

Oracle Utilities
Work and Asset Management and
Operational Device Management
Business User Guide
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Chapter 1

Introduction

This section provides an introduction to the Business User Guide for Oracle Utilities Work and Asset Management.

About Oracle Utilities Work and Asset Management

Oracle Utilities Work and Asset Management provides functionality to handle large volumes of assets and to manage the receipt, installation, maintenance, tracking and removal of those assets. The system also manages approval processing, tracks purchasing transactions, manages inventory and resources, and tracks costs, accounting and financial transactions.

The system handles the following main functional areas:

- **Home Page:** The home page provides a comprehensive dashboard where you can access information you need to review and complete your work. For example, the Main tab can be configured to display your key work areas; crews or buyers that you monitor, approval summary, your bookmarks or saved searches, and so on. Additional tabs provide easy access to information and KPIs that approvers, planners, executives and others can use to review organizational functions and complete their work.
- **Approval Processing:** One of the ways that the system simplifies and speeds up work is by routing records when they require approval. Approval requests use approval profiles to determine the properties and requirements for the approval. Approvers can use the **Approval Dashboard** to manage the approvals that require their attention.
- **Assets:** Asset management provides functionality to track the purchase, repair and maintenance of assets and asset components using general work management processing, preventive maintenance techniques, purchasing processing and inventory tracking. The system also allows organizations to record asset measurements and perform asset inspections in addition to the standard maintenance that is performed on assets.
- **Inventory:** Inventory is tracked, ordered, and received from vendors and allocated in the Inventory system. As inventory is allocated to work, the system passes this information back to the Work Management system so that maintenance managers and crews know that their parts are available.
- **Purchasing:** Purchasing functions can be used to plan, initiate, and process purchases and purchasing contracts from requisition to invoicing. The system also manages vendors, designated buyers, and stock items.
- **Resource Management:** Resources encompass any object that contributes to the running of your organization. This includes crews and crew shifts, employees, equipment, contacts, documents, standard notes and attachments, and so on.


- **Work Management:** Work management is the process by which work orders are requested, approved and activated, work is performed and then work is finished and closed. While the work is being performed, materials, equipment assets and labor are tracked, as applicable to your business processes. The system also allows organizations to set up preventive and predictive maintenance cycles.
- **Accounting and Financial Transactions:** The system tracks transactions that incur costs including purchasing and procurement costs, inventory and stocking costs, and the costs associated with the labor, equipment and materials that are incurred when completing work.

About the Home Page

The *Oracle Utilities Work and Asset Management* home page provides a comprehensive dashboard where you can access much of the information you need to review and complete your work.

The home page can be configured as the first page launched when you log in to the application. This can serve as your personal web page where you configure system elements that you use most frequently. Zones are added to the home page by adding options to **Portal Preferences** under your **User Profile**. Using profile preferences, you can also personalize the arrangement of the zones and whether or not they are initially collapsed or open when the home page opens.

Refer to [User - Portal Preferences](#) under the [User Preferences](#) section for more information on using portal preferences or the [Defining Home Page Configuration](#) section in the Administrative User Guide for information on configuring home page settings.

In general, click on any link, pie chart, or graph to open details about that item. The **Go To**  icon at the front of some items opens the corresponding tab with the related information populated. For example, if you click the symbol in front of a storeroom in the **My Storerooms** section on the **Main** tab, the system opens the **Inventory** tab with that **Storeroom ID** populated. Click **Refresh** to update and display the graphs.

The base package home page can include the following tabs (refer to the embedded help for zone details):

- **Main:** The **Main** tab displays general system information and any custom zones provided by your implementation (such as company news). Click the Add link in any zone to add the related information. The My Buyer, My Storerooms, and My Crews zones do not automatically include the records. For example, if the logged in user is a buyer, he or she must still add their own buyer to the zone, if they want to include their own buyer in the zone.
- **Approvals:** The **Approvals** tab provides the same information and functionality as the [Approval Dashboard](#).
- **Work:** The **Work** tab can display statistics about work requests and work orders. Some of the work zones might include a link to the **Statistics** portal. Authorized users can edit some of the details displayed in the zones using this portal.
- **Inventory:** The **Inventory** tab provides information about stock items by storeroom. You must enter a storeroom and click **Refresh** to display the zones.
- **Purchasing:** The **Purchasing** tab can display purchasing statistics by buyer. You must select a buyer and click **Refresh** to display the zones.

Chapter 2

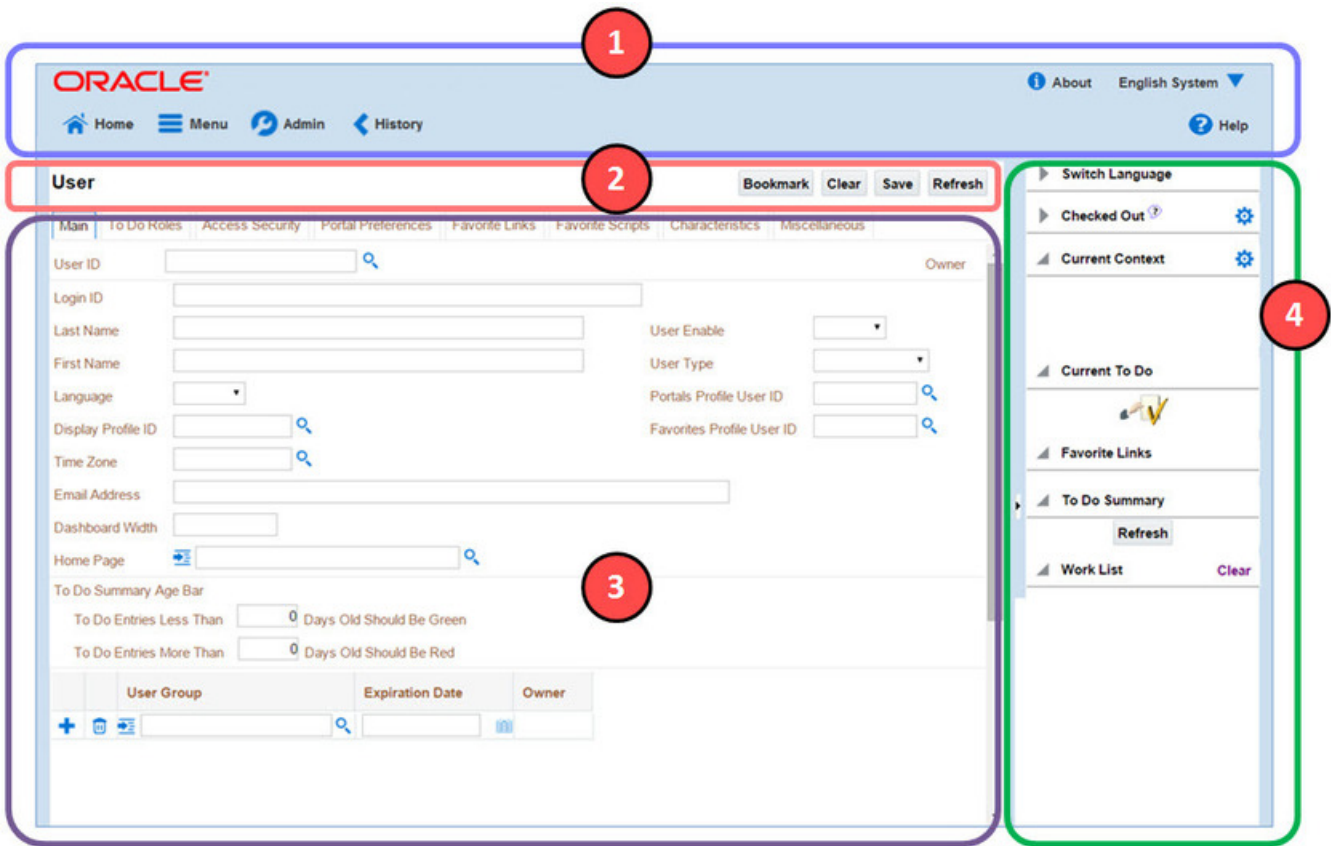
User Interface Standard Features

This section describes basic system concepts, features, and standards of the user interface.

Page Components

Oracle Utilities Application Framework screens are comprised of the following main areas:

1. [The Application Toolbar](#)
2. [The Page Title Area](#)
3. [The Object Display Area](#)
4. [The Dashboard Area](#)

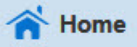


NOTE: The look and feel of the application may be modified after the product is installed. See [Custom Look and Feel Options](#) for customization information, including how to change colors, fonts, and other system features. The information provided in this document represents features and functionality available only in the delivered product.

The Application Toolbar

This section describes the features available on the application toolbar.

Home Button

Click the **Home** button, , on the Application Toolbar to open your home page. Your home page is defined in [User Preferences](#).

Keyboard Shortcut

Alt+O

Alternate Shortcut

Alt+Shift+O

NOTE: Refer to [Shortcut Key Summary](#) for information about the alternate shortcut.

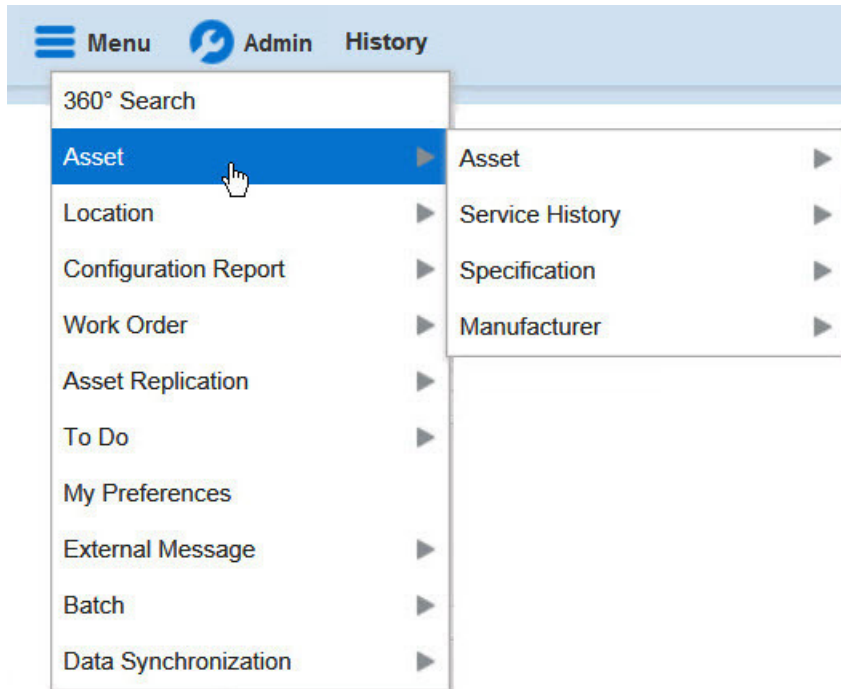
Menu

Menu is available in the application toolbar to help you navigate to the different pages of the system

Keyboard Shortcut

Ctrl+Alt+M

The menu list is organized by functional area. Clicking the Menu button displays each functional area. Clicking a functional area, in turn, displays a submenu that contains pages within that area.



The pages within each functional area *typically* have two options: Search and Add. If the menu item does not have an Add or Search option, select the menu item itself.

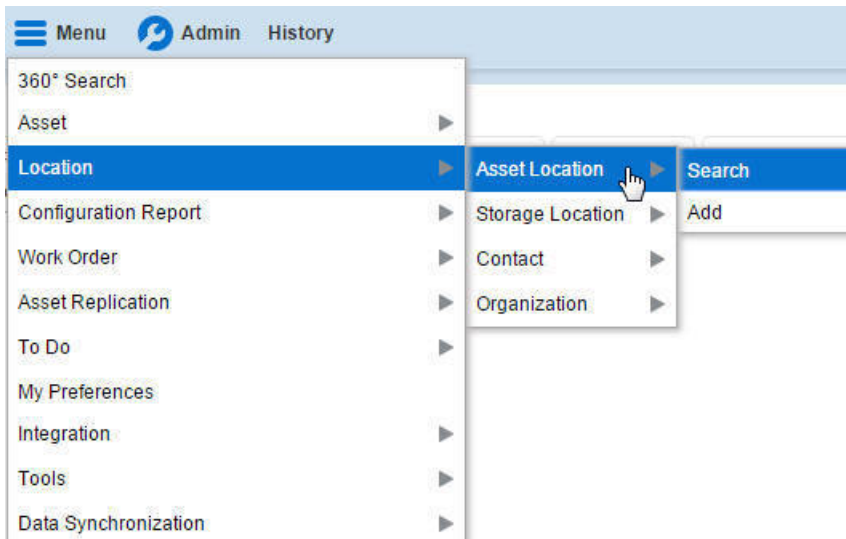
How the Search and Add option behaves depends upon whether the maintenance page is fixed or portal-based.

Fixed:

- **Search:** Displays a pop-up search window for the user to enter the search criteria and select the entity to display. Once the entity is selected, the user is taken to the maintenance map with the data populated in the fields.
- **Add:** Displays the maintenance page with empty fields so that the user can complete the information and save the entity.

Portal-Based:

- **Search:** Displays a search portal where the user can enter the search criteria and select the desired entity. Once the entity is selected, the user is typically taken to a maintenance portal or the information is broadcast to other zones within the same portal.
- **Add:** Either navigates to a page where the user can select the entity type or business object, or directly to the input map where the user can enter and save the entity.



Users may also opt to use the [Menu Item Search](#) input field.

Admin Menu

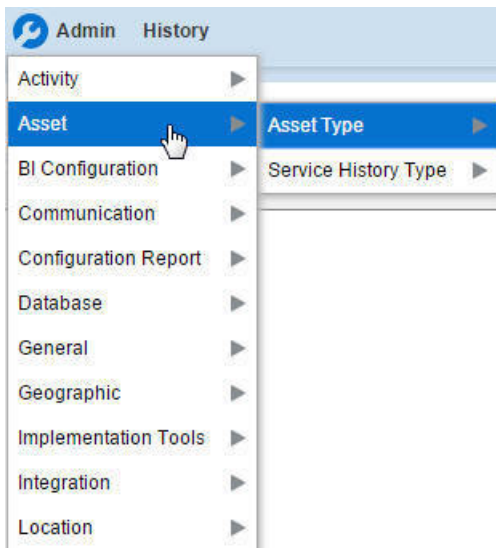
The Admin dropdown is available in the application toolbar to help you navigate to the different pages of the system.

Keyboard Shortcut

Ctrl+Alt+A

Depending on how your implementation has configured the Admin menu list, it may be organized either by functional area or alphabetically.

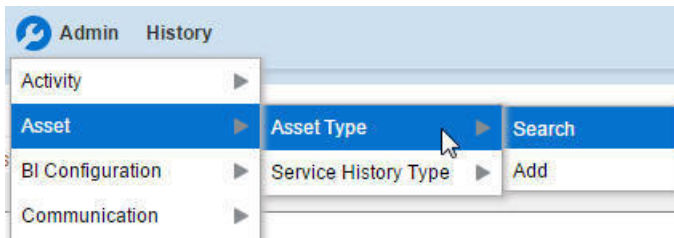
Clicking the Admin button displays each functional area or alphabetical list. Clicking one of the options, in turn, displays a submenu that contains pages within that area. The following is an example of the Admin menu organized functionally.



NOTE: Menu navigation paths referenced in the administrative user guide provide the functional grouping. If your implementation uses the alphabetic grouping, the page can be found in the alphabetic letter that is the first letter of the page name.

NOTE: Refer to [Installation Options](#) for information about the admin menu configuration options.

The menu lines displayed for each menu entry *typically* have two options: Search and Add. If the menu item does not have an Add or Search option, select the menu item itself. See [Menu](#) for more information about these options.



Users may also opt to use the [Menu Item Search](#) input field.

Back Button

Click the **Back** button on the application toolbar to open the previously visited page.

Keyboard Shortcut

Alt+B

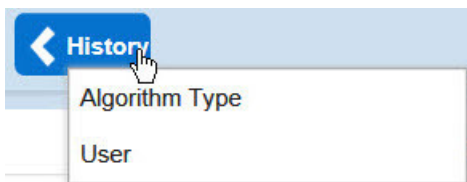


The **back** and **forward** navigation buttons, as well as the **History** list, appear in the application toolbar only when page use warrants their appearance.

NOTE: Under certain circumstances, such as revisiting a page that was left unsaved after being loaded with default data, a page may not appear as it did when you left it.

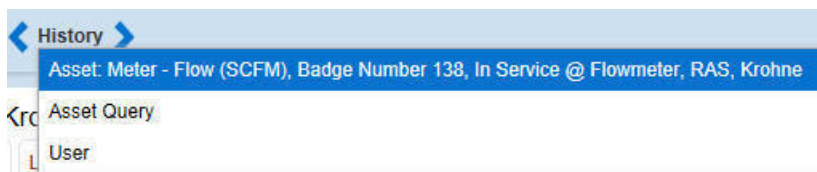
History Button

Click the **History** button to display a list of previously visited pages. When you click on an entry in the list to return to an earlier page, all items above the selected page are removed from the list.



The **back** and **forward** navigation buttons, as well as the **History** list, appear in the application toolbar only when page use warrants their appearance.

Note that if the page has been configured to display an information string in the [page title area](#), that information will also be visible in the History dropdown.



Keyboard Shortcut

Ctrl+Alt+H

Forward Button

Click the **Forward** button to return to the page that was most recently dismissed.

Keyboard Shortcut

Alt+G

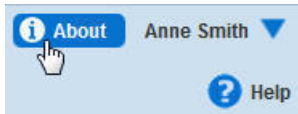


The **back** and **forward** navigation buttons, as well as the **History** list, appear in the application toolbar only when page use warrants their appearance.

NOTE: Under certain circumstances, such as revisiting a page that was left unsaved after being loaded with default data, a page may not appear as it did when you left it.

About Button

Click the **about** button to display a window that describes the current and release information for your version of your product.

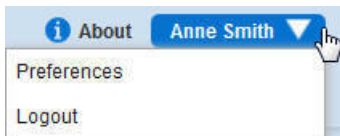


The about window shows a variety of information including:

- The logged in user ID
- The release ID of the product
- The release ID of the framework used to construct the product
- The release ID of any customer specific modifications (this comes from the [installation record](#))

User Menu

The User menu is available in the application toolbar to provide access to user-specific options.

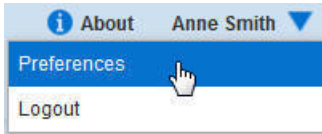


Through this dropdown, the user can access their [User Preferences](#) or [Logout](#) of their current session.

NOTE: Configurable Menu. Additional menu entries may be visible in your implementation as this menu configuration allows for additional options to be defined.

Preferences

Click the **Preferences** menu item in the User Menu to view or modify your settings in a form that appears in the **Main** tab in the object display area.



Keyboard Shortcut

Ctrl+Alt+P

Logout

Click the **Logout** menu item in the User Menu to complete your current session of the application. Clicking this item logs the current user out and displays the Welcome page so that another user can login.



Keyboard Shortcut

Ctrl+Alt+L

Menu Item Search

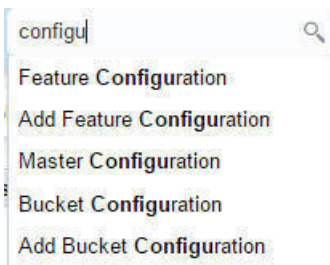
The Search Menu input field and search icon are used to allow a user to enter the description of a menu item entry to navigate directly to the corresponding page or BPA script rather than using the menus to navigate to the desired page / script.

Keyboard Shortcut

Ctrl+Alt+F



Typing text in the field shows menu items whose descriptions include the typed text.



Note that only menu items within the [Menu](#) and [Admin Menu](#) that the user has security access for are included in the results. The text included in the search is taken from the menu item description. As described in [Menu](#), menu lines often have two sub item: Search and Add. In most instances, the description of the "Search" menu item is simply the menu entry

text, for example **To Do Entry**. The description of the "Add" menu entry includes the word Add in front of the menu entry text, for example **Add To Do Entry**.

Help Button

Click the **Help** button in the Application Toolbar to open context-sensitive Help in a new browser window.



Keyboard shortcut:

Keyboard Shortcut

Alt+F1

Page Title Area

The Page Title Area displays the page title and the page actions toolbar.

For certain pages in the system, the page title may be followed by an information string. It is only applicable to portal-based pages that display a single record. This information is only visible if the portal has been configured to display the primary key's information string. Typically only "stand alone" maintenance portals are configured to show the information string, whereas "all-in-one" portals are not configured this way.

FASTPATH: Refer to [Common Base Portals and Zones](#) for more information about standard base product portals.

NOTE: If an information string is long and would interfere with a page actions button, the information string will automatically be truncated and suffixed by an ellipsis, "...", indicating that more information is available. In this situation, the missing text can be viewed if the user hovers their mouse over the string.

The Page Actions Toolbar displays standard control options, such as Save and Duplicate. More detail about the actions that may appear are described in the following section.

Page Actions Toolbar

In the Page Title Area, control functions appear in the Page Actions Toolbar; such as, Clear, Save, Duplicate, Delete and Refresh buttons.

NOTE:

Buttons in the Page Title Area appear as the function is available to the user; for example, the Delete button will not appear if the user has made any changes to the page's content, or does not have the necessary security rights for this action.

In addition, other functions that are specific to a portal-based page may appear in the toolbar, if configured. For example, the ability to navigate to the Search zone for a specific maintenance object may be visible on the maintenance portal.

This section describes the standard features that are available in the Page Actions Toolbar.

Bookmark Button

Click the Bookmark button on the Page Actions Toolbar to save the current page and context to the bookmarks list.



Keyboard Shortcut

Ctrl+Alt+B

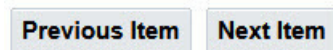
NOTE: Secured. This button is secured using the application service **F1-BOOKMARKS**. Users that do not have security for the application service will not see the Bookmark button (or the corresponding dashboard zone).

After clicking the Bookmark button, you are prompted to provide a name for the bookmark. After saving, it is visible in the [Bookmarks Zone](#), allowing you to return to this page with this context loaded with one click.

NOTE: Unsaved data will not be included in the bookmark. If you view a record and make changes to data without saving the changes and then bookmark the page, the unsaved changes are not included in the bookmark information.

You may change the name of the bookmark or change the sequence of the bookmarks by navigating to the [User - Bookmarks](#) in the user preferences.

Next/Previous Item Buttons



The (**Previous Item** and **Next Item** buttons appear in the Page Actions Toolbar under these conditions:

- You access a fixed page, meaning that it is not portal-based.
- You use a search page to display an item.
- There are multiple items in the search results list *below* or *above* the selected item.

If, for example, you enter search criteria of "Smith" on the User Search page, you might see the following results:

- Smith, Albert
- Smith, Peter
- Smith, Zane

If you select **Smith, Peter**, Peter's user information is displayed on the User page. If you then click the **Next Item** button, **Smith, Zane** will be displayed. In addition, because **Smith, Zane** is the last entry in the search results, the **Next Item** button is no longer needed and will not appear in the Page Actions Toolbar.

If you then click the **Previous Item** button, **Smith, Peter** will be displayed; click again and the **Smith, Albert** record will appear, and, because **Smith, Albert** is the first entry in the search results, the **Next Item** button is no longer needed and will not appear in the Page Actions Toolbar.

Keyboard Shortcut

Alt+P

Alt+N

Alternate Shortcut

Alt+Shift+N

NOTE: Refer to [Shortcut Key Summary](#) for information about the alternate shortcut.

Duplicate Button

Click the **Duplicate** button in the Page Actions Toolbar to create a duplicate of the currently selected object.



Before the new object is added to the database, a dialog appears in which you must enter the unique identifier for the duplicate object. When you click OK, the system creates the record by copying the original record. It may be helpful to think of the duplication function as the equivalent of a "save as" action.

Keyboard Shortcut

Ctrl+Alt+D

NOTE: Copying ancillary information for a record sometimes requires confirmation during a duplication request. If so, you may also be asked if you also want to duplicate ancillary information. If, for example, you duplicate a user group, besides supplying the ID of the new user group, you are asked if all users in the original user group should be linked to the new user group.

This button does not appear in the Page Actions Toolbar when:

- Duplication is not supported for the current object.
- You are on a portal based page. (For these types of pages, if duplication is supported, the actions are defined in a zone on the portal.)
- You have made changes to the object without committing the changes to the database by clicking Save. (After making changes, you must either discard them using the **Refresh** button, or save them.)

Delete Button

Not all transactions have the capability to be deleted. Deletion is related to the business impact of the action. In some transactions, Delete is present for some scenarios and unavailable for others; for example, you may not be able to delete a record at a certain status level.

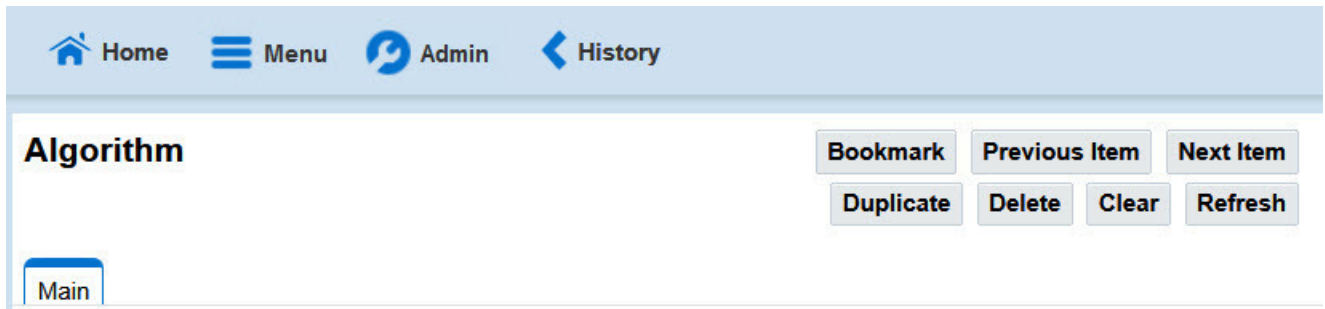
NOTE:

If you make a change to an object and do not save the changes to the database, you cannot delete the object until you either save the changes or refresh the object with the contents on the database.

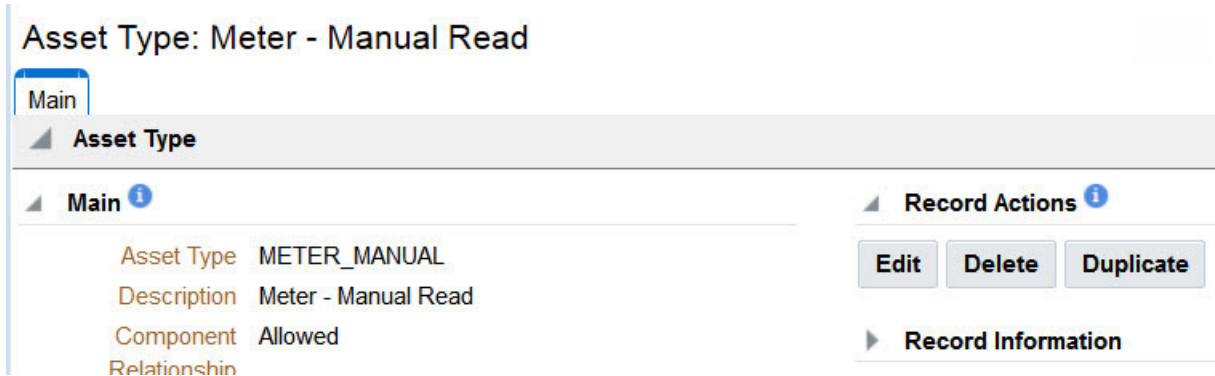
Before you delete an object, the system verifies that the object is not referenced anywhere in the system. If it is, you cannot delete it. If, for example, you attempt to delete a user, the system ensures this user has not been referenced in a user group or on a To Do.

Depending on the type of page that you are using, the option to delete may vary.

- Fixed pages display a Delete button in the page actions toolbar when the option is available.



- Portal-based pages display the Delete button in the object-related map.



- List zones on All in One portals commonly display the Delete button (garbage can icon) next to the entity in the search results.



In all cases, before the object is deleted, a confirmation dialog is displayed.

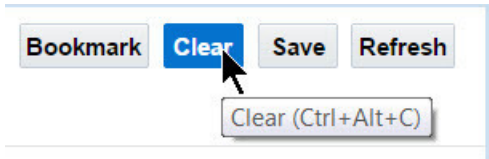
CAUTION: A timeout situation could occur as the system attempts to verify the use of the deleted object if the object is referenced in many places *and* involves large volumes of production data. If this timeout situation occurs, you must work with your database administration group to delete the offending object.

Clear Button

Click the **Clear** button to remove the values from the currently displayed object's fields. This action is typically used to clear input fields when adding a new object.

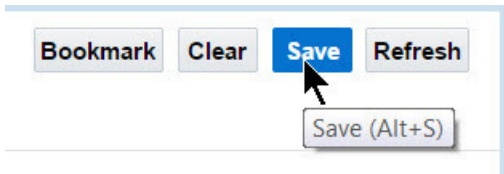
Keyboard Shortcut

Ctrl+Alt+C



Save Button

Clicking the **Save** button saves any changes you have made in the data on the current object.



Keyboard Shortcut	Alternate Shortcut
Alt+S	Alt+Shift+S

NOTE: Refer to [Shortcut Key Summary](#) for information about the alternate shortcut.

The button does not appear unless:

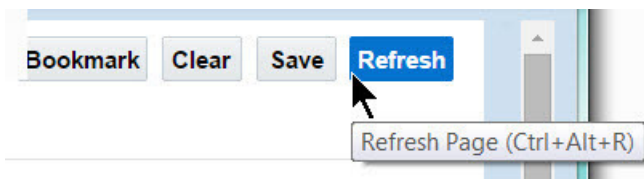
- You enter a page in add mode and default values are loaded.
- You make changes to an object after it is displayed (note that you must tab or click out of the field before the Save button appears).

Refresh Button

Click the Refresh button to reload the values on the page with those from the database.

CAUTION: All unsaved changes are discarded.

Keyboard Shortcut
Alt+R



Object Display Area

The Object Display Area contains the details of the object(s) currently being viewed or maintained. For example, if you display a portal, its zones are displayed in this area.

Because many of the page components follow Internet standards of operation, the behavior of these types of components are not explicitly described. This section focuses on special features that are unique to the application framework.

Multiple Tabs

When a page in the application includes a lot of information, the page may be implemented with vertical scrolling to allow the user to view all the information. Or alternatively, the page may be implemented with several tabs, allowing the user to navigate between tabs to view or update information. The following image is a section of the User page showing the multiple tabs.

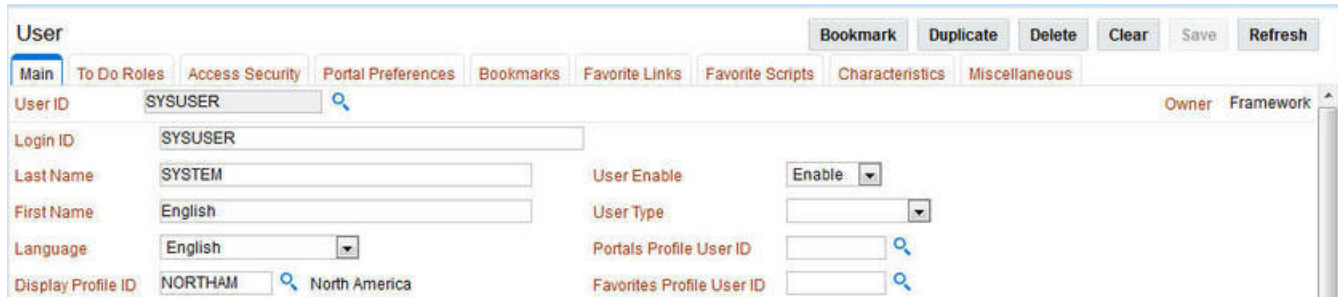


Figure 1: Multiple Tabs Example

The names of the tabs describe the type of information that will be displayed in the page when the tab is clicked. For example, if you click on the **Favorite Links** tab, the contents of the page show the favorite links configured for the user.

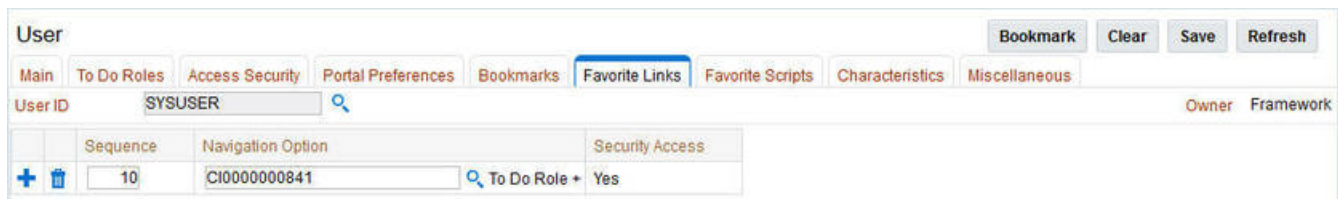


Figure 2: Multiple Tabs Example (After Favorite Links Tab Is Clicked)

NOTE: Hot key options. Rather than clicking on a tab, you can click F2 or Shift+F2 to scroll through the tabs. F2 moves you through the tabs from left to right. Shift+F2 moves you through the tabs from right to left.

NOTE: Hot key options. Use Alt+a number to navigate to the tab page whose relative position corresponds with the number. For example, if you press Alt+6 on the above page, the **Favorite Links** tab will be displayed. If there are more than 9 tabs on a page, you must use the mouse or F2 / Shift+F2 to display a tab. Note that the numeric keypad on your keyboard cannot be used to implement this function.

NOTE: Returning to a page that contains multiple tabs. If you return to a page (by clicking the [Back](#) button or the [History](#) button), the page will be positioned on the last tab that was opened.

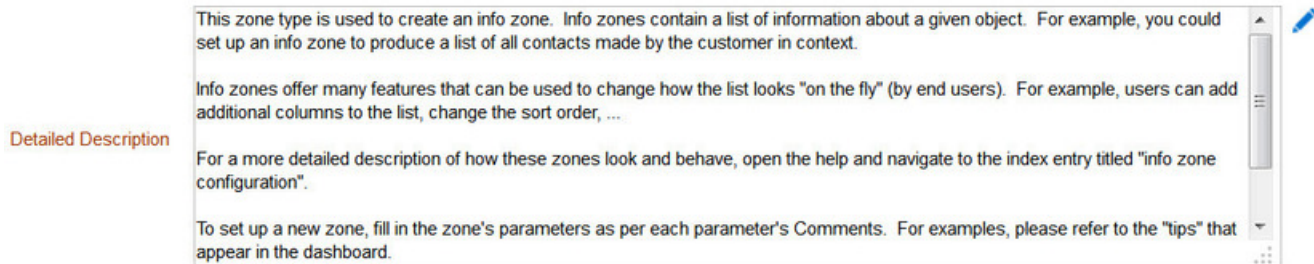
NOTE: Page versus Tab nomenclature. The documentation frequently refers to the contents of a given tab as a page. However, the page actually comprises the entire collection of tabs.

Text Box

The following is an example of a basic text box:

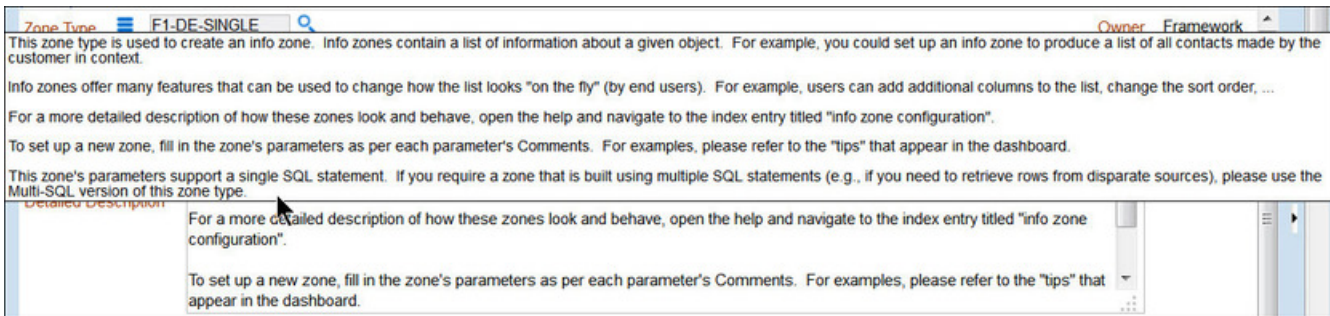


If the text box is a large field, the text box may be configured to enable scrolling. In this situation, an expanded edit icon, (a pencil), will appear adjacent to it.

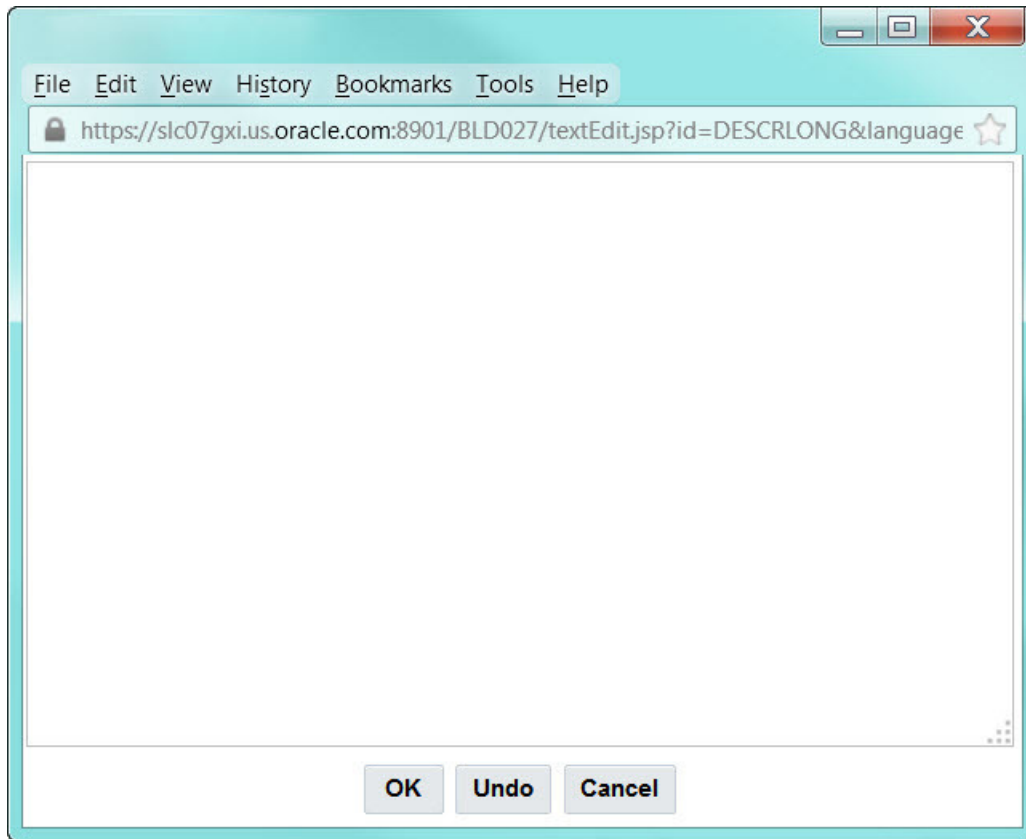


Additional capabilities are provided to display and edit data in these text boxes:

- If the field contains more text than is visible, a pop-up that displays the full text appears when you hover your mouse over the text box. The text in the pop-up can be selected and copied.



- If you click the expanded edit icon, an editable pop-up window appears. If the field is not protected as a result of business rules for the page, you may modify the text in this window.

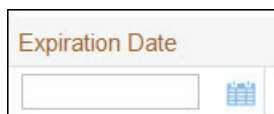


NOTE: The following table highlights special characters that are converted to equivalent standard characters when entered in a text box.

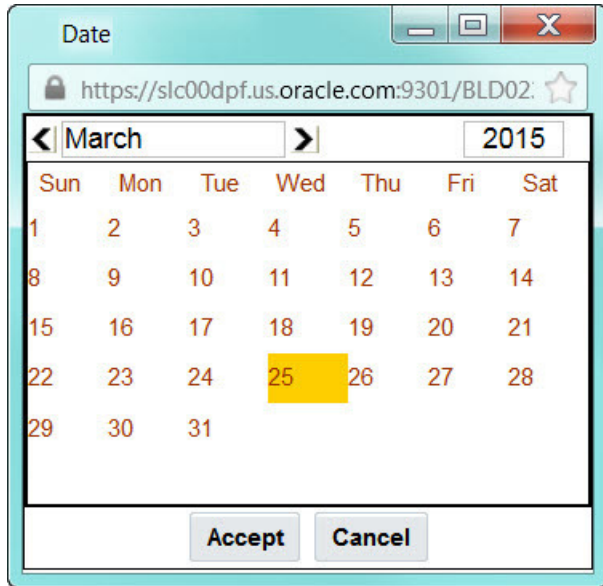
Entered Character Description	Unicode	Converted Character Description
Curly left double quote.	U+201D	Straight double quote.
Curly right double quote.	U+201C	Straight double quote.
Curly left single quote.	U+2019	Straight single quote.
Curly right single quote.	U+2018	Straight single quote.
En dash.	U+2013	Simple hyphen.
Em dash.	U+2014	Simple hyphen.
Ellipse	U+2026	Three dots.
Middle dot (bullet / centered dot)	U+00B7	Asterisk.
Fraction 1/4 (using 1 character).	U+00BC	1/4 (using three separate characters).
Fraction 1/2 (using 1 character).	U+00BD	1/2 (using three separate characters).
Fraction 3/4 (using 1 character).	U+00BE	3/4 (using three separate characters).

Date Only Field

When only the date is required, the Date field looks as follows:



If you click the calendar icon next to the date field, or you double-click inside the date field, the following window appears:

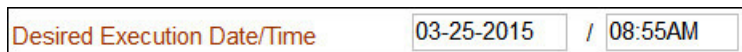


If the date field was blank, the current date is highlighted when the window first appears. If the date field contained a date, it is displayed.

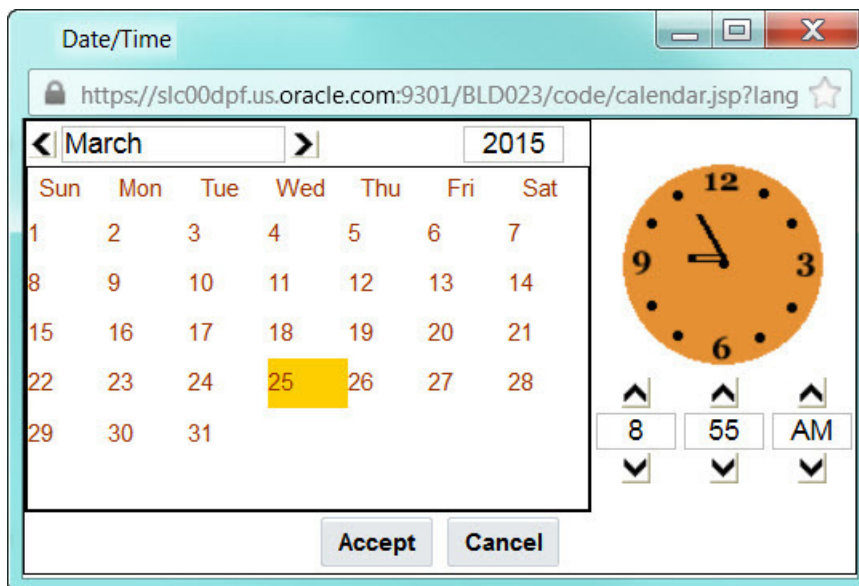
You can double-click the desired date, or you can select a date and click Accept to close the date window and populate the date field.

Date and Time Field

When both the date and time are required, the Date and Time fields typically look as follows:



If you double-click or press the Enter key while the cursor is in a Date and Time field, the following window appears:



Select the date and use the toggle buttons (or enter) the time and then click **Accept** to populate the original fields.

NOTE: The user cannot select and move the hands on the clock to set the time.

Search Button

The search button appears primarily as a magnifying glass.



When using a pop-up search window, the search button can appear as a button with its function labeled.

A screenshot of a pop-up search window titled "Algorithm Type Search". The window has a light blue header and standard window controls (minimize, maximize, close). The address bar shows the URL "https://slc00dpf.us.oracle.com:9301/BLD023/uiPage/algTypeSearchPage?language=ENG". Below the address bar are three search criteria sections: "Algorithm Type" with a text input field and a "Search" button; "Algorithm Entity" with a dropdown menu and a "Search" button; and "Description" with a text input field and a "Search" button. Below these sections is a table with five columns: "Algorithm Type", "Description", "Alg Entity", "Program Type", and "Program Name". The table is currently empty.

You can have the system search for an item that matches the data you entered using any of the following methods:

- Enter a value in the search field and press **Enter** while the cursor is in the search field. The system assumes you want to search for the value entered and pre-populates it in the search window's search criteria. If a unique match can be found, the system automatically populates the field with details corresponding to the record found. If a unique match cannot be found (either no matches or multiple matches), a search page opens containing selectable items.
- Click the Search button without entering a criteria. This will typically cause a pop-up search window to appear so that you can further refine your search.
- Enter a value and tab out of the search field. The system looks for a value that exactly matches what you entered. If it cannot find such a value, the search dialog will not be presented.

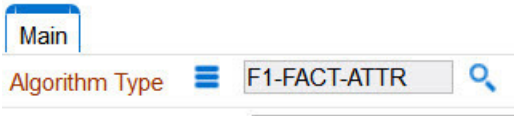
When an item is selected in the search page, the search page closes and the input field is populated with the value selected.

NOTE: Sorting columns within the search grid. You may click on the column heading of columns in a search grid to cause the contents of the grid to be sorted. Refer to [Sorting Functionality](#) for more information.

Context Menu Button

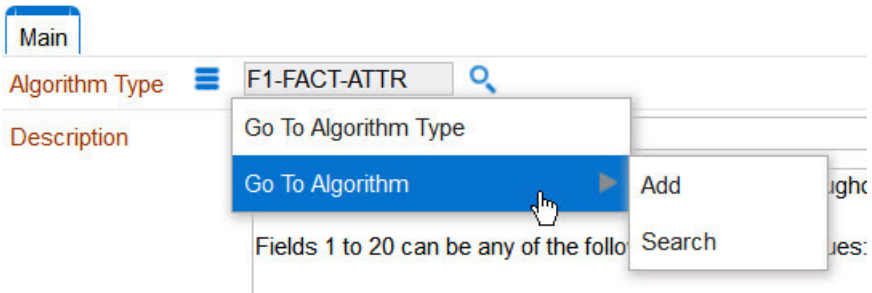
The Context Menu button is a small version of the Menu button from the Application Toolbar. An example is shown below:

Algorithm Type




Context menus exist to help you navigate to other pages and populating the page with the current context (by passing the ID of the related object). In addition, the menu items offered in a Context Menu differ depending on the entity that the menu is related to; for example, when you click the Algorithm Type context menu, a pop-up menu similar to this appears:

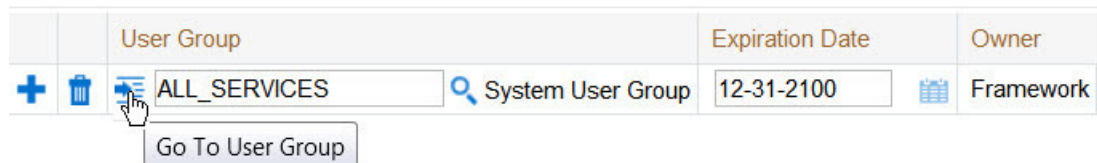
Algorithm Type




Different context menus exist for each of the major objects in the system; for example, in Customer Care and Billing, the context menu for Premise contains premise-oriented menu items, whereas the context menu for Account contains account-oriented menu items.

Go To Button

Clicking a Go To button, , opens the page for the related object - it functions like a hyperlink.



Broadcast Button

Some zones have been configured to "broadcast" unique identifiers to other zones within the portal; if so, you'll see a broadcast tower icon, , in the first column. Clicking the icon causes specific zones to reload — these zones that have been configured to rebuild when the unique identifier is received. For example, you might have configured a zone to display the image of a bill when a bill ID is broadcast from an info zone.


Embedded Help Icon

The icon containing a small 'i' is an Embedded Help icon.



When an embedded help icon is clicked, a tool tip appears containing additional information.

Work Lists


The work list buttons can appear in a zone's column heading, .

Clicking the icon results in populating the dashboard [Work List Zone](#) with the entire column. The user may use the Work List zone to easily process entries one at a time without returning back to the source query zone. The work list stays populated until the user overlays the work list by clicking a different column's icon.


When a user clicks on a work list entry in the dashboard, the system behaves as if the user clicked on the hyperlink in the zone. In addition, the system adds a check mark next to the item showing that the user has “worked on” or visited the entry.

NOTE: The Work List zone is populated only upon user request.

Scroll Bars with Dynamic Height


Sometimes the height of a grid isn't sufficient to display a grid's rows. When this occurs, a vertical scroll bar appears and an "expand button" appears above this bar, . For example, the following grid is not high enough to show all of the available dashboard zones:


Dashboard - 10 of 10 zones selected for display.

Zone	Display	Initially Collapsed	Sequence	Refresh Seconds		Security Access		
Switch Language				<input checked="" type="checkbox"/>	<input type="checkbox"/>	20	0	Yes
Bookmarks				<input checked="" type="checkbox"/>	<input type="checkbox"/>	0	0	Yes
Checked Out				<input checked="" type="checkbox"/>	<input type="checkbox"/>	0	0	Yes
Current Context				<input checked="" type="checkbox"/>	<input type="checkbox"/>	0	0	Yes

If you want to view all of the person's phone numbers without using the vertical scroll bar, you can you click the expand button. When clicked, the height of the grid expands to show all rows in the grid:

Dashboard - 10 of 10 zones selected for display.

Zone	Display	Initially Collapsed	Sequence	Refresh Seconds		Security Access		
Switch Language				<input checked="" type="checkbox"/>	<input type="checkbox"/>	20	0	Yes
Bookmarks				<input checked="" type="checkbox"/>	<input type="checkbox"/>	0	0	Yes
Checked Out				<input checked="" type="checkbox"/>	<input type="checkbox"/>	0	0	Yes
Current Context				<input checked="" type="checkbox"/>	<input type="checkbox"/>	0	0	Yes
Current To Do				<input checked="" type="checkbox"/>	<input type="checkbox"/>	0	0	Yes
Favorite Links				<input checked="" type="checkbox"/>	<input type="checkbox"/>	0	0	Yes
Favorite Scripts				<input checked="" type="checkbox"/>	<input type="checkbox"/>	0	0	Yes
Favorite Searches				<input checked="" type="checkbox"/>	<input type="checkbox"/>	0	0	Yes
To Do Summary				<input checked="" type="checkbox"/>	<input type="checkbox"/>	0	0	Yes
Work List				<input checked="" type="checkbox"/>	<input type="checkbox"/>	0	0	Yes


Notice, after the grid is expanded, the grid's vertical scroll bar disappears and the button in the upper corner becomes a Collapse Button, . If you click the collapse button, the grid will return to its original height.

NOTE: Search grids. Expand all functionality is not available in search grids.

Sorting Functionality

Grids have a heading row that contains labels for the columns. By clicking a column heading, you cause the rows to be sorted in the order of the selected column. By clicking on a column more than once, you cause the rows to be sorted in reverse order. Clicking the heading a third time removes the sorting function and returns the grid to its default display organization.

The following shows how information look after organizing the grid, clicking the column heading, by algorithm type (notice the icon in the column name).

Algorithm Code	Description	Algorithm Type 
F1-ACTIVEWS	Web Service - Verify Active Operations	F1-ACTIVEWS
F1-ATCHM-INF	Attachment Information	F1-ATCHM-INF
F1-BAT-LSDEF	Batch Level of Service Algorithm	F1-BAT-LVSVC
F1-BNDL-INFO	Bundle Information	F1-BNDL-INFO
F1-BNEXVALID	Bundle Export Validation	F1-BNEXVALID
F1-BOSTATFS	Take BO Status/Reason Final Snapshot	F1-BOSTATFS
F1-BUNEXPBUN	Prepare bundle XML	F1-BUNEXPBUN
F1-BUNIMPAPP	Apply a bundle	F1-BUNIMPAPP
F1-BUNLOGUSR	Log user updating an export bundle	F1-BUNLOGUSR
F1-CMPSNAPSR	Compare Sync Request Snapshots, populate status reason if discarded.	F1-CMPSNAPSR
F1-COMPSNAPS	Compare Initial and Final Snapshots	F1-COMPSNAPS
F1-DECRT-INF	Decision Report Information	F1-DECRT-INF
F1-FINALSNAP	Take Final Snapshot	F1-FINALSNAP

NOTE: Sorting on dropdown values. If you attempt to sort a column that contains a dropdown value, the information is sorted in the order of the unique identifier associated with the dropdown value, not the description you see on the screen; for example, if you sort on a column containing unit of measure, the information will be sorted in the order of the unit of measure code, not the description that appears in the drop down. This means that the resultant sort will appear incorrect and therefore we discourage you from doing this.

Get More Functionality

Grids that can potentially contain a large number of rows have special processing that we refer to as Get More functionality. We'll use an example from Oracle Utilities Customer Care and Billing to explain - consider the grid that contains all payments that have been added to a cash drawer. By the end of the day, this grid could contain hundreds of rows (one for each payment remitted during the day). Rather than show every payment in the grid, the system retrieves the first X payments (where X varies from grid to grid, and from release to release) and appends a Get More button to the bottom of the grid as illustrated below:

	Tender Amount	Tender Type	Account	Check M
	\$123.90	Cash	4172150879 - Rodehaver, Gary - Residential - M-D1	
	\$69.76	Cash	5983360951 - Nicholson, Edvard Paige - Res - M-D1	
	\$10.00	Cash	4438465447 - Richie, Kate - Residential - - ALOP	
	\$10.00	Cash	2609586025 - Richie, Harry - Residential - - ALOP	
	\$10.00	Cash	8593641982 - Richie, Girlie - Residential - ALOP	
	\$10.00	Cash	0401455188 - Richie, Iris - Residential - - ALOP	


Get More...

When you click the **Get More** button, the system appends the next X rows to the bottom of the grid.


NOTE: The absence of a "get more" button. If no button appears at the bottom of the grid, this means you are seeing all of the rows.

NOTE: Search grids. The Get More function is not available in search grids.

Adding and Removing Rows Using Arrows

In some editable grids, a new row can be added to another editable grid (the grid on the left) by clicking the Add item button, , of the desired row in the grid on the right:

	Sequence	Description		Sequence	Description
	10	Winter kWh charge, first 500		30	Winter subtotal
	20	Winter kWh charge, remaining		60	Summer subtotal
	40	Summer kWh charge, first 300			
	50	Summer kWh charge, remaining			
	70	Employee discount			

When the Remove item button is clicked, , the row is transferred from the grid on the right to the grid on the left. This change will not be committed to the database until you save the object being maintained

Reorganizing Items Using the Up and Down Arrows

Occasionally, rows can be repositioned in an editable grid by clicking up and down arrows. The following is an example of such a grid:

		Merge Type	Sequence	Step Type	Description
		Original	10	Edit data	Edit data - Perform State Transition
		Original	20	Edit data	Edit data - Perform Main Processing
		Original	30	Label	Label - End of script

Notice the following about such a grid:

- The up arrow is dim in the first row. This is because it can't be moved further to the top.
- The down arrow is dim in the last row. This is because it can't be moved further down.
- The up and down arrows are usable in all other rows. Each time you click one of these arrows, the respective row is moved up or down one row.

NOTE: Reminder. When you move rows into a grid, the system does not apply the change to the database until you click the Save button (which commits the entire object to the database).

Trees

Trees are used to illustrate complex relationships between objects. The following is an example from Oracle Utilities Customer Care and Billing of a page with a tree that is expanded:



The following points describe how to use trees:

You can expand and contract the nodes in a tree by clicking on the icon that prefixes the node (you can also click the + and - button to expand and contract a node).

NOTE: Expand all. If you press `Ctrl` while clicking on an icon that prefixes a node, all child nodes (and their children) expand.

You can click the context menu button to cause a context menu to appear. You can navigate to any of the pages that are presented on this menu. Refer to [Context Menu Button](#) for more information.

You can click on the information that appears in an underlined node to drill into the page in which the object is maintained. For example, if you click on the account information, you will be transferred to the Account - Main page.

NOTE: Important! If you make changes after expanding a tree's nodes (e.g., by drilling down on a Premise and changing the premise's address), the tree will contract to the first node if you return to the page.

Nodes in trees fit into two broad categories:

- **Information nodes.** Information nodes highlight the existence of other data. For example, on the Control Central - Bill Payment Tree, a node exists to highlight the existence of new financial transactions that were created since the last bill was completed.

- **Data nodes.** Data nodes show information about objects in the system. For example, data nodes exist on the Control Central - Bill Payment Tree that show bills and payments.

Required Field Indicator

An asterisk (*) is used to indicate that a field is required. The system determines this based on the field's configuration. When a field becomes required because of an algorithm and not the field's configuration, however, the system will not add an asterisk.

NOTE: The field indicator only appears on portal-based pages. Older, fixed pages will not include this designation.

NOTE:

If a page includes a grid, fields within a row may be marked as required.

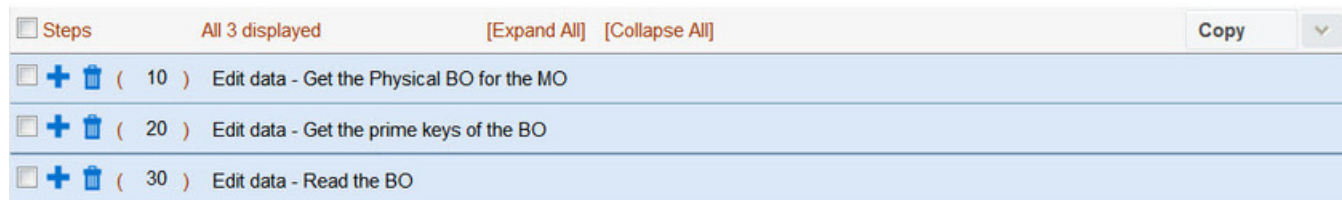


In this situation, the field(s) within the grid are **only** required if the row is being populated.

Accordion Windows

Accordion windows are used when the data held in an object's rows does not comfortably fit into a grid.

Each row in an accordion has a header that summarizes a row's details. When you click a header, the row expands to show the details. The following is an example of an accordion where all headers are collapsed (meaning that only summaries of the rows' details are shown):



When you expand a header, its details are exposed. For example, the following shows the same accordion after the third row is expanded:

The screenshot shows an accordion interface with three steps. The top step is expanded, showing its configuration and content. The second and third steps are collapsed.

Steps All 3 displayed [Expand All] [Collapse All] Copy

Step 10: Edit data - Get the Physical BO for the MO

Step Sequence: 10

Step Type: Edit data

Text: Get the Physical BO for the MO

Edit Data Text:

```
move "parm/mo" to "F1-RetrieveMOOption/input/mo";
move 'F1PB' to "F1-RetrieveMOOption/input/moOptionType";
move 'false' to "F1-RetrieveMOOption/input/isMultiple";
invokeBS 'F1-RetrieveMOOption' using "F1-RetrieveMOOption";
```

Step 20: Edit data - Get the prime keys of the BO

Step 30: Edit data - Read the BO

NOTE: You must expand to update. In order to update a row in an accordion, you must expand it.

Row Summary and Chunk Management

At the top of an accordion you'll find a summary of its rows. The format of this information differs depending on the number of rows and the size of the accordion:

- If the accordion contains every row, a summary of the total number of rows is displayed.
- If the accordion contains a subset of rows, you are presented with a summary of the rows AND you are provided with options to display different "chunks" of rows.
 - Click **First** to display the first "chunk" of rows (the size of a chunk differs depending on the accordion). This option is dimmed if the first chunk is in the accordion.
 - Click **Previous** to display the previous chunk of rows. This option is dimmed if the first chunk is in the accordion.
 - Click **Next** to display the next chunk of rows. This option is dimmed if the last chunk is in the accordion.
 - Click **Last** to display the last chunk of rows. This option is dimmed if the last chunk is in the accordion.

Dashboard Area

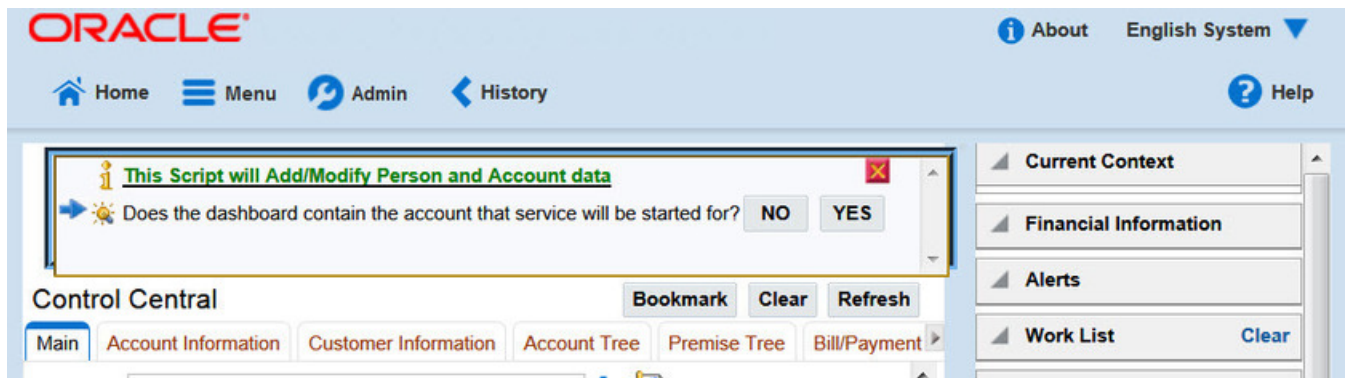
The dashboard is a [portal](#) that contains zones. These zones appear regardless of the object being displayed in the [Object Display Area](#). Refer to [Dashboard Portal](#) for a description of these zones.

NOTE: User configurable. Every user has control over the zones that appear in their dashboard. Refer to [Portal Preferences](#) for more information about how a user can customize the contents of the dashboard.

Script Area

When a [script is initiated](#), the [object display area](#) shifts down to make room for the script area.

The information in the script area takes you through the steps in the selected business process (provided by your implementation team).



Portal Pages

This section describes using portals and zones to find and display information. This is the preferred technique used by the base product for building user interfaces.

Additionally, portals and zones may be configured by your implementation to supplement the base package provided functionality.

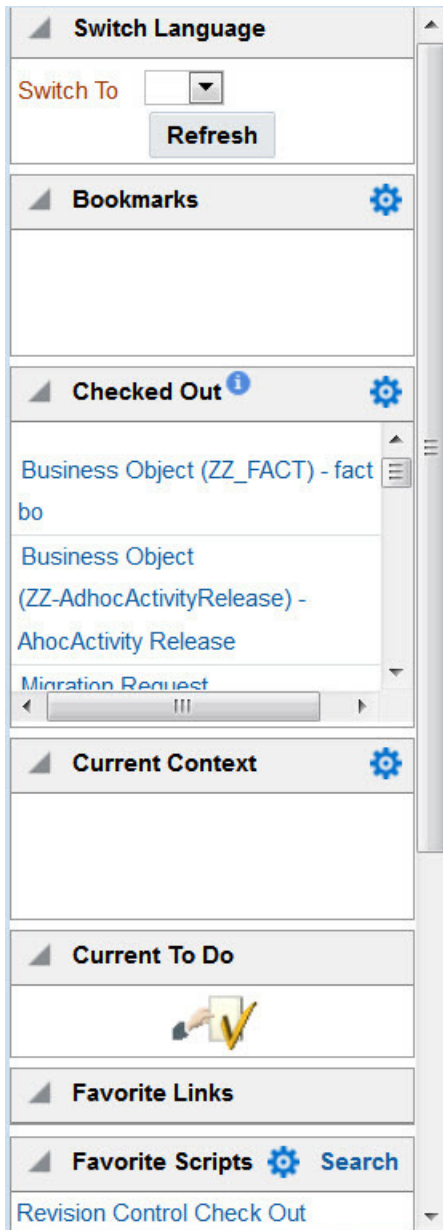
The contents of this section provide background information about portal page behavior.

Portals Are Made Up Of Zones

The term "zone" is used to describe a section on a portal. For example, the following is a portal with seven zones:

- Switch Language
- Bookmarks
- Checked Out
- Current Context
- Current To Do
- Favorite Links
- Favorite Scripts

NOTE: This example may not be available in your application; it is used for illustration purposes only.




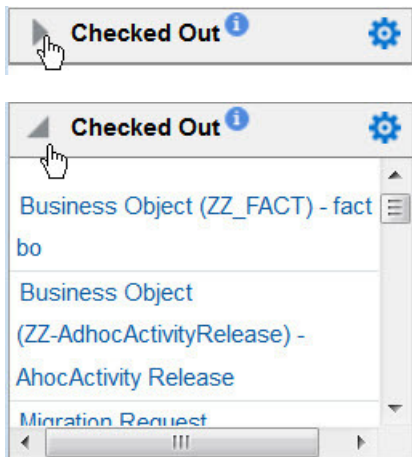
Users Must Be Granted Security Access To Each Zone

A user must be security granted access rights in order to see a zone on a portal.

FASTPATH: Refer to [Granting Access to Zones](#) for information .

Zones May Appear Collapsed When A Page Opens

Zones may be designed to appear collapsed (or minimized) when the portal is initially displayed. To view the information in a collapsed zone, the user can press the zone's expansion button, , to either expand or collapse the zone:



A zone's data is only retrieved when it is expanded.

Some Portals Allow User Customization

There are some portals in each base product that are configured to allow user customization. In this case, the portal is visible on the user's portal preferences. For these portals each user has control over the following:

- Which zones appear on their portal
- The order in which the zones appear
- Whether the zones should be "collapsed" (i.e., minimized) when the portal opens.

Users define their preferences by clicking the [User Preferences](#) button. Pressing this button transfers the user to the [User Preferences](#) page on which their [Portal Preferences](#) can be defined.

Portals used for base product query and maintenance pages are typically configured to not allow user customization.

Dashboard Portal

The dashboard is a special portal that always appears on the desktop. Its zones contain tools and data that are useful regardless of the object being displayed.

NOTE: Minimize the dashboard. You can minimize the dashboard by clicking on the vertical bar on the left side of the dashboard. This causes the dashboard portal to disappear allowing more of the page area to display. The vertical dashboard bar is then displayed on the right side of the page. Clicking the dashboard bar restores the display of the dashboard portal. It also suppresses the refresh of the zones within the dashboard based on updates to the context. Maximizing the dashboard then refreshes the zones with the latest appropriate content.

Keyboard Shortcut

Alt+J

The contents of this section describe the zones that are provided by the framework product for this portal. Please note the following additional information about the dashboard portal that may impact how it appears.

- **Additional zones may be available in other products.** The zones described below are available in every base product. Please refer to the product-specific documentation for additional dashboard zones available in your product (open the help and navigate to the index entry labeled **Dashboard**).
- **Context Sensitive Zones may appear.** Some pages may define additional zones that should appear in the dashboard only if that page is displayed. These are referred to as Context Sensitive Zones.

- **Dashboard zones are configurable.** The dashboard portal is configured to allow a user to define preferences for it. Refer to [Portal Preferences](#) for more information.

NOTE: Security. As a general rule, dashboard zones each refer to a unique application service so that a security administrator may configure which users are allowed to have access to which zones. Note that the user portal preferences indicates which zones a user has security access to.

Bookmarks Zone

After clicking the [Bookmark](#) button and saving a bookmark, it is visible in the **Bookmarks** zone. Clicking one of the links in the zone navigates to the page where the bookmark was saved and loads the information related to the record that was displayed when the bookmark was saved.

Click the trash can icon to delete the bookmark.


Note that a user may change the name of the bookmark or change the sequence of the bookmarks by navigating to the [User - Bookmarks](#) in the user preferences.

Current To Do Zone

The **Current To Do** zone is designed to streamline the process of working on To Do entries from assignment to completion. It displays key information about the user's current To Do entry and provides functions that help minimize the number of steps it takes to resolve the entry and potentially other entries related to it.

The following sections provide more detail about the zone.

Next To Do Assignment

Users may have the option to click the  To Do icon to request the next To Do entry they should work on. This functionality is optional and can be configured to follow your organization's business rules in determining the next task for a user. For example, if your organization practices work distribution "on demand", this feature can be configured to find the highest priority entry a user can work on and assign it to the user. Refer to [work distribution](#) for more information on this business practice.

NOTE: Next Assignment Rules Are In A Plug-in. Refer to [Next Assignment Algorithm](#) for more information on how to configure the system to take advantage of this function.

If the system is successful in determining the next entry the user should work on, this entry becomes the user's current To Do and its information is displayed on the zone.

User's Current To Do

The user's current To Do may be set using the Next Assignment algorithm, or by drilling in on a To Do from the To Do List or To Do Search page as described in [A User's Current To Do](#). Once a current To Do has been set, the zone displays details related to the To Do.

The **Message** describes why the entry exists. The message description allows the user to drill into the page on which the entry's respective object is displayed. For example, if the entry is associated with an asset that needs review, the user is brought to the asset page to view the information and potentially take action. If the **To Do type** has been configured to associate a [script](#) with this To Do entry's message number, then instead of being taken to the respective page, the associated script is launched.

Info displays the standard To Do information. An Info icon  appears if there are comments on the To Do and a Description icon  appears if there is a log entry of type **Forwarded**, **Sent Back** or **User Details** on the To Do. The

description drills into the [To Do entry](#) page allowing the user to view more information about the entry or make changes to it as needed.

The user may use the **Complete** button in the zone to complete the current entry.

Next / Previous To Do Buttons

The **Previous To Do** and **Next To Do** buttons are enabled on this zone under the following conditions:

- The user selected an entry either on the [To Do List](#) page or the [To Do Search](#) page.
- At least one other entry exists *below* (for Next) or *above* the entry selected (for Previous).

Clicking **Next To Do** or **Previous To Do** will bring the user to the transaction indicated on the To Do Entry's message, where its respective object is displayed. It also makes that To Do the Current To Do displayed in the zone.

Keyboard Shortcut	Comments	Alternate Shortcut
Alt+Y	Previous To Do	
Alt+Z	Next To Do	Alt+Shift+Z

NOTE: Refer to [Shortcut Key Summary](#) for information about the alternate shortcut.

NOTE: When a user drills down on a To Do entry from the To Do List page, the system automatically changes the status of the entry to **Being Worked**. If **Next To Do** or **Previous To Do** is subsequently used to scroll through this list, the system does *not* change the To Do entry's status. To change the status of these entries, the user must navigate to the [To Do List](#). On this page, multiple entries may be selected and their status changed with a single user-interface action.

Related To Do Entries

If the To Do entry has non-complete [related entries](#) a summary **Related To Do** description appears. The description states the total number of related entries, how many are still in **Open**, how many are assigned to current user and how many assigned to others. This hyperlink navigates to the [To Do Search](#) query allowing the user to review the related entries. At this point the user may decide to assign entries that can be positively identified as being caused by the same problem as the current To Do also to himself.

If the user determines that all related To Do entries have been resolved with the appropriate action taken, the **Complete All** button may be used to complete in one step the current entry and all its truly related entries assigned to the current user.

If the related entries are not resolved with one action, the user may opt to use the **Complete** button to complete the current entry alone and work on related entries one at a time. Using the related To Do information hyperlink the user may navigate to the To Do search page and drill into the first related To Do to work on using the message hyperlink. This entry now becomes the user's current To Do and the **Next To Do** and **Previous To Do** action buttons are set to scroll through the related entries list.

Favorite Links Zone

Each line in the **Favorite Links Zone** corresponds with one of the user's favorite links (e.g., transactions). Clicking on a line invokes the transaction. A number appears adjacent to the first nine entries to highlight that these links can be invoked by pressing an accelerator key (Ctrl + a number). Note that the numeric keypad on your keyboard cannot be used to implement this function.

Users define their favorite links by clicking the [User Preferences](#) button. Clicking this button transfers the user to the [User Preferences](#) page on which their [Favorite Links](#) can be defined.

Favorite Scripts Zone

The Favorite Scripts zone lists the business process assistant (BPA) scripts that you have defined on your [user preferences](#). You can click on a script to [execute](#) it. You can click the **Search** button in the zone to search for other scripts.

NOTE: If you do not see the Favorite Scripts zone in your dashboard, navigate to User Menu and click the **Preferences** menu item to display the [User - Portal Preferences](#) page. Under the Dashboard Portal row, select the **Display** option for the Favorite Scripts zone.

Favorite Searches Zone

If you marked a saved search as a favorite using [Saved Searches](#) functionality, the search is visible in the **Favorite Searches** zone. Clicking one of the links in the zone navigates to the page where the search was saved and populates the filter values and executes the search.

Switch Language Zone

The **Switch Language** zone is used to switch the application's language. Only languages that are supported by your implementation will appear.

To switch the application's language, choose the desired language and press the **Refresh** button.

NOTE: If your implementation uses a single language. If your implementation uses a single language, you should suppress this zone by [not granting security rights](#) to the zone's application service.

To Do Summary Zone

The **To Do Summary Zone** has several purposes:

- It presents a summary of the [To Do entries](#) that have been assigned to you and are **Being Worked On**.
- The colored "age bars" highlight the age of the To Do entries. The colors red, yellow and green are used to highlight the relative number of old, middle-aged and new To Do entries. The age associated with each of these colors is [user-configurable](#). Note, you can hover the cursor over an "age bar" to see the number of To Do entries.
- If you click on the To Do Type description or on an "age bar", you'll be transferred to the [To Do List](#) transaction where these To Do entries will be displayed. From this page, you can drill down to the specific entries.

NOTE: Time saver! After you drill down on entry from the [To Do List](#) page, if you have the [Current To Do](#) zone configured in the dashboard, you can use the **Previous To Do** and **Next To Do** buttons in the zone to scroll through additional To Do list entries without returning to the **To Do List** page.

Work List Zone

The **Work List** zone provides quick access to an entire column of an info or query zone. When a user clicks on a work list entry, the system will do whatever it would have done if they'd clicked on the hyperlink in the zone. In addition, the system ticks off that they've worked on the entry (this feature is mostly so users know that they've at least looked at something). Refer to [Work Lists](#) to better understand how to configure query columns to support work lists.

Zone Types and Characteristics

The topics in this section describe common zone types, function, and common characteristics.

FASTPATH: Refer to [The Big Picture of Portals and Zones](#) for a description of general portal and zone functionality.

Common Characteristics of Zones

The following topics describe common characteristics of all zone types supported by the base package.

Zone Visibility

A zone may be configured to dynamically be visible or completely hidden depending on the information being displayed. When hidden, not even the header is displayed.

For configuration information, refer to [Zone Visibility Service Script](#).

Control Zone Headers

A zone may reference a UI Map to define and control its header. This feature provides the means to achieve a uniform look and feel for the application as well as add functionality to the zone header beyond being just a title bar to open and close the zone. Refer to [UI Map](#) and to its context sensitive tips zone for more information on **Fragment** UI Maps and how they are used to construct zone headers.

Explorer Zones

The product provide several zone types that are used to find or display a set of information. These are called explorer zones. There are two types of explorer zones:

- **Info zones.** An info zone displays a list of information about an object. These types of zones often display information without requiring any input from the user.
- **Query zones.** A query zone allows users to find objects matching a given search criteria.

Virtually every aspect of an info or query zone is controlled by its zone [configuration](#). However, most share basic common components described in the subsequent sections.

Search Criteria / Filter Area

For query zones, the Search Criteria Area (also called Filter Area) contains the criteria used to find objects. The design of the zone controls the number and type of filters that appear in this area. After search criteria is entered, clicking the **Search** button causes the system to look for records that match the criteria. The results are shown in the Results Area.

For info zones, the zone's configuration indicates whether or not a Filter area is applicable and if so, whether or not it is open or closed by default. If the filter area is configured, the [Show Filter](#) icon is visible in the zone header. Click this icon to expose the Filter Area, if it is not visible and click the icon to hide the Filter Area if desired. Use this area to filter the information that appears in the zone by different values. Click the **Search** button to rebuild the Results Area using the specified filters.

For example, the following shows an info zone listing user groups that do not have access to a given Application Service where a filter area has been configured to allow users to show user groups specific to a given user by ID or name.

User Groups without Access

Filtered by Application Service CILCACCP , User ID SPLJXW

User Group	Description	Grant Access
1 *PORTAL*	Portal System Default	Grant Access
2 CASE	Case Management	Grant Access
3 CASE REOPEN	Case Management	Grant Access

Use to show user groups with specific user

User ID:

First Name:

Last Name:

The info zone includes configuration to indicate whether the filter area, when exposed, should be shown at the top of the zone (above the results) or at the bottom of the zone (below the results). For query zones, the search criteria is always displayed at the top.

NOTE: Press Enter. Rather than clicking the **Search** button, you can press Enter to trigger the search / info zone refresh.

Description Bar

The Description Bar describes the search criteria that were used to build the Search Results Area.

Results Area


The Results Area displays the appropriate list of objects. For an info zone, this is the list of appropriate objects with any input filter criteria considered. The following is an example of the results for an info zone. For a query zone, this is the list that matches the search criteria defined in the Filter Area. The following is an example of the results set of an Info Zone.

Business Objects with Status Reason

Business Object	Description	Statuses
1 F1-GenericBISyncRequest	Generic BI Sync Request	Discarded, Cancel
2 W1-ActivityEquipRequirement	Equipment for Activity	Fulfilled, Canceled
3 W1-ActivityGenerator	Activity Generator Lifecycle	Canceled
4 W1-ActivityLaborRequirement	Labor for Activity	Fulfilled, Canceled
5 W1-ActivityMaterialRequirement	Material for Activity	Fulfilled, Canceled
6 W1-ActivityOtherRequirement	Other Resource for Activity	Fulfilled, Canceled
7 W1-AdHocActivityCore	Ad Hoc Activity Core	Completed, Discarded
8 W1-ApprovalRequest	Approval Request	Determine Approvers, Approval In Progress, Approved, No Appro
9 W1-BCHeader	Blanket Contract Header	Created, Awaiting Activation, Active, Closed, Suspended
10 W1-BCLLine	Blanket Contract Line	Created, Ready for Revision, Revised, Complete
11 W1-CompletionEventRoot	Completion Event Root	Executed, Discarded

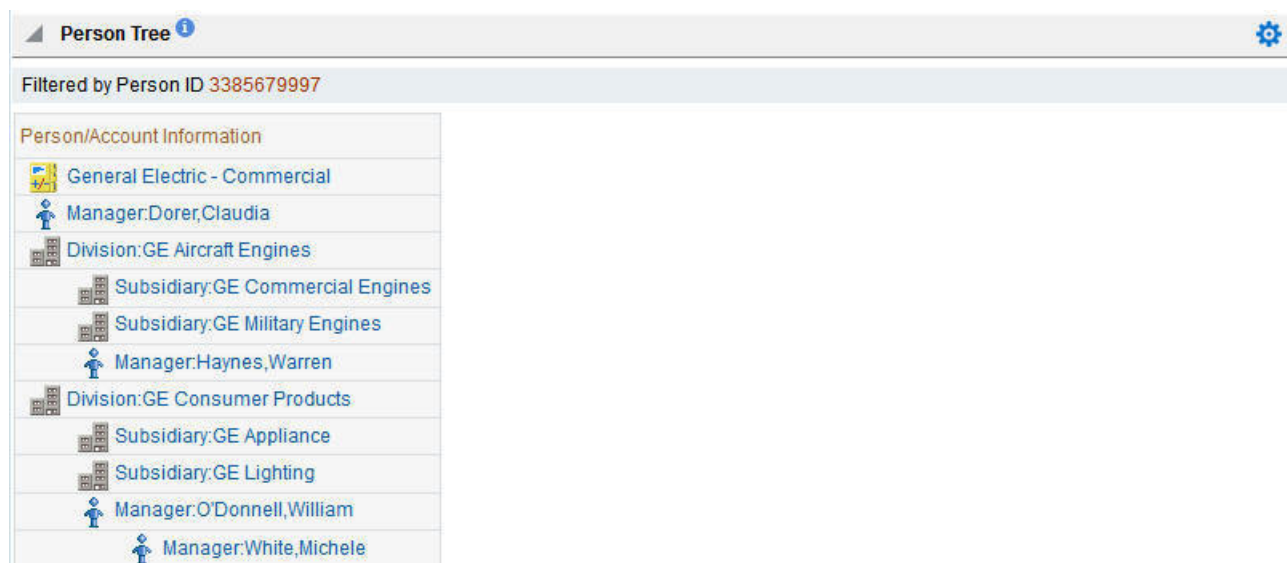
For a query zone, the columns that appear may differ depending on the search criteria. For example, if you search for a customer by their driver's license number, the resulting columns may be different than the ones displayed when you search by customer name.

The following points highlight details related to viewing and working with the result set:

- Broadcast.** If the results set is configured to display a broadcast icon, , it means that at least one other zone on the portal is configured to display data related to the record selected in the results list. Clicking this icon will cause the other zone or zones to be built or refreshed to display related data.

- **Hypertext.** One or more columns in the zone may be configured as hypertext. Clicking the hypertext will result in navigating to another page to display data related to that column based on the configuration for that column.
- **Maximum height.** The maximum height of the report area is controlled by the zone's configuration. A vertical scroll will appear when more rows exist than fit into the height.
- **Maximum rows.** The maximum number of rows that can appear is controlled by the zone's configuration. Excess rows are truncated before display. Please note, you can configure the zone to [download more rows to Excel](#) than appear in the Results Area.
- **Control column sorting.** By default zones are designed to allow a user to sort the results list by clicking any column heading. Clicking once sorts ascending. Clicking again sorts descending. However, a zone may be configured to not allow this type of sorting.
- **Rearranging columns.** A zone may be configured to allow a user to rearrange columns and add or remove columns visible in the Result Area. Refer to [Column Configuration](#) for the details.

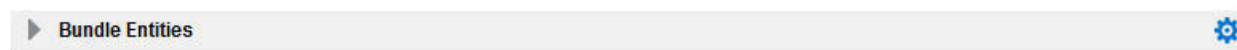
The type and variety of columns that appear in the Results Area is controlled by the zone's configuration. You can even set up an info zone to display information in hierarchical trees. For example, the following info zone from Oracle Utilities Customer Care and Billing has been configured to show a person's related persons.



Title Bar

The Title Bar contains the zone's description along with other icons and functions described in this section.

In the corner of the Title Bar, you'll see an indicator that tells you whether the zone is collapsed (e.g., minimized) or expanded. Each time you click the indicator, the zone toggles between expanded and collapsed. The following image shows a collapsed zone.




NOTE: Recommendation: For zones that are configured to show on portal preferences, set up [Portal Preferences](#) to collapse zones that aren't needed every time a portal is displayed. Rationale: The system doesn't build collapsed zones when a portal is displayed. Instead, collapsed zones are only built when a user expands them. Thus, indicating a zone is collapsed improves response times.

If the zone is configured with help text, a help icon appears to the right of the zone title. Click this icon to view the help text.

If a [saved search](#) is open for a zone, the name of the saved search is displayed after the zone title.

The following sections describe additional icons and tools visible on the title bar. Note that in addition to the information described in this section, additional actions that are specific to a zone may appear based on configuration. The actions may appear in the form of hypertext, an icon or a button.

Explorer Zone Menu

Click the Explorer Zone Menu icon  to list available tools. The following topics describe each tool.

Clear Filters

Click the **Clear Filters** link in the Explorer Zone menu to clear the filter values and zone data.

Export to Excel

Click the **Export to Excel** link in the Explorer Zone menu to download the zone's data to Excel. This link is hidden if the zone has been configured to not download rows to Excel.

Print

Click the **Print Zone** link in the Explorer Zone menu to print the zone.

Save Search Options

Query zones and info zones that include filter areas, allow a user to capture and save filter criteria so that the same search can be more quickly executed in the future. Users may save many different search options for the same zone. Users also have the option to nominate one search as the default so that this search is automatically loaded upon entering the zone. In addition, users may choose to set one or more searches as a Favorite, which causes the search to appear in the [Favorite Searches](#) zone in the dashboard. This allows a user to navigate to the portal for that zone and load the saved search in one click.

The Explorer Menu includes various options for supporting Saved Searches that are described below.

Note the following additional points about this functionality:

- **Click Search before Saving.** When a user wants to save a search, the search criteria should be entered and the **Search** button should be clicked prior to saving the search.
- **Criteria is saved, not results.** Although a user must click **Search** prior to saving the search, the system saves the criteria, but not the results. When returning to the query or info zone in the future and opening a given saved search, the results displayed will be the current records in the system that match the saved search criteria.
- **Multi-Query Zones.** When a user is on a multi-query zone, the searches are saved at the multi-query zone level so that all saved searches for the various search dropdowns for a given multi-query zone are visible in the Open Saved Searches menu option.
- **Functionality is Secured.** If for any reason an implementation wishes to restrict which users are allowed to save searches, the functionality is securable. Only users with **Inquire** access to the **F1_USRFAVSCH** application service will see these options in the explorer menu. This is the same application service that is used to provide access to the Favorite Searches dashboard zone.

Save As

The **Save As...** option in the Explorer Zone menu allows a user to save the current entered search criteria. This should be clicked after executing the search.

The user is prompted to provide a name for the search. This search is now available from the Open Saved Searches option. If desired, a user can also choose to make this search the Default or may choose to Add to Favorites.

This option is visible whether or not an existing saved search is loaded. When a saved search is loaded, this option allows a user to make changes to the search criteria and save a new search with that criteria.

Open Saved Search

The **Open Saved Search...** option in the Explorer Zone menu is visible if there are any saved searches for the zone that is currently visible. Select this menu entry to view the current list of saved searches for the zone. For multi-query zones, any saved search for any of the query zones that are part of the multi-query zone are visible. Choose the desired saved search. The criteria is updated with this information and the search is performed.

Save

The **Save** option in the Explorer Zone menu is visible if a Saved Search is already loaded. This option allows a user to save changes to the criteria of an existing saved search (overwriting the previously saved criteria).

Set As Default

The **Set As Default** option in the Explorer Zone menu is only visible if a saved search is loaded and it is not currently the default. Click this option to nominate this search to be the one that is loaded when navigating to this zone from the menu.

Remove As Default

The **Remove As Default** option in the Explorer Zone menu is only visible if a saved search is loaded and it is currently the default. Click this option to no longer load this search automatically when navigating to this zone from the menu.

Add To Favorites

The **Add To Favorites** option in the Explorer Zone menu is only visible if a saved search is loaded and it is not currently included in the favorite searches zone. Click this option to include this search in the [Favorite Searches](#) zone. Once a search is in the Favorite Searches zone, you can use the link to the search in the dashboard to navigate to the portal for this zone and load the saved search in one click.

NOTE: Not available for dependent zones There are some portals that include a zone that is not the main query or info zone on the portal, but is rather a zone providing additional information for a record that is displayed. If a zone like this has filter options or configurable columns, a user is able to save searches and mark one as a default, but will not be able to add the saved search to favorites because the zone is dependent on other data on the page that is not captured for the individual zone.

NOTE: Dashboard Zone Preferences. Be sure that your [portal preferences](#) are configured to include the Favorite Searches dashboard zone.

Remove From Favorites


The **Remove From Favorites** option in the Explorer Zone menu is only visible if a saved search is loaded and it is currently included in the [Favorite Searches](#) zone. Click this option when you want to keep the saved search but you no longer want it visible in your Favorite Searches zone. (Deleting a saved search that is also marked as a favorite will automatically remove the search from the favorite searches zone.)

Delete

The **Delete** option in the Explorer Zone menu is only visible if a saved search is loaded. Click this option to remove the currently opened saved search from the list of saved searches.

Note that if the saved search had been configured as favorite, deleting the saved search remove it from the favorite searches zone.

Show Filters

Click the **Show Filters** icon  to show the [Filter Area](#). This button only appears if the zone has been configured to have filters.

NOTE: If the zone is configured to have filters and the drag and drop (column configuration) area, only one or the other is shown at any given time. It means that a user can either change the filter criteria and refresh the search results or change the column configuration and refresh the results.

Show Column Configuration Area

Click the **Column Configuration** icon  to show the [Column Configuration Area](#). This button only appears if the zone has been configured to allow columns to be dragged and dropped into the Results Area.

NOTE: If the zone is configured to have filters and the drag and drop (column configuration) area, only one or the other is shown at any given time. It means that a user can either change the filter criteria and refresh the search results or change the column configuration and refresh the results.

The Open Zone Maintenance Icon

Click the "wrench" icon  to switch to the zone's [zone maintenance](#) page. On this page, you can change the parameters that control the zone's behavior.

NOTE: Debug mode only. This icon only appears when the system operates in [Debug](#) mode.

Configurable Columns

Info zones and query zones may be configured to allow users to rearrange columns and to remove or add columns to the output. This is also referred to as "drag and drop" of columns.

When a zones is configured to support this functionality, the [Show Column Configuration Area](#) icon is visible in the zone title area. Click this icon to expose the Column Configuration Area, if it is not visible and click the icon to hide the Column Configuration Area if desired.

If configurable columns are allowed, a user may rearrange the order of columns currently displayed in the Results Area by clicking the column heading and "dragging" it to the desired location.

In addition, the column configuration area may display columns that are not currently in the Results Area. These are indicated by a cream background. A user can drag one of these columns to the results area and then click **Refresh** to rebuild the zone. To remove a column that is currently in the results area, click the trash can icon next to the column name in the column configuration area and then click **Refresh** to rebuild the zone.

The following is an example of how the Column Configuration Area looks:

Customer Name	Total Amount
Due Date	
Postal Code	
Service Type	
Refresh	

Multi-Query Zones

This type of zone combines individual Query Zones into a single query zone. A **Search By** dropdown, built from the zone descriptions of the individual Query Zones, allows you to select the desired query to execute. Selecting a specific Query Zone display the filters of that query in the filter area. At this point the zone simply executes the selected Query Zone, as if it was executed on a standalone zone. By default, the first query zone option is selected.

Map Zones

A map zone displays information related to one or more objects. For objects that are maintained using portal-based pages, the standard display of the object is using a map zone. Map zones may be configured to display an explicit map or may dynamically display the map based on the configuration of the record being displayed.

Because the information displayed in a map zone is configured using HTML, virtually any format supported by HTML is possible. The following is an example of a typical map zone used to display information about an object.

Asset Type: Meter - Manual Read

Main


Asset Type

Main	Record Actions
<p>Asset Type: METER_MANUAL</p> <p>Description: Meter - Manual Read</p> <p>Component: Allowed</p> <p>Relationship:</p>	<p>Edit Delete Duplicate</p> <p>Record Information</p>

A **tool tip** can be used to display additional help information for the details shown in a map zone. The tool tip may appear adjacent to the section header or adjacent to individual elements on a map.

NOTE: You can customize the help icon or disable map help using the [Custom Look and Feel](#) feature configuration.

Open Map Maintenance Icon

Click the "hammer" icon  to switch to the [UI map](#) maintenance page. On this page, you can view the HTML configuration for the zone. Note that for map zones that display a business object configured without a map, the elements displayed are automatically rendered. In this case, no "hammer" icon is visible.

NOTE: Debug mode only. This icon only appears when the system operates in [Debug](#) mode.

Timeline Zone

A timeline zone is used to show events over time for multiple types of data. This type of zone is helpful for providing a consolidated view of separate events occurring in time that may in fact impact each other. For example, in the billing system, a timeline can show bills, payments and collection processes for the same time period.

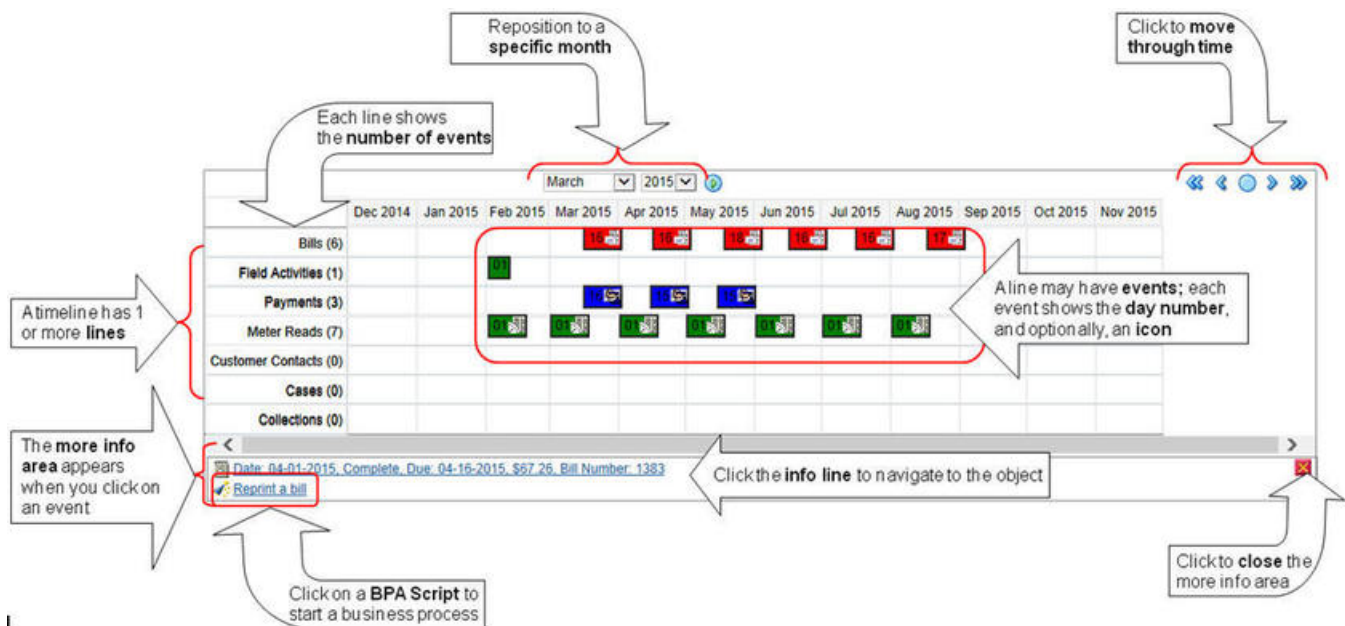
The topics in this section describe the rich functionality available in timeline zones.

Timelines Zones Are Configured By Your Implementation Team

The product provides support for creating timeline zones. However, whether timeline zones are configured for your implementation and on which portals they may be visible will depend on your specific configuration. Refer to [Configuring Timeline Zones](#) for general information about configuring timeline zones. Refer to your specific edge application's documentation for details about what type of timeline information is provided out of the box.

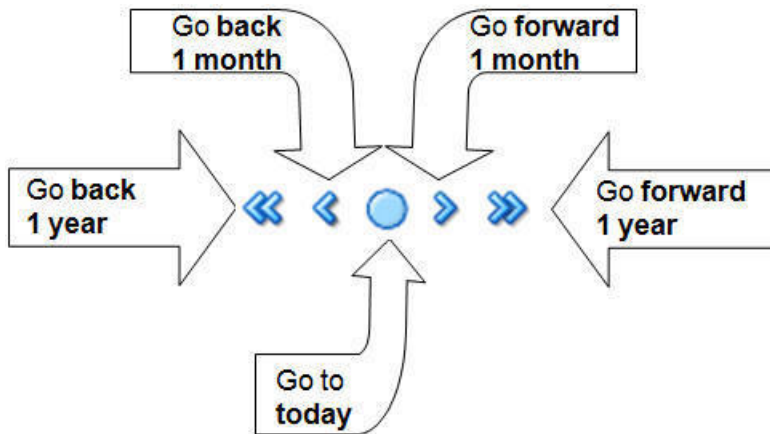
The Anatomy Of A Timeline Zone

The following illustration highlights the various elements in a timeline zone. These elements are described in the remaining topics.



You Can Move Through Time

You can click the controls at the top of a timeline zone to change the date-range of the zone's information:



The following points describe how to use these controls:

- To reposition the timeline to a specific date, selected the desired month and year and click the search button.
- To go back one year, click the double-left arrow.
- To go back one month, click the single-left arrow.
- To go to today, click the red line (between the arrows).
- To go forward one month, click the single-right arrow.
- To go forward one year, click the double-right arrow.

Timelines Can Have Many Lines

Depending on how a timeline zone is configured, it will typically have one or more "lines" that show when significant events have occurred. Each line represents a specific type of data. The data may be related to a specific maintenance object, for example, payments may be displayed in one line and bills in another. It may also be possible to create multiple lines for different types of records for the same maintenance object. For example, if your product provides an algorithm to display cases, it may support defining a different entry for each case type.

Each Line Shows Events

Each line on a timeline may contain zero or more events where each event shows the date when the event occurs. For example, the payment line in a timeline has a separate event for every payment received from the customer. Each line's description contains the number of events on the line.

CAUTION:

If a line has more events than can fit onto a timeline, the line will show the first "chunk" of events and a message will appear in the "more info area" explaining that some events have been truncated. If this happens and the truncated events are in a later period, you can reposition the timeline's base period to show the truncated events. Refer to the You Can Move Through Time section above for more information

An Event's Color And Icon Can Convey Information About The Event

The timeline zone is driven by algorithms and the algorithms may be configured to highlight different types of events in different colors and / or icons. For example, a timeline that shows payments may use different colors and/or icons to visually differentiate between canceled payments and frozen payments.

An Event's Hover-Text Can Contain Additional Information

The timeline zone supports providing hover text that appears when a user hovers the mouse over an event. Each type of event can have different hover text. Typically the standard information string is shown for each event.

Clicking On An Event Shows More Information In The Detail Area

When you click on an event, additional information appears in the zone's detail area (at the bottom of the zone). The following information may appear:

- The event's common "information string" appears. This information is hypertext to allow for easy access to the transaction on which the object is maintained.
- Additional information may appear. This is dependent on the particular timeline algorithm. Refer to each timeline algorithm's description to find out if additional information appears in the detail area under any conditions.
- If the algorithm has configured BPA scripts that can be executed to perform business processes on the object, the BPA script description appears prefixed with a "wizard's hat" icon.

Common Base Portals and Zones

The following sections describe common standards followed by the product for base query and maintenance dialogue.

All-In-One Portal

The all-in-one portal is used for low volume objects, where a small number of records are expected.

For example, many control tables use this style of portal. In this portal, rather than separate query and maintenance portals, a single portal allows a user to find a record and maintain the record. A zone listing all existing records is displayed when first entering the portal. A user can perform actions on existing records or add new records from there. More details about the list zone are provided below.

Refer to [Maintenance Portal](#) for information about zones commonly found on maintenance portals.

The all-in-one portal will typically provide the ability to add a new record. This may be a button in the Page Action area or a hyperlink defined directly on the list zone's header area.

List Zone

This info zone appears when first entering the portal and displays a row for each record.

The following functions are commonly available in a list zone:

- A broadcast icon is included in each row. Clicking this icon opens other zones that contain more information about the adjacent record.
- An **Edit** icon may be included in each row. Clicking this icon launches the maintenance BPA script to modify the adjacent record.
- A **Duplicate** icon may be included in each row allowing the user to duplicate the adjacent record without having to first display the record.
- A **Delete** icon may be included in each row allowing the user to delete the adjacent record without having to first display the record.
- If the record has a simple BO lifecycle of **Active** and **Inactive**, the list zone may include a button to **Activate** or **Deactivate** the adjacent record.

Separate Query and Maintenance Portals

For high volume objects where more sophisticated search criteria is needed to find a particular record, separate portals are provided to search for the record and to maintain it.

The query portal contains a zone to search of the object that you wish to maintain. Additional information about the query portal's search zone is provided below. Clicking an appropriate record in the search results navigates to the object's stand-alone maintenance portal.

The query portal will typically provide the ability to add a new record. This may be a button in the Page Action area or a hyperlink defined directly on the list zone's header area.

Query Portal Search Zone

The query portal contains one zone used to search for the object.

The zone may be a standard query zone or may be a multi-query zone providing one or more ways to search for your record.

Once the search results are displayed, click on the hypertext for the desired record's information string to navigate to the stand-alone maintenance portal.

Maintenance Portal

A maintenance portal refers to a page that is used to view and maintain a specific record. These types of records are governed by a business object, which defines the user interface layout for both the display of the record and the add or update of the record.

An all-in-one portal is a type of maintenance portal, once a record has been broadcast from the list zone. For the separate query and maintenance portal dialogue, the maintenance portal includes only zones relevant for the specific record selected.

Maintenance portals may have multiple tabs to display information relevant for the object. Often, if the object has a Log, the log is on a separate tab. (Although there may be some maintenance portals that include the log zone on the Main tab.)

The stand-alone maintenance portal is typically configured with the ability to navigate back to the query portal using either a **Search** button in the Page Actions area or using a **Go To Search** hyperlink in the main zone's header area. The stand-alone maintenance portal may also include the ability to add a new record using an Add button in the Page Actions area. (If not, a new record can be added by navigating through the menu or by navigating to the query portal where an Add hyperlink may be found.)

The following zones are common to portals used to maintain a record.

Note that additional zones may exist for specific all-in-one portals or stand-alone maintenance portals based on the particular functionality. Refer to the documentation for each portal to understand the specific zones that are provided.

Object Display Zone

This is a zone that displays the object being maintained.

An object being displayed may or may not allow for actions or updates to be made. Typically there is a Record Actions section in the display area that presents the valid actions. Depending on the functionality, the actions may prompt the users to input values required for that action.

Log Zone

If the maintenance object for the record includes a status, it typically has a log that records important events in its lifecycle.

This log is shown in an info zone on the portal, either on the Main tab or on a separate Log tab. A link appears in the zone's title bar to allow the user to add a new manual log entry.

Fixed Pages

There are some pages in the system that are built using a fixed page metaphor. All user interfaces implemented in this way function in a similar manner. This section describes functionality to these types of pages.

NOTE: Not all pages in the application use this metaphor. The preferred metaphor for pages in the system is to use portal-based pages. For more information see [Common Base Portals and Zones](#).

Maintenance Pages

Maintenance pages are used to maintain (add, change, etc.) the information in the system using a fixed page metaphor. This section focuses on functionality common to all maintenance pages using this metaphor.

The Unique Identifier Area

Every object in the system must have a unique identifier. For some objects, typically administrative or control table data, the unique identifier is defined by the user creating the record. Other objects, typically master or transaction entities, the unique identifier is assigned by the system after the record is saved.

Where the identifier is displayed depends upon whether the ID is user-defined or system generated.

Pages displaying objects with a user defined identifier (such as To Do Type) typically display the identifier on the left along with a search button. For master and transaction tables, (such as To Do Entry) the unique identifier is typically found in the upper right corner of the screen along with a search button and is labeled as the entity's ID. In this case, if there is an information string associated with the object, it is displayed on the left.

If the object being maintained has an associated context menu, a [Context Menu Button](#) is displayed appear.

Confirmation & Error Messages

Whenever a database modification action is requested, the system first validates the data to be put on the database.

First, the system validates the information. If there are errors, the first error encountered is displayed in a window. In addition to the error message, the error window also contains the error number and the identities of the programs that detected the error. If you don't understand an error and you have to call product support, please supply them with this information.

If there are no errors, the system is modified.

Warning If Unsaved Changes Exist

If you make any changes to an object and you don't commit these changes to the database, the following warning appears: "You have unsaved changes that will be lost if you continue. Press OK to continue anyway."

If you want to commit the changes, click **Cancel**. You will then return to the page and can make further changes or press Save. If you want to discard your changes and transfer to the new page, click **OK**.

CAUTION: This warning is not displayed if you are working on a *new* object on a fixed page and you navigate to a different page. Information about new objects is preserved in memory in anticipation of your return to the page. For example, if you are in the middle of adding a new user and you want to quickly reference information on a different page, you will not receive the above warning because your information will be saved. If you use the back button to

return to the user page, all of the information you were adding will be present and you can enter the rest of the new user's data.

Query Pages

Query pages are used to display record sets in the system. Most query pages function in a similar manner. This section focuses on functionality common to all of the system's query pages.

The Search Area

The upper right corner of the screen is almost always the identifier of the object associated with the search. In Oracle Utilities Customer Care and Billing for example, the unique identifier on the Account Financial History page is the Account ID.

To the right of the unique identifier is a [Search button](#). This button is used to search for a different object than the one whose data is being displayed in the page.

If the object being displayed has an associated context menu, a [Context Menu Button](#) is displayed.

User Preferences

The Preferences (or My Preferences) transaction and the User Maintenance transactions are the same except that with My Preferences, only the following items can be modified:

- Main Tab
 - Language
 - Display Profile
 - Time Zone
 - Email Address
 - Dashboard Width
 - Home Page
 - To Do Summary Age Bar Parameters
- Bookmarks
 - All information can be modified
- Portal Preferences
 - All information can be modified
- Favorite Links
 - All information can be modified
- Favorite Scripts
 - All information can be modified

User - Main

This page lets you view or define user information and access settings.

To open the page, use one of the following navigation options:

- The **Admin > Security > User > Search** menu item.
- The **Menu > My Preferences** menu item.
- The **User Menu > Preferences** menu item in the application toolbar.

Note that some fields are only modifiable when the page is opened from the from the **Admin** menu.

Description of Page

Basic user identification information is viewed or set in the **First Name**, **Last Name**, **User ID**, and **Login ID** fields, all of which are modifiable only when the page is opened from the **Admin** menu. User and logon IDs must be unique. The Login ID is the id that the user uses to log in to the system. The User ID is the ID that is used throughout the application when users are assigned to tasks or when the user ID is stamped on records when logging add or update actions.

Language Code defines the language in which the user's screen prompts and messages appear.

Set **User Enabled** to allow the user to access the system.

NOTE: This field, available only when the page is accessed through the **Admin** menu, provides special field-level security. A user can change the field only if the **Enable/Disable** access mode is set.

Display Profile ID defines the [display options](#) for the user.

The next group of fields is used to view or set user preferences. For example, you can set up [portal preferences](#) on a "template user" and indicate that specified users will inherit their portal preferences from the template. Doing so provides consistency in the application of account information and dashboard zones. This fields are modifiable only when the page is accessed through the **Admin** menu.

- Set **User Type** to **Template User** if the user's preferences are to match those of other users.
- If a user's [portal preferences](#) are to be inherited from a "template user", use the **Portals Profile User ID** to define the user ID of the template user. If applied, the specified user will inherit portal preferences from the **Portals Profile User ID** and will be unable to customize those preferences.
- If a user's [favorite links](#) are to be inherited from a "template user", use the **Favorites Profile User ID** to define the user ID of the template user. If applied, the specified user will inherit favorites preferences from the **Favorites Profile User ID** and will be unable to customize those preferences.

The **Time Zone** associated with the user may be defined. Implementations may use this information for features and functions where the user's time zone impacts display of data.

Email ID captures the user's email address.

Dashboard Width defines the number of pixels to use for the user's [dashboard](#) area. A setting of 200 is recommended as a minimum. Depending on the width of a user's monitor, a higher setting (such as 250) will display more information without compromising the space on the main area of the application. Setting the value to 0 will suppress the dashboard.

Home Page defines the page that appears when the user starts a session or clicks the [Home](#) link.

The To Do entry fields control how To Do entries are aged in respect of the "age bars" that appear on [To Do Summary](#), [To Do Supervisor Summary](#) and the [To Do Summary Dashboard Zone](#).

- Use **Lower Age Limit for Yellow Bar** to define the number of days old a To Do entry must be to be considered "yellow" in the age bar. To Do entries below this limit are considered "green" in the age bar.
- Use **Upper Age Limit for Yellow Bar** is the high limit for the "yellow" bar. To Do entries older than this are considered "red" in the age bar.

The **User Group** collection defines the group(s) with which the user is associated and the date (if any) when the user's association expires. This feature is modifiable only when the page is accessed through the **Admin** menu. For more information, see [The Big Picture Of Application Security](#). Assignments of users in a user group can also be established or maintained through the [User Group - Users](#) page.

NOTE: The ability to maintain the user groups on this page requires special field-level security. A user can change the field only if the **System Administration** access mode is set.

User - To Do Roles

Open the User page and then navigate to the **To Do Roles** tab to define the To Do roles assigned to the user.

The information on this page cannot be modified if accessed through **My Preferences**.

FASTPATH: A user's To Do roles control the types of **To Do** entries the user can access. For additional information on To Do roles, see [To Do Entries Reference A Role](#).

Description of Page

The grid contains the user's To Do roles. To modify a To Do role linked to the user, simply move to a field and change its value. To remove a To Do role, click the - (minus) button. To add a new To Do role, click the + (plus) button and enter the role.

Where Used

Every **To Do** entry references a role. A To Do role has one or more users (and a user may belong to many To Do roles). Users who are part of the To Do role assigned to a To Do entry may work on the To Do entry. For more information on this feature, see [The Big Picture Of To Do Lists](#).

User - Access Security

Open the User page and then navigate to the **Access Security** tab to define a user's security rights. You cannot modify this page if you accessed it through **My Preferences**.

FASTPATH: Refer to [The Big Picture of Application Security](#) for more information about data access roles and access groups.

Description of Page

Use the **Default Access Group** to define the access group that is defaulted on new records added by this user that are subject to [row security](#).

The scroll area contains the **Data Access Roles** to which this user belongs. A user's data access roles play a part in determining the accounts whose data they can access.

To add additional data access roles to this user, click the + button and specify the following:

Enter the **Data Access Role**. Keep in mind that when you add a **Data Access Role** to a **User**, you are granting this user access to all of the accounts linked to the data access role's access groups.

Use **Expiration Date** to define when the user's membership in this data access role expires.

NOTE: You can also use [Data Access Role - Main](#) to maintain a data access role's users.

The tree highlights the **Access Groups** to which the above **Data Access Roles** provide access.

User - Bookmarks

This page is used to manage a user's bookmarks that are created when a user clicks the [Bookmark](#) button and saves a bookmark. From this page the user can delete a bookmark, change the name of the bookmark or change the sort sequence.

Open the User page and then navigate to the **Bookmarks** tab to modify or delete a bookmark.

Description of Page

Sequence is the sort sequence associated with the bookmark. Bookmarks with the same sequence are then sorted alphabetically.

Name is the user-defined name assigned to the bookmark. This is the text that is visible in the [Bookmarks](#) dashboard zone.

NOTE: Favorite Links vs. Bookmarks. Favorite links are configured through the user page and define pages that a user can navigate to. They do not define context (although some pages may use information currently in global context when navigating). Some users may not be allowed to configure their own favorite links and would see the favorite links associated with a profile user. Bookmarks are created using a bookmark button available on each page. The bookmark saves navigation information, context information and also captures some information about the state of a page. Bookmarks are not governed by any user profile configuration.

User - Portal Preferences

The base product contains several [portals](#) that allow users to customize them via portal preferences. Portal preferences allow users to control:

- Which zones appear on the portal
- The order in which the zones appear
- Whether the zones should be "collapsed" (i.e., minimized) when the portal opens.

NOTE: You may not be able to change your portal preferences. If a note appears immediately before the list of portals, a system administrator has configured your user ID to reference a **Portals Profile User ID** (this is defined on the **Main** tab). Preferences set in this way cannot be modified. System administrators do this in order to enforce a common look-and-feel throughout the user community.

Open the User page and then navigate to the **Portal Preferences** tab to modify a user's preferences.

Description of Page

The [accordion](#) contains a row for every portal configured to show on user preferences and to which you have access. To change how a portal's zones appear, expand the respective row and change the elements accordingly. The remainder of this section describes how you can configure how a portal's zones appear.

Zone lists all of the [zones](#) in the portal.

Place a check under **Display** if the zone should be displayed on the portal.

Place a check under **Initially Collapsed** if the zone should be minimized when the portal is initially opened. Setting zones as initially collapsed is a good idea to save space and to help pages to load more quickly. Refer to [Zones May Appear Collapsed When A Page Opens](#) for more information.

CAUTION: Recommendation. It is recommended that you set your preferences to collapse zones that you don't use often. This is because the system doesn't perform the processing necessary to build collapsed zones until you ask to expand a zone. Opening a page with zones collapsed accelerates the response times of portal.

Use **Sequence** to control the position of the zone in respect of the other zones. This field is disabled if **Display** is not checked. Duplicate **Sequence** numbers are allowed.

For zones displaying data that is changing often, use **Refresh Seconds** to define in seconds how often the zone is refreshed. The minimum valid value is 15. The maximum valid value is 3600 (1 hour). A value of 0 indicates no automatic refresh.

Security Access indicates whether the user has access rights to a zone. Refer to [Granting Access To Zones](#) for more information.

User - Favorite Links

This page is used to define a user's favorite transactions and URLs. Each such link appears as an entry in the [Favorite Links Zone](#) in the [Dashboard](#) area.

NOTE: A hot key can be used to execute a favorite link. Rather than clicking a button in the favorite links zone, you can invoke your first nine favorite links by pressing `Ctrl + a number` (where the number corresponds with the relative position of the transaction in your list of favorites). Note that the numeric keypad on your keyboard cannot be used to implement this function.

Open the User page and then navigate to the **Favorite Links** tab to modify a user's favorite links.

Description of Page

NOTE: You may not be able to change your favorite links. If a **Note** appears beneath your **User ID**, your user id has been setup to reference a specific **Favorites Profile User ID** as defined on the **Main** tab. If a system administrator has setup your user ID in this way, your preferences may not be changed. System administrators may apply this feature in order to enforce a common look-and-feel throughout the user community.

Each row references a [Navigation Option](#). The navigation options supplied with the base package correspond with the system's menu items. This means you can setup a favorite link to open any transaction in the system (in either **add** or **update** mode).

NOTE: Favorite links can point to other places. The navigation options supplied with the base package always open a transaction's **Main** tab. If you find yourself continually accessing a different tab page, you can have your implementation team create a new navigation option that references the desired tab page. Once this navigation option is set up, you can reference it as one of your favorite links. In addition, it's also possible for your implementation team to setup navigation options that open a URL outside of the system. For example, your implementation team could setup a navigation option to a credit rating company's website. Once this navigation option is set up, you can reference it as one of your favorite links.

Use a **Sequence** to control the order in which the navigation option appears in the [Favorite Links Zone](#).

Security Access indicates if you have been given security rights to the respective transaction. Refer to [The Big Picture Of Application Security](#) for more information.

NOTE: Favorite Links vs. Bookmarks. Favorite links are configured through the user page and define pages that a user can navigate to. They do not define context (although some pages may use information currently in global context when navigating). Some users may not be allowed to configure their own favorite links and would see the favorite links associated with a profile user. Bookmarks are created using a bookmark button available on each page. The bookmark saves navigation information, context information and also captures some information about the state of a page. Bookmarks are not governed by any user profile configuration.

User - Favorite Scripts

This page is used to define a user's favorite scripts. Each script is displayed in the **Favorite Scripts** zone on the **Dashboard** portal where it can be used to [initiate a script](#).

NOTE: A hot key can be used to execute a favorite script. Rather than selecting a script from the business process assistant, you can invoke your first nine favorite scripts by pressing `Ctrl + Shift + a number` (where the number corresponds with the relative position of the script in your list of favorites). Note that the numeric keypad on your keyboard cannot be used to implement this function.

Open the User page and then navigate to the **Favorite Scripts** tab to modify a user's Favorite Scripts.

Description of Page

NOTE: You may not be able to change your favorite scripts. If a **Note** is displayed on top of the grid, your user id has been setup to reference a specific **Favorites Profile User ID** as defined on the **Main** tab. If a system administrator has setup your user ID in this way, your preferences may not be changed. System administrators may apply this feature in order to enforce a common look-and-feel throughout the user community.

Each row in the grid contains one of your favorite **Scripts**.

Use the **Sort Sequence** to control the order in which the scripts appear in the [business process assistant menu](#).

Security Access indicates whether you have access to the script's application service. Refer to [The Big Picture Of Application Security](#) for more information.

User - Characteristics

Select **Admin > Security > User > Search** and navigate to the **Characteristics** tab to define characteristic values for the user. You cannot modify this page if you accessed it through My Preferences.

Description of Page

Use the characteristics grid to capture additional information about the user.

You can only choose **Characteristic Types** defined as permissible for the user record. Refer to [Setting Up Characteristic Types & Their Values](#) for more information.

Enter a valid **Characteristic Value** for the selected characteristic type. You may enter more than one characteristic row for the same characteristic type, each associated with a unique **Sequence** number. If not specified, the system defaults it to the next sequence number for the characteristic type.

User - Miscellaneous

Select **Admin > Security > User > Search** and navigate to the **Miscellaneous** tab to view additional information associated with a user.

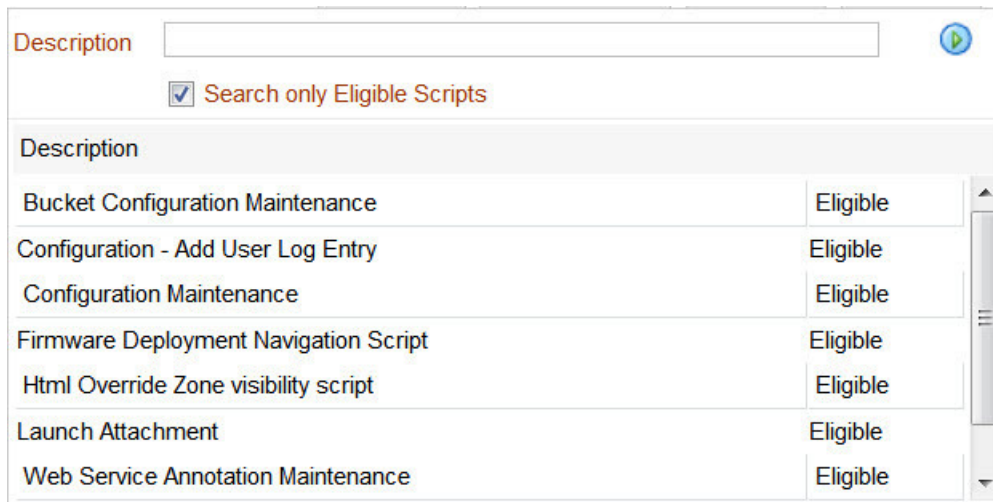
User Id, First Name and Last Name are displayed. Depending on your implementation, additional zones may appear on the User Portal

If additional zones appear, use the embedded help for information about the fields managed on the zone.

Initiating Scripts

Your implementation team can set up business process assistant (BPA) [scripts](#) to walk you through business processes. Once scripts have been set up, you can initiate a script using any of the following methods:

- You can define a list of your "favorite scripts" on your [user preferences](#). You can then invoke any of the scripts from the Favorite Scripts zone on the dashboard portal. You can also invoke any of your first 9 favorites by pressing `Ctrl + Shift + a number` (where the number corresponds with the relative position of the script in your list of favorites). For example, if you press `Ctrl+Shift+2` and you've setup your "favorite scripts" to be **Start Autopay** and **Stop sending marketing information**; the **Stop receiving marketing information** script is invoked. Note that the numeric keypad on your keyboard cannot be used to implement this function.
- You can configure a menu item to launch a script by referencing a [navigation option](#) that is a **script** navigation option type.
- The system creates [To Do entries](#) to highlight tasks that require attention (e.g., bills in errors, accounts without bill cycles, etc.). Users can complete many of these tasks without assistance. However, you can set up the system to automatically launch a script when a user selects a To Do entry. For example, consider a To Do entry that highlights a bill that's in error due to an invalid mailing address. You can set up the system to execute a script when this To Do entry is selected. This script might prompt the user to first correct the customer's default mailing address and then re-complete the bill. Refer to [Executing A Script When A To Do Is Launched](#) for more information.
- You can indicate that a script should be [launched upon entering the system](#). This functionality enables an external system to launch the system and immediately launch a script.
- The following [hot keys](#) cause an interactive menu is displayed:
 - `Ctrl+Alt+Q`
 - `Ctrl+Shift+S`



Description	Eligible
Bucket Configuration Maintenance	Eligible
Configuration - Add User Log Entry	Eligible
Configuration Maintenance	Eligible
Firmware Deployment Navigation Script	Eligible
Html Override Zone visibility script	Eligible
Launch Attachment	Eligible
Web Service Annotation Maintenance	Eligible

The menu allows you to search for a script using any word in its description. Note, if you've turned on **Search only Eligible Scripts**, your search is limited to [eligible scripts](#). Note, the system displays an indication if each script in the grid is **Eligible** or **Ineligible** in this section.

You can initiate a script from this area by clicking on it.

When a script is initiated, this menu closes and the [object display area](#) shifts down to make room for the script area.

NOTE: Securing scripts. Only scripts the user is allowed to execute are displayed. Refer to [Securing Script Execution](#) for more information.

NOTE: Customize the script area. Using the [Height](#) step type, an individual script may be configured to use more or less of the script area than the standard script area. It is also possible to configure a script to hide the script area altogether.

The information in the script area takes you through the steps in the selected business process (note, your implementation team controls the information that appears in the script area).

The following points highlight useful information common to all scripts:

- **Return focus to script area.** Often during a script the focus moves from the script area to another section of the page. For example, you might be required to fill in data for a new record being added. When you are ready to return to the script area, rather than using the mouse to return to the area, you can press `Ctrl+Shift+F`. The focus returns you to either the first available input field or to a "default" button if no input field is available.
- **The Continue button.** Many steps in a script ask you to click the **Continue** button when you're ready to restart a script. For example, a step may ask you to confirm a customer's automatic payment information and then click **Continue** when you're ready for the script to restart. Rather than using the mouse to click this button, you can press `Ctrl+Shift+C`.
- **Selected button changes color.** When you click a button in the script area, the button selected changes color so that you can easily see which option you selected.

FASTPATH: Refer to [The Big Picture Of Scripts](#) for more information about scripts.

NOTE: You can abort a script at any time by clicking the red X button in the upper right corner of the script area (or by pressing `Ctrl+Shift+X`).

Shortcut Key Summary

The following table summarizes the keyboard shortcuts (hot keys) available in the system:



NOTE: It is possible that your specific product supports additional shortcut keys. Refer to your product documentation for more information.

NOTE: It is possible that some of the following system accelerator keys may duplicate shortcuts, or hot keys, that are predefined within your browser. If this is the case, the browser's functionality commonly takes precedence.

NOTE: It is possible that your implementation uses one of the accelerator keys listed below for a different purpose. For example, in some languages, a shortcut key may be used for a special character in the alphabet not included on all keyboards. It is possible to turn off any of the `Alt+letter` shortcuts and `Ctrl+Alt+letter` shortcuts listed below using a properties file entry. The property is `ouaf.shortcut.ignore.altKeys=` where one or more letters may be entered separated by a comma. When setting this property, the system automatically enables a 'potential alternate key' for certain functions (see the table below). Refer to the *Server Administration Guide* for more information about the property.

Accelerator Key	Potential Alternate Key (see Note above)	Function
<code>Ctrl+Alt+A</code>		Opens the Admin Menu button.
<code>Alt+B</code>		Returns to the previous page on which you were working. This is the equivalent of clicking the Back button.

Accelerator Key	Potential Alternate Key (see Note above)	Function
Ctrl+Alt+B		Launches the Bookmark dialog. This is the equivalent of clicking the Bookmark button.
Alt+CCtrl+Alt+CAlt+Shift+C		Clears the currently displayed object from the page. This is the equivalent of clicking the Clear button.
Ctrl+Shift+C		If the current step in the Script area has a Continue button, this shortcut is equivalent to clicking Continue .
Ctrl+Alt+DAlt+D		Creates a duplicate of the object being displayed. Equivalent to clicking the Duplicate button.
Ctrl+Alt+F		Positions the user's cursor to the Menu Item Search input field.
Ctrl+Shift+F		If the Script area is open and you are working on a different area of the page, this key returns focus to the script area. Focus returns to either the first available input field or to a "default" button if no input field is available.
Alt+G		Returns to the most recent page that was displayed when the Back button was clicked. Equivalent to clicking the Forward button.
Ctrl+Alt+H		Opens a dropdown list of recently-visited pages, the equivalent of clicking the History button.
Alt+J		Minimizes the dashboard . It also expands the dashboard, if it was minimized.
Alt+K		Transfers you to To Do Entry - Main for the current item in the To Do list. Pressing Alt+K while on this page takes you to the first To Do entry on the list.
Ctrl+Alt+L		Logs the user out of the system. This is equivalent to clicking the Logout menu item.
Ctrl+Alt+M		Opens the Menu button.
Alt+N	Alt+Shift+N	Displays the next entry in the search results. Equivalent to clicking Next Item .
Alt+O	Alt+Shift+O	Navigates to the user's home page. Equivalent to clicking the Home button.
Ctrl+Alt+P		Opens your User Preferences page. Equivalent to clicking the Preferences menu item.
Alt+P		Displays the previous entry in the search results. Equivalent to clicking Previous Item .
Ctrl+Alt+Q		Opens the business process assistant , where you can select a script that walks you through a business process.
Alt+RCtrl+Alt+R		Refreshes the page with the last saved version of the object being displayed in the page. Equivalent to clicking the Refresh button.
Alt+S	Alt+Shift+S	Saves any changes that you've made on the database. Equivalent to clicking the Save button.
Ctrl+Shift+S		Opens the business process assistant , where you can select a script that walks you through a business process.
Alt+X	Alt+Shift+X	Opens the To Do Summary .
Ctrl+Shift+XCtrl+Shift+Z		If the Script area is open, equivalent to clicking the Close button in the script area. If a pop-up window is open, this closes the window.

Accelerator Key	Potential Alternate Key (see Note above)	Function
Alt+Y		Displays the previous item in the To Do list. Equivalent to clicking the Previous To Do button in the Current To Do zone.
Alt+Z	Alt+Shift+Z	Displays the next item in the To Do list. Equivalent to clicking the Next To Do button in the Current To Do zone.
Alt+Insert		Inserts a new row into an editable grid if the insertion point is in the grid. Equivalent to clicking the Insert button.
Alt+Delete		Removes a row from an editable grid if the insertion point is in the grid. Equivalent to clicking the Delete button.
Alt+F1		Invokes online Help for the application. Equivalent to clicking the Help button.
Alt+1 ...Alt+9		These keys are only applicable when a page / portal with multiple tabs is open. The shortcuts open the tab page whose relative position corresponds with the shortcut number. For example, if you press Alt+3 on a page with multiple tabs, the third tab is displayed. If there are more than nine tabs on a page, you must use the mouse or F2/Shift+F2 to display a tab. Note that you cannot use the numeric keypad for these shortcuts.
Ctrl+1 ...Ctrl+9		Invokes the favorite link whose relative position corresponds with the shortcut number. For example, if you press Ctrl+3, the transaction for your third "favorite link" is invoked. Note that you cannot use the numeric keypad for these shortcuts.
Ctrl+Shift+1 ... Ctrl+Shift+9		Invokes the favorite script whose relative position corresponds with the shortcut number. For example, pressing Ctrl+Shift+2 selects the second of your "favorite scripts". The numeric keypad cannot be used for these shortcuts.
Alt+left arrow		Populates a scroll area with the previous entry. Equivalent to clicking the scroll control  .
Alt+right arrow		Populates a scroll area with the next entry. Equivalent to clicking the scroll control  .
Enter when in a field with an adjacent Search button		Invokes the search. Equivalent to clicking the Search Button .
Enter when a row in a search result grid is highlighted		Selects the item and closes the search. Note that after selecting an item from the search results, you can press Alt+N or Alt+P to scroll up or down through other items in the result grid without returning to the search results.
Enter when a menu item is highlighted		Selects the menu item.
Enter when the insertion point is within a tree node		Equivalent to clicking on the item in the tree: <ul style="list-style-type: none"> • If the insertion point is on a node image, the node is either expanded or collapsed, dependant on its current state. • If the insertion point is on a context menu, the context menu is opened and normal menu processing applies. • If the insertion point is on a "link" element, normal navigation processing occurs.

Accelerator Key	Potential Alternate Key (see Note above) Function
Tab when a row in a search result is highlighted	Highlights the next row.
Shift + Tab when a row in a search result is highlighted	Highlights the previous row.
Space when the insertion point is on a button	Equivalent to pressing the button.
Space when the insertion point is in a date/time field	Opens the date/time selection window.
Space when the insertion point is in a check box	Toggles the check box between checked and unchecked.
Page Up while in a list grid	Scrolls the contents of the list grid up approximately one page.
Page Down while in a list grid	Scrolls the contents of the list grid down approximately one page.
Up or Down Arrow when in a dropdown list	Moves to the next or previous value in the list. You can also press a letter key to locate the next value starting with that letter.
Up or Down Arrow keys when in search results	Highlights the next/previous row in search results.
Up, Down, Left or Right Arrow when using a menu	Highlights other menu items.
Esc when using a menu	Closes the menu.
F2	Opens the next tab page when viewing a page / portal with multiple tabs.
Shift+F2	Opens the previous tab page when viewing a page / portal with multiple tabs.

Chapter 3

Approval Processing

The following sections provide information on concepts related to approval processing.

About Approvals

One of the ways that the system simplifies and speeds up work is by routing records when they require approval. Approval requests use approval profiles to determine the properties and requirements for the approval. Approvers can use the **Approval Dashboard** to manage the approvals that require their attention.

This section describes how various processes work together to manage approvals throughout the system.

Please refer to the [Maintaining Approvals](#) section for procedural tasks related to these concepts.

Refer to the [Approval Processing Options](#) section in the Administrative User Guides for configuration guidelines.

About Approval Requests and Approvals

Records within the system, such as purchase orders or work requests, often require an authorized person to provide approval for the purchase or work. Approval requests are used to route the request for approval to the appropriate individuals with the authority to approve or reject the request.

Basic approval processing requires that the person creating or managing a record that requires approval must create an approval request. This is done by clicking the **Submit for Approval** button on the record when it is in pending approval status and selecting the appropriate approval profile for the document. Once a record is submitted for approval, the request is emailed to approvers, sent to their To Do List, or both.

- Most users only need to know which **Approval Profile** to choose when they submit a record for approval. This selection will depend on your business processes and how your approval profiles are configured. For example, when a user submits an approval request for a timesheet, he or she should only see approval profiles available for a timesheet.
- The **Approval Request** shows the related document, the person who submitted it and when, who has approved it so far, and which roles still need to provide an approval decision.

- The **Approval Profile** indicated on the approval request identifies the people who need to approve the record and their role. Sometimes there are multiple approvers needed, depending on how the approval profile is set up and your business practices.
- Often records will have a set of approval profiles which are defined for all records of that type. For example, when a new work request is routed for approval, the options for approval profile are limited to those defined for work requests.
- Approvers can access information about approvals that require their attention using the **Approval Dashboard**.
- The person submitting the record for approval can check the status of the approval from a zone on their home page or by checking the individual record. The requestor is notified via e-mail when the record has been approved or if the request times out.
- Most approvers also have access to the **Approval Request Action** zone on the side **Dashboard**. You can also record and submit your decision here. Access to this zone is controlled by your **Portal Preferences** in your user profile.
- The **Log** tab on the record being approved indicates who approved the record and when.

Approval Routing

As mentioned, an approval profile includes approval types and dollar limits that control which approvers can and are required to approve a record. When the approval request is submitted, the system sends notification to all users indicated on the approval profile (approvers) by email, their To Do List or both depending on the system settings for notifications. The notification is sent to approvers associated with the **To Do Roles** on the approval profile in the sequence defined on the profile (the approval path).

The approval request moves along the route/hierarchy based on the roles of the approvers and their approval decisions. For example:

- **One Standard Role:** If the approval profile consists of one To Do Role with mandatory or standard approval type, the users with that role receive the approval notification and any one of them can approve the request as long as the To Do Role has authority for the needed dollar amount.
- **Multiple Roles/All Standard:** If the approval profile consists of multiple To Do Role s and all are standard, any To Do Role can approve the request as long as they have the authority for the needed dollar limit.
- **Mix of Mandatory and Standard Roles:** If the approval profile consists of multiple To Do Roles with a mix of mandatory and standard, the users with mandatory must approve the request even if the standard approvers have authority based on the dollar limit or other factors. In other words, the mandatory approval role must take an action by agreeing or rejecting the request.
- **Request Time-out:** If approvers do not respond to the request within the time allotted by the time-out threshold, the system sends another notification to the approvers. If they still do not take action, the request moves to the next approval role, as applicable and the next role receives notification.
- **One Approver with Multiple Roles:** If one approver has multiple To Do Role s on one approval profile for the request, the system prompts that person to indicate which role he or she is approving. For example, approver Jon is in both the Supervisor and Manager To Do Role s. When an approval request comes in and Jon approves the request, a selection box opens to allow him to choose in which **To Do Role** he is approving the request. If Jon selects multiple approval requests to approve at once in the **Approval Dashboard** he may receive a warning that he needs to specify an **Acting To Do Role** before selecting an action. This means you must pick a role from the **Acting To Do Role** drop down and click **Search** to let the system know which role you are using to approve the requests.
- **Insufficient Approval Amount:** If an approval request comes in for a record with a higher dollar amount than anyone on the approval path is authorized to approve, the requestor is notified that no one on the approval profile has sufficient authority. The requestor must choose a different approval profile and resubmit.
- **One Standard Role:** If an approver rejects the approval request, the request terminates and additional approvers on the approval path are not notified. The requestor is notified that the request has been rejected. Any approver in the route can reject and terminate the approval process regardless of their approval authority or limit amount. However, this does not apply for “notification only” approvers.

- **Not Authorized to Approve:** Some roles might be set as “not authorized to approve” but they still appear on the approval path. These approvers receive notification of the request and can approve or reject, but their decision is simply recorded for the next approver on the approval path to be aware of their decision. This setting is only applicable for an approval profile that is for no amount.
If this type of approver rejects the request, the same processing applies as described for “one standard role”.

About the Approval Dashboard

The approval dashboard provides a summary of approval requests that have been sent to the broad list of approvers with a breakdown of the approval profiles. This overview provides approvers with a simple summary of the records requiring their attention.

The summary list includes the counts of approval requests that have been sent out to any approvers that are not **Notification Only** and shows the current approvers and the mandatory future approvers. The list is broken down by document type and approval profile.

It is possible to filter the list by current or future approvers using the **Queue** field. The filter is used to distinguish current and future approval requests which may require the attention of the approver. For example, if an approver is about to go on vacation, he or she may want to take action on an approval request early. In this case the list can be filtered by “future” approval requests where this approver is not necessarily next in the approval route. This is a way for the approver to obtain a “preview” of requests that are coming from the route.

Broadcasting an individual line opens a zone where the approver can check off records and choose a button to make their approval decision (approve or reject). The approver can also click the link to open the approval request itself, and to open the individual record.

Note that the dashboard contents are specific to the logged in user, so one person may see a different list than another depending upon their approval authority.

Approval Request Dashboard Zone

The system also includes a zone in the side dashboard which highlights any new approval requests that require the logged in user’s attention. The User can approve or reject the request in this dashboard, if desired.

Maintaining Approvals

The following sections provide information on tasks associated to working with approvals and approval processing.

Refer to the [About Approvals](#) section for a conceptual overview.

Reviewing a Record Before Approving

Use this procedure to review the requesting document prior to recording an approval decision.

1. From the approval dashboard, broadcast the details for the record group requiring approval.

A new zone opens at the bottom of the screen with options to approve or reject the record.

Approvers can record their decision for multiple requests by selecting the check boxes and clicking the appropriate button.

2. Click the link to open the **Approval Request** to further review the information.

Here, you can also choose buttons in the **Record Actions** section to record your approval decision.

3. Click the link in the **Requesting Document** field to open the actual record in need of approval.

Here you can review the complete document information, search for possible duplicates (for Work Requests), or edit the record if you have the proper authority within the system.

Most approvers also have access to the **Approval Request Action** zone on the **Dashboard**. You can also record and submit your decision here. Access to this zone is controlled by your **Portal Preferences** in your user profile.

Approving a Record in the Approval Dashboard

Approvers can record their approval decision from the **Approval Dashboard**, on the **Approval Request** or on the record itself. Use this procedure to approve the record from the approval dashboard.

1. From the approval dashboard, broadcast the details for the record group requiring approval.

A new zone opens at the bottom of the screen with options to approve or reject the record.

2. Click one of the decision buttons to record your approval or rejection of the record.

You can also record your decision for multiple requests by selecting the check boxes and clicking the appropriate button.

If you have authority on multiple **To Do Roles**, and you select multiple approval requests to approve at once, you may receive a warning that you need to specify an **Acting To Do Role** before selecting an action. This means you must pick a role from the **Acting To Do Role** drop down and click **Search** to let the system know which role you are using to approve the requests.

You also have the option to click the link to the approval request to review it further.

Most approvers also have access to the **Approval Request Action** zone on the **Dashboard**. You can also record and submit your decision here. Access to this zone is controlled by your **Portal Preferences** in your user profile.

Approving a Record on the Approval Request

Approvers can record their approval decision from the **Approval Dashboard**, on the **Approval Request** or on the record itself. Use this procedure to approve the record from the approval request.

1. From the approval dashboard, broadcast the details for the record group requiring approval.

A new zone opens at the bottom of the screen with options to approve or reject the record.

2. Click the link to the approval request to further review the information.

3. Click one of the decision buttons to record your approval or rejection of the record.

The approval decision is recorded and a notification is sent to the initiator of the request.

You also have the option of navigating to the requesting document to review it further. Click the link next to the **Requesting Document** field on the approval request.

Most approvers also have access to the **Approval Request Action** zone on the **Dashboard**. You can also record and submit your decision here. Access to this zone is controlled by your **Portal Preferences** in your user profile.

Routing/Submitting a Record for Approval

Use this procedure to submit a record for approval.

Prerequisites: The record requiring approval must be created and in **Created** or **Planning** status.

1. Search for and select the appropriate record requiring approval.
2. Click the **Submit for Approval** button.

3. Enter or search and select the appropriate approval profile and **Save**.

The system begins approval processing by sending alerts to the approvers and updating the status of the record to **Pending Approval**.

You can check on the status of the approval in the **Approval Dashboard**.

Reviewing Documents Requiring your Approval Decision

Use this procedure to review approvals that require your attention.

You can review the documents that require your review and approval decision using the **Approval Dashboard**, or, depending on your business practices and system settings, in your **To Do List**. Approval requests might also be sent directly to the email address indicated in your user profile.

Disable E-Mail Notifications for an Approver

Individual approvers can use this procedure to disable email notifications for approval requests.

Prerequisites: Your system approval processing must be configured so that you receive email alerts for this procedure to be relevant.

1. Navigate to user **Preferences** under your username (at the top of the application window).

You can also navigate to the **User** portal under the **Admin** menu if you have access.

2. Navigate to the **Characteristics** tab.
3. Add **Approval Profile E-Mail Override** under **Characteristic Type**.
4. Add **Disable** under **Characteristic Value** and **Save**.

You will no longer receive approval notifications for any approval requests in your e-mail. To enable email alerts again, delete the characteristic.

Chapter 4

Asset Management

The following sections provide information on concepts related to managing assets and components.

About Asset Management

The Oracle Utilities Work and Asset Management system provides functionality to track the purchase, repair and maintenance of assets and asset components using general work management processing, preventive maintenance techniques, purchasing processing and inventory tracking.

- Assets and components are related in that a component is an asset that is installed on another asset.
- Service history is used to track and record the work that is done on assets and components.
- Specifications are used to define attributes needed to provide information about assets.
- Assessments can be configured to manage inspections and condition ratings for assets.
- The system tracks warranty information for assets.
- Measurement data for assets can be recorded and maintained to track asset reliability and performance.
- Work orders and activities track maintenance and repairs for assets, and can be set up on templates to establish regular schedules for preventive maintenance.

This section describes how various processes work together to manage assets throughout the system.

Please refer to the [Maintaining Assets, Components, Service History and Asset Related Objects](#) section for procedural tasks related to these concepts.

Refer to the [Asset Management Options](#) section in the Administrative User Guides for configuration guidelines.

About Assets

An asset is an object in an infrastructure, such as a smart meter, poles, pipes, transformer or any other material item owned or managed by an organization.

Assets typically require tracking, inspection, service or work history. Your system may be configured with any number of asset fields depending upon your business requirements. The **Asset Type** defines whether or not costs are tracked for the asset.

Types of Assets

Assets are typically classified as:

- **In/Out Service:** In/Out of service assets are typically stationary, such as a pole or pipe. They stay in service until they fail and are then removed from service rather than being repaired or tracked. This type of asset will be recorded at an asset location with a disposition such as in service or out of service.
- **Tracked:** Tracked assets have their status and location carefully monitored and recorded as they move in and out of service or go for maintenance or repair. This type of asset will be tracked at a location with a disposition such as in receipt, in stores, in repair, retired or rejected. If the tracked asset is installed, or put in service, it will be related to an asset location. Tracked assets utilize more statuses and a status reason to more carefully track the asset as it moves from receipt to retirement.

Within these classifications, several different *types* of assets can be managed for your organization. These include:

- **Plant Assets:** Stationary structures such as buildings, factories, or other facilities.
- **Fleet Assets:** Vehicles including cars, trucks, and equipment such as bulldozers or forklifts.
- **IT Assets:** Technology equipment such as phones, computers and laptops, monitors.
- **OT Assets** — Operational technology assets such as smart meters and manual meters.
- **Linear Assets:** Assets that can be connected with each other such as pipes or telephone poles.
- **Infrastructure Assets:** Assets that makeup general infrastructure such as roads and parking lots.

Beyond these general types, your organization might also manage:

- **Communication Relays:** Communication relays transmit messages between various points to facilitate communication between units. These typically use the same fields and statuses as meters.
- **Communication Components:** Communication components are devices that can be attached to an analog meter to connect the meter to the “smart” communication grid. These use the same fields and statuses as smart meters with the exception that they are never installed directly at a location, but are instead attached to another asset.

Asset Hierarchy

Assets typically exist within a structured relationship based on the relationship between the asset and its locations and organizations, or “nodes”. The hierarchy is represented in a nested format on the **Tree View** tab of asset locations, storerooms, organizations and assets. This view displays which assets are in a location, which assets are attached to other assets, and where assets belong within organizations. Clicking the broadcast icon next to any element within the tree displays a list of assets and components related to that element in the hierarchy. Clicking the actual link for an element navigates to the associated record for the element.

Asset Type Statistics

Average costs for assets, grouped by asset type, are displayed graphically on the **Asset Type** record. Depending on your settings, this information is also available in the **Home Page** portal.

Linear Assets

An asset may be discrete, such as a building, a vehicle or an equipment item, or it may be linear, such as a sewer line, a road or a power line. Linear assets are defined in the system by designating an asset location where the linear assets are connected as well as by specifying “connected to” points to show the connections between linear assets. The **Tree View** of any asset or location in the system will show the other related assets with a visual indication of their relationships.

Refer to the [About Asset Types, Assets and Components](#) section in the Administrative User Guide for information on setting up linear assets.

About Components

Components are devices or other objects that are attached to another device, usually an asset.

One of the most common examples of components are the electronic reading devices (ERTs) that are often attached to analog meters. However, a component can be any asset attached to another asset.

Since they are always attached to another device, components cannot be installed at a location. However, they may be received, tracked, maintained and inspected like any other device. Given this, activities and work orders can be created to perform these tasks on components.

Detaching components involves either moving the component to a new asset or transferring to a storeroom. The process within the system is to search for and select the component and then "detach" it from the asset where it currently resides.

About Asset Locations

Asset locations define the physical location where assets are *installed*.

Valid asset locations might include service points, other locations for in service assets, or any other location as defined by your organization. For example, a service point is the address where a meter is located. This type of location typically contains just one active asset and no stored assets. Note that an asset location is the physical location where assets or components can be installed, whereas Out of Service Location Types are for receipt, storage, repair, retirement, transport (on vehicles) and other dispositions.

Asset locations can be defined in hierarchies with parent and child locations. For example, a campus might be defined with one parent location with the buildings on the campus defined as child locations to that parent. The parent can define attributes or identifiers common to all child locations, however specific location information must be defined on each location individually.

A child location cannot be in active status if the parent location is inactive. It is also not possible to make a location inactive if it has associated assets or child locations.

Refer to the [About Storerooms](#) section for information about physical locations where assets or components are *stored*.

About Out of Service Locations

When assets are changed to statuses such as “In Repair” or “Pending Disposition” the asset location is typically transitioned to an out of service location. This may be a warehouse or garage where the asset is stored, dispositioned or repaired.

About Bill of Materials

A Bill of Material (BOM) is a parts list containing a hierarchy of component parts that make up a piece of equipment or asset. Your organization can build parts lists for assets, components and fleet assets (vehicles). Bills of materials are used to simplify identifying materials when planning work.

A bill of materials can be a great advantage for maintenance personnel when they are planning or working on a work order. The bill of materials can be used to easily find the stock items related to component parts of the assets that need to be worked on. This relieves planners from doing extensive research to find the correct related stocked and non-stocked items needed. As needed, you have the ability to add materials to activities from the asset’s Bill of Materials. Selecting the add from BOM action opens a dialog where you can choose items from the BOM pick list.

Bills of materials can be multilevel, with a list of components and lists of parts for the components, lists of parts that make up the parts, and so on. The level of detail you build into them depends on your organization's resources and needs.

A Bill of Materials is similar to a **Specification** in that the same Bill of Material can be created as one source for specific criteria needed to maintain the asset, which is then referenced on many assets.

Bills of materials are classified in the following ways:

- General Stock Item Part — Defines a general piece of stock or equipment. A generic stock item BOM is automatically generated by the system when a stock item is created.
- Independent Part — Defines a generic part which is not a stock item, but can be composed of many parts. For example, a truck would be defined as an asset, not a stock item, but might reference a BOM with independent parts. These must be created manually.

Access the **Bill of Materials** tab on applicable stock items to review the associated **Bill of Materials** tree or the **BOM Part** record for the stock item.

About Service History

Use service history to enter relevant information regarding service or maintenance on assets. Typically it is used to record inspection feedback, pass/fail details, downtime, parts failure information, maintenance or service logs, or other information regarding service on the asset.

Types of service history might include:

- Asset downtime
- Failure details
- Asset maintenance
- Visual inspection
- Detailed inspection
- Smart meter test
- Battery replacement
- ..., and so on.

Service history can be manually created or is automatically generated as the result of completion events being processed for activities. If the service history type has any schedule defined, a set schedule may also be established to create regular service history for repeated tasks such as inspection or regular maintenance.

Service history types linked to asset types control which service history can be created for assets.

Inspections and Condition Assessments

Assessment functionality is used to determine asset condition. Your organization defined inspection criteria to address typical inspection points, concerns, issues, or checklists that must be completed to properly assess an asset. This is based on the kind of asset, the kind of inspection, and so on.

Assessments and inspections are conducted using service history which includes questions and answers. A field technician or other worker assesses the asset and enters answers to predefined questions on the service history record. Answers are typically chosen from a set of pre-defined values that are configured when the questions are designed for the assessment. [About Condition Assessment Groups](#) and [About Condition Assessment Classes](#) are used to ‘bundle’ the various kinds of inspections that are available for an asset. All of the data that is collected is used to calculate a final condition score.

Condition scores are on a 1 —5 scale where 1 is Very Good and 5 is Very Poor. Scores also have an associated “confidence level” which is a percentage which drops as the input data ages. This is based on the premise that the older the data, the less reliable it is.

There are three kinds of inspections that can be performed:

- **General Weighted** (grading on a 1-5 scale): The condition of the asset is based on a general assessment of potential defects using a weighted scale of 1 - 5. Each potential defect is assigned a weight value based on the impact to the service level. A potential defect that has significant impact on the service level will have a higher weight value than a potential defect with minimal impact on the service level. A “like new” asset would exhibit none of the potential defects and be awarded the minimum points resulting in a rating of 1. A severely broken asset would exhibit the highest severity of each potential defect and would be awarded the maximum points resulting in a rating of 5.
- **Deficiency** (noting various defects on the asset, which can be summed): The condition of the asset is based on accumulated defect points. As with the general weighted method, each potential defect is assigned a weight value based on the impact to service level. Then each defect is broken down into specific severity levels with a point value assigned to each. The more severe the nature of the defect, the higher the associated point value. Normally, the point scale is a range of 1 - 10, allowing for at least 10 different definitions or levels of severity. Unlike the general weighted method, each defect and severity identified during inspection is accumulated for the final “deficiency score”. That is, if there are 5 defects with a severity of 2 points each, then the deficiency score for the asset would be 10. A “like new” asset would exhibit none of the potential defects and be awarded a deficiency score of 0 (i.e., absolutely no defects were noted). A severely broken asset would exhibit the highest severity of each potential defect, probably numerous times, and would be awarded a higher deficiency score.
- **Percent of New** (maps a percent value to the 1-5 scale): The condition of the asset is based on passing or failing characteristics of a new asset. A “like new” asset would pass all characteristics and be awarded the maximum points resulting in a 100% rating. A severely broken asset would fail all characteristics of a new asset and be awarded zero points resulting in a 0% rating.

You can recalculate a condition rating by navigating to the inspection type service history for an asset and clicking the **Compute Score** button. You may have to “reopen” the service history first.

About Specifications

A specification is contains the manufacturer, model, and other information about a set of assets.

Specifications may also contain written procedures, careful handling instructions for hazardous or delicate materials, or any other set of attributes needed to provide information about a set of assets. Please note the following with regard to specifications:

- Specifications often include an attachment which supports the specification definition or provides the actual specification from the manufacturer.
- A specification may also include default in service and out of service maintenance schedules for assets or components linked to the specification. When the specification is associated with the asset or component, the related maintenance schedule becomes in effect for the asset or component.

About Operational Readings (Measurements)

Measurements manage the asset operational and runtime data which is collected and tracked for assets. Asset measurements might include mileage, hours of uptime, number of start-stops, and so on.

Since they almost entirely depend on the usage of the related asset, readings cannot be calculated or predicted accurately by the system. Instead, readings must be collected and entered into the system, either manually by a user or imported as the result of activity completion. Data readings that fall outside of expected limits or thresholds can be set to trigger alerts. The alerts create ToDo entries and can trigger the creation of related work records, as appropriate.

Operational Reading Activities

The taking of measurements can be effectively managed by setting up the appropriate work orders or activities to track and schedule the work. This type of scheduling can be even more stringently managed using maintenance triggers and schedules.

Asset records display any related measurement activities in the **Measurements** zone.

Operational Reading Quick Entry

While most readings typically come from an external system via an interface, users can also enter read information manually using the Reading Quick Entry tool. This tool can also be used to upload multiple readings from a spreadsheet.

Operational Reading Alert Review

Reading alert review provides users with an easy dashboard to review alerts related to asset measurements. Generally an alert is triggered when an asset reading falls outside of an established threshold. Users can select the appropriate measurement type to see a list of measurements of that type that are in error. This list is sorted by the most recent errors first. The **Asset** portal displays a similar zone on relevant assets that have had measurements taken. This zone also includes an **Add** link where users can enter a measurement directly on the **Asset** record.

Select appropriate assets (usually assets that have readings in error) and click the **Make Valid** button which automatically moves the status of the reading from an error to a valid state.

Measurement Activity zone

This zone displays a listing of activities related to a measurement. This provides visibility into maintenance planning activities that are triggered by measurement alerts. For example, your system configuration might trigger an alert if an out of range measurement is entered.

This zone also includes an **Evaluate** button which, when clicked, moves the measurement to the next state where the measurement ranges will be evaluated, such as valid or error.

About Warranty Terms and Warranties

Warranty terms hold the duration, term, value or usage limit of assets or items that are under warranty. The warranty term also specifies the specification and/or vendor that a warranty claim can be issued to when needed.

Warranty terms can be defined as calendar warranties (such as number of years) or runtime warranty terms (such as number of miles). When a warranty term is created and set to Active status, it can be associated with assets.

A warranty is a written guarantee issued to your organization promising to repair or replace a damaged item within a specified period of time or usage limit. The **Warranty** portal manages the warranties held for assets or other purchased items for your organization.

Once warranties have been created referencing the term, the **Warranty** section on the **Warranty Term** record displays a list of the applicable warranties.

About Mass Asset Disposition Update

The **Mass Asset Disposition Update** portal allows you to select assets by asset type, current disposition state or other common criteria to change the status and location of multiple assets at one time.

Asset disposition indicates where the asset is and what is being done to the asset. Mass Asset Disposition is aimed at moving many assets of the same type from one asset location to another asset location. In a mass disposition task, the target is always a single asset location. For example, if a pallet of meters has been received in the receiving asset location, mass disposition can be used to move this batch of assets to a storage asset location or an out of service location. Once the appropriate assets are retrieved and selected, click the **Change Disposition** button to execute the change in one quick step.

NOTE: Assets that are inventory tracked (managed as stock items via inventory control) cannot be moved in or out of inventory storerooms using mass asset disposition update. In this case, the asset must be moved using stock transactions. Items might be retired or be put into a storeroom location such as a repair shop. For this type of move, the mass asset update can be used.

About Asset Replication

As devices and other assets are received in large quantities, the **Asset Replication** portal allows for the receipt, inspection, storage and other processing of these assets in batches.

Using asset replication functionality your organization can complete processes such as:

- Replicating assets in the same lot/pallet
- Selecting assets for testing or inspection
- Mass updating asset disposition such as rejecting or accepting a lot or pallet

This processing creates new asset IDs, badge numbers and serial numbers for assets based on general information that is entered related to each batch. When a new replication event is created it is tied to a replication activity type to determine default settings and attributes for the replication. The actual asset information can be entered manually or uploaded via a CSV file.

Assets can then be moved between locations, or dispositioned using [Mass Asset Disposition Update](#).

Maintaining Assets, Components, Service History and Asset Related Objects

The following sections provide information on tasks associated to working with assets and asset related objects.

Refer to the [About Asset Management](#) section for a conceptual overview.

Working with Assets

The following sections provide information on tasks associated with creating and updating assets.

Creating an Asset Location

Navigate to the **Asset Location** portal under **Asset Management**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the asset location record:

Note: This list does not represent required fields.

- Asset Location Type
- Parent Location/Organization (as applicable) — Enter a parent location or organization to establish the position of your new location in the location hierarchy.
- Work Request Approval Profile (as applicable)
- Contact (as applicable)
- Service Area (as applicable)
- Cost Center
- RCM System
- Backlog Group

Make sure that the **Location Disposition** is set to Active if you want to make the location available for reference on other records.

Additional information typically includes an address and additional info to define the location.

The criticality section captures information which defines the importance of the location in terms of the potential impact of having issues or problems at that location. For example, a hospital might have a high criticality rating since losing power there might result in deaths of patients. A city park would have a low criticality since there are few consequences if the lawns are not mowed on time.

Creating an Out of Service Storage Location

Navigate to the **Out of Service Location** portal under **Location**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the asset location record:

Note: This list does not represent required fields.

- Out of Service Location Type
- Parent Location/Organization (as applicable) — Enter a parent location or organization to establish the position of your new location in the location hierarchy.
- Contact

Make sure that the **Location Disposition** is set to Active if you want to make the location available for reference on other records.

Additional information typically includes an address and additional info to define the location.

Creating an Asset Manually

Use this procedure to manually create a single asset in the system.

Prerequisites: The following are referenced by the asset record:

Note: This list does not represent required fields.

- Asset Type (with referenced “in receipt” storeroom)
- Storeroom
- Specification
- Vendor (as applicable)
- Measurement Type (as applicable)
- Employee
- Maintenance Manager
- Planner
- Cost Center
- Service Area

Defining an asset involves selecting an asset type then defining asset attributes. While this procedure describes the creation of a single asset, it is also possible to create multiple assets at one time in Oracle Utilities Operational Device Management using asset replication.

Assets can be duplicated when they are in Created status. When they are duplicated, users specify the effective date and time and location of the new asset.

Entering a Vehicle as an Asset

Use this procedure to create a vehicle record within the system. Vehicles are considered **fleet assets** in Oracle Utilities Work and Asset Management. They are considered **storeroom locations** on Oracle Utilities Operational Device Management.

Prerequisites: The following are referenced by the fleet asset record:

Note: This list does not represent required fields.

- Asset Type (with referenced “in receipt” storeroom)
- Asset Location
- Specification
- BOM ID (as applicable)
- Vendor (as applicable)
- Measurement Type (as applicable)
- Employee ID (responsible party)
- Badge Number
- Serial Number
- Vehicle Identification Number
- License Number

Defining a vehicle involves selecting an asset type then defining attributes of a vehicle. While this procedure describes the creation of a single fleet asset, it is also possible to create multiple assets at one time in Oracle Utilities Operational Device Management using asset replication.

Entering Service History Manually

Use this procedure to create service history for an asset or component.

Service history might also be created automatically as the result of a completion event for an activity.

1. Navigate to the **Service History** portal under **Asset Management** and select **Add**.
2. Enter the ID for the asset that you are creating service history for and select a service history type.

This list is limited by the service history types that are valid for the asset ID.

Service history type determines the basic attributes that should be included on the service history such as category, whether the service is for inspection or maintenance, or any other criteria. It also sets a service schedule, if applicable.

3. Click **OK**.
4. Enter the effective date and time for the service history.
This value can be set in the past if you are recording a service that occurred prior to the current date.
5. Enter the ID for the associated activity, if applicable.
6. Enter any comments, as applicable.
7. Enter any downtime details, as applicable.
8. Click **Save**.

Performing Asset Maintenance

Performing asset maintenance involves creating a work order and/or activity for the maintenance the needs to be performed and seeing the work order processing through to completion.

Performing an Asset Inspection

Performing an asset inspection involves creating an inspection type service history against the asset and answering the questions for the inspection according to how they are configured for your organization. In some cases, the inspection process might be managed by work order processing which may be set up in a preventive maintenance system.

When the inspection is completed, the answers are used to compute the total inspection points. The calculation is generally sum (answer points * question weight), but varies depending if the service history type. The total inspection points are then normalized to an overall grade or score. The condition rating and confidence rating are also calculated and the asset is updated with the appropriate values.

Scheduling an Asset Inspection

Scheduling an asset inspection involves creating an activity configured with an inspection service history type. The activity can then be scheduled via regular scheduled activity processing.

When the inspection is completed, the answers are used to compute the total inspection points. The calculation is generally sum (answer points * question weight), but varies depending if the service history type. The total inspection points are then normalized to an overall grade or score. The condition rating and confidence rating are also calculated and the asset is updated with the appropriate values.

Reviewing Asset Statistics

Review asset statistics by navigating to the Asset portal and viewing the statistics section. Information is organized into logical groupings, such as Cost Information by Service Class.

Reviewing Asset Type Statistics

Review cost information by asset type by navigating to the **Asset Type** portal and reviewing the **Statistics** section. Information is organized into logical groupings, such as cost information or count of assets and activities, by asset type.

Rejecting Assets

Use this procedure to reject assets.

You can only reject tracked assets that are in one of the following states: **In Receipt**, or **In Repair**.

1. Navigate to the **Asset** portal in Search mode.
2. Search for and select the appropriate asset.
3. Click the **Reject** button.

The asset is archived in **Rejected** status and cannot be dispositioned any further.

Retiring Assets

Use this procedure to retire assets.

You can only retire tracked assets that are in one of the following states: **In Store**, or **In Repair**.

1. Navigate to the **Asset** portal in **Search** mode.
2. Search for and select the appropriate asset.
3. Click the **Retire** button.

The system updates the status of the asset as retired.

Updating the Disposition of a Single Asset

Use this procedure to update the status and location of an asset.

1. Navigate to the **Asset** portal in **Search** mode.
2. Search for and select the appropriate asset in display mode
3. Click **Change Location** in the **Record Actions** section.
To take the asset out of service, click the **Out of Service** button.
4. Update the effective date and time and enter the new location for the asset.
The available locations depend upon the asset type and the current disposition of the asset.
5. Click **Save**.

Note the change in the information in the **Asset Disposition Details** section. The new disposition status and location are indicated.

Update the Disposition of a Group of Assets

Use this procedure to change the status and location for a batch of assets.

1. Navigate to the **Mass Asset Disposition Update** portal in **Search** mode.

2. Search for assets according to the appropriate criteria.

Options include selecting all assets that are in a certain state, all assets of a certain condition or assets by physical location. You can also select from characteristics or other identifiers. You can create combinations of criteria such as all assets of a certain type and that are in a particular status.

3. Select individual assets or check the box at the top of the column to select all assets.

4. Click **Change Disposition** to begin the disposition change.

A pop-up window opens where you select the effective date and the new status and location for the assets.

5. Enter the date that the status and location change should occur.

This defaults to the current date and time, however, you can set this to past date depending on how the assets need to be handled.

6. Enter the appropriate location where the assets will go when they are dispositioned.

7. Click **OK**.

The assets are moved to the new status and location, and the disposition log on the individual asset records is updated with the change.

Defining Specifications

Navigate to the **Specification** portal under **Asset Management**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the asset location record:

Note: This list does not represent required fields.

- Asset Type
- Manufacturer
- BOM ID
- Maintenance Schedule

Working with Components

The following sections provide information on tasks associated with creating and updating components.

Creating Components Manually

Use this procedure to manually create a component.

Prerequisites: The following are referenced by the component record:

Note: This list does not represent required fields.

- Asset Type — Select an asset type that defines a component.
- Storeroom
- Specification
- Vendor (as applicable)
- Measurement Type (as applicable)

Defining a component involves selecting a component type asset type and then indicating the asset where the component is attached.

1. Navigate to the **Asset** portal under **Asset Management** and select **Add**.
2. Complete the required fields according to your business practices and **Save**.

Next you can attach the component to an asset.

Storing a Component after Receipt

Use this procedure to change the disposition of a component after it has been received (entered into the system). This step usually needs to be completed before a tracked component can be installed on an asset.

1. Navigate to the **Asset** portal in **Search** mode.
2. Search for and select the appropriate component.
3. Click **Store** in the **Record Actions** section.

A window opens where you select the effective date and the storage location for the component. For in/out service components you choose an asset location. For tracked components, you choose a storeroom.

4. Click **Save**.

The **Asset Disposition Detail** section and the **Disposition History** zone are updated with the status and location for the component.

Attaching a Component to an Asset

Use this procedure to attach an existing component to an asset.

1. Navigate to the **Asset** portal in **Search** mode.
2. Search for and select the appropriate component.
3. Click **Attach** in the **Record Actions** section.

The option to attach the component is generally not available unless the component is in the necessary interim disposition. If the current disposition is “in receipt”, you must first “store” the component in a valid location where it can be attached to an asset.

A window opens where you select the effective date and the Asset ID where the component is to be attached.

4. Click **Save**.

The **Asset Disposition Detail** section and the **Disposition History** zone are updated with the status and location for the component.

Detaching a Component from an Asset

Use this procedure to detach a component from an asset.

1. Navigate to the **Asset** portal in Search mode.
2. Search for and select the appropriate component.
3. Click **Change Location** in the **Record Actions** section.

A window opens where you select the effective date and the location where the component is to be stored when it is removed from the asset. For in/out service components you choose an asset location. For tracked components, you choose a storeroom.

4. Click **Save**.

The **Asset Disposition Detail** section and the **Disposition History** zone are updated with the status and location for the component.

Working with Operational Readings (Measurements)

The following sections provide information on tasks associated to working with measurements including measurement types, measurement alerts and measurement quick entry.

Entering Operational Readings (Measurements)

Navigate to the **Operational Reading** portal under **Asset Management**, select **Add**, complete the required fields according to your business practices and **Save**.

Use the **Operational Reading Quick Entry** portal to enter multiple readings from a spreadsheet.

Prerequisites: The following are referenced by the measurement:

Note: This list does not represent required fields.

- Measurement Type
- Asset ID
- Measurement Identifier

Using Operational Reading (Measurement) Quick Entry

Use this procedure to enter a measurement using the **Operational Reading Quick Entry** tool.

Prerequisites: The following are referenced by the measurement:

Note: This list does not represent required fields.

- Measurement Quick Entry Activity Type
- Work Order ID
- Asset ID
- Badge Number
- Measurement Identifier

This process is generally used when a measurement work order is already created and the measurement is being entered as the follow-up measurement activity.

1. Navigate to the **Operational Reading Quick Entry** portal
2. Select the Measurement Quick Entry Activity Type.
3. Enter or search for and select the appropriate **Work Order ID**.
4. Enter the measurement in the provided fields and **Save**.

Measurements can also be uploaded using a prepared CSV file with the following columns:

- Sequence
- Asset ID
- Badge
- Reading Date Time
- Measurement Identifier
- Current Value

Selecting **Download To CSV File** opens a blank spreadsheet with the appropriate columns.

Importing Operational Data from a File

Use this procedure to import measurements from a spreadsheet.

1. Navigate to the **Operational Reading Quick Entry** portal under **Asset Management**.
2. Select the Measurement Quick Entry Activity Type.
3. Enter or search for and select the appropriate **Work Order ID**.
4. Click the **CSV File To Upload** link.

Measurements can be uploaded using a prepared CSV file with the following columns:

- Sequence
- Asset ID
- Badge
- Reading Date Time
- Measurement Identifier
- Current Value

Selecting **Download To CSV File** opens a blank spreadsheet with the appropriate columns.

Working with Warranties and Warranty Terms

The following sections provide information on tasks associated to working with warranties and warranty terms.

Defining a Warranty Term

Navigate to the **Warranty Term** portal under **Asset Management**, select **Add**, complete the required fields according to your business practices and **Save**.

Terms are entered in the **Warranty Term** portal under **Asset Management**.

Prerequisites: The following are referenced by the warranty term:

Note: This list does not represent required fields.

- Specification (as applicable)
- Vendor

Warranty terms are defined as calendar based (such as a number of months or years) or runtime based (such as number of miles).

Entering a Warranty

Navigate to the **Warranty** portal under **Asset Management**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the warranty:

Note: This list does not represent required fields.

- Warranty Term
- Asset ID

If creating a runtime warranty, you will need to provide the initial measurement for the asset. For example, if the runtime is a certain number of miles for a vehicle, you would enter a starting odometer reading. This reading must be validated against an actual asset reading that has been entered into the **Measurement** portal for the asset.

A warranty can also be created from the warranty term that it references or from the asset that the warranty affects.

Entering a Warranty from an Asset

Use this process to enter a warranty directly on the **Asset** record.

1. Navigate to the appropriate **Asset** record in **Edit** mode.
2. Click the **Add** link in the **Asset Warranty** zone.
3. Complete the required fields according to your business requirements and **Save**.

Working with Bill of Materials

The following sections provide information on tasks associated to working with bills of materials.

Creating a BOM Part

Whenever you create a general stock item, a corresponding BOM part is automatically created.

Navigate to the **BOM Part** portal under **Asset Management** to search for BOM items.

Creating an Independent BOM Part

Complete the following procedure to create an independent BOM Part

1. Navigate to the **BOM Part** portal under **Asset Management** in **Add** mode.
2. Complete the required fields according to your business practices and **Save**.

Creating a Bill of Materials

Use this procedure to create a bill of materials.

1. Navigate to the **Bill of Materials** portal under **Asset Management** in **Add** mode.
2. Complete the required fields according to your business practices, and save.

Chapter 5

Operational Device Management

The following sections provide information about the portals and objects related to Oracle Utilities Operational Device Management only.

About Operational Device Management

Oracle Utilities Operational Device Management provides functionality to handle large volumes of assets and to manage the receipt, installation, maintenance, tracking and removal of those assets. Oracle Utilities Operational Device Management is purchased as a separate license to further enhance Oracle Utilities Work and Asset Management. However, since these two products are typically always sold together, this guide includes documentation for both products seamlessly. Contact your sales representative or Oracle Support for more information.

The system supports the following business processes:

- Capturing device attributes and supporting any type of device
- Supporting integration with other utility applications requiring Device information and configuration
- Supporting detailed smart device attributes
- Supporting detailed location management and tracking of individual devices throughout their lifecycle
- Capturing device configurations, settings and calibrations
- Tracking firmware and firmware versions on smart devices
- Managing configuration between devices, components and software
- Validating devices at the time of receipt
- Scheduling and capturing data related to periodic inspection history over time
- Defining cycle information to schedule inspections
- Defining procedures to follow when performing inspections
- Using activities and work orders to track and manage the electronic or in-field maintenance of devices
- Creating work activity/work order document to be used in the field for inspection work

- Defining a work activity/work order life cycle

Refer to the [Financials Options](#) section in the Administrative User Guides for configuration guidelines.

About 360 Degree Search

The **360 Degree Search** feature allows users to search for assets, components, specifications, locations and contacts. Users can also search on other identifiers or characteristics as defined by your organization. Selecting a from the **Search By** field changes the search fields to present different options.

From the search results list, you can navigate to the selected portal to view data for the object.

This feature is only used in Oracle Utilities Operational Device Management.

About 360 Degree View

The **360 Degree View** feature allows users to view data for assets, components, contacts and locations from a single set of portals.

The 360 Degree View has a separate portal for each type of object:

- Asset Information
- Asset ID
- Asset Specification
- Asset Location Information
- Storeroom Information
- Location ID
- Contact Name

Once you select one object, the **360 Degree View** provides related information so that you have full visibility into all information about that object. For example, if you select Asset Information and search on an asset type, the resulting view portal shows the components, service history, activity history, and location information for assets of that asset type.

This feature is only used in Oracle Utilities Operational Device Management.

About Asset and Component Configurations

A single asset or component can have many parameters and only certain combinations of parameter values that are allowed. Multiple assets and/or components may work together as a group with only certain combinations of settings that are allowed or supported.

Configurations document and manage the valid set ups for assets/and components. This includes a specification for each asset or component in the configuration as well as the valid value for each parameter, such as the firmware version of each asset.

Configuration reports can be generated to provide a summary of any currently installed configurations. These reports show whether the configuration in an installation is valid or invalid, they show the identifiers and values being used, and they display all of the assets/components and other elements that make up the installed configuration.

If a configuration is found to be invalid or in need of reconfiguration, work orders can be created based on configuration criteria. Configuration functionality can also be tied in with specifications to manage firmware version testing and upgrades.

Configuration Statuses

Configurations also allow you to indicate a status for a particular status. Applicable statuses include:

- Pending
- Under Testing
- Rejected
- Approved
- Deprecated
- Obsolete

Use actions in the **Record Actions** section to transition the configuration to the appropriate status.

About Asset and Component Configuration Reports

Configuration reports provide a summary of any currently installed configurations.

These reports show whether the configuration in an installation is valid or invalid, they show the identifiers and values being used, and they display all of the assets/components and other elements that make up the installed configuration.

Batch processing and the setting of the **Reporting Mode** field on a report determines when a configuration report is generated after it is submitted. If a report is set to generate one time, the report status is set to Pending after it is generated and it will not be updated again until a user manually submits the report. If the report is set to recur, the report is updated every time batch processing runs.

If the configuration is invalid, the configuration column is blank in the report results. Navigate to the configuration itself to review the set up. A button next to each configuration also allows you to generate a work order to correct, reconfigure, or otherwise maintain any of the configurations.

About Firmware

Firmware is software that is embedded in a piece of hardware. Devices such as smart meters, a network cards, or routers all have software that is programmed into special memory contained in the hardware itself. Manufacturers often release regular firmware updates to keep their hardware compatible with new connections, to improve performance, or to add additional features.

After a firmware is released from the vendor, new firmware may need to be tested and validated then either approved or rejected for roll out. The system provides the needed functionality to support validating and updating firmware versions as needed.

Associating Firmware and Firmware Versions to Assets

In most business processes, firmware and firmware version is entered as part of the manufacturer settings when assets are created. This information appears in the **Settings** section on the asset. Also during asset creation, a basic business process would associate an asset specification to the asset to keep track of detailed manufacturer information which might also include the firmware. Attached, as a child to that specification, would be another specification that indicates the firmware versions that are available.

As firmware versions change the child specification is updated with new versions. These versions can then be tested and accepted or rejected using the lifecycle functionality on the specification.

Next, work orders and/or activities can be created to update the firmware version on the assets that are associated with those specifications. For example, your business process might require that you create an Asset Criteria Generator type work

order to create a list of assets based on firmware as the selection attribute. The system would then apply the updates made via the work order to any assets that meet that criteria (i.e. that have that firmware type or version).

Firmware Management

You can use the system to manage firmware in the following ways:

- Create firmware groupings: Record firmware versions into groupings or "families" on specifications so that related versions can be easily managed together.
- Add firmware to assets: Use peer specifications to associate assets to these firmware groups.
- Review firmware: Review firmware distribution and status in the **Firmware Deployment** and **Firmware Version Dispositions** zones on specifications.
- Document firmware: Manage related release notes or manufacturer information by creating attachments directly on the specification.
- Test firmware: Track testing and roll out of new firmware versions including the ability to approve or reject firmware version deployments.
- Update firmware: Create work orders and/or activities to update firmware versions on assets.
- Reject firmware versions: After testing, set the firmware version to an inactive status to indicate that the firmware version cannot be used for assets.

The **Configurations** portal manages asset to component to firmware configurations that determine which versions are valid for which assets. **Configuration Reports** can be used to obtain details about the configurations and verify that the correct versions are in use.

Firmware on Specifications

The **Firmware Deployment** section on specifications provides statistics on the number of assets that are on each version of the firmware that is applicable to the specification. Click the pie chart for a version to see the number of assets on that versions grouped by the asset state.

The **Firmware Versions** section lists the firmware that has been added via the specification. Use the **Add Firmware Version** link in the zone to add a new version. Click on one of the listed versions to open a screen with more details about the firmware. This screen can also be used to add attachments for the specific firmware version. For example, you might attach the release notes that were delivered with the firmware release. On this screen, the **Firmware Version Dispositions** section lists the assets that use the firmware version indicated, if any.

Firmware Version Lifecycle

Statuses for firmware version updates can be managed on the specification by selecting the actions in the **Record Actions** section. Valid statuses include:

- Active Statuses
 - created
 - under testing
 - approved
- Intermittent Statuses
 - deprecated
 - quarantined
- Inactive Statuses
 - rejected
 - obsolete

If the firmware version is in an intermittent status, assets or components can reference that version. In general, these statuses are for documentation purposes. For example, an organization might use the **Deprecated** status to indicate that they do not want to roll out new meters on that version any longer, however, existing meters that are on that version are still valid. No assets or components can have the version associated if the version is in one of the inactive statuses.

Maintaining Configurations, Configuration Reports, and Firmware

The following sections provide information on tasks associated to working with operational device management related objects.

Refer to the [About Operational Device Management](#) section for a conceptual overview.

Working with Asset Configurations and Configuration Reports

The following sections provide information on tasks associated to working with configurations and configuration reports.

Adding or Updating Firmware Versions

Use this procedure to add new firmware versions or update existing firmware versions in the system. These can then be tested, approved or added to work records to be updated on assets.

A specification for the firmware must exist within the system.

1. Navigate to the **Specification** portal in **Edit** mode.
2. Search for and select the appropriate specification.
3. Click the **Add Firmware Version** link in the **Firmware Versions** section.
4. Confirm the firmware listed then enter the version, date, release note if any, and any other information as required by your business practices.
5. Click **Save**.

Creating an Asset Configuration

(Oracle Utilities Operational Device Management only) Use this procedure to create a configuration.

1. Navigate to the **Asset Configuration** portal under **Configuration Report** and select **Add**.
2. Select a configuration type and click **Ok**.

The configuration type sets the default fields that need to be filled in.

3. Fill in required information as needed and click **Save**.

Enter a useful description for the configuration then use the **Configuration Detail** section to indicate the specifics of the configuration. This will include information on assets and components along with their characteristics and identifiers as defined by your organization.

The specification that is chosen for the asset and/or component will determine the main firmware and other information for the configuration.

Add any related attachments in the **Configuration Common Attachments** section.

Creating an Asset Configuration Report

(Oracle Utilities Operational Device Management only) Use this procedure to create a configuration report.

1. Navigate to the **Configuration Report** portal under **Configuration Report** and select **Add**.
2. Select a configuration report type and click **Ok**.

The configuration report type sets the default fields that need to be filled in.

3. Fill in required information as needed and click **Save**.

Enter a useful description for the configuration report and select a **Reporting Mode**. The reporting mode determines whether this is a recurring report, or a one time report.

Use the **Report Criteria** section to indicate the specifics of the assets, components, identifiers and characteristics that should determine filtering for the report.

4. After the report is created, click the **Submit** button to finalize the report.

In most business practices you will wait for batch processing to run to generate the report. The report record includes a **Generate Report** action, however; it is recommended that this is not used for typical processing.

Creating Work to Correct or Maintain Asset Configurations

Use this procedure to create a work order from a configuration report.

1. Generate a configuration report.
2. In the **Report Results** section, click the **Create Work Order** button next to the configuration that needs attention.

The system creates a work order with applicable information filled in. Finish creating and processing the work order according to your usual business practices.

Chapter 6

Preventive Maintenance

The following sections provide information on concepts related to managing preventive maintenance.

About Preventive Maintenance

The following sections provide information on concepts related to managing preventive maintenance.

Please refer to the [Maintaining Preventive Maintenance](#) section for procedural tasks related to these concepts.

Refer to the [Preventive Maintenance Options](#) section in the Administrative User Guides for configuration guidelines.

About Preventive Maintenance

Preventive maintenance is work that is routinely performed to prevent asset failure. This maintenance includes work such as inspections, repairs, cleaning, part replacements, and so on.

Preventive maintenance can help your organization manage costs by reducing downtime due to unexpected asset failures, reducing incidents where maintenance is needed in response to a problem (reactive maintenance), and ensuring the proper care and maintenance of assets. One common example of preventive maintenance is routine maintenance on a pump. It is clear that proper maintenance depends on timely visual inspections and regular cleaning to prevent costly problems, failures and repairs. Preventive maintenance programs are based on time or operational usage. Template work orders are set up to plan detailed work requirements, and the preventive maintenance functionality manages when and how the related work orders are automatically created based on the established preventive maintenance cycles. The system supports scheduled preventive maintenance and event based maintenance.

Maintenance Forecasts

The upcoming maintenance for an asset is forecasted based on the maintenance schedule and triggers defined for that asset. This information is displayed in the **Asset** portal on the **Asset Maintenance Trigger Forecast** zone.

About Preventive Maintenance Triggers

Preventive maintenance triggers indicate a certain event which, when it occurs, maintenance should be done on an asset. For example, typical maintenance triggers would be when a vehicle reaches a certain number of miles, when a certain amount of time has passed, or when an asset reaches a certain number of hours of runtime.

Maintenance triggers are generally defined as one of the following:

- **Calendar Anniversary** is a *fixed* calendar interval type where regardless of the time lapse between the work creation and completion, the future maintenance schedule date remains the same. This type of interval scheduling is generally used to fulfill regulatory compliance for inspections and licensing requirements on fixed date schedules. For example, this would trigger an inspection every three months regardless of when the last inspection was completed.
- **Runtime Anniversary** is a *fixed* interval type maintenance where regardless of the metered operation between the recent activity or service history and completion of work, the maintenance is not re-forecast. For example, this would trigger an inspection after every 100 hours of runtime service.
- **Calendar Interval** is a *fluid* interval type where the forecasted scheduled date is adjusted and re-forecast based on the completion date of the previously completed work which is managed through service history. For example, this would trigger a pump valve cleaning every 3 months with the next trigger based on the most recent cleaning.
- **Runtime Interval** is a *fluid* interval type where the maintenance schedule is adjusted and reforecast based on the completion runtime readings of the previously completed activity. For example, this would trigger a pump bearing bracket cleaning every 100,000 gallons flow of water with the next trigger based on the gauge reading at the time of the last cleaning.

About Preventive Maintenance Schedules

Preventive maintenance schedules contain a basic list of maintenance triggers and a schedule of when maintenance should occur based on those triggers. Maintenance schedules provide a comprehensive set of analytics which provide information on failure types, failure modes, and repairs.

Maintenance Cycles

Preventive maintenance is triggered, or cycled, based on the maintenance schedule defined for the asset type. Batch processing determines when and how to create work orders depending on whether or not non-final activities already exist for the activity type. Settings on the maintenance schedule such as the **Allow Multiple In Process Activities** flag determine whether or not a new activity is triggered if there are any non-final activities for the activity type and the asset being evaluated. If new activities should be created based on all criteria being met, the system automatically creates a work order based on the template work order indicated on the maintenance schedule.

Users with the necessary authority in the system can manually execute maintenance triggers, as necessary, using actions in the **Maintenance Schedule** or **Asset** portal. Upcoming triggers are displayed in a zone in the Asset portal where users can execute the **Cycle Now** action to manually cycle the maintenance.

Duplicate Maintenance Schedules

The system provides a utility for duplicating a maintenance schedule and allowing the user to choose which maintenance triggers to also copy to the new schedule via a pick list. This action is available from the **Maintenance Schedule** record actions.

About Preventive Maintenance Calendar

Preventive maintenance calendars establish work calendars with explicit effective dates and schedule dates. These are used to schedule activities created by preventive maintenance triggers. The main function of the calendar is to allow direct control over scheduled work dates.

The effective date is determined using the activity work date with the “desired work date” as the activity work window start date.

Work Priority/Risk Priority Number

Work priority defines the importance of the work in terms of the potential impact of not addressing issues. For example, work for assets at a hospital might have a high work priority since losing power there might result in deaths of patients, while work for assets at a city park would have a low priority since there are few consequences if the lawns are not mowed on time. Work priority is represented on a scale of low (little to no impact) to high (significant impact).

About Event Based Maintenance

Event based maintenance is work that is performed based on trigger dates. Events differ from maintenance schedules because the system does not manage when to cycle the work. Instead, planners decide upon the next schedule date for the event and enter it on the **Maintenance Event** record. Work performed can include inspections, repairs, replacements, and so on, but it is typically associated to planned outages or other event based maintenance. Work records are generated on the trigger date based on the indicated defaults and templates.

The maintenance event defines the trigger date on which the maintenance activities are generated according to the indicated maintenance plans associated to the maintenance event. The event also specifies the work activity defaults which will be set on the generated work order/activities when they are created.

About Maintenance Plans

Maintenance plans define the event category for maintenance events where the plan is referenced. The list of plan triggers on the maintenance plan then defines when and how the work is created for the event.

About Maintenance Plan Triggers

Maintenance plan triggers are used to configure a specific work order for a particular location for use by a maintenance event. They define the maintenance plan, template work order, activity type, service history type, work order defaults and asset location for the work being created for the maintenance event, as applicable. The work order template indicated on the trigger defines the pre-planned requirements for the work that is created for the event.

Maintaining Preventive Maintenance

The following sections provide information on tasks associated to working with preventive maintenance.

Refer to the [About Preventive Maintenance](#) section for a conceptual overview.

Creating a Maintenance Schedule

Navigate to the **PM Schedule** portal under **Preventive Maintenance**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the maintenance schedule record:

Note: This list does not necessarily represent required fields.

- Asset Type
- Specification

After creation, maintenance schedules can be linked to an asset specification to plan for the maintenance of related assets.

Creating a Maintenance Trigger

Navigate to the **PM Trigger** portal under **Preventive Maintenance**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the maintenance trigger record:

Note: This list does not necessarily represent required fields.

- Maintenance Schedule
- Template Work Order
- Activity Type
- Approval Profile
- Asset Location
- Failure Information (Type, Mode, Repair, Component)

Manually Cycle a Maintenance Trigger

Complete the following procedure to manually cycle a maintenance trigger.

1. Search for and select the appropriate **Asset** record.

You can also search in the **Maintenance Trigger** portal for asset locations set up with a particular trigger.

2. Navigate to the **Maintenance Trigger** zone.
3. Click the **Cycle Now** button next to the appropriate trigger.

Maintaining Event Based Maintenance

The following sections provide information on tasks associated to working with event based maintenance.

Refer to the [About Event Based Maintenance](#) section for a conceptual overview.

Creating a Maintenance Plan

Navigate to the **Maintenance Plan** portal under **Preventive Maintenance**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: None.

Once maintenance plans have been established, you can start creating maintenance plan triggers. The triggers are then referenced on the maintenance plans and the plan is referenced on maintenance events.

Creating a Maintenance Plan Trigger

Navigate to the **Maintenance Plan Trigger** portal under **Preventive Maintenance**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the maintenance event record:

Note: This list does not necessarily represent required fields.

- Maintenance Plan
- Template Work Order
- Activity Type
- Service History Type
- Work Priority
- Service Class
- Approval Profile
- Asset Location

You can also select the Add link on the **Plan Triggers** zone on the **Maintenance Plan** where you want to add the trigger. Once maintenance plan triggers have been established, you can reference them on maintenance plans.

Creating a Maintenance Event

Navigate to the **Maintenance Event** portal under **Preventive Maintenance**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the maintenance event record:
Note: This list does not necessarily represent required fields.

- Maintenance Plan
- Maintenance Plan Trigger

Once maintenance events have been created, work will be automatically generated based on the trigger dates and activity defaults on the event.

Chapter 7

Inventory

The following sections provide information on concepts related to managing inventory.

About Inventory Management

Inventory is tracked, ordered, and received from vendors and allocated in the Inventory system. As inventory is allocated to work, the system passes this information back to the Work Management system so that maintenance managers and crews know that their parts are available.

As inventory falls and reorder becomes necessary, the Inventory system passes this information to the Purchasing system so that purchases of new inventory can be carried out. Using reorder review, the system can be configured to automatically reorder stock items or notify a specified user when the quantities reach predetermined reorder points.

Each time inventory quantity is changed, the system generates a transaction record, and you have access to this information through related logs and historical information zones.

Managing inventory means balancing the need to order new items against the available supply, maintaining an optimum inventory stock level, and stocking and ordering items for upcoming work and safety requirements.

This section describes how various processes work together to manage inventory throughout the system.

Please refer to the [Maintaining Inventory](#) section for procedural tasks related to these concepts.

Refer to the [Inventory Management Options](#) section in the Administrative User Guides for configuration guidelines.

About Storerooms

Storerooms define the physical location where stock items are stored.

Valid storerooms might include actual storerooms, warehouses or any other location as defined by your organization.

Storerooms can be defined in hierarchies with parent and child locations. The parent can define attributes or identifiers common to all child locations, however specific location information must be defined on each location individually. A child location cannot be in active status if the parent location is inactive. It is also not possible to make a location inactive if it has associated assets or child locations.

Also refer to the [About Stock Items](#) section for more information.

About Stock Items

Stock items are defined as material resources that are held in storerooms and issued to activities that require the materials to be completed. The stock item record determines whether or not the type of stock can be purchased, repaired, tracked, and so on.

The stock item record can also provide a list of vendors and manufacturers who provide the item as well as appropriate alternative stock, as applicable. Only stock items in “active” status can be purchased or entered as a material requirement on an activity. When they are entered in the system, stock items are categorized in some of the following ways:

- **General:** Regular stock items are kept in inventory until they are needed.
- **Direct Purchase:** Direct purchase stock items can only be directly purchased when needed for work.
- **Trackable:** Trackable stock items merit being individually identified and followed from initial receipt on-site through complete usage. These are typically large, expensive or specialized assets or materials which are inspected when they are received into inventory, repaired if they break, can be installed on other assets, and are otherwise carefully dispositioned in the system.
- **Lot Managed:** Lot managed items are tracked in a special way in the system. These types of items are fabricated, sold, and delivered in “lots” or “batches” of the item. This is significant when there are qualities or details about the item that might vary between lots. If this item is lot managed, the system tracks a lot number with any transaction that changes the quantity of the item for the storeroom. Since each received lot also has its inventory tracked independently, lot managed item details all have “child” stock item details for each lot that is received. This means a “master” stock item detail that is classified as “lot managed” on its stock item detail with many “lot” stock item details (one for every lot that is received). When an activity references lot managed items as a resource requirement, the master stock item detail is referenced. Lots only become relevant when material is issued from or received into inventory. This means the material issue for lot managed stock items reference a lot stock item detail, but the planned activity references the master stock item detail. During receiving of a lot managed stock item, the system verifies whether or not the storeroom has a lot specific SID for that lot number and creates one if one does not exist.
- **Capital Spare:** Capital Spare items are identified during accept and return as fixed assets so that an external Fixed Asset Management system can maintain their depreciation. A property unit is required on capital spare items.

When a stock item is maintained in the inventory of a storeroom, a corresponding **Stock Item Detail** record must be created. Stock item details define how the stock item is managed in the storeroom and contain storeroom-specific information for the stock item such as pricing, reorder information, unit of issue, unit of purchase, expense code, and so on.

One stock item might be stored in multiple storerooms. When it is needed, stock transfers can be used to move items between storerooms. For example, an organization might have a central storeroom from which satellite storerooms request stock.

About Stock Item Details

Stock Item Detail records define how a stock item is managed in the storeroom and manage and track quantities for stock items. Each record contains storeroom-specific information for the stock item such as pricing, reorder information, unit of issue, unit of purchase, expense code, and so on.

Every stock item that is to be maintained in the inventory of a storeroom must have a corresponding **Stock Item Details** record.

The Stock Item Detail (SID) record determines whether or not the type of stock can be purchased, repaired, tracked, and so on. An SID is a particular stock item in a particular storeroom. For example, in one storeroom, a particular stock item might be stored whereas in another storeroom that same stock item might only be direct purchased. The item would have a different SID in each storeroom. In cases where an item can only be direct purchased for activities, the storeroom only acts as the receiving dock and courtesy storage location until the workers from the activity come to pick them up.

The **Stock Item Inventory** section provides a graphical representation of what is in stock with lines representing maximum quantity and reorder quantity. Use the filters to change the display on the chart. This chart can be changed to show projected inventory (taking into account pending purchases and pending activities), or historical inventory (showing actual inventory use and receipts).

About Material Request and Issue

Material requests, or checkout requests, manage the process of specifying the need to issue stock items from a storeroom.

When an activity needs stock items, a material request can be created. The request includes a list of all the items that the activity needs from the storeroom with the stock code, the storeroom and the needed quantity specified. By simply processing the request, the inventory count is not affected.

The following processing must be completed:

- Create the material request
- Add line items for the stock items to be issued
Line items can be added manually or from a material request template.
- Prepare the material request for issue
- Issue the materials
Materials may be issued fully or partially

About Material Issue

Material issue, or stock checkout, manages the process of pulling out and releasing stock items from a storeroom.

Material issue processing occurs as follows:

- The person from the issuing storeroom can verify availability within the system then release (issue) the items. The material issue is processed via the originating **Material Request** record.
- The system calculates the inventory count to decrease it accordingly.
- Issued items are to be charged to the activity.
It is also possible to issue materials without relationship to an activity. In this case, the user must provide the accounting information that will be charged for the materials.

About Material Request Templates

A material template is a collection of stock items that is used to easily populate a material request. For example, a template could exist for “office supplies” that contains the collection of office supply stock items that the user can add to the request. Likewise, you might have a template to request all of the items on a bill of materials.

- Each storeroom can have multiple templates. The stock items referenced in the template must exist at the storeroom.
- Only stock items in inventory (both Lot Managed and Not-Lot Managed) and tracked assets can be specified on a template. The stock items must have a stock item detail at the storeroom.
- Direct purchase stock items cannot be referenced on a material request template.
- If populated, an override expense code is populated on the request / return line. If this value is blank, the expense code defined on the stock item detail (or stock item) will be populated on the line instead.
- A default count can be included on the template to indicate the default request quantity of the stock item. For example, your organization might always request the same amount of the stock item. This can be specified on the template.

After a material request is created, the line items can be added by referencing the template then selecting items from a picklist.

About Material Returns

Material returns manage the process of returning to the storeroom excess stock items that were previously issued.

Material return processing occurs as follows:

- A material return is created by navigating to the related material request and clicking the Return button for the relevant line item.
This can also be done by creating a new record in the **Material Return** portal which references the originating material request
- Warehouse personnel check the quality of the stock item being returned. If it is in good condition, the item is accepted and returned to the storeroom.
- The system calculates the inventory count to increase it accordingly.
- Returned items are credited back to an account or work order activity.

About Physical Inventory

Physical inventory is an auditing procedure within Inventory Management which your organization can use to ensure that the physical quantities of items, materials and stock that are housed in your storerooms are actually stocked per what is recorded within the system. This basically allows your organization to verify the accuracy of your inventory quantities and values.

If actual counts are found to be out of sync with system inventory counts, they can be reconciled based on pre-defined tolerance thresholds.

About Inventory Adjustments

Inventory adjustments can be used to adjust inventory counts or price of stock items.

When inventory is adjusted, stock transactions are created to adjust the price and quantity of the items being adjusted. Trackable assets are adjusted differently in that the unit price is directly adjusted and financial transactions are created if the total inventory value is changed (based on the relative price/quantity adjustment).

About Stock Transfers

Stock transfers are used to move stock from one storeroom to another; essentially one store room is ordering stock from another. The ordering storeroom is considered as the receiving storeroom, and the source storeroom is considered as the issuing storeroom. Only items with the same stock type can be transferred.

About Receiving

The receiving process is used to track inventory that is received as the result of a purchase order by recording basic information such as the quantity received, receiving location, packing slip details, carrier, and so on.

When items are delivered to your organization, they must be added into the system inventory by creating a receiving record then accepting the items. The receiving process tracks delivery items through several distinct steps from the time they arrive until they are placed in a storeroom. The steps in the process allow for the actual receipt, inspection of items and acceptance. The process steps include:

- Record the delivery of items — create a receipt record which holds basic delivery information. This step does not include details about the items.
- Match items to the purchase order — review items on the purchase order and select, from a pick list, the items that were delivered. Items are counted and compared to what was ordered then placed “in receipt”. Items can also be received without a purchase order reference.
- Receive and accept the items — complete the acceptance process to record the items into the appropriate storeroom. The system adjusts inventory quantities for the items accordingly. Depending on your system configuration and business practices, the system may also include taxes and other incidental costs for the items at the time of receipt.
- (alternate) Return the items — As needed, return items for replacement or credit. When returns are processed, the appropriate costing and inventory adjustments are made to account for the credit.

Quick Receive

Your organization may not require a multi-step processing to receive items into your inventory. In these cases, the system includes a feature to receive and accept the items in one step. This feature is only available if it is enabled in your system implementation. If the stock item has “Accept on Receipt” set as yes, one-step receiving is allowed.

Forced Complete

In some cases, the quantity ordered on the purchase order may never be fulfilled. For example, if your organization ordered a quantity of 10 of items that were discontinued and the vendor only had 5 to send to fulfill the order. The system provides the ability to receive the five items then to force the system to consider the order complete. This processing flags the system that the line item receipt quantity is complete so that the purchase order does not stay open. After receiving partial items, select the **Force Complete** action on the **Receipt** record. Completing this action marks the purchase order line item as **Fully Received** and transitions it to the **Closed** state.

About Returns

Returns track inventory that must be returned to a vendor. Returns are tracked in relationship to the purchase order for the original receipt of the items.

Note that this processing is different from a *material return* in that the items are being returned to an outside vendor rather than adjusting quantities in internal storerooms.

About Batch Stock Reorder and Reorder Review

The system can be configured to automatically monitor and respond when inventory levels for stock items fall below set reorder points. Batch stock reorder monitors all storeroom stock items that are set up for reorder processing then processes any items that have reached the reorder point and creates **Reorder Review** for further processing. **Reorder Review** records cannot be created manually, they must be created by the batch stock reorder process.

When the inventory for a stock item falls below the reorder point, the system creates this **Reorder Review** record. **Reorder Review** records include the quantity that batch processing has determined must be ordered to increase the current inventory to the maximum level, along with other information from the **Storeroom** record. Once the **Reorder Review** records are approved by a reviewer, batch processing completes the processing by generating the appropriate purchasing document (Purchase Order or Purchase Requisition). The batch process groups items with the same vendor, buyer, storeroom, type of purchasing document, and blanket contract before calling the process which creates the purchasing document. Batch processing helps avoid the possibility of creating multiple purchasing records to the same vendor — an unnecessary cost.

Reorder Review Mass Approval

The **Reorder Review Mass Approval** portal is used to approve multiple reorder review items. Authorized approvers can place a check in front of one or many items and approve. From the **Reorder Review** record reviewers can click the **Approve Reorder Items** link and the mass approval screen opens.

Reorder Review vs. Automatic Reorder

Note that automatic reorder (with reorder review), is different from automatic approval for reorder review. The auto reorder setting on the **Stock Item Detail** record can be set to monitor inventory quantity and automatically create a reorder review record when the reorder point is reached. Automatic approval (or, more accurately, Reorder Review Approval Required) is a setting on the **Storeroom** record which indicates whether or not the created reorder review records are automatically approved. Please refer to the Administrative User Guide for more information on these settings.

Note that if you configure a newly added stock item with auto reorder settings, the system will create the purchasing documents for initial stocking according to those settings. If you do not want initial stock to be automatically ordered, ensure that you initially set **Auto Reorder** to “No”.

Maintaining Inventory

The following sections provide information on tasks associated to working with inventory.

Refer to the [About Inventory Management](#) section for a conceptual overview.

Creating a Storeroom

Navigate to the **Storeroom** portal under **Inventory**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the storeroom record:

Note: This list does not represent required fields.

- Storeroom Type
- Organization (as applicable)
- Contacts (as applicable)
- Address information
- Accounting information — Cost Centers and Expense Codes
- Buyer

Make sure that the **Location Disposition** is set to **Active** if you want to make the location available for reference on other records.

You can also enter a parent location or organization to establish the position this storeroom in the location hierarchy. This might be defaulted from the out of service location type.

Entering a Vehicle as a Storeroom

Use this procedure to create a vehicle record within the system. Vehicles are mainly considered **storerooms** in Oracle Utilities Operational Device Management, and can be considered as both **fleet assets** and **out of service locations** in Oracle Utilities Work and Asset Management. Please refer to the Administrative User Guide for information on how vehicles should be set up.

Prerequisites: The following are referenced by the vehicle record:

Note: This list does not represent required fields.

- Out of Service Location Type
- Organization (as applicable)

- Contacts (as applicable)

Make sure that the **Location Disposition** is set to **Active** if you want to make the vehicle available for reference on other records.

Entering a Stock Item

Navigate to the **Stock Item** portal under **Inventory**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the stock item record:

Note: This list does not represent required fields.

- Resource UOM
- Usage Expense Code
- Inventory Expense Code
- Purchase Commodity
- Commodity Code
- Vendor Location — set at least one vendor location to “Primary”
- Manufacturer

The process of creating a stock item is the similar whether you are creating regular stock, a direct purchase item, a lot managed item, a tracked item, or a stock item that is expensed at receipt.

You must activate the stock item for it to be made available.

Add the stock item to a storeroom by creating a **Stock Item Details** record for it.

Adding a Stock Item to a Storeroom (Stock Item Details)

Use this procedure to manually add a stock item to a storeroom.

Prerequisites: The following are referenced by the stock item record:

Note: This list does not represent required fields.

- Stock Item
- Storeroom
- Cost Center
- Buyer
- Vendor
- Bin Information

1. Navigate to the **Stock Item Detail** portal under **Inventory** and select **Add**.

2. Enter or search for and select the name of the stock item.

3. Enter or search for and select the record number for the storeroom.

The storeroom where the stock item is stored must have already been defined as a storeroom.

4. Select the **Stock Item Detail Class** according to the classification for the item.

Storerooms might be classified as direct purchase, expensed at receipt, inventory, and so on.

5. Click **OK**.

6. Complete the remaining information according to your business practices.

Note: Use the **Reorder Information** fields to set up automatic reorder for the stock item, as needed.

7. Activate the stock item detail record so that the stock item is considered available for work or ordering.

Reviewing Stores

Use this procedure to review the recorded inventory for a stock item.

1. Navigate to the **Stock Item** portal under **Inventory** and select **Search**.
2. Search for and select the appropriate stock item.
3. Review the **Stock Item Availability** section for inventory quantity, on demand quantity, in receipt quantity, and so on.

A color code will also indicate whether or not there are sufficient quantities of the item or if the item is under-stocked or over stocked.

This information is also available on the **Reorder Review** record for a stock item in the **Stock Item Availability** section.

Reviewing and Approving Items for Reorder (Reorder Review)

Use this procedure to review and approve items that have been set for automatic reorder.

1. Navigate to the **Reorder Review** portal under **Inventory**.

2. Search for and select **Reorder Review** records.

Search by a specific buyer, vendor, stock item, status and so on. Searching for items in “Created” status yields a list of all pending reorder review records.

3. Click the link to the **Reorder Review** record to view details about the reorder.

The record provides information such as the reorder details, the stock item being reordered, vendor information, as applicable, and so on.

4. Click the **Approve** button to approve the reorder and initiate the creation of the follow up purchasing record.

Alternately, you can click the **Approve Reorder Items** link under **Additional Processes** to launch the **Mass Approval** tool and approve multiple items at once.

You also have the option to select the **Initiate Stock Transfer** link to create a stock transfer to replenish the items. This is used when there is more of the item in an alternate storeroom and this stock can be used for replenishment.

Processing a Stock Transfer

Use this procedure to complete a stock transfer.

Only items with the same stock type can be transferred.

1. Navigate to the **Stock Transfer** portal under **Inventory** and select **Add**.
2. Complete the required fields according to your business practices.
3. You must specify the source and destination storerooms.
4. Click **Save**.
5. Using the **Stock Request Quick Add** zone, add request lines for each stock item being transferred.
6. To initiate the transfer of each stock item, click the **Ready for Issue** button.

7. Click the **Issue** button next to each item in the **Open Request Lines** zone.
You have the option to fully or partially issue the items.
Selecting the “issue” options creates “issue lines” in the **Issued Lines** zone.
8. Click the **Issue** button for the overall record to transition all of the issued items to **Ready for Receipt**.
As a result of the issue, “receive” options are made available for each of the stock item line items.
9. Navigate to the **Stock Transfer Receipt** tab.
10. Receive the stock items (into the receiving storeroom) using the appropriate buttons next to each stock item.
The receipt will automatically be completed once all the stock items are received.

Creating a Material Request (Checkout Request)

Navigate to the **Material Request** portal under **Inventory**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the material request record:

Note: This list does not represent required fields.

- Storeroom
- Activity

After creating the request, add line items either manually or via a material request template.

Issuing Stock (Material Issue)

Use this procedure to issue requested material items.

1. Navigate to the **Material Issue Line** portal under **Inventory** and select **Search**.
2. Search for and select the appropriate material request.
Search for items in the **Ready for Issue** state.
3. Verify the information on the material issue and click the **Issue** button next to each individual line item.
Items can also be partially issued or, where allowed, you can issue substitute items.

Creating a Material Request Template

Navigate to the **Material Request Template** portal under **Inventory**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the material request template record:

Note: This list does not represent required fields.

- Storeroom
- Stock Item Detail
- Expense Code

Processing a Material Return (Returning Stock Items)

Use this procedure to return unused stock items into inventory.

1. Navigate to the **Material Request** portal under **Inventory** and select **Search**.

In rare cases where items are being returned unrelated to a previous issue transaction, you can navigate directly to the **Material Return** portal and create a new record.

2. Search for and select the appropriate material request.
3. Click the **Return** button next to each individual line item.

A return can be initiated as a follow up to a receipt. Alternately, the return might be initiated without a referenced receipt.

Performing a Physical Inventory

Navigate to the **Physical Inventory** portal under **Inventory**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the physical inventory record:

Note: This list does not represent required fields.

- Storeroom
- Stock Codes
- Vendor

Processing for performing a physical inventory count includes the following:

1. Create the physical inventory header according to your business practices and **Save**.

Enter a value for **Items to Create** to indicate the number of items to count. For example, you have 100 different stock items in inventory, but you only want to count 20 of them. This is not the quantity for each item, but rather, the number of individual items slated for counting.

The physical inventory is initiated in **Created** status.

2. Create the list of items to be counted by clicking the **Generate Count List** button.

This action generates the physical inventory count “masters”.

If needed, you can regenerate the count at this stage. For example, you might edit the criteria used to originally generate the count lines. The lines would have to be regenerated after the update.

3. Record the counts.

This step varies depending on if this is a first count or a subsequent count and whether or not the physical count is equal to the system count.

4. Review the count lines and adjust inventory as needed.

Only authorized people can generate the inventory adjustment. If the person doing the count is not authorized, the line stays in a **Review Needed** state. An authorized user must then click the **Adjust Inventory** button for the counts to be updated and the corresponding financial transaction created. Note that counts for lot-managed items and tracked assets are handled differently. A dialog opens after the adjust inventory action is selected, and there are options to either save the count in progress or finish the count.

Record Receipt/Delivery for a Purchase Order (Processing a Receipt)

Navigate to the **Receiving — Receipt** portal under **Inventory**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the receiving record:

Note: This list does not represent required fields.

- Purchase Order
- Receiving Location (Storeroom)
- Vendor

After the **Receipt** record is created, add line items based on the purchase order pick list, as applicable, enter receiving quantities, and process the receipt to completion according to your business practices. The system adjusts inventory “in stores” based on the recorded received quantities.

When receiving lot-managed or tracked assets the system displays dialogues to prompt for additional information such as the lot ID or asset ID. Purchasing returns can also be processed from this portal.

Processing a Purchasing Return

Navigate to the **Receiving — Return** portal under **Inventory**, select **Add**, complete the required fields according to your business practices and **Save**. Processing a return can also be done from the **Receiving — Receipt** portal if the item hasn't been accepted into inventory yet.

Prerequisites: The following are referenced by the material return record:

Note: This list does not represent required fields.

- Purchase Order Line
- Assets
- Stock Item Detail

A return can be initiated as a follow up to a receipt. Alternately, the return might be initiated without a referenced receipt.

Chapter 8

Purchasing

The following sections provide information on concepts related to managing purchasing.

About Purchasing

Oracle Utilities Work and Asset Management uses Purchasing functions to plan, initiate, and process purchases and purchasing contracts. It also manages vendors, designated buyers, and stock items.

The system can also automatically generate requisitions through Work Orders, through review of storeroom stocked items, or directly through purchase requisitions.

Following a typical procurement life cycle, a requested item or service is listed on a requisition. Once reviewed and approved, if necessary, the requisition is copied into a purchase order. The purchase order is approved and issued to a vendor, and the requested item is received and inventoried. Throughout the process, different areas within the application are automatically maintained such as storeroom quantities and values depending on the type of item being purchased.

If changes are required for a purchase order that has already been approved, a change order can be created within the purchase order. The system also facilitates expediting purchase orders and full or partial receipt of items.

This section describes how various processes work together to manage purchasing throughout the system.

Please refer to the [Maintaining Purchasing](#) section for procedural tasks related to these concepts.

Refer to the [Purchasing Options](#) section in the Administrative User Guides for configuration guidelines.

About Manufacturers

Use the **Manufacturer** portal to define attributes for product manufacturers.

The use of this portal depends heavily upon your business practices, however, in general the manufacturers listed can be associated to specifications which can then be included on assets or components to provide additional reference information related to those objects. The manufacturer usually provides specification information for assets and components.

A manufacturer might also be referenced on regular stocked inventory. This does not include tracked assets.

Manufacturer Specifications defines a list of asset specifications that belong to the manufacturer.

About Vendors

Use the **Vendor** portal to maintain information about vendors, including their capabilities payment terms and delivery terms and various vendor sites. The vendor location distinguishes between multiple sites for one vendor.

Each main Vendor record provides general information about your relationship with the vendor such as active blanket contracts, open requisitions, purchase order history, and a list of vendor locations.

Vendor Locations

One or many vendor locations are defined for each vendor to distinguish between multiple vendor sites. Each location provides more detailed information about the vendor site such as address, capabilities, payment details, contacts, and so on.

For example, it may be valuable to understand which location is shipping the goods that you have ordered from the vendor. Also, some vendors might ship from one site, but your payment terms are set with an alternate site. Capabilities would provide information such as when one location offers pick up at that location whereas another location may not.

When a vendor has multiple locations, alternate locations are listed as “related” locations.

About Purchase Requisitions

Purchase requisitions are used to store and track requests for material resources and/or services.

Requests can be created manually or by the system for the following situations

- for work orders that require materials or services.
- by the batch stock reorder process when the number of items falls below the reorder point.
- manually to replenish stock.

After the purchase requisition is reviewed and approved, it can be transitioned to a purchase order to initiate the actual purchase with the vendor. Requisitions can also be used to create blanket contracts.

While purchase orders can be created without a purchase requisition, the requisition can be used according to your business practices to formalize the purchasing process or create a more stringent chain of approvals for auditing or other purposes.

Purchase requisitions affect **pending order** quantity for stock.

About Purchase Orders

Purchase orders are contracts placed with vendors for the purchase of materials or services. Purchase Order records contain general information about the purchase including the requestor, when items are required, the vendor, and more.

Details about each item or service are entered and maintained on purchase order line items. Your system configuration determines which stock items, services, and other types of items can be added as line items, how tax rates are handled for each line item, and so on.

Additional processing and record actions on the purchase order allows you to print to issue to the vendor, expedite, complete a change order, submit it for approval, or create a new revision. After the purchase order is approved within your organization and issued to the vendor, next steps involve waiting for the items to be received, then receiving them into the system. Refer to the [About Receiving](#) section for more information.

When changes are made to the purchase order, the document may or may not need to re-enter the approval process depending on your business practices and system settings. For example, your system might be configured to allow changes to the purchase order that affect the total cost up to a certain percentage total value. Your system may also be set so that the purchase order will transition directly to the approved or issued state, for instance, if the order was created by batch stock reorder. Note that only certain fields can be edited on an issued purchased order. If further updates are needed, such

as changes that affect the pricing or quantity ordered, you have to create a new revision and resubmit to the vendor. Refer to the configuration guide for more information.

Purchase orders affect the **on demand** quantity for stock.

Common purchasing terms indicated on purchase order and purchase requisition line items include:

- **Unit of Purchase:** The unit of purchase for the item such as “each” or “box”.
- **Unit of Issue:** The way in which the item is issued in your storerooms.
- **Purchase to Issue Ratio:** The difference between how you buy the item and how you issue it. You may, for instance, issue in individual items but order the items by the box where one box would contain 10 individual items. The Unit of Purchase would then be **box**, the Unit of Issue would be **EA**, and the **P/I Ratio** would be 10. The system uses the Unit of Purchase, Unit of Issue, and Purchase to Issue Ratio information to maintain quantities as parts are issued and new parts are received.
- **Print Price:** Yes or No value to indicate whether or not prices should be printed on the requisition.

About Expedite Purchase Order

The expedite order process helps buyers and other purchasers to ensure that required goods arrive at the appointed date in the agreed quality at the agreed location.

The **Expedite Order** portal is used to track purchase order items that have not yet been received. It allows users to modify select information on an issued purchase order without needing to create and process a change order. It is typically used when locations and delivery dates need to be altered, not when there are changes that would affect the cost of items or the total amount for the purchase order.

About Blanket Contracts

A blanket contract is a purchasing agreement that your organization makes with a supplier to pre-plan the purchase of materials or services. These contracts typically contain multiple delivery dates over a period of time, often negotiated to take advantage of predetermined pricing or special discounts.

Blanket contracts are also often used when there is a recurring need for expendable goods or when your organization buys large quantities from one vendor. Based on the blanket order sales orders (release orders), invoice items can be created as needed until the contract is fulfilled.

As long as the blanket contract is in **Active** status, it can be referenced by new purchasing documents to order materials or services. Contracts can be transitioned to a “suspended” status so that they are temporarily unavailable for new purchases. This might be used while re-negotiating terms with a vendor, if you are researching new vendors for a particular item or service, or for other business requirements.

Blanket Contract Access Lists

Your system can be configured with lists of users who are authorized to issue purchasing documents against a blanket contract. Settings on the blanket contract determine whether or not the contract is restricted to a particular access list, which list of users has access or, if no access list is indicated, a default dollar value limit for the contract. When an access list is in use, a limit can be set for each individual user. Refer to [About Blanket Contract Access Lists](#) for more information.

Blanket Contract Usage

Spending against each blanket contracts is tracked via the **Limit Used** indicator and on the **Activity and Usage** tab. When a new blanket contract revision is created, these values reset for the new revision and are tracked as new.

About Blanket Contract Access Lists

Blanket contract access lists identify which users have the authority to create charges against a blanket contract. The list also establishes a maximum dollar amount that the user is authorized to charge for a single purchase order.

When a blanket contract is created, it references this list to provide the reference of authorized users. When a blanket contract is being applied toward creating a purchase order, the system verifies that the user is valid based on this list and that the person's purchasing limit is not exceeded.

About Invoicing

Invoices are used for entering and processing bills for materials or services. They ensure that the quantities being billed do not exceed what has been received and that the prices at which they are billed match what is on the originating purchase order.

The invoice also specifies payment information such as the purchase order number, the vendor, any discounts that have been applied and so on. Cost allocation information indicates the taxes, freight, and any other additional costs or discounts applied to the invoice.

Line Items

Invoices specify a number of line items which may originate from a number of purchase order line items. Invoice line items must conform to the following rules:

- Each invoice can only reference one purchase order which is specified on the invoice header. Invoice line items are not required to reference a purchase order line item, if there is no purchase order referenced on the header. For instance, an “ad hoc” invoice can also be created.
- If an invoice references a purchase order, the total invoiced for a PO line item cannot exceed the receipt quantity. If the invoice quantity is more than the net received, the invoice goes into “pending resolution” state.
- If unit price is not the same as last posted invoice price, if any, invoice will also go into pending resolution.
- Also, when the invoice amount does not match the PO amount within a certain range defined in master configuration, the user will see a warning or error (also based on setting in master configuration).

The invoice amount is calculated as product of quantity and unit price. Unit price is locked down to latest posted invoice if there is one, otherwise it comes from the purchase order. If master configuration settings trigger an error, the invoice will go into pending resolution stat. The tolerance value indicated in Purchasing Master Configuration regulates this behavior.

Invoice Groups

Invoice groups can be used to group invoices together before they are sent to Accounts Payables (A/P). They can be used as an intermediate step to review a set of invoices before those invoices are processed for payment. If no invoice group is configured on the invoice header, individual invoices post as soon as they are approved.

Automatic Invoicing

In order for the system to complete automatic invoicing against purchase orders, the vendor on the purchase order must be set as an “auto pay” vendor. When the purchase order is created, it must also be set as “auto pay”. After items are received against the purchase order, the system automatically creates an invoice with line items. When an invoice is automatically created, no additional line items can be added to the created invoice and none of the line items can be deleted. If the receipt included more items received than ordered, these invoice line items are placed in “Pending Resolution” status when the invoice is submitted for approval. An authorized user must then change the quantity on the purchase order before the invoice can be reprocessed successfully.

Related Financial Transactions

All invoice line items result in a financial transaction. As the financial transactions are created they zero out the clearing account and make up differences, if any, if information such as the price or tax amount on the invoice is different from the purchase order.

Converted Total and Exchange Rates

Note that if your organization works with foreign currencies, there may be a discrepancy shown in the Invoice Summary section on the Invoice header between the converted total on the invoice header and the converted total calculated by totaling the line items. The converted total is derived by multiplying the invoice total by the exchange rate. This header value might be off by \$.01 or more due to the slight offset that results from rounding each individual line item then calculating the header converted total. You can see a more accurate converted total by reviewing each line item individually.

Maintaining Purchasing

The following sections provide information on tasks associated to working with purchasing related functions.

Refer to the [About Purchasing](#) section for a conceptual overview.

Working with Vendors and Manufacturers

The following sections provide information on tasks associated to working with vendors and manufacturers.

Defining a Manufacturer

Navigate to the **Manufacturer** portal under **Purchasing**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: None.

Creating a Vendor

Navigate to the **Vendor** portal under **Purchasing**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: None.

Adding a Vendor Location

Use this procedure to add locations to a vendor record.

Prerequisites: The **Vendor** record must already be created.

1. Search for and select the appropriate **Vendor** record.
2. Navigate to the **Vendor Locations** section and click the **Add** link.
3. Complete the required fields according to your business practices, and save.
4. Click the **Activate** button to make the vendor location available for reference on stock items and purchasing documents.

You can use Duplicate to easily add another location for the same vendor. Any additional vendor locations that are added are automatically added as **Related Vendor Locations**.

Once the vendor location has been defined, you can select the related link on the vendor record and update the information or enter notes, attach documents, define commodities, review purchase history, and so on.

Defining a Vendor's Payment Terms

Use this procedure to add define your organization's payment terms with vendor.

Prerequisites: The **Vendor** record must already be created, and you must have at least one vendor location defined. You must also have defined payment terms in the **Payment Terms** portal.

1. Search for and select the appropriate **Vendor** record.
2. Navigate to the **Vendor Locations** section and click the link for the appropriate location.
Payment terms and other vendor details are defined at the location level, rather than on the main vendor record.
3. Click the **Edit** button and navigate to the **Payment Details** section.
4. Complete the field according to your business practices , and save.

Adding Capabilities to a Vendor

Use this procedure to add capabilities to a vendor record.

Prerequisites: The **Vendor** record must already be created. You must also have capability types defined.

1. Search for and select the appropriate **Vendor** record.
2. Navigate to the **Vendor Locations** section and select the appropriate location.
3. Click the **Edit** button.
4. Navigate to the **Capabilities** section and add capabilities by capability type, as needed and **Save**.

Viewing Vendor Purchase Order History

Use this procedure to add review a vendor's purchase order history.

1. Search for and select the appropriate **Vendor** record.
2. Navigate to the **Vendor Purchase Order History Summary** section to review completed transactions with the vendor.

Viewing Open Requisitions with a Vendor

Use this procedure to review your open requisitions with a vendor.

1. Search for and select the appropriate **Vendor** record.
2. Navigate to the **Vendor Open Purchase Requisition** section to review a list of requisitions that have not yet been recorded for receipt from the vendor.

Working with Purchase Requisitions and Purchase Orders

The following sections provide information on tasks associated to working with purchase requisitions and purchase orders.

Creating a Purchase Requisition Manually

Navigate to the **Purchase Requisition** portal under **Purchasing**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the purchase requisition record:

Note: This list does not necessarily represent required fields.

- Cost Center
- Expense Code
- Vendor
- Payment Term
- Stock Item and Stock Item Detail

Purchase requisitions might be generated from batch stock reorder, from a work order, from a blanket contract, or created manually.

Adding Line Items to a Purchase Requisition

Use this procedure to add line items to a purchase requisition.

Prerequisites: The purchase requisition must already be created.

1. Search for and select the appropriate **Purchase Requisition** record.
2. Navigate to the **Purchase Requisition Line Quick Add** section.
3. Complete the required fields according to your business practices, and save.

Purchase requisitions affect pending order quantity for stock, so the storeroom is required at this level if the line item is for stock items.

Depending on your business practices, the requisition will next need to be routed for approval, approved, then transitioned to a purchase order. A purchase requisition can also be used to create a blanket contract.

Creating a Purchase Order from a Purchase Requisition

Use this procedure to create a purchase order from a purchase requisition. You can also use this process to add to an existing purchase order.

The requisition must be approved.

1. Search for and select the appropriate **Purchase Requisition** record.
2. Click the **Process Purchase Order** button.

You can also navigate to below the Open Purchase Requisition Lines section, select appropriate items, and click the Create New PO button. This is used in cases where you do not want to add all of the line items from the requisition to the purchase order.

You can also add the line items to an existing purchase order by clicking the **Add to Existing PO** button.

The system transitions the requisition into a purchase order. You can navigate to the new purchase order by clicking the link in the **Related Purchase Orders** section on the requisition.

Creating a Blanket Contract from a Purchase Requisition

Use this procedure to create a blanket contract from a purchase requisition.

The requisition must be approved.

1. Search for and select the appropriate **Purchase Requisition** record.
2. Click the **Process Blanket Contract** button.
3. Enter the **Limit Amount** and the **Expiration Date**, as applicable, and click **OK**.

The blanket contract is created with the blanket contract number referenced in the **Created Blanket Contract** field on the requisition. Click the link to navigate to the blanket contract.

4. Click the **Activate** button to make the blanket contract available for use.

You can use the link under the **Vendor Information** section to navigate to the record for the vendor that the contract applies to.

Creating a Purchase Order Manually

Navigate to the **Purchase Order** portal under **Purchasing**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the purchase order record:

Note: This list does not necessarily represent required fields.

- Vendor
- Payment Terms
- Cost Center
- Stock Item and Stock Item Detail

Purchase orders can be created directly, from a purchase requisition or they can be automatically generated from work requirements or stores replenishment requirements.

Adding Line Items to a Purchase Order

Use this procedure to add line items to a purchase order.

1. Search for and select the appropriate **Purchase Order** record.
2. Navigate to the **Purchase Order Line Quick Add** section.
3. Complete the required fields according to your business practices, and save.

Purchase orders affect the on demand quantity for stock, so the storeroom is required at this level if the line item is for stock items.

Updating an Approved Purchase Order

Typically changes that affect the overall cost total of an approved purchase order, must be re-approved. Use this procedure to update a purchase order after it has already been approved.

Prerequisites: Purchase order is in Approved status.

1. Search for and select the appropriate **Purchase Order** record.
2. Click the **Withdraw Approval** button in the **Record Actions** section.
The purchase order is transitioned back to **Created** status.
3. Update the **Purchase Order** as needed.
4. Click the **Submit for Approval** button.

Issuing a Purchase Order

Use this procedure to issue a purchase order.

The purchase order must be in **Approved** status.

1. Search for and select the appropriate **Purchase Order** record.
2. Click the **Issue** button in the **Record Actions** section.
3. The system transitions the **Purchase Order** to **Issued** status.

After the purchase order is issued, options become available under **Additional Processing** and **Record Actions** to perform actions such as printing the order, or creating a new revision.

You can now send the purchase order to the vendor based on your business practices. Next you will receive the items within inventory processing, or you can “force complete” the purchase order.

Creating a Change Order

Changes that affect the overall cost total of an issued purchase order should prompt a new revision, re-approval, and re-issue to the vendor. Use this procedure to create a change order.

Prerequisites: Purchase order is in **Issued** status.

1. Search for and select the appropriate **Purchase Order** record under **Purchasing**.
2. Select the **Create Revision** link under the **Additional Processing** section.

As required by your business practices, the purchase order is transitioned back to **Created** status, and actions to submit for approval are made available for selection.

3. Complete the updates, and save.

As necessary, resubmit the purchase order for approval then follow normal processing to issue and complete the order.

Creating an Expedite Order

Use this procedure to create an expedite order. Typically the terms of an expedite order are pre-negotiated with the vendor. The expedite order is used to record the new shipping date, and the number of items to expedite, as needed.

The purchase order must be in **Issued** status. The entire purchase order may be expedited or only certain items on the purchase order.

Expedite is used to track **Purchase Order** items that have not been received yet, and to allow users to modify selected information on an issued purchase order.

1. Search for and select the appropriate **Purchase Order** record.
2. Navigate to the **Expedite** tab and click the **Add** link in the **Expedite Activity** section.
3. Complete the required fields according to your business practices, and save.

The system creates an expedite order and adds to the list under the **Expedite** tab on the purchase order for reference.

Creating an Invoice

Navigate to the **Invoice** portal under **Purchasing**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the invoice record:

Note: This list does not necessarily represent required fields.

- Stock Item and Stock Item Detail
- Cost Center
- Invoice Number
- Vendor Location
- Vendor Date
- Payment Terms

After adding the invoice header, add line items using the **Invoice Line Quick Add** zone. Typically the invoice will reference an Issued purchase order.

Adding Line Items to an Invoice

Use this procedure to add line items to an invoice.

1. Search for and select the appropriate **Invoice** record.
2. Navigate to the **Invoice Line Quick Add** section.
3. Complete the required fields according to your business practices, and save.

Invoices affect the average unit price for the stock items being invoiced.

Working with Blanket Contracts

The following sections provide information on tasks associated to working with blanket contracts.

Defining a Blanket Contract Access List

Navigate to the **Blanket Contract Access List** portal, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the blanket contract access list record:

Note: This list does not represent required fields.

- User ID

Granting User Access to a Blanket Contract

Use this procedure to grant users access to a blanket contract.

1. Navigate to the **Blanket Contract Access List** portal in **Edit** mode.
2. Add users and the dollar limit that each user is allowed to “use” for the blanket contracts where they have authorization.

When a blanket contract with access list restrictions is being applied toward creating a purchase order, the system verifies that the user is valid based on this list and that the limit is not exceeded. Blanket contract access restrictions are determined by your business practices and configuration settings.

Creating a Blanket Contract

Navigate to the **Blanket Contract** portal under **Purchasing**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the blanket contract record:

Note: This list does not represent required fields.

- Blanket Contract Access List
- Vendor
- Payment Terms
- Cost Center

The blanket contract is added in Created status and needs to be activated before it can be used to generate related purchasing documents.

Adding Line Items to a Blanket Contract

Use this procedure to add line items to a blanket contract.

1. Search for and select the appropriate **Blanket Contract** record.
2. Navigate to the **Blanket Contract Lines Quick Add** section.
3. Complete the required fields according to your business practices, and save.

Re-sequencing Line Items on a Blanket Contract

In cases where there are many line items, it can be useful to place frequently used or significant line items at the top of the list. Use this procedure to re-sequence line items on a blanket contract.

1. Search for and select the appropriate **Blanket Contract** record.
2. Navigate to the **Blanket Contract Lines** section and click the **Resequence** link.
A dialog opens allowing you to change the order in which the items are listed.
3. Enter updated line numbers under the **Sequence** column as needed, and save.
This does not change the actual item number.

Creating a Purchase Requisition from a Blanket Contract

Use this procedure to create a purchase requisition from a blanket contract.

Purchase requisitions can be created directly, or they can be automatically generated from work requirements or stores replenishment requirements.

1. Search for and select the appropriate **Blanket Contract**.
2. Click the **Create a Purchase Requisition** link under **Additional Processes**.
The blanket contract line item pick list opens to allow you to choose which line items to include on the purchase requisition.
3. Choose the appropriate **Document Type** for the order.
This indicates whether the requisition is for a general purchase, stores replenishment, or for work generated.
4. Choose the appropriate receiving storeroom for the items.
Certain additional fields may be required depending on the selected document type. For example, work order related requisitions may require an activity ID. Purchase requisitions affect pending order quantity for stock, so the storeroom is required at this level if the line item is for stock items.
5. Enter the quantity to order and the required by date.
6. Click **Create Purchasing Document**
The system generates the requisition and navigates to the requisition record. From here you can review the requisition and/or submit it for approval.

Creating a Purchase Order from a Blanket Contract

Use this procedure to create a purchase order from a blanket contract.

Purchase orders can be created directly, from a purchase requisition or they can be automatically generated from work requirements or stores replenishment requirements.

1. Search for and select the appropriate **Blanket Contract**.
2. Click the **Create a Purchase Order** link under **Additional Processes**.
The blanket contract line item pick list opens to allow you to choose which line items to include on the purchase order.
3. Choose the appropriate **Document Type** for the order.
This indicates whether the order is for a general purchase, stores replenishment, or for work generated.

4. Choose the appropriate receiving storeroom for the items.

Certain additional fields may be required depending on the selected document type. Purchase orders affect the on demand quantity for stock, so the storeroom is required at this level if the line item is for stock items.

5. Enter the quantity to order and the required by date.

6. Click **Create Purchasing Document**

The system generates the order and navigates to the purchase order record. From here you can review the order and/or submit it for approval.

Reviewing the Activity for a Blanket Contract

Use this procedure to search for and review the purchases and usage against a blanket contract.

1. Search for and select the appropriate **Blanket Contract** record.
2. Navigate to the **Activity and Usage** tab.

This tab shows all activity for the blanket contract including tracking of how much has been used against the limit amount. You can filter the results in this view by purchase order status or blanket contract revision numbers, or view a full list of results.

Creating a Blanket Contract Revision

Occasionally it is necessary to revise a blanket contract when vendor terms or prices change. Use this procedure to create a revision for a blanket contract.

1. Search for and select the appropriate **Blanket Contract** record.
2. Navigate to the **Additional Processes** section and select to create a revision.

A new blanket contract revision is created and the system navigates to the new revision.

The **Create Revision for a New Time Period** option creates a new revision with a new initiation date. The standard revision does not prompt for any changes when it is created.

3. Click the **Edit** button to make any needed changes to the revision, and save.

Chapter 9

Resources

The following sections provide information on concepts related to managing resources.

About Resource Management

Resources encompass any object that contributes to the running of your organization. This includes hierarchies, employees, contacts, documents, standard notes and attachments, managing wage earning types and timesheets, and so on.

This section describes how various processes work together to manage resources throughout the system.

Please refer to the [Maintaining Resource Management](#) section for procedural tasks related to these concepts.

Refer to the [Resource Management Options](#) section in the Administrative User Guides for configuration guidelines.

About Hierarchies

Organizations, locations, assets and components can be configured as part of a structured group, or hierarchy, to facilitate reporting, costing, and general organizational structure within the system.

These hierarchies are represented in **Tree View** tabs where they are applicable. For example, navigating to the **Organization** portal and accessing the **Tree View** reveals the **Organization Hierarchy** with the current organization shown with its applicable parent and child organizations, locations, and assets in the tree. Clicking the broadcast icon next to any element within the tree displays a list of assets and components related to that element in the hierarchy. Clicking the actual link for an element navigates to the record for that element.

About Organizations

Organizations are used for categorization and reporting for locations.

For example, your reporting may include a hierarchy that groups locations by a structure of parent and child organizations.

A basic **Organization** record shows the organization type, whether the organization is active or inactive, a description and any parent organization or location if applicable. The main attributes for organizations are managed in the **Organizations** portal.

About Contacts

Contacts are usually individuals or business entities who should be contacted in reference to a service point, work or any other issues.

Contacts are referenced on locations to provide an associated person or business. The main attributes for contacts are managed in the **Contact** portal. For example, a contact might be referenced as the main person on site for assets or storerooms.

About Resource Types

Resource types define classes of resources that are used within your organization, usually to complete work. The system is delivered with crafts, equipment, and other as base package resource types.

Each activity on a work order is defined with one or more “resource requirements” which define resources that are needed to perform the activity. Typically planned work orders specify resource requirements on the related activities, and approvers can verify the requirements before the work order is approved. Requirements may be categorized as materials, labor, equipment, or other.

About Documents (Attachments, Standard Notes and URL Attachments)

The **Documents** portal is used to track, store and manage electronic reference materials for use throughout the system. Documents are based on **Document Types**, which are managed under **Admin** to establish the types of documents or URLs that can be used by your organization. This does not limit the file type, but can be used as a categorization for your organization’s documents or URLs.

Each **Document** record contains information such as the document type and description. These electronic reference materials can be created as attachments/documents, standard notes or as a URL, and can be added in the **Documents** portal or on the **Referenced Attachments** section of most records.

- **Attachments/Documents:** General documentation such as PDFs, Word docs, spreadsheets, images, text files, and so on can be added as an attachment or document.
- **URL Attachments:** A URL can be added as a type of document within the system and can then be associated to records wherever it might be necessary to provide a link to additional information.
- **Standard Notes:** Standard notes allow you to create boilerplate text, a note, which can be attached to records wherever a note might be needed to provide additional information. Standard notes are created and modified in the **Standard Notes** portal.

Owned Attachments and Referenced Attachments

Most portals include an **Owned Attachments** zone and a **Referenced Attachments** zone:

- **Referenced attachments** are created in the **Document** portal and can be added to records throughout the system. If an update is made to the document in the **Document** portal, those changes are reflected where the document is attached. This way, the same documents can be attached on multiple records, and updates are easy to manage in one place. When

you want to add a document attachment to a record, the system prompts for a Document ID because the attachment should have already been added in the **Document** portal.

You can also reference any **Owned Attachment** in the **Referenced Attachments** zone. For example, if you have an asset with an owned attachment, you can reference that attachment on an activity in the **Referenced Attachments** zone by picking the asset as the referenced record and then the asset's attachment. This also applies for the Owned Attachments that are added to any **Document** record.

- **Owned attachments** can be added “on the fly” on a record (such as on a warranty or specification). These attachments are directly related to their record. When you add an owned attachment, the system prompts for a file upload and the attachment is added directly to that record.

An **Owned Attachments** zone is also included on **Document** records so that you can include multiple files and/or URLs to the **Document** record. Each of these files then applies whenever the **Document** record is referenced on other records throughout the system. When any one of the owned attachments on the **Document** record is updated in the **Document** portal, the changes are reflected wherever that **Document** record is attached.

About Employees

Employee records are used to manage human resource level information for the workers within your organization.

Details such as name and personal information, work status, the main craft worked by the employee, their business unit, payroll information, hire date, and default timesheet information can be maintained. The employee record can also tie the employee to a service area where they are allowed to work as well as track training completed by the employee, assign assets (such as computer equipment or vehicles), and define the employee's billable rate.

Employee records are not required to reference a corresponding user profile. When there is no associated user profile, the module can be used to simply store information about employees who do not use the application. Information from the employee portal can be integrated with your external human resources system.

Employee is referenced throughout the system on other records such as crews and crew shifts, contacts, direct charges, timesheets, on leave requests, to indicate which employee is responsible for or in possession of an asset, and so on. Various records can also be searched by employee.

Employee type determines the kind of employee that is being created on an **Employee** record.

Refer to [Working with Employees](#) for more information.

Leave Requests

Employees can request leave or it can be requested on their behalf through the Employee Unavailability portal. Refer to [About Employee Unavailability](#) for more information.

Employee Calendar

The employee calendar is available on the Employee record when the employee is assigned to at least one shift or the employee has scheduled leave.

About Employee Unavailability

Employee unavailability records establish periods of time where an employee has been given leave from his or her regular job duties. This might be due to circumstances such as vacation, sick leave, attending a training, jury duty, and so on. Logging employee unavailability allows the system to know when an employee is not available to perform work on the crews that he or she is associated with.

Employee unavailability types define the kinds of leave that might be used when creating an **Employee Unavailability** record.

Refer to [Working with Employees](#) for more information.

Standard approval processing facilitates approval or rejection of employee leave. After the leave is approved, employees indicated on the attendees list are not available as work resources. This means that during scheduling, the crafts available to the shift are reduced so that the employee on leave cannot be included. Timesheet generation is completed for the leave according to your settings and business practices.

About Crews

A crew is a group of workers that can be assigned to complete work. Crews are used to group workers, schedule work, and help organize work schedules.

Once a crew is created, shifts can be generated. Work order labor requirements can be assigned to the crew shift, and to a particular individual on the crew.

Note that an employee can be assigned to more than one crew.

About Crew Shifts

A crew shift is a planned period of time in which a crew (one or more workers) is scheduled to perform work. For example, a crew shift might be defined as Crew A, consisting of Jack and his van, working on a specific date from 9 am – 5 pm.

Crew shifts are associated with a crew shift type, that defines attributes common to all crew shifts of that type, including whether the shift is daily or weekly. For example, night shifts would have a different start time and duration than morning shifts, so they would have different shift types.

About Shift Plan Templates

Shift plan templates are used to automatically generate crew shifts based on a set of pre-defined shift criteria such as the shift type, the shift rotation, the defined calendar, and so on.

Templates can be created as basic common templates for multiple crews, basic templates for a specific crew or templates that crews are subscribed to:

- **Common templates:** Common templates establish an initial date for rotations to start, number of weeks for rotation, work calendar and the type of schedule plan. These templates do not specify details such as the specific crew. Since they do not specify the crew, common templates cannot be directly used to generate shifts. Shifts are actually generated from the subscription template that references the common template. If a common template is changed after shifts have been generated, the changes are not reflected until the next time batch processing runs. You can apply changes to the specific crew shift manually.

The initial rotation date ensures that all generated shifts for crews subscribing to the template are at the same rotation position regardless of when the crew subscribed to the template. Rotation is calculated based on the common initial rotation date and not the subscription effective date.

For example, if a common template has a 2 week rotation where on the first week the crew works on Monday but on the second week the crew works on Tuesday. If one crew subscribes to this template just prior to the first week and another subscribes just toward the end of the first week, then for the first crew the first generated shifts is a Monday whereas the second crew's first generated shift is a Tuesday.

- **Subscription templates:** Subscription templates are used to subscribe a particular crew to a common shift plan template. They define an effective period to which shifts for the crew can be generated based on the details on the common template.
- **Crew templates:** Crew templates establish an effective and expiration date, a number of rotation weeks, work calendar and the shift plan type for a specific crew.

Daily vs. Weekly Templates

The shift plan type defined on common templates and crew templates, designate whether the template is for daily or weekly shifts. The type also defines the details for those shifts such as the daily start and end times for daily shifts, or the schedule period for weekly shifts. Weekly crew shifts represent a *set* of daily shifts, typically with one crew shift template per day of the week. A weekly template can map crew templates for rotating cycles of one or many weeks. This is used to account for shift variations across multiple week cycles.

About Crafts

Crafts define a skill or work specialty for crew members such as mechanic, electrician, plumber, arborist, and so on.

When crafts are defined, a secondary craft can be added as part of the craft definition. Secondary crafts are regarded as additional or complementary skills to the primary craft.

Every employee, i.e. crew member, is defined with a principal craft. The principal craft is used when scheduling activity labor requirements to shifts. Secondary crafts are also used during scheduling and appear as less important capacities to schedule. The secondary crafts are presented as available crafts during scheduling.

Crafts, equipment and miscellaneous resources are referenced on activities as a material resource requirement. The system tracks usage and reports the costing associated with that usage against the total cost of completing the activity.

About Equipment

Equipment is defined by your organization to be referenced as a resource type available for use to complete work. This might include machinery, tools or other equipment required to work activities (crane, bulldozer, drill, etc.).

Crafts, equipment and miscellaneous resources are referenced on activities as a material resource requirement. The system tracks usage and reports the costing associated with that usage against the total cost of completing the activity.

About Miscellaneous Resources

Other resources are defined by your organization to be referenced as a resource type available for use to complete work.

Crafts, equipment and miscellaneous resources are referenced on activities as a material resource requirement. The system tracks usage and reports the costing associated with that usage against the total cost of completing the activity.

Maintaining Resource Management

The following sections provide information on tasks associated to working with resources.

Refer to the [About Resource Management](#) section for a conceptual overview.

Working with Contacts

The following sections provide information on tasks associated with creating, searching and updating contacts.

Creating a Contact

Navigate to the **Contact** portal under **Resource Management**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the contact record:

Note: This list does not represent required fields.

- Contact Type

Linking a Contact to a Storeroom

When a new storeroom is created, a contact can be entered to link the location to the contact.

This is used for reporting and to provide a point of contact if needed when referencing the location.

Working with Organizations

The following sections provide information on tasks associated with creating and maintaining organizations.

Creating an Organization

Navigate to the **Organization** portal under **Resource Management**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the organization record:

Note: This list does not represent required fields.

- Organization Type
- Parent Organization (as applicable)

Linking an Organization to a Location

When a new asset or storeroom is created, a parent organization can be entered to link the location to the organization.

This is used for reporting to establish a hierarchy of locations.

Working with Documents

The following sections provide information on tasks associated to working with resources.

Creating a Document

Use this procedure to create an attachment, standard note or URL in the **Document** portal for general access from within the application.

1. Navigate to the **Document** portal under **Resource Management** and select **Add**.

2. Complete the fields according to your business practices, and save.

The system navigates back to the main portal where you can upload the file as a separate step.

3. Browse to and select the file and click **Upload**.

If you are adding a URL reference, you can cancel this step. When the **Document** record that you created opens, enter the URL in the **Owned Attachments** section.

Adding an Attachment, Note or URL to a Record

Use this procedure to add documents such as attachments or standard notes to general records throughout the system.

The document must already be created in the **Documents** portal. If it is not already created, you can navigate to the **Document** portal from the current record and add it.

1. Open any record that supports documents.

This generally includes any record that may require supplemental information.

2. Navigate to the **Documents** section and click the **Add** link.

Optionally, you can select the link to navigate to the **Document** portal so that you can add the document in the system.

3. Search for and select the appropriate **Document ID** and click **Ok**.

The system adds the document link to the record.

Viewing Documents

Use this procedure to view an attachment that has been added to an individual record or in the **Document** portal.

1. Navigate to the record where the attachment was added.

This could be the **Document** portal or an individual record.

2. Click the **View** button next to the document link.

Clicking the link for the actual document name navigates to the **Document** portal.

The system opens the attachment, note or URL accordingly.

Replacing a Document File

Use this procedure to replace any document file.

1. Navigate to the **Document** portal in **Edit** mode.

2. Search for and select the appropriate document record.
3. Click the **Upload** button.
4. Browse to and select the new file then click **Upload**.

The new file is updated anywhere the document is referenced.

If you want to delete the document from the system and everywhere that it is referenced, remove it in the Document portal, and it will no longer be available on other records.

Deleting Documents from Records

Use this procedure to delete a document that has been added to an individual record.

1. Navigate to the record where the attachment was added.
2. Navigate to the **Documents** section.
3. Click the delete icon.
4. Confirm that you want to delete the attachment.

Working with Common Attachments

The following sections provide information on tasks associated to creating and maintaining attachments. Use **Documents** if the attachment needs to apply to many records throughout the system.

Creating a Common Attachment from the Attachment Portal

Use this procedure to create an attachment from the **Attachment** portal for general access from within the application. Use **Documents** if the attachment needs to apply to many records throughout the system.

1. Navigate to the **Attachments** portal in edit mode.
2. Choose the attachment format by selecting from the **Attachment Business Object** field and click **Ok**.
This allows you to indicate whether the attachment is a spreadsheet, an image, video or audio, a text document, or any other file type available.
3. Enter the file name and click **Save**.
The system navigates back to the main portal where you can upload the attachment file as a separate step.
4. Click the **Upload** button.
5. Browse to the attachment file and click **Upload**.
Make sure that you select a file with the same file type that you selected when you initially created the attachment.

Viewing Common Attachments

Use this procedure to view an attachment that has been added to an individual record or in the **Attachments** portal. Use **Documents** if the attachment needs to apply to many records throughout the system.

1. Navigate to the record where the attachment was added.
This could be the **Attachments** portal or an individual record such as an asset, service history, location, specification etc.

2. Click the link for the attachment.
3. Click the **View** button.

A prompt is displayed to open or save the attachment.

Editing Common Attachments

Use this procedure to edit an attachment that has been added to an individual record or in the **Attachments** portal. When you edit an attachment you can only change the **Attachment File Name**. If you need to replace the attachment file select the **Upload** button and browse to select a different file. Use **Documents** if the attachment needs to apply to many records throughout the system.

1. Navigate to the record where the attachment was added.

This could be the **Attachments** portal or an individual record such as an asset, service history, location, specification etc.

2. Click the link for the attachment.
3. Click the **Edit** button.
4. Modify the attachment file name as needed.

Replacing a Common Attachment File

Use this procedure to replace an attachment file that has been added to an individual record or in the **Attachments** portal. If you need to edit the attachment file name select the **Edit** button. Use **Documents** if the attachment needs to apply to many records throughout the system.

1. Navigate to the record where the attachment was added.

This could be the **Attachments** portal or an individual record such as an asset, service history, location, specification etc.

2. Click the link for the attachment.
3. Click the **Upload** button.
4. Browse to and select the new file then click **Upload**.

The new file is updated anywhere the attachment is referenced.

Deleting Common Attachments

Use this procedure to delete an attachment that has been added to an individual record or in the **Attachments** portal. Use **Documents** if the attachment needs to apply to many records throughout the system.

1. Navigate to the record where the attachment was added.

This could be the **Attachments** portal or an individual record such as an asset, service history, location, specification etc.

2. Click the delete icon.
3. Confirm that you want to delete the attachment.

You can also delete the attachment by clicking the link and then selecting the **Delete** button.

Working with Employees

The following sections provide information on tasks associated to working with employees.

Creating an Employee

Navigate to the **Employee** portal under **Resource Management**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the employee record:

Note: This list does not represent required fields.

- Employee Type
- User ID
- Craft
- Business Unit
- Service Area

In order for the employee to charge timesheets in the system, he or she must have a billable rate added to his or her **Employee** record.

Note that “secondary crafts” or additional skills for a craft are defined on the craft. Any primary craft that is attributed to the employee will also attribute the secondary crafts for that primary craft.

Enter and Track Employee Training Information

1. Search for and select the appropriate **Employee** record.
2. Click the **Edit** button.
3. Navigate to the **Training Information** section and select the applicable course.
Courses are entered and maintained by your organization during implementation.
4. Click **Save**.

Entering Employee Unavailability

Navigate to the **Employee Unavailability** portal under **Resource Management**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the employee unavailability record:

Note: This list does not represent required fields.

- Employee Unavailability Type

Create an Employee Leave Request

Use this procedure to request for leave. This can typically be completed by the employee, or by a manager or supervisor on the employee's behalf.

1. Navigate to the **Employee Unavailability** portal under **Resource Management** and select **Add**.

2. Select the appropriate **Employee Unavailability Type**.
3. Complete the required fields according to your business practices and **Save**.

After the leave is approved, employees indicated on the attendees list are not available as work resources. This means that during scheduling, the crafts available to the shift are reduced so that the employee on leave cannot be included. Timesheet generation is completed for the leave according to your settings and business practices.

Working with Work Resources, Crews and Crew Shifts

The following sections provide information on tasks associated to working with crews, crew shifts, crafts, equipment and other miscellaneous resources.

Entering Equipment

Navigate to the **Equipment** portal under **Resource Management**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the equipment record:

Note: This list does not represent required fields.

- Resource UOM — Non material class
- Cost Center — Typically should be of the type that does not allow user charges. However this option can be allowed or disallowed.
- Expense Code

Entering an Miscellaneous Resource

Navigate to the **Miscellaneous Resources** portal under **Resource Management**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the miscellaneous resources record:

Note: This list does not represent required fields.

- Resource UOM — Non material class
- Cost Center — Typically should be of the type that does not allow user charges. However this option can be allowed or disallowed.
- Expense Code

Creating a Crew

Navigate to the **Crew** portal under **Resource Management**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the crew record:

Note: This list does not represent required fields.

- Crew Type — Defines the default planning horizon days for the crew.
- Employee ID

Adding Workers to a Crew

Use this procedure to add workers to an existing crew.

1. Search for and select the appropriate **Crew** record.
2. Click the **Edit** button.
3. Navigate to the **Default Crew Members** section and enter or search for and select the employee IDs and role of the people who belong on the crew.

The employee's principal craft is displayed with their name so that you can easily see the skills of each person added to the crew.

This is also where you specify the crew supervisor role, as applicable.

It is possible to have a crew with one member.

4. Click **Save**.

Creating a Craft

Navigate to the **Craft** portal under **Resource Management**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the craft record:

Note: This list does not represent required fields.

- Resource UOM
- Expense Code

Ensure that you **Activate** the craft after it is created so that it is available to be added to other records. You can also enter the hourly rate for the craft after it is created.

Adding an Hourly Rate to a Craft

Use this procedure to add an hourly rate to a craft.

1. Search for and select the appropriate **Craft** record.
2. Navigate to the **Hourly Rate** section and select the **Add** link.
3. Enter an **Effective Date** and the **Hourly Rate** and **Save**.

Defining a Secondary Craft

Use this procedure to define a secondary craft.

Prerequisites:

Crafts are considered as “skills” of a worker. You might define a secondary craft that would act as backup or which would be scheduled in cases where the primary craft is not available.

1. Search for and select the appropriate **Craft** record.
2. Click the **Edit** button.
3. Navigate to the **Secondary Crafts** section and enter or search for and select the secondary craft ID.

4. Save.

Creating a Shift Plan Template

Navigate to the **Shift Plan Template** portal under **Resource Management**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the shift plan template record:

Note: This list does not represent required fields.

- Crew
- Schedule Plan Type
- Work Calendar

Subscribing a Crew to a Common Shift Weekly Template

Use this procedure to subscribe a crew to a common shift plan template.

Prerequisites: The following are referenced by the shift plan template record:

Note: This list does not represent required fields.

- Common Shift Plan Template
1. Navigate to the **Shift Plan Template** portal and select **Add**.
 2. Select **Subscription Shift Plan Template** and click **OK**.
 3. Enter a specific **Crew** and **Common Shift Plan Template**.
 4. Enter the effective date and expiration date.
 5. Click **Save**.

Creating a Daily Crew Shift

Navigate to the **Crew Shift** portal under **Resource Management**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the crew shift record:

Note: This list does not represent required fields.

- Crew
- Crew Shift Type
- Schedule Plan Template
- Employee — defaults from the crew
- Service Class (as applicable)
- Service Area (as applicable)

Creating a Weekly Crew Shift

Navigate to the **Crew Shift** portal under **Resource Management**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the crew shift record:

Note: This list does not represent required fields.

- Crew
- Crew Shift Type

Reviewing a Crew Shift Schedule

Use this procedure to review the shift schedule for a crew.

1. Search for and select the appropriate **Crew** record.
2. Navigate to the **Crew Calendar** section.

The calendar displays days when the crew is scheduled for work as well as any downtime, training dates or other leave.

3. Click **Save**.

Reviewing a Crew's Schedule

Use this procedure to review the crew's schedule based on assigned work.

1. Search for and select the appropriate **Crew** record.
2. Navigate to the **Crew Calendar** section.

Chapter 10

Work Management

The following sections provide information on concepts related to managing work including work requests, work orders, activities, and so on.

About Work Management

Work management is the process by which work orders are requested, approved and activated, work is performed and then work is finished and closed. While the work is being performed, materials, equipment assets and labor are tracked.

As maintenance efforts create demand for parts, the system uses this information to help with inventory control.

Work management functions are the primary user of information established elsewhere in the system including information about assets, stock items, employees, crews and financials information. Work management also channels information for use with inventory and purchasing by placing demand for parts.

Work management allows work to be tracked through all stages of a project; from the initial observation of a problem and the resulting work request, through the initiation and approval of the work order and the completion of each activity. It also allows you to plan preventive maintenance that occurs in cycles, and helps you plan ahead for parts and labor requirements to so that you can streamline your maintenance operations.

This section describes how various processes work together to manage work throughout the system.

Please refer to the [Maintaining Work Management](#) section for procedural tasks related to these concepts.

Refer to the [Work Management Options](#) section in the Administrative User Guides for configuration guidelines.

About Work Requests

Work Requests are used to request work or services to be performed and, when approved, can become work orders. Work Requests can be created manually, as a follow-up to an activity, or by an external system. Work requests are mainly used to implement an approval chain for the requested work.

When a work request is created it is reviewed by maintenance planners to determine if the request is valid and can be turned into a Work Order. If the work request is rejected or canceled the work requestor is notified and work request can be

resubmitted. If the work request is approved, the planner can either add the request to an existing work order as a new task or create a new work order specifically for the work being requested.

If necessary, it is possible to enter a work order directly if you have the proper authorization.

Possible Duplicate WRs/WOs/Activities

The system identifies any records which could possibly be duplicate work requests, work orders or activities in this zone. Any work records that are in “non-final” statuses (such as “created”, pending approval” or “approved”) with the same asset and location (including address) of the current work request are listed as duplicates. You can choose to include or exclude work records related to preventive maintenance. If a record is found to be a duplicate, it can be canceled under **Record Actions**.

About Work Orders

Work orders group similar activities and are used to manage activities to perform any kind of work such as inspection, install, replacement, upgrade, and so on. They are mainly used to facilitate approval processing for work projects.

Work orders might also be created to manage a set of activities where the activities are manually linked to the work order. Completion events are used on activities to document and process the work that was done and to update data associated to the activity. Work orders also provide summary information about the various activities and the assets that are being worked on those activities.

The **Asset, Specification, Address** and **Location Information** sections serve to select the assets that should be included on the work order. As many or as few of this criteria can be selected to narrow down the assets that are included for the work.

Work Order Lifecycle

In a typical workflow, work orders must be created, approved, activated, worked then completed. Note that the status of activities on the work order depend upon the work order status. For example, the activity stays in “planning” status until the work order is approved and activated.

Work Order Templates

It is possible to create templates from most types of work orders so that the general work model can be reused. Work order templates can also be referenced for scheduled service history.

Refer to the [About Work Order Templates](#) section for more information.

Activity Information

The **Activity Information** zone provides summary information regarding the activities that are included on the work order.

Refer to the [About Activities](#) section for more information and field definitions.

Unplanned Work

Since unplanned work simplifies small, uncomplicated, and/or one-time jobs, foregoing planning can be effective when the task to be completed is straightforward and does not involve many details.

Completing Work Orders

Work orders are automatically completed when every activity linked to the work order arrives at a final state based on the completion events for the activities.

Capital Work

Work orders that are worked by outside contractors are considered “capital work”. This type of work order is created with a work category of “capital” activities that have an activity type with an external system set to the contractor.

About Work Order Templates

Work order templates, or benchmark work orders, are work orders that can be re-used to help your organization avoid repeating planning the same work for similar jobs. They can be used for basic work planning, but are also typically used with preventive maintenance.

The template work order contains header work order details. Template activities and template activity resource requirements are used to plan those aspects of the work plan. **General Template Work Order:** are used to plan for activities and resources which can be common to assets regardless of the asset disposition. This type of template can be used in the maintenance schedule configured for asset specifications as well as on the override maintenance schedule configured for an asset.

Preventive Maintenance

Template work orders are used with preventive maintenance and event based maintenance to create new work orders when the maintenance is triggered. The appropriate work order template is referenced on the maintenance trigger so that the appropriate work records are automatically created when the trigger is cycled.

Usually, the work orders that are created from the template can be modified to represent the actual work requirements. For example, modifications may be needed if the requirements from the template don't match the exact requirements for the execution of the work.

Template Activities

Template activities are activities that can be re-used to help your organization avoid repeating planning the same work for similar jobs. They can be used for basic work planning, but are also typically used with preventive maintenance. Template activities are part of a template work order and cannot be re-used by multiple template work orders.

About Activities

An activity is a task which needs to be completed. Activities manage asset changes, work, inspections maintenance and other actions that are performed on assets or components.

As examples, activities may be created for maintenance of assets, to create service history, to install or exchange devices. They can also be used to create other activities. The benefit of using activities to process work is to keep a history of the work being done. This history can then be used for tracking and auditing.

The system supports the following general types of activities:

- **Work Activities:** Activities managed locally in the system.
- **Field Activities:** Activities that are managed as integrated with an external system.
- **Asset Generator Activities:** (Operational Device Management only) Activities that are used to generate or replicate asset records within the system.

Activities can be created "on the fly", but they must be grouped and managed using work orders.

Activity types control the purpose and configuration of activities such as which completion events are required and sequence to execute completion events.

Completion events are used on activities to document and process the work that was done and to update data associated to the activity. For example, if a completion even moves an asset to a new disposition state, the state is not reflected until the completion event is processed.

About Activity Resource Requirements

Each activity on a work order is defined with one or more “resource requirements” which define resources that are needed to perform the activity. Typically planned work orders specify resource requirements on the related activities, and approvers can verify the requirements before the work order is approved. Requirements may be categorized as materials, labor, equipment or other.

- Material requirements specify materials or stock items to be used for the activity (pipe, pump, bolt, etc.). Material requirements might also be fulfilled with a direct purchase.
- Labor requirements, or crafts, specify the type of skills needed for the activity (technician, plumber, electrician, etc.). This might include premium or regular labor.
- Equipment requirements specify the machinery, tools or other equipment required for the activity (crane, bulldozer, drill, etc.).
- Other requirements cover miscellaneous requirements for the activity (meals, miles, hotel stay, etc.).

Note the following with respect to activity resource requirements:

- Activity resource requirements can only be added and navigated in the **Activity** portal under **Resources**.
- Material requests (issues and returns) can be applied against the resource requirement when the activity is active. When inventory materials are issued, the state of the resource requirement transitions to “fulfilled”. This is when the issued quantity is greater than or equal to the planned quantity.
- If materials are not in stock and need to be purchased to fulfill the requirement, a purchase order or requisition might be issued. These materials are typically tracked as direct purchases. When direct purchases are received, the material requirement state is set to “fulfilled”. This is when the receipt quantity greater than or equal to the planned quantity.
- Timesheets are used to track labor requirements. The labor requirement establishes an estimated number of work hours required. As timesheets are created and posted, the actual work hours are tracked.
- Other direct charges are used to track equipment and other requirements.

Resource Estimates

Activity resource requirements determine the *original estimates* or planned amount for labor, equipment, materials and other on activities. Even canceled activity resources requirements are calculated as part of the original estimate. The original estimate is the value of the resource requirement at the time the work order was initially, i.e. the first time, approved. The original estimate is snapshot into a separate column when the initial approval happened. Keep in mind that approved work order can be reopened to add new activities/resource requirements and resubmit for approval. Those new resource requirements won't have initial estimate (it will be zero).

The system calculates a *revised estimate* to reflect the current value of the resource requirement. For example, a resource requirement was initially planned for 10 pumps at \$10.00 each. Upon the initial/first approval, the initial estimate will be stamped with \$100.00 and the revised estimate is also \$100.00. If the planner changes the requirement to 15 pumps instead, the original estimate will stay at \$100.00 and the revised estimate will be \$150.00. Canceled requirements are not calculated as part of the revised estimate.

Committed Amount

Committed amount is the total of costs applied to the activity due to direct purchase costs that are committed when a purchase order is *issued*. This value uses the issued amount, not closed or completed since the costs are considered as committed once the purchase order is issued to the vendor. This amount reflects the total due to the vendor, as full or partial invoice amounts are closed. It does not reflect amounts that are completed or closed.

For example, a purchase order line has been issued for 10 pumps at \$10 each. Assume 4 pumps were received and a partial invoice line of \$40 was issued for the 4 items. This partial invoice for \$40 reduces the committed amount — \$100 minus

\$40 = \$60. Once the other 6 items are received, the purchase order line moves to closed status and it does not have an impact on the committed amount.

Unplanned Resources

Unplanned resources are defined as issued or returned materials or timesheet entries that were not part of the original resource requirements or estimates. Activities include a zone which lists any unplanned activity resources.

Fulfilling Requirements

Material requirements can be fulfilled in the following ways:

- For inventory, if the issued quantity is greater than or equal to the planned quantity the system automatically changes the resource requirement to **Fulfilled**. This happens in cases where the crew has checked out all the planned quantity from the storeroom.
- For direct purchased material, if the received quantity is greater than or equal to the planned quantity, the system updates the resource requirement to **Fulfilled**. This method of automatic fulfillment is only applicable to material.
- For inventory material, when the resource requirement is approved (as part of the WO approval), the system puts the quantity is 'Pending Demand' on the storeroom, once the activity material requirement becomes Active, that quantity becomes 'On Demand' (and Pending Demand is closed out, or becomes zero).
- Materials can also be "reserved". If the storeroom has enough quantity then that quantity becomes reserved for the given amount. The reserved quantity provides storeroom manages with visibility into what is to come so that they can order materials accordingly.
Note that, although it may not be part of work, when material is issued from storeroom, material issue will reduce demand by the issued quantity or the original planned quantity, whichever is less. This is to prevent a negative on demand quantity, (if the issue quantity is more than the planned quantity.)

All resource requirements can become fulfilled in one of the following ways:

- Users click the **Fulfill** button.
- When the activity is completed, the system automatically changes all resource requirements to **Fulfilled** status.

When a material requirement becomes fulfilled, the system closes out the On Demand/Reserved quantity left (planned quantity – issued quantity). For Labor, Equipment and Other, fulfilled is only an informational status with no related processing.

About Scheduling

The scheduling process assigns tasks to crew shifts, matching work requirements to crew capabilities. The goal of the scheduling process is to produce the most effective schedule based on the requirements of the work.

Planners can access the **Scheduling** portal to search and review new activity labor requirements and/or unfinished back log work and make allocations to available crew shifts. Users can also use this portal to view the capacity of shifts based on crafts. First search for the appropriate crew shift, then use the zones to search for activities, review the crew members, or access a graphical representation of craft capacities.

Daily and Weekly Shifts

A weekly shift, or schedule plan, is a collection of daily shifts. A daily shift is the plan for a single shift on a specific day. Please note the following with respect to shifts:

- Weekly shifts are referred to as "schedule plans" in the system since the plan can come in any multiple of weeks.
- A weekly shift specifies a type, as does a daily shift
- A weekly shift specifies a crew name, as does a daily shift
- A weekly shift can be scheduled, as does a daily shift

- A weekly shift does not specify employees, as daily shift does (instead, it has a collection of daily shifts)
- A weekly shift does not specify a template, as a daily shift does
- A weekly shift can have many daily shifts attached to it - just like a week has many weekdays
- A daily shift can only specify one weekly shift - just like a specific day belongs to just one week

Shift Plan Templates

Shift plan templates are used to automatically generate crew shifts based on a set of pre-defined shift criteria such as the shift type, the shift rotation, the defined calendar, and so on. Refer to [About Shift Plan Templates](#) for more information.

Scheduling Work

Work is scheduled according to the following:

Once an activity is created with labor requirements Planners or other authorized users can schedule work by navigating to either the **Schedule** tab on the crew shift or to the **Scheduling** portal. In either case, once the crew shift is identified, search for the activity to be scheduled, check the appropriate shifts and click **Apply**. A dialogue prompts for the scheduled hours for each labor requirement on the activity.

Planners can review the shift assignment in the **Scheduling Details** section on the activity. There are also multiple other ways to search for labor active work such as by activity, by work order, by location, by crew, and so on.

in the **Schedule** portal planners can pull already scheduled work from another shift. For example, the search can be used to transfer assigned work from a weekly shift to a daily shift. Furthermore, the **Previously Scheduled Unfinished Work** zone displays work already assigned to the crew shift being scheduled.

Each of these various details and views can be used according to your business practice to create the most efficient scheduling process for your organization.

In addition, when a shift is completed, all unfinished activities assigned to the shift are copied to the next open shift for the crew. A dialog prompts the user for details on expected duration left to complete the work.

Finding Backlog Work and Assigning

Use the **Scheduling** portal or **Crew Shift** portal **Scheduling** tab to search for all unfinished and active labor requirements for the selected crew. Unfinished labor requirements are those which are still active but linked to completed or canceled crew shifts. When there are active labor requirements pending for the crew shift, the system provides a prompt where you can allocate the labor to the next available shift. Follow the prompts to complete the process of allocating the labor requirements either to the next available shift, or to a different crew shift.

About Projects

Projects provide a way to group work so that it can be planned and charged against large efforts. Typically, a project will be a task that is out of the ordinary, or that requires extra planning and resources. Examples would be adding new facilities or conducting a major overhaul of an assembly line.

When a project is initiated and funds are approved, the project can be broken down into a hierarchical arrangement of smaller sub-projects, or the work breakdown structure. Each sub-project represents a controllable unit of work within the project. The ability to enter information about units of work, scheduling information, cost estimates and target dates for each project and sub-project forms the basis for planning the project and monitoring its progress to completion. Work orders and activities can be associated to the project and are automatically included in the cost of the project.

Projects can also be divided into subprojects – facilities construction, wiring, installation of equipment, testing of automated systems, shakedown, and so on. You can then plan, budget, and individually authorize each subproject.

Projects can be configured to go through regular approval processing, so that after the project is created it must be submitted for approval then approved.

Allow Charge

When the **Allow Charge** indicator is set to “yes” other records can charge against the project. The project must be in Approved, Started or Complete state for charges to be applied against it. For example, a resource such as a craft or equipment might reference the Project ID under the accounting information.

Note that if subprojects are planned, the project itself should have **Allow Charge** set to **No**. Charges should be tracked by subproject.

Project Categories

Your organization can define project categories to create classifications for projects such as maintenance, capital, construction, and so on.

About Timesheets

Timesheets are used to record the amount of time that workers (labor resources) spend on activities or work orders. Once charges are entered, processing allows employees to receive proper compensation for their work and labor charges are applied to the appropriate cost buckets.

Generally only each individual and the person designated as the supervisor on that individual's crew can access timesheet information for that person.

Shift Types

When workers book time, they also specify the shift type they worked. Different shift types have different multipliers and adders which impact the labor costs. Timesheets can only specify daily shift types (as opposed to weekly shifts).

About Other Direct Charges

Other direct charges are defined by your organization to be referenced as a charge type to charge work against. This might include miscellaneous charges for activities such as meals, miles, hotel stay, car or truck rentals, and so on.

Other direct charges are incurred on activities as a material resource requirement from “miscellaneous resources”. The system tracks usage and reports the costing associated with that usage against the total cost of completing the activity.

About Material Disposition

Material disposition is a process designed to track repairable assets/stock items. The process tracks the asset or component from when it is removed from service to where it is either retired, scrapped or repaired and returned to availability for re-use. The portal is accessed under the **Work Management** menu.

Material disposition processing involves creating a work order to remove then replace a broken asset or component. The asset must be flagged as repairable.

In creating the work order and related activities, the resource requirements must indicate that a replacement asset must be checked out from a storeroom to replace the broken one. In order to fulfill these requirements, users must create a material request and material issue for the asset. A **Material Disposition** record is created as a result of these material requirements being fulfilled, and the replacement asset and the broken asset are added on the material disposition as line items. Note that new records are not created directly in the **Material Disposition** portal. They must be generated automatically by this processing.

The person responsible for material disposition should navigate to the **Material Disposition** portal to complete the steps within the system to remove the broken asset and move it to a pending disposition status while moving the replacement

asset to an installed status. This is done using the **Complete Exchange** option. When completing the complete exchange process, the system prompts for information such as the actions to perform on the assets, status reason, new storeroom as applicable, and dispositioning dates and times.

The actual assets should also be swapped as applicable toward completing the initial work order and activity.

Your business process may then require that you create a follow up work order to repair the broken asset using the **Create Work Order** action from within the **Material Disposition** portal.

Once a 'repairable' asset has been pulled from the field and repaired through Material Disposition, it can be returned to a storeroom with a new valuation. The stock item detail for the asset will show a repaired price, as applicable.

You can review the costs and other statistics related to the replacement and repair of assets by reviewing the actual **Asset** record in the **Cost Information** section.

About Completion Events

Completion events are used to execute business events within the application. For example, completion events may be configured for several types of asset processing such as asset update, state transition, replication, service history and activity creation.

All activities have a set of required and optional completion events that can be executed to see the activity to completion.

The **Relationship Information** section shows any other system objects that are associated to the completed object. For example, if you are looking at the completion event for an activity, the relationship information shows the asset, any components, the location, service history, etc.

Completion Event Common Attachments

Attachments added here are used as part of the completion event processing. For example, a completion event may be used to update a picture or other supporting file about an asset.

About Inbound Communications

The **Inbound Communication** portal provides details related to the information received from an external system such as Oracle Utilities Mobile Workforce Management. Use inbound communication to create a completion event using information defined within the raw message coming from an external system.

Inbound communication events receive completion event information from the external system and then process the necessary transactions to see the activity or other event to completion.

Inbound Communication Configuration Notes

An inbound communication business object must be created for each type of message to be received from an external system. For most external systems, this is based on the types of messages the system is designed to send.

You must also create an XAI Inbound Service for each type of message to be received from an external system. XAI inbound services define the details of how messages are received from an external system, including the inbound communication business object (or business service or service script) to be invoked when the response message is received. As in the case of inbound communication business objects, the set of XAI inbound services you need to create is based on the types of messages the system is designed to send.

Maintaining Work Management

The following sections provide information on tasks associated to working with work management.

Refer to the [About Work Management](#) section for a conceptual overview.

Working with Work Requests

The following sections provide information on tasks associated with creating and maintaining work requests.

Creating a Work Request Manually

Navigate to the **Work Request** portal under **Work Management**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the work request record:

Note: This list does not represent required fields.

- Asset ID

Work requests can be created manually or they can be sent from an external system as part of your integrated work creation processing.

As applicable, after the work request is created, the system displays a list of possible duplicate requests. This is based on whether or not there are requests that are not in “canceled” or “work order created” status with the same asset or location (including address) of the current work request. If it appears that the request you just created is a duplicate, you can cancel it under **Record Actions**.

Depending on your business practices, the next step is to submit the work request for approval.

Creating a Work Order or Activity from a Work Request

Use this procedure to create a work order or activity from a work request.

1. Search for and select the appropriate **Work Request** record.

2. Click the **Create Work** button.

The system creates the work order based on the details in the work request.

3. Alternately, you can create an activity directly from the work request.

Finding Duplicate Work Requests

Use this procedure to verify that a newly created work request is not a duplicate.

Reviewing for duplicate requests is usually done before submitting the work request for approval, or it is the responsibility of the approver to search for duplicates before responding with an approval decision.

1. Search for and select the appropriate **Work Request** record.

2. Navigate to the **Possible Duplicate WRs/WOs/Activities**

As applicable, after the work request is created, the system displays a list of possible duplicate requests. This is based on whether or not there are any work requests, work orders or activities in “non-final” statuses (such as “created”, pending approval” or “approved”) with the same asset and location (including address) of the current work request are listed as duplicates. You can choose to include or exclude work records related to preventive maintenance. If it appears that the request you just created is a duplicate, you can cancel it under **Record Actions**.

3. Click the link to any of the listed records to review further information as needed.

Working with Work Orders and Activities

The following sections provide information on tasks associated to working with work orders, activities and completion events.

Creating a Work Order

Navigate to the **Work Order** portal under **Work Management**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: Fields referenced by the work order record depend on the type of work order being created. Refer to [Creating a Work Order or Activity from a Work Request](#) for more information.

The work order must have at least one activity added before it is submitted for approval.

Creating a Template Work Order

Navigate to the **Template Work Order** portal under **Work Management**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the equipment record:

Note: This list does not represent required fields.

- Planner
- Approval Profile

Creating a Template Work Order from an Existing Work Order

Create templates from work orders so that the general work model can be reused.

The work order must be in an appropriate status. You cannot create a template from a basic work order.

NOTE: If a work order already has activities associated to it, a template cannot be created from that work order.

1. Navigate to the **Work Order** portal under **Work Management** and search for and select the appropriate work order.
2. Click the **Make Template** button.

The system creates the work order as a template. Templates are generally referenced on preventive maintenance schedules or to otherwise manage service history on assets. The work order information, activity information, and activity resource requirements are copied, as applicable.

Creating a Purchase Requisition from a Work Order

Use this procedure to create a purchase requisition from a work order.

When a work order is created with requirements for direct purchase stock items, the action of seeing the work order through the approval process and setting it to **Active** status will prompt the system to generate a purchase requisition with line items for approved resources grouped by stock item detail, vendor location and blanket contract.

Creating an Activity

Use this procedure to create an activity from the **Activity** portal.

1. Navigate to the **Activity** portal under **Work Management** and select **Add**.
2. Select the appropriate activity type and click **Ok**.

Activity type determines the business information required to create the activity. Typically your organization will have configured types for specific tasks such as replicating assets, installations, performing maintenance, or completing inspections.

3. Enter fields as required by your business process, and save.

Processing and completing activities is completed as a separate task.

Generating Activities from a Work Order

Use this procedure to generate activities from a work order.

Prerequisites: The work order must be in a status where activities can be generated, such as “approved” or “active”. Also, activities cannot be generated from basic work orders.

1. Search for and select the appropriate work order.
2. Click the **Generate Activities** button.

The dialog to generate activities from the work order opens providing information on the number of activities that will be created and allowing you to verify whether you want to generate the activities immediately, or generate them in batch processing.

3. Click the **Ok** button.

The work order remains in **Open** status and the activities are created. The work order log is updated to reflect that the activities were created and the Activity information zone on the work order is also updated. Navigate to the individual activities to view details or continue processing.

If the system encounters any errors while generating activities, ToDo entries are created as designated by your system configuration.

NOTE: Service schedule type work orders do not have the button to generate in batch since they are automatically set to be generated by batch processing.

You can also generate activities from a closed work order by first reopening the work order using the **Open** button in the actions area.

Also see [Creating a Work Order or Activity from a Work Request](#).

Generating Activities in Batch Processing

Use this procedure to generate activities from a work order using batch processing.

A work order of any kind except service schedule type is created and in **Open** status.

1. Search for and select the appropriate work order.
2. Click the **Generate Activities** button.

The dialog to generate activities from the work order opens providing information on the number of activities that will be created and allowing you to verify whether you want to generate the activities immediately, or generate them in batch processing.

3. Click the **Generate in Batch** button.

The work order remains in **Open** status and the activities are scheduled to be created when batch processing runs.

If the system encounters any errors while generating activities, ToDo entries are created as designated by your system configuration.

NOTE: Service schedule type work orders do not have the button to generate in batch since they are automatically set to be generated by batch processing.

Adding an Activity to a Work Order on the Work Order

There are many ways to manage activities and work orders, and your specific business practices will determine how you create activities. This section describes a basic procedure for adding an activity to a work order from within the work order record.

1. Navigate to the **Work Order** portal under **Work Management** and search for and select the appropriate work order.
2. Click the **Add Activity** link in the **Activity Info** section.
3. Select an **Activity Type** and click **Ok**.
4. Complete the required fields according to your business practices and **Save**.

The system inserts the work order number as a default.

Adding Resource Requirements to an Activity

Use this procedure to add resource requirements to an activity. Resource requirements are indicated at the activity level, not on the work order.

1. Navigate to the **Work Order** portal under **Work Management** and search for and select the appropriate work order.

Alternately, you can search for and select the activity directly in the **Activity** portal under **Work Management**.

2. Navigate to the **Activity Info** zone and click the link for the appropriate activity.

The activity opens displaying all of the relevant details.

3. Navigate to the **Resources** tab.

Use the **Quick Add** zone to add resources.

4. Select the **Resource Class** from the drop-down.

Typically this will add a craft, equipment, material, or other resources.

After selecting a class, fields are displayed to complete the needed details.

5. Complete the required fields according to your business practices and **Save**.

As needed, you have the ability to add materials to activities from the asset's Bill of Materials. Selecting the add from BOM action opens a dialog where you can choose items from the BOM pick list.

The system adds the requirements to a list under the activity on the work order as well as in the **Activity Resource Action** zone in the **Resources** tab on the activity. Click the link for any resource to navigate to the record for that resource.

As the requirements are "fulfilled" they are moved to the **Activity Resource Detail** section where you can review the follow up items that have been created to fulfill the request. For example, this section will show the material request and issue transactions needed for a material/stock requirement. Likewise it shows the purchasing documents created to fulfill direct purchase requirements, and so on.

Fulfilling Resource Requirements for an Activity

Use this procedure to add resource requirements to an activity. Resource requirements are indicated at the activity level, not on the work order.

1. Navigate to the **Work Order** portal under **Work Management** and search for and select the appropriate work order.

Alternately, you can search for and select the activity directly in the **Activity** portal under **Work Management**.

2. Navigate to the **Activity Info** zone and click the link for the appropriate activity.

The activity opens displaying all of the relevant details.

3. Navigate to the **Resources** tab.

4. Click the link for the resource in the **Activity Resource Class** section.

5. The Resource Requirement screen opens for the selected resource. This displays all relevant details about the resource.

6. Click the **Fulfill** button under **Record Actions**.

7. The system transitions the status to fulfilled.

8. Navigate back to the activity by clicking the **Activity** link.

9. Navigate to the **Resources** tab.

Notice that the resource has been moved to the **Activity Resource Detail** section. As applicable, information about the follow up record that has been created has been added under the resource. For example, this section will show the material request and issue transactions needed for a material/stock requirement. Likewise it shows the purchasing documents created to fulfill direct purchase requirements, and so on.

10. Click the link for the follow-up record and process according to your business processing.

For example, if a purchase requisition was created as a result of fulfilling a material requirement, click the link for the purchase request and process it as normal.

Continue to refer back to the **Resource** tab on the activity to review the resource requirements and the progress of processing for the related follow-up records.

Processing and Completing Activities

Use this procedure to process and complete an activity.

For ad hoc and local activities, or activities that are not worked from an external system, it is necessary to process and complete the activity within the system after the activity has been physically completed. Activities should have already been generated from their respective work orders, as applicable.

1. Navigate to the **Work Order** portal in **Search** mode.
2. Search for and select the appropriate activity.
3. Locate the **Completion Event Tree**.
4. Click the **Add** icon next to the completion event type for the completion event that needs to be processed.

Some of the listed completion event types might be for completion events that are required or optional. You must process each of the required types. Your business processes determine whether or not you need to process the optional ones.

The completion event screen opens.

5. Fill in the completion event information as appropriate to your business processes, and save.
The way that you fill in the fields depends upon the type of activity and the type of completion event.
6. Return to the activity record.

Depending on the type of completion event you may not automatically navigate back to the activity. For example, if the activity is to create service history, you might navigate to the service history screen, or you might navigate to the completion event record itself if the activity is for asset creation. Complete actions from the screen that the system opens, or select the hyperlink to the activity to return to the activity.

7. Click **Complete** in the **Record Actions** section.

The system processes the completion event and transits the activity as appropriate to the requirements established by the activity type. If there are any errors in processing these are noted on the activity and To Do Entries are created and sent as needed.

Manually Creating Completion Events

Use this procedure to create a completion event manually.

Completion events are most often created upon successful receipt of inbound communications related to an activity or command, and are used to create or update data to reflect the effect of activity. However, completion events might be created manually to process ad hoc or local activities. Users can create completion events using the following procedure:

1. Navigate to the **Completion Event** portal under **Work Management** and select **Add**.
2. Search for or enter an **Activity ID**.
3. Select the **Completion Event Type**.
4. Click **Ok**.
5. Enter required information as needed, and save.

Manually Creating an Inbound Communication

Use this procedure to create an inbound communication manually.

Inbound communications are most often created upon successful receipt of completed activities from an external system such as Oracle Utilities Meter Data Management. They are used to create or update data to reflect the effect of activity. Inbound communications might be created manually, however, to process ad hoc or local activities. Users can create inbound communications using the following procedure:

1. Navigate to the **Inbound Communication** portal under **Work Management** and select **Add**.
2. Select the appropriate communication type.

Communication type determines the required fields that need to be entered to create the inbound communication.

3. Enter required information as needed and click **Save**.

Processing and Completing Activities

Use this procedure to process and complete an activity.

For ad hoc and local activities, or activities that are not worked from an external system, it is necessary to process and complete the activity within the system after the activity has been physically completed. Activities should have already been generated from their respective work orders, as applicable.

1. Navigate to the **Work Order** portal in **Search** mode.
2. Search for and select the appropriate activity.
3. Locate the **Completion Event Tree**.
4. Click the **Add** icon next to the completion event type for the completion event that needs to be processed.

Some of the listed completion event types might be for completion events that are required or optional. You must process each of the required types. Your business processes determine whether or not you need to process the optional ones.

The completion event screen opens.

5. Fill in the completion event information as appropriate to your business processes, and save.

The way that you fill in the fields depends upon the type of activity and the type of completion event.

6. Return to the activity record.

Depending on the type of completion event you may not automatically navigate back to the activity. For example, if the activity is to create service history, you might navigate to the service history screen, or you might navigate to the completion event record itself if the activity is for asset creation. Complete actions from the screen that the system opens, or select the hyperlink to the activity to return to the activity.

7. Click **Complete** in the **Record Actions** section.

The system processes the completion event and transits the activity as appropriate to the requirements established by the activity type. If there are any errors in processing these are noted on the activity and To Do Entries are created and sent as needed.

Manually Creating Completion Events

Use this procedure to create a completion event manually.

Completion events are most often created upon successful receipt of inbound communications related to an activity or command, and are used to create or update data to reflect the effect of activity. However, completion events might be created manually to process ad hoc or local activities. Users can create completion events using the following procedure:

1. Navigate to the **Completion Event** portal under **Work Management** and select **Add**.
2. Search for or enter an **Activity ID**.
3. Select the **Completion Event Type**.
4. Click **Ok**.
5. Enter required information as needed, and save.

Creating a Project

Navigate to the **Project** portal under **Work Management**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the project record:

Note: This list does not represent required fields.

- Project Category
- Cost Center

To create a subproject, create a new project record then reference a **Parent Project**. After at least one sub-project is created you can select the **Add Sub-Project** link from the **Project Detail Info** section to create additional sub-projects.

Viewing Subproject Information

1. Navigate to the **Project** portal under **Work Management** and select **Search**.
2. Search for and select the appropriate **Project** record.
3. Navigate to the **Project Detail Info** section.

Here you can review the subproject details, navigate to subprojects, and add more sub-projects as necessary.

Entering a Time Charge

Navigate to the **Timesheet** portal under **Work Management**, select **Add**, complete the required fields according to your business practices and **Save**.

Typically you will need to add:

- Charge Type
- Hours
- Crew Shift Type
- Labor Earning Type
- Work Start and Stop Date/Time
- Travel Time
- and so on

Entering an Other Direct Charge

Navigate to the **Other Direct Charges** portal under **Work Management**, select **Add**, complete the required fields according to your business practices and **Save**.

Typically you will need to add:

- Charge Type
- Equipment
- Asset ID
- Quantity

- Unit Price
- Readings
- and so on

Chapter 11

Construction Work Management

The following sections provide information about the portals and objects related to Oracle Utilities Construction Work Management.

About Construction Work Management

Oracle Utilities Construction Work Management provides functionality to manage the work, resources, and assets related to construction work.

In a standard workflow, an organization configures compatible units based on the materials, labor and equipment needed to install (construct) or remove (demolish or retire) an asset at a given location. Compatible units are classified as Base, Functional, or Accessory depending on how they are to be used and what they define. They are grouped into CU Sets according to their equipment group and size (every CU must belong to a set (only one)).

Next, work designs are created to plan the construction work with all of the materials, labor, and equipment needed to complete the job. Compatible units are added to the design to define the requirements. Multiple design versions can be created so as to compare cost estimates and resource requirements.

In all phases, contractors can submit their bid/estimates to completing the work. Bids are stored on the compatible unit so that they can be factored in to costs as compatible unit sets are added to the work design. Once ready work designs can be submitted for standard approval processing. After approval the work design can be transitioned to “work generated” status and construction work orders and construction work activities can be created to manage the work. Costs and scheduling are managed just as they are for regular work.

In the context of Construction Work Management, the term ‘asset’ is used to refer to fixed assets, also called capital assets by some. Not all fixed assets are Oracle Utilities Work and Asset Management assets, i.e. a record in the asset table with an asset ID. For example, you may not track wires as individual asset within Oracle Utilities Work and Asset Management. Whether a Oracle Utilities Work and Asset Management asset should also be created as a result of a construction work is determined by the presence/lack of Oracle Utilities Work and Asset Management asset type on the CU definition.

Refer to the [Construction Work Management Options](#) section in the Administrative User Guides for configuration guidelines.

Review the following sections for more details on the functional areas that comprise the construction work management system.

About Compatible Units (CU)

Compatible Units define the materials, labor, and equipment necessary to install or remove assets in relationship to construction work. Compatible units can be referenced by other compatible units to build more complex configurations and allow users to properly group resources together.

The Compatible Unit Type determines how a compatible unit can be used:

- **Compatible Unit Base:** A simple compatible unit only consists of materials and serves as a building block for function compatible units. They cannot be selected directly on a work design and do not reference a property unit. Base compatible units are meant to model basic stock items used to build up a functional or accessory compatible unit. Changes to the stock item will be reflected on the compatible unit.
- **Compatible Unit Function:** The primary compatible unit which is added on work designs. Functional compatible units can have materials, labor and equipment and require a function to install or remove the compatible unit. They can also be defined with a condition and property unit. Functional compatible units are intended to model an asset (such as a pole) and do create fixed or physical assets.
- **Compatible Unit Accessory:** This CU is meant to be used in conjunction with other CUs and is not meant to be capitalized. An accessory can be directly selected on a work design and can be designated with a function and condition, but not a property unit. Accessory compatible units are meant to model optional asset accessories that can be added onto a work design to accompany the build out of an asset but which don't directly contribute to the asset as a whole. A CU Accessory can also inherit from a Base CU if there is a desire to abstract the stock items in the Base CU from the various ways the CU can function as a CU Accessory. Note that CU Accessories do not create fixed or physical assets.

Functional and Accessory compatible units are primarily used in two ways:

- On a work design to determine a quote, and perhaps pick between various design options,
- On a construction work order to initially populate the planned estimates and to drive the assets that will be created.

The accounting information on the compatible unit is used during the construction reconciliation process to produce the true cost of the new asset as well as the appropriate accounting codes.

About CU Sets

CU Sets group related compatible units, usually by factors such as equipment group and size. Every compatible unit must belong to only one CU Set.

The main goal of a CU Set configuration is to make it easy to add CUs to work designs by these groupings. A best practice is to ensure that a CU Set is defined for every equipment group and size combination, and to ensure that a set includes the Functional CUs and Accessory CUs together. This will ease the selection of CUs when creating a work design or construction work order.

About CU Contractor Bids

CU Contractor bids define the details of a contractor's proposal to perform the work for a particular Compatible Unit on a construction project.

Contractors must be defined in the system by a vendor location. Bids can only be added to functional or accessory compatible units and they may or may not include materials. Bids have both an effective date and an expiration date.

Activating the bid will ensure that it can be included on the construction work activity where the compatible unit is referenced.

About Construction Work Planning

About Work Designs

Work designs are used for construction projects to produce one or many construction estimates with resource requirements. Designs can ensure that all necessary requirements are accounted for before the actual work begins.

A single project can have multiple versions so that you can compare different approaches to the project and how they might affect costs.

Work Design Estimate

The Estimates tab on the work design tabulates totals for all of the resource types, overtime, overhead, and any additional line items. Calculated totals include the following:

- **Customer Built Contributions:** Total derived value of customer supplied compatible units (display as credit)
- **Fixed Price Adjustment:** (Fixed Price – Derived Price)
- **Estimate Grand Total:** (Resource Cost + Additional Cost + Fixed Price Adjustment) – Customer Built Contributions
- **Overhead:** Work Design % per resource class first then apply the additional overhead % to the total

About Design Elements

Design elements “build” a work design by indicating the compatible units and other resources that are needed for one construction location where one or many assets are planned.

About Construction Work Orders

Construction work orders are a collection of work activities which manage the actual construction work, which may or may not be related to compatible units.

About Construction Work Activities

Construction work activities manage construction work, typically involving compatible units (such as installing, removing, or maintaining a compatible unit). They can manage the creation of new assets resulting from the construction, construction related repairs, or maintenance.

Activity types control the purpose and configuration of the activity.

Construction work activities can be created from a work design or can be created directly. Each activity references one or many construction locations which have one or more compatible units which define the work and resources needed at the location.

Every construction work activity must reference a service class to identify whether or not the activity is overhead or an activity used for construction, renewal or maintenance. Part of the service class is to define the construction work in progress (WIP) cost center on the activity. Service class is defaulted from the construction work activity type.

Construction work activities also reference construction locations which may have one or more compatible units that define the work and resources needed to be done at the location.

About Construction Locations

Construction locations define either a work location or an asset location (not both). Work locations identify where compatible units are used to build new assets. Typically a work location will become an asset location once the asset is constructed. When work is done on an existing asset, the identified construction location should be identified as an asset location.

If construction work occurs at a construction location that is known to cost more in labor, **Overtime Type** can be specified to apply to all crafts on the construction location. For example, construction work on a major commute bridge can only occur at night (versus regular hours) to minimize traffic disruptions.

Construction Locations are added and accessed from the **Construction Location Details** zone on the **Construction Work Activity** portal **Resource** tab.

About Construction Work Activity Reconciliation

An activity reconciliation is created when a construction work activity is closed. It is created to summarize costs and identify assets that were by created or contributed to the project. It immediately gets routed for approval and placed in **Pending Approval** status. Typically, the first person on the approval route will review and update the activity reconciliation. The approver can make updates to the reconciliation record, as needed, such as updating cost distribution or adding construction or contributed assets. Once the record is finalized and approved, the reconciliation record moves to Closed, and financial transactions are created. Any constructed assets or customer contributed assets are recorded for export to integrated fixed asset systems, as applicable.

Construction Work Management Processing Examples

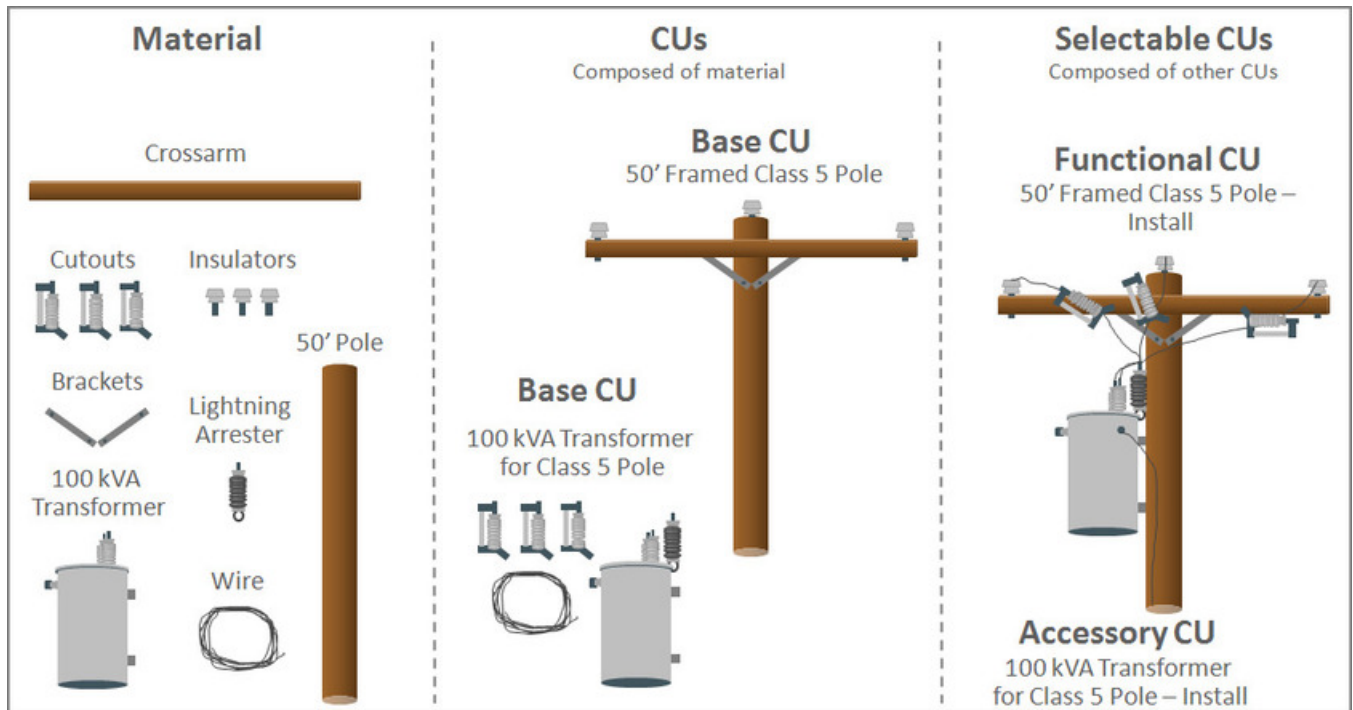
The following section provides examples of construction work management implementation.

One of the most accessible examples of construction work management in action is in the application of installing utility poles and related components. In general, a compatible unit is a grouping of information related to a job to be performed. This information is used to quickly estimate and financially account for a construction or maintenance effort. For example, if a utility pole needs to be renewed in a neighborhood, one utility pole renewal on the job plan would be created, and the following information would automatically be included in the plan:

- All materials required for the work.
- All equipment resources required to perform the work, for example, a bucket truck and a backhoe.
- Labor estimates in the form of the number of people and the man-hours required to perform the work.
- Any special materials needed when multiple Compatible Units are installed as part of one job plan.
- Planning or estimating a Compatible Unit should also offer the planner the opportunity to outsource the work by providing a list of valid contractors who could also perform the work.

Materials to Base CUs

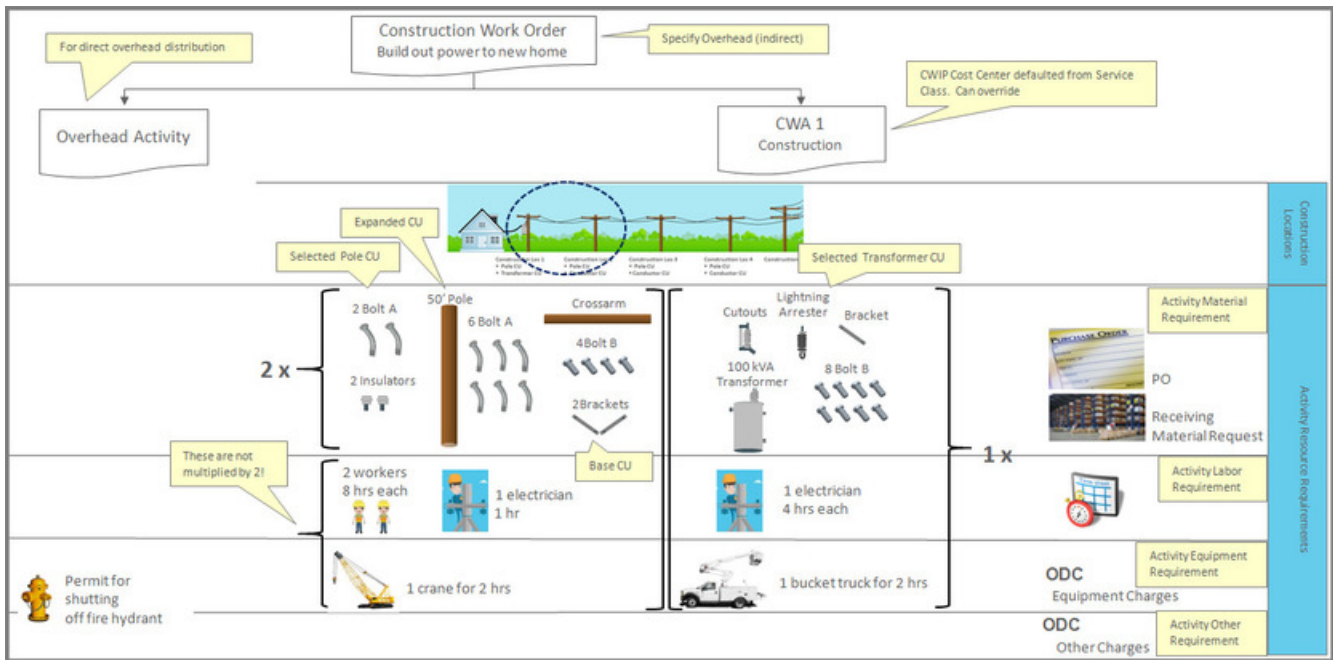
Below is one example of how materials can be turned into a set of Base CUs. It also shows how Base CUs are used functionally (which will include labor and equipment for the install):



Sample Workflow

The following diagram depicts a sample workflow:

- 2 Activities — one for overhead (getting a permit), and one for the construction work.
- The Work Order has the material equipment and labor added:
 - Material: bolts, insulators, pole, cross arm, brackets
 - Labor: 2 workers, 1 electrician
 - Equipment: 1 crane, 1 bucket truck
- There will be a PO for the materials then materials request and checkout.
- There will be ODC charges for the permit, the equipment and the other charges.



Refer to the Demo environment for more additional sample configuration.

Maintaining Construction Work Management

The following sections provide information on tasks associated to working with construction work management related objects.

Refer to the [About Construction Work Management](#) section for a conceptual overview.

Creating a Compatible Unit Set

Navigate to the **CU Set** portal under **Construction Work Management**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the compatible unit set record:

Note: This list does not necessarily represent required fields.

- CU Category
- Equipment Group

Once the CU Set is defined, compatible units can be added to it.

Creating a Compatible Unit

Navigate to the **Compatible Unit** portal under **Construction Work Management**, select **Add**, complete the required fields according to your business practices and **Save**.

You can also add **Compatible Units** via the **Add** link on the related **CU Set**.

Prerequisites: The following are referenced by the compatible unit set record:

Note: This list does not necessarily represent required fields.

- CU Set
- Property Unit (for constructed asset)
- Asset Type (for constructed asset)

After creating compatible units, you add materials, labor and equipment requirements as well as contractor bids.

Creating a Work Design

Navigate to the **Work Design** portal under **Construction Work Management**, select **Add**, complete the required fields according to your business practices and **Save**.

Prerequisites: The following are referenced by the compatible unit set record:

Note: This list does not necessarily represent required fields.

- Work Request
- Project
- Vendor Location (Contractor)
- Planner

Adding a CU Contractor Bid

Navigate to the **CU Contractor Bid** portal under **Construction Work Management**, select **Add**, complete the required fields according to your business practices and **Save**.

You can also add a **CU Contractor Bid** via the **Add** link on the related **Compatible Unit** .

Prerequisites: The following are referenced by the cu contractor bid record:

Note: This list does not necessarily represent required fields.

- Vendor Location
- Compatible Unit

Creating a Construction Work Order

Navigate to the **Construction Work Order** portal under **Construction Work Management**, select **Add**, complete the required fields according to your business practices and **Save**.

You can also add a **Construction Work Order** via the **Create Work** button on the related **Work Design**.

Prerequisites: The following are referenced by the compatible unit set record:

Note: This list does not necessarily represent required fields.

- Work Request
- Originating Work Order
- Planner
- Crew
- Project
- Overhead
- Cost Center

After creating the work order, you add activities, submit for approval, and activate it.

Creating a Construction Work Activity

Navigate to the **Construction Work Activity** portal under **Construction Work Management**, select **Add**, complete the required fields according to your business practices and **Save**.

You can also add a **Construction Work Activity** via the **Add Activity** link on the related **Construction Work Order**.

Prerequisites: The following are referenced by the compatible unit set record:

Note: This list does not necessarily represent required fields.

- Activity Type
- Work Order
- Planner
- Service Class
- Resource Types (for direct overhead and contractor service)
- Work Location
- Asset Location
- Approval Profile
- Crew
- Project
- Cost Center
- Dependent Activities

After creating the activity, you add construction location, associate compatible units (if not created from a work design), and resource requirements. After work is completed, the activity should be finished and closed.

Chapter 12

GIS Map Viewer

The following sections provide information about the portals and objects related to using the GIS Map Viewer in Oracle Utilities Work and Asset Management.

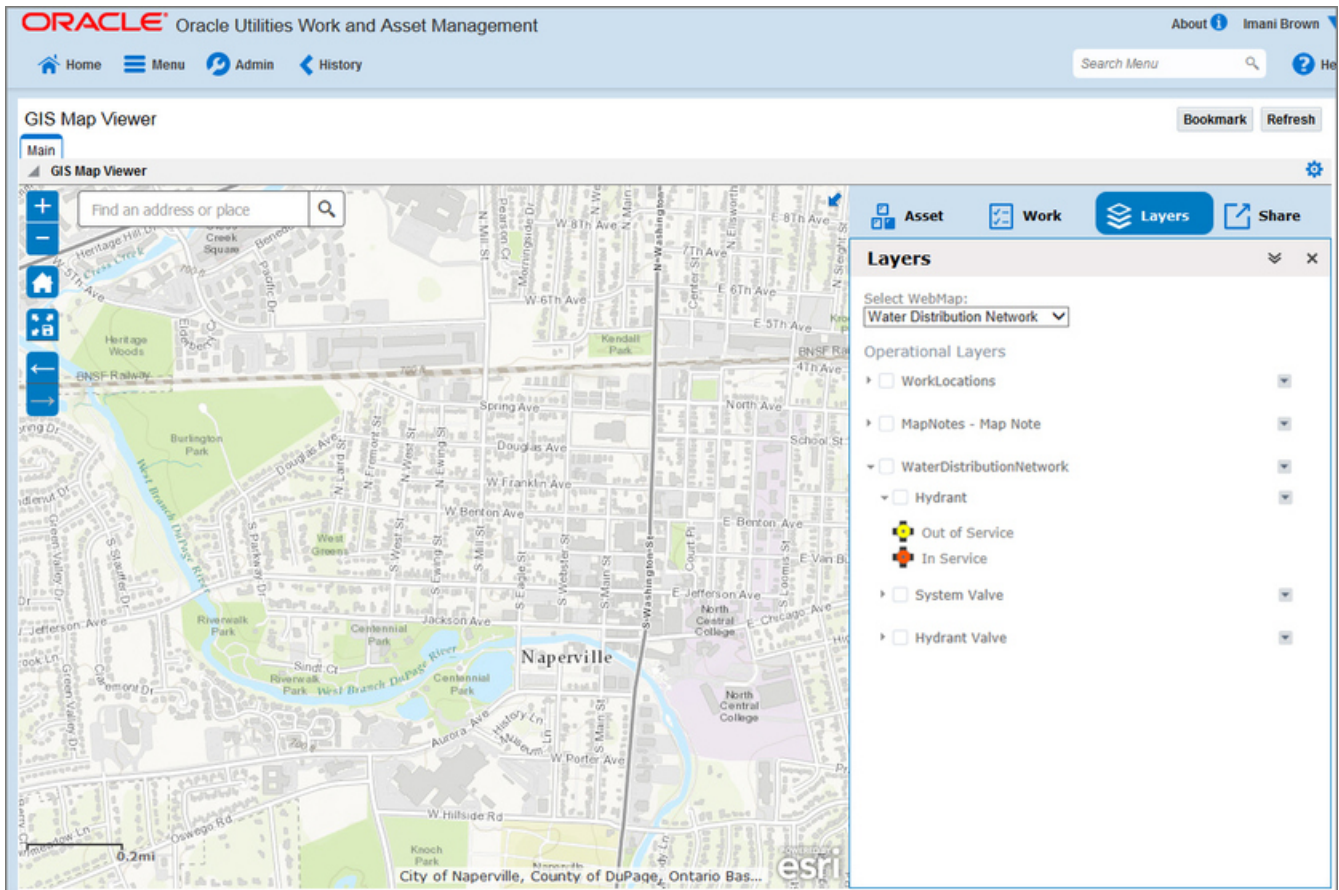
About GIS in Oracle Utilities Work and Asset Management

GIS applications are widely used to manage assets, locations and other spatial data. The Oracle Utilities Work and Asset Management GIS Integration interfaces with an Esri ArcGIS Portal/Server to allow users to view asset layers on a map, and to create and view work requests and work orders on the map. You can access maps from the Oracle Utilities Work and Asset Management GIS menu.

Refer to the [GIS Integration](#) section in the Administrative User Guides for configuration guidelines.

GIS Map Viewer

The GIS Map Viewer provides a method to view WAM assets and work information based on geospatial mapping. Maps generally consist of a base map plus feature layers which can overlay the base to show various map features such as work locations, infrastructure, and assets.



General Tools:

- The **Home** button returns the user to the original map position and extent.
- A pop out **Map Overview** is available in the upper right hand corner that provides a larger context of the current position.
- Additional tools include:
 - Zoom In
 - Zoom Out
 - Set map location as user default
 - Zoom to previous
 - Zoom to next
- Selection tools such as rectangle, freehand, polygon or by location.
- Click a highlighted object (such as an asset or work location) on the map to display a popup with more details.
- Select assets then click **Create Work** to open the WAM dialog.
- Drop a pin to select an exact point on the map. This can also then become a work location which you can **Attach to Asset** to indicate the linear asset that the work is associated to.

Dashboard Controls:

- **Global Search:** A **Global search box** is provided that will find any address or place by typing them into this search. The address search is especially useful in cases where users need to find a location in based on a customer’s description. For example, if a customer calls in about a trouble situation (e.g. a water leak, live electricity, etc.), the WAM user can

type in the address details provided by the customer to pinpoint the location of the issue. The work that is created can then be attached to the closest asset in the proximity of the issue.

- **Asset tab:** The **Asset** tab is used to select a specific list of assets and view the list in the dashboard panel. There are actions available for individual records (i.e. Quick View, Create Work Request, and Remove From List) as well as actions that can be performed on the full list of records (i.e. Create Work Order or Create Activity). Links are also provided to navigate to the transactional screen for an asset.
 - **Drop pin:** the drop pin button allows the user to click on a specific point anywhere on the webmap, and either create a work request at that location, or to link that point to the related linear asset and create a work order. These ‘pin drops’ are represented in WAM as Work Locations.
- **Work tab:** The **Work** tab is used to display details of work related items, focused on Work Requests and Activities. Filtering options are provided to view only the work that applies to the current need, based on status, date range, and other criteria.
 - For **Work Requests**, options are provided to perform a Quick View of the record or navigate to the transactional screen for the Work Request.
 - For **Activities**, options are provided to perform a Quick View of the record, view all assets on the map related to the Activity, view all assets on the map related to the Work Order for the Activity, or navigate to the transactional screen for the Work Request.
 - By default, the **Work Locations** layer is enabled when the **Work** tab is accessed, since work records can be associated with these locations.
- **Layers tab:** The **Layers** tab provides the ability to turn map layers on or off. A drop-down is provided to access the configured web maps.
- **Share tab:** The **Share** tab allows for two key redlining capabilities:
 - Tools are provided so a user can write and/or draw on the map to call attention to something, provide instructions on the map, or add any other notes that would be useful if displayed on the map.
 - The map can be exported to a shareable format such as email or export to PDF.

Highlighting Assets:

- **General Highlighting**
 - Your organization configures custom colors for **Highlighted Assets**, **Assets with No Work**, **Selected Assets**, and **Related Assets**. These are set in **Master Configuration**.
 - Hovering over a result in the **Asset** tab displays the result in the color configured for **Highlighted Asset**.
 - Assets that are associated with an activity record in the **Work** tab are highlighted in the **Related Assets** color. The related assets for an activity can be highlighted using the **Highlight** icon, which appears for each of the activity records in **Work** tab results.
- From the **Asset** tab:
 - Selecting results from the **Asset** tab displays map features that have a corresponding **Asset Location** in WAM. The selected assets are displayed in the color configured for **Selected Asset**. Features are not selected if the asset location is not found in WAM.
 - If you make a selection on the **Work** tab, then navigate to the **Assets** tab, the system retains the selection if the selected assets have work associated.

For example, If you are on the **Work** tab and use the **Work** selection wizard to select 20 map features (out of which work is created and matched with the filter criteria for only 8 features in WAM), the 8 features are highlighted in the **Selected Asset** color and there is no feature selection for the rest of the GIS assets. When you click the **Asset** tab, the 8 highlighted features are retained. If all 8 features are mapped assets in WAM, the **Selected Asset** color will be applied to the 8 features updating the asset information in **Asset** tab results. If you click back on the **Work** tab, all 8 features will remain highlighted in the **Selected Asset** color.

- From the **Work** tab:
 - Selecting results from the **Work** tab displays map features that have work created (the underlying map feature has a corresponding asset location in WAM and has a work record that matches the default filter criteria. For the rest of the features, no selection color is displayed.
 - If no assets are selected when you navigate to the **Work** tab, the system looks for linked work on all assets within the boundary extent.
 - If you make a selection on the **Asset** tab then navigate to the **Work** tab, the selection from the **Asset** tab is maintained. The assets that have related work created are displayed in the color configured for **Selected Asset**. Any other assets are displayed in the color configured for **Assets with No Work**.

For example, if you are on the Asset tab and use the selection wizard to select 20 map features, but only 12 are mapped in WAM, the 12 features will be highlighted in the **Selected Asset** color and the remaining 8 will be highlighted in the **Assets with No Work** color. If you then click on the Work tab, the 12 features will be retained. If you click back to the **Asset** tab, all 12 features will remain highlighted in the **Selected Asset** color.

- From the **Map**:
 - If you select assets, then navigate to the **Work** tab, the viewer only looks for linked work for the selected assets.
 - If no assets are selected when you navigate to the **Work** tab, the system looks for linked work on all assets within the boundary extent.

Refer to the [GIS Integration](#) section in the Administrative User Guides for configuration guidelines.

Chapter 13

Financial Transactions

The following sections provide information about the portals and objects related to financial transactions.

About Financial Transactions

Financial transactions are created in the system whenever an object generates a cost transaction. For example, the posting of a timesheet or other direct charges causes the creation of a financial transaction. Authorized users can access this accounting log at any time to review transactions.

You can search for financial transactions according to the corresponding work order, activity, creation date, status, and so on. They can be viewed in the **Financial Transaction** portal.

Financial transactions are automatically frozen immediately after they are created and the transactions that created them, sibling transactions, are finalized. For example, a material issue or a timesheet detail are considered the siblings to the financial transactions that they created. Once frozen, a financial transaction and its details are ready to be interfaced to the general issues. The system does not depend on batch processing to transition financial transactions between states. Instead, a batch GL interface program extracts frozen financial transactions and creates a flat file.

If there happen to be any accounting setup issues or other issues, a financial transaction will enter an error state until an authorized user adjusts the configuration or other source of the issue. Refer to the Administrative User Guide for more information. The error state allows any sibling transactions to continue and complete without being affected by the related transaction which is in error.

The system uses double entry accounting. For example, when time is booked against an activity, the system debits the cost centers on the activity and credits an offset account. In this case the offset account would be the payroll cost center defined on the crew member/employee's business unit.

This section describes how various processes work together to manage financial transactions and related objects throughout the system.

Refer to the [Financials Options](#) section in the Administrative User Guides for configuration guidelines.

Reviewing a Financial Transaction

Review financial transactions by navigating to the Financial Transactions portal and searching by specific criteria.

Prerequisites: Transactions have posted to the accounting calendar.

1. Navigate to the **Financial Transaction** portal in **Edit** mode.
2. Search for and select the appropriate transaction.

You can search by activity or work order ID, create dates, accounting date, status, or the financial transaction ID.

3. Click the link to the specific transaction to review more information such as the transaction log, related records such as work order or activity, and the general ledger details, as applicable.

Chapter 14

To Do Processing

There are numerous events that trigger the creation of email-like messages describing work that requires human attention. For example, if a bill segment has an error, a message is created to highlight such. We refer to each message as a **To Do Entry**. In this section, we describe how to view, manage and work To Do entries.

FASTPATH: We recommend familiarizing yourself with the topics described in [The Big Picture of To Do Lists](#) to fully appreciate how To Do entries are managed by the system.

The Big Picture of To Do Processing

The topics in this section provide background information on To Do processing functionality.

To Do Role

Each To Do entry is assigned a specific To Do Role. The role defines the users who may work on the entry. The permissible roles that may be assigned to a To Do entry are defined on the entry's To Do type. Refer to [To Do Entries Reference A Role](#) to learn more about initial role assignment.

After an entry is created, its role may be changed to any role defined as valid for the entry's To Do type. Manual changes of a To Do entry's role are recorded on the [To Do entry log](#).

To Do Priority

A To Do entry is associated with a priority level representing its processing order compared to other entries. Refer to [The Priority Of A To Do Entry](#) for more information on how an entry's priority is initially assigned.

A user may manually override a To Do entry's priority at any time. Once overridden, automatic recalculation of the priority is no longer performed so as not to override the value explicitly set by the user. Manual overrides of a To Do entry's priority are recorded on the [To Do entry log](#).

Work Distribution

To Do entries may be manually assigned to users either by their supervisors or picked up by the users themselves. The system can also be configured to dynamically assign the highest priority work to users on demand whenever they are available for fixing errors.

NOTE: Assignment on demand is in a plug-in. You can customize the [next assignment](#) plug-in on the installation options to follow your organization's work distribution rules. For example, when a user asks for the next assignment, business rules may be used to only consider To Do entries the user has the proper [skills](#) to resolve, prioritizing them based age, impacted dollar amount, etc.

One of the main benefits of the assignment on demand approach is that work is allocated real-time based on most current information such as skills, priority, user availability, etc. This also means that work remains unassigned until a user is actually going to work on it making it available to any qualified user.

Manual assignments of To Do entries are possible as follows:

- Supervisors may use the [supervisor function](#) pages to review and assign To Dos to users.
- A user may use the [To Do list](#) pages to review and assign To Dos to themselves or forward any of their To Dos to someone else.
- All of the above assignment functions may also be performed using the [To Do Search](#) page.


Assignment "on demand" is possible from the [Current To Do](#) zone on the Dashboard portal. Refer to this zone to learn about all the functions it provides.

A User's Current To Do

Users have the option of drilling down on an entry from various list queries in the system. Refer to [Working On A To Do Entry](#) for more information on drilling into an entry.

Drilling down on an entry from the following To Do list queries (using the entry's message description only) also sets the entry as the user's **Current** To Do entry:

- [To Do List](#)
- [To Do Search](#)

Additionally, users may have the option to click on the Current To Do icon,  , on the Current To Do dashboard zone to request their next task. The returned To Do entry automatically becomes the user's **Current** To Do.

Regardless of how a To Do entry became current its information is displayed on the Current To Do zone.

FASTPATH: Refer to [Current To Do](#) zone to learn about all the functions it provides to efficiently resolve the current To Do and other entries that may potentially be [related](#) to it.

If a To Do entry becomes current as a result of drilling down from a list query, the system supports the ability to drill down to the **Next** and **Previous** entries respective to the **Current** To Do entry in that list.

NOTE: The **Previous To Do** button and **Next To Do** button in the Current To Do zone allow you to scroll through additional To Do items in your current work list without returning to the list query transaction. These buttons set the respective To Do entry to now being current and take you to its related transaction or to a script associated with the To Do Entry's message (not to the To Do entry itself). This is yet another way of drilling down on an entry.

If a To Do entry becomes current using the Current To Do zone's next assignment functionality, that entry is not associated with any work list to scroll through. The Next and Previous To Do buttons are therefore disabled in this case.

NOTE: Current Work List. Current work list refers to the list from which the current To Do entry was selected. Each new election of a current To Do overrides the previous work list with the new list the entry was selected from. If not selected from a list then the current work list is considered empty.

Related To Do Entries

A user working on a To Do may want to know of other To Dos that may be related to the same problem. If can be worked by the same user they may get resolved faster. It seems almost impossible to programmatically determine whether two To Dos really stem from the same problem. The user should therefore be presented with a list of potentially related To Dos from which he/she can select the truly relevant ones.

A To Do entry is considered potentially related to a given To Do if they reference a common entity. For example, if a given To Do references a certain account then any To Do referencing that same account is considered related to it.

NOTE: The system considers any To Do characteristic of **Foreign Key** type to represent a reference to an "entity". In other words, if a To Do has at least one common **Foreign Key** characteristic type / value with a given to do it is considered related to it.

The To Do Search page supports a **Related To Do filter** that lists all related To Dos for a given entry. Various pages showing To Do information often provide an indication as to how many non-complete entries may be related to a given To Do entry. Clicking on the indication's hyperlink transfers the user to the To Do Search query pre-populating it to list the related entries for the specific To Do entry.

FASTPATH: Refer to the [To Do Search](#) page for more information on all the functions it supports.

Complete A To Do

After you finish working on an entry, you can mark it as **Complete**. At this point, you may want to review potentially [related](#) To Do entries and complete those that have been addressed by resolving the problem associated with the current entry.

If you cannot resolve the problem, you can forward the To Do to another user, thus assigning the To Do to another user.

FASTPATH: Refer to [How To Complete To Dos](#) for more information.

NOTE: It is possible for the system to automatically mark an entry as **Complete**. Refer to [The Lifecycle Of A To Do Entry](#) for more information.

Managing To Do Entries

This section describes the various pages available to view and work on To Do entries.

To Do Supervisor Functions

This section describes To Do transactions that aid supervisors in the monitoring and assignment of To Do entries.

Supervisor To Do Summary

This Supervisor To Do Summary page summarizes To Do entries by To Do Type. Only entries that are **Open** (i.e., not assigned to a specific user) or **Being Worked On** are summarized.

NOTE: Only To Do entries that are assigned to a role to which you belong are summarized on this page. Refer to [To Do Entries Reference A Role](#) for more information.

Use **Menu > To Do > Supervisor To Do Summary** to open this page.

Description of Page

This page summarizes all To Do entries that are **Open** or **Being Worked On**.

- **To Do Type** contains the description of the To Do type.
- **Priority** provides a total count of To Do entries of a given type by priority. For each distinct priority the description includes the priority value followed by the corresponding number of entries. If all entries are of the same priority no additional count is displayed.
- **Total** contains the total of **Open** and **Being Worked On** entries. The hyperlink navigates to the [Supervisor To Do Assignment](#) transaction, setting it to display all **Open** and **Being Worked On** entries for the given To Do Type.
- **Open** contains the number of To Do Entries whose status is **Open**. The hyperlink navigates to the [Supervisor To Do Assignment](#) transaction, setting it to display all **Open** entries for the given To Do Type.
- **Being Worked On** contains the number of To Do entries whose status is **Being Worked On**. The hyperlink navigates to the [Supervisor To Do Assignment](#) transaction, setting it to display all **Being Worked On** entries for the given To Do Type.

The "age bars" that appear to the right of the totals highlight the age of the To Do entries. The colors red, yellow and green are used to highlight the relative number of old, middle-aged and new To Do entries. The age associated with each of these colors is [user-configurable](#).

Supervisor User Summary

The Supervisor User Summary page summarizes To Do entries by the user who is assigned to work on the entries. Only entries that are **Being Worked On** are summarized.

NOTE: Only To Do entries that are assigned to a role to which you belong are summarized on this page. Refer to [To Do Entries Reference A Role](#) for more information.

Use **Menu > To Do > Supervisor User Summary** to open this page.

Description of Page

This page contains a grid that displays all assigned To Do entries by User ID and To Do type. It indicates how many To Do entries of the displayed Type are assigned to the user (Assigned this Type) and how many To Do entries in total are assigned to the user (Assigned Total).

Clicking the hyperlinks transfer you to the [Supervisor To Do Assignment](#) transaction. On this transaction, you can assign / reassign To Do entries to a specific user. The difference is that clicking the To Do Type hyperlink causes only **Open** entries to be displayed on the Assignment transaction. Clicking the count in the Assigned this Type column causes **Being Worked On** entries assigned to the displayed user to be shown.

Supervisor To Do Assignment

This page lists To Do entries of a given type and allows a supervisor to assign / reassign them to a designated user. Use **Menu > To Do > Supervisor To Do Assignment** to open this page.

Description of Page

This page contains **Open** or **Being Worked On** To Do entries of a given type. These entries can be assigned to a specified user one-by-one or several at a time. The following points describe this functionality:

- You can select a different **To Do Type** by typing in a value or pressing the search button in the upper right corner. An **Info** description of the To Do type appears on the left.
- You can change the list of entries displayed according to their status. Select the **Filter by** status to be All (blank), **Open**, or **Being Worked On**.
- For **Being Worked On** entries, you may also **Filter by User** to limit the search to a specific user assigned to the To Do entries.
- If you want to re-sort the entries by a different value, click the search button adjacent to **Extra Information**. Each row's respective sort value is displayed in the **Extra Information** column.

NOTE: Extra Information. Each To Do list's default **Extra Information** is defined on the list's [To Do Type](#). Also note that each To Do list's available **Extra Information** differs.

- Click the **Select All** button to select all entries displayed in the grid. Click the **Clear All** to remove the selections in the grid.
- Use the checkbox if you want to assign specific entries.
- Entries are further sorted by their **Priority**. Highest in priority are listed first.
- **Create Date/Time** contains the date and time the To Do entry was created by the system. Click the Create Date/Time hyperlink to:
 - View more detailed information about the entry.
 - Add comments to the To Do entry.
 - Add a log entry of type **User Details** to record information about the To Do entry.
 - Forward the To Do entry to another user.
 - Send Back a To Do entry that was forwarded to you by another user.
- Click the number of **Related** entries hyperlink to navigate to the [To Do Search](#) query to list potentially related entries to the current entry.
- **Worked By** shows the user currently assigned to the To Do entry.
- **To Do Entry Status** is the current status of the To Do entry.
- **Message** contains a description of the To Do entry. Use the message description hyperlink to drill into the page on which the entry's respective object is displayed. If the To Do type has been configured to associate a script with this To Do entry's message number, then instead of being taken to the respective page, the associated script is launched. Refer to [Working On A To Do Entry](#) for more information.
- You can assign entries to a user:
 - Enter a user ID or search for a user using the **Assign To User** field. You can only select a user that is associated with a role that is associated with this **To Do Type**. Note that the current number of assignments is displayed adjacent.
 - Select one or more entries to assign to this user and click the **Assign** button. The entries' status becomes **Being Worked On**.

To Do List Functions

This section describes To Do pages that aid users in the assignment and working of entries in To Do lists.

To Do Summary

This page summarizes To Do entries that meet the following qualifications:

- The entry is **Open** and you belong to the entry's To Do role. Refer to [To Do Entries Reference A Role](#) for more information about roles.
- The entry is **Being Worked On** and you are the user to which it is assigned.

Use **Menu > To Do > To Do Summary** to open this page.

Keyboard Shortcut	Alternate Shortcut
Alt+X	Alt+Shift+X

NOTE: Refer to [Shortcut Key Summary](#) for information about the alternate shortcut.

FASTPATH: Refer to [The Big Picture of To Do Lists](#) for an overview of To Do functionality.

Description of Page

This page is dedicated to a grid that summarizes the To Do entries on which you can work. The following information is displayed:

- **To Do Type** contains the description of the To Do type.
- **Priority** provides a total count of To Do entries of a given type by priority. For each distinct priority the description includes the priority value followed by the corresponding number of entries. If all entries are of the same priority no additional count is displayed.
- **Total** contains the total of **Open** and **Assigned to You** entries. The hyperlink navigates to the [To Do List](#) transaction, setting it to display all **Open** and **Being Worked On** entries assigned to you for the given To Do Type.
- **Open** contains the number of To Do Entries whose status is **Open**. The hyperlink navigates to the [To Do List](#) transaction, setting it to display all **Open** entries for the given To Do Type.
- **Assigned to You** contains the number of To Do entries that are assigned to you whose status is **Being Worked On**. The hyperlink navigates to the [Supervisor To Do Assignment](#) transaction, setting it to display all **Being Worked On** entries for the given To Do Type.

The "age bars" that appear to the right of the totals highlight the age of the To Do entries. The colors red, yellow and green are used to highlight the relative number of old, middle-aged and new To Do entries. The age associated with each of these colors is [user-configurable](#).

To Do List

This page lists To Do entries of a given type that are either **Open** (e.g., not assigned to a specific user) or are assigned to you.

NOTE: Restricted by role. Only those entries assigned to a role to which you belong may be seen on this page. Refer to [To Do Entries Reference A Role](#) for more information.

FASTPATH: We recommend familiarizing yourself with the topics described in [The Big Picture of To Do Lists](#) to fully appreciate how To Do entries are managed by the system.

Use **Menu > To Do > To Do List** to open this page.

Description of Page

This page contains a grid that summarizes the To Do entries of a given type on which you can work.

The **Info** section contains a concatenation of the **To Do Type's** description and the user's name.



The area beneath **Info** provides you with options that control which To Do entries appear and the order in which they are displayed. The following points describe the various options:

- Use **Sort By** to define how you want the To Do entries sorted. The following options are available:
 - **Assigned Date - On or After.** This option sorts the To Do entries in chronological order (based on the date the entry was assigned to you) starting from the input **Date**. If you choose this option, the system assumes you want to start from the earliest To Do entry. If you want to start from a date other than the earliest To Do entry, enter the desired **Date** and click the adjacent search button.
 - **Assigned Date - On or Before.** This option sorts the To Do entries in reverse chronological order (based on the date the entry was assigned to you) starting from the input **Date**. If you choose this option, the system assumes you want to start from the today's date. If you want to start from a date other than today's date, enter the desired **Date** and click the adjacent search button.
 - **Create Date - On or After.** This option sorts the To Do entries in chronological order (based on the date the entry was created) starting from the input **Date**. If you choose this option, the system assumes you want to start from the earliest To Do entry. If you want to start from a date other than the earliest To Do entry, enter the desired **Date** and click the adjacent search button.
 - **Create Date - On or Before.** This option sorts the To Do entries in reverse chronological order (based on the date the entry was created) starting from the input **Date**. If you choose this option, the system assumes you want to start from the today's date. If you want to start from a date other than today's date, enter the desired **Date** and click the adjacent search button.
 - **Extra Information.** This option sorts the To Do entries by the value of the **Extra Info**.
- Use **Extra Info** to choose data related to the To Do Entry that should be used to sort the To Do entries. This information is displayed in each entry's **Extra Information** column.

NOTE: Extra Info. Each To Do list's available **Extra Info** is defined on the list's [To Do Type Sort Keys](#). Also note that each To Do list's available **Extra Info** differs based on the configuration of the To Do Type.

- Use **Filter by** to restrict the To Do entries based on their status. The following options are available:
 - **All.** This option shows all entries that are **Open** or **Being Worked On**.
 - **Being Worked On.** This option shows all entries that are **Being Worked On** (and assigned to you).
 - **Open.** This option shows all entries that are **Open**.

The grid that follows contains the To Do entries that match your criteria. The following information appears:

- Click the **Select All** button to select all entries displayed in the grid. Click the **Clear All** button to remove the selections in the grid.
- Use the checkbox if you want to mark specific entries as **Completed** or **Being Worked On** using the **Complete** or **Assign** buttons at the bottom.
- A Comments icon  appears if there are comments on the To Do item and a Log Entry icon  appears if there is a log entry of type **Forwarded**, **Sent Back** or **User Details** on the To Do item. This column appears if at least one To Do has either comments or a special log entry.

- Entries are further sorted by their **Priority**. Highest in priority are listed first.
- **Create Date/Time** contains the date and time the To Do entry was created by the system.
- Click the Create Date/Time hyperlink or either of the special icons to navigate to the [To Do entry](#) page.
- Click the number of **Related** entries hyperlink to navigate to the [To Do Search](#) query to list potentially related entries to the current entry.
- **Assigned Date/Time** contains the date and time the To Do entry was assigned to a user. This field is only populated on entries that are **Being Worked On**. If a user assigned the To Do entry, the user ID and name of the user who assigned the To Do entry are displayed beneath the Date/Time.
- **Message** contains a description of the To Do entry. Use the message description hyperlink to drill into the page on which the entry's respective object is displayed. If the To Do type has been configured to associate a script with this To Do entry's message number, then instead of being taken to the respective page, the associated script is launched. Refer to [Working On A To Do Entry](#) for more information.

NOTE: Current To Do. Drilling into an entry from this page sets it to be the user's current To Do. Refer to [A User's Current To Do](#) for more information on how to efficiently scroll through additional entries in your current work list.

CAUTION: Automatic Assignment! When you drill into an entry using the message description hyperlink from this page, the system changes the status of the entry to **Being Worked On** and assigns it to you.

- **To Do Entry Status** is the current status of the To Do entry.
- **Extra Information** contains the data for the entry that corresponds to the Extra Info chosen in the sort options above.
- **To Do ID** contains the unique identifier of the To Do entry.
- If you want to mark one or more entries as **Being Worked On**, check the desired entries and then click the **Assign** button.
- If you want to mark one or more entries as **Completed**, check the desired entries and then click the **Complete** button. Completed entries do not appear on the To Do list (but they are retained on the database for audit purposes).

To Do Entry

The topics in this section describe the pages on which a To Do entry and its associated To Do log are maintained.

To Do Entry - Add Dialog

The To Do Entry transaction features a dialog that can add new To Dos (if the system is configured with [manual To Do types](#)). This dialog appears if you open the **Menu > To Do > To Do Entry > Add** (it also appears if you click the clear button when on the To Do Entry page).

Description of Page

The **To Do Type** is the type of To Do entry that you want to create. Only To Do types that are set up for manual usage appear in the list.

The default **To Do Type Priority** is displayed adjacent. Use **Override Priority** to override the default [priority](#) assigned by the system.

Type a **Subject** for your To Do entry. Depending on how the To Do type is set up, the subject may appear as the message in the To Do entry and To Do lists.

Enter a **Comment** to provide a longer description of and more details about the To Do entry.

Send To indicates whether the new To Do will be assigned to a **Role** (the default) or **User**.

The **Role** indicates the role to which this To Do entry will be assigned. Only users of the specified role will be able to view and work on the To Do entry. The role is defaulted from the To Do type. If you want to assign the To Do to a different role, change the specified role. You can only assign the To Do entry to one of the roles specified on the To Do type.

User appears if **Send To** is set to **User**. Use this option if you want to assign the To Do to a specific user. The user must be a member of the selected role.

If the **To Do type** defines valid characteristic types, the **Characteristics** collection is visible. If any of the characteristic types are flagged as Default on the To Do type, the characteristic type with its default value (if applicable) are displayed. If applicable use the characteristics to define other information related to this new To Do entry. In Oracle Utilities Customer Care and Billing, for example, you can link the account and premise that you are attempting to start service for.

Click **OK** to add the To Do Entry.

To Do Entry - Main

You use this page to perform various actions or modify details about a To Do entry. Use **Menu > To Do > To Do Entry > Search** to open this page.

NOTE: Restricted by role. You may only change To Do entries that are assigned to you or ones that are **Open** and assigned to a role to which you belong. Refer to [To Do Entries Reference A Role](#) for more information about roles.

Description of Page

To Do contains a concatenation of important information about the To Do entry. **To Do ID** is the system-assigned unique identifier of the entry. These values only appear after the case is added to the database.

NOTE: Formatting may be performed by a plug-in. Refer to [To Do Info May Be Formatted By An Algorithm](#) for more information.

To Do Type displays the entry's To Do Type and its description. Refer to [To Do Entries Reference A To Do Type](#) for more information about To Do types.

Role displays the role of the users who may be assigned to the entry along with a description of the role. Refer to [To Do Entries Reference A Role](#) for more information about roles.

Message is a display-only field that describes why the entry exists. If the To Do entry is in the status of **Open** or **Being Worked On**, the message description allows you to drill into the page on which the entry's respective object is displayed. If the To Do type has been configured to associate a script with this To Do entry's message number, then instead of being taken to the respective page, the associated script is launched. Refer to [Working On A To Do Entry](#) for more information.

Status indicates if the entry is **Open**, **Being Worked On**, or **Complete**. Refer to [The Lifecycle Of A To Do Entry](#) for more information status.

Use **Priority** to manually override the To Do entry's current **priority**. Any manual change to the priority is recorded on the [To Do entry log](#).

Assigned To displays the user who is working the entry.

Sent By displays the user who assigned this To Do to the current user.

Created By only appears if a background process that uses To Do entries to report object-specific errors created the To Do entry. The field displays the background process description and batch run number in which the entry was created. Refer to [To Dos Created for Object-Specific Error Conditions](#) for more information.

Extract Info only appears if the To Do is being sent out of the system. Extract Info describes the status of the extract (for example whether it has been processed or not). Refer to [To Do Entries May Be Routed Out Of The System](#) for more information.

Use **Comments** to describe anything interesting or unusual about the To Do entry. The **Comments** field is disabled if the To Do entry is complete.

If the To Do entry has non-complete [related entries](#) a summary description appears below the comments line. The description states the total number of related entries, how many are still **Open**, how many are assigned to you and how many assigned to others. Use this hyperlink to navigate to the [To Do Search](#) query to list these entries.

The **Actions** buttons allow you to **Complete** the To Do, **Forward** the To Do to another user or Role, or **Send Back** a To Do that has been forwarded to you by another user. All buttons are disabled once a To Do is complete. Refer to [To Do Entry Actions](#) and the [How To](#) section for more information on using these actions.

The **Characteristics** collection is visible for **manual** To Do entries or for **automatic** To Do entries that have characteristics. **Characteristic Type** indicates the type of characteristic. Specify a valid **Characteristic Value** for the characteristic type.

NOTE: Only characteristic types defined as permissible on a To Do entry may be linked to a To Do. Refer to [Setting Up Characteristic Types & Their Values](#) for more information about characteristic types. In addition, for **manual** To Do types, the characteristic type must also be defined as valid for the To Do entry's [To Do type](#).

The **Log** grid displays log entries (in reverse chronological order) that audit the progress of a To Do entry. You cannot modify or delete log entries that have been created by the system. You can manually add a log entry of type **User Details** and you may remove a log entry before it is saved. Once a **User Details** log entry is saved, you cannot modify or delete it.

The Log grid displays the following information:

Log Date/Time displays the date and time when the log entry was created.

Log Type indicates the To Do entry event for which the log entry was created. For example, when the To Do entry is created, the Log Type indicates **Created**. For more information refer to the [Log Entry Events](#) table below.

The **Details** column contains user-specified or system-generated information about the log entry. This field is blank for some types of log entries.

Log User displays the user who caused the log entry to be created.

Assigned To displays the user to whom the To Do entry was assigned (if any).

To Do Entry - Keys/Values

The Keys / Values page contains detailed information about the sort keys and drill keys associated with a To Do entry. This information may not be modified. It is shown to assist support personnel.

Use **Menu > To Do > To Do Entry > Search** to search for the desired To Do entry, then navigate to the **Keys/Values** page.

Description of Page

The **Sort Keys** grid contains an entry's sort keys and values. This information is display-only.

FASTPATH: Refer to [To Do Type - Sort Keys](#) for more information.

The **Drill Keys** grid contains an entry's drill keys and values. This information is display-only.

FASTPATH: Refer to [To Do Type - Drill Keys](#) for more information.

To Do Entry Actions

You can perform the following actions on a To Do Entry.

Complete

Clicking **Complete** causes the To Do entry's status to be **Completed**. When you complete a To Do, a [log entry](#) is created that indicates when the To Do was completed and by whom. This button is enabled for To Do entries with a status of **Open** or **Being Worked On**.

FASTPATH: Refer to [The Lifecycle Of A To Do Entry](#) for more information.

Forward

Clicking **Forward** causes the Forward To Do Entry dialog to appear, allowing you to forward the To Do to another user or role. This button is enabled for **Open** To Do entries assigned to a role to which you belong or **Being Worked On** To Do entries assigned to you.

Send To indicates whether the To Do will be forwarded to a **Role** or **User** (the default).

User appears if **Send To** is set to **User**. The **User** indicates the user to which this To Do entry will be forwarded. The user must be a member of one of the roles specified for the To Do type.

Role is enabled if **Send To** is set to **Role** or if set to **User** and a User is specified. It indicates the role to which this To Do entry will be forwarded. Only users of the specified role will be able to view and work on the To Do entry. The role is defaulted from the To Do type. You can only forward the To Do entry to one of the roles specified on the To Do type. If forwarding to a user the role must also be valid for the specified user.

The **Details** field provides an explanation of why a user is forwarding the To Do. This information appears in the To Do log.

Click **OK** to forward the To Do entry.

Send Back

Clicking **Send Back** causes the Send Back To Do Entry dialog to appear, allowing you to send back the To Do to the user who forwarded it to you. This button is enabled if the To Do entry's status is **Being Worked On** and it was forwarded to you by another user.

User is a display only field that indicates the user who assigned you the To Do.

Role may be used to also change the entry's To Do Role. The role must be a permissible role specified on the To Do type that is also valid for the user this entry is sent back to. By default, if the sent to user is not a member of the entry's current role, the system automatically defaults the role to the first permissible role that is also valid for the user.

The **Details** field provides an explanation of a why the user is sending back the To Do or any other desired information. This information appears in the To Do log.

Click **OK** to send the To Do back to the assigning user.

Log Entry Events

The following table contains the events that cause a log entry to be created by the system.

Event	Log Type	To Do Entry Status	Content of Details	Content of Assigned To (on To Do entry and To Do Log)	Log User ID	Contents of Sent By (on To Do entry)
A To Do is created (by the system or by a user)	Created	Open			ID of user who created the To Do	
A To Do is created (by the system or by a user) in Being Worked On status	Created	Being Worked On		User ID of user who was assigned this To Do	ID of user who created the To Do	Creating user's ID
A To Do is completed (by the system or by a user)	Completed	Complete			ID of user who completed the To Do	
A user takes an open To Do	Assigned	Being Worked On	Selected by user	Assigned To User ID	Assigned To User ID	ID of user who assigned the To Do
A supervisor assigns a To Do to a user (also happens if they reassign)	Assigned	Being Worked On	Assigned to user	Assigned To User ID	ID of user who assigned the To Do	ID of user who assigned the To Do
A user forwards an entry to a user	Forwarded	Being Worked On	<i>Log details entered by user</i>	Forwarded To User ID	ID of user who forwarded the To Do	ID of user who forwarded the To Do
A user forwards an entry to a role	Forwarded	Open	Forwarded to role <i>Role Description (Role ID) + Log details entered by user</i>		ID of user who forwarded the To Do	ID of user who forwarded the To Do
A user sends back a To Do	Sent back	Being Worked On	<i>Log details entered by user</i>	Sent Back To User ID	ID of user who sent back the To Do	ID of user who sent back the To Do
A user adds a log entry	User Details	Status remains the same	<i>Log details entered by user</i>		ID of user who added the entry	
A user manually overrides priority	Override Priority	Status remains the same	Priority changed from < old value> to < new value>	Assigned To User ID	ID of user who made the change	

To Do Search

This page allows you to search for To Do entries using various search criteria, and perform various actions on selected ones.

NOTE: No restriction by role. This page returns all To Do entries that meet the search criteria, regardless of the To Do entry's role. Using the search, a user may drill into the details of a To Do entry even if the To Do is not assigned to the user. Refer to [To Do Entries Reference A Role](#) for more information about roles.

FASTPATH: We recommend familiarizing yourself with the topics described in [The Big Picture of To Do Lists](#) to fully appreciate how To Do entries are managed by the system.

To Do Search - Main

Use **Menu > To Do > To Do Search** to open this page.

The top half of the page is where you enter the criteria used to search for To Do entries.

NOTE: Multiple search criteria may be specified. You can search for To Do entries using a combination of search criteria. For example, if you enter both a **To Do Type** of **TD-NOMR** and a **Status** of **Being Worked On**, only those To Do entries for To Do type **TD-NOMR** that are currently **Being Worked On** are displayed.

CAUTION: Try to be as specific as possible when entering search criteria. Why? Because entering open-ended search criteria may have a severe impact on response times.

The following table describes each of the different search filters.

Search Filter	Description
Related To Do	<p>If you're searching for potentially related entries for a given To Do entry, choose Specific To Do for the Related To Do Filter. Enter the To Do ID.</p> <p>A filter value of Not Applicable defaults.</p>
To Do Type	<p>If you're searching for a To Do entry and you know the value of a To Do Type linked to the To Do entry, choose Specific To Do Type for the To Do Type Filter. Enter the To Do Type.</p> <p>A filter value of All defaults.</p>
Char Type	<p>If you're searching for a To Do entry and you know the value of a characteristic linked to the To Do entry, choose Specific Char Type for the Char Type Filter. Enter the Characteristic Type and Characteristic Value.</p> <p>A filter value of Not Applicable defaults.</p> <p>Only characteristic types that include a characteristic entity of To Do Entry and that have been marked to allow searching by characteristic value are available.</p>
User	<p>Use this search method if you know the Created By User, Assigned To User or Completed By User for the To Do entry. Enter the appropriate User Id.</p> <p>A filter value of Not Applicable defaults.</p>
Date Range	<p>Use this field if you're searching for a To Do entry and know the Date Created or Date Completed.</p> <p>A filter value of Date Created defaults. The Start Date/Time defaults to the current date, 12:00AM and the End Date/Time defaults to the current date, 11:59PM.</p> <p>If you enter a Date Range Filter of All, the system ignores this search method.</p>
Status	<p>Use this search method to restrict the search to To Do entries with a specific status value. You may search for To Do entries in the status of Open, Being Worked On or Completed. You may also perform a combination search for To Do entries that have a status value of either Open or Being Worked On.</p> <p>A filter value of All defaults.</p>

NOTE: The system allows any combination of values. The system does not try to validate your search combinations, even if they do not make sense. For example, if you enter a **User Filter** value of **Completed By User** and a **Status Filter** value of **Open**, you will not get an error. In this case, the system will find no records that match your criteria (because To Do entries that are Open do not have a Completed By User).



The system shows the total number of To Do entries that satisfy your search results immediately below the grid.

The first group of To Do entries is displayed in the grid at the bottom of the page.

- Click the **Select All** button to select all entries displayed in the grid. Click the **Clear All** to remove the selections in the grid.

- Use the checkbox if you want to assign, reopen or complete specific entries. Only **Open** or **Being Worked On** entries may be selected.

FASTPATH: Refer to [To Do Search Actions](#) and the [How To](#) section for more information on using these actions.

- A Comment icon  appears if there are comments on the To Do item and a Log Entry icon  appears if there is a log entry of type **Forwarded**, **Sent Back** or **User Details** on the To Do item. This column appears if at least one To Do item has either comments or a special log entry. Use either icon to navigate to the To Do entry page.
- Entries are sorted by their **Priority**. Highest in priority are listed first.
- **Create Date/Time** contains the date and time the To Do entry was created by the system. Use the hyperlink to navigate to the To Do entry page.
- Click the number of **Related** entries hyperlink to redisplay this page listing potentially related entries to the current entry.
- **Last Assigned Date/Time** contains the date and time the To Do entry was most recently assigned to a user, if applicable, along with the Assigned To user.
- **Message** contains a description of the To Do entry. If the To Do entry is in the status of **Open** or **Being Worked On**, the message description allows you to drill into the page on which the entry's respective object is displayed. If the To Do type has been configured to associate a script with this To Do entry's message number, then instead of being taken to the respective page, the associated script is launched. Refer to [Working On A To Do Entry](#) for more information.

NOTE: Current To Do. Drilling into the page by clicking the Message hyperlink does not automatically assign **Open** To Do entries to the user (as the To Do List page does when clicking on the Message). But it does treat this as the user's current to do, enabling To Do related toolbar icons. Refer to [A User's Current To Do](#) for more information.

- **Status** contains the current status of the To Do entry.
- **Completion Date/Time** contains the date and time the To Do entry was completed and the user who completed the entry, if applicable.
- **To Do Type** contains a description of the To Do type for the To Do entry.

To Do Search Actions

You can perform the following actions on selected To Do Entries.

Assign Selected Entries

Use the **Assign** button to assign or reassign the selected entries to a user. Enter a user ID or search for a user using the **Assign To User** field. By default this field is populated with the current user's ID. Note that the user's current number of assignments is displayed adjacent.

Upon successful processing, the selected entries are assigned to the specified user and the status of **Open** entries becomes **Being Worked On**. Additionally, a corresponding [log entry](#) is added to each To Do.

NOTE: Only users with **Supervisor Assignment** access rights may reassign entries that are not currently assigned to them.

Reopen Selected Entries

Use the **Reopen** button to unassign the selected entries from their users forwarding them back to their role.

Upon successful processing, the selected entries become **Open** and a corresponding [log entry](#) is added to each To Do.

Complete Selected Entries

Use the **Complete** button to complete the selected entries.

Upon successful processing, the selected entries become **Completed** and a corresponding [log entry](#) is added to each To Do.

FASTPATH: Refer to [The Lifecycle Of A To Do Entry](#) for more information.

How To

The following sections describe how to perform common tasks for To Dos.

How To Assign a To Do to a User

There are several ways to assign a To Do entry to a user:

- A supervisor can use the [Supervisor Functions](#) pages to review, assign and reassign To Dos to users.
 - The [Supervisor To Do Summary](#) page summarizes by type the total, **Open** (unassigned) and **Being Worked On** (assigned) entries for roles to which you belong.
 - The **Total**, **Open** or **Being Worked On** column hyperlinks transfers you to the [Supervisor To Do Assignment](#) page where you can assign / reassign one or more of the corresponding entries to a specific user.
- Use the [To Do List Functions](#) pages to review and assign To Dos to yourself.
 - The [To Do Summary](#) page summarizes by type the total, **Open** (unassigned) and **Being Worked On** (assigned to you) entries for roles to which you belong.
 - The **Open** column hyperlink transfers you to the [To Do List](#) page where you can assign one or more of the **Open** entries to yourself.
- You may also use the [To Do Search](#) page to find certain To Do entries based on various criteria and assign selected entries to a user.
- Forwarding an entry to a user using the [To Do Entry](#) page is yet another way of assigning an entry to a user.
- The [Current To Do](#) zone next assignment functionality can be configured to dynamically assign an **Open** To Do to the requesting user based on your organization's work assignment rules. Refer to this zone for more information.

How To Work on To Do Entries


Depending on your organization's [work distribution](#) practice, there are several ways to work on To Do entries.

When work is manually assigned, a typical approach may be to review the entries in a list and work them one entry at a time.

- You can use the [To Do List](#) page to review and work on To Do entries by list type.
- You may also use the [To Do Search](#) page to find certain To Do entries based on various criteria and work on selected entries. For example, you may want to review and work on entries related to a given To Do.

Regardless of the above methods to define your work list, when ready to work on a specific entry, drill into its respective page using the message description hyperlink. Drilling into an entry from the above work lists makes it your current To Do entry. This entry's key information is displayed on the [Current To Do](#) dashboard zone and you may use special action bar buttons to scroll through your work list to the next and previous entries respective to your current To Do.

FASTPATH: Refer to [Working On A To Do Entry](#) for more information.

When work is assigned "on demand", click the Current To Do icon, , on the Current To Do dashboard zone to request your next task. The returned To Do entry automatically becomes your current To Do. The entry's key information is displayed on the zone but since the entry was not selected from a work list the next and previous action bar buttons are disabled.

FASTPATH: Refer to [Current To Do](#) zone to learn about all the functions it provides to efficiently resolve the current To Do and potentially other To Do entries that may be [related](#) to it.

Resolve the current To Do by fixing the problem indicated in the message and mark the entry as **Complete**.

FASTPATH: Refer to [How To Complete To Dos](#) for more information.

How To Add a New To Do

If your system is configured with [manual To Do types](#), you can add a To Do entry online. Online To Do entries may be used like electronic help tickets in the system. In Oracle Utilities Customer Care and Billing, for example, if you are having a problem starting service, you can create a To Do that describes the problem. The To Do can be assigned to a help resolution group that could either resolve the problem or send the To Do back to you with information describing how to resolve the problem.

FASTPATH: Refer to [To Do Entry - Add Dialog](#) for more information.

How To Complete To Dos

When you complete a To Do, a log entry is added that indicates when the To Do was completed and by whom.

There are multiple ways in which you can complete a To Do.

- The [To Do List](#) page allows you to complete one or more selected entries of a specific To Do Type.
- The [To Do Search](#) page allows you to search for To Do entries using various search criteria and complete selected ones.
- Use the [To Do Entry](#) page to complete a single To Do Entry.
- You may also use the [Current To Do](#) zone to complete the current entry you are working on and/or all [related](#) entries assigned to you.
- The system automatically completes some To Do entries. For To Do entries that are logically associated with the state of some object, the system automatically marks the entry **Complete** when the object is no longer in the respective state. In Oracle Utilities Customer Care and Billing for example, an entry that's created when an account doesn't have a bill cycle is completed when the account has a bill cycle.

NOTE: The automatic completion of To Do entries occurs when the To Do entry process responsible for creating entries of a given type is executed. Therefore, if these processes run only once per day, these entries remain **Being Worked On** even if the object is no longer in the respective state.

How To Forward a To Do

If you have been assigned a To Do that you are unable to resolve, you can forward it to another user or role for help or additional instructions. When a To Do is forwarded, a log entry indicates who forwarded the To Do, to whom it was forwarded, and the specified reason.

- Use the **Forward** button on the [To Do Entry](#) page to forward a To Do entry to a role or a user.
- You may also use the **Reopen** button on the [To Do Search](#) page to forward selected entries back to their current role.

How To Send Back a To Do

If you have been forwarded a To Do by another user, you may send back the To Do with instructions to the forwarding user. When a To Do is sent back, a log entry is created that indicates when the To Do was sent back and by whom.

Use the **Send Back** button on the [To Do Entry](#) page to send back a To Do entry.

How To Add a Log Entry to a To Do

You can use the **Comments** section of a [To Do entry](#) to add a comment to the To Do as long as the To Do is **Open** or **Being Worked On**. However, the Comments field is disabled if the To Do entry is complete.

Alternatively, you can add a **User Details** log entry to a To Do at any time (even after it's completed). Refer to [To Do Entry](#) page for more information.

Chapter 15

Reports

The following section describes the functionality provided for submitting reports on-line and for viewing reports submitted through a third party reporting tool.

FASTPATH: For information about this functionality, see [The Big Picture of Reports](#).

On-line Report Submission

The on-line report submission page enables you to request a specific report to be run. This is only available if your system is able to integrate with your third party reporting system on-line. The system comes configured to integrate with BI Publisher.

Report Submission - Main

This page allows you to submit a report on-line. Navigate to this page using **Menu > Tools > Report Submission..**

Description of Page

To submit a report, choose the **Report Code** for the process you wish to submit. Refer to [Defining Report Definitions](#) for information about defining reports in the system.

A description of the report is displayed.

The parameters defined for the report on the [report definition](#) page are displayed in the grid. To see a description of a parameter, use the search button adjacent to the parameter label.

NOTE: Default note. The default values displayed for the parameters are defined on the [report definition](#) page.

When you have entered the appropriate parameter values, click the **Submit** button to submit the report. Refer to [How To Request Reports](#) for more information.

NOTE: Reports submitted via the on-line report submission page are not logged in the report history repository and are therefore not visible from the [report history](#) page. Only reports submitted through your third party reporting tool's batch scheduler are logged in the report history, if supported by the tool.

Viewing Historic Reports

If your third party reporting tool stores historic copies of reports in a repository, you may configure the system to allow a user to view these historic reports on-line.

NOTE: This page currently does not display historical reports for BI Publisher.

Report History - Main

This page allows you to view a report stored in your third party reporting tool's report repository, if supported. Navigate to this page using **Menu > Tools > Report History**.

Description of Page

The top part of the page shows the **Report Code**, **Description** and **Long Description** for the selected report.

To select a report, search by either **Report Code** or **Description** and click the adjacent search button. The reports matching your search criteria are displayed. Choose the desired report from the selection list.

NOTE: Displaying Report History. When you choose a report, the system needs to interface with your reporting software to display a list of historical occurrences of this report.
