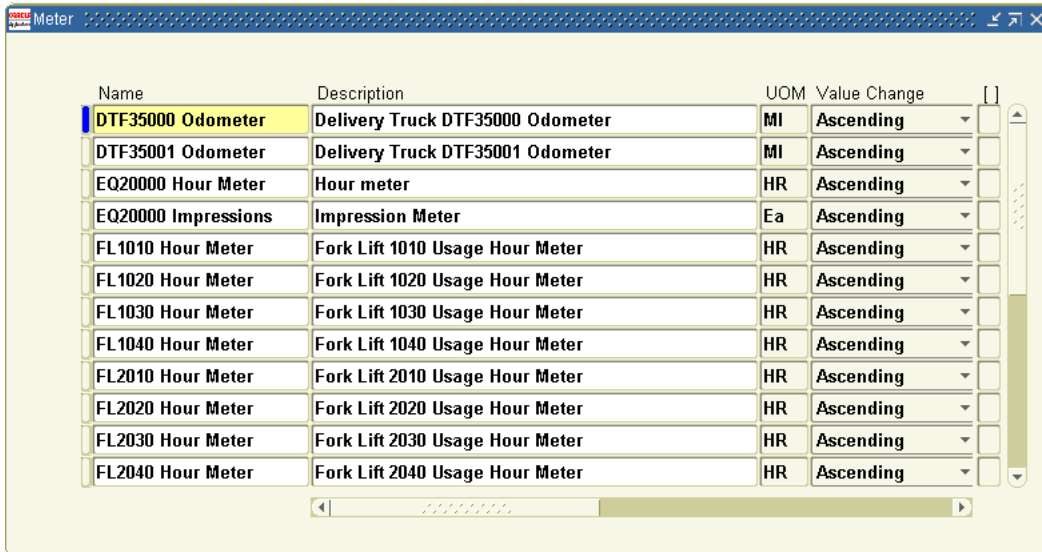
## Defining Meters

Alternatively, you can create Meters using the Meter Definition window. You will need to manually associate the meter definition with individual Maintained Numbers. If you utilize the Meter Template definition functionality, you can associate that Meter Template with Maintained Groups (See: [Defining Meter Templates](#) on page 3-113).

To define a meter within the Meter Definition window:

1. Navigate to the [Meters](#) window.

**Figure 3–63** *Meters Window*



Name	Description	UOM	Value Change	
DTF35000 Odometer	Delivery Truck DTF35000 Odometer	MI	Ascending	
DTF35001 Odometer	Delivery Truck DTF35001 Odometer	MI	Ascending	
EQ20000 Hour Meter	Hour meter	HR	Ascending	
EQ20000 Impressions	Impression Meter	Ea	Ascending	
FL1010 Hour Meter	Fork Lift 1010 Usage Hour Meter	HR	Ascending	
FL1020 Hour Meter	Fork Lift 1020 Usage Hour Meter	HR	Ascending	
FL1030 Hour Meter	Fork Lift 1030 Usage Hour Meter	HR	Ascending	
FL1040 Hour Meter	Fork Lift 1040 Usage Hour Meter	HR	Ascending	
FL2010 Hour Meter	Fork Lift 2010 Usage Hour Meter	HR	Ascending	
FL2020 Hour Meter	Fork Lift 2020 Usage Hour Meter	HR	Ascending	
FL2030 Hour Meter	Fork Lift 2030 Usage Hour Meter	HR	Ascending	
FL2040 Hour Meter	Fork Lift 2040 Usage Hour Meter	HR	Ascending	

2. Enter a unique meter Name.
3. Enter a Description for this meter.
4. Select a unit of measure (UOM), associated with this meter, from the list of values. After the meter is created, this field cannot be updated.
5. Select whether the meter readings will be Ascending, Descending, or Fluctuating. If you choose blank from the drop down list, the meter reading can fluctuate. A fluctuating meter reading is one that can go up and down, for example, a temperature gauge. As production units pass through meters, meter readings increment. Another example of an ascending meter is a car odometer. Some liquid dispensers start full and record decreasing readings as material is used.

---

**Note:** Fluctuating meters cannot be used in Preventive Maintenance scheduling.

---

After the meter is created, you cannot update this field.

6. If you select the Used in Scheduling check box, the meter will be used in Preventive Maintenance Scheduling. If there are any scheduling rules associated with this meter, this check box cannot be cleared. If this is a fluctuating meter, this check box is disabled. If the Used in Scheduling check box is selected, the Usage Rate (per day) and Use Past Reading fields become mandatory.
7. Enter a usage Rate (per day). This field works in conjunction with the Use Past Readings field to support historical readings prior to eAM implementation. It supplies the system benchmark data that can be used to set the occurrence of scheduled PMs. Rate per day is referred to in the absence of a sufficient value in the Use Past Reading field.

This field is mandatory only if you have selected the Used in Scheduling check box.

8. Enter a value for the number of past readings. This value designates how many readings prior the scheduler should go to for calculating the usage rate. If there is an insufficient number of readings (for example four, instead of the required five), the system will continue the calculation based on the usage Rate per day entered.

This field is mandatory only if you have selected the Used in Scheduling check box.

---

---

**Note:** If you enter a value of 1, the system will perpetually calculate at the usage Rate per day.

---

---

9. Optionally, enter an Initial Reading. This is automatically used for the meter, or each new instance of the meter that is created and associated to a Maintained Number via the Meter Template.
10. Select the meter effectivity dates. If left blank, the meter is effective all of the time, after it is created. If you select a future date, the meter is disabled until that date. You can disable a meter effective on a specific date by selecting a To date.
11. Save your work.

## Associating Meter Templates with Maintained Groups

If you utilize the Meter Template definition functionality (See: [Defining Meter Templates](#) on page 3-113), you can associate that Meter Template with Maintained Groups. After you create the association, when a new Maintained Number (Asset Numbers or Rebuildable Serial Numbers) is created within that Maintained Group (Asset Group or Rebuildable Item) a new instance of the corresponding meter is automatically created. This enables you to streamline your Meter setup.

**To associate Meter Templates with Maintained Groups:**

1. Navigate to the [Meter Template Association](#) window.

**Figure 3–64 Meter Template Association Window**

Name	Description	UOM	Value Change	[ ]
Odometer Template	Odometer Template	MI	Ascending	

2. Select an Item Type from the list of values. Valid values are Asset or Rebuildable.
3. Select a Maintained Item (Asset Group or Rebuildable Item) from the list of values.

4. Optionally, choose Find to query existing Meter Template/Maintained Group relationships.
5. Within the Meter Template region, select a meter template Name from the list of values.
6. Save your work. After saving, every Maintained Number defined as part of the current Maintained Group will automatically associate with the Meter Template; you do not need to create this association manually.

**See Also:**

For information on entering meter readings, See: [Entering Meter Readings](#), *Oracle Enterprise Asset Management User's Guide*

## Associating Meters with Maintained Numbers

Meter Association creates the relationship between the meter definition and the Maintained Number.

**To associate meters with Maintained Numbers:**

1. Navigate to the [Meter Association](#) window.

Figure 3–65 Asset Meter Window

Meter Association (EM1)

Item Type:

Maintained Number:   Fork Lift 1020

Maintained Group:

**Meters**

Name	Description	UOM	Value Change	
FL1020 Hour Meter	Fork Lift 1020 Usage Hour Meter	HR	Ascending	<input checked="" type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>

- For optimal performance, select a Maintained Group (Asset Group or Rebuildable Item) from the list of values before selecting an Maintained Number. Only Maintained Numbers associated with the selected Maintained Group will be available in the list of values.

You can optionally select an Maintained Number from the list of values first. This triggers the Maintained Group to default.

- Choose Find to view all Meters associated with the current Maintained Number (Asset Number or Rebuildable Serial Number).
- In the Meters region, you can associate existing, defined meters with the current asset.

To associate existing meters with the current Maintained Number, select a meter Name from the list of values. All remaining fields in the Meters region are view-only.

- Save your work.

## Defining Set Names

A PM schedule for an Activity and a Maintained Number or Maintained Group must uniquely belong to a Set Name. Multiple PM Schedules for the same Maintained Number or Maintained Group and Activity combination can be created across Sets. However, out of those PM Schedules, only one can be identified as the Default and used for generating Work Orders. Other PM Schedules in other Sets can be used for simulation purposes only. Every Set Name has an end date. Every PM schedule that belongs to the Set Name must have its effective-to date before the end date of the PM Schedule's Set Name. Before assigning a Set Name to a PM schedule, you need to define Set Names within the Set Name Definition window. If you do not want to create Set Names, you can assign PM schedules to set, MAIN; it already exists.

### To define Set Names:

1. Navigate to the [Set Name](#) window.

**Figure 3–66** Set Name Window

Set Name	End Date	Description
MAIN		
Winter PM Set		
Summer PM Set		
High Usage PM Set		

Templates Schedules Set Default

2. Enter the name of the Set Name.
3. Optionally, enter an End Date. Every PM schedule that belongs to the Set Name must have its effective-to date before the End Date of the PM Schedule's Set Name. If you leave this field blank, the current Set Name will not expire.

4. Optionally, enter a Description for this Set Name.
5. Optionally, choose Templates to add, change, delete, or view Preventive Maintenance Schedule Templates, associated with the current Set Name (See: Preventive Maintenance Schedule Templates).
6. Optionally, choose Schedules to create PM Schedule Definitions, associated with the current Set Name (See: [Defining a Preventive Maintenance Template](#) on page 3-122).
7. Optionally, choose Set Default to identify all schedules within this set as Default. PM Schedules identified as Default will automatically generate Work Orders, by the PM Scheduler process. PM schedules that are not identified as Default can only generate Work Order suggestions, by the PM Scheduler process. The generated suggestions cannot be converted into Work Orders. You can create an unlimited number of Set Names within this window.
8. Save your work.

## Defining a Preventive Maintenance Template

An Activity and Maintained Number combination can be associated with Runtime, Day Interval Rules, or a list of dates, defining when an Activity should be scheduled for an Asset, Serialized and Non-Serialized Rebuildables, or an Asset Route. Only Day Interval rules and List of Dates rules are supported for Non-Serialized Rebuildables and Asset Routes. The Preventive Maintenance (PM) Scheduler process creates suggested Work Order dates based on these rules. A planner can then view these forecasted Work Orders, and generate them as necessary.

There are two ways to create PM schedule definitions for Serialized Rebuildables and Assets. You can create them individually within the Preventive Maintenance Schedules window (See: [Entering Preventive Maintenance Schedule Definitions](#) on page 3-129), or streamline the process of creating them using a PM Template. A PM Template is a schedule, defined for a Maintained Group (Asset Group or Rebuildable Item)/Activity association. If you utilize the PM Template functionality, a new PM Schedule is automatically created for a newly created Maintained Number (asset or rebuildable) for the Maintained Group. All PM Template attributes are copied over to the PM Schedule for the Instance. You can optionally modify the values of the PM Instances created.

Before a PM Template can be created, the following prerequisites need to already exist:

- Meter Template Definition (See: [Defining Meter Templates](#) on page 3-113)

A Meter Template definition is required only if the PM Template is based on Runtime Rules.

- Activity Definition (See: [Defining Activities](#) on page 3-51)
- Meter Template Association (See: [Associating Meter Templates with Maintained Groups](#) on page 3-118)

A Meter Template Association is required only if the PM Template is based on Runtime Rules.

- Activity Association Template (See: [Activity Association Templates](#) on page 3-62)

**To create a PM Template:**

1. Navigate to the [Find Preventive Maintenance Schedules](#) window. This window enables you to enter information to narrow your search for query mode. To define a new PM Template, choose New.

Figure 3–67 Preventive Maintenance (Template Definition) Window

2. Enter a PM Template name in the Schedule Name field.
3. Select an Item Type from the list of values. Valid values are Asset and Rebuildable. If you select Asset, the Maintained Group fields refer to the Asset Group. If you select Rebuildable, the Maintained Group fields refer to the Rebuildable Item.
4. Enter a Set Name. A PM schedule for an Activity and Maintained Group must uniquely belong to a Set Name (See: [Defining Set Names](#) on page 3-121). Every Set Name has an end date. Every PM schedule that belongs to the Set Name must have its effective-to date before the end date of the PM Set Name. Before assigning a Set Name to a PM schedule, you need to define Set Names within the Set Name Definition window. If you do not want to create Set Names, you can assign PM schedules to set, MAIN; it already exists.

5. Select a Maintained Group from the list of values.
6. Select an Activity from the list of values. Only Activities associated with Maintained Groups are eligible for defining a Schedule Template.
7. Select a Schedule Type from the list of values. Valid values are Rule Based and List Dates. If you select Rule Based, the Day Interval Rules and Runtime Rules tabbed regions are enabled to enter information. If you select List Dates, you will define information within the List Dates tabbed region.
8. Optionally, select the Instantiation check box. If this check box is selected, a new instance of the current PM schedule template is created for each new Maintained Number (Asset Number or Rebuildable Serial Number).
9. The Effective dates will default from the current Activity, if they exist. Optionally, select or update the Effective From and Effective To dates.
10. Optionally, enter a Lead Time In Days.

Lead time in a Preventive Maintenance Schedule is different than lead time associated with Work Order creation. The Preventive Maintenance process suggests Work Orders to be created or scheduled, starting from the last service day of the Asset to the cut-off day you specified while running the process. If a Lead Time In Days is specified, the Preventive Maintenance process predicts work for those extra days beyond the cut-off date. This provides the maintenance department advanced visibility for maintenance work that is typically predicted in the next planning process. The maintenance department can prepare for such work in the current planning period.

11. Optionally, enter a Tolerance In Days to indicate a minimum interval in days that suggested Work Orders' dates are spaced from each other.
12. In the Scheduling Options region, indicate how the PM Scheduler process calculates Work Order dates.
  - *Start to Start:* The PM Scheduler process uses the Last Service Start Date, and calculates scheduled start dates. This is a forward scheduling method.
  - *Start to End:* The PM Scheduler process uses the Last Service Start Date, and calculates the scheduled end dates. This is a backward scheduling method.
  - *End to Start:* The PM Scheduler process uses the Last Service End Date, and calculates the scheduled start dates. This is a forward scheduling method.
  - *End to End:* The PM Scheduler process uses the Last Service End Date, and schedules the scheduled end dates. This is a backward scheduling method.

13. In the Schedule Based On region, indicate how the predicted due dates are determined.

- *First Due Date*: The due date is set to the first due date of all rules.
- *Last Due Date*: The due date is set to the last due date of all rules.

For example, below is a Runtime Rule that includes two meters, Meter1 and Meter2.

**Table 3–16 Schedule Based On Example**

Interval	Effective From	Effective To	Meter
100	0	10,000	Meter1
50	0	2,500	Meter2

If you specify First Due Date in the Scheduling Based On region of the PM Template, between the two meters, the first meter that hits the due reading triggers the service. In this case, if Meter1's reading reaches the interval of 100 first, the service happens before Meter2's reading reaches its interval of 50. Conversely, you can choose Last Due Date in the Scheduling Based On region. In this case, even if Meter1 reaches its due reading, the service will not be scheduled until Meter2 has also reached its due reading.

This region is disabled if the current PM schedule definition's Scheduling Type field is populated with List Dates.

14. Optionally, select the Reschedule Manual Work Orders check box. If this check box is selected, unreleased manual work orders are considered during PM scheduling.
15. If the Run To Failure check box is selected, the Preventive Maintenance Scheduler will not automatically schedule Maintained Numbers within this Maintained Group and Activity association, however manual Work Orders can still be created. This is relevant for Maintained Numbers that cost more to maintain than the Maintained Number itself. You might also check this box for forecasting and budgeting reasons. For example, your asset is a conveyor belt. It is common in maintenance environments to let this asset wear out completely before replacing it. You estimated that the life of this asset is 18 months, and have set up a schedule for a replacement Work Order every 18 months. In reality, you found that the belts have ended up wearing out every 12 months, affecting your cost budget.

You can select this check box and clear it later. For example, you might associate a Maintained Number to an Activity, but maybe you cannot currently maintain or schedule this Maintained Number. You may have future plans to maintain this Maintained Number.

If this check box is selected, only PMs created as a copy of this PM Template will generate Work Orders for the corresponding asset in the Maintenance Workbench (See: [Using the Maintenance Workbench](#), *Oracle Enterprise Asset Management User's Guide*).

16. Optionally, select the Default check box to indicate that the current PM schedule definition will generate Work Orders. If this check box is not selected, only Work Order suggestions are generated. You can have only one Default PM for a Maintained Item/Activity combination.
17. Optionally, enter Effective From and To dates to specify the rule's expiration.
18. Enter an Interval In Days. For example, if you enter the number three, a Work Order suggestion will be created every three days.

You can optionally create variable Day Interval Rules. For example, you would like Work Order suggestions created every three days in January, and every four days in February. The window below illustrates this example:

19. Optionally, within the Runtime Rules tabbed region, select a Meter Name to indicate that Preventive Maintenance scheduling is based on a Runtime Rule. If you have previously set up a Day Interval Rule, you can base the scheduling on a Runtime Rule, as well. Only Meter Templates associated with this Maintained Group (See: [Associating Meter Templates with Maintained Groups](#) on page 3-118), and with the Used in Scheduling check box selected in the meter template definition, are available in the list of values.

For example, trucks of a specific Make and Model need to be scheduled for an oil change every 30 days, or every 1000 miles.

**Table 3–17 Day Interval Rule**

Field	Value
Last Service Date	December 26, 2001
Interval In Days	30

**Table 3–18 Runtime Rule**

Field	Value
Last Service Reading	3000
Interval	1000
Last Service Reading Date	January 1, 2002 (this can be found via meter reading history)
Usage Rate	25 miles per day (calculated as the total of the meter readings value changes, divided by the total of the meter reading date intervals)

If only the Runtime Rule is taken into account, the next due date will be February 10, 2002 (January 1 2002 + 40 days), and every 40 days after that. This is calculated as the interval (1000 miles) divided by the usage rate (25 miles per day).

The PM Scheduler process compares the above suggested dates from the runtime interval rule, to those of the day interval rule: Base Date of December 26, 2001 + every 30 days.

The Work Orders ultimately created by the PM Scheduler process are those of the earliest or latest dates, depending on how the Schedule Based On region is populated. If you selected First Due, the earliest suggestion is used for Work Order creation. The opposite is also true.

20. The Interval and UOM fields work together. For example, for every 2000 miles, this Maintained Number needs an oil change.

The UOM defaults from the Meter Template definition of the current Meter Template.

You can optionally create multiple Runtime Rules. For example, from zero to 10,000 miles, you would like your asset serviced every 3,000 miles. From 10,000 to 50,000 miles, you would like your asset serviced every 2,000 miles.

21. You cannot enter the Last Service Reading. This field is automatically updated with the meter reading information recorded at Work Order completion (See: [Work Order Completion](#), *Oracle Enterprise Asset Management User's Guide*).

---



---

**Note:** The Preventive Maintenance Scheduler (See: [Generating Work Orders](#), *Oracle Enterprise Asset Management User's Guide*) will automatically calculate the meter usage rate, based on historical data, which is then used to predict the next meter due date. Refer to the example below.

---



---

22. If you populated List Dates within the Schedule Type field, select the List Dates tabbed region to define the specific due dates that Work Orders should transpire.

For example, you want asset, Car1, serviced on May 1 and November 1 every year for the next three years. In this case, you would create a List Dates type schedule definition, and list all the due dates within this tabbed region. The PM Scheduler process creates suggested Work Order dates on those specified dates.

23. Save your work.

## Entering Preventive Maintenance Schedule Definitions

Schedule definitions are implemented to create scheduled Work Orders, based on Day Interval Rules, and/or Runtime Rules. Schedules can also be based on a list of specific dates by using List Date rules. List Date rule based PM schedules cannot have Runtime or Day interval rules. Runtime or Day Interval Rule based PM schedules cannot have List Date rules. You can create a Preventive Maintenance Schedule Definition on an Maintained Group (Non-serialized Rebuildable)/Activity combination, Maintained Number/Activity combination, or an Asset Route/Activity combination.

If a meter is entered in a runtime interval rule, the following prerequisites need to already exist before creating a Preventive Maintenance Schedule:

- Meter Definition (See: [Defining Meters](#) on page 3-115)
  - A Meter definition is required only if the PM schedule is based on Runtime Rules.
- Activity Definition (See: [Defining Activities](#) on page 3-51)
- Meter/Asset Association (See: [Associating Meters with Assets](#) on page 3-119)
  - A Meter/Asset Association is required only if the PM schedule is based on Runtime Rules.

- Maintained Group (Non-Serialized Rebuildable) or Asset or Maintained Number/Activity Association (See: [Maintained Number/Activity Association](#) on page 3-51)

**To define a Preventive Maintenance Schedule for a maintained number:**

1. Navigate to the [Find Preventive Maintenance Schedules](#) window. This window enables you to enter information to narrow your search for query mode. To define a new schedule, choose New.

**Figure 3–68 Preventive Maintenance Schedules Window**

Preventive Maintenance (Schedule Definition)

Schedule Name: **PM44** Item Type: **Asset** [ ] [ ]

Set Name: **MAIN**

Maintained Number: **DTF35000** Delivery Erand Truck 35000

Maintained Group: **Vehicles** Vehicle Asset Group

Activity: **30000 Mile Maint** 30000 Mile Truck Maintenance

Schedule Type: **Rule Based**

Effective From: **12-NOV-2002**

Effective To: [ ]

Lead Time In Days: [ ]

Tolerance In Days: [ ]

**Scheduling Options**

Start to Start

Start to End

End to Start

End to End

**Schedule Based On**

First Due Date

Last Due Date

Reschedule Manual Work Orders

Run To Failure

Default

Day Interval Rules | Runtime Rules | List Dates

Meter Name	Usage Rate	UOM	Effective From	Effective To	Interval	Last Service Reading
DTF35000 Odom	200	MI			30000	120000

Last Service Info | Suppression

2. Enter a Schedule Name.
3. Select an Item Type from the list of values. Valid values are Asset and Rebuildable. If you select Asset, the Maintained Number and Maintained

Group fields refer to the Asset Number and Asset Group, respectively. If you select Rebuildable, the Maintained Number and Maintained Group fields refer to the Rebuildable Serial Number and Rebuildable Item, respectively. If a Non-Serialized Rebuildable Item is entered in the Maintained Group field, the Maintained Number field is not required.

4. Enter a Set Name. A PM schedule for an Activity and a Maintained Number or Maintained Group must uniquely belong to a Set Name (See: [Defining Set Names](#) on page 3-121). Every Set Name has an end date. Every PM schedule that belongs to the Set Name must have its effective-to date before the end date of the PM Set Name. Before assigning a Set Name to a PM schedule, you need to define Set Names within the Set Name Definition window. If you do not want to create Set Names, you can assign PM schedules to set, MAIN; it already exists.
5. Select a Maintained Number from the list of values. Only assets that are maintainable and associated with Activities are available. The Maintained Group will populate with the Maintained Group associated with the current Maintained Number. If you wish to define a PM Schedule for a Non-serialized Rebuildable, you only need to enter the Maintained Group; the Maintained Number field does not apply.
6. Select an Activity from the list of values. Only Activities associated with Maintained Numbers or Non-serialized Rebuilds are eligible for scheduling.
7. Select a Schedule Type from the list of values. Valid values are Rule Based and List Dates. If you select Rule Based, the Day Interval Rules and Runtime Rules tabbed regions are enabled to enter information. If you select List Dates, you will define information within the List Dates tabbed region.
8. The Effective dates will default from the current Activity, if they exist. Optionally, select or update the Effective From and Effective To dates.
9. Optionally, enter a Lead Time In Days.

Lead time in a Preventive Maintenance Schedule is different than lead time associated with Work Order creation. Lead time within a Preventive Maintenance Schedule covers the time between the end date of the first run of the Preventive Maintenance Schedule process, and the start date (system date) of the second run of the Preventive Maintenance Schedule process. For example, a department will run the Preventive Maintenance Scheduler process every two months; the end date of each Preventive Maintenance Scheduler process will be the end of every other month. However, due to circumstance, the meter data will not be ready until the middle of the month. Therefore, the Preventive Maintenance Scheduler process starts in the middle of the month,

instead of at the beginning, creating a lapse between the first and second Preventive Maintenance Scheduler executions. Lead time is used to cover this lapse.

10. Optionally, enter a Tolerance In Days to indicate a minimum interval in days that suggested Work Orders' dates are spaced from each other.
11. In the Scheduling Options region, indicate how the PM Scheduler process calculates Work Order dates.
  - *Start to Start*: The PM Scheduler process uses the Last Service Start Date, and calculates scheduled start dates. This is a forward scheduling method.
  - *Start to End*: The PM Scheduler process uses the Last Service Start Date, and calculates the scheduled end dates. This is a backward scheduling method.
  - *End to Start*: The PM Scheduler process uses the Last Service End Date, and calculates the scheduled start dates. This is a forward scheduling method.
  - *End to End*: The PM Scheduler process uses the Last Service End Date, and schedules the scheduled end dates. This is a backward scheduling method.
12. In the Schedule Based On region, indicate how the predicted due dates are determined.
  - *First Due Date*: The due date is set to the first due date of all rules.
  - *Last Due Date*: The due date is set to the last due date of all rules.

For example, below is a Runtime Rule that includes two meters, Meter1 and Meter2.

**Table 3–19 Schedule Based On Example**

Interval	Effective From	Effective To	Meter
100	0	10,000	Meter1
50	0	2,500	Meter2

If you specify First Due Date in the Scheduling Based On region of the PM schedule definition, between the two meters, the first meter that hits the due reading triggers the service. In this case, if Meter1's reading reaches the interval of 100 first, the service happens before Meter2's reading reaches its interval of 50. Conversely, you can choose Last Due Date in the Scheduling Based On region. In this case, even if Meter1 reaches its due reading, the service will not be scheduled until Meter2 has also reached its due reading.

This region is disabled if the current PM schedule definition's Scheduling Type field is populated with List Dates.

13. Optionally, select the Reschedule Manual Work Orders check box. If this check box is selected, unreleased manual work orders are considered during PM scheduling.
14. If the Run To Failure check box is selected, the Preventive Maintenance Scheduler will not automatically schedule this Maintained Number and Activity association, however manual Work Orders can still be created. This is relevant for Maintained Numbers that cost more to maintain than the Maintained Number itself. You might also check this box for forecasting and budgeting reasons. For example, your asset is a conveyor belt. It is common in maintenance environments to let this asset wear out completely before replacing it. You estimated that the life of this asset is 18 months, and have set up a schedule for a replacement Work Order every 18 months. In reality, you found that the belts have ended up wearing out every 12 months, affecting your cost budget.

You can select this check box and clear it later. For example, you might associate a non-maintainable asset to an activity, but maybe you cannot currently maintain or schedule this asset. You may have future plans to maintain this Maintained Number.

If this check box is selected, you will not see Work Orders for this asset in the Maintenance Workbench (See: [Using the Maintenance Workbench](#), *Oracle Enterprise Asset Management User's Guide*).

15. Optionally, select the Default check box to indicate that the current PM schedule definition will generate Work Orders. If this check box is not selected, only Work Order suggestions are generated. You can have only one Default PM for a Maintained Item/Activity combination.
16. Within the Day Interval Rules tabbed region, enter Last Service Start and Last Service End Dates. These dates are used by the Preventive Maintenance Scheduler as a starting point for calculating the next due date for a suggested Work Order. After the Preventive Maintenance scheduler suggests a Work Order, and that Work Order is completed, this date will reset to the completion date.

---

---

**Note:** Even though you are entering the Last Service Dates in the PM Schedule Definition window, the Last Service Information is specific to the Maintained Number and Activity association for which this PM is being defined. After it is specified, this information will automatically default into other PM definitions for the same association.

---

---

This tab is enabled if Rule Based is populated in the Schedule Type field.

17. Optionally, enter Effective From and To dates to specify the rule's expiration.
18. Enter an Interval In Days. For example, if you enter the number three, a Work Order suggestion will be created every three days.

You can optionally create variable Day Interval Rules. For example, you would like Work Order suggestions created every three days in January, and every four days in February. The window below illustrates this example:

**Figure 3–69 Variable Day Interval Rules Example**

The screenshot shows the 'Preventive Maintenance (Schedule Definition)' window. The 'Schedule Name' is 'PM44' and 'Item Type' is 'Asset'. The 'Set Name' is 'SS SCHEDULE'. The 'Maintained Number' is 'DTF35000' and the 'Delivery Erand Truck 35000'. The 'Maintained Group' is 'Vehicles' and the 'Vehicle Asset Group' is 'Vehicle Asset Group'. The 'Activity' is '30000 Mile Maint' and the '30000 Mile Truck Maintenance'. The 'Schedule Type' is 'Rule Based'. The 'Effective From' date is '12-NOV-2002'. The 'Scheduling Options' are set to 'Start to Start'. The 'Schedule Based On' options are 'First Due Date' and 'Last Due Date'. The 'Default' checkbox is checked. The 'Day Interval Rules' tab is active, showing a table of rules with columns for 'Effective From', 'Effective To', and 'Interval In Days'. The table contains two rows: one for '01-JAN-2004' to '31-JAN-2004' with an interval of 3 days, and another for '01-FEB-2004' to '29-FEB-2004' with an interval of 4 days. The 'Last Service Start Date' is '31-MAY-2003' and the 'Last Service End Date' is '31-MAY-2003'. There are buttons for 'Last Service Info' and 'Suppression'.

Effective From	Effective To	Interval In Days
01-JAN-2004	31-JAN-2004	3
01-FEB-2004	29-FEB-2004	4

19. Optionally, within the Runtime Rules tabbed region, select a Meter Name to indicate that Preventive Maintenance scheduling is based on a Runtime Rule. If you have previously set up a Day Interval Rule, you can base the scheduling on a Runtime Rule, as well. Only meters associated with this Maintained Number (See: [Associating Meters with Maintained Numbers](#) on page 3-119), and with the Used in Scheduling check box selected in the meter definition, are available in the list of values.

For example, a Truck 01 Maintained Number is scheduled for an oil change every 30 days, or every 1000 miles.

**Table 3–20 Day Interval Rule**

Field	Value
Last Service Date	December 26, 2001
Interval In Days	30

**Table 3–21 Runtime Rule**

Field	Value
Last Service Reading	3000
Interval	1000
Last Service Reading Date	January 1, 2002 (this can be found via meter reading history)
Usage Rate	25 miles per day (calculated as the total of the meter readings value changes, divided by the total of the meter reading date intervals)

If only the Runtime Rule is taken into account, the next due date will be February 10, 2002 (January 1 2002 + 40 days), and every 40 days after that. This is calculated as the interval (1000 miles) divided by the usage rate (25 miles per day).

The PM Scheduler process compares the above suggested dates from the runtime interval rule, to those of the day interval rule: Base Date of December 26, 2001 + every 30 days.

The Work Orders ultimately created by the PM Scheduler process are those of the shortest interval and earliest dates: December 26, 2002 + every 30 days.

---

---

**Note:** Runtime Rules are not applicable for Non-Serialized Rebuildables.

---

---

20. The Interval and UOM fields work together. For example, for every 2000 miles, this Maintained Number needs an oil change.

The UOM defaults from the meter definition of the current meter.

You can optionally create multiple Runtime Rules. For example, from zero to 10,000 miles, you would like your asset serviced every 3,000 miles. From 10,000 to 50,000 miles, you would like your asset serviced every 2,000 miles.

21. You cannot enter the Last Service Reading. This field is automatically updated with the meter reading information recorded at Work Order completion (See: [Work Order Completion](#), *Oracle Enterprise Asset Management User's Guide*).

---

**Note:** The Preventive Maintenance Scheduler (See: [Generating Work Orders](#), *Oracle Enterprise Asset Management User's Guide*) will automatically calculate the meter usage rate, based on historical data, which is then used to predict the next meter due date. Refer to the example below.

---

22. If you populated List Dates within the Schedule Type field, select the List Dates tabbed region to define the specific due dates that Work Orders should transpire.

For example, you want asset, Car1, serviced on May 1 and November 1 every year for the next three years. In this case, you would create a List Dates type schedule definition, and list all the due dates within this tabbed region. The PM Scheduler process creates suggested Work Order dates on those specified dates.

23. Optionally, choose Last Service Info to enter last service information for the current Maintained Number/Activity association. Last service information is always regarding the Maintained Number/Activity association, and independent of the association's PM schedule definition.

The Last Service Reading cannot be greater than the last meter (if the meter is ascending), or less than the last meter reading (if meter is descending).

Figure 3–70 Last Service Information

Item Type	Asset			
Maintained Number	DTF35000	Delivery Erand Truck 35000		
Maintained Group	Vehicles	Vehicle Asset Group		
Activity	30000 Mile Maint	30000 Mile Truck Maintenance		
<b>—Last Service Information—</b>				
Last Service Start Date	31-MAY-2003	63E...		
Last Service End Date	31-MAY-2003			
Meter Name	Usage Rate	UOM	Description	Last Service Reading
DTF35000 Odomete	200	MI	Delivery Truck DTF35000	120000

#### 24. Save your work.

#### To define a Preventive Maintenance schedule on an asset route:

Preventive Maintenance Schedules can be defined based on Asset Routes. See: [Setting Up Asset Routes](#).

1. Navigate to the [Preventive Maintenance Schedules](#) window.
2. Select Asset from the Item Type list of values.
3. Select an Asset Route from the Maintained Number list of values.
4. See: [Define Preventive Maintenance Schedules on Maintained Numbers](#), *Oracle Enterprise Asset Management User's Guide*, for instructions on the remaining fields.

---

**Note:** You can only define Day Interval Rules and List Dates for Asset Routes. You cannot define Runtime Rules.

---

### To create a suppression activity:

You can suppress other Activities with the current Activity in the scheduling definition. You can enter suppression activities for a Maintained Number/Activity combination.

For example, there are two activities associated with a Truck 01 asset: Oil Change (to be performed every five months), and Major Service (to be performed every 12 months). A major service on a Truck 01 includes an Oil Change. Therefore, a suppression definition needs to be defined; the Activity, Major Service, suppresses the child activity, Oil Change.

1. From the [Preventive Maintenance Schedules](#) window, choose Suppression.

**Figure 3–71** *Suppression Window*

Suppressed Activity	Description
15000 Mile Maint	

2. Choose a Suppressed Activity from the list of values. Only Activities associated with the Maintained Numbers are available.

---

---

**Note:** One Activity association can suppress multiple Activity associations. One Activity association can be suppressed by only one Activity association.

---

---

3. Optionally, enter a Description for this suppression.
4. Save your work.

---

---

**Note:** Suppression is applicable to an Activity association and can also be defined from the Activity Workbench and Suppression window.

---

---

**See Also:**

For information on generating Work Orders, See: *Generating Work Orders, Oracle Enterprise Asset Management User's Guide*

## eAM Planning and Scheduling

Oracle Enterprise Asset Management utilizes Work Orders to create demand for asset maintenance. Operations within Work Orders are completed using the Work Orders' associated material and resource requirements (See: [Overview eAM Work Management](#), *Oracle Enterprise Asset Management User's Guide*). Cost savings and work management efficiencies can be achieved by generating predictive work activities, and then using a planning process to balance the work load for resource management.

The process is as follows:

First, a Master Demand Schedule is created. This Master Demand Schedule is then attached to Material Requirements Planning (MRP) options. MRP is launched, creating planned Work Order suggestions. You can use the Planner Workbench to implement the suggestions into purchase requisitions or maintenance Work Orders. Using the Purchasing AutoCreate feature, purchase orders are created from the requisitions. After the purchase orders are received into inventory, you can issue material into a maintenance Work Order.

This section includes the following topics:

- [eAM Planning](#) on page 3-141
  - Defining a Master Demand Schedule Name
  - Defining a Material Requirements Plan Name
  - Defining Plan Options
- [eAM Scheduling](#) on page 3-148

## eAM Planning

Oracle eAM utilizes Material Requirements Planning (MRP) to calculate net material requirements from gross material requirements, by evaluating:

- the master schedule
- bills of material
- scheduled receipts
- on-hand inventory balances
- lead times
- order modifiers

Material Requirements Planning then plans material replenishments by creating a set of recommendations to release or reschedule orders for material, based on net material requirements. MRP assumes infinite capacity is available to meet the material requirements plan.

The following illustration depicts how eAM uses Material Requirements Planning. First, a Master Demand Schedule (MDS) is created. This schedule is then attached to MRP Plan Options. Next, the MRP is launched, creating suggestions for purchasing requisitions. Finally, these suggestions are implemented. They are purchased, and then received into inventory. After the material is in inventory, it can be issued to a maintenance Work Order.

**Figure 3–72 eAM Material Requirements Planning**



This section includes the following topics:

- [Defining a Master Demand Schedule Name](#) on page 3-142
- [Defining a Material Requirements Plan Name](#) on page 3-143
- [Defining Plan Options](#) on page 3-145

### Defining a Master Demand Schedule Name

Before you define a master schedule manually or load a schedule from another source, you must first define a master demand schedule name. You can also set several options for each name.

To define a Master Demand Schedule name:

1. Navigate to the [MDS Names](#) window.

Figure 3–73 Master Demand Schedules Window

Name	Description	Demand Class	Relieve	Inactive On
<input checked="" type="checkbox"/> MaintMDS	EM1 Maintenance only MDS		<input type="checkbox"/>	
<input type="checkbox"/>			<input type="checkbox"/>	
<input type="checkbox"/>			<input type="checkbox"/>	
<input type="checkbox"/>			<input type="checkbox"/>	
<input type="checkbox"/>			<input type="checkbox"/>	
<input type="checkbox"/>			<input type="checkbox"/>	
<input type="checkbox"/>			<input type="checkbox"/>	
<input type="checkbox"/>			<input type="checkbox"/>	
<input type="checkbox"/>			<input type="checkbox"/>	
<input type="checkbox"/>			<input type="checkbox"/>	
<input type="checkbox"/>			<input type="checkbox"/>	

Buttons: Load / Copy / Merge, Items

2. Enter a Name and Description for the schedule.
3. Save your work.

**See Also:**

[Defining a Schedule Name](#), *Oracle Master Demand Scheduling/MRP and Oracle Supply Chain Planning User's Guide*.

**Defining a Material Requirements Plan Name**

Master Demand Schedule names trigger the material requirements planning process. A master demand schedule name must be created to perform material requirement planning for maintenance Work Orders.

**To define a MRP name:**

1. Navigate to the [MRP Names](#) window.

Figure 3–74 MRP Names Window

Name	Description	Feedback	Production	Inactive On
<input checked="" type="checkbox"/> MaintMRP	Maintenance Only MRP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	

Buttons: Launch, Options

2. Enter an alphanumeric Name to identify a unique material requirements.
3. Optionally, enter a Description of the MRP name.
4. Optionally, select the Feedback check box to monitor the quantity of the planned order that has been implemented as maintenance Work Orders, purchase orders, or purchase requisitions. This provides the planner visibility of the status of the plan at any point in time.
5. Optionally, select the Production check box to enable a plan to automatically release planned orders. See: [Auto-release Planned Orders](#), *Oracle Master Demand Scheduling/MPR and Oracle Supply Chain Planning User's Guide*.
6. Optionally, enter an Inactive On date on which to disable the plan.  
As of this date, you can no longer update the plan, nor use the plan name in the planning process. You can still view information and run reports for disabled names.
7. Save your work.

**See Also:**

[Overview of Planning Logic](#), *Oracle Master Scheduling/MRP and Oracle Supply Chain Planning User's Guide*

[Defining MRP Names](#), *Oracle Master Scheduling/MRP and Oracle Supply Chain Planning User's Guide*

**Defining Plan Options**

You can enter plan options for any plan. If you are launching the planning process for this plan name for the first time, the plan options you defined in the setup parameters are displayed. Otherwise, the plan options you chose for the last launch of the planning process are displayed.

Supply Chain Planning users can also launch a DRP and supply chain MRP and master production schedule (MPS) plan (See also: [Reviewing or Adding Plan Options](#), *Oracle Master Scheduling/MRP and Oracle Supply Chain Planning User's Guide*).

**To enter plan options:**

1. Navigate to the [Plan Options](#) window.

Figure 3–75 Plan Options Window

The screenshot shows the 'Plan Options (EM1)' window with the following settings:

- Plan: **MaintMRP** (selected), Maintenance Only MRP
- Schedule: **MaintMDS** (selected), EM1 Maintenance only MDS
- Type: **MRP** (selected), MDS
- Overwrite: **All** (selected)
- Append Planned Orders
- Snapshot Lock Tables
- Demand Time Fence Control
- Planning Time Fence Control
- Net WIP
- Net Purchases
- Net Reservations
- Plan Safety Stock
- Plan Capacity
  - Bill Of Resource:
  - Simulation Set:
- Pegging
  - Reservation Level: **None** (selected)
  - Hard Pegging Level: **None** (selected)
- Material Scheduling Method: **Order Start Date** (selected)
- Planned Items: **All planned items** (selected)
- Subinventory Netting:

2. Select a material requirements Plan from the list of values.
3. Select a master demand Schedule name from the list of values.
4. Select MRP from the Type list of values.
5. Select an Overwrite option:

*All:* For a master production schedule (MPS) plan, overwrite all entries and regenerate new MPS entries based on the source master demand schedule. For an MRP, overwrite all MRP firm planned orders for MRP items. This option is displayed when you generate a plan for the first time.

*Outside planning time fence:* For a master production schedule (MPS) plan, overwrite all MPS entries outside the planning time fence. For an MRP, overwrite all planned orders and firm planned orders outside the planning time fence.

*None:* Do not overwrite any firm planned order for MPS or MRP plans and net change replan.

6. Select the Append Planned Orders check box to append new planned orders. See: [Reviewing or Adding Plan Options](#), *Oracle Master Scheduling/MRP and Oracle Supply Chain Planning User's Guide* for information regarding situations causing new planned orders to be appended.
7. Select the Net WIP check box to indicate that the planning process considers standard discrete jobs, non-standard discrete jobs, or repetitive schedules when planning items during the last plan execution.
8. Select Net Reservations to indicate that the planning process considers stock designated for a specific Work Order when planning the items during the last execution of the plan.
9. Select Net Purchases to indicate that the planning process considers approved purchase requisitions when planning the items during the last execution of the plan.
10. Select Plan Capacity to indicate whether the planning process calculates safety stock for each item during the last plan execution.
  - Specify the Bill of Resource (for MPS plans only) and, optionally, a Simulation Set. See: [Capacity Modifications and Simulation](#), *Oracle Capacity User's Guide* and [Overview of Bills of Resources](#), *Oracle Capacity User's Guide*.
11. Select Pegging to calculate graphical pegging information. See also: [Overview of Graphical Pegging](#), *Oracle Master Scheduling/MRP and Oracle Supply Chain Planning User's Guide*. The planning process then traces supply information for an item to its corresponding end demand details, which you then can view in a graphical display.
  - If you are working in a project environment, set a Reservation Level and, optionally, a Hard Pegging Level. See also: [Reviewing or Adding Project MRP Plan Options](#), *Oracle Master Scheduling/MRP and Oracle Supply Chain Planning User's Guide*.
12. Select a Material Scheduling Method from the list of values.

*Operation Start Date:* Schedule material to arrive in Inventory for availability on the start date of a specific operation.

*Order Start Date:* Schedule material to arrive in Inventory for availability on maintenance Work Order start date.

13. Specify which Planned Items you want included.

*All planned items:* Include all planned items in the planning process. You would choose this option to be certain that all items are planned, including those you add to a Work Order or schedule, that are not components on any bill of material. Use this option to avoid missing items you want to plan. For items you do not want to plan, define them with an MRP planning method of Not Planned when defining an item in Inventory.

*Demand schedule items only*

*Supply schedule items only*

*Demand and supply schedule items*

14. Save your work.

**See Also:**

[Reviewing or Adding Supply Chain Plan Options](#), *Oracle Master Scheduling/MRP and Oracle Supply Chain Planning User's Guide*

For information on launching the planning process, See: [Launching the Planning Process](#), *Oracle Enterprise Asset Management User's Guide*

For information on viewing suggested demand, See: [Viewing Suggested Demand](#), *Oracle Enterprise Asset Management User's Guide*

## eAM Scheduling

Oracle Enterprise Asset Management (eAM) utilizes the Oracle Manufacturing Scheduling application to schedule Work Orders and operations. A constraint-based scheduling engine schedules asset Work Orders and operations scheduled dates, resources, and material constraints. The scheduling process will calculate Work Order and operation scheduled duration and dates, based on the forward or backward scheduling goal (See: [Routine Work Orders](#), *Oracle Enterprise Asset Management User's Guide*), and Work in Process parameters. The concurrent program is triggered after a Work Order is released (See: [eAM Work Order Statuses](#), *Oracle Enterprise Asset Management User's Guide*). The Work Order is automatically moved to a Pending Scheduling status, until the concurrent program finishes scheduling. At that time, the Work Order is moved back to a Released status.

The Scheduler Workbench enables a planner to graphically view and reschedule single Work Orders and operations based on constraints, such as resource. It provides you with a visual display of Work Orders. You can interactively reschedule Work Orders, operations, and resources.

---

---

**Note: You will only have Oracle Manufacturing's Constraint Based Scheduling available to you if your company has purchased the appropriate license. If you do NOT have this license, you automatically have the Infinite Scheduler available to you; this scheduler is not constraint-based.**

---

---

## Quality Integration Setup

A maintenance Work Order goes through various steps in its lifecycle (See: [eAM Work Order Statuses](#), *Oracle Enterprise Asset Management User's Guide*). One of the steps in the lifecycle is Completion. When completing a maintenance Work Order, if the Maintained Number has associated, mandatory quality collection plans, you will need to enter quality results for the Work Order. A list of quality collection plans associated with the completion transaction will display during the completion process.

While creating a collection plan, you have the option of adding collection triggers to the plan. Triggers are restrictions that you define for a collection plan. For example, only Work Orders for assets that belong to the TRUCK Maintained Group will require the entry of quality results for the collection plan. Data collection is initiated only if all collection trigger conditions are satisfied.

Quality Setup tasks for Enterprise Asset Management include the following:

- [Creating Collection Elements](#) on page 3-150
- [Creating eAM Quality Collection Plans](#) on page 3-155

### Creating Collection Elements

Collection elements are the basic building blocks of collection plans, the data structures that you use to collect Quality results. Before you can collect quality data with Quality, you must first create a collection plan. You begin by creating collection elements, which define the characteristics of the product or process that you want to monitor, record, and analyze. See: [Overview of Collection Elements](#), *Oracle Quality User's Guide*.

When you define collection elements, you are creating data fields that you can use in collection plans to collect quality results. After you create a collection element, it becomes available as a selection on a list of values that you can choose from when you set up collection plans. You can create an unlimited number of user-defined collection elements, or you can use any of Quality's predefined collection elements (See: [Predefined Collection Elements](#), *Oracle Quality User's Guide*) in your collection plans; for example, Asset, Maintained Group, Activity, and Work Order. You can also create collection elements by copying them from one collection plan into another.

**To define collection elements:**

1. Navigate to the [Collection Elements](#) window.

Figure 3–76 Collection Elements Window

The screenshot shows the 'Collection Elements (EM1)' window with the following configuration:

- Collection Element: **Maintenance WorkOrder** (Enabled)
- Element Type: **Reference Information**
- Label:
  - Prompt: **Work Order**
  - Hint: (empty)
- Data:
  - Data Type: **Character** (Mandatory)
  - Reporting Length: **15**
  - Decimal Precision: (empty)
  - UOM: (empty)
  - Default Value: (empty)
  - SQL Validation Statement: `SELECT we.wip_entity_name, wdj.wip_entity_id, wdj.description FROM wip_entities we, wip_discrete_jobs wdj WHERE wdj.organization_id = : parameter.org_id AND wdi.status_type IN (3,4) AND wdi.wip_entity_id =`

Buttons at the bottom: Sequence, Spec Limits, Values, Actions.

---

**Note:** The steps listed below describe how to define Collection Elements one-at-a-time in the Collection Elements window. You can also define several collection elements simultaneously using the Collection Elements Summary window. See: [Combination Blocks](#), *Oracle Applications User's Guide*.

---



---

**Note:** The following Collection Elements are included with Oracle Enterprise Asset Management; you do not need to define them: Maintained Group, Maintained Number, Activity, Maintenance Work Order, Maintenance Operation Sequence.

---

2. Select the Collection Element name from the list of values.

The collection element can contain alphanumeric characters, spaces, underscores, and single quotation marks. You cannot use words that are

reserved for column names, such as NAME, OCCURRENCE, and ORGANIZATION\_ID. See: [Reserved Words](#), *Oracle Quality User's Guide*.

3. Select the Enabled check box to enable the collection element. You can only add enabled collection elements to collection plans.
4. Select its collection Element Type. See: [Collection Element Types](#), *Oracle Quality User's Guide*.
5. Enter text for the data entry Prompt.

The prompt is the label for the collection element field displayed in the Results region of the Enter Quality Results window. Prompts also become the column headings on reports and online inquiries. The default prompt is the name of the collection element, but you can overwrite it.

6. Optionally, enter a Hint.

Hints are additional text that appears in the message line, as you enter quality results, to guide you during data entry. See: [Message Line](#), *Oracle Applications User's Guide*.

7. Select the collection element's Data Type.

You can select any data type, however, you cannot change it after you define the collection element. The available data types are Character, Number, Date, Comment, and Sequence.

8. Optionally, select the Mandatory check box to indicate that a value must always be entered for this collection element, when entering quality results. A mandatory collection element can be redefined as non-mandatory when added to a collection plan.

9. Enter the Reporting Length.

The reporting length specifies how much space is allocated for this collection element's quality results values on reports, inquiries, and in the Enter Quality Results window.

---

---

**Note:** The reporting length does not determine the amount of space used to store quality results values in the quality data repository. Results values can be up to 150 characters in length.

---

---

10. If the Data Type is Number, enter the Decimal Precision.

If you define specification limits for this collection element, entering the decimal precision (refers to the number of places after the decimal point) here controls the decimal precision of the specification limit values that you can define.

11. Optionally, select a UOM from the list of values. See: [Overview of Units of Measure](#), *Oracle Inventory User's Guide*. Units of measure can be entered for any collection element, regardless of data type.

12. Optionally, enter a Default Value for the collection element.

When you set a default value for the collection element (generally, the most commonly used value for the collection element), it is automatically entered when you enter quality results. You can overwrite this value. See: [Default Value Assignment Rules](#), *Oracle Quality User's Guide*.

13. Optionally, enter the SQL Validation Statement.

This statement is used for validation when you enter quality data. You can base a collection element's data validation on any table in the Oracle database. To do this, you can define a SQL validation statement that Quality uses for validation when you collect quality data. This SQL statement must be a SELECT statement in which you select two columns. For example, if you have entered machine numbers in the database table, you can cross-validate machine numbers entered as you collect quality results against the numbers. See: *SQL\*Plus User's Guide and Reference*.

For example, to validate machine numbers from a table called 'machine\_numbers' stored in the database, enter the following SQL validation statement:

```
SELECT machine_number, machine_description
FROM machine_numbers
WHERE NVL(disable_date, SYSDATE+1) > SYSDATE
AND organization_id=:parameter.org_id
ORDER BY custom_machine_number
```

---

---

**Note:** To constrain the SQL Statement to the current organization, you can use the variable, ':parameter.org\_id' for the current organization id. To constrain the SQL Statement to the current user's id, you can use the variable, ':parameter.user\_id' for the current user's id.

---

---

If you define both a SQL validation statement and a list of collection element values, only the list of values is used for validation; the SQL validation statement is ignored.

#### To enter specification limits:

Specification limits establish the acceptable values and tolerances for collection elements. You can set specification limits for collection elements of any collection element or datatype; however, they normally are associated with variable collection elements that represent numeric measurements such as length, weight and temperature. Specification limits include a target value (the preferred value) and three sets of upper and lower range limits, which can be changed without restriction.

You create specification elements by adding collection elements to your specifications. Collection element specification limits are defaulted to these specification elements. See: [Defining Collection Element Specification Limits](#), *Oracle Quality User's Guide*.

14. Optionally, choose Spec Limits to enter collection element specification limits.

**Figure 3–77** *Specification Limits Window*

Specification Limits (EM1) - Maintenance WorkOrder

Target Value

User-Defined Range  -

Specification Range  -

Reasonable Range  -

- a. Enter the Target Value. This represents the preferred value.
- b. Enter the lower and upper User-Defined Range limits.

The lower and upper user-defined range limits can be used to represent a process control limit. Your user-defined limits can be inside of, outside of, or overlapping your specification range limits. The upper limits must exceed the lower limits.

- c. Enter the upper and lower Specification Range limits.  
The lower and upper specification range limits can represent engineering tolerances. The upper limits must exceed the lower limits.
  - d. Enter the upper and lower Reasonable Range limits.  
The lower and upper reasonable range limit ensures that you collect values that make sense. The upper limits must exceed the lower limits.
  - e. Save your work.
15. Save your work.

**See Also:**

[Overview of Collection Elements](#), *Oracle Quality User's Guide*

[Collection Element Types](#), *Oracle Quality User's Guide*

[Predefined Collection Elements](#), *Oracle Quality User's Guide*

[Defining Collection Element Specification Limits](#), *Oracle Quality User's Guide*

[Collection Element Values](#), *Oracle Quality User's Guide*

[Defining Collection Element Actions](#), *Oracle Quality User's Guide*

[Defining Collection Element Alert Actions](#), *Oracle Quality User's Guide*

[Viewing Collection Elements](#), *Oracle Quality User's Guide*

## Creating eAM Quality Collection Plans

You create collection plans to identify the data that you want to collect, and what actions you want to take based on the quality results that you collect. You can use collection plans to model your test or inspection plans, and you can create an unlimited number of plans to support your enterprise-wide quality data collection and analysis needs. Collection plans can be invoked manually for direct results entry, or automatically as you complete a Work Order.

To collect quality data, you must set up a data collection structure called a collection plan. Collection plans are composed of collection elements, their values and specifications, and any actions that you want to initiate in response to quality results. There are some considerations that you must make before you set up collection plans. You first must create collection element types, then the individual collection elements that comprise the plan.

You can attach illustrative or explanatory files to collection plans, in the form of text, images, word processing documents, spreadsheets, or video. Attachments can be used to document instructions and corrective action procedures. They can be viewed by operations personnel during quality data collection. See: [Attachments for Collection Plans, Specifications, and Result Lines](#), *Oracle Quality User's Guide*, and [Viewing Attachments Associated with Quality Results](#), *Oracle Quality User's Guide*.

### To review a collection plan:

1. Navigate to the [Collection Plans](#) window.

**Figure 3–78** *Collection Plans Window*

Collection Plan: **FORK LIFT FAILURE ANALYSIS** Views...

Description: Fork Lift Failure Analysis

Effective: 13-NOV-2002 -

Plan Type: **Failure** Failure Analysis [ ]

Copy Elements... Transactions Specifications...

**Quality Collection Elements**

Name	Seq	Prompt	Mandatory	Enabled	Displayed
<input checked="" type="checkbox"/> Fork Lift Failure	10	Failure	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Fork Lift Failure Cause	20	Cause	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Fork Lift Failure Remedy	30	Remedy	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Fork Lift Failure Comment	40	Comment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Values Actions

**Note:** To assist you as you create collection plans, you can select the Summary/Detail option from the View Menu, and run a query to view existing collection plans in summary format. See: [Combination Blocks](#), *Oracle Applications User's Guide*.

2. Select a valid Collection Plan from the list of values. To create a new collection plan, See: [Creating Collection Plans](#), *Oracle Quality User's Guide*.
3. Choose Transactions. You can create collection plans that are specifically used to collect quality data during transactions performed in other applications (See: [Collection Plans for Transactions](#), *Oracle Quality User's Guide*).

**Figure 3–79 Collection Transactions Window**

Transaction Description	Mandatory	Background	Enabled
EAM Work Order Completions (Oracle Enterprise Asset Man ...	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Trigger Name	Condition	From	To
Asset Group	equals (=)	Fork Lifts	

4. Select EAM Work Order Completion or Asset Query from the Transaction Description list of values.
5. Optionally, indicate whether this collection plan will require the entry of quality results at Work Order completion. If you select the Mandatory check box, you must save at least one quality data record before saving the Work Order completion transaction.

---

**Note:** eAM supports Quality collection during operation completion transactions, as well as Standalone Asset Query. Valid Transaction Description values are EAM Operation Completions and EAM Asset Query, respectively.

---

6. Optionally, select the Background check box.

If you select this check box, you can collect quality results for context reference elements (See: [Reference Information Collection Element Type](#), *Oracle Quality User's Guide*).

---

---

**Note:** The following Collection Elements are included with Oracle Enterprise Asset Management; you do not need to define them: Maintained Group, Maintained Number, Activity, Maintenance Work Order, Maintenance Operation Sequence.

---

---

Without invoking the Enter Quality Results window, background data collection is initiated when you save the Work Order completion transaction. The system then finds, selects, and initiates the appropriate collection plan or plans.

If collection triggers are defined for background data collection, data collection is initiated only if all collection trigger conditions are satisfied (you define triggers for transactional data collection in the Collection Transactions window).

Several collection plans can collect data in the background during the same transaction. When this is the case, the results for context elements on all of these collection plans are automatically saved when the parent transaction is saved.

7. Select the Enabled check box.
8. Optionally, select a Trigger Name from the list of values. Valid trigger values are Activity, Asset Group, Asset Number, and Maintenance Work Order. Triggers are restrictions that you define for this collection plan. In the above example, only Work Orders for the JP1 asset will require the entry of quality results for the collection plan.

---

---

**Note:** If a trigger is not defined, every Work Order requires quality collection results; the collection plan is applicable to all assets.

---

---

9. If you selected a Trigger Name, select a Condition from the list of values.
10. Select a From value from the list of values. For example, if you selected Maintained Group as the Trigger Name, only Maintained Groups will be available in the list of values. Optionally, you can enter a To value to create a

range condition. For example, if the trigger is Work Order, you could enter a range of Work Order numbers.

11. Save your work.

**See Also:**

For information on all remaining fields, See: [Collection Plans for Transactions](#), *Oracle Quality User's Guide*

For information on adding collection plan attachments, See: [Adding Collection Plan Attachments](#), *Oracle Enterprise Asset Management User's Guide*

For information on triggering a Work Request, See: [Triggering a Work Request](#), *Oracle Enterprise Asset Management User's Guide*

[Overview of Collection Plans](#), *Oracle Quality User's Guide*

[Overview of Quality Self-Service](#), *Oracle Quality User's Guide*

[Collection Plan Types](#), *Oracle Quality User's Guide*

[Collection Plan and Import Results Database Views](#), *Oracle Quality User's Guide*

[Collection Elements in Collection Plans](#), *Oracle Quality User's Guide*

[Defining Collection Plan Element Values](#), *Oracle Quality User's Guide*

[Associating Specification Types with Collection Plans](#), *Oracle Quality User's Guide*

[Defining Collection Plan Element Actions](#), *Oracle Quality User's Guide*

[Updating and Deleting Collection Plans](#), *Oracle Quality User's Guide*

[Viewing Collection Plans](#), *Oracle Quality User's Guide*

## Outside Processing Integration Setup

Contractor services are defined as work services provided by an organization or person who is not an employee of your company. Contractors are paid for their work based on an agreed upon contract or agreement. For example, a contractor service may be a painting service. It is also important to associate the purchasing transactions, such as the requisition and purchase order, to the Work Order. In order for this to be executed, the appropriate steps must be completed in Purchasing and Enterprise Asset Management.

Outside Service Processing provides the functionality to create items that are contractor services, such as landscaping, include these items on a Work Order, and execute the related purchasing transactions as the Work Order is released. By creating a contract service as an Outside Service Processing item, the purchasing requisition is created when the Work Order is Released. The additional purchasing transaction, including the creation of the purchase order, the approval, and invoicing process, are then managed by Purchasing. This optional process ensures that the actual charges are applied to the Work Order.

The other option is to enable Standard Rate. This applies pre-determined standard rates, for contractor services, to the Work Order, without invoking the purchasing transaction.

Outside Processing Setup tasks for Enterprise Asset Management include the following:

- [Setting Up Outside Service Processing](#) on page 3-160

### Setting Up Outside Service Processing

Purchasing recognizes items, while eAM recognizes resources. As a result, the contractor service item must be linked to a resource for the purchase order to be tied to the Work Order. This is associated via the Resources window. Additionally, the resource must be associated with a department. The department must specify the location where the services are to be delivered. This must be a valid location for the organization.

For each contractor service resource, you can determine whether the rate charged to the Work Order will be a standard rate or the actual amount, based on the purchase order price. This is set up within the Resources window, and may vary for each resource.

**To set up purchasing information:**

1. Navigate to the [Financials Options](#) window.
2. Select the Supplier-Purchasing tabbed region.

**Figure 3–80 Financials Options Window**

The screenshot shows the 'Financials Options (Vision Operations: USD)' window with the 'Supplier - Purchasing' tab selected. The fields and their values are as follows:

Ship-To Location	M1- Seattle
Bill-To Location	V1- New York City
Inventory Organization	V1 - Vision Operations
Ship Via	
FOB	Vendor's responsibility ceases upon transfer
Freight Terms	Due

The options you define in this region, except for Inventory organization, are used as default values for the Purchasing region of the Suppliers window (See: [Suppliers](#), *Oracle Payables User's Guide*). The supplier values default to new supplier sites for the supplier, which default to new purchasing documents for the supplier site.

3. Select Ship-To and Bill-To Locations from the lists of values. These are the names of the ship-to/bill-to location for the system default values. If the name you want does not appear in the list of values, use the Location window to select a new location (See: Setting Up Locations, *Using Oracle HRMS - The Fundamentals*).
4. Select an Inventory Organization from the list of values. You can associate each of your purchasing operating units with one inventory item master organization. Your eAM Organization (See: [Enabling Organizations for Enterprise Asset Management](#) on page 3-14) should point to this item master.

When you associate your purchasing operating unit with an inventory organization, items you define in this organization become available in Purchasing. You can only choose an inventory organization that uses the same set of books as your Purchasing operating unit. Do not change the inventory organization after you have already assigned on to Purchasing.

5. Optionally, select a Ship Via code from the list of values. This is the freight carrier you use with suppliers. If the type of freight carrier you want does not appear in the list of values, use the Freight Carriers window to define a new shipping method. The value you enter here is the value in the Description field of the Freight Carriers window in Purchasing.
6. Select an FOB from the list of values. If the type of FOB you want is not in the list of values, use the Oracle Purchasing Lookups window to define a new FOB.
7. Select a Freight Terms code from the list of values. The freight terms for a supplier identify whether you or your supplier pays for freight charges on goods you receive. You can define new freight terms in the Oracle Purchasing Lookups window.
8. Save your work.

**See Also:**

[Supplier - Purchasing Financials Options](#), *Oracle Payables User's Guide*

**To set up outside services as items:**

Create an item for each outside service, such as landscaping services.

1. Navigate to the [Master Item](#) window.

Figure 3–81 Master Item Window

Master Item (V1)

Organization: V1 Vision Operations

Item: TM Rebuild

Description: Truck Motor Rebuild Services

Display Attributes:  Master  Org  All

Main | Inventory | Bills of Material | Asset Management | Costing | Purchasing | Receiving | Physical Attributes

Unit of Measure

Primary: Each

Dual Control: Non-Dual

Secondary:

Deviation Factor +:

Deviation Factor -:

Conversions:  Standard  Item specific  Both

User Item Type: Outside Processing

Item Status: Active

Long Description

2. Enter the item Name for the contractor service. For example, Landscape Service.
3. Select Copy From within the Tools menu.
4. Select @Outside Processing Item from the Template list of values.
5. Choose Apply.
6. Choose Done.
7. Within the Purchasing tabbed region, ensure that the Outside Processing Item check box is selected.
8. Select the Resource Unit Type.  
*Resource:* Costs are based on the resource standard rate.
9. Select a Default Buyer from the list of values.
10. Enter a List Price for this contractor service.

11. Select Each for the Unit of Issue. This is the unit of measure you use to issue the item from inventory.
12. Within the Receiving tabbed region, select Direct from the Receipt Routing list of values.
13. Save your work.
14. Select the Organization Assignment tabbed region on the left side of the window, then assign this item to the eAM organization.
15. Save your work.

**To link outside service items to resources:**

You must define outside resources and link them to outside items in order to automatically generate purchase requisitions for outside services. When you assign outside resources to a department, you also specify a usage rate or amount that determines the quantity you are requisitioning and/or charging to Work Orders.

16. Navigate to the [Resources](#) window.

Figure 3–82 Resources Window

The screenshot shows the 'Resources (EM1)' window with the following details:

- Resource:** TMREBUILD
- Description:** Truck Motor Rebuild - Outside Services
- Type:** Miscellaneous
- UOM:** Ea
- Charge Type:** PO Move
- Basis:** Item
- Expenditure Type:** (empty)
- Outside Processing:**  Enabled. Item: TM Rebuild, Truck Motor Rebuild Services.
- Billing:** Item: (empty)
- Costed:**  Enabled. Activity: (empty), Standard Rate: . Absorption Account: 01-000-2215-0000-000. Variance Account: 01-520-5210-0000-000. Buttons: Overheads, Rates.
- Skills:** Competence: (empty), Skill Level: (empty), Qualification: (empty).
- Batchable:**  Disabled. Minimum Batch Capacity: (empty), Maximum Batch Capacity: (empty), Batch Capacity UOM: (empty). Batching Window: (empty), UOM: (empty).
- Buttons:** Employees, Equipment, Setups.

17. Select Miscellaneous from the Type list of values.
18. Select a unit of measure from the UOM list of values. This value is the default unit of measure for all transactions, for the current resource.
19. Select the PO Receipt Charge Type.
20. Verify that the Enabled check box is enabled for outside processing.
21. Enter the outside services Item that was entered in Inventory (See: [To set up outside services as items](#): on page 3-162), and associate it with the eAM resource.
22. Select the Costed check box to include this outside resource in your Work Order cost. When you define a resource with a charge type of PO Receipt, Cost Management automatically defaults Outside Processing as the cost element.
23. Enter an Absorption Account. You must define an absorption account for each outside resource. The absorption account defaults from the organization's

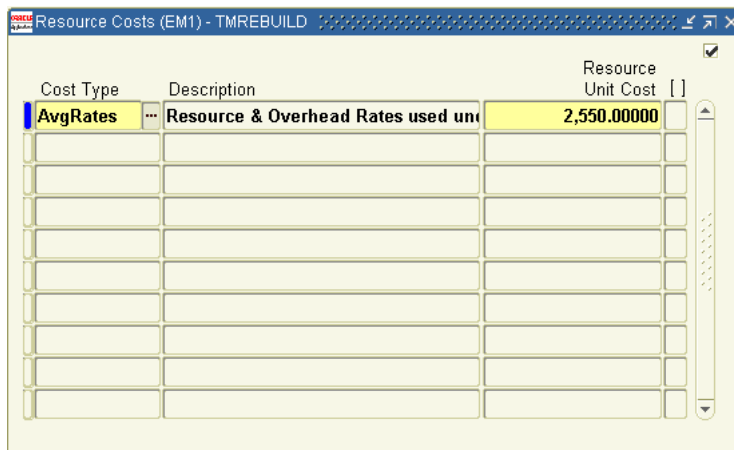
receiving account, which is debited when an outside processing item is received and is subsequently credited when the item is delivered to eAM. The debit goes to the outside processing account associated with the accounting class of the Work Order when the item is delivered to eAM.

24. Optionally, enter a Variance Account. You must define a purchase price variance account for each outside resource you define. This account defaults from the organization's purchase price variance account.

If you select the Standard Rate check box while performing the next step, the Variance Account is mandatory.

25. Optionally, select the Standard Rate check box to charge the standard, non-purchase order amount to the Work Order. Clear the Standard Rate check box to charge the Work Order with the actual purchase order amount.
  - a. If you selected the Standard Rate check box, choose Rates to enter your standard rates.

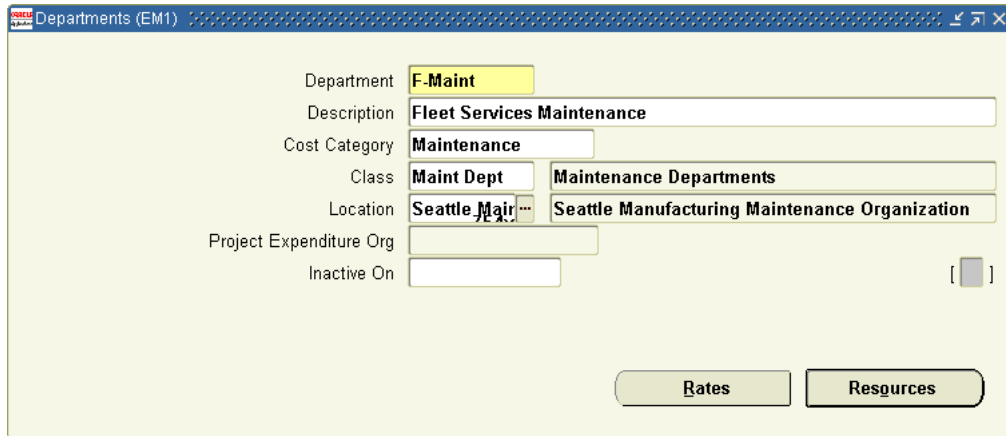
**Figure 3–83 Resource Costs Window**



- b. Enter a Cost Type of Value. This is dependent on the costing method defined for your eAM organization.
- c. Enter a Resource Unit Cost.
- d. Save your work and close the window.

**To link the outside service resource to a department:**

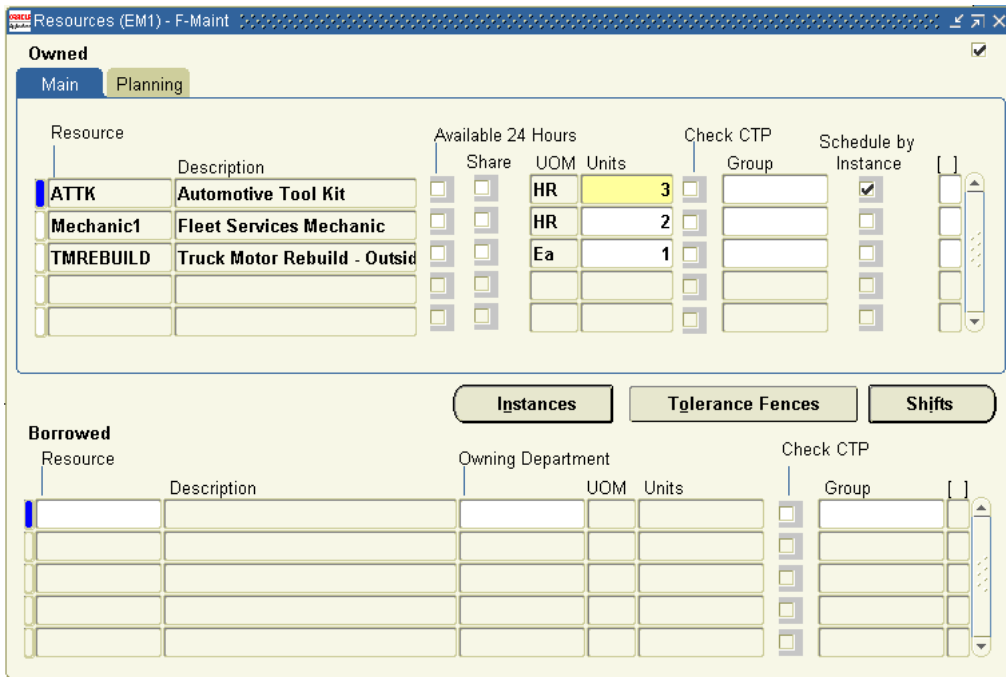
1. Navigate to the [Departments](#) window.

**Figure 3–84 Departments Window**

The screenshot shows a software window titled "Departments (EM1)". It contains several input fields and buttons. The "Department" field is highlighted in yellow and contains the text "F-Maint". The "Description" field contains "Fleet Services Maintenance". The "Cost Category" field contains "Maintenance". The "Class" field contains "Maint Dept" and "Maintenance Departments". The "Location" field contains "Seattle Mani..." and "Seattle Manufacturing Maintenance Organization". The "Project Expenditure Org" field is empty. The "Inactive On" field is empty. There are two buttons at the bottom right: "Rates" and "Resurces".

2. Select the Department to associate with the outside service resource from the list of values.
3. Select a Cost Category for this department. If this is left blank, then the costs related to this department will be charged, based on the eAM parameter settings (See: [Defining eAM Parameters](#) on page 3-16).
4. Select a valid Location from the list of values. This is mandatory.
5. Choose Resources.

Figure 3–85 Resources Window



6. Select the outside service resource from the Resource list of values.
7. Optionally, indicate whether this resource is Available 24 Hours a day. You cannot assign shifts to a resource that is available 24 hours a day.
8. Optionally, indicate whether this department can share this resource and capacity with other departments.
9. Enter the number of capacity Units (resource units) available for this department.
10. Save your work.

**See Also:**

For information on all remaining fields, See: [Defining a Resource](#), *Oracle Bills of Material User's Guide*.

To define WIP parameters:

1. Navigate to the [Work in Process Parameters](#) window.

**Figure 3–86** *Work in Process Parameters Window*

The screenshot shows the 'Work in Process Parameters (EM1)' window with the 'Outside Processing' tab selected. The window contains the following elements:

- Shop Floor Status for PO Move Resources:
- Requisition Creation Time: **At Job/Schedule Release** (dropdown menu)
- Job Roles for Notifications:
  - Production Scheduler:
  - Shipping Manager:

2. Select the Outside Processing tab.
3. Select a value for Requisition Creation Time.

*At Job/Schedule Release* - This enables automatic creation of a purchase order requisition, for contractor services, when the Work Order is Released.

*Manual* - Choose Manual to manually create requisitions. With this selection, requisitions are not automatically created.

*At Operation* - Oracle recommends that you do not select At Operation. Within eAM, At Operation is equivalent to selecting Manual.

4. Save your work.

## Cost Management Integration Setup

Costs are generated as maintenance work is executed and completed. These costs roll up through the Parent/Child hierarchies defined within Enterprise Asset Management, and can roll up to any level within an asset hierarchy. Labor, Materials, and Equipment charges can be further classified into several maintenance cost categories.

All work is captured and retained by Enterprise Asset Management. You can reference work that has been completed to review operations, resources, and costs. This information can help you understand the scope of work and the process by which it is completed.

This section includes the following topics:

- [eAM Costing Methods and Mappings](#) on page 3-170
- [Setting Up eAM Cost Management](#) on page 3-174
- [Setting Up Cost Categories](#) on page 3-172

### eAM Costing Methods and Mappings

eAM supports four perpetual costing methods: standard, average, fifo, and lifo. As a foundation, eAM uses the following five basic cost elements provided by Cost Management (See: [Cost Elements](#), *Oracle Cost Management User's Guide*):

- Material
- Material Overhead
- Resource
- Resource Overhead
- Outside Processing

Asset management requires different cost classifications. eAM provides these cost classifications, while maintaining the integrity of the basic costing rules. The five cost elements above are translated into nine cost classifications that are familiar to maintenance managers.

eAM classifies work done on maintenance Work Orders into cost categories. By default, eAM has defined three cost categories: Contract, Operations, and Maintenance.

You can define additional cost categories, if needed. Each cost category is further classified into three cost elements: Equipment, Labor, and Material.

*Material* - Costs from material transactions.

*Labor* - Costs from labor resource transactions.

*Equipment* - Costs from equipment resource transactions.

Material charges are classified as Material cost elements. Resource charge of type person is classified as a Labor cost element. Resource charge of type machine is classified as Equipment cost element. All other resource types are classified by the default cost element in the eAM Parameters (See: [Defining eAM Parameters](#) on page 3-16).

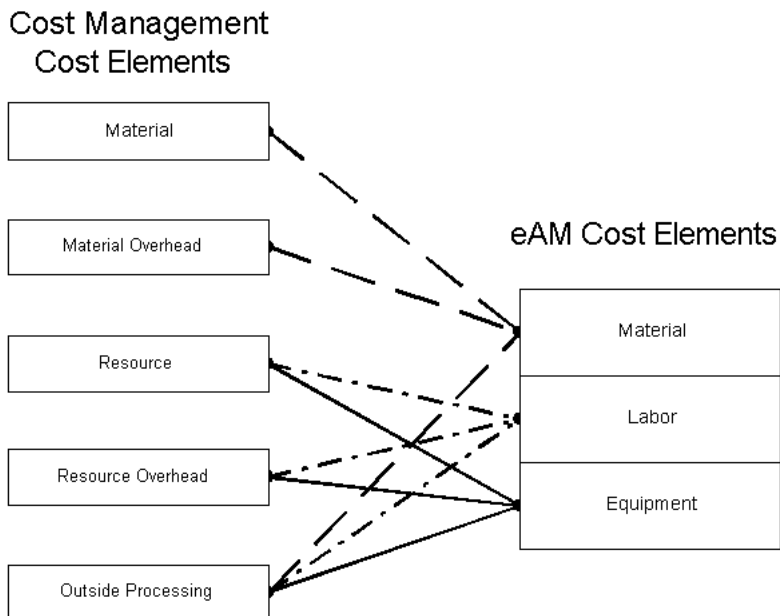
For each department, a maintenance cost classification is identified to reflect the above breakdown. The cost category for the Material cost element is the cost category of the department assigned to the routing of the operation. For the Labor cost element, it is the cost category of the resource's owning department. For the Equipment cost element, it is the cost category of the asset's owning department.

### **eAM Mappings**

The three cost elements (Material, Labor, and Equipment) are mapped to the five basic cost elements (Material, Material Overhead, Resource, Resource Overhead, and Outside Processing) provided by Cost Management.

The following diagram illustrates that the eAM Material cost classifications are mapped to Material, Material Overhead, and Outside Processing. Labor and Equipment cost classifications are mapped to Resource, Resource Overhead, and Outside Processing.

**Figure 3–87 Cost Element Mappings**



## Setting Up Cost Categories

Cost Category codes are used as the default for departments that do not have a cost category defined. Department costs are then posted to the appropriate cost elements. Valid values are Maintenance, Operations, Contract, and any other values that you might have added within this extensible lookup table. See: [Overview of eAM Cost Management](#), *Oracle Enterprise Asset Management User's Guide*.

By default, eAM has defined three cost categories: Contract, Operations, and Maintenance. However, you can define additional cost categories, if needed. After you have added the cost categories, they will be available from the Cost Category list of values, within the Enterprise Asset Management Parameters window (See: [Defining eAM Parameters](#) on page 3-16).

### To define additional cost categories:

1. Navigate to the [Oracle Manufacturing Lookups](#) window.

Figure 3–88 Cost Category Lookups

Oracle Manufacturing Lookups

Type: BOM\_EAM\_COST\_CATEGORY  
 Meaning: BOM\_EAM\_COST\_CATEGORY  
 Application: Oracle Bills of Material  
 Description: Enterprise Asset Management Cost Category

Access Level:  
 User  
 Extensible  
 System

Effective Dates

Code	Meaning	Description	Tag	From	To	Enabled
1	Maintenance	Maintenance				<input checked="" type="checkbox"/>
2	Operations	Operations				<input checked="" type="checkbox"/>
3	Contract	Contract				<input checked="" type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>

2. Select BOM\_EAM\_COST\_CATEGORY from the Type list of values.
3. Enter a numeric value in the Code field. Oracle recommends that you enter values in increments of 10, enabling you to easily add codes later.

---

**Warning: Do not use alpha codes. Entry of alpha codes will cause database errors in the application.**

---

4. Enter the Meaning of the code, for example, High.
5. Enter a Description for the code.
6. Optionally, enter a Tag to categorize lookup values. This field is informational only.
7. The Effective From Date will default as the system date, but you can update this. Optionally, enter a Effective To Date to indicate an expiration of the code.

8. Select the Enabled check box to enable this code for Enterprise Asset Management.
9. Save your work.

## Setting Up eAM Cost Management

You can reference work that has been completed to review operations, resources, and costs. This information can help you understand the scope of work and the process by which it is completed. In order to capture the costs for all work within eAM, some key setups need to be in place:

- Define a default cost element.
- Define a default cost category.

First, define a default cost element (Material, Labor, or Equipment) when setting up the eAM Parameters. See: [Defining eAM Parameters](#) on page 3-16. This will be used when no pre-defined mapping exists to the cost elements in eAM. For example, department overheads are not linked to a particular eAM cost element for cost analysis. Therefore, the default cost element will carry the cost for analysis. Also, outside processing types of Currency, Amount, and Miscellaneous are not linked to a particular eAM cost element. When one of these types is used in outside processing, the costs will be allocated to the default cost element (See: [eAM Costing Methods and Mappings](#) on page 3-170).

Next, define a default cost category when setting up the eAM Parameters. This defaulted cost category is used if there is no cost category defined for the departments.

### To define a default cost element and cost category:

1. Navigate to the [Enterprise Asset Management Parameters](#) window.

**Figure 3–89 Enterprise Asset Management Parameters Window**

The screenshot displays the 'Enterprise Asset Management Parameters (EM1)' window with the following settings:

- Asset Number Defaults:**  Asset Number Auto Generation
- Cost Defaults:** Cost Element: **Equipment**; Cost Category: **Maintenance**
- Request:** Request Type: **Work Request**;  Auto Approve;  Extended Log
- Work Order Defaults:** WIP Accounting Class: **MaintWAC**; Easy Work Order Prefix: **EZ**; Work Order Prefix: **WO**;  Enable Material Issue Requests;  Auto Firm on Release;  Invoice Billable Items Only
- Account Defaults:** Maintenance Offset: **01-520-7530-0000-000**

2. In the Cost Defaults region, select an eAM Cost Element to indicate how to capture cost overheads, and any miscellaneous resource costs. Valid values are Equipment, Labor, and Material.
3. Select a Cost Category to be used as the default for departments that do not have a cost category defined. Department costs are then posted to the appropriate cost classification.

**See Also:**

For information on all remaining fields, See: [Defining eAM Parameters](#) on page 3-16

**To define a cost category by department:**

1. Navigate to the [Departments](#) window.

**Figure 3–90 Departments Window**

The screenshot shows a window titled "Departments (EM1)". It contains the following fields and values:

- Department: F-Maint
- Description: Fleet Services Maintenance
- Cost Category: Maintenance
- Class: Maint Dept, Maintenance Departments
- Location: Seattle Mainte, Seattle Manufacturing Maintenance Organization
- Project Expenditure Org: (empty)
- Inactive On: (empty)

At the bottom right of the window, there are two buttons: "Rates" and "Resources".

2. Select a Cost Category from the list of values.

---

**Note:** It is not required to provide a cost category for a department (crew). However, if you do not provide a cost category for a department (crew), costs for that crew will be allocated to the defaulted cost category specified in the eAM parameters (See: [Defining eAM Parameters](#) on page 3-16). Each time costs for that element are charged to a Work Order, this default cost category is used for reporting and analysis.

---

**See Also:**

For information on all remaining fields, See: [Defining Departments and Resources](#) on page 3-22

For information on eAM Cost Estimation, See: [eAM Cost Estimation](#), *Oracle Enterprise Asset Management User's Guide*

For information on viewing cost information, See: [Viewing Cost Information](#), *Oracle Enterprise Asset Management User's Guide*

For information on transferring invoice variances to maintenance Work Orders, See: [Transferring Invoice Variances to Maintenance Work Orders](#), *Oracle Enterprise Asset Management User's Guide*

## Process and Discrete Manufacturing Integration Setup

Enterprise Asset Management integrates with Process and Discrete Manufacturing, enabling your maintenance environment to identify Enterprise Asset Management asset relationships with production equipment. This feature associates an asset or many assets to the production equipment located in a discrete or process manufacturing organization. After establishing, you can view the resource usage (maintenance Work Orders, batches, or FPOs) emanating from production, associated with a maintainable asset. In discrete manufacturing organizations, you can view maintenance equipment downtime requirements and their affect on capacity during production planning and scheduling.

This section includes the following topics:

- [Organization Setup](#) on page 3-177
- [Associating Assets with Production Equipment](#) on page 3-179

### Organization Setup

In order for eAM to integrate with process or discrete manufacturing, you need to determine which process or discrete manufacturing organization is associated with your eAM organization, respectively.

Process Manufacturing organizations are never the same as eAM organizations; they are mutually exclusive. Although it is possible, Oracle does not recommend commingling eAM and discrete manufacturing organizations. They should have separate organization codes.

**To associate a process or discrete manufacturing organization with an eAM organization:**

1. Navigate to the [Organization Parameters](#) window, and select a valid process enabled or discrete manufacturing organization from the Organization Code list of values.

Figure 3–91 Organization Parameters Window

Organization Parameters (PR1)

Inventory Parameters Costing Information Revision, Lot, Serial ATP, Pick, Item-Sourcing [ ... ]

Organization Code **PR1**

Item Master Organization **PR-Process Master**

Calendar **Vision01**

Process Enabled

Process Organization **PR1**

Demand Class

Move Order Timeout Period Days

Move Order Timeout Action **Approve automatically**

Locator Control **Determined at Subinventory le...**

Allow Negative Balances

WMS Enabled

Quality Skipping Inspection Control

EAM Enabled

EAM Organization **EM2** **PR1 Maintenance**

**Capacity**

Load Weight UOM

Volume UOM

2. Enter an EAM Organization to associate with the current Organization Code. This eAM organization is now linked to the organization code you selected above.

**See Also:**

[Creating an Organization](#), *Oracle Human Resources User's Guide Organization Setup* on page 3-12

## Associating Assets with Production Equipment

You can link an asset to production equipment defined within a process or discrete organization, as well as asset equipment defined within an eAM organization. This relationship is defined while defining or updating assets within eAM.

To associate an asset with production equipment:

1. Navigate to the [Define Asset Number](#) window.

**Figure 3–92** Define Asset Number Window

Define Asset Number (EM2)

Maintained Group	Production Machine	Production Machines Asset
Maintained Number	1-BLENDER	1-BLENDER
Asset Category	Production.Blender/Mixer	Production Blender / Mixer

[ ]

Main Production Others

Production Organization PR1

Equipment Item EQ-1002

Equipment Serial Number BLENDER-01

Attributes Resource Usage Associate Activity

2. Select a Maintained Number from the list of values that you would like to link to production equipment.
3. In the Production tabbed region, select a valid Production Organization from the list of values.

The list of values will display only those process and discrete organizations that have the current eAM organization selected as their maintenance organization (See: [Organization Setups](#) on page 3-177).

4. Select an Equipment Item from the list of values. This is mandatory if you populated the Production Organization field. Only items that were defined with an equipment template (See: [Item Templates](#), *Oracle Inventory User's Guide*), or with the Equipment item attribute enabled (See: [Physical Attributes](#), *Oracle Inventory User's Guide*), will be available.
5. Enter an Equipment Serial Number. This is mandatory if you populated the Production Organization field. This is the specific name of the component within the Equipment Type, defined above.

**See Also:**

For information on all remaining fields, See: [Defining Asset Numbers](#) on page 3-69

For information on viewing resource usage, See: [Viewing Resource Usage](#), *Oracle Enterprise Asset Management User's Guide*

# Project Manufacturing Integration Setup

Enterprise Asset Management supports a variety of ways to define work breakdown structures. The methods include, using third party project management systems (with on-line integration), project templates, Seiban number wizard, copy, and manual entry. Work breakdown structures are commonly needed for program management. To support financial project management an reporting, the combination of Oracle Projects and Oracle Project Manufacturing enables budgeting, project costing and tracking, project billing, project revenue recognition, project cash forecasting, and project cost collection, including multi-currency and tax regulations.

To support project supply chain management and execution, Project Manufacturing provides functionality for project sales management, project advanced supply chain planning, project procurement, project execution, and project quality management.

The following diagram illustrates the eAM Project Manufacturing process. First, a maintenance Work Order is linked to a project or task. If a requisition or purchase order is created for that Work Order, the commitments for the Work Order’s associated project or task are updated. The Project Cost Collector process (See: [Project Cost Collector](#), *Oracle Cost Management User’s Guide*) then passes the costs to the Work Order’s associated project WIP accounting class accounts, rather than the WIP accounting class associated with the eAM asset or eAM organization.

**Figure 3–93 eAM Project Manufacturing**



This section includes the following topics:

- [Project Definition](#) on page 3-181

## Project Definition

You can inquire on an existing, or copy a new project from a template or existing project. To create a new project, See: [Project Definition \(Assigning Project Parameters\)](#), *Oracle Project Manufacturing User’s Guide*. You need to associate this

project number with a planning group, a cost group, and a default WIP accounting class.

**To inquire on an existing project:**

1. Navigate to the [Find Projects](#) window.

**Figure 3–94 Find Projects Window**

The screenshot shows a software window titled "Find Projects (Vision Project Mfg: ANY)". The window is divided into several sections for data entry:

- Project:** Includes a "Search For" dropdown menu (set to "Projects, Templates"), "Number" (AM\_PROJ\_1), "Name" (AM\_PROJ\_1), "Type", "Organization", "Status" (dropdown), "Product Source", and "Source Reference" fields.
- Key Member:** Includes "Name", "Number", and "Role" fields.
- Customer:** Includes "Name", "Number", and "Relationship" fields.
- Classification:** Includes "Category" and "Class Code" fields.

At the bottom right of the window, there are two buttons: "Clear" and "Find".

2. Select a project from the Number list of values.
3. Choose Find.
4. Choose Open.

Figure 3–95 Projects, Templates Window

The screenshot shows the Oracle Projects, Templates window for project AM\_PROJ\_1. The window title is "Projects, Templates (Vision Project Mfg: ANY)". The form contains the following fields and options:

- Number:** AM\_PROJ\_1
- Name:** AM\_PROJ\_1
- Type:** Production-Bill
- Organization:** Los Angeles Manufacturing
- Duration:** 07-DEC-1997 - 31-DEC-2010
- Status:** Approved
- Description:** Car Maintenance
- Public Sector
- Workflow in Process
- Template [ ]
- Change Status** button
- Options** section:
  - Option Name
  - Tasks**
  - Classifications
  - Customers and Contacts
  - Currency
  - Cross Charge
  - Key Members
  - Additional Information
  - Pipeline
- Detail** button

5. Optionally, you can view detailed task information by choosing Detail (See: [Viewing Project Details, Oracle Project Manufacturing User's Guide](#)).

#### To assign project parameters:

1. Navigate to the [Project Parameters](#) window.

Figure 3–96 Project Parameters Window

The screenshot shows the 'Project Parameters (SS)' window with the 'Invoice Transfer' tab selected. The window contains a table with the following columns: Project Number, Seiban Number, Cost Group, WIP Accounting Class, and Planning Group. The first row is highlighted, showing 'AM\_PROJ\_1' in the Project Number column and 'CG-3373' in the Cost Group column. Below the table is a 'Project Name' field containing 'AM\_PROJ\_1'.

Project Number	Seiban Number	Cost Group	WIP Accounting Class	Planning Group
AM_PROJ_1	<input type="checkbox"/>	CG-3373		
	<input type="checkbox"/>			
	<input type="checkbox"/>			
	<input type="checkbox"/>			
	<input type="checkbox"/>			
	<input type="checkbox"/>			
	<input type="checkbox"/>			
	<input type="checkbox"/>			
	<input type="checkbox"/>			
	<input type="checkbox"/>			

Project Name: AM\_PROJ\_1

2. Select a valid Project Number from the list of values.
3. Select a Cost Group from the list of values.

If the current organization has selected Average as its primary costing method in the Organization Parameters window, the Cost Group field is required. The list of values includes the Common Cost Group and the user defined cost groups. The list of user defined cost groups includes only those cost groups with valid accounts and with Project selected in the Cost Group window (See: [Project Cost Groups](#), *Oracle Cost Management User's Guide*). You must assign the project to its own Cost Group to keep weighted average costing at the project level.

If the current organization has selected Standard as its primary costing method in the Organization Parameters window, the Cost Group field is disabled.

4. Optionally, enter a WIP Accounting Class.

If the current organization is a Standard costing organization, you can choose any discrete WIP accounting class from the list of values.

If the current organization is an Average costing organization, you can choose any WIP accounting class that has been associated with the selected cost group in the WIP Accounting Classes for Cost Groups window within Cost Management (See: [Defining Project Cost Groups](#), *Oracle Cost Management User's Guide*).

When you create maintenance Work Orders for a project, this WIP accounting class is defaulted. It can be overwritten, but only with another accounting class that is assigned to the cost group.

5. Optionally, select the name of the Planning Group with which you want to associate your project.

If you plan material requirements by a group of projects, rather than by each individual project, you need to define a planning group and to assign all the projects to this planning group. If you plan material requirements only by a single project, you do not need to associate the project with any planning group (See: [Defining Planning Group Lookups](#), *Oracle Master Scheduling/MRP and Oracle Supply Chain Planning User's Guide*).

6. Select the Other tabbed region.
7. Select maintenance from the Direct Item Expenditure Type list of values. This expenditure type enables the Cost Collector process to pass costs for direct items to project maintenance Work Orders.
8. Save your work.

### See Also:

For information on associating a Work Order with a project, See: [Associating a Work Order with a Project](#), *Oracle Enterprise Asset Management User's Guide*

For information on creating requisitions for purchase orders, [Creating Requisitions for Purchase Orders](#), *Oracle Enterprise Asset Management User's Guide*

For information on project commitments, See: [Updating the Commitments for a Project and Viewing Commitments](#), *Oracle Enterprise Asset Management User's Guide*

[Project Definition](#), *Oracle Project Manufacturing User's Guide*

[Assigning Project Parameters](#), *Oracle Project Manufacturing User's Guide*

[Project Cost Groups](#), *Oracle Cost Management User's Guide*

[Defining Project Cost Groups](#), *Oracle Cost Management User's Guide*

[WIP Accounting Classes](#), *Oracle Work In Process User's Guide*

Project Manufacturing Parameters, *Oracle Project Manufacturing User's Guide*

## Property Manager Integration Setup

The eAM and Property Manager integration enables eAM assets to correspond with locations defined in Property Manager. The information transferred from Property Manager are the three-level land or building hierarchies, and the associated Location Codes within Property Manager. eAM also provides user-defined Area codes, enabling you to logically sort assets by where they are physically located. However, Area codes in eAM do not equal locations in Property Manager. See: [Setting Up Areas](#) on page 3-21.

A concurrent request process transfers locations defined in Property Manager into eAM assets, associating eAM assets with locations. During this process, the Organization ID, Maintained Group, and the Owning Department parameters are specified. These entities need to be set up before the process can be executed.

This seamless, one-way integration from Property Manager into eAM is invoked within the Property Manager concurrent process. This section includes the following topics:

- [Setting Up eAM Prerequisites](#) on page 3-187
- [Running the Export Process](#) on page 3-187

### Setting Up eAM Prerequisites

The following need to be defined within eAM before the Export Locations to Enterprise Asset Management concurrent request process can export locations into eAM:

- Maintained Group (See: [Defining Maintained Groups](#) on page 3-49)
- Organization (See: [Organization Setup](#) on page 3-12)
- Owning Department (See: [Defining Departments and Resources](#) on page 3-22)

### Running the Export Process

Locations from Property Manager will always be exported in the form of a hierarchy. The first time that you run the process, the starting node of the hierarchy must be specified as the top level of building or land hierarchies. Thereafter, any level within the building or land hierarchy can be specified. However, child locations can only be exported if the parent location already exists.

After the process has run, any changes within Property Manager's building or land hierarchies will automatically change within eAM's corresponding asset hierarchies.

The Export Locations to Enterprise Asset Management process can be invoked from the Property Manager responsibility. This process can run in both create and update modes.

### To run the Export Locations to Enterprise Asset Management process:

1. Navigate to the [Submit Request](#) window.

**Figure 3–97** *Submit Request Window*

The screenshot shows the 'Submit Request' dialog box. The 'Run this Request...' section has a 'Name' field containing 'Export Locations to Enterprise Asset Management'. Below it are 'Parameters' and 'Language' fields, and a 'Languages...' button. The 'At these Times...' section has a field set to 'As Soon as Possible' and a 'Schedule...' button. The 'Upon Completion...' section has a checked 'Save all Output Files' checkbox, 'Notify' and 'Print to' fields, and an 'Options...' button. At the bottom are 'Help (E)', 'Submit', and 'Cancel' buttons.

2. Select Export Locations to Enterprise Asset Management from the list of values.
3. Enter the following parameters:

*Batch ID:* This is a user-defined parameter that is used to identify each export process by a unique identifier.

*Location Code From:* Enter the Location Code From. This code, defined in Property Manager, is the starting node of the building or land hierarchies. This code will reflect as the Enterprise Asset Management Asset, and is entered into only one Enterprise Asset Management Maintained Group per transfer.

*Location Code To:* Enter the Location Code To. This code, defined in Property Manager, is the ending node of the building or land hierarchies. This code will reflect as the Enterprise Asset Management Asset, and is entered into only one eAM Maintained Group per transfer.

*Organization Code:* Select the eAM enabled organization code from the list of values. This code is defined within eAM. See: [Organization Setup](#) on page 3-12.

*Inventory Item ID:* Select the Maintained Group (defined within eAM) from the list of values. The eAM assets will be created in this Maintained Group. See: [Defining Maintained Groups](#) on page 3-49.

*Owning Department ID:* Select the Owning Department ID from the list of values. This will be the designated maintenance department to associate with the exported asset/location, within eAM.

4. Choose OK.
5. Choose Submit.

**See Also:**

[Submitting a Request](#), *Oracle Applications User's Guide*

For information on how to view and update property management and asset integration, See: [Property Manager Integration](#), *Oracle Enterprise Asset Management User's Guide*

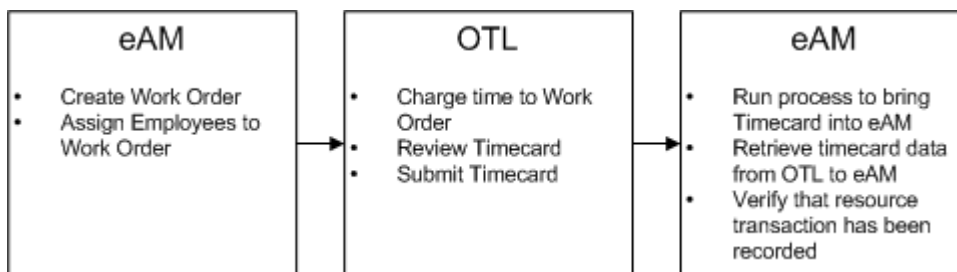
## Oracle Time and Labor Integration Setup

Oracle Time and Labor (OTL) is the repository in which time is entered by employees working in a particular organization. Employees working on Oracle Enterprise Asset Management (eAM) work orders enter their time using OTL Self-Service. Information collected is stored in OTL Time Store, and is composed of a series of business rules and processes. eAM extracts information from the Time Store and charges eAM work orders for the time spent by employees that work on them.

There are multiple steps within the integration flow. First, timecard information is entered for a specific Work Order, within Oracle Time Store (a piece of Oracle Time and Labor). That information is then extracted from Oracle Time Store to Oracle Enterprise Asset Management. This extraction dynamically creates a resource transaction within Oracle Enterprise Asset Management. Finally, the Cost Manager process is executed. This process charges the resource transaction. After this process executes, you can view the actual costs for the period that you charged, within the Work Order.

The process is as follows:

**Figure 3–98** OTL Process Flow



This section contains the following topics:

- [Setting Up the Integration](#) on page 3-191

## Setting Up the Integration

There are two required setup procedures for this integration. The first is to establish employees needing to use this functionality as Persons within Oracle Human Resources (See: *Oracle Human Resources User's Guide*). Once established, those Persons are assigned to respective Users, within Enterprise Asset Management. The second setup procedure consists of creating Preference Values, and then linking those values to eligibility criteria.

This section contains the following topics:

- [Defining Persons as Users](#) on page 3-191
- [Creating Eligibility Criteria](#) on page 3-192

### Defining Persons as Users

You need to establish employees needing to use this functionality as Persons within Oracle Human Resources (See: *Oracle Human Resources User's Guide*). Once established, those Persons need to be assigned to respective Users, within Oracle Enterprise Asset Management (eAM).

**To define Persons as Users within eAM:**

1. Navigate to the [Users](#) window.

**Figure 3–99 Users Window**

The screenshot shows the Oracle Users window with the following fields and sections:

- User Name:** Text input field.
- Description:** Text input field.
- Password:** Text input field.
- Password Expiration:** Radio buttons for Days, Accesses, and None. Days and Accesses have associated numeric input boxes.
- Effective Dates:** From and To date input fields. The 'From' field is populated with '11-NOV-2003'.
- Person, Customer, Supplier, E-Mail, Fax:** Text input fields.
- Responsibilities:** A table with columns: Responsibility, Application, Description, Security Group, From, To. The 'Responsibilities' tab is selected.

Responsibility	Application	Description	Security Group	From	To

2. Enter a User Name.
3. From the Person list of values, select the Person that was created in Oracle Human Resources.
4. Enter a Password.
5. Within the Responsibilities tabbed region, select the appropriate Responsibilities to assign to this User. The responsibilities, US OTL Administrator and Self Service Time and Expenses, are seeded but the Administrator needs to manually assign them to the Person/User.
6. Save your work. Repeat steps 1 through 5 for all appropriate Persons.

## Creating Eligibility Criteria

You need to create Preference Values, and then link those values to eligibility criteria.

---

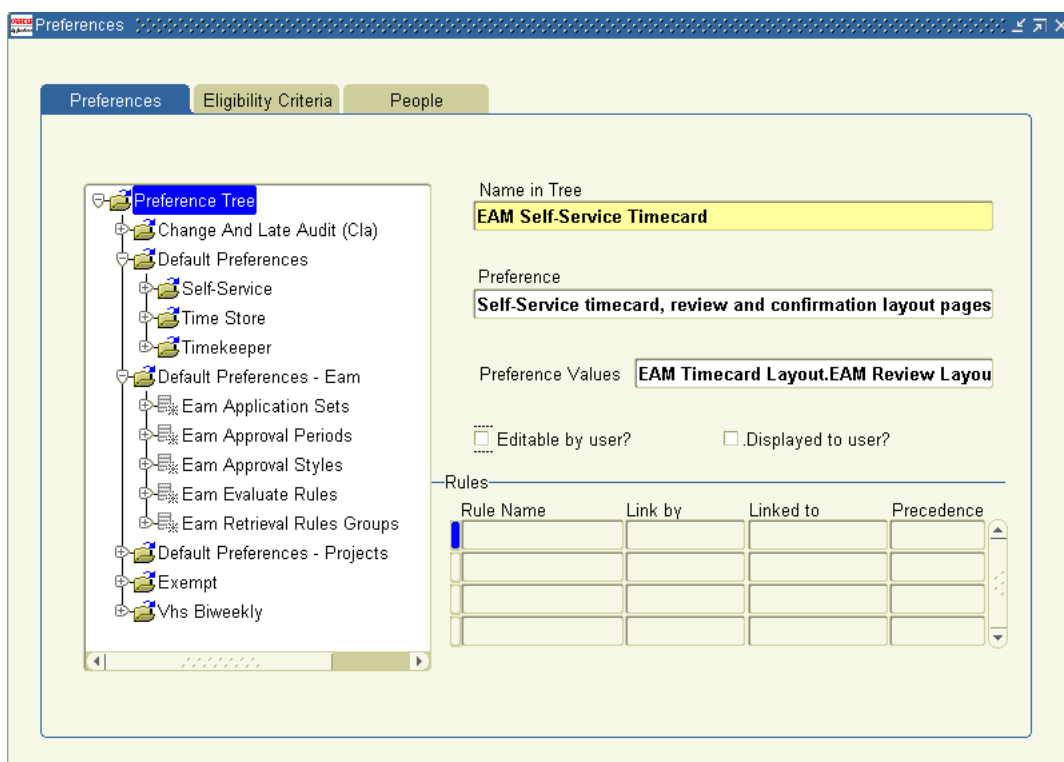
**Note:** Preferences come seeded, but the preferences need to be assigned to the user.

---

### To create eligibility criteria:

1. Navigate to the Preferences window.

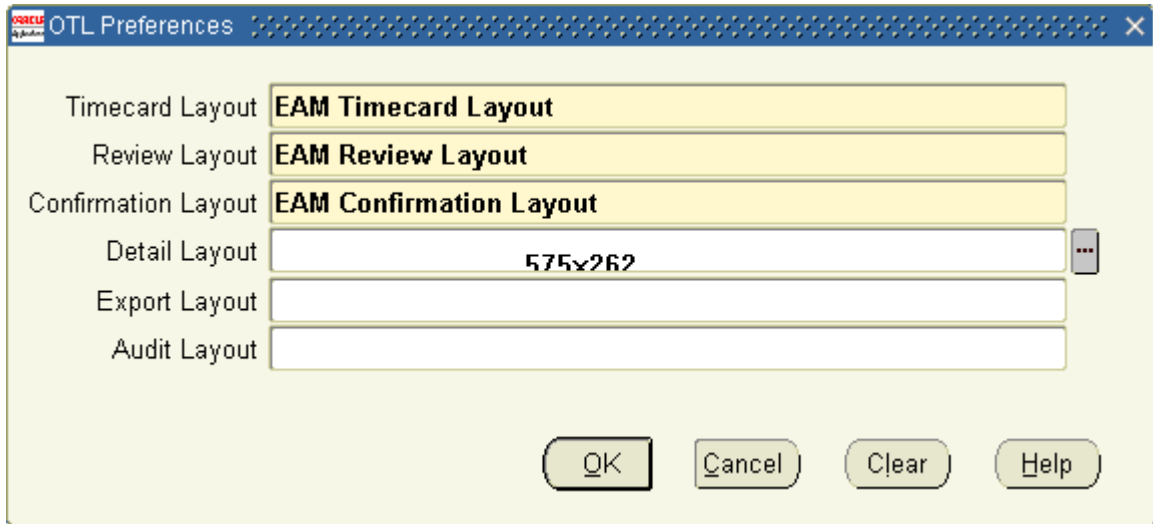
**Figure 3–100** Preferences Window



2. Select the Preference Tree node, then choose New.
3. Enter the name of your tree.
4. Select Self-Service timecard, review and confirmation layout pages from the Preference list of values.

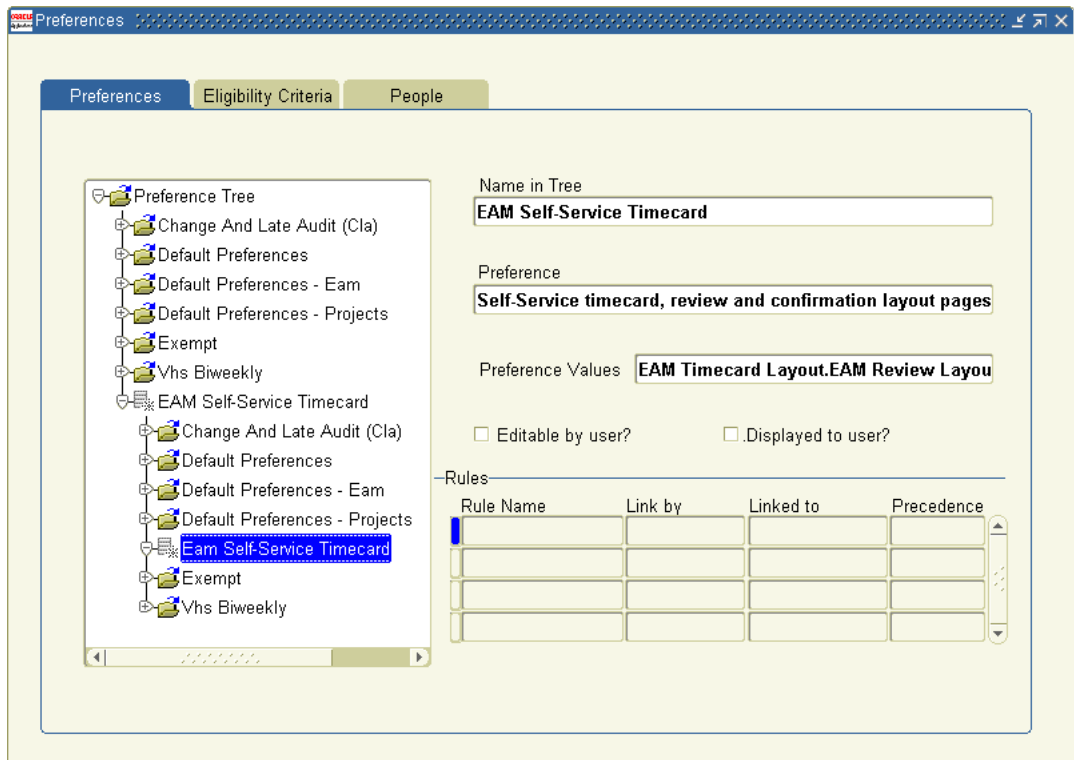
5. Within the OTL Preferences window, select EAM Timecard Layout from the Timecard Layout list of values.

**Figure 3–101** OTL Preferences Window



6. Select EAM Review Layout from the Review Layout list of values.
7. Select EAM Confirmation Layout from the Confirmation Layout list of values.
8. Choose OK.
9. Save your work. Once saved, you have created a new node on the Preference Tree. Expand this new node, and select Eam Self-Service Timecard.

Figure 3–102 Preferences Window



10. To create eligibility criteria for timecard entry, select the Eligibility Criteria tabbed region.
11. Enter the Name of the rule. You can have one rule for everyone, or multiple rules to create different eligibility criteria for different groups.
12. Select EAM Self-Service Timecard from the Name of Branch list of values. This value was previously defined during steps one through nine.
13. Select Person, Organization, or All People from the Link by list of values. If you are creating one rule for all users, select All People.
14. Enter a Precedence value. Valid values are all positive numbers. If you have multiple rules, the rule with the highest precedence is displayed first, and so on.

For example, an employee can view the time card with a rule precedence value of 95, versus the timecard with a rule precedence value of 94.

15. Save your work.

**See Also:**

For information on how employees enter timecard information and the OTL integration flow, See: [Time and Expenses](#), *Oracle Enterprise Asset Management User's Guide*

## Order Management Integration Setup

While maintaining an asset or servicing a customer request, you can bill a third party customer for the work that they performed. The cost of the work performed is based on the material and resource requirements (Bill of Material) of the Work Order, or the cost of the Activity associated with the Work Order.

This section includes the following topics:

- [Setting Up Parameters](#) on page 3-197
- [Setting Up Item Costs and Prices](#) on page 3-198
- [Setting Up Billable Material](#) on page 3-204
- [Setting Up a Billable Resource](#) on page 3-206
- [Setting Up a Billable Activity](#) on page 3-209

### Setting Up Parameters

You can optionally create the ability to change the billable material on a Work Order at the time a bill is created.

**To enable the change of billable material functionality:**

1. Navigate to the [Enterprise Asset Management Parameters](#) window.

Figure 3–103 Enterprise Asset Management Parameters Window

Enterprise Asset Management Parameters (EM1)

**Asset Number Defaults**

Asset Number Auto Generation

**Cost Defaults**

Cost Element **Equipment** Cost Category **Maintenance**

**Request**

Request Type **Work Request**

**Work Request**

Auto Approve  
 Extended Log

**Work Order Defaults**

WIP Accounting Class **MaintWAC** **Maintenance Wip Accounting C**

Easy Work Order Prefix **EZ**

Work Order Prefix **WO**

Default Department   Auto Firm on Release

Enable Material Issue Requests  Invoice Billable Items Only

**Account Defaults**

Maintenance Offset **01-520-7530-0000-000**

- Optionally, select the Invoice Billable Items Only check box. If selected, you can change the billable material at the time the bill is created.

If selected, this check box indicates that you want to invoice only billable items. Billable items are those that have a populated value within the Billing Type field, within the Service Tab, of the Master Item window. Billing Type is relevant only if you have this check box selected. Also, selecting this check box means that you can choose a different item to be billed. See: [Service Attribute Setup](#) on page 3-203.

- Save your work.

## Setting Up Item Costs and Prices

The Billing Basis is either Cost Plus or Price List. The Billing Basis affects your item setup procedures. If you want the flexibility of using both billing basis types for an

item, you need to set up both costs and prices for that item. An item can be an Activity, Material, or Resource.

This section includes the following topics:

- [Setting up Costs for the Cost Plus Billing Basis](#) on page 3-199
- [Setting up Prices for the Price List Billing Basis](#) on page 3-201

### Setting up Costs for the Cost Plus Billing Basis

The cost plus method utilizes costs associated with an item. The item should have a cost defined for it. First, you need to ensure that the appropriate item attributes are set up correctly for the item.

To set up an item's attributes:

1. Navigate to the [Master Item](#) window.

**Figure 3–104 Master Item Window**

Master Item (V1)

Organization **V1** Vision Operations

Item **WB-FliftMech**

Description **Work Order Billing Fork Lift Mechanic** [ ... ]

Display Attributes  
 Master  Org  All

Main Inventory Bills of Material Asset Management **Costing** Purchasing Receiving Physical Attributes

Costing Enabled (P)  
 Inventory Asset Value (X)  
 Include In Rollup (Z)

Cost of Goods Sold Account **01-510-5110-0000-000**

Standard Lot Size

2. Optionally, select the Costing Enabled check box to report, value, and account for any item costs. You need to select this check box if you are using the cost plus billing method.
3. Optionally, select the Inventory Asset Value check box. You need to select this check box if you are using the cost plus billing method.
4. Save your work.

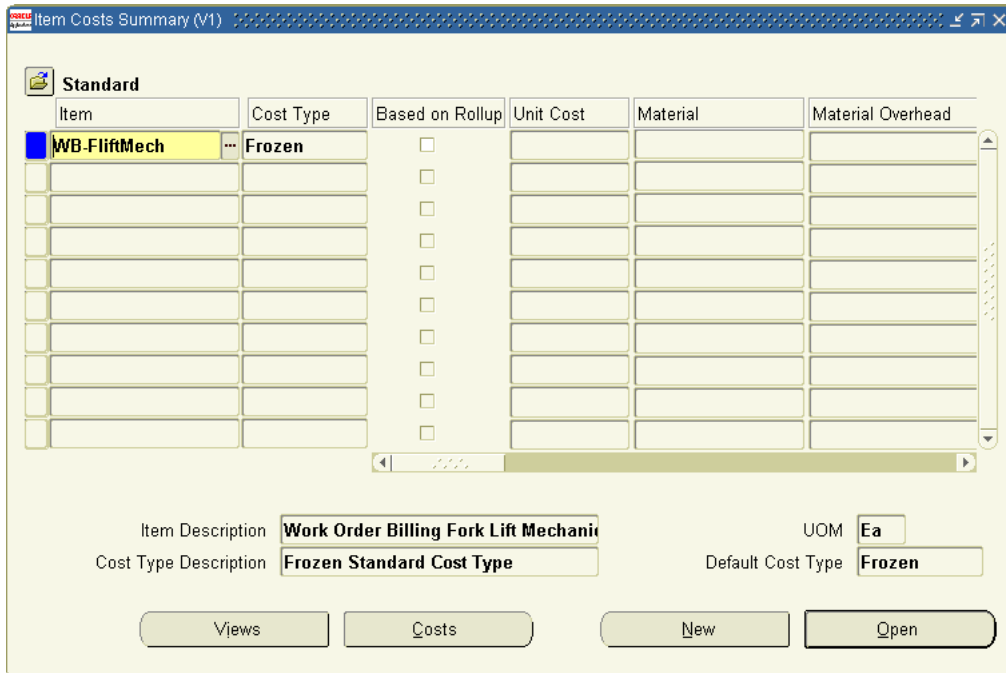
**See Also:**

For more information on costing attributes, See: [Costing Attribute Group](#), *Oracle Inventory User's Guide*.

**To set up costs for an item:**

1. Navigate to the [Item Costs Summary](#) window.

**Figure 3–105** *Item Costs Summary Window*



- Choose Costs.

**Figure 3–106** *Item Costs Window*

Item Costs (V1) - WB-FlittMech, Frozen

Cost Information    Activity Information

— User Defined Item Costs —

Cost Element	Sub-Element	Activity	Basis	Rate or Amount	Unit Cost [ ]
Material	Labor		Item+	2	2.00000

Basis Factor       MFG Shrinkage Factor

— Rollup Item Costs —

Cost Element	Sub-Element	Activity	Basis	Rate or Amount	Unit Cost [ ]

Basis Factor       MFG Shrinkage Factor

Source Type

- Enter cost information for your item.
- Save your work.

**See Also:**

For more information regarding Item Costing, See: [Defining Item Costs](#), *Oracle Cost Management User's Guide*

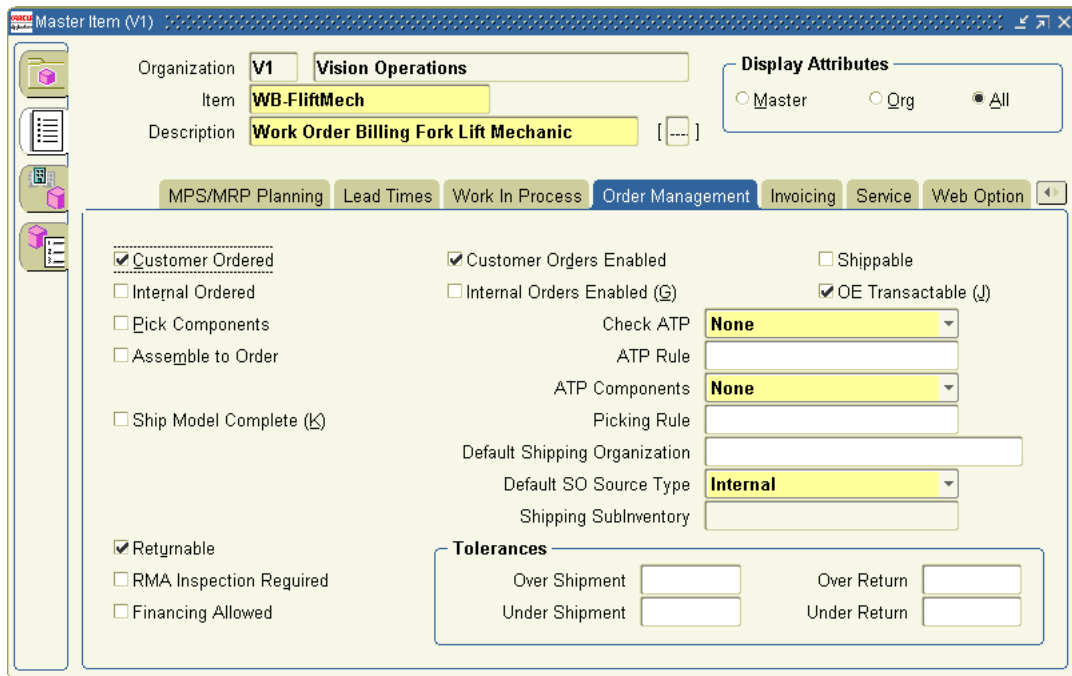
### Setting up Prices for the Price List Billing Basis

The price list method uses a specified price list. The specified item should have at least one entry in the price list. First, you need to ensure that the appropriate item attributes are set up correctly for the item.

To set up an item's attributes:

1. Navigate to the [Master Item](#) window.

**Figure 3–107 Master Item Window**



2. Optionally, select the Customer Ordered check box in order to create a price within the price list. You need to select this check box if you are using the price list billing method.
3. Save your work.

**See Also:**

For more information on Order Management attributes, See: [Order Management Attribute Group](#), *Oracle Inventory User's Guide*.

To set up prices for an item:

1. Navigate to the [Price Lists \(Advanced Pricing\)](#) window.

Figure 3–108 Advanced Pricing (Price Lists) Window

**Price List**

Name: **Corporate**  Mobile Download  Active

Description: **Corporate Price List**

Currency: **USD** Multi-Currency Conversion: **Corporate Pricelist Conv** Round To: **-2**

Effective Dates: **01-JAN-1996** -  Payment Terms: **30 Net**

Freight Terms: **Prepay & Add** Freight Carriers:

Comments:  [  ]

List Lines | Secondary Price List | Qualifiers

Product Context	Product Attribute	Product Value	Product Description	
Item	Item Number	180000	Sentinal Multimedia	U
Item	Item Number	181000	One Year Maintenance - reve	E
Item	Item Number	182000	Consulting/Training	E
Item	Item Number	CM31556	Monitor - 19" Flat	E
Item	Item Number	CM28287	Optiball Wireless Mouse	E

Price Breaks Pricing Attributes

2. Enter price information for your item.

The same item can be repeated multiple times in the price list, with varying values for Start Date, End Date, and Precedence. For example, it is invalid to have overlapping date ranges, if the Precedence is the same.

3. Save your work.

## Service Attribute Setup

You need to set the Billing Type for each item that you want billable. The Billing Type field within the Master Item window needs to be populated if you have selected the Invoice Billable Items Only check box, within the Enterprise Asset Management Parameters window. See: [Setting Up Parameters](#) on page 3-197.

To set up the Billing Type attribute:

1. Navigate to the [Master Item](#) window.

Figure 3–109 Master Item Window

2. Select the Service tabbed region.
3. Optionally, select Expense, Labor, or Material from the Billing Type list of values. This field needs to be populated only if you have selected the Invoice Billable Items Only check box, within the Enterprise Asset Management Parameters window. See: [Setting Up Parameters](#) on page 3-197.
4. Save your work.

## Setting Up Billable Material

To create billable material, you need to first set specific attributes within the Master Item window. Next, you need to assign the resource item to your organization. Decide whether you will price this item using the Cost Plus or Price List method, or both, and perform the additional setup for those methods (See: [Setting Up Item Costs and Prices](#) on page 3-198). Finally, define costs and prices for your item.

### To set up billable material:

1. Navigate to the [Master Item](#) window.

**Figure 3–110** *Master Item Window*

Master Item (V1)

Organization: V1 Vision Operations

Item: WB-PrdMaint

Description: Work Order Billing Production Equipment Mai [ ... ]

Display Attributes:  Master  Org  All

MPS/MRP Planning | Lead Times | Work In Process | Order Management | **Invoicing** | Service | Web Option

Invoiceable Item

Invoice Enabled

Accounting Rule:

Invoicing Rule:

Tax Code:

Sales Account: 01-510-4110-0000-000

Payment Terms:

2. Select the Invoicing tabbed region.
3. Optionally, select the Invoiceable Item check box to indicate that the current material item can be invoiced. This attribute can only be selected at the Master Organization level.
4. Optionally, select the Invoice Enabled check box to indicate that invoices are enabled for the current material item.

---

**Note:** For the current material item, you need to ensure the Billing Type is populated with Material, within the Service tabbed region. See: [Service Attribute Setup](#) on page 3-203.

---

5. Assign the current item to your organization.
6. Save your work.

## Setting Up a Billable Resource

To create a billable resource, you need to first create a resource item by setting specific attributes within the Master Item window. Next, you need to assign the resource item to your organization. Decide whether you will price this item using the Cost Plus or Price List method, or both, and perform the additional setup for those methods (See: [Setting Up Item Costs and Prices](#) on page 3-198). Next, you need to define a resource and associate the resource item to the resource. Finally, assign the resource to a department.

To set up a billable resource:

1. Navigate to the [Master Item](#) window.

**Figure 3–111** Master Item Window

The screenshot displays the Oracle Master Item (V1) window. The top section shows the Organization as 'V1 Vision Operations' and the Item as 'WB-Mechanic1'. The Description is 'Work Order Billing Fleet Services Mechanic'. The 'Display Attributes' section has radio buttons for 'Master', 'Org', and 'All', with 'All' selected. Below this is a navigation bar with tabs: 'MPS/MRP Planning', 'Lead Times', 'Work In Process', 'Order Management', 'Invoicing' (selected), 'Service', and 'Web Option'. The main area contains several fields and checkboxes:

- Invoiceable Item
- Invoice Enabled
- Accounting Rule: [ ]
- Invoicing Rule: [ ]
- Tax Code: [ ]
- Sales Account: **01-510-4110-0000-000**
- Payment Terms: [ ]

2. Select the Invoicing tabbed region.
3. Optionally, select the Invoiceable Item check box to indicate that the current resource item can be invoiced. This attribute can only be selected at the Master Organization level.
4. Optionally, select the Invoice Enabled check box to indicate that invoices are enabled for the current resource item.

---

---

**Note:** For the current resource item, you need to ensure the Billing Type is populated with Labor, within the Service tabbed region.  
See: [Service Attribute Setup](#) on page 3-203.

---

---

5. Assign the current item to your organization.
6. Save your work, and close the window.
7. Navigate to the [Resources](#) window.

Figure 3–112 Resources Window

The screenshot shows the Oracle Resources (EM1) window with the following configuration:

- Resource:** Mechanic1
- Description:** Fleet Services Mechanic
- Type:** Person
- Charge Type:** Manual
- UOM:** HR
- Basis:** Item
- Expenditure Type:** (Empty)
- Outside Processing:**
- Item:** (Empty)
- Billing Item:** WB-Mechanic1
- Billing Description:** Work Order Billing Fleet Services Mechanic
- Costed:** 
  - Activity:** (Empty)
  - Standard Rate:**
  - Absorption Account:** 01-000-5810-0000-000
  - Variance Account:** 01-000-5360-0000-000
  - Buttons:** Overheads, Rates
- Skills:**
  - Competence:** (Empty)
  - Skill Level:** (Empty)
  - Qualification:** (Empty)
- Batchable:** 
  - Minimum Batch Capacity:** (Empty)
  - Maximum Batch Capacity:** (Empty)
  - Batch Capacity UOM:** (Empty)
  - Batching Window:** (Empty)
  - UOM:** (Empty)
  - Buttons:** Employees, Equipment, Setups

8. Enter the name of the Resource within the Resource field.
9. Within the Billing region, select the resource item you created within the Master Item window to ensure that the resource is available for billing.

---

**Note:** Rates defined in the Resources window are not used for billing. For billing rates for the resource item, See: [Setting Up Item Costs and Prices](#) on page 3-198.

---

10. Save your work.
11. Assign the current resource to a department. See: [Defining Departments and Resources](#) on page 3-22.
12. Save your work.

## Setting Up a Billable Activity

To create a billable Activity, you need to first set specific attributes within the Master Item window. You need to then decide whether you will price this item using the Cost Plus or Price List method, or both, and perform the additional setup for those methods (See: [Setting Up Item Costs and Prices](#) on page 3-198). Finally, you need to associate the Activity to the Maintained Group/Maintained Number that will be used to create the Work Order.

### To set up a billable activity:

1. Navigate to the [Master Item](#) window.
2. Select the Invoicing tabbed region.
3. Optionally, select the Invoiceable Item check box to indicate that the current Activity item can be invoiced. This attribute can only be selected at the Master Organization level.
4. Optionally, select the Invoice Enabled check box to indicate that invoices are enabled for the current Activity item.
5. Assign the current item to your organization.
6. Save your work.

### See Also:

For information on how to initiate billing, See: *Oracle Enterprise Asset Management User's Guide*.



---

---

## Profile Options

This chapter discusses the profile options that affect the operation of your Oracle Enterprise Asset Management application, including the following topics:

- ❑ [Profile Option Summary](#) on page 4-2
- ❑ [Profile Option Details](#) on page 4-3
- ❑ [Profile Options in Other Applications](#) on page 4-6

## Profile Option Summary

The table below indicates whether you (the "User") can view or update the profile option and at which System Administrator levels the profile options can be updated: Site, Application, Responsibility, and User. Use the Personal Profile Options window to view or set your profile options at the user level. You can consult the *Oracle Applications System Administrator's Guide* for a list of profile options common to all Oracle applications.

A Required profile option requires a value. An Optional profile option provides a default value already, so you need to provide a value only if you want to change this value.

**Table 4-1 Profile Option Summary**

Profile Option	User	System Admin:	System Admin:	System Admin:	System Admin:	Required ?	Default
		USER	RESP	APP	SITE		
EAM: Debug PM Scheduling	View	View	View	View	View	N	Yes
	Update	Update	Update	Update	Update		
EAM: PM Debug File (including complete file path)	View	View	View	View	View	N	<Path determined during Rapid Install Setups>/eampmeng.log
	Update	Update	Update	Update	Update		
EAM: Activity API Debug File Directory	View	View	View	View	View	N	-
	Update	Update	Update	Update	Update		
EAM: Activity API Debug File Name	View	View	View	View	View	N	EAM_ABO_debug.log
	Update	Update	Update	Update	Update		
EAM: Activity API Debug Option	View	View	View	View	View	N	No
	Update	Update	Update	Update	Update		
EAM: Debug Profile Option	View	View	View	View	View	N	-
	Update	Update	Update	Update	Update		

**Table 4-1 Profile Option Summary**

Profile Option	User	System Admin: USER	System Admin: RESP	System Admin: APP	System Admin: SITE	Required ?	Default
EAM: Object Instantiation API Log File Directory	View Update	View Update	View Update	View Update	View Update	N	-
EAM: Object Instantiation API Log File Name	View Update	View Update	View Update	View Update	View Update	N	EAM_MOI.log
EAM: Object Instantiation API Log Option	View Update	View Update	View Update	View Update	View Update	N	No

## Profile Option Details

### EAM: Debug PM Scheduling

This profile option indicates whether debug mode is enabled for Preventive Maintenance Scheduling processes. The profile option is visible and updateable at the User level; it is visible and updateable at System Administrator's User, Responsibility, Application, and Site levels. The debug mode enables a tracing feature and causes additional messages to be printed to a log file. The default value is Yes. The internal name of the profile option is EAM\_DEBUG\_PM\_SCHED. Available values are as follows:

- Yes - System is operating in debug mode
- No - System is operating in normal mode
- Blank (no value) - Equivalent to No

### EAM: PM Debug File (including complete file path)

This profile option indicates the directory location where debug files will be created if debug mode is enabled. The profile option is visible and updateable at the User level; it is visible and updateable at System Administrator's User, Responsibility, Application, and Site levels. The internal name of the profile option is EAM\_DEBUG\_FILE. The default value is a file path inserted by the auto-configuration utility, executed during the installation of the application, and appended by the file name, viz.eampmeng.log.

### **EAM: Activity API Debug File Directory**

The Activity API is called in eAM when a new Activity is created from either a Work Order or Activity. This profile option indicates the debug file directory that the debug log will reside, if debugging is enabled for the Activity API. For example, If the profile option, EAM: Activity API Debug Option, is set to Yes, the log of the activity process is saved in the directory determined by the path designated in the current profile option. This profile option is visible and updateable at the User level; it is visible and updateable at System Administrator's User, Responsibility, Application, and Site levels.

### **EAM: Activity API Debug File Name**

The Activity API is called in eAM when a new Activity is created from either a Work Order or Activity. This profile option indicates the debug file name that resides in the debug file directory, if debugging is enabled for the Activity API. For example, If the profile option, EAM: Activity API Debug Option, is set to Yes, the log of the activity process is saved in the directory determined by the path designated by the EAM: Activity API Debug File Directory profile option. The name of the file that includes the activity process log is determined by the current profile option. This profile option is visible and updateable at the User level; it is visible and updateable at System Administrator's User, Responsibility, Application, and Site levels.

### **EAM: Activity API Debug Option**

The Activity API is called in eAM when a new Activity is created from either a Work Order or Activity. This profile option indicates whether debugging is enabled for the Activity API. This profile option is visible and updateable at the User level; it is visible and updateable at System Administrator's User, Responsibility, Application, and Site levels.

### **EAM: Debug Profile Option**

This profile option is used by multiple eAM processes. If this profile is enabled, the log of these processes is collected. These processes include the following:

- Asset Number Import Program - the log is visible in the Concurrent Program log
- Asset Downtime Process - the log is visible in the Concurrent Program log
- Asset Genealogy Import Process - the log is visible in the Concurrent Program log

– Work Order Business Object API

This profile option is visible and updateable at the User level; it is visible and updateable at System Administrator's User, Responsibility, Application, and Site levels.

**EAM: Object Instantiation API Log File Directory**

The Object Instantiation API is called when a new asset number is created via the Asset Number window or if the Instantiate button is chosen within the Rebuildable Serial Number window. This profile option indicates the debug file directory that the debug log will reside, if debugging is enabled for the Object Instantiation API. For example, If the profile option, EAM: Object Instantiation API Log Option, is set to Yes, the log of the activity process is saved in the directory determined by the path designated in the current profile option. This profile option is visible and updateable at the User level; it is visible and updateable at System Administrator's User, Responsibility, Application, and Site levels.

**EAM: Object Instantiation API Log File Name**

The Object Instantiation API is called when a new asset number is created via the Asset Number window or if the Instantiate button is chosen within the Rebuildable Serial Number window. This profile option indicates the debug file name that resides in the debug file directory, if debugging is enabled for the Object Instantiation API. For example, If the profile option, EAM: Object Instantiation API Log Option, is set to Yes, the log of the activity process is saved in the directory determined by the path designated by the EAM: Object Instantiation API Log File Directory profile option. The name of the file that includes the activity process log is determined by the current profile option. This profile option is visible and updateable at the User level; it is visible and updateable at System Administrator's User, Responsibility, Application, and Site levels.

**EAM: Object Instantiation API Log Option**

The Object Instantiation API is called when a new asset number is created via the Asset Number window or if the Instantiate button is chosen within the Rebuildable Serial Number window. This profile option indicates whether debugging is enabled for the Activity API. This profile option is visible and updateable at the User level; it is visible and updateable at System Administrator's User, Responsibility, Application, and Site levels.

## Profile Options in Other Applications

Profiles that help the eAM integration with other Oracle Applications are listed below. If you are implementing other Oracle Applications, you will need to set up additional profile options as appropriate. Please refer to the applications' respective user's guides or implementation manuals for more details.

**Table 4–2 Profile Options Summary in Other Applications**

Profile Option	User	System Admin: USER	System Admin: RESP	System Admin: APP	System Admin: SITE	Required ?	Default
PO: Enable Direct Delivery To Shop Floor	View Update	View Update	View Update	View Update	View Update	N	-

### Profile Option Details

#### PO: Enable Direct Delivery To Shop Floor

This profile option is a prerequisite for an eAM User to create Purchase Requisitions for Direct Items via Oracle Purchasing and iProcurement. This profile option must be set to Yes if you need to create Purchase Requisitions using Oracle Purchasing and iProcurement applications.

#### See Also:

Personal Profile Values Window, *Oracle Applications User's Guide*

Overview of Setting User Profiles, *Oracle Applications System Administrator's Guide*

Common User Profile Options, *Oracle Applications User's Guide*

---

---

## Open Interfaces and APIs

This appendix details the integration tools used to integrate eAM with your existing non-Oracle systems. The following topics are covered:

- ❑ [eAM Interfaces and APIs](#) on page 5-2
- ❑ [eAM Item Open Interface](#) on page 5-2
- ❑ [eAM Asset Number Open Interface](#) on page 5-8
- ❑ [eAM Asset Genealogy Open Interface](#) on page 5-15
- ❑ [eAM Meter Reading Open Interface](#) on page 5-17
- ❑ [Meter Reading API](#) on page 5-21
- ❑ [Preventive Maintenance Definition API](#) on page 5-23
- ❑ [Activity Creation API](#) on page 5-28
- ❑ [Maintenance Object Instantiation API](#) on page 5-40
- ❑ [Work Order Business API](#) on page 5-41

## eAM Interfaces and APIs

Oracle Enterprise Asset Management provides a number of open interfaces and APIs, enabling you to link with non-Oracle applications, applications you build, and applications on other computers.

This section includes the following topics:

- [eAM Item Open Interface](#) on page 5-2
- [eAM Asset Number Open Interface](#) on page 5-8
- [eAM Asset Genealogy Open Interface](#) on page 5-15
- [eAM Meter Reading Open Interface](#) on page 5-17
- [Meter Reading API](#) on page 5-21
- [Preventive Maintenance Definition API](#) on page 5-23
- [Activity Creation API](#) on page 5-28
- [Maintenance Object Instantiation API](#) on page 5-40
- [Work Order Business API](#) on page 5-41

### eAM Item Open Interface

The eAM Item Open Interface enables you to import asset groups, asset activities, and rebuildable items into the eAM application in a batch process. You can create them as new items or update existing items (asset groups, asset activities, or rebuildable items). The Item Open Interface validates your data, insuring that your imported items contain the same item detail as items you enter manually in the Master Item window.

You can also import item category assignments. This can be done simultaneously with a process of importing items, or as a separate task of importing item category assignments only.

When importing items through the Item Open Interface, you create new items in your item master organization, update existing items, or assign existing items to additional organizations. You can specify values for all the item attributes, or you can specify just a few attributes and let the remainder default or remain null. The Item Open Interface also enables import revision details, including past and future revisions and effectivity dates. Validation of imported items is done using the same rules as the item definition windows, so you are insured of valid items. See:

[Overview of Engineering Prototype Environment](#), *Oracle Engineering User's Guide* and [Defining Items](#), *Oracle Inventory User's Guide*.

The Item Open Interface reads data from three tables for importing items and item details. Use the `MTL_SYSTEM_ITEMS_INTERFACE` table for new item numbers and all item attributes. This is the main item interface table, and may be the only table you choose to use. When importing revision details for new items, use the `MTL_ITEM_REVISIONS_INTERFACE` table. This table is used for revision information, and is not required. When importing item category assignments, use the `MTL_ITEM_CATEGORIES_INTERFACE` table to store data about item assignments to category sets, and categories to be imported into the Oracle Inventory `MTL_ITEM_CATEGORIES` table. A fourth table, `MTL_INTERFACE_ERRORS`, is used for error tracking of all items that the Item Interface fails.

Before using the Item Open Interface, you must write and run a custom program that extracts item information from your source system and inserts the records into the `MTL_SYSTEM_ITEMS_INTERFACE` table, and (if revision detail is included) the `MTL_ITEMS_REVISIONS_INTERFACE` table, as well as the `MTL_ITEM_CATEGORIES_INTERFACE` table. After you load item, revision, and item category assignment records into these interface tables, you run the Item Open Interface to import the data. The Item Open Interface assigns defaults, validates included data, and then imports the new items.

---

---

**Note:** You must import items into a master organization before you import items into additional organizations. You can accomplish this by specifying only your master organization on a first pass run of the Item Open Interface. Once this has completed, you can run the Item Open Interface again, this time specifying an additional or all organizations.

---

---

## Setting Up the Item Open Interface

1. Create Indexes for Performance. Create the following indexes to improve the Item Open Interface performance.

First, determine which segments are enabled for the System Items flexfield.

Then, for example, if you have a two-segment flexfield, with `SEGMENT8` and `SEGMENT12` enabled, you would do the following:

```
SQL> create unique index MTL_SYSTEM_ITEMS_B_UC1 on MTL_SYSTEM_ITEMS_B (ORGANIZATION_ID,
SEGMENT8, SEGMENT12);
SQL> create unique index MTL_SYSTEM_ITEMS_INTERFACE_UC1 on mtl_system_items_interface
(organization_id, segment8, segment12);
```

If you plan to populate the ITEM\_NUMBER column in mtl\_system\_items\_ interface instead of the item segment columns, do not create the MTL\_SYSTEM\_ITEMS\_INTERFACE\_UC1 unique index. Instead, create MTL\_SYSTEM\_ITEMS\_INTERFACE\_NC1 non-unique index on the same columns.

Create the following indexes for optimum performance:

#### MTL\_SYSTEM\_ITEMS\_B

- Non-Unique Index on organization\_id, segmentn
- You need at least one indexed, mandatory segment.

#### MTL\_SYSTEM\_ITEMS\_INTERFACE

- Non Unique Index on inventory\_item\_id, organization\_id
- Non Unique Index on Item\_number
- Unique Index on Transaction\_id

Unique Index on organization\_id, segmentn

---

---

**Note:** This Index will have to be recreated as Non Unique if you are populating organization\_code, instead of organization\_id. It should include the segment (s) having been enabled for the System Item Key Flexfield. You are enabled to use the created default index if you are using segment1.

---

---

#### MTL\_ITEM\_REVISIONS\_INTERFACE

- Non Unique Index on set\_process\_id
- Non Unique Index on Transaction\_id
- Non Unique Index on Organization\_id, Inventory\_item\_id, Revision

#### MTL\_ITEM\_CATEGORIES\_INTERFACE

- Non Unique Index no inventory\_item\_id, category\_id
- Non Unique Index on set\_process\_id

---

**Suggestion:** Populate `_id` fields whenever possible. Populating `inventory_item_id` instead of `segment (n)` for Update Mode will significantly improve performance. Populating `organization_id` instead of `organization_code` for both Create and Update modes, will also reduce processing time.

---

## 2. Start the Concurrent Manager.

Because the Item Open Interface process is launched and managed via the concurrent manager, you must ensure that the concurrent manager is running before you can import any items.

## 3. Set Profile Option Defaults.

Some columns use profile options as default values. You must set these profiles if you want them to default. See: [Inventory Profile Options](#), *Oracle Inventory User's Guide* and [Overview of Inventory Setup](#), *Oracle Inventory User's Guide*.

## Execution Steps

### 1. Populate the interface tables.

The item interface table `MTL_SYSTEM_ITEMS_INTERFACE` contains every column in the Oracle Inventory item master table, `MTL_SYSTEM_ITEMS`. The columns in the item interface correspond directly to those in the item master table. Except for `ITEM_NUMBER` or `SEGMENTn` columns, `ORGANIZATION_CODE` or `ORGANIZATION_ID`, `DESCRIPTION`, `PROCESS_FLAG`, and `TRANSACTION_TYPE`, all of these columns are optional, either because they have defaults that can be derived, or because the corresponding attributes are optional and may be left null.

You may put in details about other interface tables not used by the Item Open Interface.

Currently, the interface does not support the `MTL_CROSS_REFERENCE_INTERFACE` or `MTL_SECONDARY_LOCS_INTERFACE`.

The `MTL_ITEM_CATEGORIES_INTERFACE` is used by the Item Open Interface for both internal processing of default category assignments, *and* to retrieve data populated by the user to be imported into the Oracle Inventory `MTL_ITEM_CATEGORIES` table.

**Table 5–1 MTL\_SYSTEM\_ITEMS\_INTERFACE**

Column Names (partial list of columns)	Instruction
<b>PROCESS_FLAG</b>	Enter 1 for pending data to be imported.  After running the import process, the PROCESS_FLAG of the corresponding rows will be set to different values, indicating the results of the import (1 = Pending, 2 = Assign complete, 3 = Assign/validation failed, 4 = Validation succeeded; import failed, 5 = Import in process, 6 = Import succeeded)
<b>TRANSACTION_TYPE</b>	Enter CREATE to create a new item, or UPDATE to update existing items.
<b>SET_PROCESS_ID</b>	Enter an arbitrary number. Rows designated with the same value for SET_PROCESS_ID will process together.
<b>ORGANIZATION_CODE</b>	Enter the organization that the new item will import into.
<b>SEGMENT1~20</b>	Corresponds to the item name (for example, the name of the Asset Group, Asset Activity, or Rebuildable Item)
<b>DESCRIPTION</b>	Enter the description of the item.
<b>EAM_ITEM_TYPE</b>	Enter 1 for Asset Group, 2 for Asset Activity, or 3 for Rebuildable Item.
<b>INVENTORY_ITEM_FLAG</b>	Enter Y for eAM items.
<b>MTL_TRANSACTIONS_ENABLED_FLAG</b>	Enter N for eAM items.
<b>EFFECTIVITY_CONTROL</b>	Enter 2 for Unit Effectivity Control for eAM Asset Groups.
<b>SERIAL_NUMBER_CONTROL_CODE</b>	Enter 2 (Predefined) for Asset Groups; this should be NULL for Asset Activities.
<b>AUTO_SERIAL_ALPHA_PREFIX</b>	Serial Number Prefix
<b>START_AUTO_SERIAL_NUMBER</b>	Start Serial Number

---

**Note:** For information about columns not discussed, see Table and View Definitions, *Oracle Inventory Technical Reference Manual*.

---

2. Launch the Item Import process.

a. Navigate to the **Import Items** window.

Choose an organization if you have not specified one already. You must import items into the master organization before importing them to additional children organization.

b. Enter parameters:

**Table 5–2 Report Parameters**

Parameter	Description
<b>All Organizations</b>	<p>Select Yes to run the interface for all organization codes within the item interface table.</p> <p>Select No to run the interface for only interface rows within the current organization.</p>
<b>Validate Items</b>	<p>Select Yes to validate all items, and their information residing in the interface table, that have not yet been validated. If items are not validated, they will not be imported into eAM.</p> <p>Select No to not validate items within the interface table. Use this option if you have previously run the Item Open interface and responded Yes in the Validate Items parameter, and No in the Process Items parameter, and now need to process your items.</p>
<b>Process Items</b>	<p>Select Yes to import all qualifying items in the interface table into eAM.</p> <p>Select No to not import items into eAM. Use this option, along with Yes in the Delete Processed Rows parameter, to remove successfully processed rows from the interface table, without performing any other processing. You can also use this option, with Yes in the Validate Items parameter, to validate items without any processing.</p>
<b>Delete Processed Rows</b>	<p>Select Yes to delete successfully processed rows from the item interface tables.</p> <p>Select No to leave all rows in the item interface tables.</p>
<b>Process Set</b>	<p>Enter a set id number for the set of rows in the interface table to process. The interface process will process rows having that id in the SET_PROCESS_ID column. If you leave this parameter blank, all rows are picked up for processing, regardless of the SET_PROCESS_ID column value.</p>

**Table 5–2 Report Parameters**

Parameter	Description
<b>Create or Update Items</b>	Select 1 to create new items. Select 2 to update existing items. You can create or update items via separate executions of the Import Items process.

- c. Choose OK.
- d. Choose Submit to launch the Asset Number Import process. You can view its progress by choosing View from the tool bar, and then selecting Requests.

**See Also:**

Oracle Manufacturing APIs and Open Interfaces Manual, Release 11i

[Defining Maintained Groups](#) on page 3-49

[Defining Activities](#) on page 3-51

[Defining Rebuildable Items](#) on page 3-105

## eAM Asset Number Open Interface

The eAM Asset Number Open Interface enables you to import maintained numbers into eAM, using a batch process. You can optionally import maintained number attributes. You can create new maintained numbers and attributes, or update existing maintained numbers and attributes.

### Execution Steps

1. Populate the interface tables with the import information.

The two item interface tables to be populated are MTL\_EAM\_ASSET\_NUM\_INTERFACE (MEANI), and the MTL\_EAM\_ATTR\_VAL\_INTERFACE (MEAVI). The MTL\_EAM\_ASSET\_NUM\_INTERFACE table stores relevant maintained number information. If the asset's attributes are also imported; that information is stored in the MTL\_EAM\_ATTR\_VAL\_INTERFACE.

**Table 5–3 MTL\_EAM\_ASSET\_NUM\_INTERFACE (MEANI)**

Column Name (partial list of columns)	Instruction
<b>BATCH_ID</b>	Enter an arbitrary number. Rows designated with the same BATCH_ID will process together.
<b>PROCESS_FLAG</b>	Enter a P for pending. This value will change to S if the import is successful, or E if the row contains an error.
<b>IMPORT_MODE</b>	Enter 0 to create new rows (asset numbers), or 1 to update existing rows.
<b>IMPORT_SCOPE</b>	Enter 0 to import both Asset Numbers and Attributes, 1 to import Asset Numbers only, or 2 to import Attributes only.
<b>INVENTORY_ITEM_ID</b>	Enter the Asset Group to associate with the imported Asset Number(s).
<b>SERIAL_NUMBER</b>	Enter the name of the Asset Number.
<b>ORGANIZATION_CODE</b>	Enter the current organization.
<b>OWNING_DEPARTMENT_CODE</b>	Enter the Owing Department of the asset number(s).
<b>ERROR_CODE</b>	This column will update by the Import process if an error occurs.
<b>ERROR_MESSAGE</b>	This column will update by the Import process if an error occurs.
<b>INTERFACE_HEADER_ID</b>	This is used with the identically named column in the MEAVI table, to relate the Attributes associated with an Asset Number.

**Table 5–4 MTL\_EAM\_ATTR\_VAL\_INTERFACE (MEAVI)**

Column Name (partial list of columns)	Instruction
<b>PROCESS_STATUS</b>	Enter P (Pending). This value will change to S if the import is successful, or E if the row contains an error.
<b>INTERFACE_HEADER_ID</b>	Foreign key of the identically named column in the MEANI table to relate to the Asset Number an Attribute is associated with.
<b>INTERFACE_LINE_ID</b>	A unique key
<b>END_USER_COLUMN_NAME</b>	Corresponds with the Attribute Name

**Table 5–4 MTL\_EAM\_ATTR\_VAL\_INTERFACE (MEAVI)**

Column Name (partial list of columns)	Instruction
ATTRIBUTE_CATEGORY	Corresponds with the Attribute Group
LINE_TYPE	Enter 1 if the Attribute is of type VARCHAR2, 2 if it is of type NUMBER, or 3 if it is of type DATE.
ATTRIBUTE_VARCHAR2_VALUE	Value of the Attribute; used with LINE_TYPE = 1
ATTRIBUTE_NUMBER_VALUE	Value of the Attribute; used with LINE_TYPE = 2
ATTRIBUTE_DATE_VALUE	Value of the Attribute; used with LINE_TYPE = 3
ERROR_NUMBER	This column will update by the Import process if an error occurs.
ERROR_MESSAGE	This column will update by the Import process if an error occurs.

---



---

**Note:** For information about columns not discussed, see Table and View Definitions, *Oracle Enterprise Asset Management Technical Reference Manual*.

---



---

2. Launch the Asset Number Import process to import interface information into the MTL\_SERIAL\_NUMBERS production table.
  - a. Navigate to the [Asset Number Import](#) window.

Choose an organization if you have not specified one already. You have to import maintained numbers into the master organization before importing them into additional children organizations.
  - b. Enter parameters:

**Table 5–5 Report Parameters**

Parameter	Description
Batch ID	This is the same value that is populated in the BATCH_ID column within the MEANI table.

**Table 5–5 Report Parameters**

Parameter	Description
Purge Option	Select Yes to delete rows in the interface tables after they have successfully imported into the production tables.  Select No to keep all rows in the interface tables after they have successfully imported into the production tables. Any failed rows with error messages will not delete.

- c. Choose OK.
- d. Choose Submit to launch the Asset Number Import process. You can view its progress by choosing View from the tool bar, and then selecting Requests.

### Create and Update Asset Number API

The MTL\_EAM\_ASSET\_NUMBER\_PUB public API is used to create and update maintained numbers in the MTL\_SERIAL\_NUMBERS table, and is called from the Asset Number Open Interface process.

**Table 5–6 MTL\_EAM\_ASSET\_NUMBER\_PUB**

Column Name	Type	Required	Optional	Default
P_API_VERSION	Number	Yes	-	-
P_INIT_MSG_LIST	Varchar2	-	Yes	FND_API.G_FALSE
P_COMMIT	Varchar2	-	Yes	FND_API.G_FALSE
P_VALIDATION_LEVEL	Number	-	Yes	FND_API.G_VALID_LEVEL_FULL
P_INVENTORY_ITEM_ID	Number	-	-	-
P_SERIAL_NUMBER	Varchar2(30)	-	-	-
P_INITIALIZATION_DATE	Date	-	-	-
P_DESCRIPTIVE_TEXT	Varchar2(240)	-	-	-
P_CURRENT_ORGANIZATION_ID	Number	-	-	-
P_ATTRIBUTE_CATEGORY	Varchar2(30)	-	-	-

**Table 5-6 MTL\_EAM\_ASSET\_NUMBER\_PUB**

Column Name	Type	Required	Optional	Default
P_ATTRIBUTE1~15	Varchar2(150)	-	-	-
P_GEN_OBJECT_ID	Number	-	-	-
P_CATEGORY_ID	Number	-	-	-
P_WIP_ACCOUNTING_ CLASS_CODE	Varchar2(10)	-	-	-
P_MAINTAINABLE_FLAG	Varchar2(1)	-	-	-
P_OWNING_ DEPARTMENT_ID	Number	-	-	-
P_DEPENDENT_ASSET_ FLAG	Varchar2(1)	-	-	-
P_NETWORK_ASSET_ FLAG	Varchar2(1)	-	-	-
P_FA_ASSET_ID	Number	-	-	-
P_PN_LOCATION_ID	Number	-	-	-
P_EAM_LOCATION_ID	Number	-	-	-
P_ASSET_STATUS_CODE	Varchar2(30)	-	-	-
P_ASSET_CRITICALITY_ CODE	Varchar2(30)	-	-	-
P_LAST_UPDATE_DATE	Date	Yes	-	-
P_LAST_UPDATED_BY	Number	Yes	-	-
P_CREATION_DATE	Date	Yes	-	-
P_CREATED_BY	Number	Yes	-	-
P_LAST_UPDATE_LOGIN	Number	Yes	-	-
P_REQUEST_ID	Number	-	Yes	-
P_PROGRAM_ APPLICATION_ID	Number	-	Yes	-
P_PROGRAM_ID	Number	-	Yes	-
P_PROGRAM_UPDATE_ DATE	Date	-	Yes	-

## Create and Update Extensible Asset Attribute Values API

The MTL\_EAM\_ASSET\_ATTR\_VALUES\_PUB public API is used to create and update asset extensible attribute values, and is called from the Asset Extensible Attributes Open Interface process. This interface process is used when the IMPORT\_SCOPE column is set to 0 or 2 within the MTL\_EAM\_ASSET\_NUM\_INTERFACE table.

**Table 5-7 MTL\_EAM\_ASSET\_ATTR\_VALUES\_PUB**

Column Name	Type	Required	Optional	Default
P_API_VERSION	Number	Yes	-	-
P_INIT_MSG_LIST	Varchar2	-	Yes	FND_API.G_FALSE
P_COMMIT	Varchar2	-	Yes	FND_API.G_FALSE
P_VALIDATION_LEVEL	Number	-	Yes	FND_API.G_VALID_LEVEL_FULL
P_ATTRIBUTE_CATEGORY	Varchar2(30)	-	-	-
P_C_ATTRIBUTE1~20	Varchar2(150)	-	-	-
P_N_ATTRIBUTE1~10	Number	-	-	-
P_D_ATTRIBUTE1~10	Date	-	-	-
P_LAST_UPDATE_DATE	Date	Yes	-	-
P_LAST_UPDATED_BY	Number	Yes	-	-
P_CREATION_DATE	Date	Yes	-	-
P_CREATED_BY	Number	Yes	-	-
P_LAST_UPDATE_LOGIN	Number	Yes	-	-
P_REQUEST_ID	Number	-	Yes	-
P_PROGRAM_APPLICATION_ID	Number	-	Yes	-
P_PROGRAM_ID	Number	-	Yes	-
P_PROGRAM_UPDATE_DATE	Date	-	Yes	-

## Create and Update Asset Genealogy and Hierarchy API

The INV\_GENEALOGY\_PUB public API is used to create and update asset genealogy and hierarchy information in the MTL\_OBJECT\_GENEALOGY table, and is called from the Asset Number Open Interface process.

**Table 5–8 INV\_GENEALOGY\_PUB**

Column Name	Type	Required	Default
P_API_VERSION	Number	Yes	-
P_INIT_MSG_LIST	Varchar2	-	FND_API.G_FALSE
P_COMMIT	Varchar2	-	FND_API.G_FALSE
P_VALIDATION_LEVEL	Number	-	FND_API.G_VALID_LEVEL_FULL
P_OBJECT_TYPE	Number	Yes	-
P_PARENT_OBJECT_TYPE	Number	-	-
P_OBJECT_ID	Number	-	-
P_OBJECT_NUMBER	Varchar2	-	-
P_INVENTORY_ITEM_ID	Number	-	-
P_ORG_ID	Number	-	-
P_PARENT_OBJECT_ID	Number	-	-
P_PARENT_OBJECT_NUMBER	Varchar2	-	-
P_PARENT_INVENTORY_ITEM_ID	Number	-	-
P_PARENT_ORG_ID	Number	-	-
P_GENEALOGY_ORIGIN	Number	-	-
P_GENEALOGY_TYPE	Number	-	-
P_START_DATE_ACTIVE	Date	-	-
P_END_DATE_ACTIVE	Date	-	-
P_ORIGIN_TXN_ID	Number	-	-
P_UPDATE_TXN_ID	Number	-	-

**Table 5–8 INV\_GENEALOGY\_PUB**

Column Name	Type	Required	Default
P_LAST_UPDATE_DATE	Date	Yes	-
P_LAST_UPDATED_BY	Number	Yes	-
P_CREATION_DATE	Date	Yes	-
P_CREATED_BY	Number	Yes	-
P_LAST_UPDATE_LOGIN	Number	Yes	-
P_REQUEST_ID	Number	-	-
P_PROGRAM_APPLICATION_ID	Number	-	-
P_PROGRAM_ID	Number	-	-
P_PROGRAM_UPDATE_DATE	Date	-	-

**See Also:**

[Defining Asset Numbers \(Maintained Numbers\)](#) on page 3-69

## eAM Asset Genealogy Open Interface

The eAM Asset Genealogy Open Interface enables you to import asset genealogy (configuration history) into eAM, using a batch process. You can create new parent/child relationships, or update existing relationships.

### Execution Steps

1. Populate the interface tables with the import information.

The Asset Genealogy Import process reads information within the MTL\_OBJECT\_GENEALOGY\_INTERFACE (MOGI) table, then imports that information into the production tables.

**Table 5–9 MTL\_OBJECT\_GENEALOGY\_INTERFACE (MOGI)**

Column Name (partial list of columns)	Instruction
BATCH_ID	Enter an arbitrary number. Rows designated with the same BATCH_ID will process together.

**Table 5–9 MTL\_OBJECT\_GENEALOGY\_INTERFACE (MOGI)**

Column Name (partial list of columns)	Instruction
PROCESS_STATUS	Enter P (Pending). This value will change to S if the import is successful, or E if the row contains an error.
INTERFACE_HEADER_ID	Unique key
IMPORT_MODE	Enter 0 to create new rows (configuration histories), or 1 to update existing rows.
OBJECT_TYPE	Enter 2 for eAM.
PARENT_OBJECT_TYPE	Enter 2 for eAM.
GENEALOGY_ORIGIN	Enter 3 (Manual) for eAM.
GENEALOGY_TYPE	Enter 5 for eAM.
INVENTORY_ITEM_ID	Corresponds to Asset Group
SERIAL_NUMBER	Corresponds to Asset Number
PARENT_INVENTORY_ITEM_ID	Corresponds to Parent Asset Group
PARENT_SERIAL_NUMBER	Corresponds to Parent Asset Number
START_DATE_ACTIVE	Enter the Parent/Child relationship start date.
END_DATE_ACTIVE	Enter the Parent/Child relationship end date.
ERROR_CODE	This column will update by the Import process if an error occurs.
ERROR_MESSAGE	This column will update by the Import process if an error occurs.

---

**Note:** For information about columns not discussed, see Table and View Definitions, *Oracle Enterprise Asset Management Technical Reference Manual*.

---

2. Launch the Asset Genealogy Import process.
  - a. Navigate to the [Asset Genealogy Import](#) window.

Choose an organization if you have not specified one already. You have to import asset genealogies into the master organization before importing them into additional children organizations.

- b. Enter parameters:

**Table 5–10 Report Parameters**

Parameter	Description
Batch ID	This is the same value that is populated in the BATCH_ID column within the MOGI table.
Purge Option	Select Yes to delete rows in the interface tables after they have successfully imported into the production tables.  Select No to keep all rows in the interface tables after they have successfully imported into the production tables. Any failed rows with error messages will not delete.

- c. Choose OK.
- d. Choose Submit to launch the Asset Genealogy Import process. You can view its progress by choosing View from the tool bar, and then selecting Requests.

**See Also:**

[Viewing and Updating the Configuration History](#), *Oracle Enterprise Asset Management User's Guide*

[Displaying the Asset Hierarchy](#), *Oracle Enterprise Asset Management User's Guide*

## eAM Meter Reading Open Interface

Import Meter Reading is an interface process used to import meter readings into eAM.

### Execution Steps

1. Populate the interface table with the import information.

The Meter Reading Import process reads information within the EAM\_METER\_READING\_INTERFACE table, then imports that information into the eAM production table.

**Table 5–11 EAM\_METER\_READING\_INTERFACE**

<b>Column Name (partial list of columns)</b>	<b>Instruction</b>
<b>GROUP_ID</b>	Enter an arbitrary number. Rows designated with the same GROUP_ID will process together.
<b>PROCESS_STATUS</b>	Enter P (Pending). This value will change to S if the import is successful, or E if the row contains an error.
<b>PROCESS_PHASE</b>	Enter 2 for rows to be processed.
<b>METER_ID</b>	Unique key
<b>METER_NAME</b>	Enter the name of the meter to process. This is not mandatory if you entered a METER_ID.
<b>RESET_FLAG</b>	Enter Yes to reset the meter reading. If there is an already existing meter reading for the given meter that occurs after this reset reading, the processor will error. Enter No to not reset the meter reading.
<b>LIFE_TO_DATE</b>	Enter a value for LIFE_TO_DATE or a value in the READING_VALUE column. If both columns are populated, then the READING_VALUE value is used to enter a reading, and the LIFE_TO_DATE_READING value is calculated from this current reading.
<b>ORGANIZATION_ID</b>	If you enter an organization ID, the organization provided must be enabled for eAM.
<b>ORGANIZATION_CODE</b>	If you enter an organization code, the organization provided must be enabled for eAM.
<b>READING_DATE</b>	Date the reading is entered
<b>READING_VALUE</b>	Reading value at the reading date
<b>WIP_ENTITY_ID</b>	Enter the work order id that the reading is associated with. If the column is populated, then the ORGANIZATION_ID or ORGANIZATION_CODE columns are mandatory.
<b>WORK_ORDER_NAME</b>	Enter the work order name that the reading is associated with. If this column is populated, then the ORGANIZATION_ID or ORGANIZATION_CODE columns are mandatory.
<b>DESCRIPTION</b>	Description of meter reading
<b>ERROR_CODE</b>	This column will update by the Import process if an error occurs.

**Table 5–11 EAM\_METER\_READING\_INTERFACE**

Column Name (partial list of columns)	Instruction
ERROR_MESSAGE	This column will update by the Import process if an error occurs.

**Note:** For information about columns not discussed, see Table and View Definitions, *Oracle Enterprise Asset Management Technical Reference Manual*.

2. Launch the Meter Reading Import process.
  - a. Navigate to the [Import Jobs and Schedules](#) window.
 

Choose an organization if you have not specified one already. You must import work orders into the master organization before importing them into additional children organizations.
  - b. Enter parameters:

**Table 5–12 Report Parameters**

Parameter	Description
Group ID	Corresponds to the GROUP_ID in the EAM_METER_READING_INTERFACE table. The import process will only process those meter readings that have a GROUP_ID in the interface table matching the value entered in this parameter.

- c. Choose OK.
- d. Choose Submit to launch the Meter Reading Import process. You can view its progress by choosing View from the tool bar, and then selecting Requests.

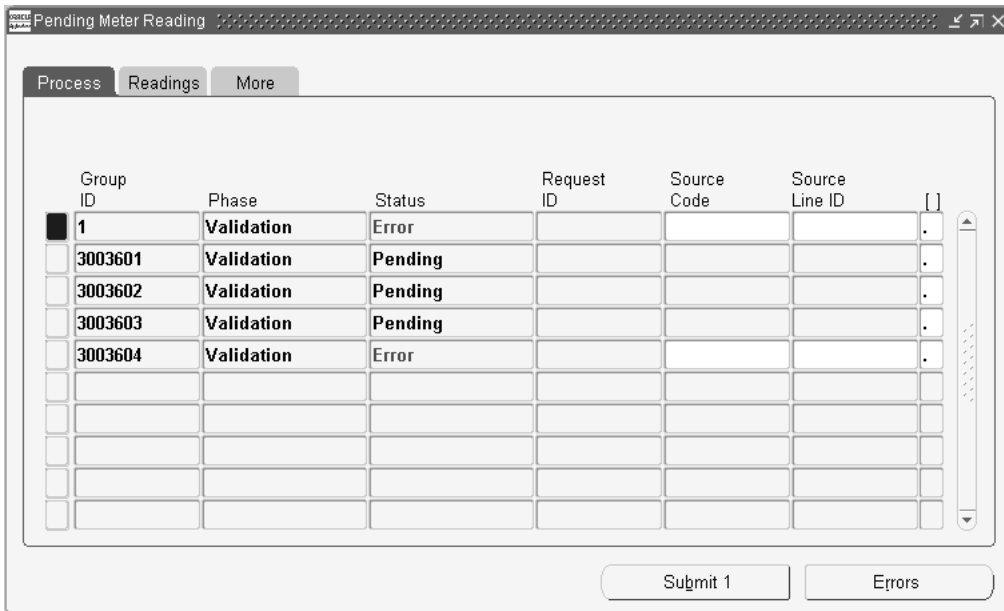
### To view pending meter readings:

You can display the rows within the interface table that failed to import into eAM.

1. Navigate to the [Find Meter Readings](#) window. This window enables you to query rows using search criteria, such as Group ID, Reading Date, or Organization code, to narrow your search.

- Choose Find. The rows that display failed to import into eAM.

**Figure 5–1 Pending Meter Reading Window**



- Optionally, select the Process tab to display general information about the errored meter readings.
- Optionally, select the Readings tab to display meter reading information, such as meter name, reading date, and reading value.
- Optionally, select the More tab to display information about the meter reading, such as Organization, Work order, Description, and Created By.
- Optionally, select Errors to view additional detailed information regarding the type and cause of the failure.
- Optionally, choose Submit1 to import work orders, again, after correcting errors.

**See Also:**

[Entering Meter Readings](#), *Oracle Enterprise Asset Management User's Guide*

## Meter Reading API

Package Name: EAM\_MeterReading\_PUB

Procedure Name: create\_meter\_reading

The create\_meter\_reading API is used to create new meter readings and reset existing meter readings. The table below provides the specifications for this API:

**Table 5–13 create\_meter\_reading Specifications**

Parameter	Type	Required	Default	Description
p_api_version	NUMBER	Yes	-	Standard Oracle API parameter
p_init_msg_list	VARCHAR2	-	FND_API.G_FALSE	Standard Oracle API parameter
p_commit	VARCHAR2	-	FND_API.G_FALSE	Standard Oracle API parameter
x_msg_count	NUMBER	-	FND_API.G_VALID_LEVEL_FULL	Standard Oracle API parameter
x_msg_data	VARCHAR2	-	-	Standard Oracle API output parameter
x_return_status	VARCHAR2	-	-	Standard Oracle API output parameter
p_meter_reading_rec	Eam_MeterReading_PUB.meter_reading_Rec_Type	Yes	-	The record includes details of the meter reading.
p_value_before_reset	NUMBER	-	NULL	Value of the meter reading before reset. Required only when the reading is a reset.
x_meter_reading_id	NUMBER	-	-	The meter_reading_id of the newly created record.

**Table 5–14 meter\_reading\_rec\_type**

Column Name	Type	Default
meter_id	NUMBER	NULL
meter_reading_id	NUMBER	NULL
current_reading	NUMBER	NULL

**Table 5–14** *meter\_reading\_rec\_type*

<b>Column Name</b>	<b>Type</b>	<b>Default</b>
current_reading_date	DATE	NULL
reset_flag	VARCHAR2(1)	NULL
description	VARCHAR2(100)	NULL
wip_entity_id	NUMBER	NULL
attribute_category	VARCHAR2(30)	NULL
attribute1	VARCHAR2(150)	NULL
attribute2	VARCHAR2(150)	NULL
attribute3	VARCHAR2(150)	NULL
attribute4	VARCHAR2(150)	NULL
attribute5	VARCHAR2(150)	NULL
attribute6	VARCHAR2(150)	NULL
attribute7	VARCHAR2(150)	NULL
attribute8	VARCHAR2(150)	NULL
attribute9	VARCHAR2(150)	NULL
attribute10	VARCHAR2(150)	NULL
attribute11	VARCHAR2(150)	NULL
attribute12	VARCHAR2(150)	NULL
attribute13	VARCHAR2(150)	NULL
attribute14	VARCHAR2(150)	NULL
attribute15	VARCHAR2(150)	NULL
source_line_id	NUMBER	NULL
source_code	VARCHAR2(30)	NULL
wo_entry_fake_flag	VARCHAR2(1)	NULL

**Package Name:** EAM\_MeterReading\_PUB

**Procedure Name:** disable\_meter\_reading

The `disable_meter_reading` API is used to disable existing meter readings. You need to supply either a meter reading ID or a meter reading date, to identify the specific reading. The table below provides the specifications for this API:

**Table 5–15** *disable\_meter\_reading Specifications*

Parameter	Type	Required	Default	Description
P_API_VERSION	NUMBER	Yes	-	Standard Oracle API parameter
P_INIT_MSG_LIST	VARCHAR2	-	FND_API.G_FALSE	Standard Oracle API parameter
P_COMMIT	VARCHAR2	-	FND_API.G_FALSE	Standard Oracle API parameter
P_VALIDATION_LEVEL	NUMBER	-	FND_API.G_VALID_LEVEL_FULL	Standard Oracle API parameter
X_RETURN_STATUS	VARCHAR2	-	-	Standard Oracle API output parameter
X_MSG_COUNT	NUMBER	-	-	Standard Oracle API output parameter
X_MSG_DATA	VARCHAR2	-	-	Standard Oracle API output parameter
p_meter_reading_id	NUMBER	-	NULL	The meter_reading_id of the meter reading to be disabled.
p_meter_id	NUMBER	-	NULL	The meter_id of the meter.
p_meter_reading_date	DATE	-	NULL	Meter reading date
p_meter_name	VARCHAR2	-	NULL	Meter name

## Preventive Maintenance Definition API

The Preventive Maintenance Definition API can be used to create new Preventive Maintenance Schedules or Preventive Maintenance Schedule Templates. Preventive Maintenance schedule header and rules are specified, and new Preventive Maintenance schedules or templates are validated and then generated.

**Package Name:** EAM\_PMDEF\_PUB

**Procedure Name:** CREATE\_PM\_DEF

The `create_pm_def` API is used to create a new Preventive Maintenance definition. The table below provides the specifications for this API:

**Table 5–16** *create\_PM\_def Specifications*

Parameter	Type	Required	Default	Description
p_api_version	NUMBER	Yes	-	Standard Oracle API parameter
p_init_msg_list	VARCHAR2	-	FND_API.G_FALSE	Standard Oracle API parameter
p_commit	VARCHAR2	-	FND_API.G_FALSE	Standard Oracle API parameter
x_msg_count	NUMBER	-	-	Standard Oracle API parameter
x_msg_data	VARCHAR2	-	-	Standard Oracle API output parameter
x_return_status	VARCHAR2	-	-	Standard Oracle API output parameter
p_pm_schedule_rec	pm_scheduling_rec_type	Yes	-	This record contains all information within the PM header.
p_pm_day_interval_rules_tbl	pm_rule_tbl_type	Yes	-	A table of day interval rule records. If no day interval rules are defined for this PM definition, pass in an empty table of type, pm_rule_tbl_type.
p_pm_runtime_rules_tbl	pm_rule_tbl_type	Yes	-	A table of runtime rule records. If no runtime rules are defined for this PM definition, pass in an empty table of type, pm_rule_tbl_type.
p_pm_list_date_rules_tbl	pm_rule_tbl_type	Yes	-	A table of list date records. If no list date rules are defined for this PM definition, pass in an empty table of type, pm_rule_tbl_type.
x_new_pm_schedule_id	NUMBER	-	-	The pm_schedule_id of the newly created PM definition.

**Package Name:** EAM\_PMDEF\_PUB

**Procedure Name:** UPDATE\_PM\_DEF

The update\_pm\_def API is used to update an existing PM definition. The table below provides the specifications for this API:

**Table 5–17** *update\_PM\_def Specifications*

Parameter	Type	Required	Default	Description
p_api_version	NUMBER	Yes	-	Standard Oracle API parameter
p_init_msg_list	VARCHAR2	-	FND_API.G_FALSE	Standard Oracle API parameter
p_commit	VARCHAR2	-	FND_API.G_FALSE	Standard Oracle API parameter
x_msg_count	NUMBER	-	-	Standard Oracle API parameter
x_msg_data	VARCHAR2	-	-	Standard Oracle API output parameter
x_return_status	VARCHAR2	-	-	Standard Oracle API output parameter
p_pm_schedule_id	NUMBER	-	-	The pm_schedule_id of the PM definition to be updated.
p_pm_schedule_rec	pm_scheduling_rec_type	-	NULL	This record contains all information within the PM header.
p_pm_day_interval_rules_tbl	pm_rule_tbl_type	Yes	-	A table of day interval rule records.
p_pm_runtime_rules_tbl	pm_rule_tbl_type	Yes	-	A table of runtime rule records.
p_pm_list_date_rules_tbl	pm_rule_tbl_type	Yes	-	A table of list date records.

**Table 5–18** *pm\_scheduling\_rec\_type*

Column Name	Type	Default
pm_schedule_id	NUMBER	NULL
non_schedule_flag	VARCHAR2(1)	NULL
from_effective_date	DATE	NULL
to_effective_date	DATE	NULL
rescheduling_point	NUMBER	NULL
lead_time	NUMBER	NULL
attribute_category	VARCHAR2(30)	NULL
attribute1	VARCHAR2(150)	NULL

**Table 5–18** *pm\_scheduling\_rec\_type*

<b>Column Name</b>	<b>Type</b>	<b>Default</b>
attribute2	VARCHAR2(150)	NULL
attribute3	VARCHAR2(150)	NULL
attribute4	VARCHAR2(150)	NULL
attribute5	VARCHAR2(150)	NULL
attribute6	VARCHAR2(150)	NULL
attribute7	VARCHAR2(150)	NULL
attribute8	VARCHAR2(150)	NULL
attribute9	VARCHAR2(150)	NULL
attribute10	VARCHAR2(150)	NULL
attribute11	VARCHAR2(150)	NULL
attribute12	VARCHAR2(150)	NULL
attribute13	VARCHAR2(150)	NULL
attribute14	VARCHAR2(150)	NULL
attribute15	VARCHAR2(150)	NULL
day_tolerance	NUMBER	NULL
source_code	VARCHAR2(30)	NULL
source_line	VARCHAR2(30)	NULL
default_implement	VARCHAR2(1)	NULL
whichever_first	VARCHAR2(1)	NULL
include_manual	VARCHAR2(1)	NULL
set_name_id	NUMBER	NULL
scheduling_method_code	NUMBER	NULL
type_code	NUMBER	NULL
next_service_start_date	DATE	NULL
next_service_end_date	DATE	NULL
source_tmpl_id	NUMBER	NULL
auto_instantiation_flag	VARCHAR2(1)	NULL

**Table 5–18** *pm\_scheduling\_rec\_type*

Column Name	Type	Default
name	VARCHAR2(50)	NULL
tmpl_flag	VARCHAR2(1)	NULL

**Table 5–19** *pm\_rule\_rec\_type*

Column Name	Type	Default
rule_id	NUMBER	NULL
rule_type	NUMBER	NULL
day_interval	NUMBER	NULL
meter_id	NUMBER	NULL
runtime_interval	NUMBER	NULL
last_service_reading	NUMBER	NULL
effective_reading_from	NUMBER	NULL
effective_reading_to	NUMBER	NULL
effective_date_from	DATE	NULL
effective_date_to	DATE	NULL
list_date	DATE	NULL
list_date_desc	VARCHAR2(50)	NULL

TYPE pm\_rule\_tbl\_type IS TABLE OF pm\_rule\_rec\_type  
INDEX BY BINARY\_INTEGER

**Table 5–20** *pm\_num\_rec\_type*

Column Name	Type	Default
index1	NUMBER	NULL
num1	NUMBER	NULL
other	NUMBER	NULL

TYPE pm\_num\_tbl\_type IS TABLE OF pm\_num\_rec\_type

## INDEX BY BINARY\_INTEGER

**Activity Creation API****Package Name:** EAM\_ACTIVITY\_PUB**Procedure Name:** CREATE\_ACTIVITY

The Activity Creation API is used to create eAM Activities. You can specify the source Work Order that the API uses as a model for the new Activities. Optionally, you can provide an Item Template to define the attributes of the Activity. You can specify various Activity properties, such as Activity Type, Cause, Shutdown Notification, and Source. Various copy options controlling the copy of Operations, Material, Resources, and Activity Association are supported.

---



---

**Note:** Items (Asset Groups, Activities, Rebuildables) can be created using the Item Creation Business Object API (See: Item Creation Business Object API, *Oracle Manufacturing APIs and Open Interfaces Manual*). Asset BOMs and Asset Activities can be created using the BOM Business Object API (See: BOM Business Object API, *Oracle Manufacturing APIs and Open Interfaces Manual*).

---



---

The table below provides the specifications for this API:

**Table 5–21 Activity Creation API Specifications**

Parameter	Type	Required	Default	Description
P_API_VERSION	NUMBER	Yes	-	Standard Oracle API parameter
P_INIT_MSG_LIST	VARCHAR2	-	FND_API.G_FALSE	Standard Oracle API parameter
P_COMMIT	VARCHAR2	-	FND_API.G_FALSE	Standard Oracle API parameter
P_VALIDATION_LEVEL	NUMBER	-	FND_API.G_VALID_LEVEL_FULL	Standard Oracle API parameter
X_RETURN_STATUS	VARCHAR2	-	-	Standard Oracle API output parameter
X_MSG_COUNT	NUMBER	-	-	Standard Oracle API output parameter

**Table 5–21 Activity Creation API Specifications**

Parameter	Type	Required	Default	Description
X_MSG_DATA	VARCHAR2	-	-	Standard Oracle API output parameter
P_ASSET_ACTIVITY	INV_ITEM_ GRPITEM_ REC_TYPE	Yes	-	Item Record to define the attributes of the Activity
P_TEMPLATE_ID	NUMBER	-	NULL	Template Id (If Template Name is specified, Template Id will override Template Name)
P_TEMPLATE_NAME	VARCHAR2	-	NULL	Template Name
P_ACTIVITY_TYPE_CODE	VARCHAR2	-	NULL	Activity Type
P_ACTIVITY_CAUSE_CODE	VARCHAR2	-	NULL	Activity Cause
P_SHUTDOWN_TYPE_CODE	VARCHAR2	-	NULL	Shutdown Type
P_NOTIFICATION_REQ_FLAG	VARCHAR2	-	NULL	Notification Required Flag: Y (enabled), N (disabled)
_ACTIVITY_SOURCE_CODE	VARCHAR2	-	NULL	Activity Source
P_WORK_ORDER_REC	EAM_ ACTIVITY_ PUB.WORK_ ORDER_REC_ TYPE	Yes	-	Specifies the source Work Order the new Activity is to be created from
P_OPERATION_COPY_OPTION	NUMBER	-	2	Operation Copy Option: 1 (NONE), 2 (ALL)
P_MATERIAL_COPY_OPTION	NUMBER	-	2	Material Copy Option: 1 (NONE), 2 (ISSUED), 3 (ALL)
P_RESOURCE_COPY_OPTION	NUMBER	-	2	Resource Copy Option: 1 (NONE), 2 (ISSUED), 3 (ALL)
P_ASSOCIATION_COPY_OPTION	NUMBER	-	2	Association Copy Option: 1 (NONE), 2 (CURRENT), 3 (ALL)

**Table 5–21 Activity Creation API Specifications**

Parameter	Type	Required	Default	Description
X_WORK_ORDER_REC	EAM_ ACTIVITY_ PUB.WORK_ ORDER_REC_ TYPE	-	-	Output. Validated Work Order record.
X_CURR_ITEM_REC	INV_ITEM_ GRP.ITEM_ REC_TYPE	-	-	Output. Validated current item record.
X_CURR_ITEM_ RETURN_STATUS	VARCHAR2	-	-	Output. Current item creation return status.
X_CURR_ITEM_ ERROR_TBL	INV_ITEM_ GRP.ERROR_ TBL_TYPE	-	-	Output. Current item creation error table.
X_MASTER_ITEM_REC	INV_ITEM_ GRP.ITEM_ REC_TYPE	-	-	Output. Validated master item record.
X_MASTER_ITEM_ RETURN_STATUS	VARCHAR2	-	-	Output. Master item creation return status.
X_MASTER_ITEM_ ERROR_TBL	INV_ITEM_ GRP.ERROR_ TBL_TYPE	-	-	Output. Master item creation error table.
x_rtg_header_rec	BOM_Rtg_ Pub.Rtg_ Header_Rec_ Type	-	-	Routing Business Object API output.
x_rtg_revision_tbl	BOM_Rtg_ Pub.Rtg_ Revision_Tbl_ Type	-	-	Routing Business Object API output.
x_operation_tbl	BOM_Rtg_ Pub.Operation_ _Tbl_Type	-	-	Routing Business Object API output.
x_op_resource_tbl	BOM_Rtg_ Pub.Op_ Resource_Tbl_ Type	-	-	Routing Business Object API output.

**Table 5–21 Activity Creation API Specifications**

Parameter	Type	Required	Default	Description
x_sub_resource_tbl	BOM_Rtg_ Pub.Sub_ Resource_Tbl_ Type	-	-	Routing Business Object API output.
x_op_network_tbl	BOM_Rtg_ Pub.Op_ Network_Tbl_ Type	-	-	Routing Business Object API output.
x_rtg_return_status	VARCHAR2	-	-	Routing Business Object API output.
x_rtg_msg_count	NUMBER	-	-	Routing Business Object API output.
x_rtg_msg_list	Error_ Handler.Error_ Tbl_Type	-	-	Routing Business Object API output.
x_bom_header_rec	BOM_BO_ PUB.BOM_ Head_Rec_ Type	-	-	BOM Business Object API output.
x_bom_revision_tbl	BOM_BO_ PUB.BOM_ Revision_Tbl_ Type	-	-	BOM Business Object API output.
x_bom_component_tbl	BOM_BO_ PUB.BOM_Co_ mps_Tbl_Type	-	-	BOM Business Object API output.
x_bom_return_status	VARCHAR2	-	-	BOM Business Object API output.
x_bom_msg_count	NUMBER	-	-	BOM Business Object API output.
x_bom_msg_list	Error_ Handler.Error_ Tbl_Type	-	-	BOM Business Object API output.
x_assoc_return_status	VARCHAR2	-	-	Copy Association API output.
x_assoc_msg_count	NUMBER	-	-	Copy Association API output.

**Table 5–21 Activity Creation API Specifications**

Parameter	Type	Required	Default	Description
x_assoc_msg_data	VARCHAR2	-	-	Copy Association API output.
x_act_num_association_tbl	EAM_Activity_PUB.Activity_Association_Tbl_Type	-	-	Copy Association API output.
x_activity_association_tbl	EAM_Activity_PUB.Activity_Association_Tbl_Type	-	-	Copy Association API output.

**Package Name:** EAM\_ACTIVITY\_PUB

**Procedure Name:** COPY\_ACTIVITY

The Copy Activity API is used to create a new Activity from an existing Activity. While copying from the source Activity, you can copy the source Activity's BOM, Routing, and associations. The table below provides the specifications for this API:

**Table 5–22 Copy Activity API Specifications**

Parameter	Type	Required	Default	Description
P_API_VERSION	NUMBER	Yes	-	Standard Oracle API parameter
P_INIT_MSG_LIST	VARCHAR2	-	FND_API.G_FALSE	Standard Oracle API parameter
P_COMMIT	VARCHAR2	-	FND_API.G_FALSE	Standard Oracle API parameter
P_VALIDATION_LEVEL	NUMBER	-	FND_API.G_VALID_LEVEL_FULL	Standard Oracle API parameter
X_RETURN_STATUS	VARCHAR2	-	-	Standard Oracle API output parameter
X_MSG_COUNT	NUMBER	-	-	Standard Oracle API output parameter
X_MSG_DATA	VARCHAR2	-	-	Standard Oracle API output parameter
P_ASSET_ACTIVITY	INV_ITEM_GRPITEM_REC_TYPE	Yes	-	Item Record to define the attributes of the Activity

**Table 5–22 Copy Activity API Specifications**

Parameter	Type	Required	Default	Description
P_TEMPLATE_ID	NUMBER	-	NULL	Template Id (If Template Name is specified, Template Id will override Template Name)
P_TEMPLATE_NAME	VARCHAR2	-	NULL	Template Name
P_ACTIVITY_TYPE_CODE	VARCHAR2	-	NULL	Activity Type
P_ACTIVITY_CAUSE_CODE	VARCHAR2	-	NULL	Activity Cause
P_SHUTDOWN_TYPE_CODE	VARCHAR2	-	NULL	Shutdown Type
P_NOTIFICATION_REQ_FLAG	VARCHAR2	-	NULL	Notification Required Flag: Y (enabled), N (disabled)
_ACTIVITY_SOURCE_CODE	VARCHAR2	-	NULL	Activity Source
P_WORK_ORDER_REC	EAM_ACTIVITY_PUB.WORK_ORDER_REC_TYPE	Yes	-	Specifies the source Work Order the new Activity is to be created from
P_OPERATION_COPY_OPTION	NUMBER	-	2	Operation Copy Option: 1 (NONE), 2 (ALL)
P_MATERIAL_COPY_OPTION	NUMBER	-	2	Material Copy Option: 1 (NONE), 2 (ISSUED), 3 (ALL)
P_RESOURCE_COPY_OPTION	NUMBER	-	2	Resource Copy Option: 1 (NONE), 2 (ISSUED), 3 (ALL)
P_ASSOCIATION_COPY_OPTION	NUMBER	-	2	Association Copy Option: 1 (NONE), 2 (CURRENT), 3 (ALL)
X_WORK_ORDER_REC	EAM_ACTIVITY_PUB.WORK_ORDER_REC_TYPE	-	-	Output. Validated Work Order record.
X_CURR_ITEM_REC	INV_ITEM_GRP.ITEM_REC_TYPE	-	-	Output. Validated current item record.

**Table 5–22 Copy Activity API Specifications**

Parameter	Type	Required	Default	Description
X_CURR_ITEM_RETURN_STATUS	VARCHAR2	-	-	Output. Current item creation return status.
X_CURR_ITEM_ERROR_TBL	INV_ITEM_GRP.ERROR_TBL_TYPE	-	-	Output. Current item creation error table.
X_MASTER_ITEM_REC	INV_ITEM_GRP.ITEM_REC_TYPE	-	-	Output. Validated master item record.
X_MASTER_ITEM_RETURN_STATUS	VARCHAR2	-	-	Output. Master item creation return status.
X_MASTER_ITEM_ERROR_TBL	INV_ITEM_GRP.ERROR_TBL_TYPE	-	-	Output. Master item creation error table.
x_rtg_header_rec	BOM_Rtg_Pub.Rtg_Header_Rec_Type	-	-	Routing Business Object API output.
x_rtg_revision_tbl	BOM_Rtg_Pub.Rtg_Revision_Tbl_Type	-	-	Routing Business Object API output.
x_operation_tbl	BOM_Rtg_Pub.Operation_Tbl_Type	-	-	Routing Business Object API output.
x_op_resource_tbl	BOM_Rtg_Pub.Op_Resource_Tbl_Type	-	-	Routing Business Object API output.
x_sub_resource_tbl	BOM_Rtg_Pub.Sub_Resource_Tbl_Type	-	-	Routing Business Object API output.
x_op_network_tbl	BOM_Rtg_Pub.Op_Network_Tbl_Type	-	-	Routing Business Object API output.
x_rtg_return_status	VARCHAR2	-	-	Routing Business Object API output.

**Table 5–22 Copy Activity API Specifications**

Parameter	Type	Required	Default	Description
x_rtg_msg_count	NUMBER	-	-	Routing Business Object API output.
x_rtg_msg_list	Error_Handler.Error_Tbl_Type	-	-	Routing Business Object API output.
x_bom_header_rec	BOM_BO_PUB.BOM_Head_Rec_Type	-	-	BOM Business Object API output.
x_bom_revision_tbl	BOM_BO_PUB.BOM_Revision_Tbl_Type	-	-	BOM Business Object API output.
x_bom_component_tbl	BOM_BO_PUB.BOM_Components_Tbl_Type	-	-	BOM Business Object API output.
x_bom_return_status	VARCHAR2	-	-	BOM Business Object API output.
x_bom_msg_count	NUMBER	-	-	BOM Business Object API output.
x_bom_msg_list	Error_Handler.Error_Tbl_Type	-	-	BOM Business Object API output.
x_assoc_return_status	VARCHAR2	-	-	Copy Association API output.
x_assoc_msg_count	NUMBER	-	-	Copy Association API output.
x_assoc_msg_data	VARCHAR2	-	-	Copy Association API output.
x_act_num_association_tbl	EAM_Activity_PUB.Activity_Association_Tbl_Type	-	-	Copy Association API output.
x_activity_association_tbl	EAM_Activity_PUB.Activity_Association_Tbl_Type	-	-	Copy Association API output.

Package Name: EAM\_ACTIVITY\_PUB

**Procedure Name: CREATE\_ACTIVITY\_WITH\_TEMPLATE**

The Copy Activity API is used to create a new Activity from an pre-defined template. The table below provides the specifications for this API:

**Table 5–23 Create Activity with Template API Specifications**

Parameter	Type	Required	Default	Description
P_API_VERSION	NUMBER	Yes	-	Standard Oracle API parameter
P_INIT_MSG_LIST	VARCHAR2	-	FND_API.G_FALSE	Standard Oracle API parameter
P_COMMIT	VARCHAR2	-	FND_API.G_FALSE	Standard Oracle API parameter
P_VALIDATION_LEVEL	NUMBER	-	FND_API.G_VALID_LEVEL_FULL	Standard Oracle API parameter
X_RETURN_STATUS	VARCHAR2	-	-	Standard Oracle API output parameter
X_MSG_COUNT	NUMBER	-	-	Standard Oracle API output parameter
X_MSG_DATA	VARCHAR2	-	-	Standard Oracle API output parameter
P_ORGANIZATION_ID	NUMBER	-	-	Organization id
P_ORGANIZATION_CODE	NUMBER	-	-	Organization code
P_ASSET_ACTIVITY	VARCHAR2	-	NULL	Activity
P_SEGMENT1	VARCHAR2	-	NULL	Segment1
P_SEGMENT2	VARCHAR2	-	NULL	Segment2
P_SEGMENT3	VARCHAR2	-	NULL	Segment3
P_SEGMENT4	VARCHAR2	-	NULL	Segment4
P_SEGMENT5	VARCHAR2	-	NULL	Segment5
P_SEGMENT6	VARCHAR2	-	NULL	Segment6
P_SEGMENT7	VARCHAR2	-	NULL	Segment7
P_SEGMENT8	VARCHAR2	-	NULL	Segment8
P_SEGMENT9	VARCHAR2	-	NULL	Segment9
P_SEGMENT10	VARCHAR2	-	NULL	Segment10
P_SEGMENT11	VARCHAR2	-	NULL	Segment11

**Table 5–23 Create Activity with Template API Specifications**

Parameter	Type	Required	Default	Description
P_SEGMENT12	VARCHAR2	-	NULL	Segment12
P_SEGMENT13	VARCHAR2	-	NULL	Segment13
P_SEGMENT14	VARCHAR2	-	NULL	Segment14
P_SEGMENT15	VARCHAR2	-	NULL	Segment15
P_SEGMENT16	VARCHAR2	-	NULL	Segment16
P_SEGMENT17	VARCHAR2	-	NULL	Segment17
P_SEGMENT18	VARCHAR2	-	NULL	Segment18
P_SEGMENT19	VARCHAR2	-	NULL	Segment19
P_SEGMENT20	VARCHAR2	-	NULL	Segment20
P_DESCRIPTION	VARCHAR2	-	-	Description
P_TEMPLATE_ID	NUMBER	-	NULL	Template id
P_TEMPLATE_NAME	VARCHAR2	-	NULL	Name of template
P_ACTIVITY_TYPE_CODE	VARCHAR2	-	NULL	Activity code
P_ACTIVITY_CAUSE_CODE	VARCHAR2	-	NULL	Activity cause
P_SHUTDOWN_TYPE_CODE	VARCHAR2	-	NULL	Shutdown Type
P_NOTIFICATION_REQ_FLAG	VARCHAR2	-	NULL	Notification Required Flag (Y for enabled, N for disabled)
P_ACTIVITY_SOURCE_CODE	VARCHAR2	-	NULL	Activity Source
X_CURR_ITEM_REC	INV_ITEM_GRP.ITEM_REC_TYPE	-	-	Output. Validated current item record.
X_CURR_ITEM_RETURN_STATUS	VARCHAR2	-	-	Output. Current item creation return status.
X_CURR_ITEM_ERROR_TBL	INV_ITEM_GRP.ITEM_ERROR_TBL_TYPE	-	-	Output. Current item creation error table.

**Table 5–23 Create Activity with Template API Specifications**

Parameter	Type	Required	Default	Description
X_MASTER_ITEM_REC	INV_ITEM_ GRP.ITEM_ REC_TYPE	-	-	Output. Validated master item record.
X_MASTER_ITEM_RETURN_STATUS	VARCHAR2	-	-	Output. Master item creation return status.
X_MASTER_ITEM_ERROR_TBL	INV_ITEM_ GRP.ITEM_ REC_TYPE	-	-	Output. Master item creation error table.

**Table 5–24 work\_order\_rec\_type**

Column Name	Type	Default
organization_id	NUMBER	NULL
organization_code	VARCHAR2(3)	NULL
wip_entity_id	NUMBER	NULL
wip_entity_name	VARCHAR2(240)	NULL

**Table 5–25 activity\_association\_rec\_type**

Column Name	Type	Default
organization_id	NUMBER	NULL
asset_activity_id	NUMBER	NULL
start_date_active	DATE	NULL
end_date_active	DATE	NULL
priority_code	VARCHAR2(30)	NULL
attribute_category	VARCHAR2(30)	NULL
attribute1	VARCHAR2(150)	NULL
attribute2	VARCHAR2(150)	NULL
attribute3	VARCHAR2(150)	NULL
attribute4	VARCHAR2(150)	NULL
attribute5	VARCHAR2(150)	NULL

**Table 5–25** *activity\_association\_rec\_type*

<b>Column Name</b>	<b>Type</b>	<b>Default</b>
attribute6	VARCHAR2(150)	NULL
attribute7	VARCHAR2(150)	NULL
attribute8	VARCHAR2(150)	NULL
attribute9	VARCHAR2(150)	NULL
attribute10	VARCHAR2(150)	NULL
attribute11	VARCHAR2(150)	NULL
attribute12	VARCHAR2(150)	NULL
attribute13	VARCHAR2(150)	NULL
attribute14	VARCHAR2(150)	NULL
attribute15	VARCHAR2(150)	NULL
owning_department_id	NUMBER	NULL
activity_cause_code	VARCHAR2(30)	NULL
activity_type_code	VARCHAR2(30)	NULL
activity_source_code	VARCHAR2(30)	NULL
class_code	VARCHAR2(10)	NULL
maintenance_object_id	NUMBER	NULL
genealogy_id	NUMBER	NULL
inventory_item_id	NUMBER	NULL
serial_number	VARCHAR2(30)	NULL
activity_association_id	NUMBER	NULL
tagging_required_flag	VARCHAR2(1)	NULL
shutdown_type_code	VARCHAR2(30)	NULL
templ_flag	VARCHAR2(1)	NULL
creation_organization_id	NUMBER	NULL
return_status	VARCHAR2(1)	NULL
error_mesg	VARCHAR2(240)	NULL

TYPE activity\_association\_tbl\_type IS TABLE OF activity\_association\_rec\_type  
INDEX BY BINARY\_INTEGER

**See Also:**

BOM Business Object API, *Oracle Manufacturing APIs and Open Interfaces Manual*  
Item Creation Business Object API, *Oracle Manufacturing APIs and Open Interfaces Manual*

## Maintenance Object Instantiation API

Package Name: EAM\_OBJECTINSTANTIATION\_PUB

Procedure Name: INSTANTIATE\_OBJECT

The Maintenance Object Instantiation API is first triggered after the creation of a Maintenance Object. It will then call the private packages for the Activity Instantiation (from the Maintenance Item/Activity Templates), and Preventive Maintenance and Meter Instantiations (from their templates). The table below provides the specifications for this API:

**Table 5–26 Maintenance Object Instantiation API Specifications**

Parameter	Type	Required	Default	Description
P_API_VERSION	NUMBER	Yes	-	Standard Oracle API parameter
P_INIT_MSG_LIST	VARCHAR2	-	FND_API.G_FALSE	Standard Oracle API parameter
P_COMMIT	VARCHAR2	-	FND_API.G_FALSE	Standard Oracle API parameter
P_VALIDATION_LEVEL	NUMBER	-	FND_API.G_VALID_LEVEL_FULL	Standard Oracle API parameter
X_RETURN_STATUS	VARCHAR2	-	-	Standard Oracle API output parameter
X_MSG_COUNT	NUMBER	-	-	Standard Oracle API output parameter
X_MSG_DATA	VARCHAR2	-	-	Standard Oracle API output parameter

**Table 5–26 Maintenance Object Instantiation API Specifications**

Parameter	Type	Required	Default	Description
P_MAINTENANCE_OBJECT_ID	NUMBER	Yes	-	Standard Oracle API output parameter
P_MAINTENANCE_OBJECT_TYPE	NUMBER	Yes	-	Supports Type 1 (Serial Numbers)
P_COMMIT	VARCHAR2	-	FND_API.G_FALSE	Standard Oracle API parameter

TYPE association\_id\_tbl\_type IS TABLE OF number  
INDEX BY BINARY\_INTEGER

## Work Order Business API

Package Name EAM\_PROCESS\_WO\_PUB

Procedure Name PROCESS\_WO

The Work Order Business API is used to create, update, and delete eAM Work Orders and their sub-entities such as Operations, Material, Resources, Resource Instances, and Operation Dependency. You can use this API to create these entities in the database. You can set and update all relevant attributes of the Work Order and its sub-entities. The table below provides the specifications of this API:

**Table 5–27 Work Order Business API Specifications**

Parameter	Type	Required	Default	Description
P_PO_IDENTIFIER	VARCHAR2	Yes	EAM	Standard Oracle API parameter
P_API_VERSION_NUMBER	NUMBER	-	1.0	Standard Oracle API parameter
P_INIT_MSG_LIST	BOOLEAN	-	FALSE	Standard Oracle API parameter
P_EAM_WO_REC	EAM_PROCESS_WO_PUB.eam_wo_rec_type	-	-	Input Work Order record

**Table 5–27 Work Order Business API Specifications**

<b>Parameter</b>	<b>Type</b>	<b>Required</b>	<b>Default</b>	<b>Description</b>
p_eam_op_network_tbl	EAM_ PROCESS_ WO_PUB.eam_ op_network_ tbl_type	-	-	Input PL/SQL table of operation network records
p_eam_res_tbl	EAM_ PROCESS_ WO_PUB.eam_ res_tbl_type	Yes	-	Input PL/SQL table of resource records
p_eam_res_inst_tbl	EAM_ PROCESS_ WO_PUB.eam_ res_inst_tbl_ type	Yes	-	Input PL/SQL table of resource instance records
p_eam_res_usage_tbl	EAM_ PROCESS_ WO_PUB.eam_ res_usage_tbl_ type	-	-	Input PL/SQL table of resource usage records
p_eam_mat_req_tbl	EAM_ PROCESS_ WO_PUB.eam_ mat_req_tbl_ type	-	-	Input PL/SQL table of material requirements records
x_eam_wo_rec	EAM_ PROCESS_ WO_PUB.eam_ wo_req_type	-	-	Output Work Order record
x_eam_op_network_tbl	EAM_ PROCESS_ WO_PUB.eam_ op_tbl_type	-	-	Output PL/SQL table of operation records
x_eam_op_network_tbl	EAM_ PROCESS_ WO_PUB.eam_ op_network_ tbl_type	-	-	Output PL/SQL table of operation network records

**Table 5–27 Work Order Business API Specifications**

Parameter	Type	Required	Default	Description
x_eam_res_tbl	EAM_ PROCESS_ WO_PUB.eam_ res_tbl_type	-	-	Output PL/SQL table of resource records
x_eam_res_inst_tbl	EAM_ PROCESS_ WO_PUB.eam_ res_inst_tbl_ type	-	-	Output PL/SQL table of resource instance records
x_eam_res_usage_tbl	EAM_ PROCESS_ WO_PUB.eam_ res_usage_tbl_ type	-	-	Output PL/SQL table of resource usage records
x_eam_mat_req_tbl	EAM_ PROCESS_ WO_PUB.eam_ mat_req_tbl_ type	-	-	Output PL/SQL table of material requirements records
x_return_status	VARCHAR2	-	-	Standard Oracle API output parameter
x_msg_count	NUMBER	-	-	Standard Oracle API output parameter
p_debug	VARCHAR2	-	N	Standard Oracle API output parameter
p_output_dir	VARCHAR2	-	NULL	Input parameter for specifying the location of the debug file
p_debug_filename	VARCHAR2	-	EAM_WO_ DEBUG.log	Input parameter for debug file name

**Table 5–28 eam\_wo\_rec\_type**

Column Name	Type	Default
wip_entity_name	VARCHAR2(240)	NULL
wip_entity_id	NUMBER	NULL
organization_id	NUMBER	NULL

**Table 5–28** *eam\_wo\_rec\_type*

<b>Column Name</b>	<b>Type</b>	<b>Default</b>
description	VARCHAR2(240)	NULL
asset_number	VARCHAR2(30)	NULL
asset_group_id	NUMBER	NULL
rebuild_item_id	NUMBER	NULL
rebuild_serial_number	VARCHAR2(30)	NULL
maintenance_object_id	NUMBER	NULL
maintenance_object_type	NUMBER	NULL
maintenance_object_source	NUMBER	NULL
class_code	VARCHAR2(10)	NULL
asset_activity_id	NUMBER	NULL
activity_type	VARCHAR2(30)	NULL
activity_cause	VARCHAR2(30)	NULL
activity_source	VARCHAR2(30)	NULL
work_order_type	VARCHAR2(30)	NULL
status_type	NUMBER	NULL
job_quantity	NUMBER	NULL
date_released	DATE	NULL
owning_department	NUMBER	NULL
priority	NUMBER	NULL
requested_start_date	DATE	NULL
duedate	DATE	NULL
shutdown_type	VARCHAR2(30)	NULL
firm_planned_flag	NUMBER	NULL
notification_required	VARCHAR2(1)	NULL
tagout_required	VARCHAR2(1)	NULL
plan_maintenance	VARCHAR2(1)	NULL
project_id	NUMBER	NULL

**Table 5–28** *eam\_wo\_rec\_type*

<b>Column Name</b>	<b>Type</b>	<b>Default</b>
task_id	NUMBER	NULL
end_item_unit_number	VARCHAR2(30)	NULL
schedule_group_id	NUMBER	NULL
bom_revision_date	DATE	NULL
routing_revision_date	DATE	NULL
alternate_routing_designator	VARCHAR2(10)	NULL
alternate_bom_designator	VARCHAR2(10)	NULL
routing_revision	VARCHAR2(3)	NULL
bom_revision	VARCHAR2(3)	NULL
parent_wip_entity_id	NUMBER	NULL
manual_rebuild_flag	VARCHAR2(1)	NULL
pm_schedule_id	NUMBER	NULL
wip_supply_type	NUMBER	NULL
material_account	NUMBER	NULL
material_overhead_account	NUMBER	NULL
resource_account	NUMBER	NULL
outside_processing_account	NUMBER	NULL
material_variance_account	NUMBER	NULL
resource_variance_account	NUMBER	NULL
outside_proc_variance_account	NUMBER	NULL
std_cost_adjustment_account	NUMBER	NULL
overhead_account	NUMBER	NULL
overhead_variance_account	NUMBER	NULL
schedule_start_date	DATE	NULL
schedule_completion_date	DATE	NULL
common_bom_sequence_id	NUMBER	NULL

**Table 5–28** *eam\_wo\_rec\_type*

<b>Column Name</b>	<b>Type</b>	<b>Default</b>
common_routing_sequence_id	NUMBER	NULL
po_creation_time	NUMBER	NULL
gen_object_id	NUMBER	NULL
attribute_category	VARCHAR2(30)	NULL
attribute1	VARCHAR2(150)	NULL
attribute2	VARCHAR2(150)	NULL
attribute3	VARCHAR2(150)	NULL
attribute4	VARCHAR2(150)	NULL
attribute5	VARCHAR2(150)	NULL
attribute6	VARCHAR2(150)	NULL
attribute7	VARCHAR2(150)	NULL
attribute8	VARCHAR2(150)	NULL
attribute9	VARCHAR2(150)	NULL
attribute10	VARCHAR2(150)	NULL
attribute11	VARCHAR2(150)	NULL
attribute12	VARCHAR2(150)	NULL
attribute13	VARCHAR2(150)	NULL
attribute14	VARCHAR2(150)	NULL
attribute15	VARCHAR2(150)	NULL
material_issue_by_mo	VARCHAR2(1)	NULL
user_id	NUMBER	NULL
responsibility_id	NUMBER	NULL
request_id	NUMBER	NULL
program_id	NUMBER	NULL
program_application_id	NUMBER	NULL
source_line_id	NUMBER	NULL
source_code	VARCHAR2(30)	NULL

**Table 5–28** *eam\_wo\_rec\_type*

<b>Column Name</b>	<b>Type</b>	<b>Default</b>
return_status	VARCHAR2(1)	NULL
transaction_type	NUMBER	NULL

**Table 5–29** *eam\_op\_rec\_type*

<b>Column Name</b>	<b>Type</b>	<b>Default</b>
wip_entity_id	NUMBER	NULL
organization_id	NUMBER	NULL
operation_seq_num	NUMBER	NULL
standard_operation_id	NUMBER	NULL
department_id	NUMBER	NULL
operation_sequence_id	NUMBER	NULL
description	VARCHAR2(240)	NULL
minimum_transfer_quantity	NUMBER	NULL
count_point_type	NUMBER	NULL
backflush_flag	NUMBER	NULL
shutdown_type	VARCHAR2(30)	NULL
start_date	DATE	NULL
completion_date	DATE	NULL
attribute_category	VARCHAR2(30)	NULL
attribute1	VARCHAR2(150)	NULL
attribute2	VARCHAR2(150)	NULL
attribute3	VARCHAR2(150)	NULL
attribute4	VARCHAR2(150)	NULL
attribute5	VARCHAR2(150)	NULL
attribute6	VARCHAR2(150)	NULL
attribute7	VARCHAR2(150)	NULL
attribute8	VARCHAR2(150)	NULL

**Table 5–29** *eam\_op\_rec\_type*

<b>Column Name</b>	<b>Type</b>	<b>Default</b>
attribute9	VARCHAR2(150)	NULL
attribute10	VARCHAR2(150)	NULL
attribute11	VARCHAR2(150)	NULL
attribute12	VARCHAR2(150)	NULL
attribute13	VARCHAR2(150)	NULL
attribute14	VARCHAR2(150)	NULL
attribute15	VARCHAR2(150)	NULL
long_description	VARCHAR2(4000)	NULL
request_id	NUMBER	NULL
program_id	NUMBER	NULL
program_application_id	NUMBER	NULL
return_status	VARCHAR2(1)	NULL
transaction_type	NUMBER	NULL

**Table 5–30** *eam\_res\_rec\_type*

<b>Column Name</b>	<b>Type</b>	<b>Default</b>
wip_entity_id	NUMBER	NULL
organization_id	NUMBER	NULL
operation_seq_num	NUMBER	NULL
resource_seq_number	NUMBER	NULL
resource_id	NUMBER	NULL
uom_code	VARCHAR2(3)	NULL
basis_type	NUMBER	NULL
usage_rate_or_amount	NUMBER	NULL
activity_id	NUMBER	NULL
schedule_flag	NUMBER	NULL
assigned_units	VARCHAR2(30)	NULL

**Table 5–30** *eam\_res\_rec\_type*

<b>Column Name</b>	<b>Type</b>	<b>Default</b>
autocharge_type	NUMBER	NULL
standard_rate_flag	NUMBER	NULL
applied_resource_units	NUMBER	NULL
applied_resource_value	NUMBER	NULL
start_date	DATE	NULL
completion_date	DATE	NULL
schedule_seq_num	NUMBER	NULL
substitute_group_num	NUMBER	NULL
replacement_group_num	NUMBER	NULL
attribute_category	VARCHAR2(30)	NULL
attribute1	VARCHAR2(150)	NULL
attribute2	VARCHAR2(150)	NULL
attribute3	VARCHAR2(150)	NULL
attribute4	VARCHAR2(150)	NULL
attribute5	VARCHAR2(150)	NULL
attribute6	VARCHAR2(150)	NULL
attribute7	VARCHAR2(150)	NULL
attribute8	VARCHAR2(150)	NULL
attribute9	VARCHAR2(150)	NULL
attribute10	VARCHAR2(150)	NULL
attribute11	VARCHAR2(150)	NULL
attribute12	VARCHAR2(150)	NULL
attribute13	VARCHAR2(150)	NULL
attribute14	VARCHAR2(150)	NULL
attribute15	VARCHAR2(150)	NULL
department_id	NUMBER	NULL
request_id	NUMBER	NULL

**Table 5–30** *eam\_res\_rec\_type*

<b>Column Name</b>	<b>Type</b>	<b>Default</b>
program_application_id	NUMBER	NULL
program_id	NUMBER	NULL
program_update_date	DATE	NULL
return_status	VARCHAR2(1)	NULL
transaction_type	NUMBER	NULL

**Table 5–31** *eam\_res\_inst\_rec\_type*

<b>Column Name</b>	<b>Type</b>	<b>Default</b>
wip_entity_id	NUMBER	NULL
organization_id	NUMBER	NULL
operation_seq_num	NUMBER	NULL
instance_id	NUMBER	NULL
serial_number	NUMBER	NULL
start_date	DATE	NULL
completion_date	DATE	NULL
batch_id	NUMBER	NULL
return_status	VARCHAR2(1)	NULL
transaction_type	NUMBER	NULL

**Table 5–32** *eam\_sub\_res\_rec\_type*

<b>Column Name</b>	<b>Type</b>	<b>Default</b>
wip_entity_id	NUMBER	NULL
organization_id	NUMBER	NULL
operation_seq_num	NUMBER	NULL
resource_seq_number	NUMBER	NULL
resource_id	NUMBER	NULL
uom_code	VARCHAR2(3)	NULL

**Table 5–32** *eam\_sub\_res\_rec\_type*

<b>Column Name</b>	<b>Type</b>	<b>Default</b>
basis_type	NUMBER	NULL
usage_rate_or_amount	NUMBER	NULL
activity_id	NUMBER	NULL
schedule_flag	NUMBER	NULL
assigned_units	VARCHAR2(30)	NULL
autocharge_type	NUMBER	NULL
standard_rate_flag	NUMBER	NULL
applied_resource_units	NUMBER	NULL
applied_resource_value	NUMBER	NULL
start_date	DATE	NULL
completion_date	DATE	NULL
schedule_seq_num	NUMBER	NULL
substitute_group_num	NUMBER	NULL
replacement_group_num	NUMBER	NULL
attribute_category	VARCHAR2(30)	NULL
attribute1	VARCHAR2(150)	NULL
attribute2	VARCHAR2(150)	NULL
attribute3	VARCHAR2(150)	NULL
attribute4	VARCHAR2(150)	NULL
attribute5	VARCHAR2(150)	NULL
attribute6	VARCHAR2(150)	NULL
attribute7	VARCHAR2(150)	NULL
attribute8	VARCHAR2(150)	NULL
attribute9	VARCHAR2(150)	NULL
attribute10	VARCHAR2(150)	NULL
attribute11	VARCHAR2(150)	NULL
attribute12	VARCHAR2(150)	NULL

**Table 5–32** *eam\_sub\_res\_rec\_type*

<b>Column Name</b>	<b>Type</b>	<b>Default</b>
attribute13	VARCHAR2(150)	NULL
attribute14	VARCHAR2(150)	NULL
attribute15	VARCHAR2(150)	NULL
department_id	NUMBER	NULL
request_id	NUMBER	NULL
program_application_id	NUMBER	NULL
program_id	NUMBER	NULL
program_update_date	DATE	NULL
return_status	VARCHAR2(1)	NULL
transaction_type	NUMBER	NULL

**Table 5–33** *eam\_res\_usage\_rec\_type*

<b>Column Name</b>	<b>Type</b>	<b>Default</b>
wip_entity_id	NUMBER	NULL
operation_seq_num	NUMBER	NULL
resource_seq_number	NUMBER	NULL
organization_id	NUMBER	NULL
start_date	DATE	NULL
completion_date	DATE	NULL
assigned_units	NUMBER	NULL
request_id	NUMBER	NULL
program_application_id	NUMBER	NULL
program_id	NUMBER	NULL
program_update_date	DATE	NULL
instance_id	NUMBER	NULL
serial_number	NUMBER	NULL
return_status	VARCHAR2(1)	NULL

**Table 5–33** *eam\_res\_usage\_rec\_type*

Column Name	Type	Default
transaction_type	NUMBER	NULL

**Table 5–34** *eam\_mat\_req\_rec\_type*

Column Name	Type	Default
wip_entity_id	NUMBER	NULL
organization_id	NUMBER	NULL
operation_seq_num	NUMBER	NULL
inventory_item_id	NUMBER	NULL
quantity_per_assembly	NUMBER	NULL
department_id	NUMBER	NULL
wip_supply_type	NUMBER	NULL
date_required	DATE	NULL
required_quantity	NUMBER	NULL
quantity_issued	NUMBER	NULL
supply_subinventory	VARCHAR2(10)	NULL
supply_locator_id	NUMBER	NULL
mrp_net_flag	NUMBER	NULL
mps_required_quantity	NUMBER	NULL
mps_date_required	DATE	NULL
component_sequence_id	NUMBER	NULL
comments	VARCHAR2(240)	NULL
attribute_category	VARCHAR2(30)	NULL
attribute1	VARCHAR2(150)	NULL
attribute2	VARCHAR2(150)	NULL
attribute3	VARCHAR2(150)	NULL
attribute4	VARCHAR2(150)	NULL
attribute5	VARCHAR2(150)	NULL

**Table 5–34** *eam\_mat\_req\_rec\_type*

<b>Column Name</b>	<b>Type</b>	<b>Default</b>
attribute6	VARCHAR2(150)	NULL
attribute7	VARCHAR2(150)	NULL
attribute8	VARCHAR2(150)	NULL
attribute9	VARCHAR2(150)	NULL
attribute10	VARCHAR2(150)	NULL
attribute11	VARCHAR2(150)	NULL
attribute12	VARCHAR2(150)	NULL
attribute13	VARCHAR2(150)	NULL
attribute14	VARCHAR2(150)	NULL
attribute15	VARCHAR2(150)	NULL
auto_request_material	VARCHAR2(1)	NULL
request_id	NUMBER	NULL
program_application_id	NUMBER	NULL
program_id	NUMBER	NULL
program_update_date	DATE	NULL
return_status	VARCHAR2(1)	NULL
transaction_type	NUMBER	NULL

TYPE eam\_op\_tbl\_type IS TABLE OF eam\_op\_rec\_type  
INDEX BY BINARY\_INTEGER

TYPE eam\_op\_network\_tbl\_type IS TABLE OF eam\_op\_network\_rec\_type  
INDEX BY BINARY\_INTEGER

TYPE eam\_res\_tbl\_type IS TABLE OF eam\_res\_rec\_type  
INDEX BY BINARY\_INTEGER

```
TYPE eam_res_inst_tbl_type IS TABLE OF eam_res_inst_rec_type  
INDEX BY BINARY_INTEGER
```

```
TYPE eam_sub_res_tbl_type IS TABLE OF eam_sub_res_rec_type  
INDEX BY BINARY_INTEGER
```

```
TYPE eam_res_usage_tbl_type IS TABLE OF eam_res_usage_rec_type  
INDEX BY BINARY_INTEGER
```

```
TYPE eam_mat_req_tbl_type IS TABLE OF eam_mat_req_rec_type  
INDEX BY BINARY_INTEGER
```



---



---

# Windows and Navigation Paths

## Windows and Navigation Paths

This appendix provides the default navigator paths for the windows used in the Oracle Enterprise Asset Management. The following table provides the default navigation paths. Brackets [ ] indicate a button.

### Default Navigation Paths for Standard Application Windows

**Table 5–35 eAM-Related Windows and Navigation Paths**

Window Name	Navigation Path
Activity and Asset Number/Rebuildable Association	Enterprise Asset Manager: Asset Activities > Asset Activity Association
Activity Workbench	Enterprise Asset Manager: Activities > Activity Workbench
Advanced Pricing (Price Lists)	Order Management: Pricing > Price Lists > Price List Setup
Area	Enterprise Asset Manager: Setup > Area
Asset Genealogy Import	Interfaces > Import Asset Genealogy
Asset Meter	Enterprise Asset Manager: Meters > Asset Meter Association
Asset Number Import	Interfaces > Import Asset Number
Asset Status	Enterprise Asset Manager: Assets > Asset Numbers > Asset Statuses
Bills of Material (Activity BOM)	Enterprise Asset Manager: Asset Activities > Maintenance BOM

**Table 5–35 eAM-Related Windows and Navigation Paths**

<b>Window Name</b>	<b>Navigation Path</b>
Bills of Material (Asset BOM)	Enterprise Asset Manager: Assets > Asset BOM
Categories	Enterprise Asset Manager: Setup > Category > Category Codes
Category Sets	Enterprise Asset Manager: Setup > Category > Category Sets
Close Rebuild Work Order	Enterprise Asset Manager: Work Orders > Close Rebuild Work Orders
Close Work Order	Enterprise Asset Manager: Work Orders > Close Work Orders
Collection Elements	Quality Manager: Setup > Collection Elements
Collection Plans	Quality Manager: Setup > Collection Plans
Define Asset Number	Enterprise Asset Manager: Assets > Asset Numbers
Define Asset Route	Enterprise Asset Manager: Assets > Asset Route
Define Rebuildable Serial Number	Enterprise Asset Manager: Rebuildables > Rebuildable Serial Numbers
Departments	Bills of Material Manager: Bills of Materials > Routings > Departments
Department Approvers	Enterprise Asset Manager: Setup > Department Approvers
Descriptive Flexfield Segments	Enterprise Asset Manager: Setup > Flexfields > Descriptive > Segments
EAM Asset Documents	Enterprise Asset Manager: Assets > Asset Numbers > Documents
EAM Work Order Documents	Enterprise Asset Manager: Work Orders > Documents
Enter Quality Results	Quality Manager: Results > Entry > Enter Quality Results
Enterprise Asset Management Parameters	Enterprise Asset Manager: Setup > Parameters
Financials Options	Purchasing Manager: Setup > Organizations > Financial Options
Find Asset Number	Enterprise Asset Manager: Assets > Asset Numbers > Asset Number field > [Find] icon
Find Meter Readings	Enterprise Asset Manager: Interfaces > Pending Meter Readings
Find Pending Work Orders	Enterprise Asset Manager: Interfaces > Pending Work Orders

**Table 5–35 eAM-Related Windows and Navigation Paths**

<b>Window Name</b>	<b>Navigation Path</b>
Find Preventive Maintenance Schedules	Enterprise Asset Manager: Preventive Maintenance > Schedule Template Definition
Find Projects	Project Manufacturing Manager: Projects > Project Manufacturing > Projects
Find Project Status	Project Manufacturing Manager: Project Status > Project Status Inquiry
Find Rebuild Work Orders	Enterprise Asset Manager: Work Orders > Rebuild Work Orders
Find Requests (PRC: Refresh Project Summary Amounts)	Project Manufacturing Manager: Other > Requests > Run OR View menu > Requests
Find Work Orders	Enterprise Asset Manager: Work Orders > Work Orders
Generate Preventive Maintenance Work Orders	Enterprise Asset Manager: Preventive Maintenance > Generate Work Orders
Import Items	Enterprise Asset Manager: Interfaces > Import Items
Import Jobs and Schedules	Enterprise Asset Manager: Interfaces > Import Work Orders or Import Meter Readings
Item Costs Summary	Enterprise Asset Manager: Inventory > Items > Master Items > (M) Tools, Item Costs
Launch MRP	Manufacturing Manager: Material Planning > MRP > Launch
Maintenance Workbench	Enterprise Asset Manager: Work Order Planning > Maintenance Workbench
Maintenance Work Order Value Summary	Enterprise Asset Manager: Work Orders > Work Orders > [Costs] > [Value Summary]
Master Item	Enterprise Asset Manager: Assets > Asset Groups or Asset Activities
Material Transactions	Enterprise Asset Manager: Work Order Transactions > Material Transactions
Meters	Enterprise Asset Manager: Meters > Meter Definition
Meter Reading	Enterprise Asset Manager: Meters > Meter Readings > Asset Meter Reading
Miscellaneous Documents	Enterprise Asset Manager: Setup > Miscellaneous Documents
MRP Names	Material Planner: MDS > Names

**Table 5–35 eAM-Related Windows and Navigation Paths**

<b>Window Name</b>	<b>Navigation Path</b>
Operation Completion	Enterprise Asset Manager: Work Completion > Operation Completion
Organization	Inventory Manager: Setup > Organizations > Organizations > [New]
Organization Parameters	Enterprise Asset Manager: Setup > Parameters
Oracle Manufacturing Lookups	Enterprise Asset Manager: Setup > Lookups
Pending Meter Reading	Enterprise Asset Manager: Meters > Meter Readings > Pending Meter Reading
Personal Profile Values	Enterprise Asset Manager: Setup > Profiles > Personal
Purchase Orders	Purchasing Manager: Purchase Orders > Purchase Orders
Preferences	Time and Labor Administration: Preferences
Preventive Maintenance Schedules	Enterprise Asset Manager: Preventive Maintenance > Schedule Definition
Project Parameters	Project Manufacturing Manager: Projects > Project Manufacturing > Project Parameters
Rebuild Completion	Enterprise Asset Manager: Work Completion > Rebuild Work Order Completion
Requisitions	Purchasing: Requisitions > Requisitions
Resource Usage	Enterprise Asset Manager: Assets > Asset Numbers > Asset Numbers
Resource Transactions	Enterprise Asset Manager: Work Order Transactions > Resource Transactions
Routings	Enterprise Asset Manager: Asset Activities > Maintenance Routings
Select Work Order	Enterprise Asset Manager: Work Order Details > Operations, Material Requirements, or Resource Requirements
Scheduler Workbench	Enterprise Asset Manager: Work Order Planning > Scheduler Workbench
Shop Floor Invoice Variance	Enterprise Asset Management Cost > Work Order Shop Floor Invoice Variance
Submit Request	Enterprise Asset Management: Reports

**Table 5–35 eAM-Related Windows and Navigation Paths**

<b>Window Name</b>	<b>Navigation Path</b>
Supply/Demand	Enterprise Asset Manager: Manufacturing > Material Planning > MRP > Workbench > [Supply/Demand] > [Find]
Time	Self-Service Time and Expenses: Time Entry
Users	System Administrator: Security > User > Define
View Operations	Enterprise Asset Manager: Work Order Details > View Operations
View Material Requirements	Enterprise Asset Manager: Work Order Details > View Material Requirements
View Resource Requirements	Enterprise Asset Manager: Work Order Details > View Resource Requirements
View Resource Transactions	Enterprise Asset Manager: Work Order Transactions > View Resource Transactions > [Find]
Work In Process Parameters	WIP Manager: Setup > Parameters
Work Order Completion	Enterprise Asset Manager: Work Completion > Work Order Completion
Work Order	Enterprise Asset Manager: Work Orders > Work Orders



---

---

# Glossary

## A

### **activity**

Identifies a maintenance activity for an asset. An oil change is an Activity for a car. An Activity is often pre-planned and can be used repetitively to create Work Orders that require similar maintenance on Assets.

### **area code**

User-defined lookup that can be utilized to logically sort assets by where they are physically located or typically maintained.

### **asset attributes**

Unique information that describes the characteristics of an asset. Each asset can have unlimited asset attributes.

### **asset bills of material**

A "parts list" of items and rebuildable spares that make up a particular asset item, and can be defined for each asset group. The items defined on an asset BOM are standard inventory items (set up in the Master Item window).

### **asset category**

A standard naming convention that defines assets with familiar terms and establishes how to classify assets for reporting and analysis.

### **asset group**

Represent the classification of equipment. Examples include Trucks, Pumps, Towers, Buildings, Storage Tanks, and Turbines. Assets that have similar physical

configurations and maintenance requirements should belong to a single Asset Group.

**asset hierarchy**

A single structure that depicts assets and their constituent elements in parent/child relationships, as maintained by the maintenance organization. It provides information that enables a user to quickly identify the relationship via an Asset Navigator that displays appropriate asset details.

**asset maintenance bill of material**

BOM used to list all items and rebuildable spares needed to perform a particular asset activity, and can be defined for each asset activity. For example, you may have an asset activity titled, Oil Change. The items necessary to perform this activity include a filter, oil, etc. As Maintenance BOMs are created, they are associated to an asset activity.

**asset number**

A unique number that represents an asset or piece of equipment on which maintenance will be performed. An example of an asset number would be a Pump-101, or Toyota Truck 01.

**asset route**

A "virtual asset" that enables multiple assets to be associated to a single work order. It eliminates the need for creating multiple work orders for the same activity.

**B**

**breach based maintenance**

Work generated by violating established tolerances, based on asset specifications. This can include changes to pressure, flow rates, or temperature. These violated tolerances can automatically generate work requests for further service.

**C**

**CMMS (computerized maintenance management system)**

A computerized system to assist with the effective and efficient management of maintenance activities through the application of computer technology. It generally includes elements, such as a computerized Work Order system, as well as facilities for scheduling Routine Maintenance Tasks, recording and storing Work Orders, Bill of Material and Application parts Lists, as well as other numerous features.

**craft**

Personnel performing maintenance tasks, such as "hands on tools". Personnel may include mechanics, electricians, instrumentation technicians, machinists, utilities and facilities workers, etc. For personnel performing both operation and maintenance functions (for example, roll grinder, boiler room, or air compressors) include in the numbers that percentage of time spent maintaining. Contract employees that are on-site, full time are included.

**crew**

A group of employees that work together, usually under one supervisor. Sometimes a crew is in charge of a specific area and may have the same craft, such as general mechanics or they may have mixed crafts, such as electricians, and instrumentation technicians.

**component (See: rebuildable spare)**

A section, piece, or part of an asset that is removable, can be rebuilt or repaired, and interchangeable with other standard components (for example, engine).

**condition based maintenance**

The result of an assets' meter readings that may reflect the current condition of an asset. The results of such readings will affect the sequence of preventive maintenance work orders. Condition of an Asset can also be tracked by tracking its Quality Results.

**D****dependent steps**

Operations can be dependent upon another operation; you cannot uncomplete the operation's dependency if the current operation is complete. For example, operation 20 is dependent on operation 10 completing. You cannot uncomplete operation 10 once operation 20 has been completed.

**direct items**

Represent items with infrequent use or criticality; they are not included in the internal catalog as stocked items. These items are contrived as "one off", bought directly from a vendor for a specific Work Order and Operation.

**downtime**

Specifies the time the asset was unavailable to production due to maintenance.

**duration (hours)**

Identifies the total elapsed time of the Work Order. It has a unit of measure in hours. It is manually entered, or is calculated as the difference between the Estimated Start Date and Estimated End Date.

**E****easy work order**

Referred to as an unplanned work order, it enables quick entry of a work order; it is automatically created at a Released status, enabling you to execute work immediately.

**equipment**

All items of a durable nature, capable of continuing or repetitive utilization by an individual or organization, defined to the level at which maintenance is to be managed.

**F****fixed asset**

Identifies Accounting's Asset ID for reporting.

**forecast**

Projected work that is or will be required within a user defined period of time.

**H****handover**

Enables a supervisor to re-assign an operation to another supervisor, for the continuation of incomplete work.

**L****labor**

Assignment of work to repair, inspect, or resolve a problem. It is expressed in hours, and can be divided by crafts or skills.

## **M**

### **maintained group**

Represents an Asset Group or Rebuildable Item.

### **maintained number**

Represents an Asset Number or Serialized Rebuildable.

### **maintenance schedule**

A list of planned maintenance tasks to be performed during a given period of time, together with the expected start times and duration of each of these tasks. Schedules can apply to different time periods (for example, Daily Schedule, Weekly Schedule, etc.).

### **maintenance user**

An internet-based user interface for both maintenance and operations personnel. It provides an easy approach to entering and searching for information from any browser, and designated for the casual user (for example, tradespeople, such as fitters, mechanics, and electricians), in a plant or facility.

### **meters**

Used to measure asset usage and periodically service the asset, based on the measurement. For example, an odometer. Another example is a pipe may start out at 12 millimeters, but when it wears to only four millimeters, it needs to be replaced.

## **N**

### **non-stock items**

These items are included in the internal catalog, but the decision has been made to not maintain them in an inventory balance or ordering policy, other than to purchase or make them as required.

## **O**

### **operation completion**

The completion of tasks/steps within a work order.

**organization**

A distinct entity in a company. It may include separate manufacturing facilities, warehouse distribution centers, and branch offices. Organizations often define boundaries within information sharing.

**owning department**

Identifies the role responsible for owning the work outlined within a Work Order.

**P****planned work**

Maintenance work for which a detailed work order has been written. All materials have been made available before the work order starts. The equipment to be maintained has been taken out of service, cleaned, and prepared, before the work starts, if required. Special tools, equipment, resources, and services have been scheduled for this work order. The work order must appear on a plan before the start of the period in which the work is to be carried out.

**preventive maintenance**

Maintenance carried out periodically, or by usage (throughput), that is intended to reduce the probability of failure or degradation of physical condition of an asset. This can be based on a meter or time.

**preventive maintenance (PM) work order**

A work order referencing a maintenance activity, sometimes referred to as a PM work order, and is created by the PM Scheduling process.

**R****RCM (reliability centered maintenance)**

The predictive approach to maintenance that trends an asset's performance and captures data. This data will help the maintenance organization to better strategize their Preventive Maintenance programs.

**rebuildable item**

Represents the classification of serialized or un-serialized rebuildables.

**routine maintenance work order**

These are the work orders that result from inspection, requests, etc. There are two types: work orders referencing a maintenance activity but created manually, and work orders created manually and not referencing a maintenance activity.

**S****scheduled start date**

This date is manually entered and is used to communicate to the system the scheduled date for the current Work Order.

**serialized items**

Typically tracked, and are often times rebuilt and issued properly. They are tracked with a history of failure and repair data, that is maintained for each serialized instance, regardless of their location.

**serialized or un-serialized rebuildable (See: component)**

Items that are installed, removed, and refurbished. Examples of rebuildables include, motors, control boxes, and computer boards. These items are not assets, however, they need to be associated with work orders for maintenance purposes. They are inventory items, and can be serialized. They are also referenced as portables or "components".

**shutdown type**

Indicates if a shutdown is required of the asset when performing the work order. If it is associated with an asset activity, it will inherit the value from the asset activity.

**stock items**

Items for which either the frequency of use or equipment criticality/lead time to obtain replacement parts, mandates that they be stocked in Inventory. Therefore, they utilize planning parameters to generate replenishment orders.

**T****tagout required**

Indicates that the asset needs to be secured before carrying out the work order, usually for safety reasons. Tags are generally printed and placed on an asset, warning workers that the asset is shutdown and should not be started. This field is intended for future use in eAM.

## **W**

### **work in process (WIP) accounting class**

A set of accounts that you use to charge the production of an assembly. You assign accounting classes to discrete jobs, and repetitive schedules. Each accounting class includes distribution accounts and variance accounts, and they are used in cost reporting.

### **work order**

A plan that defines the resources and material equipment needed to conduct work, and then associated start and end dates.

### **work order closure**

A work order that is unavailable for charges or any type of transaction. Closing a work order calculates final costs and variances, creating history for the work order.

### **work order completion**

The completion of the entire work order. The operations within a work order do not need to be complete in order to complete the work order.

### **work order duration**

The duration of the work order. The difference between completion date and start date.

### **work order operation**

Operations (also known as tasks/steps) that prepare the instructions to perform a single activity, within the context of the work order.

### **work request**

A request to have work performed on a maintainable asset.

---

---

# Index

## A

---

- Asset Activities
  - association
    - rebuildable spare, 3-110
  - definition, 3-51
- Asset Areas
  - setup, 3-21
- Asset Attributes
  - setup, 3-64
- Asset Bill of Material
  - setup, 3-79
- Asset Groups
  - definition, 3-49
- Asset Numbers
  - associating with meters, 3-119
  - associating with production equipment, 3-179
  - definition, 3-69
  - setup, 3-46
- Asset Routes
  - definition, 3-76
- AT AppendixTitle
  - paragraph tags
    - AT AppendixTitle, A-1

## C

---

- Category Codes and Sets
  - setup, 3-46
- Collection Elements, 3-150
- Cost Management
  - methods and mappings, 3-170

## D

---

- Defining
  - asset activities, 3-51
  - asset documents, 3-68
  - asset groups, 3-49
  - asset routes, 3-76
  - asset statuses, 3-82
  - assets, 3-69
  - department approvers, 3-26
  - departments, 3-22
  - eAM parameters, 3-16
  - lookups, 3-29
  - maintenance routes, 3-93
  - master demand schedule name, 3-142
  - material requirements plan name, 3-143
  - miscellaneous documents, 3-27
  - plan options, 3-145
  - preventive maintenance schedules, 3-129
  - project manufacturing integration, 3-181
  - rebuildable spares, 3-105
  - resources, 3-22
- Department Approvers
  - definition, 3-26
- Departments
  - definition, 3-22
- Documents
  - asset, 3-68
  - miscellaneous, 3-27

## E

---

- eAM Quality Collection Plans, 3-155
- Enabling

eAM for organizations, 3-14

## I

---

### Integrations

- cost management, 3-170
- outside processing, 3-160
- process and discrete manufacturing, 3-177
- project manufacturing, 3-181
- quality, 3-150

### Item Interface

- setting up, 5-3

## L

---

### Lookups

- asset activity causes, 3-31
- asset activity types, 3-29
- asset criticality codes, 3-35
- definition, 3-29
- work order priority codes, 3-40
- work order reconciliation codes, 3-42
- work order types, 3-43
- work request priority codes, 3-40
- work request statuses, 3-37
- work request types, 3-39

## M

---

### Maintenance Bill of Material

- setup, 3-99

### Maintenance Routes

- definition, 3-93

### Meters

- association with assets, 3-119
- definition, 3-113

## O

---

### Organization

- setup, 3-12

### Organizations

- enabling for enterprise asset management, 3-14

## P

---

### Preventive Maintenance

- meters, 3-113
- scheduling, 3-122

### Process and Discrete Manufacturing

- organization setup, 3-177

### Property Manager

- prerequisites, 3-187

## R

---

### Rebuildable Spares

- asset activity association, 3-110
- definition, 3-105
- setup, 3-105

### Resources

- definition, 3-22

## S

---

### Scheduling, 3-141, 3-148

- preventive maintenance, 3-122

### Setting Up

- asset areas, 3-21
- asset attributes, 3-64
- asset bill of material, 3-79
- assets, 3-46
- category codes and sets, 3-46
- cost management integration, 3-174
- general, 3-21
- maintenance bill of material, 3-99
- organizations, 3-12
- outside service processing, 3-160
- overview, 3-9
- property manager, 3-187
- rebuildable spares, 3-105

### Statuses

- asset, 3-82