Oracle® E-Business Suite

User's Guide

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Oracle E-Business Suite User's Guide, Release 12.2

Part No. E22956-30

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Preface

Intended Audience

Welcome to Release 12.2 of the *Oracle E-Business Suite User's Guide.*

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

- The principles and customary practices of your business area.
- Computer desktop application usage and terminology.

If you have never used Oracle E-Business Suite, we suggest you attend one or more of the Oracle E-Business Suite training classes available through Oracle University.

See Related Information Sources on page x for more Oracle E-Business Suite product information.

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Structure

Related Information Sources

This book is included in the Oracle E-Business Suite Documentation Library. If this guide refers you to other Oracle E-Business Suite documentation, use only the latest Release 12.2 versions of those guides.

Online Documentation

All Oracle E-Business Suite documentation is available online (HTML or PDF).

- **Online Help** - Online help patches (HTML) are available on My Oracle Support.
- **Oracle E-Business Suite Documentation Library** - This library, which is included in the Oracle E-Business Suite software distribution, provides PDF documentation as of the time of each release.
- **Oracle E-Business Suite Documentation Web Library** - This library, available on the Oracle Help Center (https://docs.oracle.com/cd/E26401_01/index.htm), provides the latest updates to Oracle E-Business Suite Release 12.2 documentation. Most documents are available in PDF and HTML formats.
- **Release Notes** - For information about changes in this release, including new features, known issues, and other details, see the release notes for the relevant product, available on My Oracle Support.
- **Oracle Electronic Technical Reference Manual -** The Oracle Electronic Technical Reference Manual (eTRM) contains database diagrams and a detailed description of database tables, forms, reports, and programs for each Oracle E-Business Suite product. This information helps you convert data from your existing applications and integrate Oracle E-Business Suite data with non-Oracle applications, and write custom reports for Oracle E-Business Suite products. The Oracle eTRM is available as an application in Oracle E-Business Suite.

Related Guides

You should have the following related books on hand. Depending on the requirements of your particular installation, you may also need additional manuals or guides.

Oracle Alert User's Guide

This guide explains how to define periodic and event alerts to monitor the status of your Oracle E-Business Suite data.

Oracle Workflow User's Guide

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

Integration Repository

The Oracle Integration Repository is a compilation of information about the service endpoints exposed by the Oracle E-Business Suite of applications. It provides a complete catalog of Oracle E-Business Suite's business service interfaces. The tool lets users easily discover and deploy the appropriate business service interface for integration with any system, application, or business partner.

The Oracle Integration Repository is shipped as part of the Oracle E-Business Suite. As your instance is patched, the repository is automatically updated with content appropriate for the precise revisions of interfaces in your environment.

Do Not Use Database Tools to Modify Oracle E-Business Suite Data

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

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

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

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

1

Getting Started with Oracle E-Business Suite

Introduction

Oracle E-Business Suite is a complete set of business applications for managing and automating processes across your enterprise.

This chapter introduces features such as:

- Oracle E-Business Suite Home Page, page 1-1
- Settings, page 1-5

See also: My Oracle Support Knowledge Document 1155883.1, "Oracle E-Business Suite Desktop Client Hardware and Software Requirements".

Two Types of Interfaces

Oracle E-Business Suite applications are either HTML-based or Forms-based. HTML-based applications, sometimes referred to as "self-service applications", are optimized for ease of first-time use. Forms-based applications are optimized for processing a large volume of transactions. For example, to enter a batch of journals, the Oracle E-Business Suite provides a Forms-based application. To submit an expense report, the Oracle E-Business Suite provides an HTML-based application.

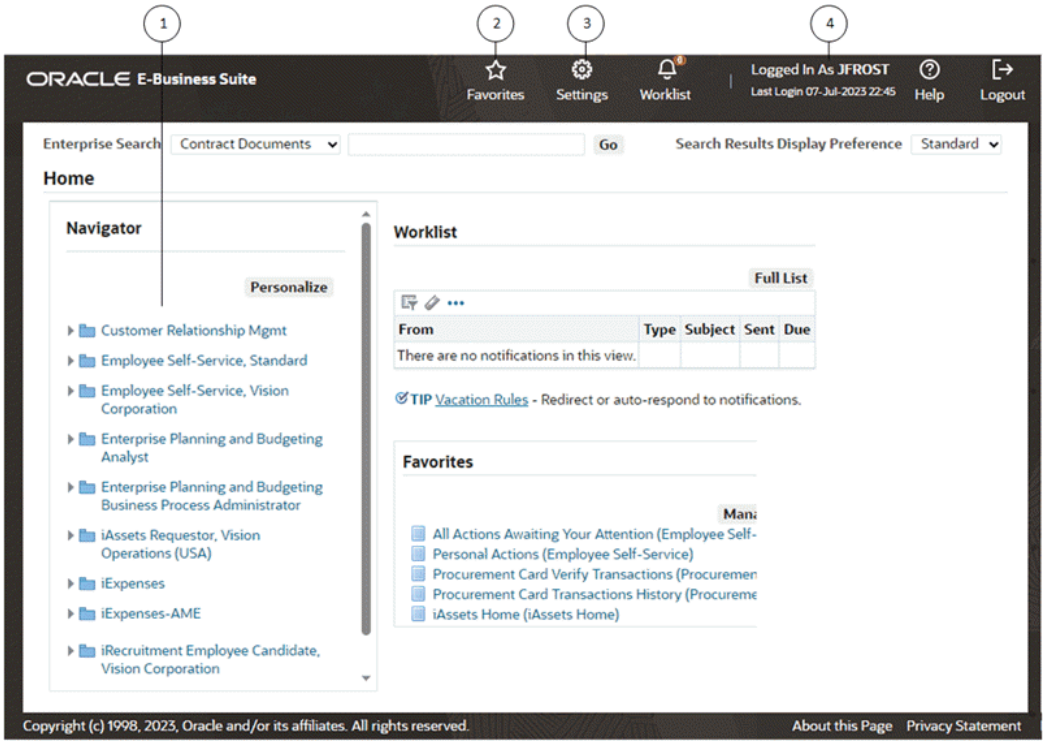
Getting Started

The **Oracle E-Business Suite Home** page is your entry point to Oracle E-Business Suite. To enable a preferred Home page style, set the preference **Home Page Style** to **Framework Only**, **Framework Tree**, or Framework Simplified.

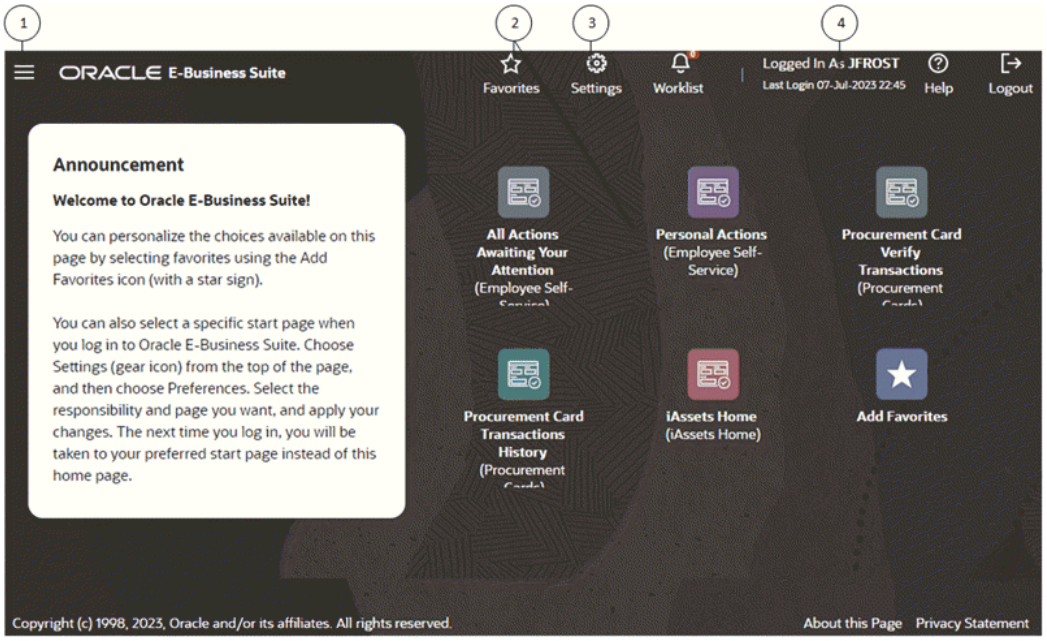
The home page includes the following features:

1. Navigator
2. Favorites
3. Settings
4. User name and last login information

Oracle E-Business Suite Configurable Home Page with Tree-Based Navigator and Global Header with Iconized Buttons



Oracle E-Business Suite Simple Home Page and Global Header with Iconized Buttons



This second Home page style has a Redwood Theme, the profile option "Navigator and Favorites" enabled, the preference **Home Page Style** set to **Framework Simplified**, and the preference **Page Header Display Style** set to **Icons Only**.

If available, the **Contact Admin** button can be used to generate an alert for an administrator in Oracle Applications Manager. See: User Initiated Alerts, *Oracle E-Business Suite Maintenance Guide*.

From the Home page you can:

1. Access Oracle E-Business Suite functions from the **Navigator**. In the Simple Home page, select the global **Navigator** button to display the Navigation menu with Search input.

2. Navigate to frequently-used functions or Web pages from **Favorites**.

3. Select the global **Settings** button to access Preferences and other global setting functions from a menu.

4. See the last date and time you successfully logged in to Oracle E-Business Suite as this user, presented in the time zone specified in the **Preferences** page. Use this information to determine whether your application account has been used without your knowledge.

> **Note:** If you have privileges to create administrative-level personalizations, refer to Overview of Administrative-level

Personalizations, *Oracle Application Framework Personalization Guide* for more information on the **Personalize Page** feature.

Note: The global Navigator and Favorites buttons must be enabled by your system administrator through the profile option *FND: Disable Navigator and Favorites Rich Menu* in order for you to see them.

Note: If the Preferences menu option does not appear, contact your system administrator to enable this feature with profile option *General Preferences Show Flag*.

Using the Navigator

Use the **Navigator** to access Oracle E-Business Suite functions grouped by responsibility. In the Simple Home page, select the global **Navigator** button to invoke a drop-down menu of responsibilities and functions.

Note: A *responsibility* is a level of authority in Oracle E-Business Suite. It enables your access to those functions and data appropriate for your enterprise role. You can have one or more responsibilities.

To access a function

1. Select a responsibility to view its menu of functions.
2. Select the function to launch it.

Note: Enter characters for a function name in the Search field to find the function. The minimum number of characters needed to start the search is determined by a profile option set by your system administrator.

To show or hide responsibilities shown in the **Navigator** region from all responsibilities available to you, select the **Personalize** button. To personalize the **Navigator** in the Simple Home page, select the global **Navigator** button, then select the **Personalize Navigator** icon in the drop-down **Navigator** menu.

Managing Favorites

Your system administrator may have defined Default Favorites for you.

You can customize your Favorites by adding links to frequently-used functions and websites.

Note: This feature must be enabled by your system administrator through the profile option *FND: Disable Navigator and Favorites Rich Menu*.

There are three main ways you can do this type of customization:

- Select the **Manage Favorites** icon from the drop-down menu of the global Favorites button.
- Select the **Add Favorites** icon on the Simple Home page.

  You can select from the following:

  - Suggested Favorites: suggestions from an administrator (if any)
  - Popular Favorites: top bookmarked functions of other users
- Use the **Add to Favorites** icon for bookmarkable pages (pages that can be accessed without being in an HTML-based application).

If you are adding a link to a website, you can specify whether to open the URL in a new window.

Specifying Settings

The global **Settings** button has a drop-down menu with options such Personalize Page, Preferences, Diagnostics, Manage Proxies and Access Requests.

- Select **Preferences** to set personal options, including language, territory, time zone, notification style, accessibility setting, and formats for dates and numbers. You can also reset your password from the **Preferences** page.

  Optionally specify a Page Header Display Style for the global header. Options are:

  - Both Links and Icons
  - Icons Only
  - Links Only

  Optionally specify a Top-level Menu Display Style. Options are:

  - Icons and Links - First-level menu choices appear as icons.
  - Icons and Links on Tablets Only - First-level menu choices appear as icons with links on a tablet, but as classic tabs with links on a desktop/laptop.
  - Links Only - First-level menu choices appear as classic tabs with links on all devices.

Optionally specify a username and password for Delivery Manager to use for concurrent request output. For information on Delivery Manager, see Delivery Options for Concurrent Request Output, *Oracle E-Business Suite Setup Guide*.

Optionally specify a Start Page for future sessions from a list of available pages (organized by responsibility).

> **Note:** From the Forms interface, change your Start Page using the "Applications Start Page" profile option.

Set additional preferences using user profile options. For more information, see Defining Preferences with User Profile Options, page 3-23.

For example, set the profile option *FND: Show Instance Name* to "True" to display the instance name on the home page.

- Access Oracle Diagnostics features, if enabled.

  See: Diagnostic Tests, *Oracle Diagnostics Framework User's Guide*.

- If you use the Proxy User feature, navigate to the Manage Proxies and Access Requests functions.

  See: Managing Proxy Users, *Oracle E-Business Suite Security Guide*.

Using Worklists

Depending on the features and Home page style enabled in your instance, the global **Worklist** button or **Worklist** region may appear.

You can check your count of open notifications and view your most recent notifications from the global **Worklist** button. In the My Worklist menu, select a notification subject to view details and respond, or select *Go To Full Worklist* to see all your notifications.

If quick action buttons appear in the My Worklist menu, choose one of the available responses for a notification: either **Approve** or **Reject**, **Yes** or **No**, or **True** or **False**. Choose **OK** to dismiss an FYI notification. To enable or disable these buttons, set the WF: Enable Worklist Global Header Quick Actions profile option.

> **Note:** For a response-required notification, quick action buttons are available only when the notification does not require any additional details in your response.

The **Worklist** region displays your most important notifications. Select a *Subject* to view details and respond, or select the **Full List** button to see all of your notifications.

The number of open notifications waiting for response is shown.

For more information about worklist features, see Accessing the Oracle Workflow Self-Service Home Page, *Oracle Workflow User's Guide*.

2

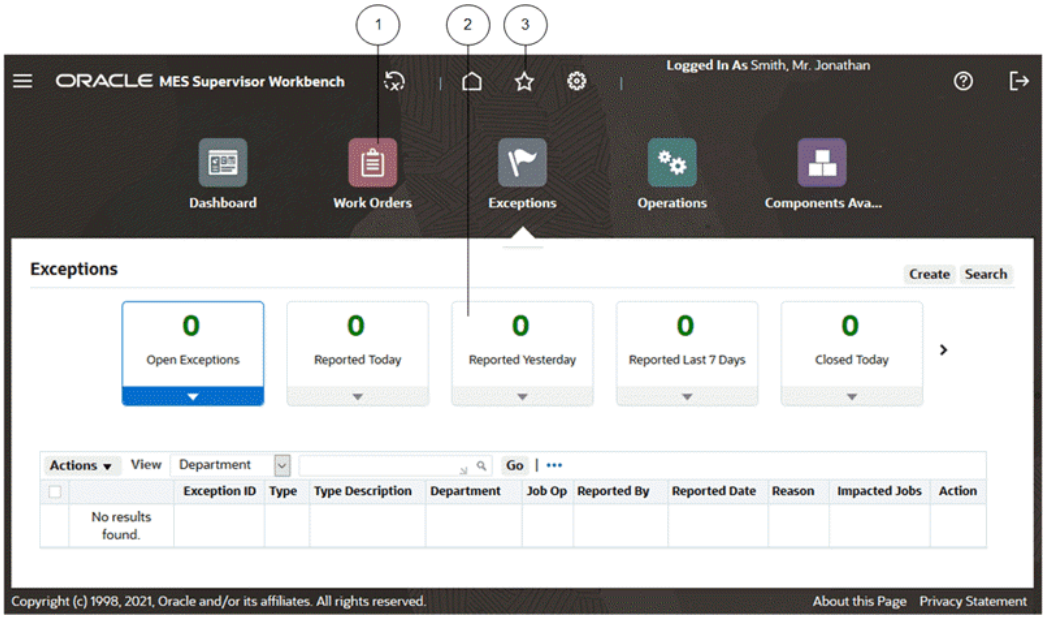
HTML-Based Applications

Using HTML-Based Applications

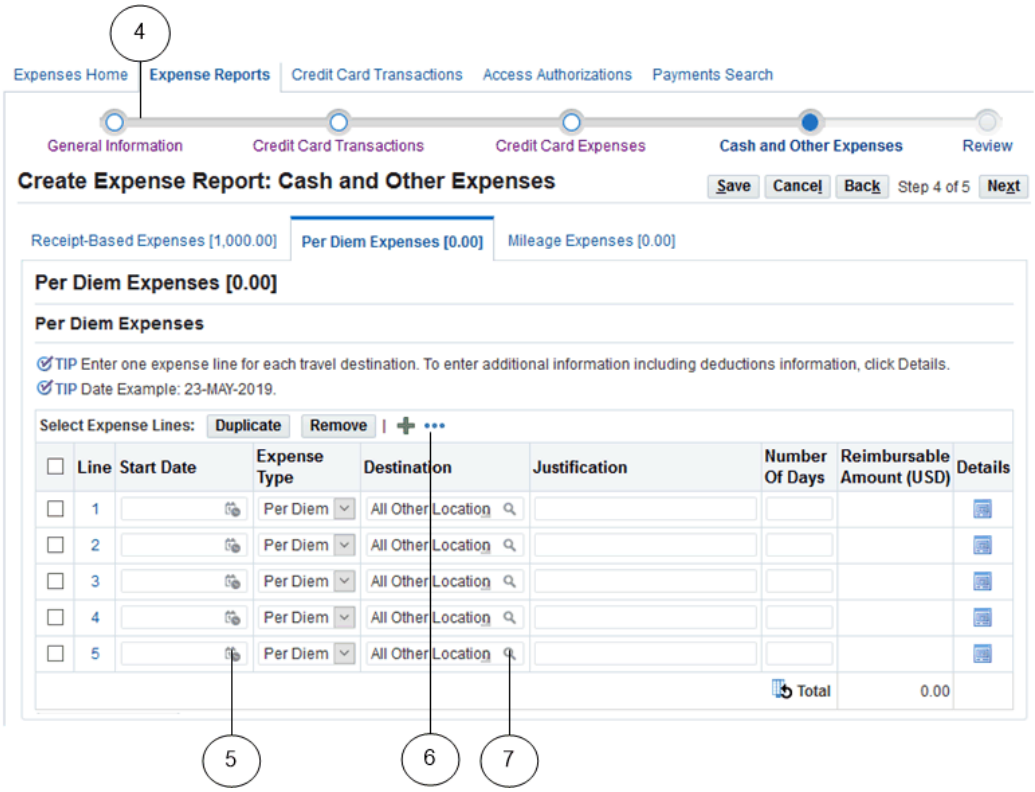
HTML-based applications use many common components in the user interface (UI):

1. Top-level Menu
2. Tiles (Infotiles)
3. Global Links
4. Process Train
5. Date Picker
6. Table Toolbar (Table Actions Menu)
7. List of Values Icon

UI Components in HTML-Based Applications



More UI Components in HTML-based Applications



Note that in the first figure, the page has a Redwood Theme with the preference **Page Header Display Style** set to **Icons**, the preference **Top-level Menu Display Style** set to **Icons and Links**, the profile option "Navigator and Favorites" enabled, the profile option "Infotile View for Query Beans" enabled, and the profile option "Simple Table Control Bar" enabled.

The page shown in the second figure has the profile "Top Level Menu Display Style" set to 'Links Only' and the profile option "Simple Table Control Bar" enabled.

Navigating

Navigate to functions in an HTML-based application using tabs, subtabs, and side navigation elements. As you drill down through these elements, locator links display your navigation path.

When you navigate through steps of a task, use the **Back** and **Next** buttons.

> **Important:** Use these forward and backward navigation elements provided by the application. Do not use your browser's buttons.

Multiple Browser Tabs

Unless otherwise noted in your specific product or its documentation, using HTML-

based applications over multiple tabs in the same browser is not supported. That is, you cannot access an application in multiple browser tabs and then perform concurrent independent transactions from these tabs.

Top-level Menu

The top-level menu entries can be displayed as links, or icons and links. You can choose your display choice in the Preferences page or by setting the FND: Top-Level Menu Display Mode profile option.

Tiles

A tile consists of a header box and an associated content region. Each tile provides a description of its detailed region. When you select a given tile, the details related to that tile are shown in the region.

Process Train

If you are running a process, a process train shows the location of the current page in the process. Some process trains are interactive. These allow you to jump one or more steps backward in the process by selecting the step icon.

Locator Links

Locator links (sometimes called "breadcrumbs") are series of links and text that show your navigation path through an application. Use the links to return to a previous point in your navigation path.

Tabs

Available pages are presented as a series of tabs.

Subtabs

A subtab displays a single page's contents in a tabbed layout.

Subtabs can be displayed horizontally or vertically.

Panel Splitter

Some pages may have a panel splitter. With a panel splitter, a single region may be split into two separate resizable and collapsible regions, or panels, using a splitter bar.

Layered Layouts

Some pages have multiple layers instead of multiple subtabs. You can switch between layers using the title bar.

Table Toolbar

The table toolbar contains multiple table actions and settings as one Actions menu button which looks like an ellipsis (...) for manipulating the display of data in a table.

Mobile Devices and Gesture Support

HTML-based applications are certified with the Safari browser on Apple iPad and the Chrome browser on Android tablets. See the "Mobile Applications" topic in the *Oracle Application Framework Developer's Guide* available from My Oracle Support Knowledge Document 1315485.1 for caveats and known limitations before running on these platforms.

The following gestures are supported for these mobile devices:

- Single Tap
- Double Tap
- Hold/Press/Press and Hold
- Pan/Drag
- Swipe/Flick
- Spread
- Pinch
- Check Mark/Tick
- X-Mark/Cross

See the "Gesture Support" topic in the *Oracle Application Framework Developer's Guide* available from My Oracle Support Knowledge Document 1315485.1 for a full description of these gestures and their use cases.

Querying and Viewing Data

Pages that allow you to search for data display a **Search** panel that generally includes a search region and a results region.

Many search panels contain an **Advanced Search** button that allows more detailed searches using additional criteria.

When you enter characters in a search field, a wildcard is implicitly added to the end of the string.

> **Note:** Enter exact values for number and date fields.

The results region displays search results in a table. Columns that are sortable have an arrow icon to indicate if the column is unsorted or sorted in ascending or descending order.

Click the column heading of a sortable column to sort by that column. Click it again to toggle between ascending and descending order.

Many pages allow you to save searches and personalize the display tables. See Personalizations, page 2-15.

If exporting is enabled, then you can select the Export Table Data to Excel icon for a table to create the corresponding spreadsheet. See: Creating a Spreadsheet, *Oracle Web Applications Desktop Integrator Implementation and Administration Guide*.

Using List Search

Some product pages allow you to search using filters and an associated List Search panel. You can search for records either using the filters provided or filters you have added. Some pages with List Search enabled also allow you to perform either a Quick Search based on a single field, or a Keyword Search based on predefined keywords.

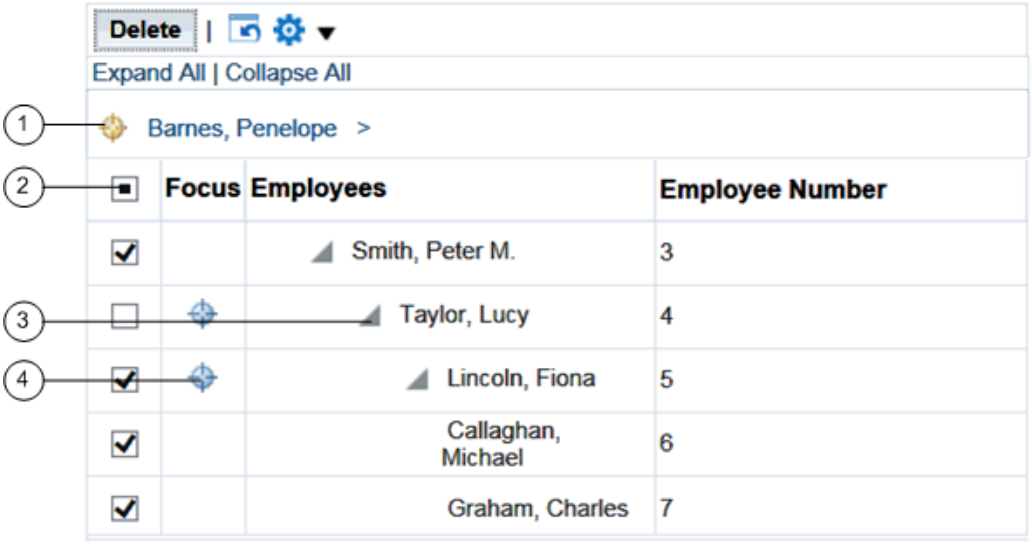
The List Search feature also allows you to save your search criteria and manage your saved searches. For example, you can update the name of a saved search, set one saved search as your default search, or reorder the listing of saved searches.

Where List Search is enabled, you can sort the results in the table using the Advanced Sort window, in which you can specify up to three sort criteria and the sort direction.

> **Note:** Ask your system administrator which product pages have List Search enabled.

Using a Hierarchical Grid (HGrid)

Components of an HGrid



1. Locator links define the position of the displayed grid in the navigation hierarchy.
2. Use the tri-state checkbox to select or deselect all of the rows.
3. Use the **Hide/Show** icon to expand and collapse the branches of the tree.
4. Use the **Focus** icon to display only a specific branch in the tree.

Using a Rich Table or HGrid

Rich tables and HGrids enable you to personalize how you interact with a table or HGrid and its data. With a rich table or HGrid, you can:

- Resize a column.
- Reorder columns.
- Scroll horizontally if the contents of a table exceeds the browser width.
- Freeze a set of columns to remain in view while horizontally scrolling.
- Vertically scroll a table.
- Hide/Show a column.
- Detach a table from the base page using the Detach Table icon. HGrids do not support table detaching.
- Reset a table back to its original definition.
- Refresh a table by querying for the latest records in case simultaneous modifications were made elsewhere.
- Select or deselect all of the rows using the tri-state checkbox in a Select column.

  The three states are:

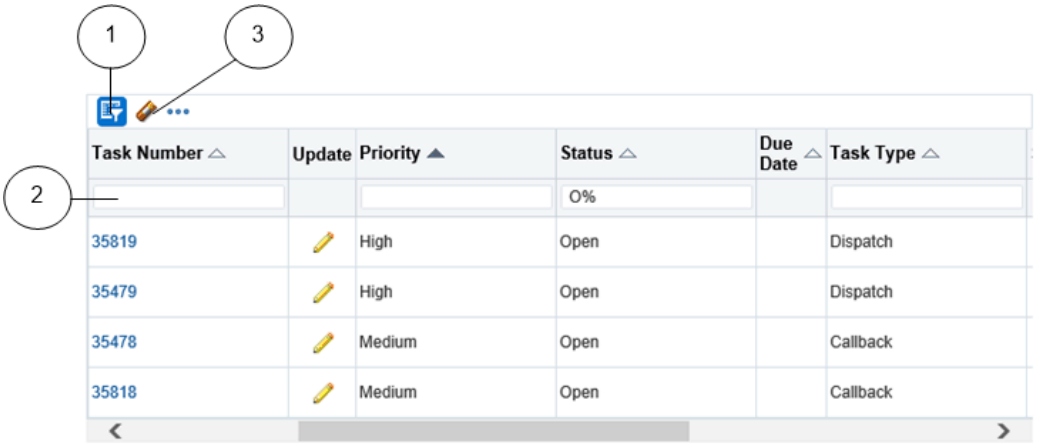
  - Unchecked - when no row in current range is selected.
  - Checked - when all rows in current range are selected.
  - Partially checked - when some row(s) in current range are individually selected.

To use these features, you must have the following profile option set:

- *FND: Enable Rich Table Interactions* profile option to "True"

Using Query By Example on Tables

Components for Query By Example on Tables



1. Query By Example icon
2. Query By Example header row
3. Clear Filter icon

If available, you can use Query By Example (QBE) on tables to filter records based on query criteria.

Click the **Query By Example** icon to display the QBE header row.

Enter your filter into one of the text fields in the QBE header row, and select **Enter**.

Possible filter criteria include:

Query Operators

Operator	Meaning	Example Expression
=	equals	= 'Janet', = 107
!= or <>	is not	!= 'Bob', != 109
>	greater than	> 99.1, > '01-JAN-04'
>=	at least	>= 55

Operator	Meaning	Example Expression
<	less than	< 1000.00
<=	at most	<= 100

The character % allows you to perform a wildcard search on text fields. For example, 'P%' could return "Penelope" or "Peter".

You may also select a date filter or choose a filter from a list.

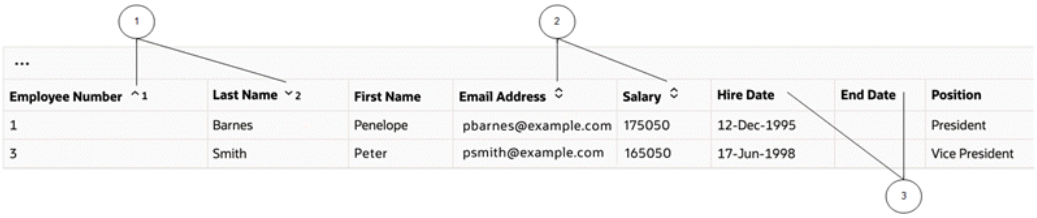
You can use multiple filters and then perform the query. "Match All" is applied for multiple filters. To clear a filter, use the **Clear Filter** icon.

If you wish to hide a column where a filter is applied, then clear that filter first.

Sorting Columns

Some table columns allow for sorting. Indicators next to the column titles indicate their sorting status.

Sorting Terminology



1. Sorted columns with numeric labels that show the order of sorting.
2. Sortable columns with sorting icons.
3. Non-sortable columns do not have indicators.

Exporting Table Data

Some tables allow you to export data to PDF or Microsoft Excel.

Two related options allow you to export selected columns of table data:

- On any supported operating system, you can export to PDF.
- On Windows, you can export to Microsoft Excel.

Note: This feature must be enabled by your system administrator through the profile option *FND: Enable BNE Table Integration*.

Using Accordions

Accordions allow for flexible access to multiple panels in a restricted screen area. Panels can be expanded or collapsed.

Using Pop-up Windows

Pop-up windows provide additional information on top of the current page. They appear when you hover over an item or click on it with the left mouse button. Pop-up windows are available on some components of these types:

- Text
- Image
- Link
- Button

Entering Data

Entering Data in a List of Values (LOV) Field

Three basic options are available here:

- If you know the full value you are looking for in a field, enter it and press the **Tab** key.
- If you know the beginning of the value, start typing characters into the LOV field and then either select the desired value from the matches that are displayed inline by the look-ahead capability, or wait for the Search and Select page to launch.
- If you do not know any part of the value, choose the **List of Values** icon to launch the Search and Select page. Optionally, you can limit the results by entering a partial value first. If the partial value you enter matches only a single value, the field auto-fills and the Search and Select page does not launch.

  Note: If it is available, the Look Ahead LOV is enabled by default. When it is enabled, a dimmed downward arrow appears in the lower right corner of the LOV field. The Look Ahead LOV can be disabled by your system administrator through a profile option.

Note: For some fields, the Look Ahead LOV includes searching on all search-allowed columns for the Look-Ahead LOV instead of only the first column.

Some Search and Select pages support alternative search criteria. You can use the **Search by** pulldown list to select a different search field. Enter the search string and select the **Go** button. Select the value from the **Results** region, and choose the **Select** button.

Some pages allow the display of multiple records which can then be selected individually.

LOV Choice List

When a field has a long list of possible values from which a small subset is commonly used, you may see an LOV choice list. The LOV choice list displays the most commonly-used values for easier selection and includes a **More...** option. Choosing **More...** launches the LOV Search and Select page.

When you choose a value that is not in the LOV choice list, it is added to the list.

Personalizing an LOV Choice List

An LOV choice list may allow you to customize the list with the values that you use most frequently.

To personalize an LOV choice list

1. Select the **Personalize** button next to the LOV choice list to open the Personalize page.
2. To add a value, select it and choose the **Add** button.
3. To delete a value, select the icon in the **Delete** column.

   Note: Some values cannot be deleted.

4. To reorder the list, select the **Reorder** button. In the Reorder page, select a value you want to move and use the **Move** icons to position it in the list. When finished, select the **Apply** button.

Entering Dates and Times

Enter a date directly in a field using the format defined in your Preferences. Alternatively, select the **Calendar** icon to launch the Date Picker pop-up window. When you select a date, the window closes and inserts the date into the field.

Some features allow you to specify a time while choosing a date from the Date Picker

calendar.

Entering Data Through Desktop Integration

Some applications provide integrators that let you use a Microsoft Excel spreadsheet on your desktop to download, edit, and upload Oracle E-Business Suite data.

See: *Oracle Web Applications Desktop Integrator Implementation and Administration Guide* and your product-specific documentation.

Using Flexfields

A *flexfield* is a flexible data field that can be customized by your enterprise. Oracle E-Business Suite uses two types of flexfields:

- Key flexfield - a field you customize to enter multi-segment values, such as part numbers or account numbers.
- Descriptive flexfield - a field you customize to enter additional information not provided by Oracle E-Business Suite.

See: Flexfields, page 3-9.

Key Flexfields

A key flexfield is composed of *segments*, where each segment has both a value and a meaning. For example, an Accounting Flexfield can be composed of segments that represent Company, Department, and Account. The segments are delimited by a segment separator (usually a "." or a "-").

Descriptive Flexfields

A descriptive flexfield is also composed of segments and can have context-sensitive fields that appear only when needed.

Scheduling Requests and Request Sets

For information on how to schedule a request or request set, see Running Reports and Programs, page 3-15.

Monitoring Requests

The **Monitor Requests** pages provide a summary of requests and details of each request.

Select the **Search** button to specify your search criteria.

Related Topics

Monitoring Requests in Forms-Based Applications, page 3-18

Using Attachments

Use the **Attachments** feature to link text or other files to a record.

The method to initiate an **Attachments** flow will vary, depending on how the feature is implemented on your page.

With the **Inline Attachments** feature, if you hover over the Add icon or the Attachments icon, an inline window appears and allows you to add or view attachments in a table without navigating to the separate Attachments page. Text attachments can be edited inline. A badge on the Attachments icon indicates the number of attachments for that record. An Action list provides options to Update, Publish, Delete, Print, and Record History.

To add a new attachment

1. Using the **Add** poplist, select how you want to add the attachment:

   From a Desktop File/Text/URL

   1. Select the attachment **Type**:

      - File - Specify a file name to upload. Enter the file location, or use the **Browse** button to locate the file.
      - URL - Enter the URL for a Web page.
      - Short Text - Enter text that is less than 2000 characters.
      - Long Text - Enter text that is more than 2000 characters.

   2. Select a **Category** from the list of values. The **Category** defines the purpose of an attachment, and controls which forms or pages can access it.

   From the Document Catalog

   1. Use the **Search** regions to query existing documents.
   2. Select the **Document Name** link to view a document before attaching it.
   3. Select the document(s) to attach.
   4. Select the **Apply** button.

2. Give your attachment a title and description.

Save your work in the application page from which you launched the attachments flow. The attachments are not added until you save your work in the parent region.

To view an attached document

In the Attachments page or Attachments table, select the **File Name** link.

- If the attachment is a URL, the Web page will launch.
- If the attachment is a file, a dialog box prompts you to open or save the file.
- If the attachment is text, the View Attachment page displays the text content.

To edit an attachment

1. Display the Attachments page or Attachments table.
2. Select the **Update** icon (for the Attachments page), or choose **Update** from the **Action** list (for inline attachments).
3. In the Update Attachment page, edit only the information as it pertains to the attachment. For example, you can update the URL for a Web page attachment, but you cannot change it to a File attachment.
4. Select the **Apply** button.
5. Return to the application page from which you launched the attachments flow and save your work.

> **Tip:** Attachment updates must be saved in the associated parent region.

To delete a record's attachment

In the Attachments page, select the **Delete** icon. For inline attachments, select **Delete** from the **Action** list.

Using the Document Catalog

Only Standard and Template documents can be retrieved from the Document Catalog. The catalog is accessed from the Attachments page which is configured with associated categories. There are two criteria for the Templates and Standard documents that are retrieved - they must be associated with the categories associated with the function and the security context must be set if the document is secured.

When creating attachments directly using the Attachments page, the document is created as a One-Time document. One-Time documents are not available in the Document Catalog. To publish the document to the catalog for sharing, select the option **Publish to Catalog** and select the option to publish as a Standard document or

Template. If you choose Standard, the document is converted to a Standard document. If you choose Template, a copy is made of the document.

A document may be removed from the Document Catalog by deleting or end-dating it in the Documents window.

Personalizations

Some tables allow you to save queries and personalize the presentation of data. If a table can be personalized, you see the **Views** panel or the **Save Search** button.

> **Note:** Pages can have predefined personalizations available from the **View** list. Some pages with no personalizations saved do not show the **Views** panel until a search has been saved.

Personalizing Tables

To create a personalized view

1. Use the search panel to query for results in the table.
2. Select the **Save Search** button or the **Views** button.
   - The **Save Search** button launches the **Create View** page.
   - The **Views** button displays the Views panel. Select the **Personalize** button to launch the Personalize Views page. This page displays existing views. Select the **Create View** button to launch the Create View page.
3. On the Create View page, enter a **View Name**.
4. Specify the number of rows to display in the table.
5. Choose the **Set as Default** checkbox to make this view the default when you navigate to this page.
6. Personalize other available options.

   > **Note:** Personalizable options vary by table. Some tables allow you only to save the search criteria. Others allow you to change more options, such as columns displayed, column order, sort order, and headings.

7. Select the **Apply** button.

To duplicate, update, or delete a personalized view

1. Select the **Personalize** button to launch the Personalize Views page.

2. Select the view from the list.

   - Select **Update** to update the options for this view.

   - Select **Delete** to delete the view.

   - Select the **Duplicate** button to create a duplicate of the selected view. Enter a new **View Name**. Make other modifications as desired and select **Apply**.

Personalization Workbench

The Personalization Workbench provides an alternative page that allows you to reorder components or change prompts in-place. For more information see the *Oracle Application Framework Personalization Guide*.

Administrator Personalizations

Administrators can make additional personalizations for you, including:

- Apply a shipped theme or create a new theme using Theme Editor to change the look and feel. See: Themes, *Oracle Application Framework Personalization Guide*.

- Use the Custom Look-and-Feel (CLAF) feature. See: Customizing Look-and-Feel (CLAF), *Oracle Application Framework Personalization Guide*.

- Change data table properties and other UI features. See: Administrative-Level Personalizations: Overview, *Oracle Application Framework Personalization Guide*.

3

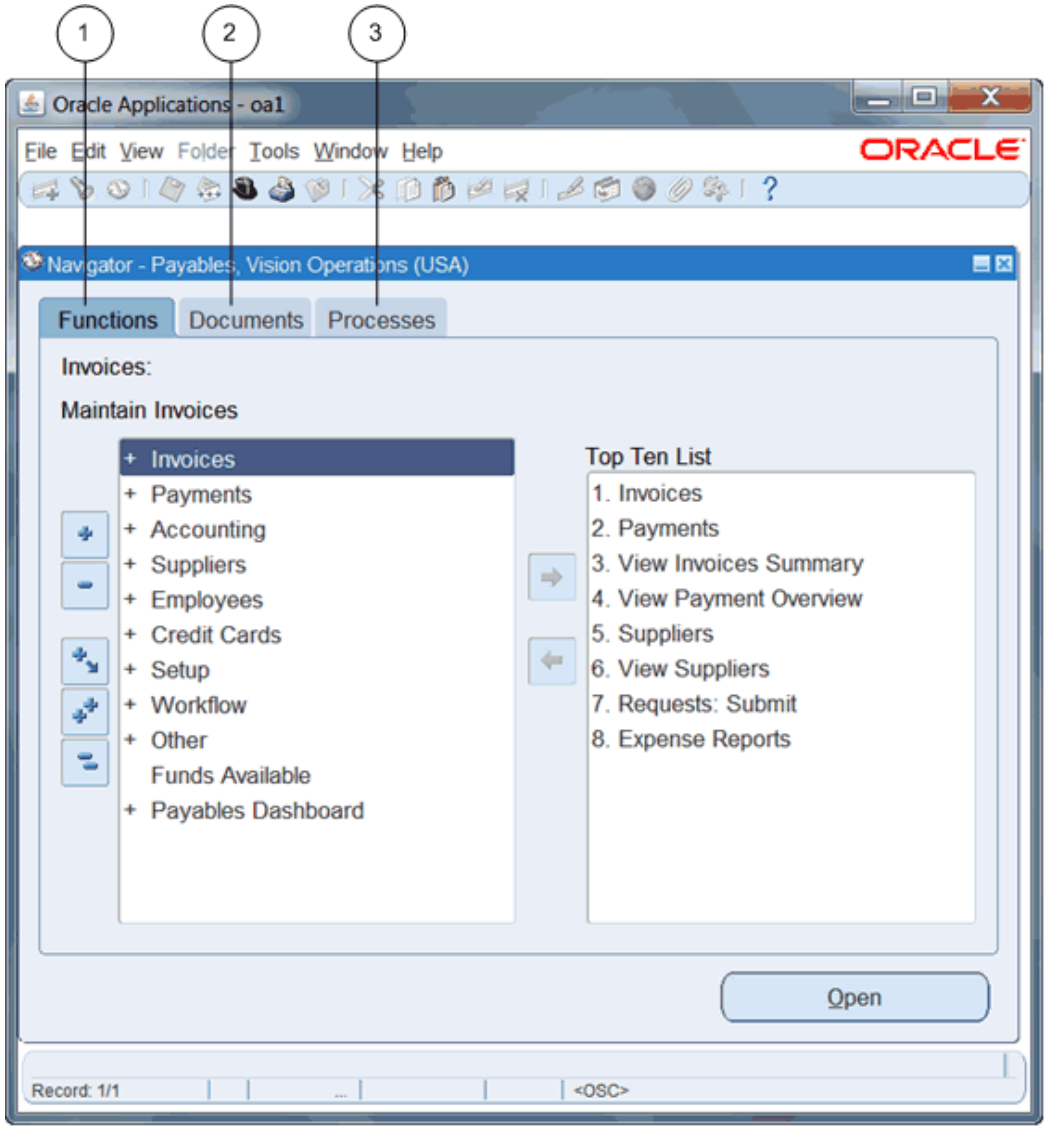
Forms-Based Applications

Using Forms-Based Applications

This chapter describes the user interface features that are common to Oracle E-Business Suite Forms- based applications, including:

The Navigator

Navigator Window



From the **Navigator** you can:

1. Open forms from the **Functions** tab.
2. Link to documents from the **Documents** tab.
3. Launch business processes from the **Processes** tab.

Open Forms

The **Functions** tab provides links to the forms accessible to your current responsibility.

To open a form, expand the function heading and double-click the form name.

Create a Top Ten List

Add forms that you use frequently to your **Top Ten List**. Create a different top ten list for each of your responsibilities.

To add a form to the Top Ten List

- Select the form, then select the **Add to List** button or choose **Add to List** in the Tools menu.

To remove a form from the Top Ten List

- Select the form, then select the **Remove from List** button or choose **Remove from List** in the Tools menu.

Create Links to Documents

Create links to documents that you are working on for faster access. The **Documents** tab allows you to save as many links as you want. View the saved links as a list or as icons.

To add a document that is currently open

- Choose **Place on Navigator** from the **File** menu

  Important: The **Place on Navigator** command is not enabled for all forms.

To rename a link that you have created

1. Select its name (or icon) and select the **Rename** button.
2. Enter the new name in the **Rename Label** window and click **OK**.

To remove a document from the Documents tab

- Select its name (or icon) and select the **Remove** button.

Launch Business Processes

The **Processes** tab contains interactive step-by-step maps of business processes. Each step is a form or report that you can launch directly from the process map.

Each time you launch a business process, you create an instance of that process and assign it a name. As you complete each step in a process, the map is updated accordingly.

To open a process

1. Select the process, then select the **Launch** button.
2. Enter a name for the new instance.

   The instance remains active until you complete or cancel it. The **Processes** tab lists your active instances.

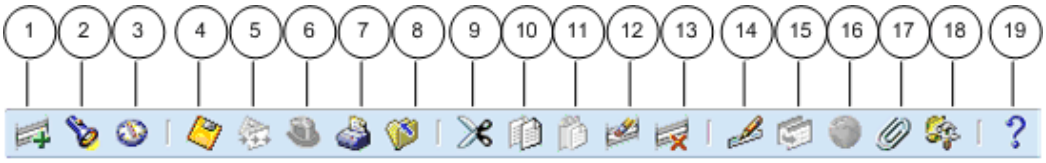
Working in a Process Instance

The active step has a box drawn around it. More than one step can be active if your process contains multiple paths.

- Click once on a step icon to display a description of the step.
- Double-click on a step icon to open the related form.
- Advance to the next step of a process from within a form by using the **Next Step** toolbar icon.

The Forms Toolbar

Toolbar Icons



The toolbar is a set of iconic buttons that allow quick access to common functions that are also on the menu.

The toolbar icons and the actions they perform are as follows:

1. The **New** icon opens a new record.
2. The **Find...** icon invokes the **Find** window.
3. The **Show Navigator** icon invokes the **Navigator** window.
4. The **Save** icon saves your data.
5. The **Next Step** icon advances you to the next step of a process. See Launch Business Processes, page 3-3.
6. The **Switch Responsibilities** icon invokes the list of your responsibilities for you to

choose another.

7. The **Print...** icon prints the current screen. In some cases it may print a report associated with the current data.

8. The **Close Form** icon closes all windows of the current form.

9. The **Cut** icon cuts the current selection to the clipboard.

10. The **Copy** icon copies the current selection to the clipboard.

11. The **Paste** icon pastes from the clipboard into the current field.

12. The **Clear Record** icon erases the current record from the form.

13. The **Delete** icon deletes the current record from the database.

14. The **Edit Field...** icon displays the **Editor** window for the current field.

15. The **Zoom** icon invokes customer-defined drill-down behavior.

16. The **Translations...** icon invokes the **Translations** window. See Creating Translations for a Record, page 3-10.

17. The **Attachments** icon invokes the **Attachments** window. If attachments already exist, the icon appears as a paperclip holding paper. See Attachments, page 3-22.

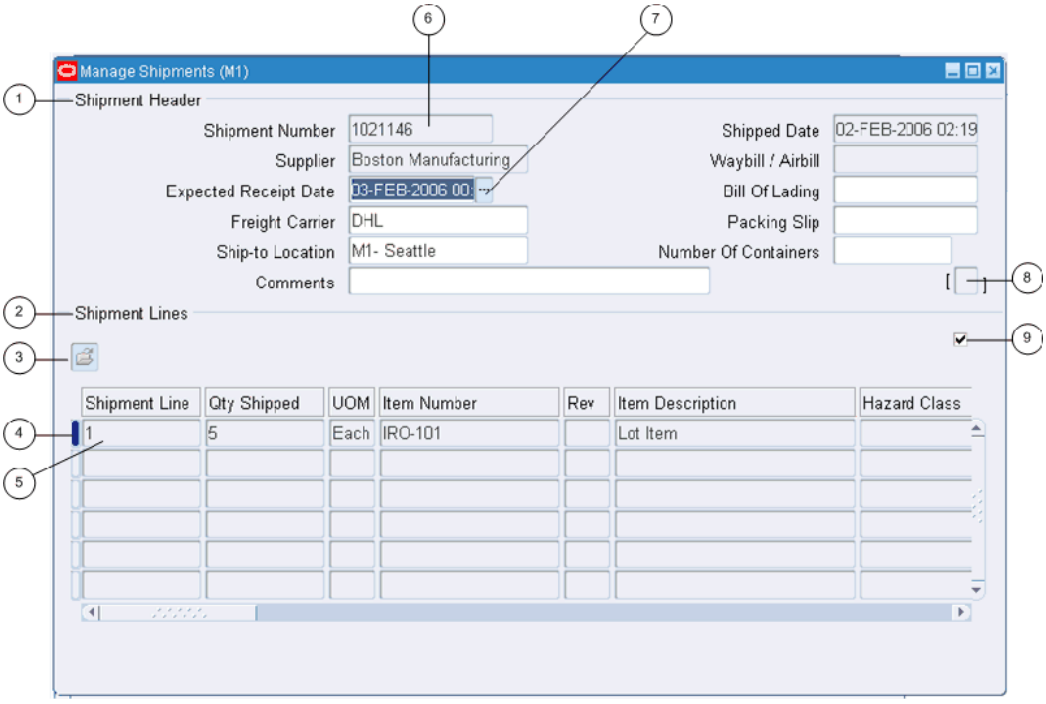
18. The **Folder Tools** icon invokes the **Folder Tools** palette window. See Customizing the Presentation of Data, page 3-13.

19. The **Window Help** icon invokes online help for the current window.

Entering Data in Forms

Use the following form components to enter and query data:

Form Components



1. Single-Row Block
2. Multi-Row Block
3. Folder Indicator
4. Current Record Indicator
5. Record
6. Field
7. List of Values Indicator
8. Descriptive Flexfield
9. Master-Detail Coordination Box.

Organization of a Form

Field

Use fields to enter, view, update, or delete information.

By default, a required field is displayed in yellow, and a read-only field is displayed in

gray. These colors can be changed or turned off using profile options. See Defining Preferences with User Profile Options, page 3-23.

In some cases, the display size of a field is too small to show the entire field contents. Use the **Edit Field** toolbar icon to view and update these fields.

Record

A record is a logical grouping of fields. A record is also referred to as a row or a transaction, since one record corresponds either to a row in a database table or to a transaction.

You must complete all required fields in a record before moving to the next record.

> **Tip:** If you unintentionally enter a record and cannot advance your cursor, clear the record. From the **Edit** menu, choose **Clear**, then **Record**.

Block

A block displays a set of records either in a single-row format or a multi-row format.

> **Tip:** To clear data at the block level: From the **Edit** menu, choose **Clear**, then **Block**.

Creating and Deleting Records

To create a record

1. Choose **New** from the **File** menu, or use the **New** toolbar icon.
2. After entering data for your new record, choose **Save** or **Save and Proceed** from the **File** menu to save the record to the database. Choosing **Save and Proceed** automatically advances you to the next record.

To delete a record

1. Choose **Delete** from the **Edit** menu.

   This action erases the current record from your screen, and returns your cursor to the first field of the next record.
2. To delete the record from the database, choose **Save** or **Save and Proceed** from the **File** menu.

Using a List of Values (LOV)

A field that has a predefined list of valid values displays an LOV icon. Select this icon to view the valid field values.

If a list contains more than 100 values, you are prompted to enter a **Find** string to limit the list.

To choose a value from a list

Select a value, or reduce the list using one of the following methods:

- Without placing your cursor in the **Find** field, type the initial character(s) of a value to *autoreduce* the list to those items matching the characters entered. Use the Backspace key to re-expand the list. If your entry reduces the list to a single value, the list window closes and inserts the value into the field.

  Note: Lists that require a **Find** string do not use the autoreduce feature.

- In the list window, enter any group of characters in the **Find** field and select the **Find** button.

  Note: Use the wildcard character (%) to represent any number of characters, and the underline (_) to represent a single character. Do not enter a wildcard character by itself. This will match all records.

Power List

Power List enables you to enter a search string or partial value in an LOV field without opening the list window.

To use Power List

Enter the initial characters of a value in the field and press the Tab key. Power List completes the entry for you.

Your entry can include wildcard characters.

If more than one value matches the characters you specify, a list window opens containing those values.

Advanced Data Entry Features

Master-Detail Relations

A *Master-Detail relation* is an association between two records. An example is the relationship between the **Batch** and **Journals** records in Oracle General Ledger. Each batch (master record) is associated with a set of journal entries (detail records).

Some master-detail blocks contain a coordination checkbox that allows you to choose whether detail records are queried. Select the master-detail coordination checkbox to automatically coordinate the update of records between the master and detail blocks. If you deselect the checkbox, the detail data is not displayed until you move your cursor into the detail block.

Drill-Down Indicators

Some records provide additional details in separate, *drill-down* windows.

A wide-width current record indicator designates that a record provides drill-down information. Double-click the indicator to open the detail window.

Flexfields

A *flexfield* is a flexible data field that can be customized by your enterprise. Oracle E-Business Suite uses two types of flexfields:

- Key flexfield - a field you customize to enter multi-segment values, such as part numbers or account numbers.
- Descriptive flexfield - a field you customize to enter additional information not provided by Oracle E-Business Suite.

Key Flexfields

A key flexfield is composed of *segments*, where each segment has both a value and a meaning. For example, an Accounting Flexfield can be composed of segments that represent Company, Department, and Account. The segments are delimited by a segment separator (usually a "." or a "-").

A *range flexfield* is a type of key flexfield in which you can input a low and a high value for each segment to express a range of combinations.

A key flexfield looks like any other field. You can enter the segments directly or use the **Flexfield** window to enter each segment separately.

To enter data directly into a key flexfield

- Enter the segment values, separating each with the segment separator.

To enter data using the flexfield window

1. Select the **List of Values** icon to open the flexfield window, or select the **Edit Field...** toolbar icon.
2. Enter a value for each segment, or use the list of values where available.
3. Select the **Combinations** button in the flexfield window to search the list of existing segment combinations.

To enter data in a range flexfield

- Enter a **Low** and a **High** value for each segment, or use the list of values where available.

> **Note:** The *Flexfields: Open Key Window On Default* profile option controls whether a flexfield window opens when you press Tab to leave a

concatenated key flexfield.

If this profile option is set to Yes, the window opens if at least one of the segments has a default value defined. When you tab from the concatenated flexfield, the code automatically defaults defined values and opens the window to allow you to make changes.

If the profile option is set to No, then the flexfield window will not open for modifications, and assumes you want the defaulted values as part of the combination.

Descriptive Flexfields

A descriptive flexfield appears as a two-character, unnamed field enclosed in brackets.

Move your cursor into the bracketed field to open the descriptive flexfield window. The window contains segments that make up the descriptive flexfield. Each segment can have a list of values.

To enter data in a descriptive flexfield

1. Open the descriptive flexfield window. If your profile option *Flexfields:Open Descr Window* is set to "No", or if you are in a folder, select the **Edit Field...** toolbar icon to open the flexfield window.

   Note: For more information on profile options, see Defining Preferences with Personal Profile Options, page 3-23.

2. Enter a value for each segment, or use the list of values where available. Default values can be overwritten.

Creating Translations for a Record

Windows that allow the entry of records in multiple languages display the enabled **Translations...** toolbar icon.

To enter a translation for a record

1. Select the record you wish to translate.
2. Select the **Translations...** icon from the toolbar.

   The **Translations** window opens, with translatable fields displayed in columns. The installed languages are displayed in rows.
3. Enter translations for the displayed fields.

Using Keyboard Help

Use keystroke combinations to perform many menu functions.

To view the list of functions and keystroke combinations

- Choose **Keyboard Help...** from the **Help** menu.

Searching for Data

To query records in your current block or window, use the **Find** command or **Query by Example**.

The Find Command

The **Find** command displays a window in which you can specify search criteria. Depending on the block that you invoke **Find** from, one of two types of windows appears:

- A *find* window that contains fields for entering search criteria.
- A *list* window that shows all possible records that you can retrieve for the block.

Generally, a find window appears for a multi-record block, while a list window appears for a single-record block.

Using the Find Command

- Choose **Find...** from the **View** menu or select the **Find** toolbar icon.
  - If a list window appears:
    - Use a list window as you would an LOV window. See Using a List of Values (LOV), page 3-7.
  - If a find window appears:
    1. Enter as many search criteria as you can.
    2. Select the **Find** button.

Query by Example

To retrieve a group of records based on more sophisticated search criteria than **Find** allows, use **Query by Example**. **Query by Example** allows you to specify search criteria in any of the queryable fields in the current block. The search criteria can include specific values, phrases containing wildcard characters, or query operators.

If you do not need to retrieve the records, but only want to know how many records match your search criteria, perform a query count.

Using Query by Example

1. From the **View** menu, choose **Query by Example,** then **Enter**.

   This action switches your window from data entry mode to Enter Query mode. Queryable fields are displayed in blue.

2. Enter search criteria in the queryable fields. (Fields may be case-sensitive). To reuse criteria from your last search: From the **View** menu, choose **Query by Example**, then **Show Last Criteria**.

   > **Important:** In Enter Query mode, all checkboxes are initially in a null state. To use a checkbox as a search criterion, you must explicitly check or uncheck it.

3. To perform the search: From the **View** menu, choose **Query by Example**, then **Run**.

4. To exit Enter Query mode without searching: From the **View** menu, choose **Query by Example**, then **Cancel**.

To perform a query count

1. Perform steps 1 and 2 from the previous task: "To use **Query by Example**".

2. From the **View** menu, choose **Query by Example**, then **Count Matching Records**. The window's message line displays the number of matching records.

Query Operators

The following table shows the query operators for most fields, their meanings, and an example expression:

Query Operators

Operator	Meaning	Example Expression
=	equals	= 'Janet', = 107
!=	is not	!= 'Bob', != 109
>	greater than	> 99.1, > '01-JAN-04'
>=	at least	>= 55
<	less than	< 1000.00

Operator	Meaning	Example Expression
<=	at most	<= 100
#BETWEEN	between two values	#BETWEEN 1 AND 1000

Customizing the Presentation of Data

Folder blocks allow you to personalize a form. You can define a query, customize the layout of the form columns, and then save the query and layout in a folder definition that can be retrieved later.

Folder blocks display an **Open Folder** button. When you move the cursor into a folder block, you enable the **Folder Tools** toolbar icon and the **Folder** menu.

> **Important:** If your system administrator sets the profile option *Folders: Allow Customization* to "No", you cannot create or customize folders. The only item available from the **Folder** menu is **Open**, to open a predefined folder. For more information about profile options, see Defining Preferences with User Profile Options, page 3-23.

Query Criteria for a Folder

To define query criteria for a folder

1. Run a query, either by using the **Find** command or **Query By Example**.
2. Save your query criteria by choosing **Save As** from the **Folder** menu.
3. Enter a name for the folder.
4. Select **Always, Never**, or **Ask Each Time** from the **Autoquery** option group to define how frequently to perform the saved query.
5. Select the **Open as Default** checkbox to set this folder definition as the default every time you navigate to this form.
6. Select the **Public** checkbox to allow other users to access your folder definition. Selecting **Public** does not enable other users to modify your folder.
7. Select the **Include Query** checkbox to include your query in the folder definition. If you do not select this checkbox, only the folder layout is saved.

To view the query criteria for a folder

- Choose **View Query** from the **Folder** menu.

  The **Folder Query** window displays the query used to retrieve the records displayed in the folder. An empty window indicates that the folder retrieves all records.

To reset the query criteria for a folder

1. Choose **Reset Query** from the **Folder** menu.

   This clears the query from the current folder, but retains the current folder name and field layout.

2. Perform another query and choose **Save** from the **Folder** menu to save the new query to your current folder.

Customizing the Layout of a Folder

Use the **Folder** menu or the **Folder Tools** window to customize the folder layout. Some layout changes can be made using the mouse, such as:

- Column width, by dragging the column border.
- Column sequence, by dragging the column heading to a new position.
- Column name, by right-clicking the mouse on the column heading and entering the new name at the prompt.

To access the Folder Tools window

- Select the **Folder Tools** toolbar icon, or choose **Folder Tools** from the **Folder** menu.

Managing Folder Definitions

To create a new folder

1. Choose New from the Folder menu.
2. Enter a new folder name. The name must be unique for the Oracle E-Business Suite sign–on you use and for the entity that the folder represents.
3. Select an Autoquery option.
4. Select **Open as Default** if you want this specific folder definition to open as your default each time you navigate to this folder for the first time after invoking the form.
5. Select **Public** if you want other users to have access to this folder definition. They can use it as their default folder, but only you can modify it.

To recover the original default folder definition for a folder block

1. Select **Save As** from the **Folder** menu when you are in the custom default folder.
2. Uncheck **Open as Default** in the **Save As** window that appears.
3. Choose **OK**.
4. To display the original default folder definition, close and reopen the form.

To open another folder

1. Choose **Open** from the **Folder** menu to load a predefined folder.
2. Select a private or public folder from the list window that appears and choose **OK** to replace the current folder with the new folder.

To save changes to a folder

1. Select **Save** from the **Folder** menu to save any layout or query changes made to the current folder or choose **Save As** from the **Folder** menu to save the current folder under a new name.
2. If you choose **Save As**, complete the information requested in the **Save Folder** window that appears and choose **OK**.

To delete a folder

1. Choose **Delete** from the **Folder** menu.

   You can only delete folders you have created.

   If another user is referencing that folder definition as their "Open as Default" folder, that reference gets deleted as well.

Running Reports and Programs

A report or a concurrent program can be scheduled and submitted as a single request, or you can schedule and submit multiple reports and programs together as a request set.

> **Important:** The navigation path you use to schedule and submit requests varies by application. Some of the options mentioned may not be available based on the selected request or your responsibility. Some functions automatically submit a request when you choose a specific button or save your work.

Request Submission

1. Choose the **Program Name** from the list of available requests and then enter a **Request Name**, which can be used later to search and monitor your request.

Use the **Copy...** option to choose and submit a request that you have previously submitted from this responsibility.

2. Define parameters.

   If a request requires parameter values, the **Parameters** window opens. Enter the values in the required parameter fields.

   > **Note:** Your user profile option *Flexfields:Open Descr Window* must be set to "Yes". See Defining Preferences with User Profile Options, page 3-23.

3. Determine the output language.

   If your site supports multiple languages, select the language for your request output.

   Choose the **Language Settings...** button to open the **Languages** window. If the language selection is predefined in the report, the **Language Settings...** button is not enabled.

   In the **Languages** window select the **Language**, **Territory**, **Numeric Character**, and **Sort** settings appropriate for your report.

   Select the **Select All** button to produce output in all languages supported at your site or to check individual languages.

   > **Important:** Each language creates its own request, so the number of languages determines the number of requests created and tracked in the **Requests** window.

4. Define a schedule.

   Specify when you would like your request to run. You can choose a simple schedule such as, *as soon as possible*, *a specific date and time*, or *recurring intervals*; or you can choose a more advanced schedule such as *specific days of the week* or *specific dates in a month*. You can also choose a previously saved schedule.

   In creating a schedule to run your request on specific days, use the Tab and Shift+Tab keys to navigate among the read-only field options. Use the Spacebar key to activate Months, Dates of Every Month, and Days of Every Week. When an option is activated, a star (asterisk) is prepended to the prompt to indicate it has been chosen for the schedule.

   > **Note:** If you do not select an end date for the more advanced schedules, the request will continue to run until it is cancelled.

5. Define the layout.

   - **Template Name** - If the request has multiple layout templates available, you can select a different template to apply to the request.

     If you selected multiple language outputs from the **Languages** window, a separate template entry displays for each language. You can apply a different template for each language.

   - **Template Language** - This field defaults to the language selected for the request. If the template is not available for a selected language, this field defaults to the session language.

   - **Format** - The output format selection varies by template. Some options are PDF, RTF, and HTML.

   - **Preview** - If sample data is available for the request, select the **Preview** button to display the selected template with the sample data.

     Additional Information: Select the **Options...** button to change the default layout. notification, and output options.

6. Notify employees.

   Choose the employee name from the list of available employees, and then choose the circumstance of when to notify this employee. This option sends an E-mail notification, with a link to the request, based on if the request ran normally or resulted in a warning or error.

7. Print the output to:

   For printed output, select the print style, printer, copies, and language.

   To view your output online or to save your output to a file, select the **Save all Output Files** checkbox.

   Note: Some requests have a required **Style**, **Printer,** or **Language** value that you cannot change.

8. Specify delivery options for Internet Printing Protocol (IPP) printer, E-mail, Fax, FTP, WebDAV, or Custom.

9. Review your choices, make any necessary changes, and submit your request.

Multiple Organizations Reporting

Multiple organizations reporting improves reporting capabilities of Oracle E-Business

Suite by allowing reporting across operating units.

An operating unit is an organization that uses *Oracle Cash Management*, *Order Management and Shipping Execution*, *Oracle Payables*, *Oracle Purchasing*, and *Oracle Receivables*. An operating unit is associated with a legal entity and may be a sales office, a division, or a department. Information is secured by operating unit for these applications, and you see information only for your operating unit.

When multiple organizations reporting is active, a list of available operating units is enabled when you enter the **Program Name**. Choose the operating unit to run your report against and continue submitting your request.

Request Sets

1. Choose the **Request Set Name** from the list of available request sets.

   Use the **Copy...** option to choose and submit a request set that you have previously submitted from this responsibility.

2. Define the parameters, layout, notification, and printer output information for each report or program listed in the request set.

3. Define the schedule.

   Specify when you would like this request set to run. See Request Submission, page 3-15.

4. Review your choices, make any necessary changes, and submit your request set.

   Note: Each report or program contained in the request set is assigned its own ID so that its status can be monitored individually on the Requests page.

Default Parameter Values for Requests

Parameters can have default values that are generated dynamically; for example, based on the current value of a profile option. A "Recalculate Default Parameters" option is available for copying requests or submitting new requests that are run periodically. This option determines if the parameter values should be recalculated. The default value of this option varies based on the request.

Monitoring Requests

The **Requests** window allows you to:

- View the status of your submitted requests.
- Change processing options.

- Diagnose errors.
- View your request output.
- Submit a new request or request set.
- Copy a request or request set.
- Rerun a request.

When the **Auto Refresh** checkbox is selected, the form will refresh the list of requests after a specified interval measured in seconds. Use the profile option *Concurrent: Auto-refresh View Request Timer (secs)* to set this interval.

> **Important:** You can view only those requests to which you have been granted access by an administrator.

Request Phase and Status

A request has a life cycle consisting of the following phases: pending, running, and completed. If a request is on hold or unable to run, the request is placed in an inactive phase.

During each phase, a request has a specific status. Listed below are the possible statuses for each phase:

- Pending Phase - Normal, Standby, Scheduled, Waiting
- Running Phase - Normal, Paused, Resuming, Terminating
- Completed Phase - Normal, Error, Warning, Cancelled, Terminated
- Inactive Phase - Disabled, On Hold, No Manager

For more information about the status of your request, select the **Diagnostics** button in the **Requests** window.

Finding Requests

1. Open the **Requests** window (navigation varies by application).

   When you open the **Requests** window, you are directed to the **Find Requests** window.

2. Define your search criteria.

   > **Note:** You can use the **Specific Requests** region to view a list of

requests that you did not submit by entering a requestor other than yourself. However, you can only view details, output, and log files for requests submitted by you or your responsibility.

3. Select **Find**.

Options for Requests in Progress

Hold or cancel pending requests from the **Requests** window using the **Hold Request** or **Cancel Request** buttons.

View request diagnostics by selecting the **Diagnostics** button. The **Request Diagnostics** window displays information about the request run. The window may contain a **View XML** button to display the generated XML data, if applicable.

You can change completion and scheduling options for requests that meet the following criteria:

- You made the initial request.
- The request has not yet run.
- The program does not prevent request updates.

To Change Options for a Request in Progress

1. Select the request from the list.
2. Select the **View Details...** button to launch the **Request Detail** window.
   - To update a request's schedule, select the **Schedule...** button.
   - To update a request's completion options, select the **Options...** button from the **Upon Completion...** region.

Viewing Request Output

Reports are displayed in a browser, in the **Report Viewer**, or in another application registered by your system administrator. Reports that produce an output other than a text file, such as HTML or PDF, are displayed in a browser.

Set the profile option *Viewer: Text* to "Browser" to display your text files in a browser. If your system administrator registered other applications for viewing reports, select your text viewer application using the profile option *Viewer: Application for Text*. If this profile option is not set, you get a choice of applications when you view the report.

For more information about these profile options, see Defining Preferences with User Profile Options, page 3-23.

To View Request Output

1. Navigate to the **Requests** window.
2. Select the completed request and select the **View Output** button.

   Tip: To view request log files: Select the **View Log** button.

To save request output displayed in the Report Viewer

1. Choose **Copy File...** from the **Tools** menu to display the **Viewer Option** window.
2. Select an output file format. This action opens your browser window.
3. From the browser window, use your browser's tools to save your request output to a file.

Republishing or Reprinting Requests

1. Select the request and choose the **Republish** icon or choose **Republish...** from the **Tools** menu.
2. To **Reprint** a request, enter printing options.
3. To **Redeliver** a request, enter in options for Email, IPP Printer, Fax, FTP, WebDAV, or Custom as appropriate.

Requests with multiple layout templates can be republished using a different template.

Saving Reports from Your Browser

You can use the **Save As** functionality of your browser to save an HTML report to your desktop. Ask your system administrator for assistance if your browser does not display your language's character set clearly.

Exporting Records to a File

Use the export feature to save the records in a multi-row block to a tab-delimited file. Open the file in the application of your choice.

To start an export

1. Query the records you want to export.
2. Place your cursor in the multi-row block that contains the records to be exported.
3. Choose **Export...** from the **File** menu.

Exporting Large Numbers of Records

Export, by default, selects all the records retrieved by the query. If the number of records exceeds 100, you are prompted to:

Stop - Limit the export to those records you have explicitly selected. Alternatively, cancel the export.

Continue to End - Export all records retrieved by the query.

> **Important:** Avoid exporting a very large number of records as system performance can be affected.

Continue - Select the next 100 records for export. You are prompted every 100 records until all records are selected, or you choose **Stop** or **Continue to End**.

Oracle E-Business Suite Attachments

Use the **Attachments** feature to link text or other files to a record.

The **Attachments...** toolbar icon is enabled when the attachments feature is available. If the current record already has an attachment, the icon appears to hold a piece of paper.

To open the Attachments window

- Click the toolbar icon or choose **Attachments...** from the **View** menu.

To add a new attachment

1. Select a **Category** from the list of values. The **Category** defines the purpose of an attachment and controls which forms or pages can access it.
2. Select the attachment **Data Type** from the list of values:
   - Short Text - Enter text with a maximum length of 4000 bytes.
   - Long Text - For longer text attachments.
   - File - Launch the **Upload a File** window in your browser. Select the **Browse** button to locate the file in your file system or enter the file location in the **File** field.
   - Web Page - Your cursor advances to the **URL** field on the **Source** tab of the window. Enter the URL for the Web page.
3. Optionally add a title for your document.
4. Select the **May Be Changed** checkbox to allow changes to the attachment.

To attach a document from the Document Catalog

1. Choose the **Document Catalog...** button to open the **Document Catalog** window.
2. Use the **Find Existing Documents** region to query existing documents. Matching documents are returned in the **Documents** region.

   Note: To copy an attachment from another record, use the **Attached To:** field to select the application object you want to copy attachments from.

3. To view a document before attaching it, select it and then choose the **Preview** button.
4. Select the document(s) to attach.
5. Choose the **Attach** (***n***) button, where *n* is the number of documents selected.

To view an attached document

In the **Attachments** window, select the attachment you want to view. If the attachment does not automatically display in the document block, select the **Open Document** button to view the document in a browser.

To delete a record's attachment

When you delete an attachment, you can remove the association between the record and the attached document or remove the attached document from the file system or database.

1. In the **Attachments** window, select the document to delete.
2. Choose **Delete** from the **Edit** menu.
3. Select a button in the **Decision** window to remove either the **Document and Attachment** or just the **Attachment**.

Defining Preferences with User Profile Options

Use profile options to modify the way your applications run.

Oracle E-Business Suite supports a set of user profile options that are common to all applications. In addition, each application has its own set of user profile options. See your application's documentation for information on application-specific profile options.

Profile Hierarchy

Most profile options can be set at four levels:

- Site - affects all applications installed at a site.
- Application - affects a specific application.
- Responsibility - affects the applications assigned to a specific responsibility.
- User - affects the applications run by a specific user.

A User-level setting overrides a Responsibility-level setting, which overrides an Application-level setting, which overrides a Site-level setting.

Your system administrator sets options at all four levels. You can change options only at the User level.

> **Note:** Some profile options can be set at the Server or Organization level.

Setting Profile Options

Use the **Profile Values** window to display and change your user profile options.

> **Note:** There are some profile options that you can view but not change. For example, you can view the value for *Concurrent:Request Priority*, which is set at the User level, but only your system administrator can change its value.

If you do not set a user profile option, it assumes a default value set either by your system or your system administrator.

To set a profile option

1. Navigate to the **Profile Values** window (navigation varies by application.)
   - To view a specific profile, use **Find** or **Query by Example**.

     The **Profile Values** window displays the **Profile Name**, **Default Value**, and **User Value**.

2. Enter a value in the **User Value** field or choose a value from the list of values, if available. To accept the default setting, clear the **User Value** field.

   > **Important:** Number and date values are not validated. Ensure that you enter a valid number or date, or the associated profile option may not work as you expect.

3. Choose **Save** from the **File** menu or select the **Save** toolbar icon.

Note: Some profile option changes do not take effect until you change responsibilities or restart your session.

Common Profile Options

Flexfields: Open Key Window On Default

Controls whether a flexfield window opens when you press Tab to leave a concatenated key flexfield.

If this profile option is set to Yes, the window opens if at least one of the segments has a default value defined. When you tab from the concatenated flexfield, the code automatically defaults defined values and opens the window to allow you to make changes.

If the profile option is set to No, then the flexfield window will not open for modifications, and assumes you want the defaulted values as part of the combination.

Flexfields:Open Descr Window

Controls whether a descriptive flexfield window automatically opens when you navigate to it. Valid values are *Yes* or *No*.

Folders:Allow Customization

Determines whether you can personalize folders. Valid values are:

- *Yes* - you can create or customize folder definitions.
- *No* - you can open only existing folder definitions.

Note: Only the system administrator can update this profile option.

Indicate Attachments

Turns off the indication of attachments when querying records (for performance).

Note: Only the system administrator can update this option.

Printer

Use this option to define your printer.

Sign-On:Notification

Determines if a tip message describing the number of open workflow notifications appears on the Home Page.

Viewer: Application for Text

If your system administrator has registered other applications for viewing text output, select the application from the list of values. The profile option *Viewer: Text* must be set to *Browser* to use this profile option.

Viewer: Text

Sets the display viewer for text report output. Valid values are *Browser* and *Report Viewer*.

4

Enterprise Command Centers

Overview of Enterprise Command Centers

Enterprise Command Centers (ECC) provide information discovery along with visualization and exploration capabilities embedded within Oracle E-Business Suite user interfaces. Oracle Enterprise Command Center Framework enables the creation of business dashboards in different functional areas. Oracle E-Business Suite users navigate transactional information using interactive visual components and guided discovery capabilities allowing exploratory data analysis. Mobility and responsive design are built into the Oracle Enterprise Command Center Framework, and all dashboards automatically adjust the layout to better fit a desktop or mobile device form factor. Oracle Enterprise Command Center Framework automatically adheres to existing Oracle E-Business Suite security. The dashboard content a user sees is completely consistent with the Oracle E-Business Suite context and security.

Each Oracle Enterprise Command Center extends the owning Oracle E-Business Suite application with discovery-oriented dashboards that bring together diverse operational data from across the Oracle E-Business Suite. ECC dashboard users identify and act on top priorities without the need for custom operational reporting, and use information-driven navigation. With tools and visualizations such as actionable indicators, tag clouds, interactive charts, and consumer-like search and filters, users can browse and drill on whatever engages their attention. With each drill-down or search refinement, the data engine recalculates indicators, tag clouds, charts, and search choices to provide the user with new information on which to base the next discovery steps. Through this "conversation with the data", users narrow in on today's most important business challenges, all without predefined navigation paths, structured queries, or operational reports.

Having identified the most pressing business challenges, users seamlessly transition to detailed transaction screens to take immediate and informed action. Transaction screens are pre-populated with the results of information discovery; no re-querying of data is required. Users can switch between information discovery and transaction screens as they work their way through a set of identified problems, retaining the current

discovery context.

Oracle Enterprise Command Center Framework is built on scalable architecture comprising the following three main layers:

- ECC User Interface and UI Designer - Modern and interactive UI components with a browser-based designer that allows dashboard content creation through a drag-and-drop framework and fully declarative controls.
- ECC Service Interface - REST-based APIs that control the creation and retrieval of data and metadata. They provide advanced capabilities for data retrieval such as aggregations, associations, rollups, and more.
- ECC Core - A storage and query engine that enables the definition of data sets along with customized behaviors, relationships, calculations, and more.

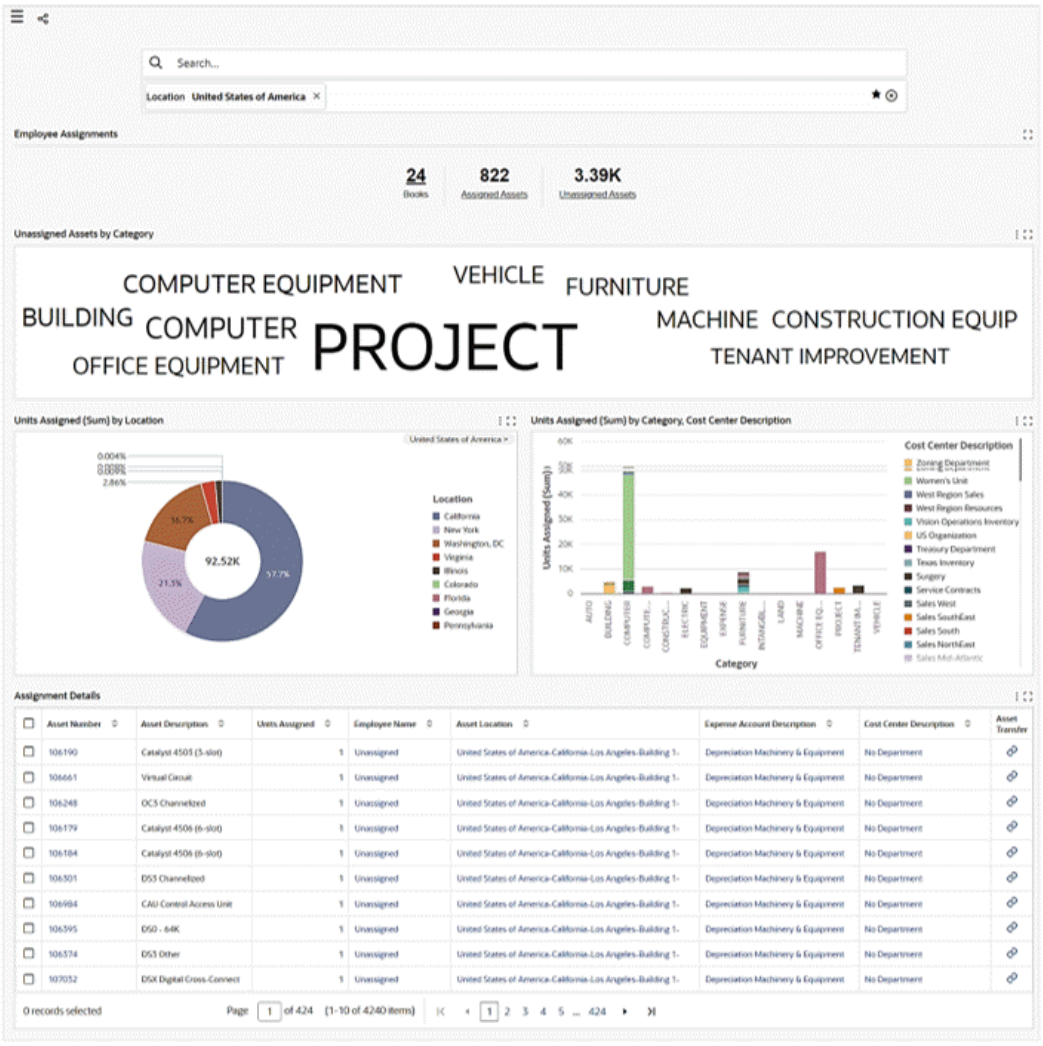
Using Oracle Enterprise Command Centers, you can:

- Browse and drill on actionable indicators
- Use consumer-like search and filters
- Drill down with all indicators and search choices recalculated
- Through "conversation with the data", narrow in on most important priorities
- Navigate to selected transactions to take action

For more information, see: Using Enterprise Command Centers, page 4-3 and Highlights of an Enterprise Command Center, page 4-4.

Using Enterprise Command Centers

Example of an Enterprise Command Center Dashboard



Each Enterprise Command Center has a set of features that allows users to answer essential questions, uncover business insights, and drill down to take the relevant action. It helps users quickly and intuitively analyze data so they can make confident decisions driven by data.

Oracle Enterprise Command Center Framework brings an interaction paradigm between business users and data in their system of records. Oracle Enterprise Command Center Framework helps create an interactive engagement rather than using simply operational reporting, whether custom or out of the box, or traditional search-and-results interfaces.

Oracle Enterprise Command Center Framework relies on the concept of guided

navigation through data to achieve information discovery. This approach presents a high level overview of the data to users, based on their roles and access levels. Users then take whatever path they want through the data to explore different aspects. Oracle Enterprise Command Center Framework guides users through their interactions with multi-faceted search, cascaded drill-downs, type-ahead suggestions, highlighted keywords, and more.

For information on administering or extending Enterprise Command Centers, refer to the separate documentation on the Oracle E-Business Suite Documentation Library.

> **Note:** Some of the screenshots used in this chapter were captured on an earlier release. Although the colors and interface elements of these images consequently have a different appearance, the functionality they illustrate also applies to the current release.

For more information, see: Highlights of an Enterprise Command Center, page 4-4.

Highlights of an Enterprise Command Center

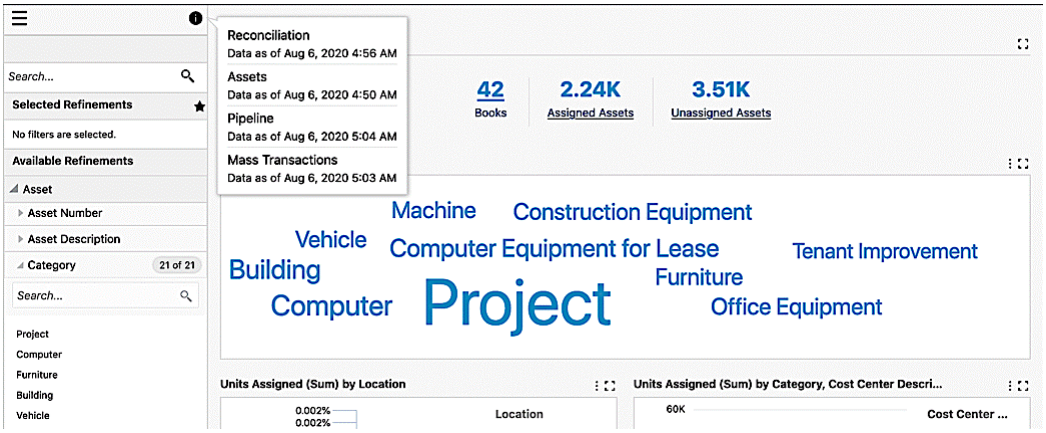
Oracle Enterprise Command Center Framework provides a flexible toolset for creating dashboards in different functional areas. The following are some features that enable you to handle diverse scenarios and obtain several types of insights.

Oracle Enterprise Command Center Dashboard

Data Load Details

Every dashboard shows the last data load date and time for all the data sets associated with the application. You can access the data load details by clicking on the Information icon.

Example of Data Load Details



Page Layout

Oracle Enterprise Command Center Framework provides the following page layouts:

- Side Navigation (default): In this default page layout, the side navigation panel that contains the search, selected refinement, and available refinements components are always displayed on the page.

- Collapsed Side Navigation: In this page layout, the side navigation panel is collapsed by default and can be expanded by clicking the "Toggle Navigation Panel" icon. When the side navigation panel is collapsed, the Selected Refinements component is displayed as a floating icon on the page. When the side navigation panel is expanded, this icon no longer appears.

- No Side Navigation: This page layout lets you display a page without the side navigation panel. This layout is best suited for a landing page or home page that will not have any navigation components. However, the Selected Refinements component is displayed as a floating icon after any filter is applied.

- Above the Fold Layout: Introduced in V14, the Above the Fold Layout divides the dashboard into two sections with a 70-30 visual split. This layout supports a flexible design with a collapsible pane which allows you to quickly reference related information such as supplier performance along with purchase orders. It is designed to balance the primary workflow in the 70% section with auxiliary information in the 30% section, so back-and-forth navigation is not necessary.

  The Above the Fold Layout displays charts, summary bars, and tag clouds without borders. Chart legends always appear on the right side for consistency. Maximize and other runtime options are not available in this layout. Only four summary bars are displayed in a two-by-two vertical tile format, regardless of the number of items configured. Aggregated tables display only the first five rows based on the configured sort.

On smaller screens, only the 70% section is shown, and the 30% section is collapsed by default. If the screen width is between 700-768 pixels, the 30% section remains collapsed but can be expanded. If the screen width is less than 700 pixels, the 30% section is completely hidden to optimize space.

During PDF export, the 30% section will appear below the 70% section. This section will begin with the subtitle "Above the Fold Layout: Supporting Insights" to distinguish the Above the Fold Layout.

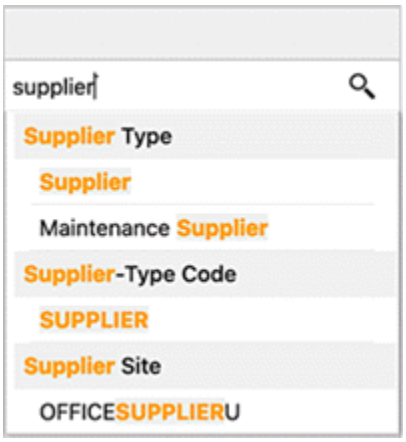
The Above the Fold Layout is also supported as part of power user personalization, allowing users to customize their dashboards based on individual preferences. Refer to Power User Personalization, page 4-108 for more information.

Side Navigation

Search

Oracle Enterprise Command Center Framework comes with search capabilities that allow users to search for a term within a particular string of data. To do a basic search, type your search term into the search box. A list of attribute values containing the search terms is displayed, and you can select a value from the list to search for it or click on the magnifying glass (search icon) to retrieve all records containing this value.

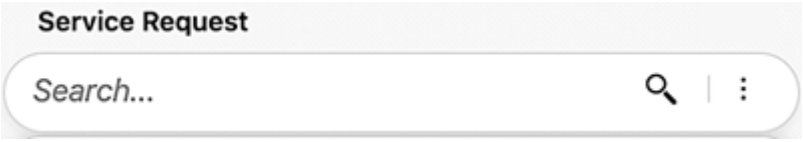
Search Box Example



The Search box supports the following capabilities:

- Look and Feel: The search box appears at the page level instead of in the side navigation panel. This look and feel provides easy-to-read search term highlighting and keyboard navigation for the auto-suggestion list.

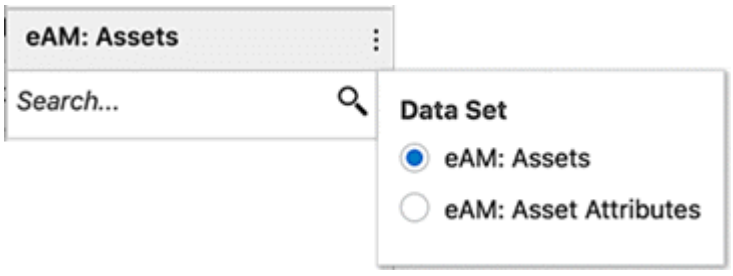
Search Box Look and Feel



Search Box Look and Feel with Auto-Suggestion

- Multi-Data Set: In the products where the search box is configured with more than a single data set, the user can switch among the data sets to search for values from each data set to apply as filters. The name of the selected data set then appears above the component.

Example 1 of a Search Box with a Multi-Data Set



Example 2 of a Search Box with a Multi-Data Set

- Search Attribute: You can choose a context under which you want to perform your search. The context can be configured to refer to any attribute in the system. Inline search within the context attribute is also supported.

  For example, if you are using Oracle iProcurement and would like to shop for a monitor, you can select the Computer Monitor category from the Search drop-down menu. Then you start searching for a monitor, a specific list appears that applies to the selected category.

- Search Behavior: If you select a search attribute, additional controls let you choose how to display the remaining values of context attributes based on the current filter state on the page.

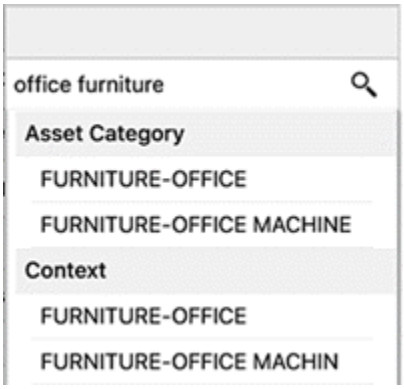
  You can remove applied filters from the search box by changing their selection from the attribute list.

- Hyperlink: You can now search and navigate to another page and apply the search term as a filter on the destination page.

- Condition: The search box supports applying a data set condition on the suggestion list results.

  If you search for two terms in the search box, the `AND` operator is applied by default between the terms. Values that match each term are returned, even if the terms are not in the same order. For example, a search for 'office furniture' returns `furniture-office` because it matches both `office` and `furniture`.

Search Example using 'AND'



Oracle Enterprise Command Center Framework also has advanced search capabilities in the search box as wildcard, phrase, and Boolean search with complex expressions.

Value Search

You can search across attributes for values with matching names. The search returns single values that match all your search terms organized. by attribute.

A value search must include three or more characters.

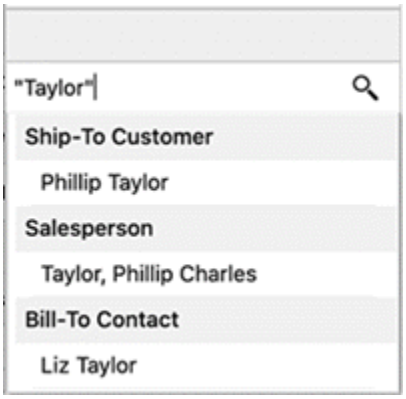
Record Search

You can perform a keyword search against specific attribute values assigned to records.

Phrase Search

Phrase Search allows you to search for an exact sequence of terms using quotation marks (" "). For example, searching for `"phillip taylor"` returns only records with `phillip taylor` (case-insensitive).

Phrase Search Example

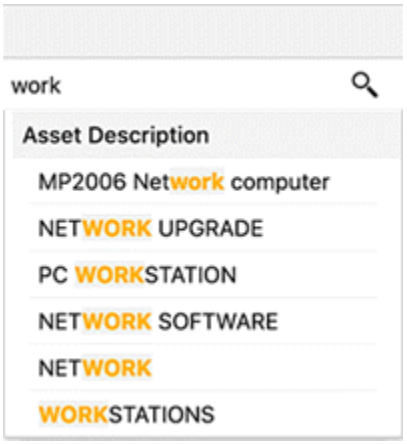


Wildcard Search

Wildcard or partial search used when you are searching for a term where you only know a few letters. By default when you start typing your search term in the search box, a trailing wildcard (*) is implicitly added at the end of the word. For example, a search

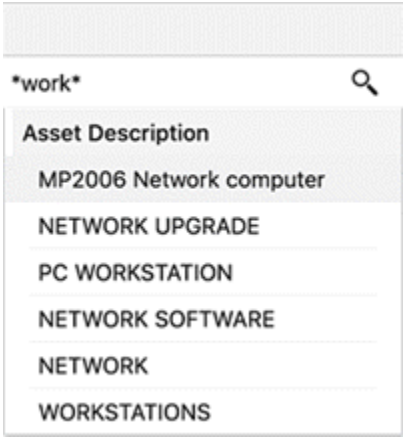
for `work` returns all values with terms that start with `work`; for example, `PC WORKSTATION`, and `WORKSTATIONS`.

Example of a Wildcard Search



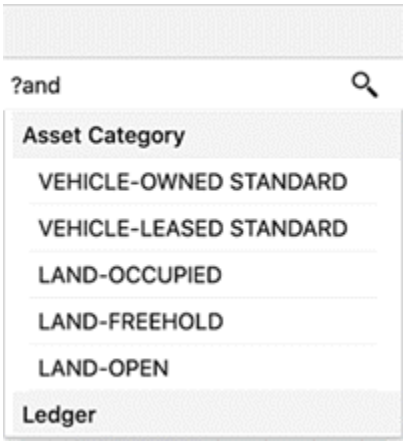
Also, you can use (*) or (%) at the beginning and end of the search term, and the results will match any text that contain the characters between the search operators, even if the text occurs in the middle of a word. For example, with a search for `*work*` or `%work%`, all values that have 'work' are returned in the search results. (*) or (%) perform a multiple character wildcard search that looks for 0 or more characters. For example, a search for `*work*` returns values such as `PC WORKSTATION`, `NETWORK`, and `WORKSTATIONS`.

Example of a Search using '*'



To perform a single (one and only one) character wildcard search use the "?" symbol. For example, a search for `?and` returns `LAND`, and a search for `??and` returns `STAND`.

Example of a Search using '?'



Boolean Search

You can include logical operators in the search to set more precise search logic based on the operators listed below:

> **Note:** Boolean operators must be in capital letters only: AND, OR, and NOT.

Boolean Search Operators

Boolean Search Operator	Purpose	Example Usage and Results
AND	Returns results with all specified terms.	`cip AND addition` Returns results with both 'cip' and 'addition'
OR	Returns results with any specified terms.	`desktop OR laptop` Returns results with either 'desktop' or 'laptop'
NOT	Negates the following term (Will not retrieve records that have the unwanted keyword).	`desktop NOT monitor` Returns results with 'desktop' but not 'monitor'

Operator precedence is determined in the following order:

1. Any sub-expressions in parentheses are evaluated first
2. NOT is evaluated before other operators

3. AND is evaluated after NOT

4. OR is evaluated after AND

Expressions

An expression is used to build a more complex search query. You can combine keywords with AND, OR, or NOT. Use parentheses () to determine the relationship between operators when more than one operator is used. For example, a search for `(computer OR desktop) NOT monitor` returns records that contain both the words 'computer' and 'desktop' but do not contain 'monitor'.

Category Search Features

Beginning with V11, a designer may customize the search experience in a dashboard so that users can search within the context of applied filters only. Alternatively users can search across everything regardless of applied filters. A designer may choose to expose this option of selecting the search experience at runtime to users.

For example, if an administrator has enabled runtime search scope selection and enabled Category search, then you will have runtime options from which you can set the search scope. "Search Within" is set by default. If there are multiple data sets, you can select choose one data set and select the "Search Scope" option.

If "Search Within" is disabled then you can search across everything irrespective of applied filters.

The following are the different functional behaviors when "Category Search and "Search Scope" are used in unison:

- "Category Search" is enabled, and "Search Scope" is "Search Without":
  - If a category is selected at runtime, then it will guide/restrict the search.
  - Once the search is applied then the "Category Search" goes back to "All" thereby allowing you to search across everything. If you select a category again, then it will again guide the search. If you select something now, then it will override all previous search filters and the search category will go back to "All."

- "Category Search" is not enabled, and "Search Scope" is "Search Without":
  - You are able to search across everything and are not limited to any applied filter.
  - If you now select something, then it will override all previous search filters, if any.

- "Category Search" is enabled, and "Search Scope" is "Search Within":
  - If a category is selected at runtime, then it will guide/scope the search.
  - Once the search is applied then the "Category Search" reflects the category and

therefore limits you to only Search Within that category. Any additional search will be on top of existing search filters.

- "Category Search" is not enabled, and "Search Scope" is "Search Within":
  - You can search across everything on the first attempt. Any subsequent search will be within the context of the applied search filters.
  - If you select something now, it will be added to the existing search filters.

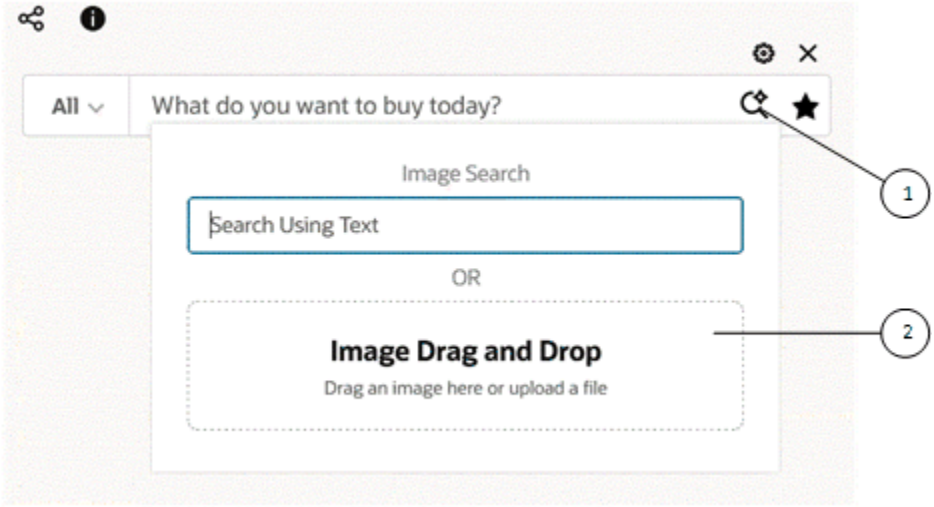
Image Search

The Image Search feature, introduced in V14, allows you to search for products using images or text descriptions. This feature enhances search accuracy, reduces errors, and improves productivity by enabling you to find products based on visual or descriptive attributes.

Key features include:

- Image Search Icon: A new icon is displayed in the search bar when Image Search is enabled. Hovering over the icon shows the tooltip "Image Search."
- Upload Image: You can upload an image (one at a time) to search for visually similar products.
- Search by Description: You can input a text description (for example, "red pens") to find related products.
- Search Chip Label: Displays the uploaded image thumbnail and description text beside the label "Image Search."
- Image Upload Indicator: Shows "Uploading..." text beside the image thumbnail during the upload process.
- Search Combination: You can combine regular search results with image search results for more precise results.
- Supported image formats: GIF, PNG, JPG, and WEBP.
- File size limit: Two (2) MB per image.

Image Search Window



1. Image Search icon
2. Region for uploading an image

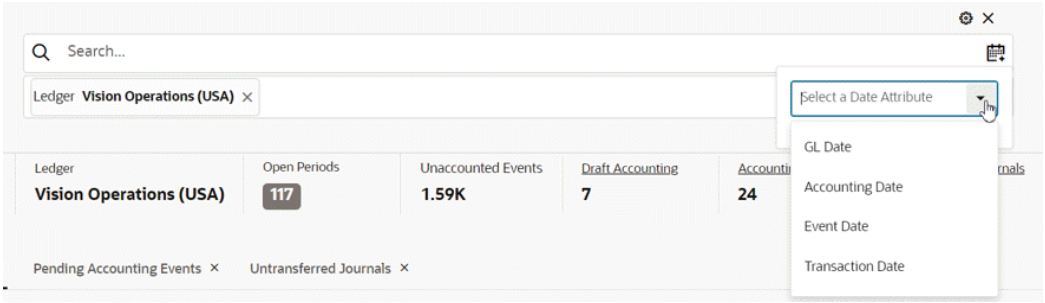
> **Note:** Oracle Enterprise Command Center Framework utilizes advanced AI models (sentence transformers and vision models) to facilitate image search. While it strives for accuracy and reliability for the search results, the AI-driven solutions are not always accurate and occasionally produce unexpected matches.
>
> Users should exercise their own judgment when interpreting the search results and verify that the retrieved content matches their search criteria before making decisions or taking actions. The use of this application is at your own discretion, and Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software.

Quick Date Filter

Beginning with V12, the quick date filter feature facilitates swift selection of date filters without the need to navigate to available refinements. You can easily choose date attributes, select from predefined time ranges, and employ relative date ranges such as "last seven days" or "previous month."

Example of a Quick Date Filter Icon and Tooltip

Example of a Quick Date Filter with Expanded List



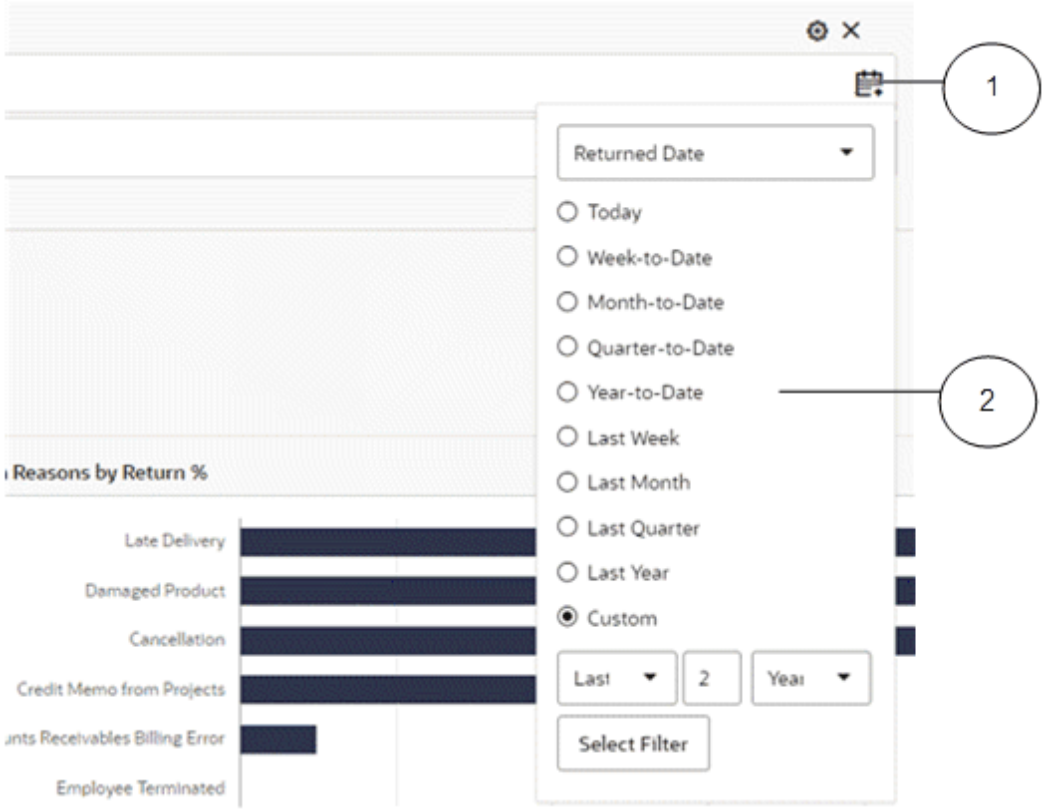
> **Note:** The Quick Date Filter does not apply to date subsets or fiscal years.

This feature is integrated with the search box.

In scenarios involving multiple datasets, the date list is sourced from the default dataset configured under search settings. You can select from a variety of quick filtering options and even apply custom relative date filters. Additionally, you have the flexibility to opt for filtering at the hour and minute levels for date-time attributes..

Upon application, quick date filters are incorporated into selected refinements as regular date filters, allowing you to modify them and switch between list, range, and relative range type date filters as required.

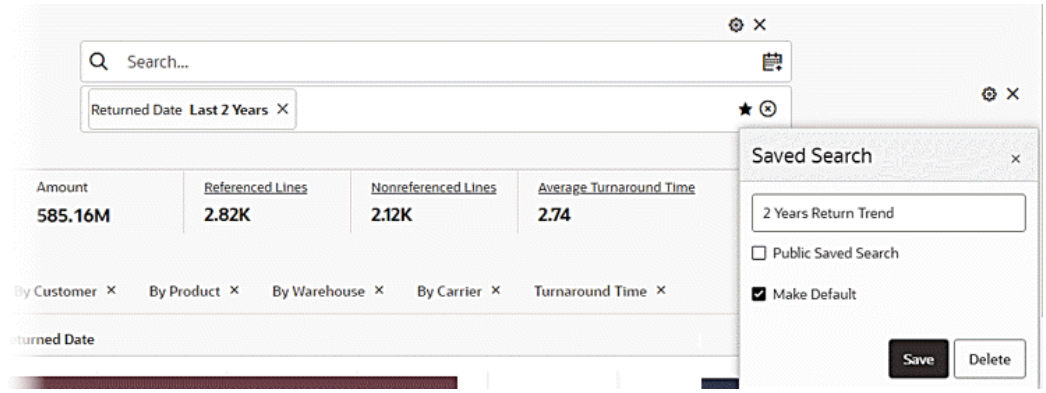
Example of a Quick Date Filter



1. Quick Date Filter icon
2. Filter options for a range of dates

You can also add a quick date filter as a "Saved Search."

Example of a Quick Date Filter Added as a Saved Search



Negative Refinement from Search

Beginning with V14, negative refinements from the search box are supported to allow you to exclude specific values from their search results for greater efficiency.

Enhancements to the Search Feature

In V14, the search interface has been improved for a more intuitive and efficient user experience. Updates include a refined layout, better alignment, and enhanced usability.

Key enhancements are:

- Streamlined search bar: Now aligned to the left, taking up 70% of the page width for better visibility.
- Updated icons and labels:
  - The star icon for saved searches is now inside the search box.
  - The Clear All button replaces the reset icon, making it more recognizable.
- Enhanced filter visibility: Applied filters now have a distinct background color for better readability.

Adaptive layout behavior allows the search interface to dynamically adjust based on panel visibility:

- Default view: The search bar occupies 70% of the page width.
- One Panel Open: The search bar expands to fill the remaining space (70%).
- Both Panels Open: Each panel takes 30%, with the search bar adjusting accordingly.

User experience improvements include:

- Intuitive refinements: Applied filters are displayed as individual chips. When no filters are selected, the area remains empty.

- Consistent spacing: Optimized padding for search elements, including dataset names, icons, and buttons.

- Smart button placement: The Clear All button position is adjusted when power user controls are enabled.

Finally, personalization options allow power users can customize their search experience based on the configuration. See the Personalization section in *Oracle E-Business Suite Extending Enterprise Command Centers* for more information.

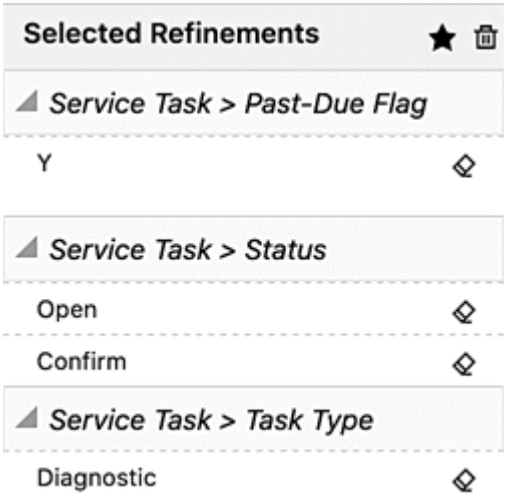
Selected Refinements

The Selected Refinements region allows you to view and understand how the applied filters are displayed and grouped based on refinement operator.

In the Selected Refinements region, filters are grouped as described below:

- With the same attribute and same operator, filters are displayed in the same accordion

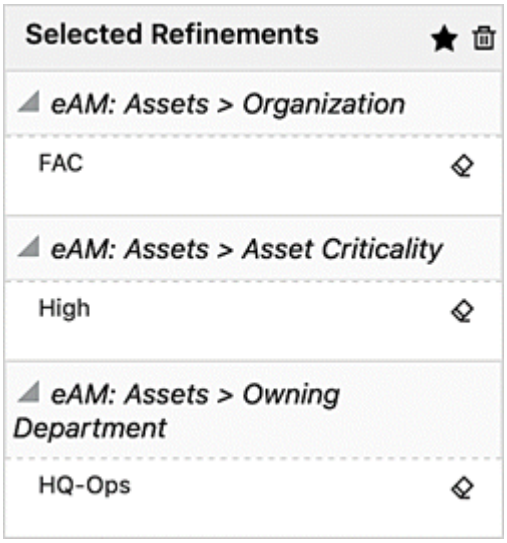
Example of the Same Attribute and Operator in Selected Refinements



- With the same attribute but different operators, filters are displayed in different accordions

- With different attributes and different operators, filters are displayed in different accordions

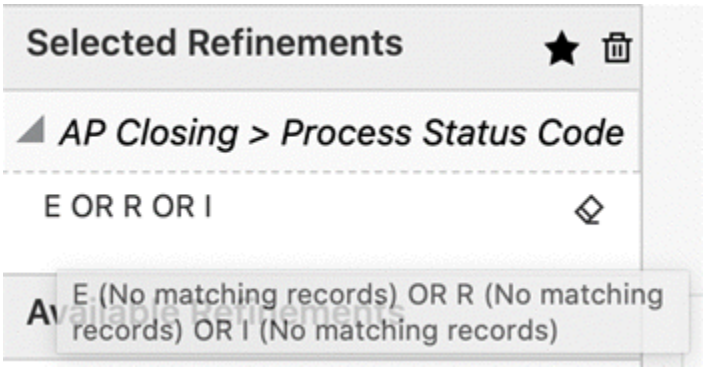
Example of Different Attributes and Operators in Selected Refinements



Descriptions of Refinements

You can access the meaning of the filters applied from the metric refinements in the selected refinements component. Hover over the applied filters codes to see the descriptions of the codes.

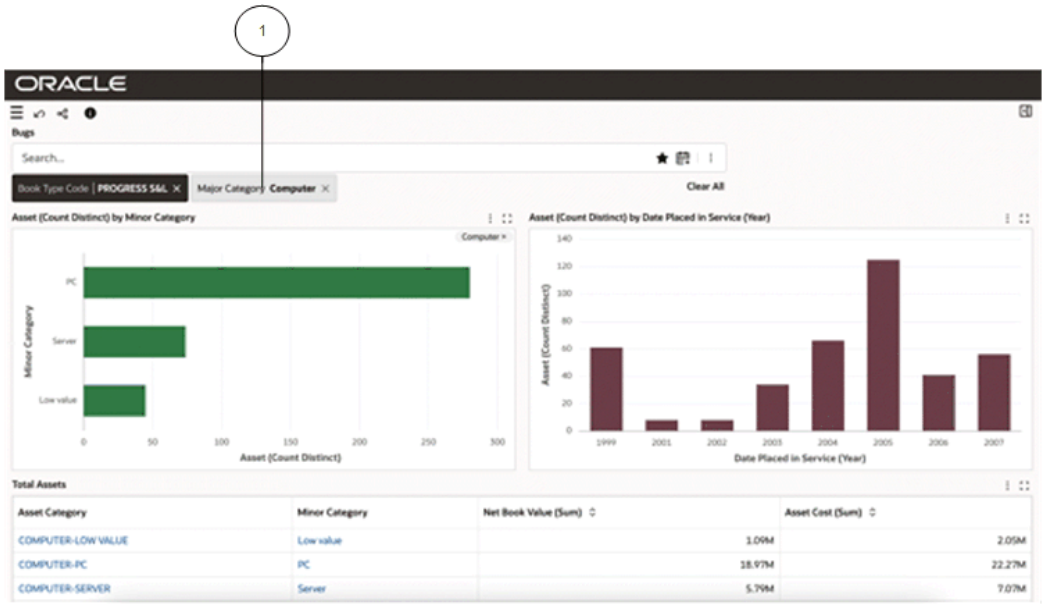
Example of Selected Refinements with Applied Filters Codes



Filter Chips

Beginning with V14, the Filter Chips feature provides predefined filters for quick access, enhancing efficiency and productivity. This feature simplifies filter management by allowing you to add, remove, and modify filters using visual chips for a more streamlined and intuitive experience.

Example of Filter Chips



1. Filter Chip

The figure above shows the Filter Chip interface in the Asset Costs dashboard. You can easily add, remove, and modify filters using visual chips. The filter chips display up to three selected values, with additional values indicated by side arrows (>>).

Key features and behavior of the Filter Chip feature are:

- Clear filter visualization:
    - Applied filters: Applied filters and their values are displayed in the filter chips, allowing you to quickly understand the filter criteria.
    - Progress bars: In the filter chip window, selected values are displayed with corresponding progress bars representing the aggregation metric (for example, SUM, AVG, COUNT).
- Easy filter resetting: You can reset all filters using the **Clear All** button.
- Customization: Filter chip selections are saved as part of the user preferences, enabling a personalized experience.
- Runtime behavior:
    - Display: Filter chips display up to three selected values. If more than three values are selected, side arrows (>>) indicate additional selections.

- No Filters message: When no filters or filter chips are configured, the message "No filters selected" is displayed in the Selected Refinements section.

- Power user personalization: The Filter Chip feature supports power user personalization, allowing power users to customize the display and behavior of filter chips based on their preferences.

Breadcrumbs

The Breadcrumbs feature is an intuitive representation of the selected refinements as a trail of filters.

The Breadcrumbs feature is configured along with the search box on the page. It places emphasis on the sequence, or path, that the user has chosen to arrive at the current state of the dashboard.

Filters in the sequence are separated by their corresponding data set names with controls to remove individual values. Filters of the same attribute are placed next to one another, and hierarchical filters are separated by '>'.

Each attribute used in the refinement is shown in a box. Hovering over the attribute name displays the dataset name.

If there are more than three filters of the same attribute, all the filters are grouped and collapsed with an icon. Clicking on the icon displays all the filters of the attribute. You can also remove all the filters of this attribute at once.

You can replace or apply additional filters from the selected refinement.

If you click on the attribute name, then you can select another value and apply it as a filter on top of the existing one from the same attribute. If you click on the attribute value, then you can select another value and replace it with the existing one from the same attribute.

Note that this usage applies to multiple assigned attributes with 'OR' and 'AND'.

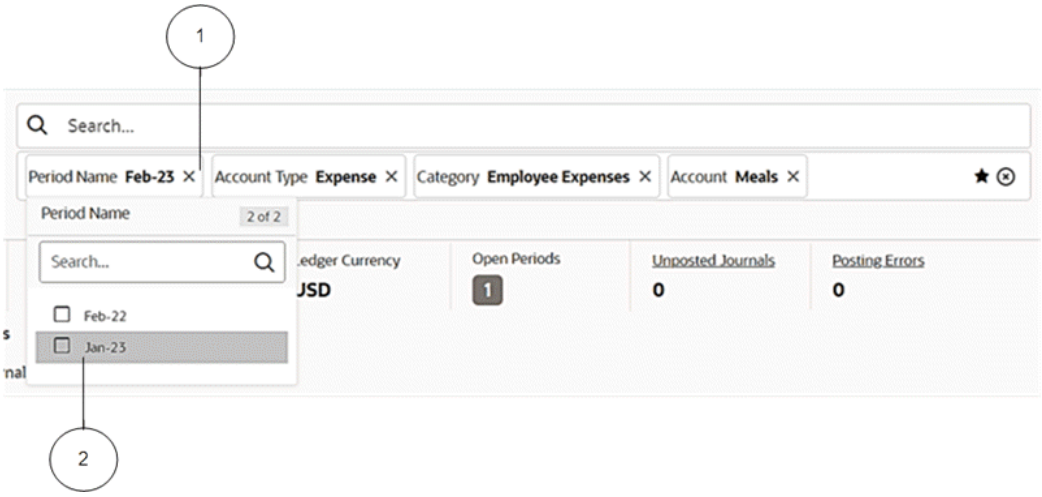
If you filter by one of the context attributes (single assign) in the dashboard, such as an operating unit, and then click on the attribute name or value, the applied filter will be replaced by the new value.

If you applied a date range filter, you can click on the attribute name or attribute value and replace the existing filter with the same attribute. Also, with a date range filter, if you click on the attribute name or value and switch from range to list or from relative range to list, then filtered by one value or more from the list, then these filters will be applied on top of the existing range filter applied from the same attribute.

If you applied a numeric range filter, you can click on the attribute name or attribute value and replace the existing filter.

Beginning with V10, you can make your selections by clicking on an attribute, or by checking the boxes for multiple selections, and then clicking the **Select filter** button. Use the negative refinement icon to exclude an attribute.

Example of Breadcrumbs for Selected Refinements



1. Breadcrumbs
2. List of attributes for selection

Saved Search

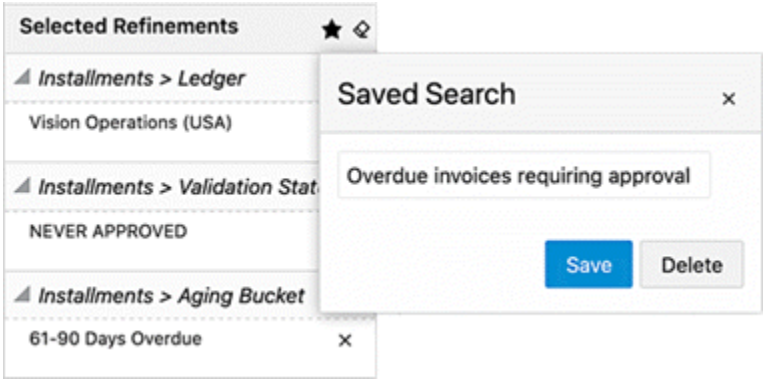
Oracle Enterprise Command Center Framework provides an option to save frequently-applied filters or preferred filters as saved searches, allowing users to reuse them. All saved searches are context-sensitive to the page and are part of the search suggestions. The list of saved searches appears when the focus is on the search component. Saved searches are searchable by their titles, filter attributes, and filter values.

Three types of saved searches are available for users: seeded, public, and private. Seeded saved searches are published along with the product. Administrators can create public saved searches. Users can create their own private saved searches. Private saved searches are accessible only by the users who created them whereas public saved searches are accessible by all the dashboard users.

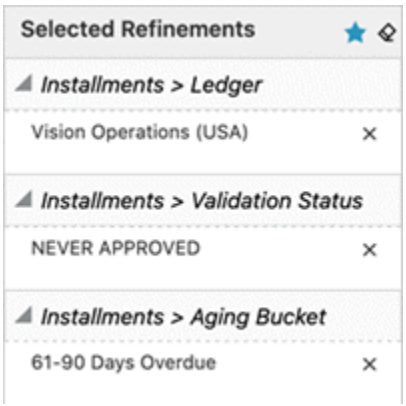
To create a saved search:

1. Add refinements to the dashboard.
2. Click the star icon in Selected Refinements header.
3. To create a public saved search, check the Public Saved Search checkbox.
4. Enter a title for the saved search and click **Save**.
5. Once a saved search is created, the star icon is highlighted.

Example of Creating a Saved Search



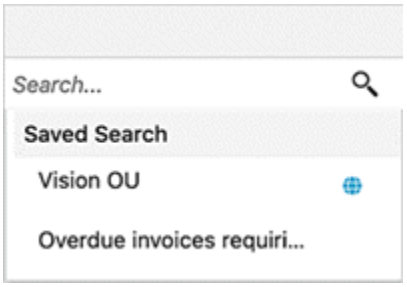
Saved Search Example



To search and apply a saved search:

1. Place your cursor inside the search box to get a list of saved searches.
2. All seeded searches are grouped separately, and public saved searches are marked.
3. Enter a search query to refine the list.
4. Click on a saved search.

Example of Applying a Saved Search



To delete a saved search:

1. Apply a saved search.
2. Click the star (highlighted) icon.
3. Click **Delete**.

To edit the name of a saved search:

1. Apply a saved search.
2. Click the star icon.
3. Update the name.
4. Click **Save**.

To edit the filter state:

1. Delete the saved search.
2. Update filter state.
3. Click the star (highlighted) icon.
4. Enter the previous saved search's name.
5. Click **Save**.

To copy or modify a public saved search:

1. Apply a public saved search.
2. Add or delete filters, if necessary.
3. Click the star icon.

4. Update the name.

5. Click **Save** to create a private saved search.

You can create a private saved search and make it your default search for applied refinements when you navigate to a dashboard.

Beginning with ECC V8, administrators can create a public saved search and make it the default search for applied refinements in a dashboard for all users.

Available Refinements Overview

Available Refinements

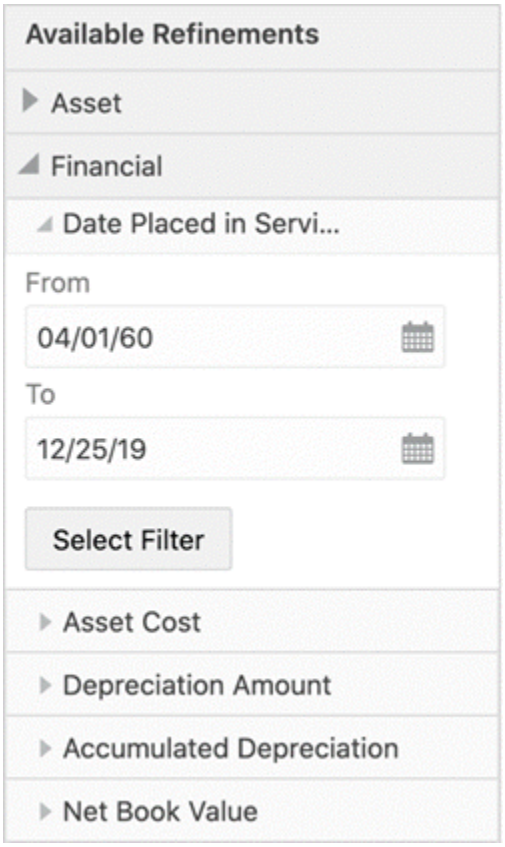
The Available Refinements region allows interactive navigation of the data without your having prior knowledge of its spread and characteristics. Available Refinements presents you with all available possible values of an attribute through facets, date ranges, and number ranges.

As you interact with available refinement components or perform filtering operations from other components on the page, Available Refinements will dynamically update its list to display relevant attributes and attribute refinements. This navigation is data driven and supports progressive disclosure of additional options as appropriate, according to your navigation path through the data.

You can search for a specific attribute value using the search box embedded in the Available Refinements region. The minimum number of search characters is 2 to help you to find some search terms like 'IT'.

The Available Refinements feature includes an option to perform a 'Like' search. This type of search supports pattern matching when you enter a search string with wildcards or a Boolean expression. Click the magnifying glass icon displayed next to the attribute for the search to take effect on all page components.

Example of a Date Range in Available Refinements

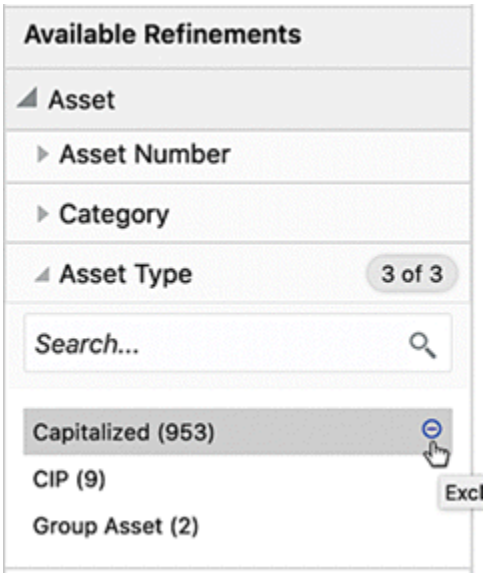


The Available Refinements feature also supports categorizing the attributes in a logical grouping using attribute groups.

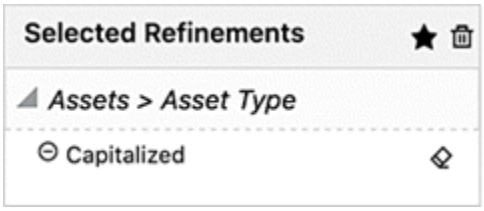
Negative Refinements

Negative Refinements allows you to refine the data by filtering out the selected values. Such refinements are displayed in selected refinements with an "Exclude" icon indicating them as negative refinements. To apply a negative refinement, you click the "Exclude" icon. The icon is visible only when hovered on the attribute value or navigated using the keyboard.

Example of Selecting a Negative Refinement



Example of a Negative Refinement



You can also exclude more than one attribute by clicking the icon for all the required exclusions.

Also, if a search is done, the **Exclude All** button excludes all the search results.

Negative refinements change the refinement behavior of multi-select `AND` attribute to multi-select `OR` as well as conversely.

Behavior Matrix for Refinement Selections

Negative Refinement Selection	Single Assignment, Positive	Single Assignment, Negative	Multiple Assignment, Positive	Multiple Assignment, Negative
Single Selection	=	< >	N/A	N/A

Negative Refinement Selection	Single Assignment, Positive	Single Assignment, Negative	Multiple Assignment, Positive	Multiple Assignment, Negative
Multiple Selection OR	N/A	N/A	OR	NOT X AND NOT Y
Multiple Selection AND	N/A	N/A	AND	NOT X OR NOT Y

Range Filter

You can switch between the range and list for date and numeric attributes in the available refinements and breadcrumbs features.

Relative Date Filter

A Relative Date Filter allows you to filter the dashboard based on a sliding window of time and take advantage of the default saved search with the relative date.

You can apply time-based filters to any date and date-time column in the dashboard using the relative date icon.. For example, users can use the relative date filter to show only sales data that's happened within the last 30 days (calendar months).

The default filter is "Today". You can specify a relative date period as either an explicit number of past or future time units (for example, two years) or specify a previous period.

The type of filter defines the range that you want to filter.

- Yesterday: Starts on the day before the current day.
- Today: Current calendar day.
- Tomorrow: Starts on the day after the current day.
- Last: Specifies a period to apply to the selected date level (Years, Quarters, Months, Weeks, Days, and includes Hours, Minutes, if the column is a DateTime column). For example, "Last 7 Days" means to start seven days before the current day and continue up to the current day.
- Next: Specifies a future period number to apply to the selected date level (Years, Quarters, Months, Weeks, Days, also Hours, Minutes, and Seconds if the column is a DateTime column). For example, "Next 3 Days" means to start at the beginning of the current day and continue for three days. (The range includes today.)
- Current: Specifies a present period to apply to the selected date level (Years, Quarters, Months, Weeks, Days, and includes Hours, Minutes, if the column is a

DateTime column). For example, "Current Week" starts on the first day of the current week and continues for seven days.

- Week to Date: Starts on the first day of the current week and continues up to the current day. (The range includes today.)
- Month to Date: Starts on the first day of the current month and continues up to the current day. (The range includes today.)

  Quarter to Date: Starts on the first day of the current quarter and continues up to the current day. (The range includes today.)

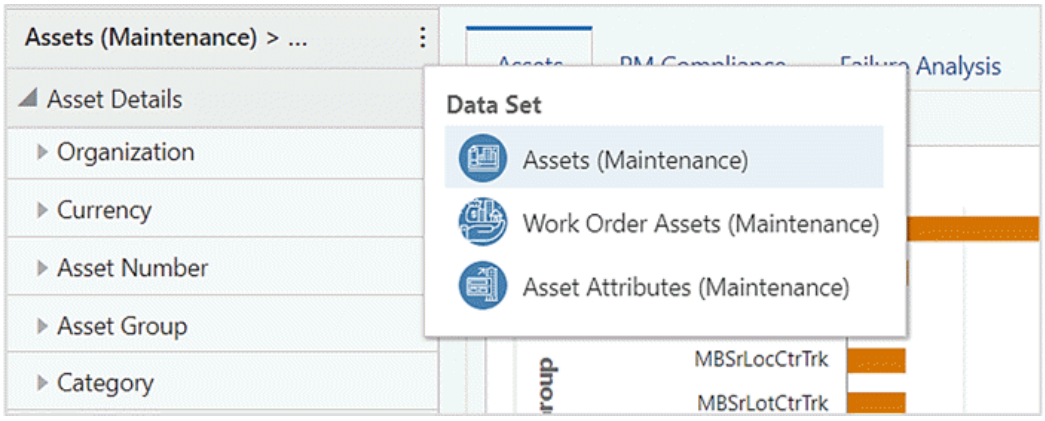
  Year to Date: Starts on the first day of the current year and continues up to the current day. (The range includes today.)

In a relative date filter, the period defines the relative date range period. For example, the period could be 7 or 10 days. The date measurement defines the range unit. It could be Day, Week, Month, Quarter, or Year. Hours and Minutes are included if the column is a DateTime column.

Multi-Data Set

The Available Refinements feature also allows you to apply the appropriate filters from multiple data sets. When two or more data sets are configured under Available Refinements, you can switch among the data sets to find and apply your desired refinements. The name of the data set selected appears in the component header as a title.

Example of a Multi-Data Set



Attribute Group

An attribute group is a logical grouping of attributes for display purposes. Attribute groups provide ease of navigation through Available Refinements.

For example, in an Assets application, the attributes could be grouped into the following: Asset Details, Category, Financial Details, Sources, and Assignments. The

Asset Details attribute group contains the attributes Manufacturer Name, Model Number, Serial Number, and so on.

Attributes are then displayed in a hierarchical order based on the attribute groups.

Oracle Enterprise Command Center Framework supports advanced scrolling functionality by limiting the height of refinements section by the height of the dashboard.

Dashboard Components

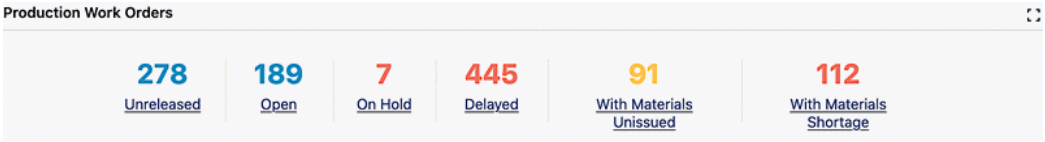
Oracle Enterprise Command Center Framework has a set of graphs and charts that provide a powerful way of summarizing and presenting data that are critical in decision making in an easily comprehended manner. You can find insights, detect outliers, filter the data directly from the charts, and drill down to a deeper level of details. This section describes how charts and graphs are used to detect and solve problems or highlight bottlenecks and exceptions.

Summarization Bar

As the name implies, metrics, flags and dimensions in the bar summarize important aspects of the data displayed. All values are updated with new calculation results when you change the focus as you filter the data.

The summarization bar supports conditional formatting. With conditional formatting, a metric item can be displayed in a specific color based on a specific value or range of values, so that the color changes depending on the value of the metric.

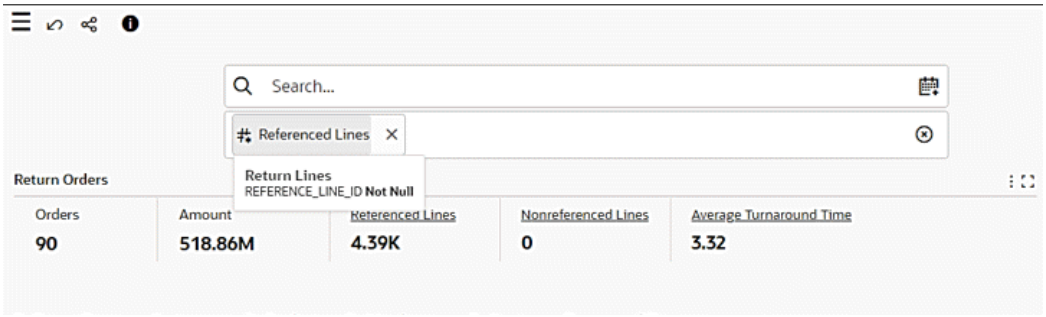
Summarization Bar Example



You can apply a filter from a metric item in the summarization bar; this filter can be based on a static condition. For example, "Draft Orders" could be based on static conditions (`open flag = Y AND booked flag = N`). Also, the filter can be based on a variable condition. For example, the "My SRs" metric is based on service requests assigned to the logged-in user. In this case, the condition changes based on the logged-in user.

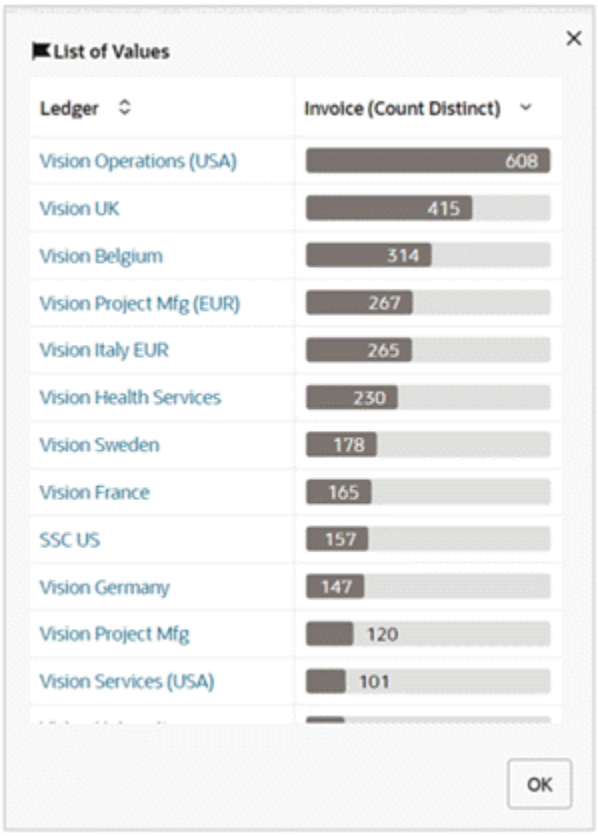
Beginning with V12, the metric refinement is enhanced to support aliases, or aliasing. An Enterprise Command Center designer can specify an alias as an optional parameter. If the parameter is not specified, the component title is used as an alias to provide a meaningful name in the selected refinement. Upon hovering, you can find out details of the refinements applied under a metric refinement.

Example of a Metric Refinement with Aliasing



Beginning with V10, a window with a list of flags is available and includes data bars for metrics. The flag list is sorted in descending order by default, based on the defined metric. When more than one metric is defined, the sorting is done based on the first metric.

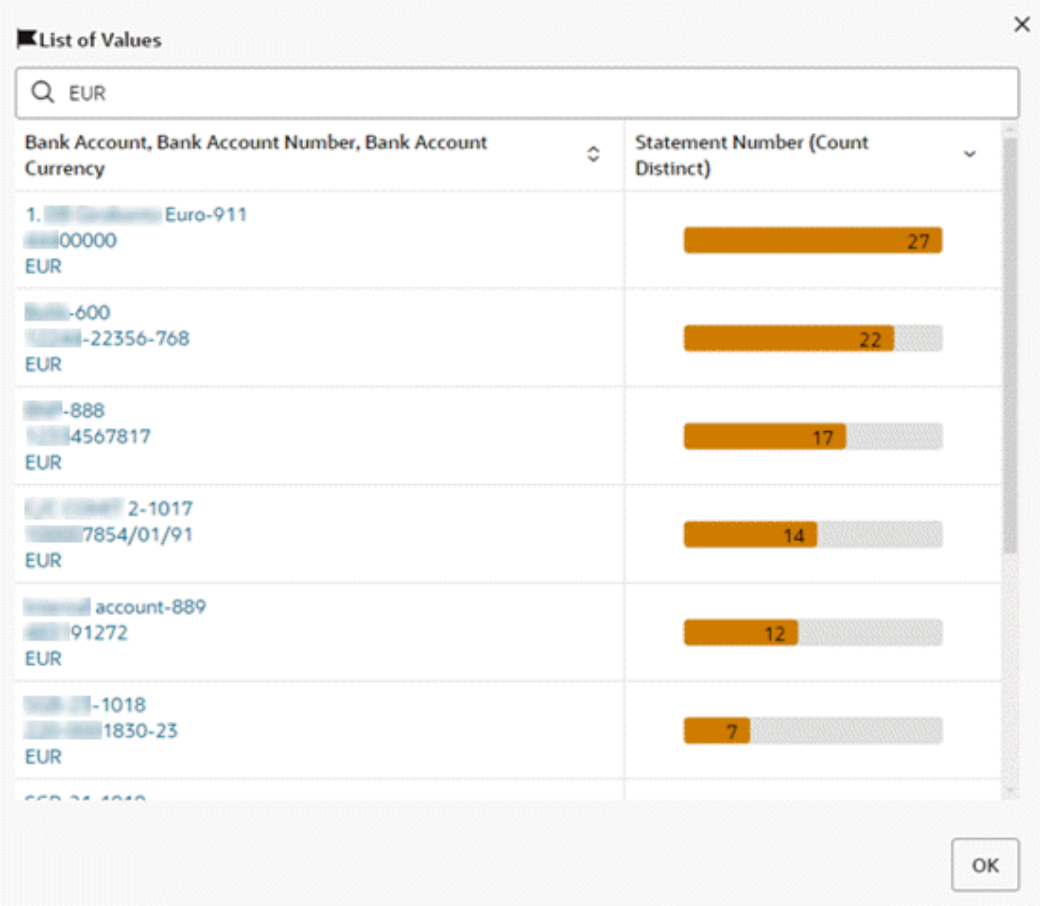
Example of a Flag Pop-Up Window



Beginning with V12, the flag summary item supports searching within the flag pop-up window. The search capability allows you to search within the entire list rather than being restricted to the 100 items displayed. This search feature only works on the

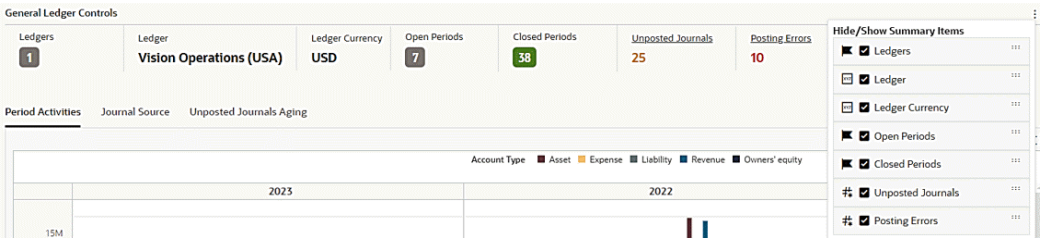
dimension.

Example of Searching within a Flag Pop-up Window



You can personalize the summarization bar component through runtime options. Personalizations included showing or hiding summarization bar items and reordering the list of items.

Example of Summary Bar Runtime Options

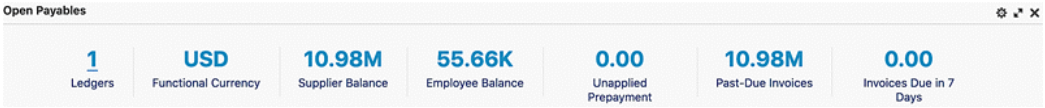


Numbers may be abbreviated for improved readability. The actual value is displayed in the tooltip.

Example of Abbreviation in Summarization Bar

Values in the summarization bar are displayed according to the number formatting specified for the Oracle E-Business Suite instance and are translatable.

Example 1 of Number Formatting in Summarization Bar

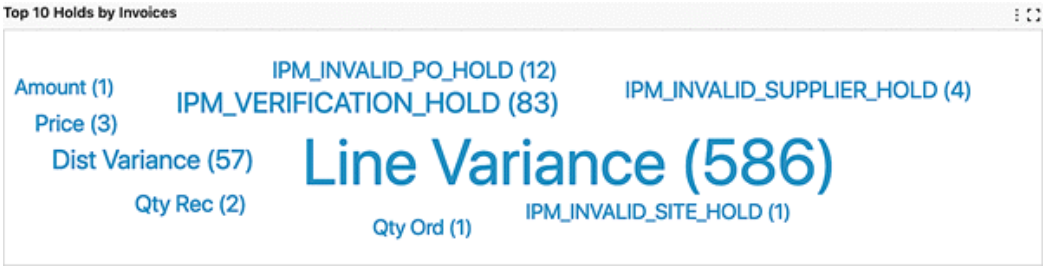


Example 2 of Number Formatting in Summarization Bar

Tag Cloud

A tag cloud highlights keywords in the system based on a configured importance metric. For example, a tag cloud could show top (or bottom) suppliers by invoice count, invoice amounts, and so on.

Example of a Tag Cloud



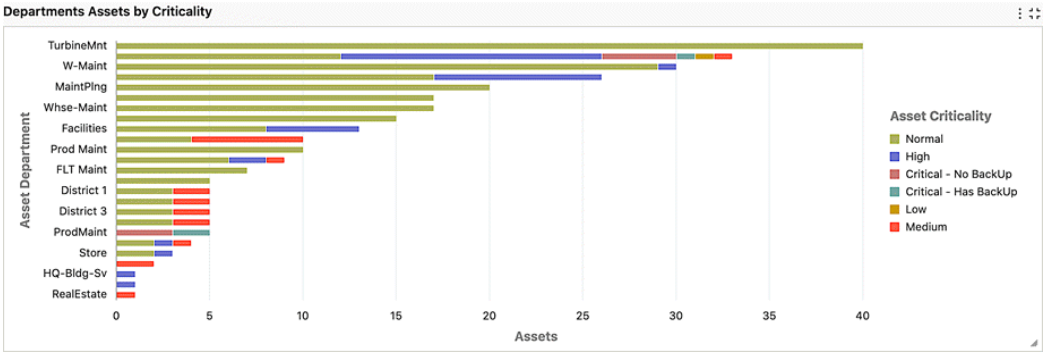
You can change the attributes of the Tag Cloud by using the Options icon.

Charts

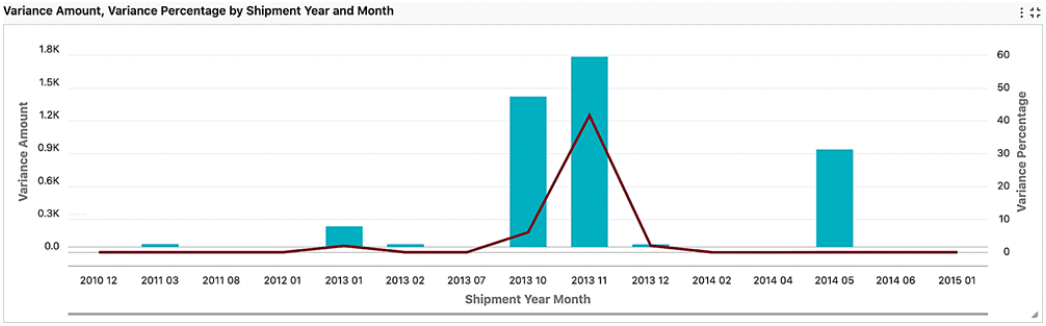
Charts depict data trends, distributions, anomalies, and more. You can drill down through different levels of hierarchy and allow the system to expose different levels of details dynamically. You can control which options to slice the data by and affect the whole navigation path by picking filters directly from the charts.

Charts are effective when there is numerical data that splits nicely into different categories so you can quickly see trends within the data, compare related information, and gain immediate insight.

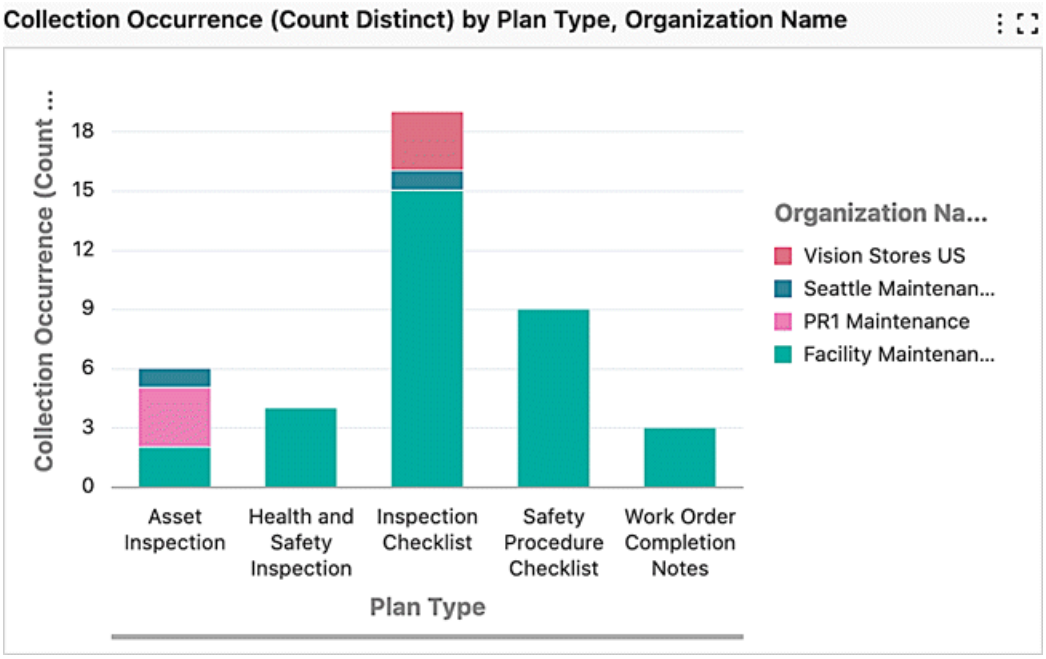
Example of a Horizontal Bar Chart



Example of a Bar-Line Chart



Example of a Vertical Bar Chart



You can refine the displayed data by clicking the data point on the chart. Also, by hovering the mouse over a chart, you can display the dimension and metric value for a data point.

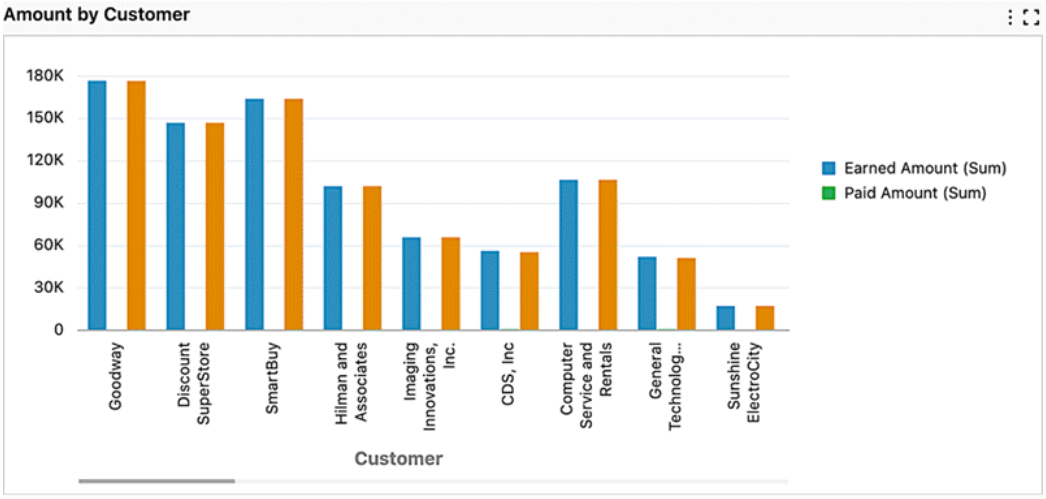
Also, you can make the following refinements:

- Click a data point on the chart to refine the data by all of the applicable dimension values
- Click a label on the category axis to refine the data by that value only
- Click a legend entry to refine the data by that value only

> **Note:** This feature is not available on multi-metric, multi-dataset, and waterfall charts.

Multi-metric Chart

Example of a Multi-Metric Chart



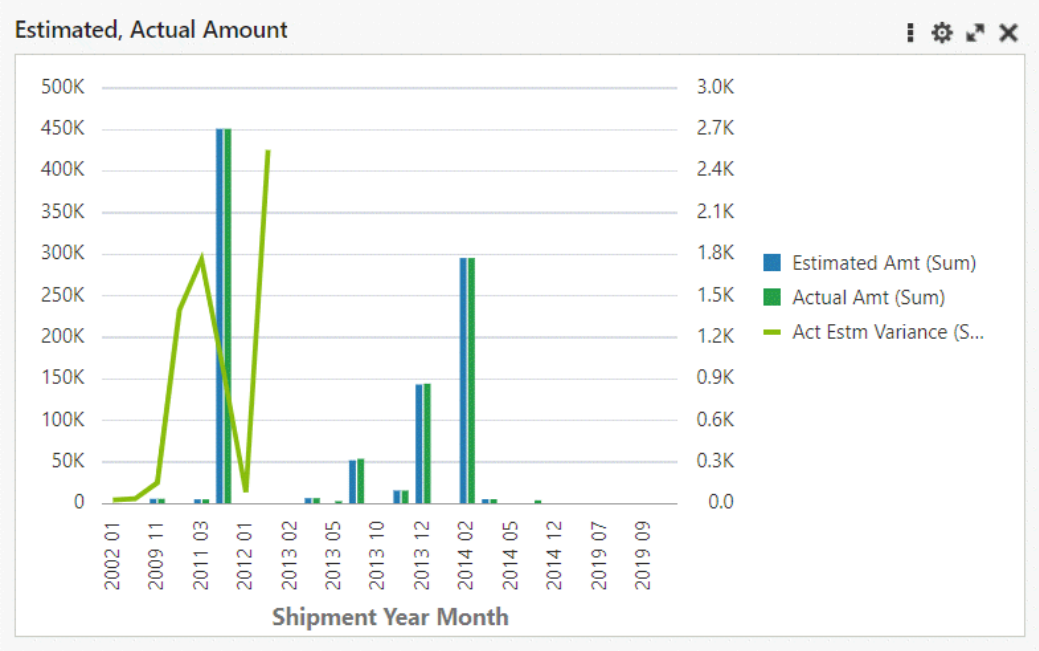
A multi-metric chart supports the display of multiple metrics. Each metric shares the same axis. In a multi-metric chart, the bars are grouped by a series dimension.

With this chart, you can visually compare metrics against a shared dimension. For example, an organization could have a number of projects. A multi-metric chart could be used to compare the planned versus the actual quantity of a resource per project, or it could be used in a comparison of cost and revenue per project.

Multi-metric Bar-Line Chart

A multi-metric bar-line chart supports the display of multiple bar metrics and line metrics. Bar metrics and line metrics have their own axes, respectively. A series of dimension groups the metrics. With this chart, you can visually compare metrics against a shared dimension.

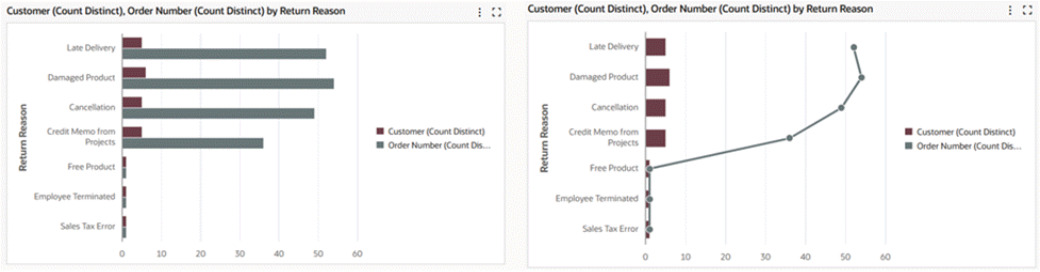
Example of a Multi-Metric Bar/Line Chart



Multi-metric bar and bar/line charts can be designed to span across data in different data sets. For a business user, the experience is the same as with a typical bar or bar/line chart, respectively. However, when a filter is applied from a chart with a multi-data set, then the selected refinements include filters from all the data sets.

In V14, a capability is introduced to switch between bar and line representations in multi-metric charts, offering users more flexibility in how to display the data. This enhancement applies to both bar and bar/line chart types, allowing you to change the representation of each individual metric based on your preferred style.

Example of a Switch between Bar and Bar/Line Representations for a Chart

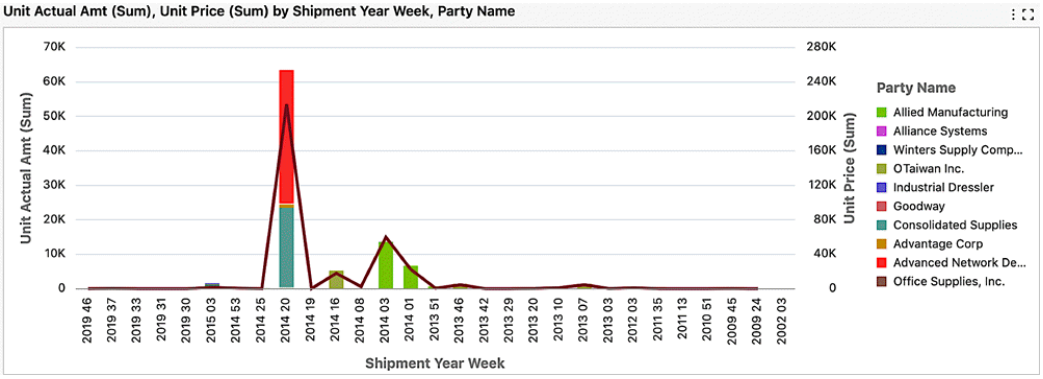


The visualization style can be controlled from runtime options, enabling users to switch between bar and line views. This applies to both single-metric and multi-metric views, and the selected preference is retained as part of user preferences.

Stacked Bar-Line Chart

A stacked bar-line chart supports the display of bar metrics aggregated over a series dimension and grouped by a group dimension. Line metrics are aggregated over a group dimension. Bar metrics and line metrics have their own axes, respectively.

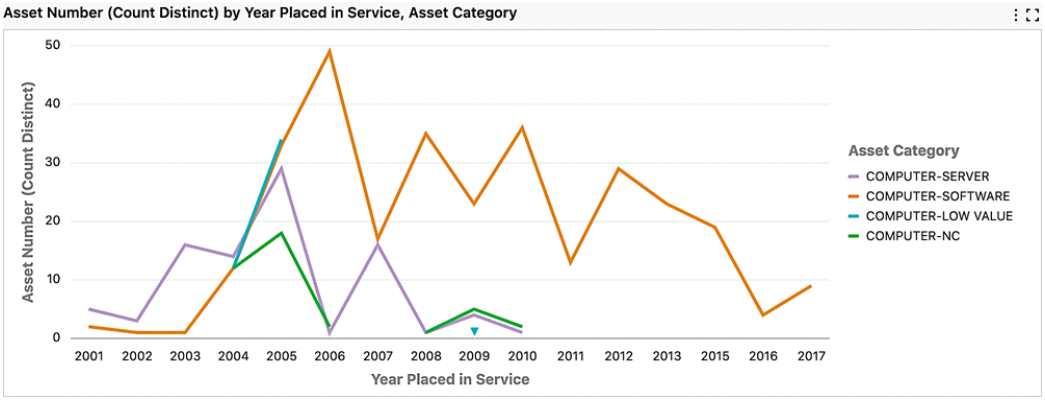
Example of a Stacked Bar/Line Chart



Line Chart (With Group Dimension)

A stacked bar chart can be converted to a line chart at runtime, which then displays the aggregations as lines.

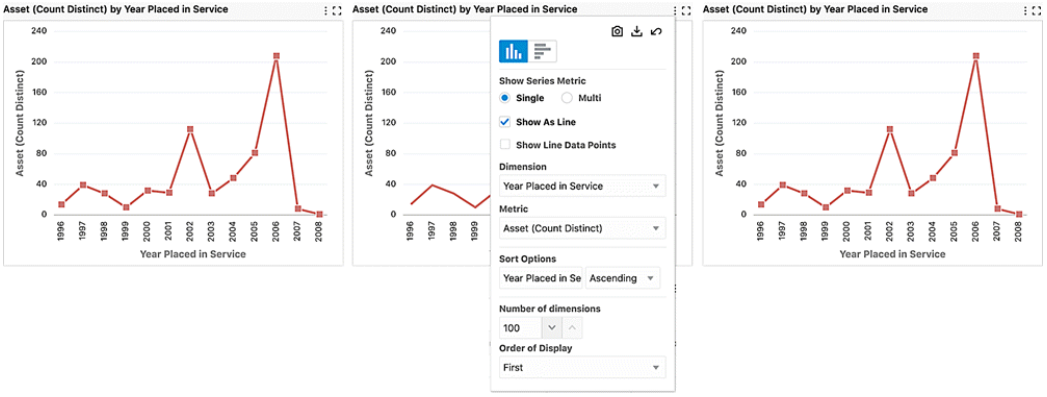
Example of a Line Chart (With Group Dimension)



Line Chart with Data Points

Line charts and Bar/Line charts include a line series with data points, giving a clear indicator of the values. From the runtime options, you can control the display of data points.

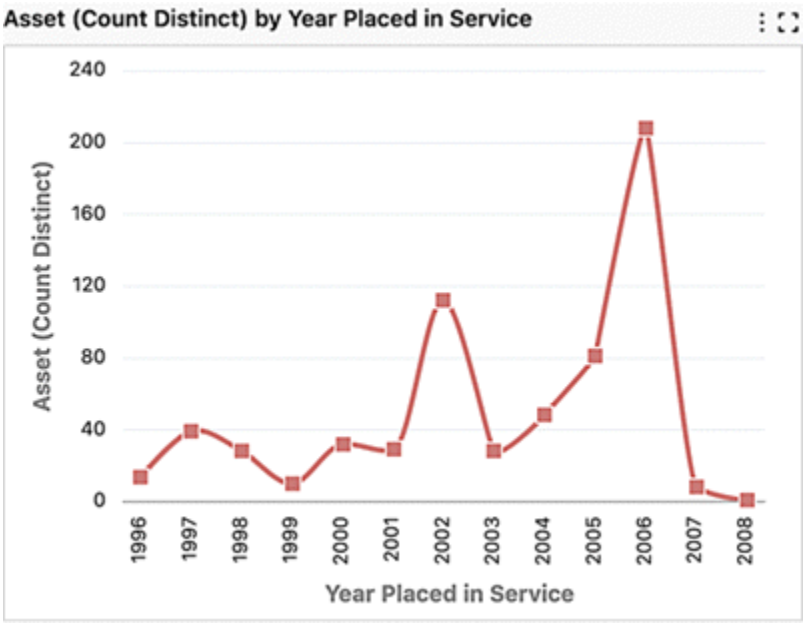
Example of a Line Chart with Data Points



Line Smoothing

Line charts and Bar/Line charts can be displayed with smoothed line series. The representation of a smoother line is well-suited for continuous data with minimal variation and can give a clear visualization of trends. You can control the display of data points on the smoothed line through runtime options.

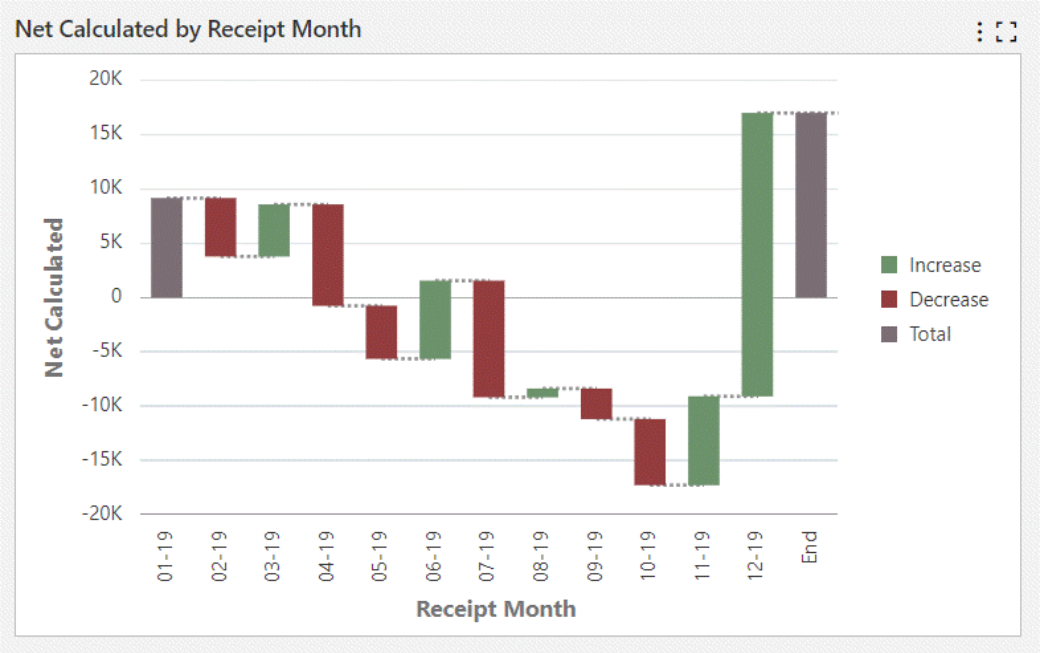
Example of a Line Chart with Line Smoothing



Waterfall Chart

A waterfall chart is useful for visualizing the changes of an attribute over a timeline or over categories. A waterfall chart can also represent the significant contributors to the changes of a value. A waterfall chart connects ends of each bars illustrating the starting values and ending values. You can also choose to display the beginning and final values for understanding the changes from initial state to final state.

Example of a Waterfall Chart



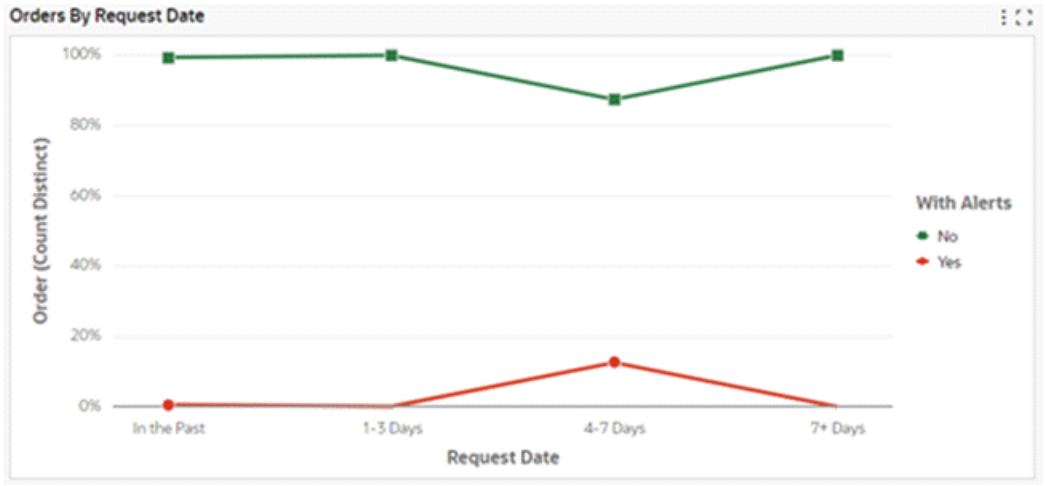
Percent Chart

Beginning with V10, the percent chart is available as an alternative for the stacked bar chart . A percent chart displays the relative percentage of multiple data series in stacked bars. The total of each bar always equals 100%. A percentage chart is a hybrid between a comparison and a composition chart. It helps you visualize part-to-whole relationship changes over time.

Example of a Percent Chart

Every stacked bar chart can be converted to a percent chart using runtime options. The runtime option also allows displaying the percent chart as a line.

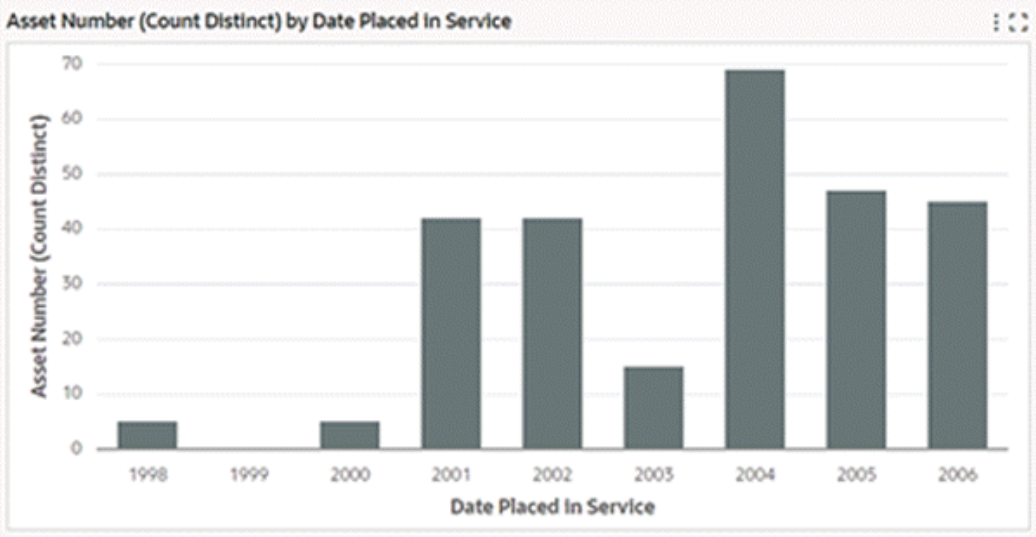
Example of a Percent Chart as a Line



Time Series Chart

Introduced in V10, a Time Series chart displays a series of data points collected over a period of time and are useful in trend analysis. The granularity of time can be altered among monthly, quarterly, and yearly levels. Time Series charts are always ascending by time dimension.

Example of a Time Series Chart



Both the Bar and Bar/Line charts support the time dimension. Stacking is also supported in the time series chart.

A time series chart always shows the time dimension in a continuous manner. The time dimension occurs even when the metric value for a corresponding dimension is zero/null.

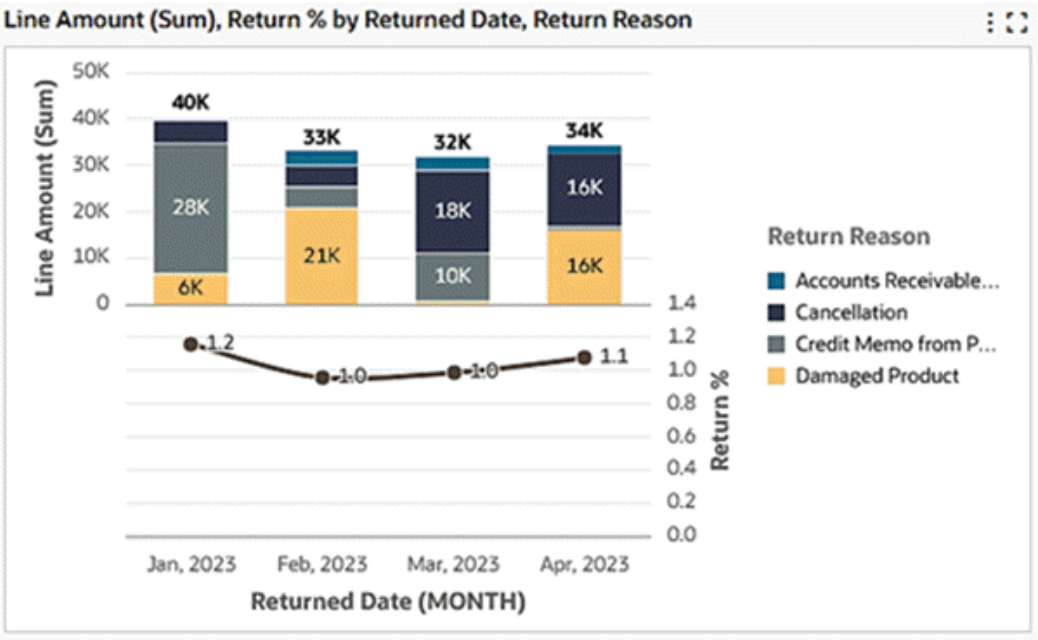
Beginning in V11, the time series chart supports finer time grains such as Week, Day, Hour, and Minute. Hour and Minute time grains are only applicable when utilizing the cascading functionality. The cascading dropdown menu will automatically display appropriately-adjusted time divisions from the beginning to the end, based on the attribute profile.

Data Label Support in Bar and Bar/Line Charts

In V14, Data Label support is introduced in charts. This feature enables the display of precise values directly on data points in a chart and thus helps you quickly interpret the data without hovering over elements.

For stacked charts, stack totals can also be shown so you can quickly understand the overall total while still seeing individual segment contributions. It is then easier to compare contributions and understand the cumulative sum.

Example of a Chart with Data Labels

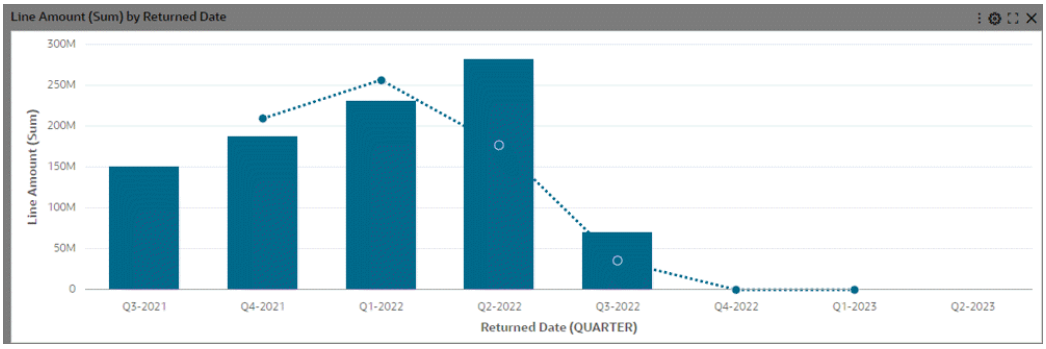


Data labels can be enabled or disabled from runtime options or during configuration, giving you the flexibility to control the display. The selection is saved as part of your preferences, ensuring the preferred view is retained across sessions.

Simple Moving Average

In V12, the Simple Moving Average (SMA) functionality is introduced. This feature allows for smoothing trends and providing a more stable representation of data. SMA is a pivotal tool for identifying underlying patterns and trends within time series data. Its capacity to diminish the impact of short-term volatility empowers you to make well-informed decisions with increased confidence over time. Implemented in bar and bar/line charts, SMA is specifically tailored for time series data.

Example of a Simple Moving Average in a Chart



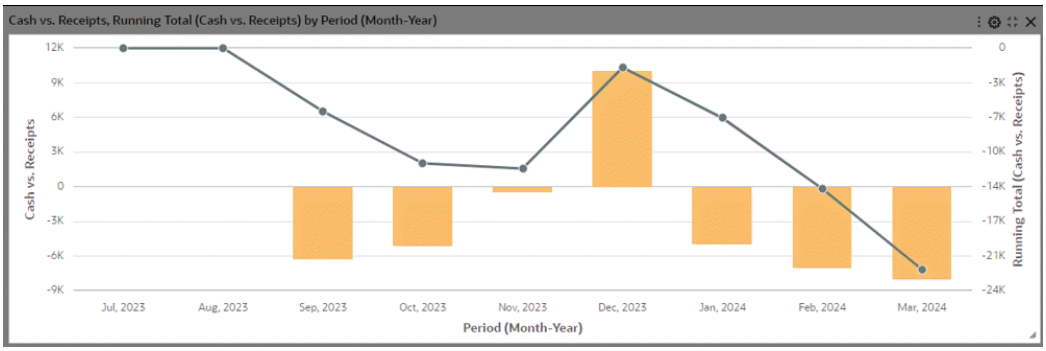
During runtime, you are able to amend the moving average period.

Note that a moving average does not add any value in a stacked chart setup. Therefore, it is not supported for stacked bar and bar/line charts.

Running Total Support in Bar and Bar/Line Charts

In V12 and later, the running total feature provides a robust tool for obtaining comprehensive insights into cumulative metrics across diverse data aggregations. This feature enables you to compute running totals on any aggregation type, including calculated attributes. Support for the running total feature encompasses all bar and bar/line charts except for the stacked bar chart. You can utilize this functionality to augment your decision-making processes and derive deeper insights from various perspectives.

Example of a Running Total in a Chart



Color Pinning in Charts

Color pinning is the display of context-specific colors on charts to reflect the true meaning of what the chart represents. It thereby enables users to focus on the important attributes of the charts and then take appropriate actions.

Top N in Charts

The Top N feature in charts can be used to include just the essential information by rendering the chart with a subset of dimensions to display only the first N dimensions in the chart. Top N takes the Sort definition into account for considering the first N

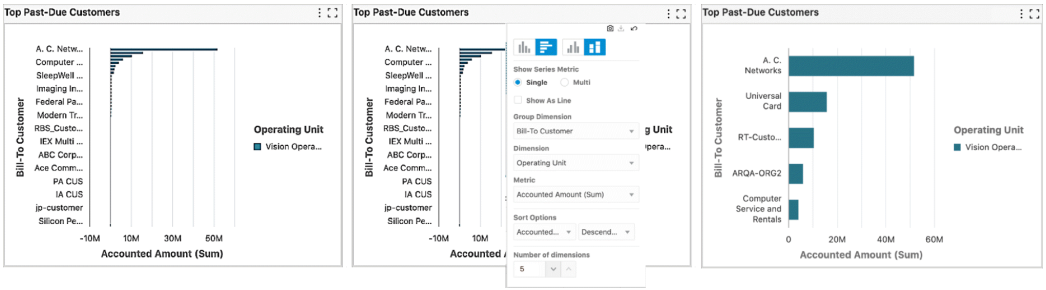
dimensions. The number of dimensions displayed can be controlled from runtime options, if configured.

Top N is applicable for all chart types apart from pie and donut chart types, if the group dimension is configured.

In Bar and Bar/Line chart types, if the chart has a group dimension, then Top N uses the group dimension; otherwise, it uses the series dimension.

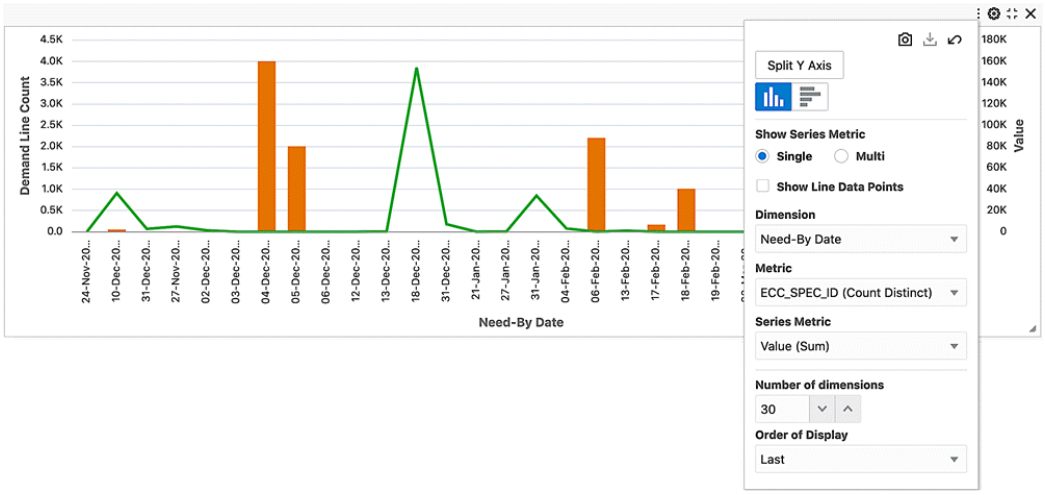
In Bubble and Scatter chart types, Top N always uses the group dimension.

Example of Top N in a Chart



When configured, the order of display is also controlled from runtime options to display the N dimensions from first or last. This is valid for charts with a timeline or a rolling window where the chart renders data for a rolling window of last N days/times.

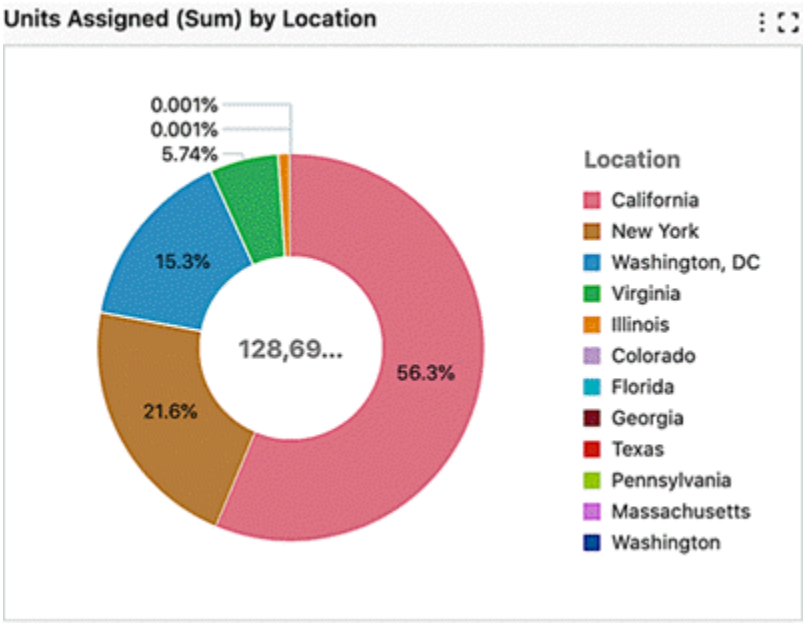
Example of Top N Chart with Order of Display



Pie and Donut Charts

Pie charts show a single metric aggregated across a group dimension.

Example of a Donut Chart



You can hover the mouse over a wedge or segment to display the corresponding metric value as well as its percent of the total.

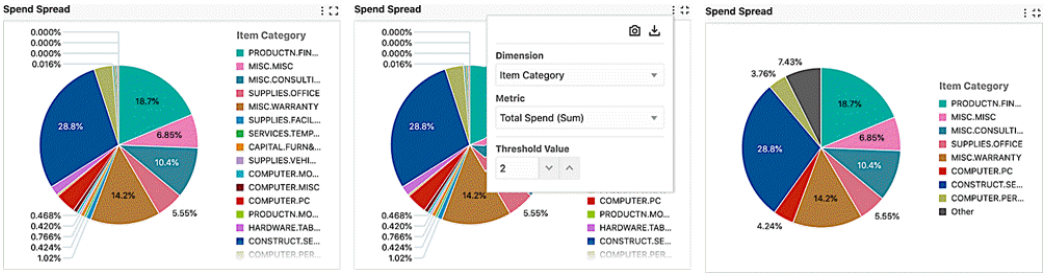
"Other" in Pie/Donut Charts

The readability of the pie chart is improved by grouping dimensions with lower metric values based on a threshold percentage, thereby reducing UI clutter. All the dimensions corresponding to a percentage lower than the threshold are grouped into the "Other" group. If configured, the threshold limit is also controlled from runtime options.

"Other" is always displayed last in the legend. "Other" considers sorting based on the metric -- when sorted in ascending order, "Other" is the first group and when sorted in descending order, "Other" is the last group. "Other" always displayed at the end of the legend regardless of the sorting option on the dimension.

You can filter on the "Other" group from the chart to drill down to data grouped inside the "Other" group. However, you cannot filter by "Other" from chart legend.

Example of "Other" in a Pie Chart

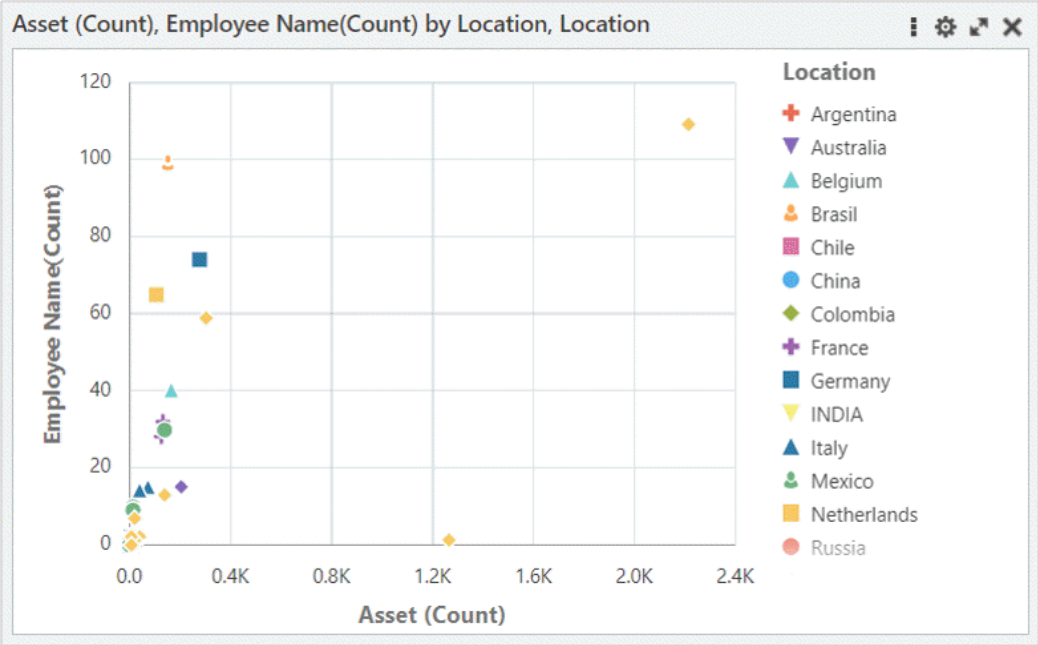


Scatter Chart

A scatter chart is used to plot two metrics against each other. Scatter charts are used to find clusters of data points, to show gaps, and to identify sub-populations. Example use cases include cause and effect analysis (a driving factor and a dependent one), or analysis of the correlation of two variables, for example, the analysis of the relationship between cash inflow and outflow per project.

You can define the dimensions of the data used in the scatter chart. The group dimension (for example, location) controls the shapes of the data point display. The series dimension controls the number of data points with a particular shape. A data point is displayed at the intersection between the x and y metrics.

Scatter Chart Example

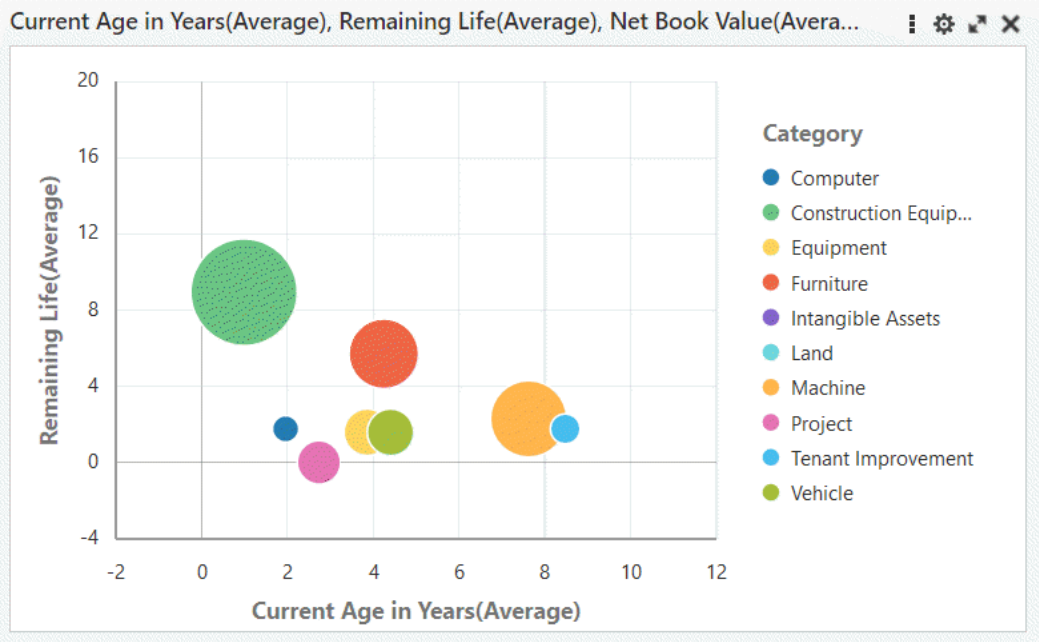


Bubble Chart

A bubble chart is used to plot two metrics against each other with an additional metric represented as the bubble size. Bubble charts are used to show concentrations of data along two axes with magnitude. For example, they could be used to illustrate performance review ratings or customer profitability.

You can define the dimensions of the data used in the bubble chart. The group dimension controls the bubble color. The series dimension controls the number of bubbles with the same color. A data point is displayed at the intersection between the x and y metrics.

Bubble Chart Example



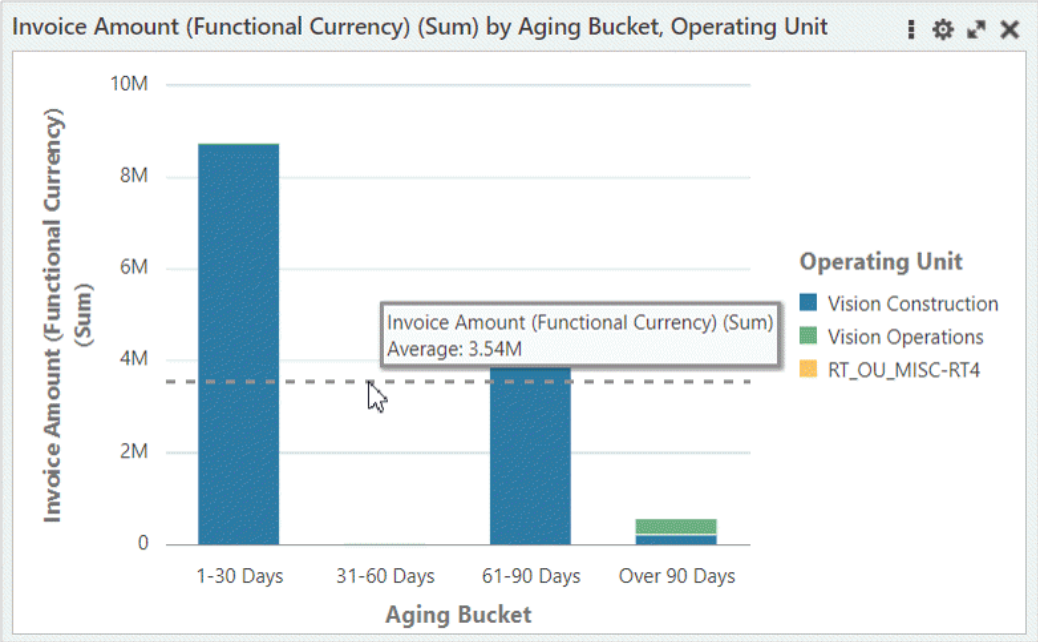
Reference Line

A reference line in a chart can be used to identify a specific value on a chart axis. The value can be based on a function, such as the average, maximum, or minimum. It is a constant value. The reference line is available only for a defined metric; for example, Invoice Amount (sum).

You can add more than one reference line to a chart. You can add a separate line for each metric defined, or you can add several reference lines for the same metric, using different functions associated with each one.

Reference lines are supported in all types of charts except pie and donut charts.

Example of a Reference Line in a Chart



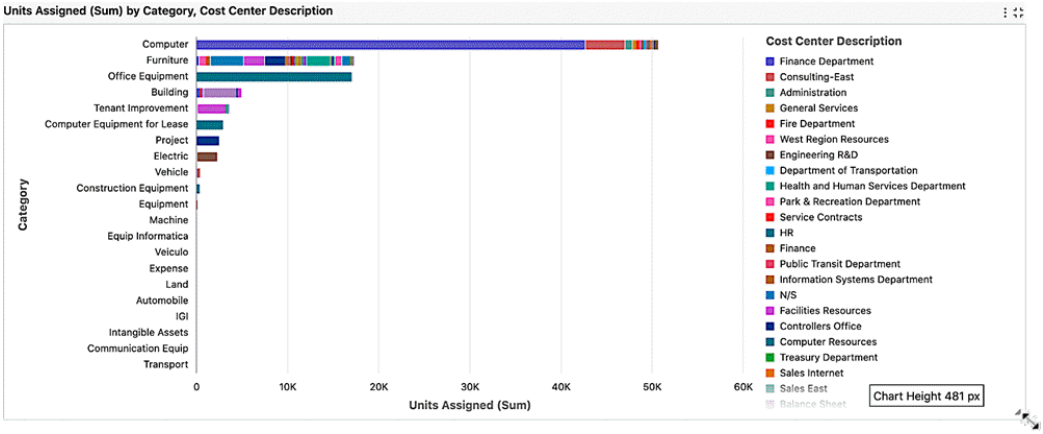
Metrics without Aggregation in Bubble and Scatter Charts

Beginning with V13, Bubble and Scatter charts support metrics without aggregation; that is, you can view their metrics without aggregating them. This feature helps in analyzing pre-aggregated data in these types of charts.

Chart Maximization

The Chart Maximization feature improves the readability of the chart by providing visibility to more dimensions in the chart. You can maximize a chart and increase its height by dragging the right bottom corner of the chart. Change in height scales the axis dynamically and displays the chart height as a tooltip.

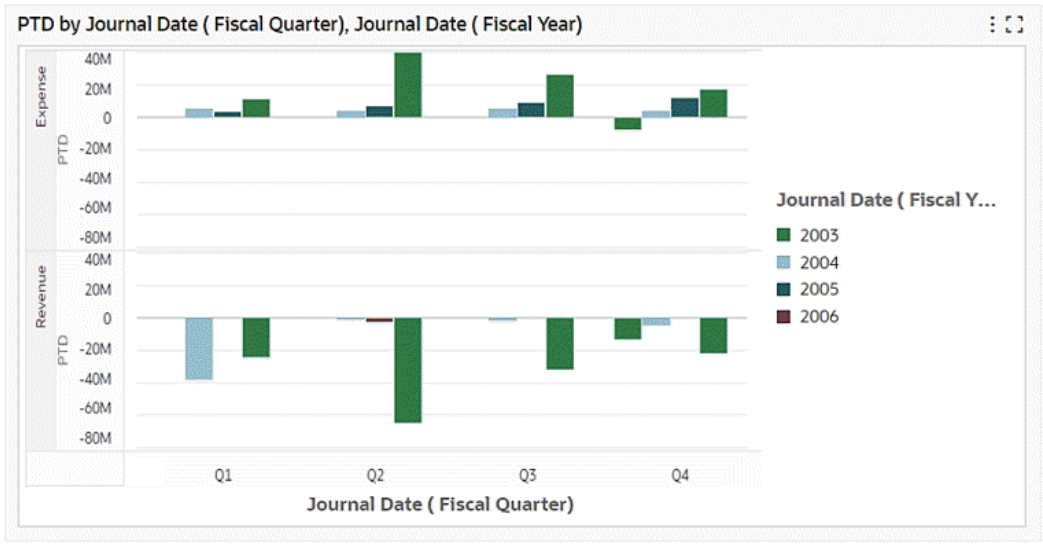
Example of Chart Maximization



Trellis Chart

Introduced in V10, the Trellis Chart displays a series of sub-charts that use the same scale and axes, making relationships among the data easier to understand. A trellis chart splits a chart into multiple versions of itself, presented side-by-side (or one above the other), with its data partitioned across these versions by a chosen series dimension (for example, splitting a "sales by category" column chart across product lines or country). For example, a trellis chart could have two versions of a chart for period-to-date balances over journal date, one for expenses and the other for revenue.

Example of a Trellis Chart



Based on how a trellis chart is configured by its designer, you may be able to see the trellis row/ column lists in the runtime options. Also, depending on the configuration, you may be able to completely flip between trellis rows/ columns or remove the Trellis feature from the chart visualization.

Beginning with V11, pie and donut charts, in addition to bar charts, are supported in this feature.

Beginning with V11, you can export a trellis chart in a PDF file at the dashboard level. Note the following:

- In exporting a trellis chart, all sub-charts that are visible on the dashboard are exported so you can take advantage of the trellis's comparison features in the exported file.
- The exported trellis chart will be wrapped if the number of column sub-charts exceeds five (5).
- The trellis chart export feature supports row, column, and row/column trellis charts.
- The legend display will be limited to only those that are visible without scrolling on the page.

Chart Runtime Options

The Chart component supports a variety of runtime options:

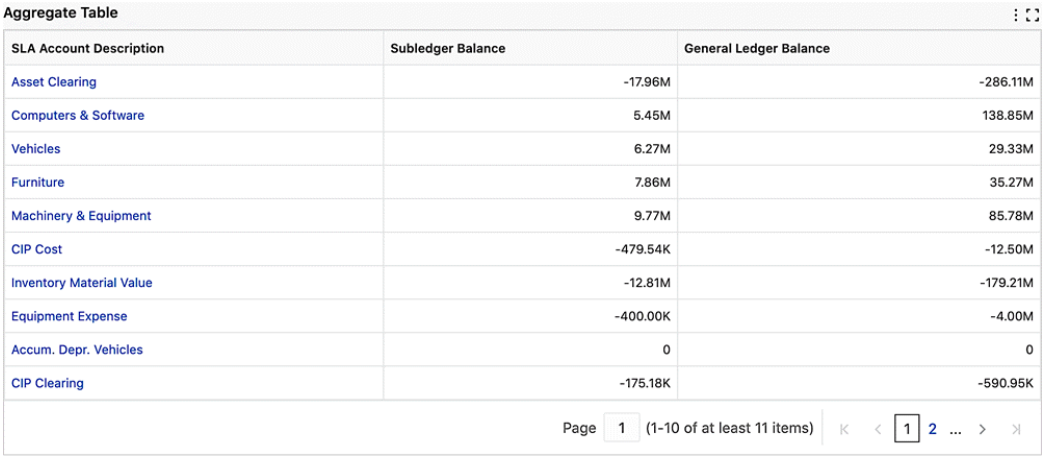
- Changing orientation
- Stacking or unstacking
- Runtime sorting
- Changing dimensions and metrics
- Showing series metrics
- Switching from single to multi-metric
- Changing sort attribute and order
- Showing line and data points
- Splitting the Y-axis
- Controlling Top N and other features

Aggregated Table

An aggregated table displays aggregated metrics in a tabular format. The aggregation level is controlled by all dimensions displayed in the table. Examples of using aggregated tables include comparing financial information of multiple assets or comparing account balances.

The aggregated table displays 50 records per page when maximized.

Example of an Aggregated Table



Aggregate Table

SLA Account Description	Subledger Balance	General Ledger Balance
Asset Clearing	-17.96M	-286.11M
Computers & Software	5.45M	138.85M
Vehicles	6.27M	29.33M
Furniture	7.86M	35.27M
Machinery & Equipment	9.77M	85.78M
CIP Cost	-479.54K	-12.50M
Inventory Material Value	-12.81M	-179.21M
Equipment Expense	-400.00K	-4.00M
Accum. Depr. Vehicles	0	0
CIP Clearing	-175.18K	-590.95K

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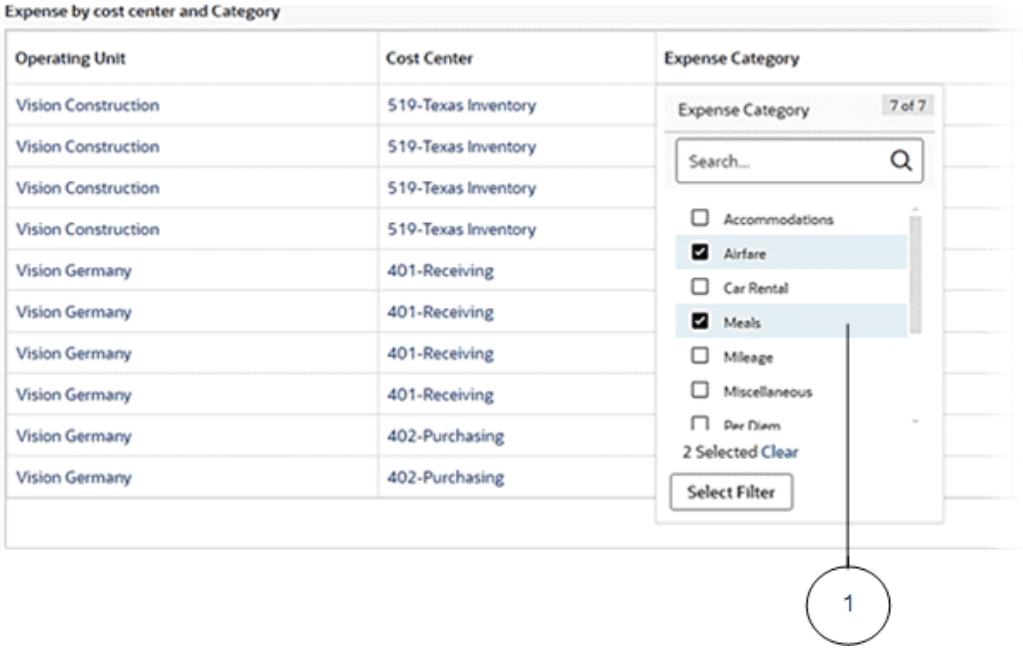
The granularity of data can be adjusted in an aggregated table by controlling the display of columns from runtime options.

The aggregated table component supports the dynamic display of key flexfield attributes, enabling you to view these attributes based on the context.

In V12 and later, the local filter feature in aggregated tables allows you to focus solely on the records of interest without impacting the global context. The local filter is not supported for metrics or pivot views.

Example of a Local Filter

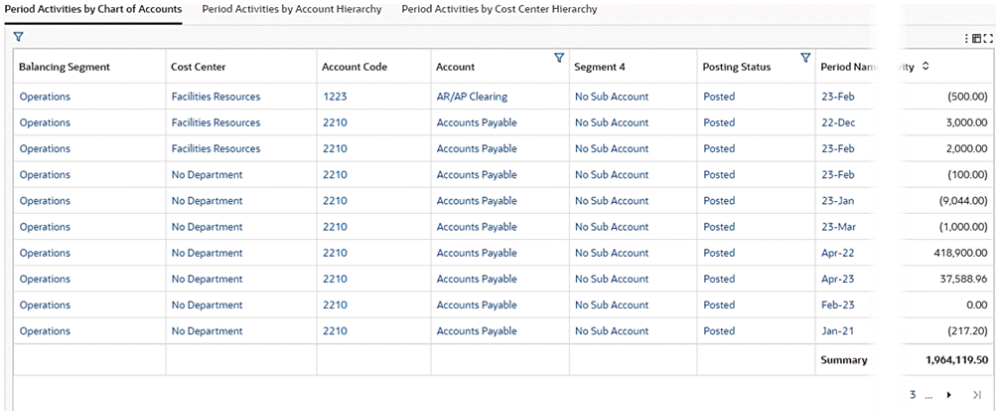


1. Selected local filter

Once a local filter is applied:

- The column on which local filter is applied shows a filter icon indicating the application of the local filter.
- A filter icon appears beside the component title.

Example of Filters Applied on Account and Posting Status



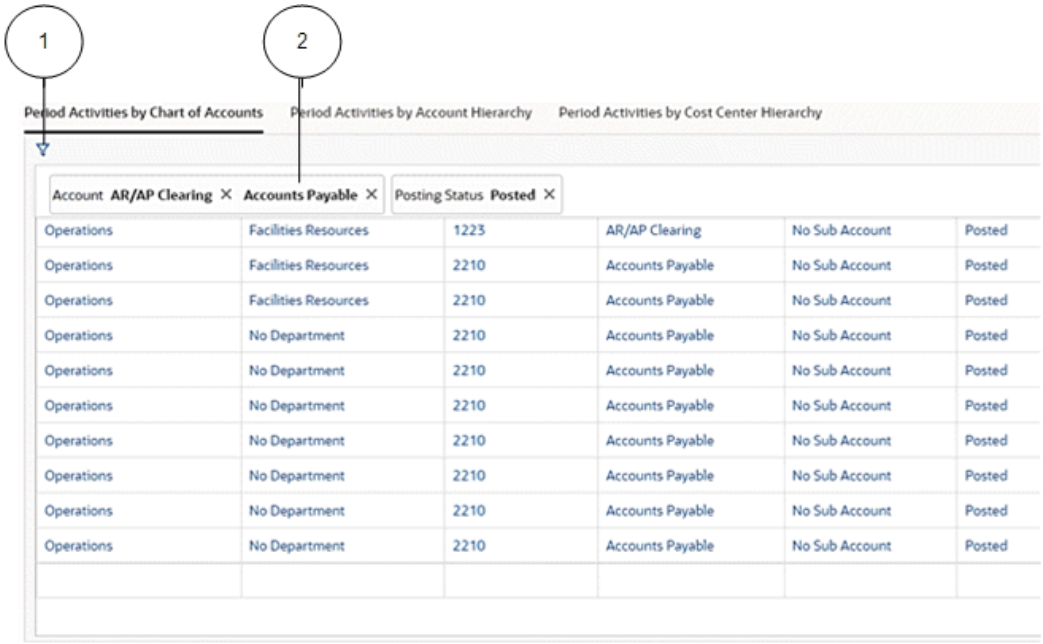
Balancing Segment	Cost Center	Account Code	Account	Segment 4	Posting Status	Period Nam	ity
Operations	Facilities Resources	1223	AR/AP Clearing	No Sub Account	Posted	23-Feb	(500.00)
Operations	Facilities Resources	2210	Accounts Payable	No Sub Account	Posted	22-Dec	3,000.00
Operations	Facilities Resources	2210	Accounts Payable	No Sub Account	Posted	23-Feb	2,000.00
Operations	No Department	2210	Accounts Payable	No Sub Account	Posted	23-Feb	(100.00)
Operations	No Department	2210	Accounts Payable	No Sub Account	Posted	23-Jan	(9,044.00)
Operations	No Department	2210	Accounts Payable	No Sub Account	Posted	23-Mar	(1,000.00)
Operations	No Department	2210	Accounts Payable	No Sub Account	Posted	Apr-22	418,900.00
Operations	No Department	2210	Accounts Payable	No Sub Account	Posted	Apr-23	37,588.96
Operations	No Department	2210	Accounts Payable	No Sub Account	Posted	Feb-23	0.00
Operations	No Department	2210	Accounts Payable	No Sub Account	Posted	Jan-21	(217.20)
						Summary	1,964,119.50

3 ...

Note that if the tab already contains the title, then the component title is empty.

- Clicking on the component title triggers a pop-up window displaying details of all locally applied filters. This window inherits behavior like that of a "selected refinement." You can click on attribute names in the window to select a different value for the attribute, thus replacing the applied filter. Additionally, clicking on attribute values enables you to select a different value for the attribute and append it alongside the existing value.

Example with Multiple Local Filters Applied



Operations	Facilities Resources	1223	AR/AP Clearing	No Sub Account	Posted
Operations	Facilities Resources	2210	Accounts Payable	No Sub Account	Posted
Operations	Facilities Resources	2210	Accounts Payable	No Sub Account	Posted
Operations	No Department	2210	Accounts Payable	No Sub Account	Posted
Operations	No Department	2210	Accounts Payable	No Sub Account	Posted
Operations	No Department	2210	Accounts Payable	No Sub Account	Posted
Operations	No Department	2210	Accounts Payable	No Sub Account	Posted
Operations	No Department	2210	Accounts Payable	No Sub Account	Posted
Operations	No Department	2210	Accounts Payable	No Sub Account	Posted
Operations	No Department	2210	Accounts Payable	No Sub Account	Posted

1. Filter icon
2. Applied filter

The interaction between local and global filters in the context of search or selected refinements follows specific behavior patterns: When a local filter is already in place within the Aggregated Table, and subsequently, a global filter is applied, the local filter will be reset. The global filter will then take precedence, affecting the displayed records. If a filter from the search or selected refinement (global filter) is first applied, and then a local filter is subsequently added, the aggregated table will showcase records that adhere to both the local and global filters.

In V12 and later, you can sort by a metric with an aggregated table. Metric sorting allows you to rapidly and effectively analyze, organize, and interpret your data. The sorted view is presented in an inline view. You can then sort again from within the inline view and the sort will be on the full aggregated table and not on the previous sort. The sorted view displays a maximum of 100 records.

Example of an Aggregate Table Sorted by Expense Amount (Sum)

Expense by cost center and Category > Sorted View (Upto 100 items)

Operating Unit	Cost Center	Expense Category	Expense Amount (Sum)
Vision Construction	519-Texas Inventory	Airfare	1.13K
Vision Construction	519-Texas Inventory	Accommodations	2.78K
Vision Construction	519-Texas Inventory	Meals	2.78K
Vision Construction	519-Texas Inventory	Miscellaneous	2.78K
Vision Operations	520-M1, Seattle Manufacturing Plant	Airfare	5.38K
Vision Operations	520-M1, Seattle Manufacturing Plant	Meals	5.38K
Vision Operations	520-M1, Seattle Manufacturing Plant	Accommodations	5.38K
Vision Operations	520-M1, Seattle Manufacturing Plant	Car Rental	5.38K
Vision Germany	401-Receiving	Accommodations	10.73K
Vision Germany	401-Receiving	Airfare	10.73K
		Summary	3.89M

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Introduced in ECC V12, a Summary line is displayed for aggregated table metrics at the footer for all records for: Sum, Min, Max, Count, Count Distinct and Average. This summary is impacted by any selected refinement and local filters.

Example of a Summary Line at the Footer of the Aggregated Table

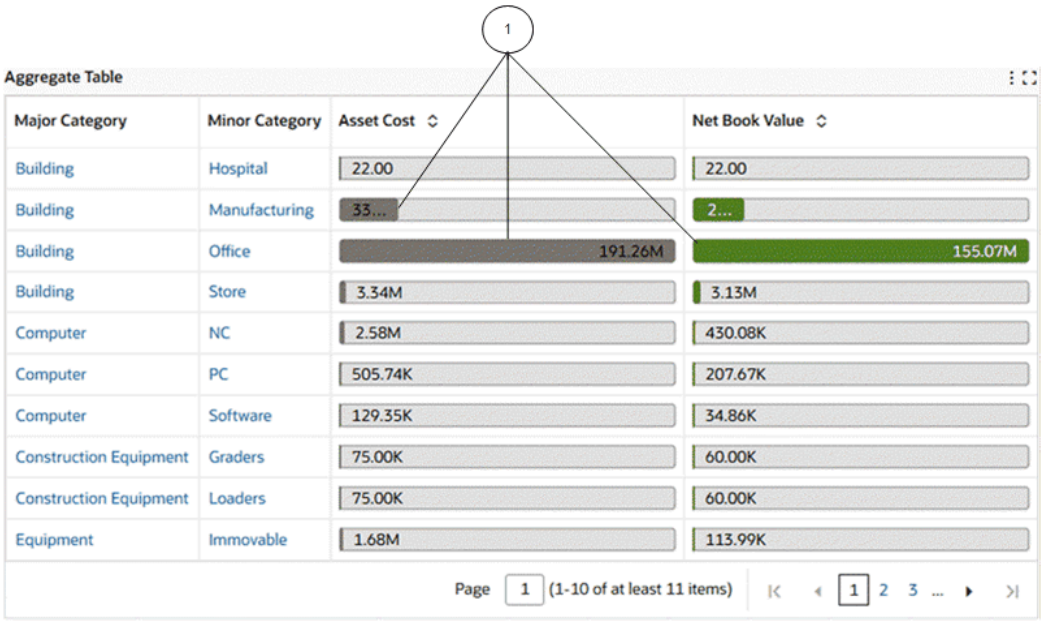
Balancing Segment	Cost Center	Account Code	Account	Posting Status	Period Name	Debit (Sum)	Credit (Sum)	Period Activity
Operations	Consulting Sales	1110	Cash	Posted	23-Apr	5,000.00	0.00	5,000.00
Operations	Consulting Sales	2225	Accrued Expenses	Posted	23-Jan	0.00	450.00	(450.00)
Operations	Consulting Sales	4150	Miscellaneous Revenue	Posted	23-Apr	0.00	5,000.00	(5,000.00)
Operations	Consulting Sales	7691	Employee Meals	Posted	22-Feb	990.00	0.00	990.00
Operations	Controllers Office	7740	Miscellaneous	Posted	23-Jan	0.00	25,000.00	(25,000.00)
Operations	Controllers Office	7825	Discounts Taken (Earned)	Posted	23-Jan	0.00	20.00	(20.00)
Operations	Controllers Office	7826	Rounding	Posted	23-Jan	0.00	0.00	0.00
Operations	Controllers Office	7827	Conversion Rounding (AR)	Posted	23-Jan	0.00	0.00	0.00
					Summary	5,520,035.21	5,520,035.21	0.00

Page 1 (1-10 of at least 11 items) 1 2 3 ...

In V14, Data Bar support is introduced in aggregated tables, providing you with a visual cue to compare numeric values across rows. The bar representing the highest value is fully shaded, and all other bars are proportionally shaded based on their values, enabling relative comparison between values. This makes it easier to spot variations, identify large or small values, and interpret data without relying solely on numbers, enhancing the overall readability of tabular data.

Data bars also work alongside conditional formatting, offering an additional layer of visual insight. When conditional formatting rules are applied, the color of the data bars is driven by the color defined for the condition in configuration, helping highlight specific values or exceptions.

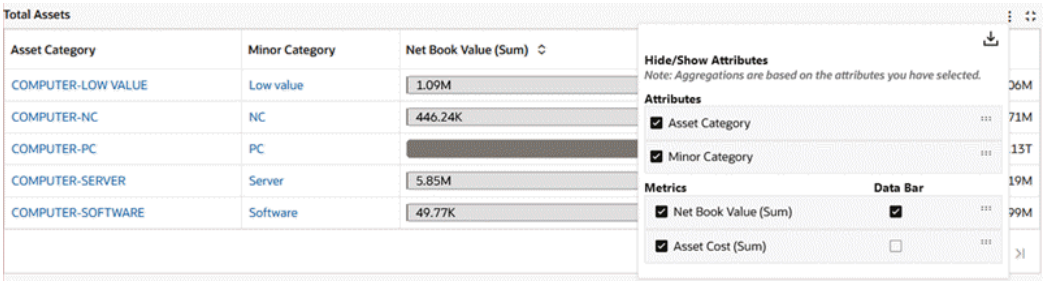
Example of Data Bars



1. Data bars

Data bars can be enabled or disabled from the runtime options, allowing users to control their display as per their preference. Users can switch between a standard numeric view and a visual comparison view with Data Bars, adapting the table display to suit their analysis style.

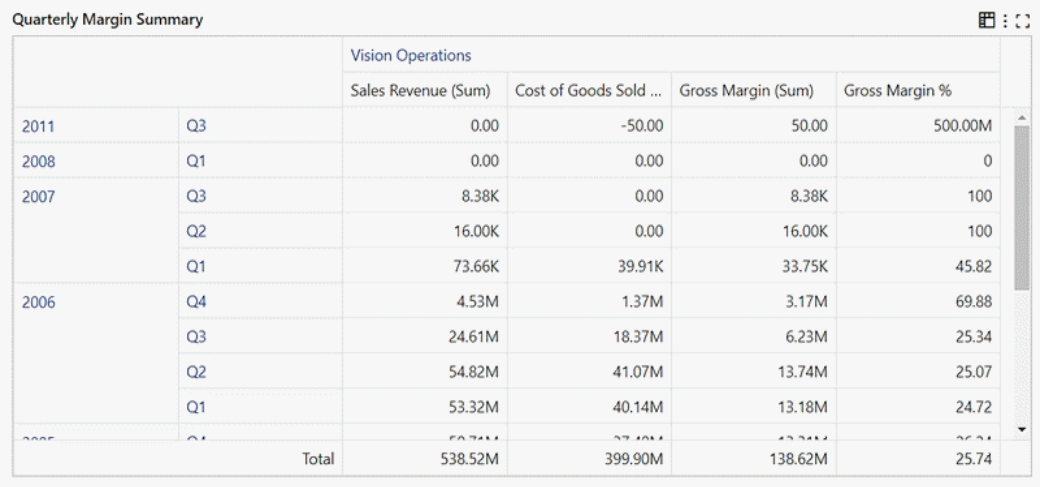
Example of Runtime Options for Data Bars



Beginning with V8, aggregated tables also support the display of data in a pivot view. The pivot view allows you to perform comparisons and identify trends across several cross-sections of data.

In a pivot view, the values in the header rows represent every possible grouping of the selected attributes. For example, a cell can have the total sales revenue, total cost of goods sold, total gross margin, and gross margin percentage for a specific combination of the fiscal year, fiscal quarter, and ledger.

Example of a Pivot View



		Vision Operations			
		Sales Revenue (Sum)	Cost of Goods Sold ...	Gross Margin (Sum)	Gross Margin %
2011	Q3	0.00	-50.00	50.00	500.00M
2008	Q1	0.00	0.00	0.00	0
2007	Q3	8.38K	0.00	8.38K	100
	Q2	16.00K	0.00	16.00K	100
	Q1	73.66K	39.91K	33.75K	45.82
2006	Q4	4.53M	1.37M	3.17M	69.88
	Q3	24.61M	18.37M	6.23M	25.34
	Q2	54.82M	41.07M	13.74M	25.07
	Q1	53.32M	40.14M	13.18M	24.72
Total		538.52M	399.90M	138.62M	25.74

Using the runtime options window, you can choose to hide or show attributes and you can choose which metrics to display. Use the **Reset** button to reset the display.

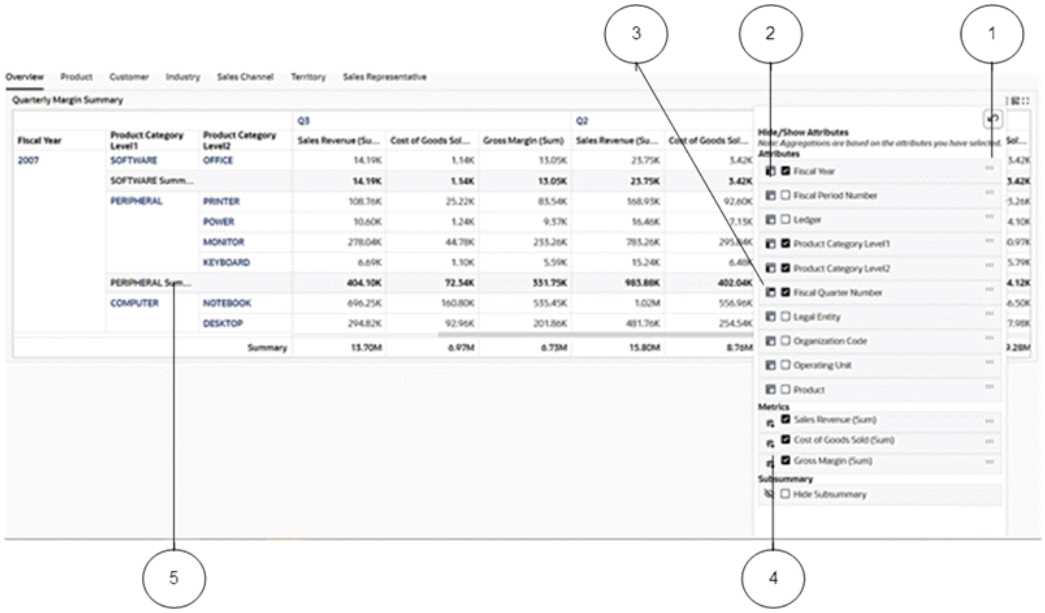
Depending on how a pivot view is configured by its designer, it might include a grand summary row and columns for the entire set of pivot data, which aggregate all of the values in a row or column. A pivot view might also be configured to support sorting by dimension or grand summary.

Beginning with V9, you can reorder the columns of an aggregated table using the "..." icons next to the attribute names.

Beginning with V10, the Pivot view also supports a subsummary specific to certain attributes. You can hide or show the subsummary from the runtime options.

Beginning with V11, the runtime options allow you to activate or deactivate Sub-Summary on a per-attribute basis. Changes you make are automatically applied when you click outside the runtime options window.

Example of a Pivot View with Runtime Options and Subsummary

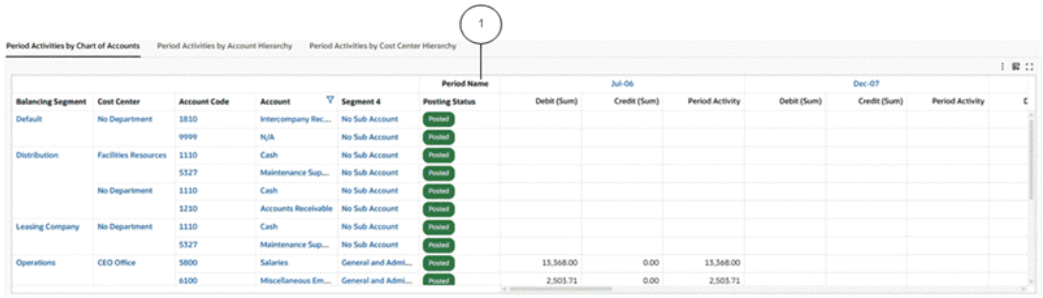


1. Controller to move the attribute up or down in the order
2. Icon identifying that the attribute is used as a pivot row
3. Icon identifying that the attribute is used as a pivot column
4. Controller to hide or show the subsummary
5. Enabled subsummary

Beginning with V10, color pinning is supported. See Color Pinning, page 4-107.

In V15, the Pivot View feature displays the dimension name as the column header when a dimension is used as a column. This change improves the clarity of grouped data, especially with complex pivot configurations. The column header now dynamically reflects the selected dimension, such as "Supplier" or "Period." This enhancement brings several usability improvements to the Pivot View. Column headers now clearly indicate the dimension used for grouping, enabling you to quickly understand the context behind each set of values. The look and feel of headers is consistent with existing pivot formatting, ensuring a seamless visual experience. Localization is also supported, allowing dimension names to appear in your preferred language when available. Additionally, local filters can now be applied to both column and row attributes, so you can focus on relevant subsets of data while the grouped view retains clarity and context.

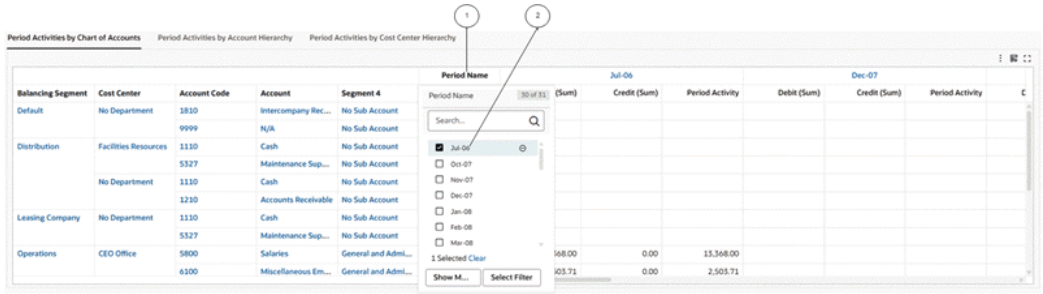
Example of `Period Name` Dimension Used as a Column Header



1. Dimension name as a column header

In V15, local filters are supported on both column and row attributes within the Pivot View, so you can apply more targeted filters directly within the pivot structure.

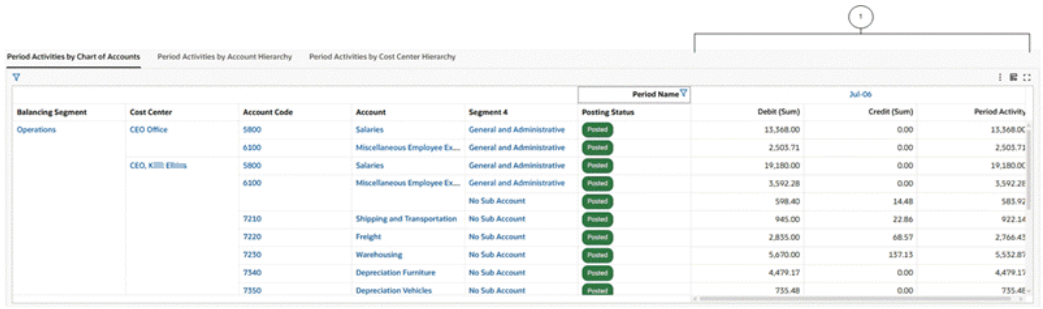
Example of Filter `Jul-06` on the Pivot View Column `Period Name`



1. Column header
2. Local filter

After the filter is applied, the pivot view shows only the filtered data.

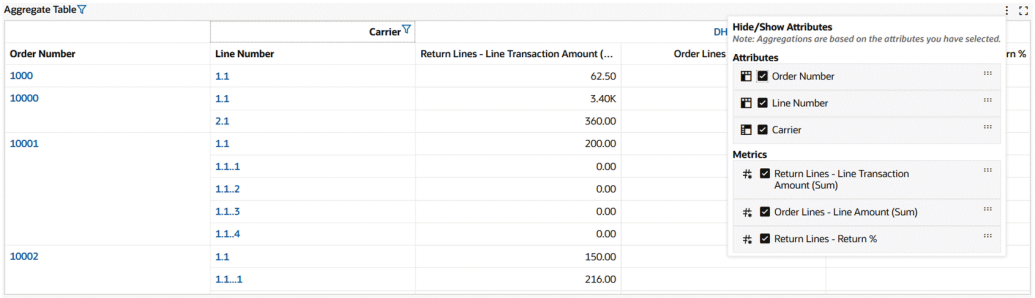
Example of Application of the `Jul-06` Filter



1. Data for `Jul-06` only

In V15, the Pivot View feature also supports multiple data sets. The relationship between data sets is established using the common attributes from both data sets. For a pivot view supporting multiple data sets, the runtime option will have a data set alias name as a prefix to the metric definition. Multiple data set support is restricted to Pivot View.

Example of a Multi Data Set Pivot View Showing Information from Order Line and Return Line Data Sets



Results Table

A results table displays 10 records per page by default, and when expanded, it displays 50 records per page.

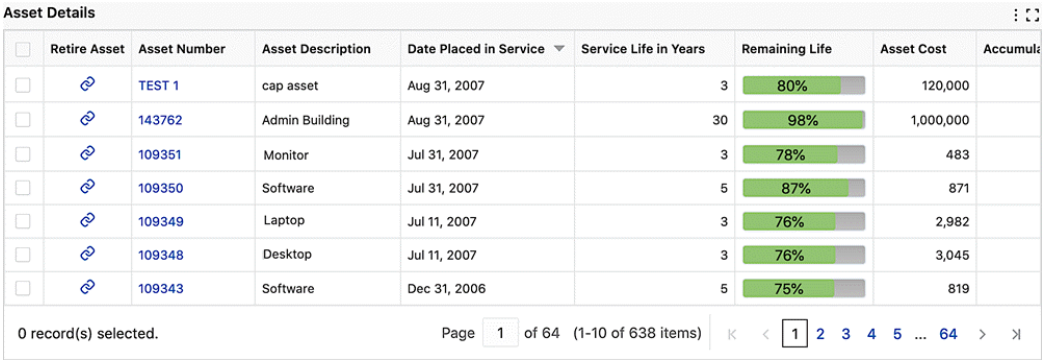
> **Note:** Negative date calculated values are not displayed in the results table.

A results table can include the display of attributes as visual indicators or images.

You can switch among groups to display data corresponding to a group.

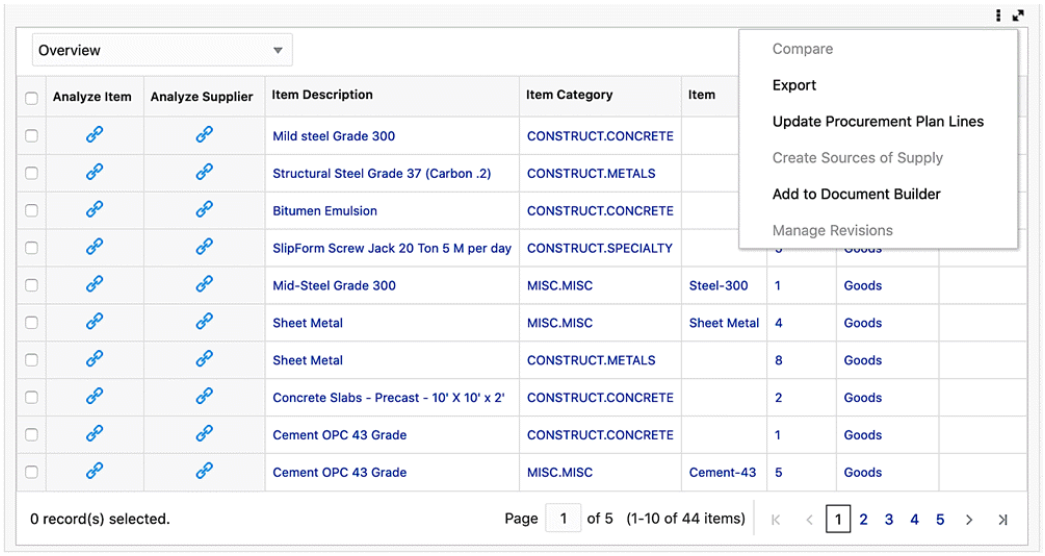
A results table supports row-level actions for a single record and menu actions for more than one record.

Example of a Results Table



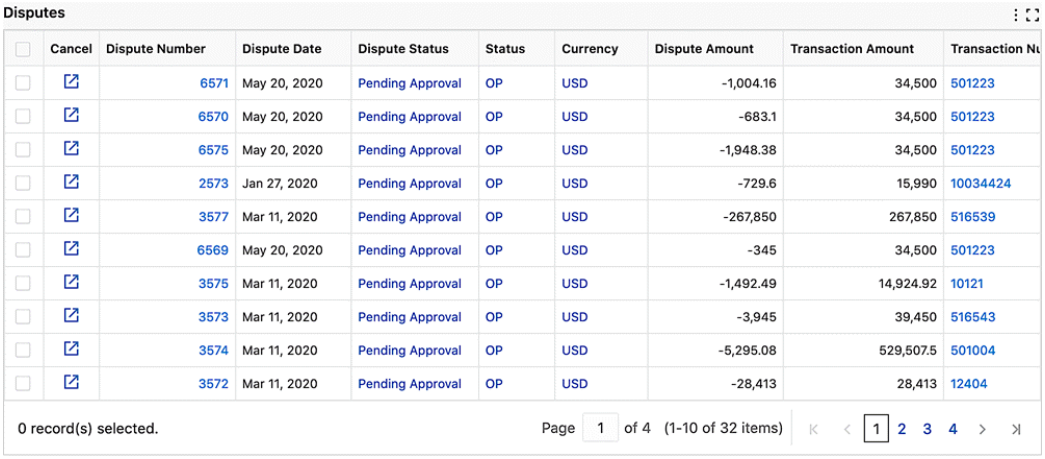
Depending on the configuration of the results table, users can invoke Oracle E-Business Suite actions directly from the dashboard on a subset of records or all the records in the results table. Actions configured with this functionality become active even when no records are selected.

Example of a Runtime Action with a Postback Enhancement



JavaScript functions can be invoked corresponding to each record in the results table.

Example of Results Table with Function Call

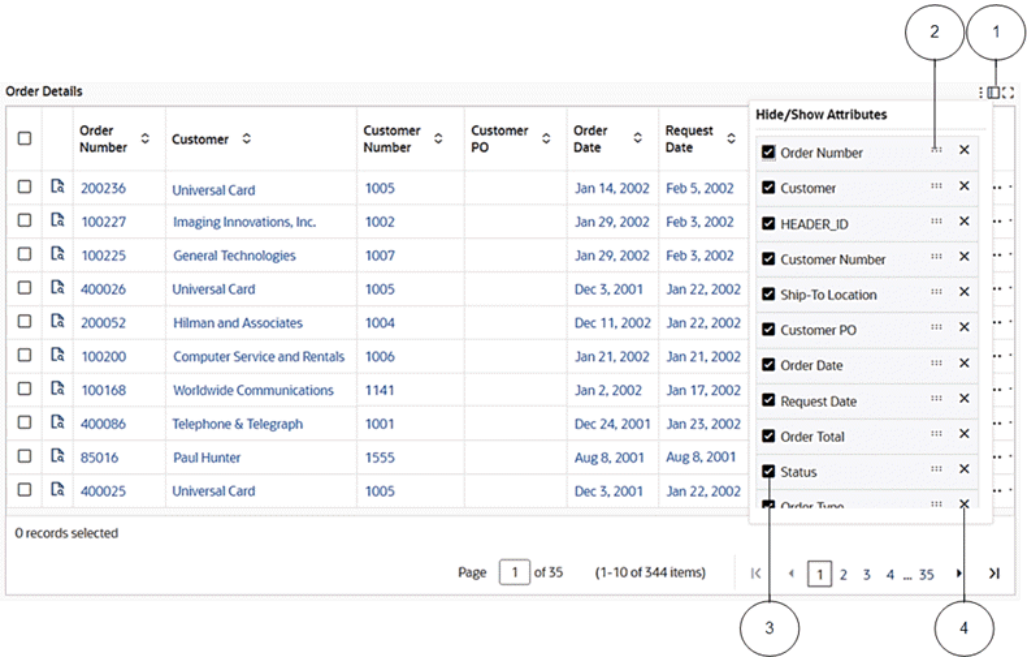


Beginning with V10, the following features are provided:

- Color pinning is supported. See Color Pinning, page 4-107.
- Row actions are grouped into a single column at the end of the results table, resulting in a compact and improved user interface. The action column remains frozen at the end of the results table
- Column freezing is supported. By default, the "Row selection checkbox column" and "Show detail column" are frozen at the beginning, and the "Row Action column" is frozen at the end. Freezing of other columns of the results table may be enabled by the designer.
- The Results Table footer shows a summary (Sum and Average) of selected records of numerical attributes. The footer summary is activated when you select more than one record and then select a numerical attribute for which summary information needs to be populated.
- Three different modes of record selection are supported. The mode is set by the designer. The modes are:
  - Only one record may be selected at a time
  - Multiple records can be selected at a time
  - Record selection is disabled

In addition, in V10, the Results Table runtime options provide more control to hide, show, and reorder attributes of the table.

Example of Options for Results Table



1. Icon for showing/hiding the attribute pop-up window
2. Icon for reordering attributes
3. Box to hide/show an attribute
4. Icon for deleting an attribute from the results table

Beginning with V11, the Results Table supports a local filter that enables you to concentrate solely on the relevant records while keeping the global context unaffected. This functionality is available for all attributes during runtime except for calculated attributes. Additionally, the local filter extends to the inline results table.

To apply a local filter, hover over a column and the local filter icon appears. Select the local filter or filters to apply.

When a filter is applied to the table, a filter icon becomes visible next to the title. Clicking on this icon opens a window that showcases all the currently-applied filters. Within this window, you can remove individual filters or reset all applied filters at once.

The interaction between the local and global filters in the context of search or selected refinements follows specific behavior patterns: When a local filter is already in place within the Results Table, and a global filter is then applied, the local filter will be reset. The global filter will then take precedence, thus affecting the displayed records. If a filter from the search or selected refinement (global filter) is first applied within the Results Table, and then a local filter is subsequently added, the results table will

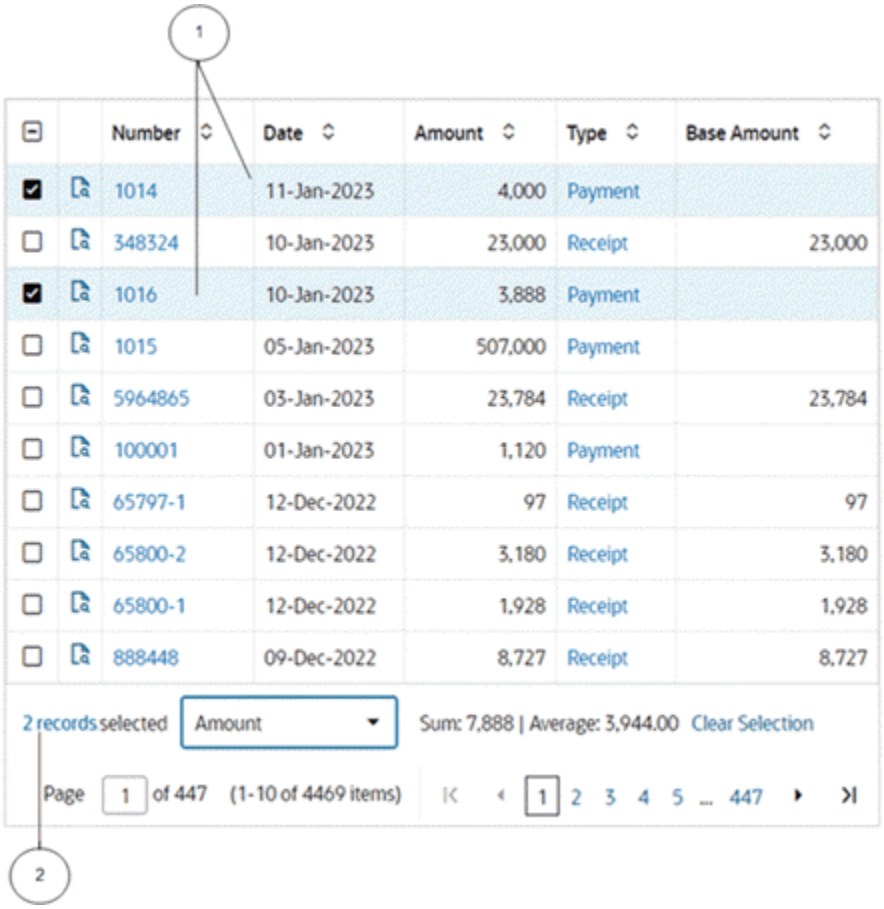
showcase records that adhere to both the local and global filters.

Beginning with V12, the local filter pop-up window also provides you with a convenient means of modifying applied local filters. Triggered by clicking on the component title, a pop-up window showcases all locally applied filters. This window inherits behavior similar to that of a "selected refinement." You can click on attribute names within the window to replace the current filter with a different attribute value. Additionally, clicking on attribute values allows you to append a new value alongside the existing one.

Beginning with V13, the Results Table is enhanced to not display any null column; that is, if a column is completely null, then it will not be included in the table. This enhancement makes the table compact and more effective for analysis.

Beginning with V11, the Result Table component includes advanced transactional capabilities, offering a comprehensive view of all chosen records in a single glance. The table's footer includes a hyperlink that becomes visible when records are selected. By clicking on this hyperlink, you get access to a consolidated display of all the selected records within an unified view. This view is superimposed upon the original table, and a breadcrumb trail within the table's title enables you to return to the original presentation.

Example of Selected Records in a Results Table



1. Selected records
2. Hyperlink

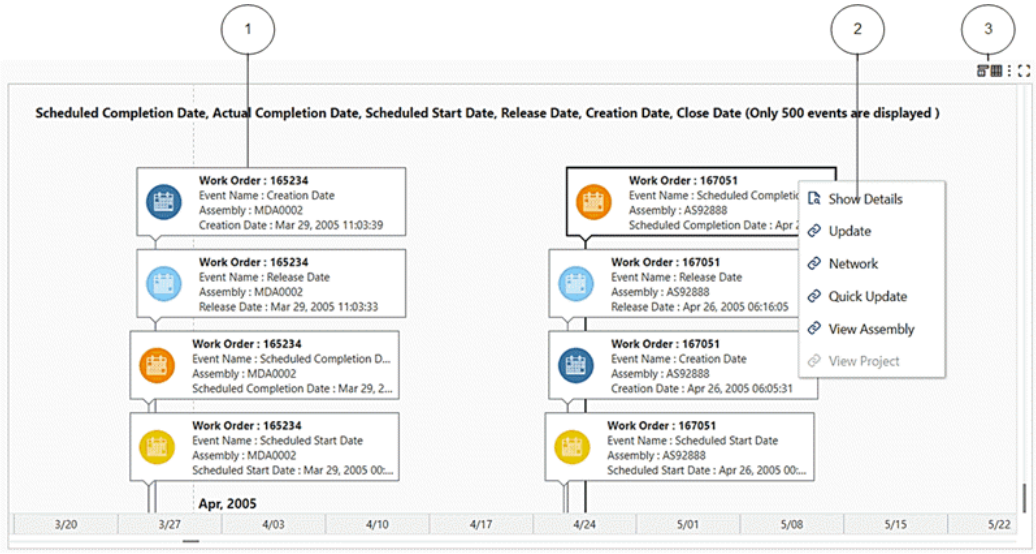
Beginning with V8, the Results Table supports displaying data in a timeline view. The timeline view is an interactive data representation of a time period, with key events marked along in chronological order so you can navigate to events within a defined time range. Each event can have a duration based on the start and end date of that event.

Switch between the results table view and the timeline view using the icons provided.

You can control whether to enable the overview display and the maximum number of events shown using runtime options.

For a specific event, right-click on the event to see available actions in a context menu.

Example of a Timeline View

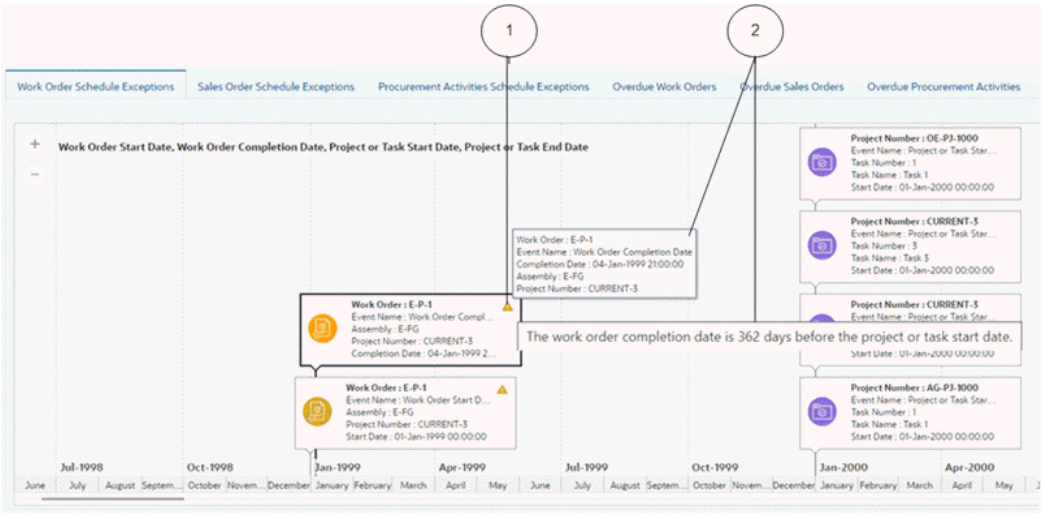


1. Event
2. Context menu
3. Results Table icon and Timeline icon

> **Note:** In Internet Explorer, the event title and description are only displayed in the event bubble. Full event details are displayed in the event tooltip.

Beginning with V9, both the results table and timeline components support indicator icons, which are crucial in differentiating certain events/records from others. The timeline view supports displaying up to four indicators per event bubble. Indicators appear adjacent to the timeline event bubble. Tooltips provide additional details.

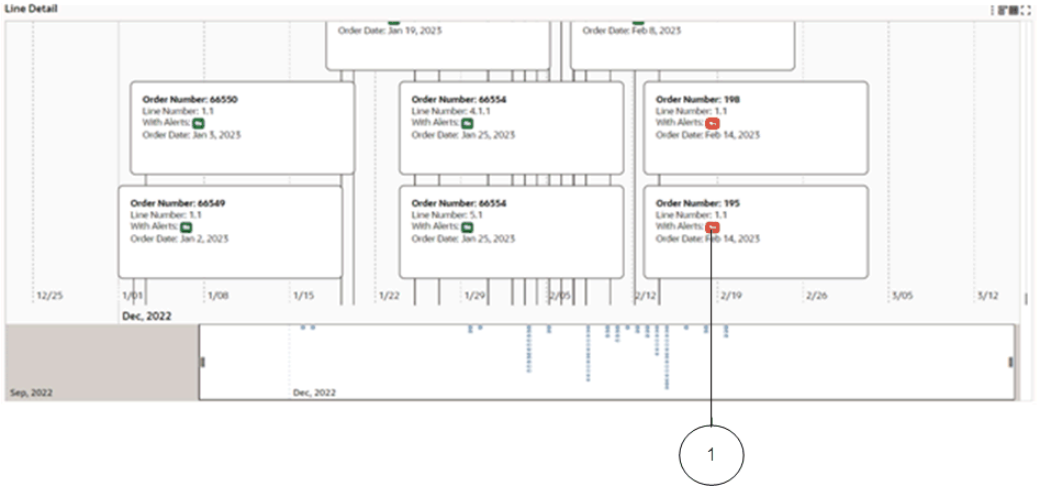
Example of a Timeline with Additional Details



1. Indicator icon
2. Tooltips

Beginning with V10, color pinning is also possible. See Color Pinning, page 4-107.

Example of a Timeline with Conditional Formatting and Color Pinning



1. Badge with a specific color pinned to its attribute

In V13, the Timeline feature includes several usability enhancements:

- Dynamic event bubble dimensions: The maximum width of timeline event bubbles now dynamically adjusts to accommodate the mandatory parameters, such as Event

Name, Title, and Start Date, ensuring they are fully visible without truncation. The height also adjusts based on event parameters, thus optimizing visibility. Text within event bubbles is centrally aligned for consistency, and excessive blank space is minimized, guaranteeing a comprehensive view of all essential details.

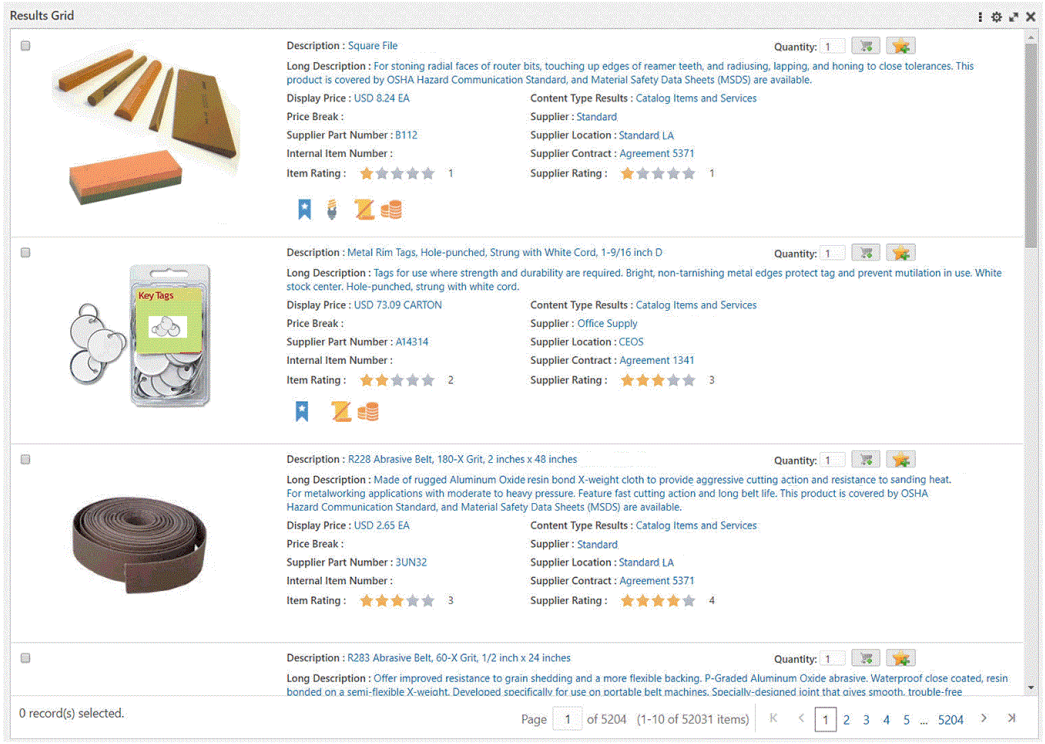
- Enhanced tooltips for better readability
- Current date reference marker: A distinct "Today" marker is included in the timeline, making it easier to identify the current day. This enhancement significantly improves comprehension by providing a clear reference point within the timeline.
- Reserved space for the timeline overview: A designated space has been allocated for the timeline overview to prevent it from encroaching on the main component. When the overview feature is enabled, an additional ninety (90) pixels from the component's height is utilized, ensuring seamless integration without compromising functionality.

Grid

Oracle Enterprise Command Centers can offer detailed insights into the data through grids. You can then act on the information by taking the necessary action to resolve a process bottleneck or address an exception, for example.

A grid offers a display of records in a flexible layout.

Example of a Grid



Grid functionality includes:

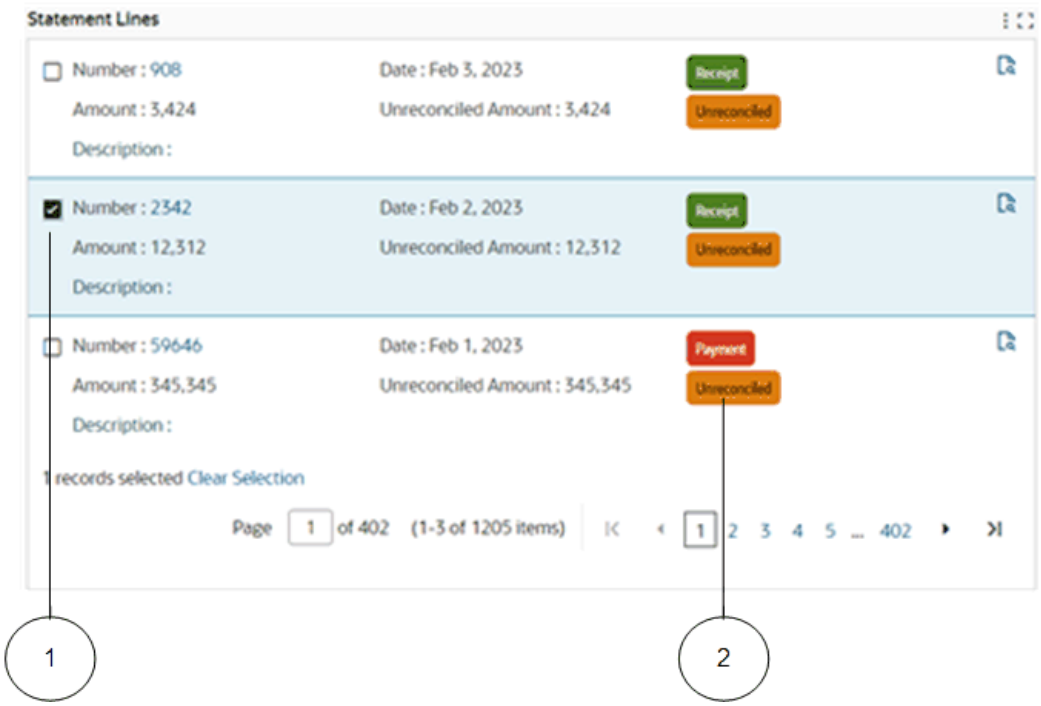
- Runtime Sorting: You can sort by any attribute displayed at runtime.
- Pagination Control and Selection: Pagination control and record selection can be removed from a grid to support additional business use cases for the grid.
- Text Formatting: You can change the text style, alignment, size, and color.

Beginning with V10, color pinning may also be configured by the grid's designer. See Color Pinning, page 4-107.

Some grids allow you to change the default sort attribute and order.

Beginning with V10, the Results Grid component supports three different modes of record selection. Depending on how the designer configured a particular grid, a user may be able to select single, multiple, or no records.

Example of a Results Grid in Single Record Selection Mode with Conditional Formatting Enabled

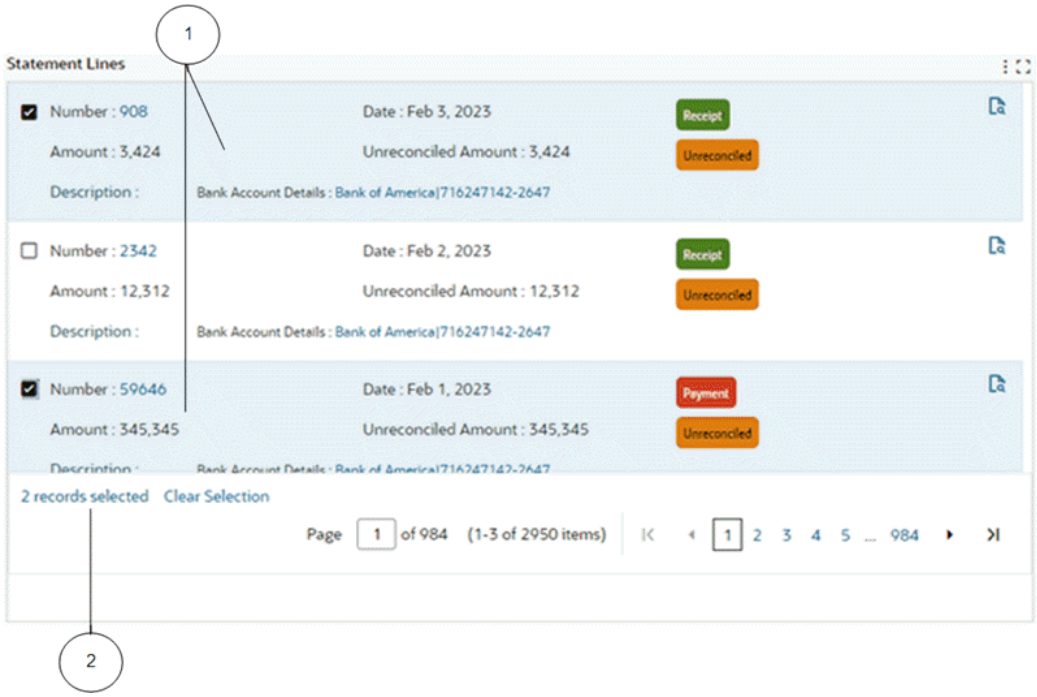


1. Single record selected
2. Badge with a specific color pinned to its attribute

Note that beginning with V10, runtime options, maximization, and component borders may be hidden by the grid's designer.

In V11, the Grid component provides a unified view of all selected records. The footer of a grid includes a hyperlink that appears upon selecting record(s). Clicking this link allows access to a consolidated display presenting all the chosen records. These selected records overlay the original grid. A breadcrumb within the grid's title allows you to return to the initial layout.

Example of a Results Grid with Two Records Selected and Hyperlink

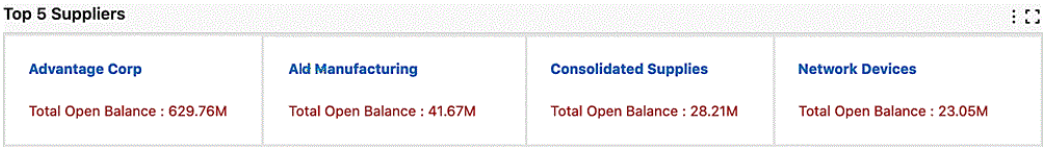


1. Selected records
2. Hyperlink

The Grid feature also supports the display of aggregated metrics. All dimensions in the grid control the aggregation level. Aggregation can include all the visible grid items including images and indicators, and has all the flexible layout and formatting options available for a grid. The aggregated grid can be controlled to display data when a specific condition is met.

Aggregated grids do not have options for comparison and record details. The grid does not allow filtering based on the aggregated value.

Example of an Aggregated Grid



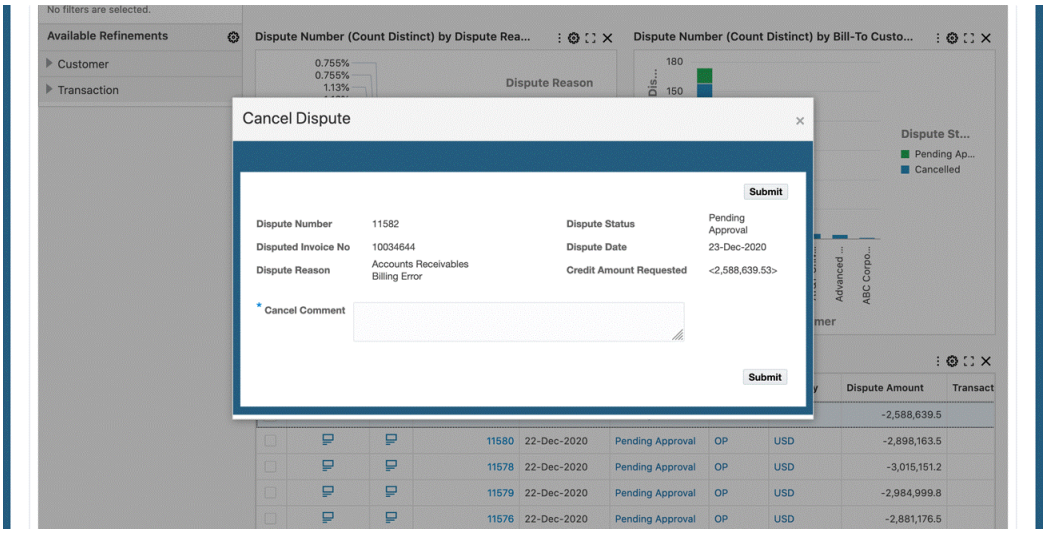
ECC Pop-up

The ECC Pop-up feature allows users to access additional content and take action outside the dashboard without leaving the dashboard. The ECC Pop-up can display

actionable content from Oracle E-Business Suite HTML-based pages or other websites.

The results table, grid, and aggregated table components support the ECC Pop-up feature.

Example of an ECC Pop-up



ECC Drawer

The ECC drawer component, introduced in V8, supports linking contents within a panel that slides in and out from the right. You can use an ECC drawer to navigate to another ECC page or an Oracle Application Framework page.

The results table, aggregated table, grid, and diagram components support ECC drawers.

Beginning with V11, the default size of the drawer component is set to 90% of the page size, but you can reduce it to 50%.

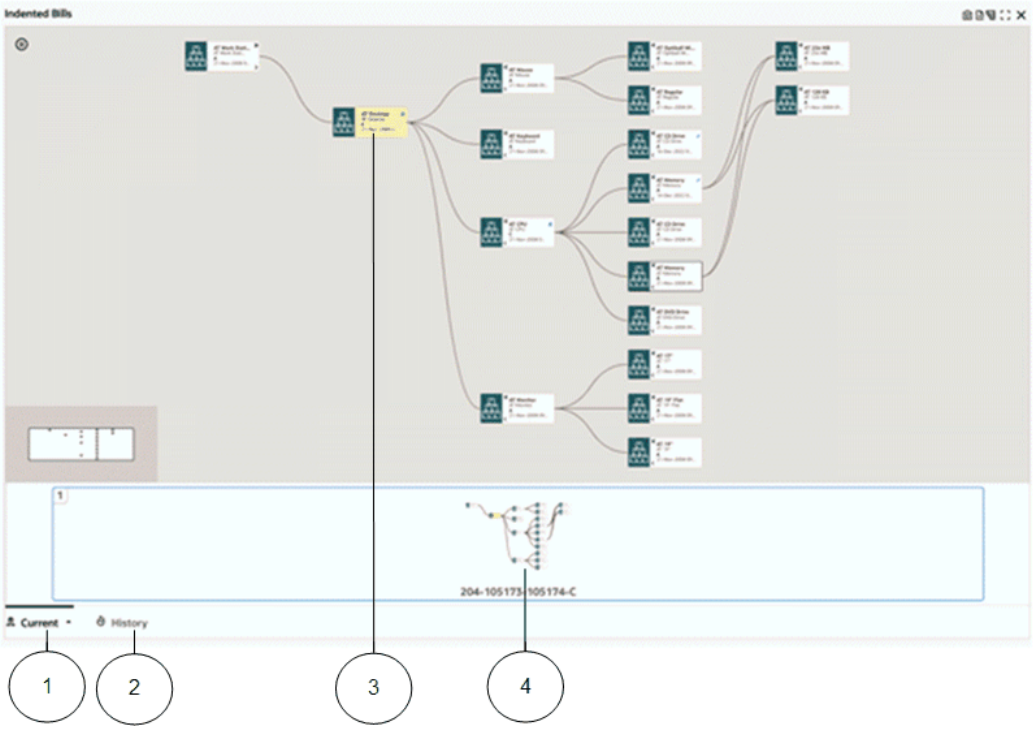
Diagram

A diagram provides a visualization of a business process. You can track and trace an entire business activity while getting your required insights in one page. For example, you can trace a damaged lot number to track the customer recipient of this lot while also understanding the manufacturing process and suppliers responsible for the damage.

In V10, the Diagram component has been re-designed, with new colors for the background, links that connect nodes, and a new design for nodes.

Note: The Diagram feature is not supported in Internet Explorer.

Example of a Diagram



1. Current tab
2. History tab
3. Anchor node
4. Pagination control

You can zoom in to focus on an intermediate process or zoom out to get a perspective of the entire process.

Any filter in selected refinements such as Work Order Number, for example, is considered as an anchor node in the diagram and is highlighted in yellow. The entire diagram shows the business process flows with the anchor node in context. That is, the diagram displays operations that can be related to the anchor node.

You can choose any node in the diagram to be the anchor node using the Diagram Context menu and selecting Make Anchor Node. The diagram immediately shifts the context to the selected node and shows processes related to it.

For example, if the diagram shows transactions from a particular purchase order and finds a work order of interest in between the transactions, then you can select that work order as the anchor node, and the diagram then shows all the entities related to that work order.

A diagram has an upper limit for the number of nodes that can be displayed based on the limit set on the diagram.

You can add filters and the diagram component automatically organizes itself to show the related processes in a page. Pagination allows you to switch among the pages to view other related process flows. Use the pagination control below the diagram to navigate between pages.

For example, if you apply three purchase order numbers as filters, then the first two purchase order processes are represented in the first page, because the diagram understood there are subsequent transactions common to these purchase orders. The remaining purchase order is shown in a different page.

You can also expand any node to display upstream and downstream processes related to that node. You can expand a node by either by clicking the icons on the node or clicking "Show adjacent nodes" in Options.

To view the entire details related to a particular node in a tabular form, click "Show Details". You can export a snapshot of the diagram component for collaboration with other stakeholders. This exported snapshot is saved in PNG or SVG format.

Find Similar

The "Find Similar" feature helps you filter the diagram by a specific value and displays matching flows (diagrams); for example, review other Lots with similar characteristics. This feature is embedded in the Show Details and Compare pop-up windows.

Multi-Select Nodes

The "Multi-Select Node" feature allows you to select more than one node from the same business entity (from the same or different rank), compare between these nodes to spot differences, and find similarities or filter directly by the selected node by making them anchor nodes.

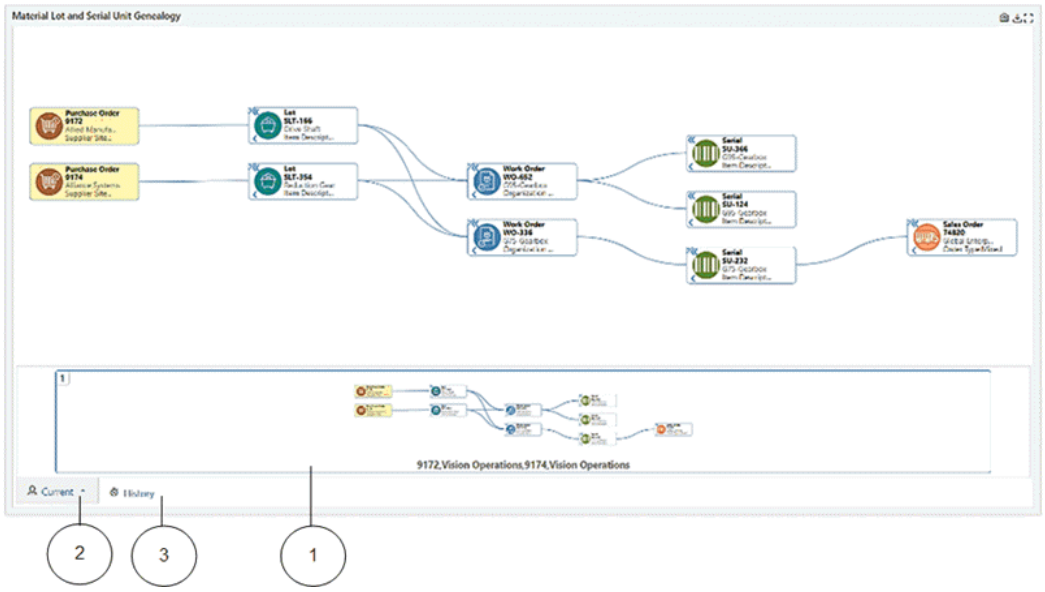
> **Note:** "Show Adjacent Node" and "Show Details" are not supported in multi-select nodes.

> **Note:** If you select multiple nodes from a different business entity, then all previous nodes will be deselected.

Filmstrip Thumbnails and Pagination

Beginning with V7, diagram pagination uses Film Strip Thumbnails to help you explore multiple distinct business processes in a single view per process with an overview of each business process. This feature displays an active image of the current business process flow, page number, and business entity (node) identifiers.

Example of Pagination Filmstrip Thumbnails



1. Thumbnail diagram in pagination filmstrip
2. Current tab
3. History tab

Pagination Tracking Analysis History helps you visualize history. You can keep track of the previous filter applied on the diagram by clicking on the History tab in the pagination film strip. You can click on the history thumbnails to display the previous business flow without replacing the existing one.

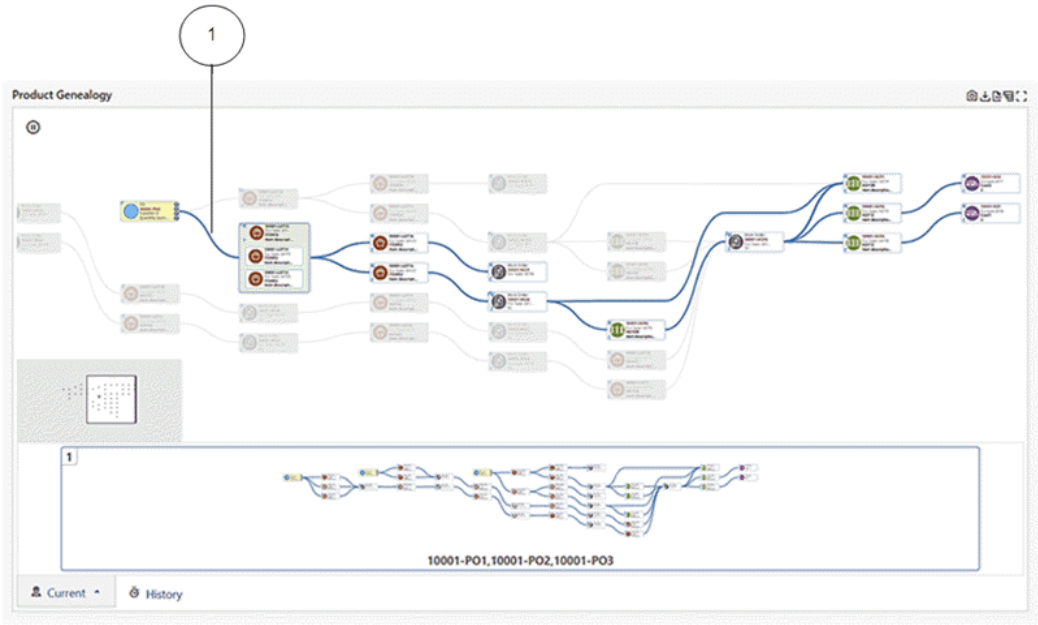
You can click on the current tab to see the applied filters or return to the current view of the business process flow at any time while reviewing the history.

You can click on the arrow on the History tab to apply the previous filters from the history.

Highlighted Path

Use the Highlight Path option to highlight the paths in a different color. This feature also highlights the selected and common nodes in a color different from the color used for queried nodes. You can deselect a highlighted path using the "Unhighlight Path" option in the context menu.

Example of a Highlighted Path



1. Highlighted path

A path can be highlighted at the record level and within grouped nodes. Unrelated nodes are grayed out.

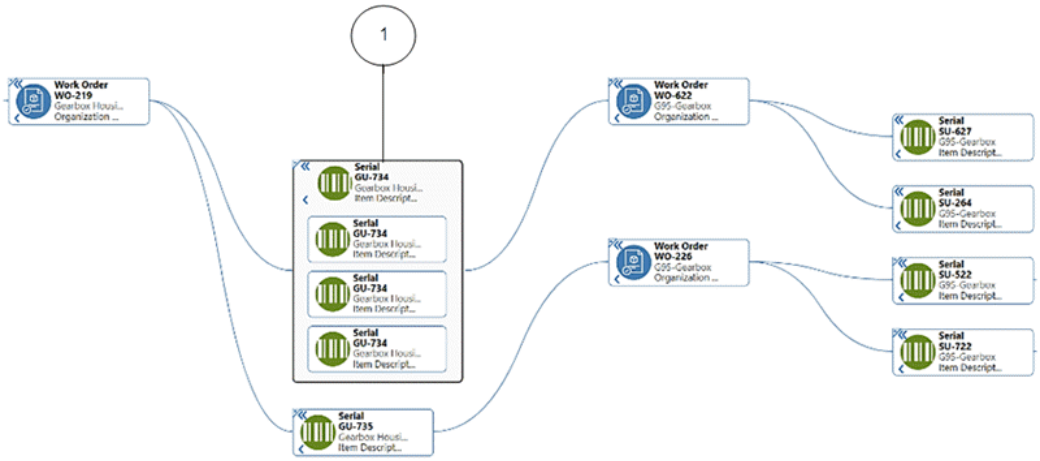
You can view other nodes using the context menu. Right-click on any node, and from the context menu, select "Explore [node title] Node".

> **Note:** Highlighted paths are preserved when navigating between diagram pages.

Grouping Nodes

Nodes can be grouped to display aspects of the diagram nodes at another level of detail. Redundant nodes can be grouped together. Grouped nodes are displayed with (+) sign at the corner of the node, and you can click on the (+) sign to expand the details of the nodes.

Example of Grouping Nodes



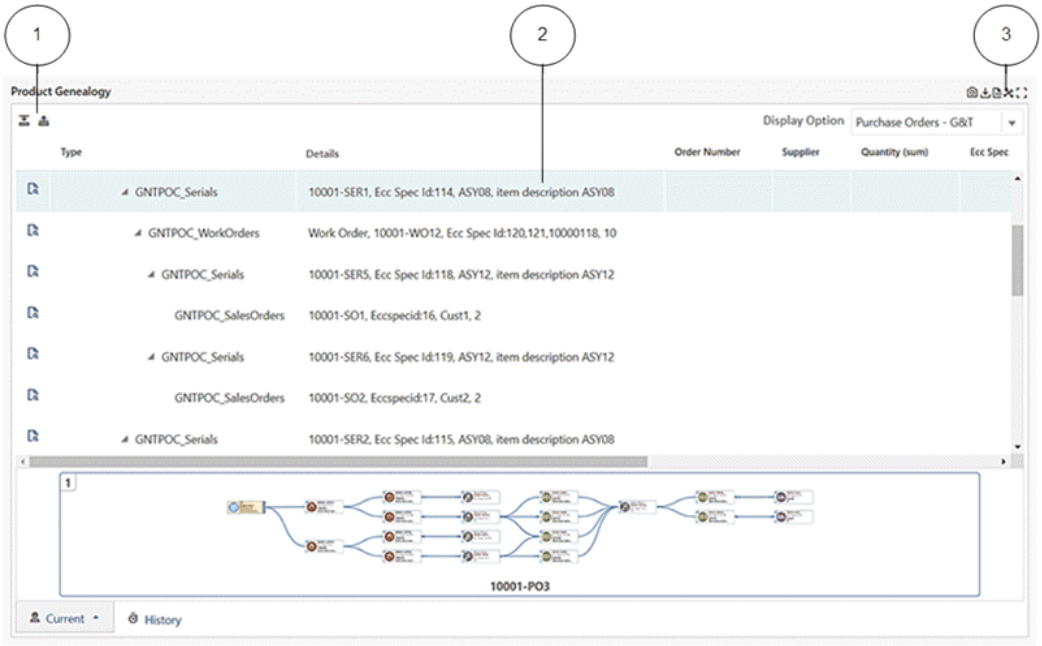
1. Grouped nodes (expanded)

Node grouping supports aggregation at the group level which can bring in additional details.

Row Expander View

Using the Row Expander feature, introduced in V8, you can switch between a diagram display or a multi-level hierarchy layout display.

Example of the Row Expander Feature



1. Expand All icon and Collapse All icon
2. Row Expander view
3. Network Diagram icon

Beginning with V10, you may be able to freeze columns in the Row Expander view of a diagram, if the designer enabled this feature.

Beginning with V12, the Row Expander feature supports the following:

- You can "Search Within" the Row Expander view.
- You can apply the "Highlight Path" option within a Diagram view and then switch to the Row Expander view, where the relevant record is highlighted.

Search Within

Beginning with V10, the Diagram component includes the Search Within capability. This feature allows you to investigate a subset of a larger network diagram to focus on a problem area, perform root cause analysis, or identify an opportunity within the overall diagram.

You can view a specific business flow and apply a filter to create a diagram to visualize that flow. This filter is known as the "Driving Filter." After applying a Driving Filter, you can use a Search Within filter to refine the diagram further and focus on a subset of the diagram. Nodes that satisfy the Search Within condition are highlighted with a

more prominent and noticeable border color, and the path which connects them (directly or indirectly) is also highlighted. The nodes and links that are not connected to qualifying nodes are dimmed. This makes the nodes and the path stand out, so you can focus on this subset of the diagram while still viewing the larger context.

After a Search Within filter is applied, the diagram's appearance changes as follows:

- The nodes which have satisfied the criteria are highlighted with a dark blue border.
- The nodes which do not directly satisfy the criteria, but have child/ children nodes that do, are left unchanged.
- The nodes that do not satisfy either of the above conditions are dimmed.
- The nodes with multiple paths connected to them are highlighted in blue.
- You can click on the funnel icon and view what Search Within filters have been applied.

Highlight Path versus Search Within in a Network Diagram

The Highlight Path feature is used to focus on a particular node in the network diagram. You can see the chosen node and anything connected to it only; anything that is not directly or indirectly connected to this node is dimmed. The highlighted path is applied only to one node.

The Search Within feature searches for any attribution on any node within the network diagram. Therefore, more than one node can satisfy the criteria, and all the nodes directly or indirectly connected to these nodes (that satisfy the criteria) are highlighted.

The Traversal filter, in the Available Refinements component, behaves like the Search Within feature in a Network Diagram, with the only difference being that the funnel icon is not displayed. Instead, the filter appears in the Selected Refinements box.

Search Within in a Hierarchical Query versus Search Within in a Network Diagram

With Hierarchical Query, because it is based on only one dataset and therefore all nodes have the same attributes, whatever node satisfies the criteria will be displayed along with nodes that do not directly satisfy the criteria but have a child or children that do (although these nodes are dimmed). Any node that neither directly satisfies the filter criteria nor has a child or children that do will be removed from the display.

In a Network Diagram, because of the possibility of the presence of multiple datasets and therefore different sets of attributes, only the node that satisfies the filter criteria will be highlighted. Even in cases where the Network Diagram has only one data set, the node that satisfies the filter criteria will be highlighted.

What happens when the user applies a Search Within from the Network Diagram and then, from Available Refinements, applies another traversal filter or another filter from the same dataset?

The Search Within filter is a local component. Whenever the selected refinement is affected by the user either by applying another traversal filter or other filter from the same dataset, or by removing a filter, the Search Within filter is removed. In addition,

the item filter selected from available refinements is then applied. Thus, if a traversal filter is applied from available refinements, then that filter replaces the prior Search Within filter.

What happens when a user applies a traversal filter from available refinements and then from the network diagram applies a Search Within filter?

The Search Within filter will be applied on top of the traversal filter. The two filters will form an AND condition if the Search Within filter was applied on a different attribute, and will form an OR condition if the Search Within was applied on the same attribute.

How can a user reset a Search Within filter?

A user can click on the funnel icon to view the Search Within filters as in a Hierarchical Query. Also as with a Hierarchical Query, a user can click on the **Clear** button to reset the diagram to its initial state and remove the Search Within filter. This reset affects only the diagram and not the whole page as the Search Within filter is local and only affects the Diagram/ Hierarchical Query component.

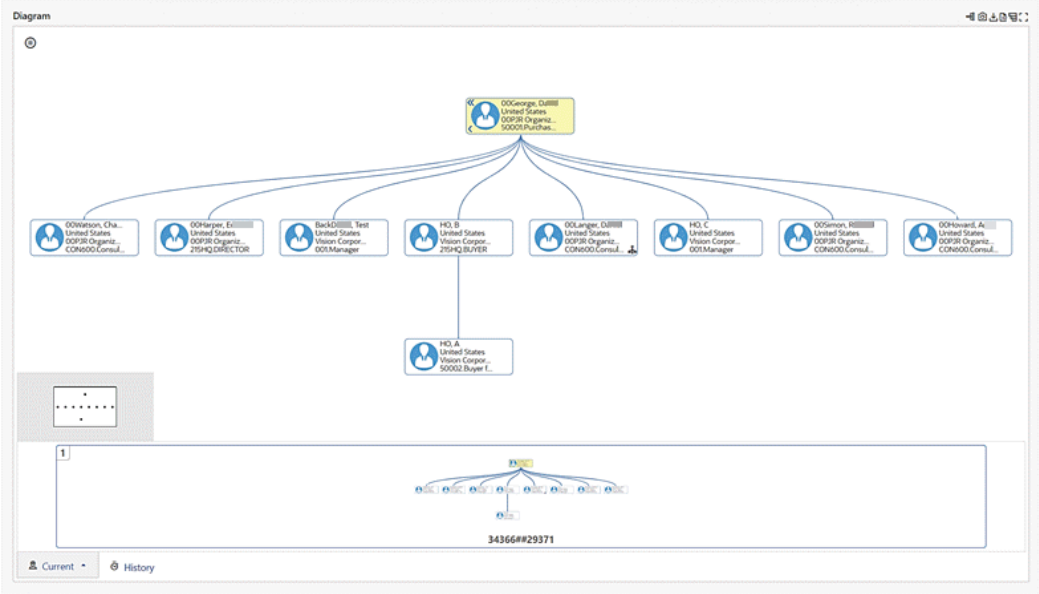
Refinement Sets and Traversal Filter

Introduced in V8, a Refinement Set controls how the filters are applied to the diagram without refreshing the display after each filter is applied

Hierarchical Queries

Hierarchical Queries, introduced in V8, allow you to visualize parent/child relationships in the same business entity in a tree or vertical layout. You can expand and collapse the hierarchy levels for better readability.

Example of a Hierarchical Query



Beginning with V9, you can apply a search within the context of the hierarchical queries. In applying this Search Within feature:

- The hierarchical connect-by-like queries only return nodes and the child nodes that satisfy the filter criteria.
- Grayed-out nodes do not fulfill the filter criteria, but their child nodes do.

Sorting is enabled in the Row Expander view beginning with V9.

In V10, the Hierarchical Query design is changed. Updates include a new icon to indicate the hierarchy. When this Hierarchy icon is clicked, the respective node becomes the anchor node. A deep link traversal filter is also introduced.

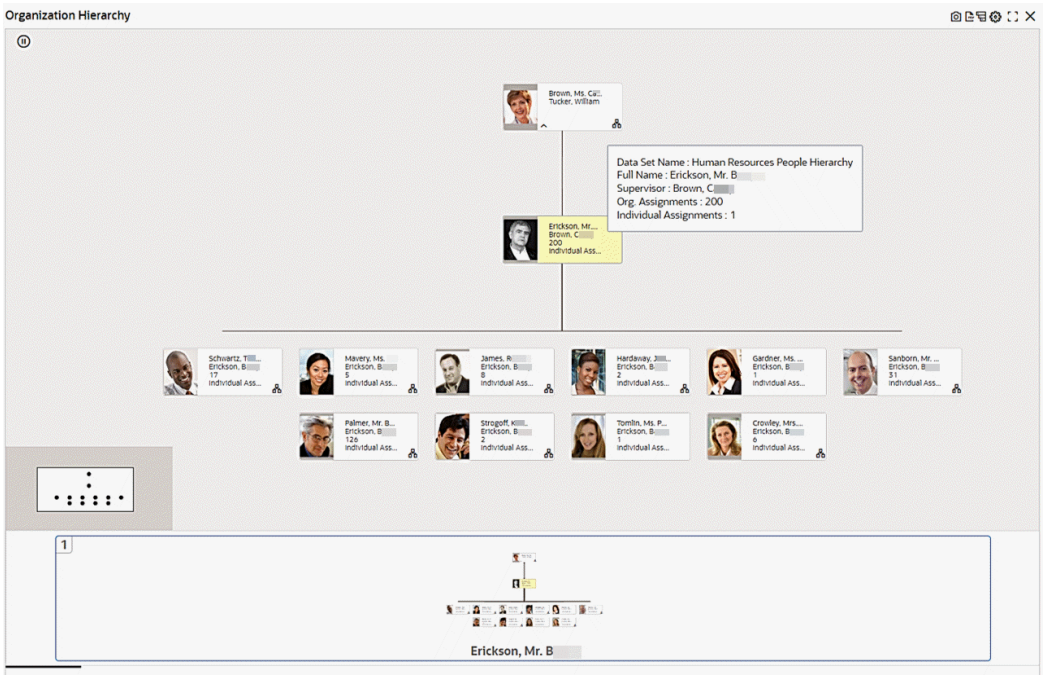
Beginning with V11, the Hierarchical Query feature supports hierarchical aggregation to present a consolidated view of parent and child level information under a single tree structure. The row expander view also supports hierarchical aggregation.

- Node-level aggregation applies to all nodes, and it signifies the consolidation specific to an individual node.
- Hierarchy-level aggregation applies to parent nodes, and it signifies the consolidation encompassing both the node and its child nodes.
- A custom label enables a clear distinction between node-level aggregation and hierarchy-level aggregation. The custom level for aggregated attributes is determined by the designer.

- Hierarchical aggregation is calculated when the following conditions are met:
  - The node identifier is defined.
  - "Apply Hierarchical Aggregation" is marked.
  - "HQ view" is selected.

The following figure shows an organization hierarchy in which one employed handles one assignment directly, but from a hierarchical perspective, he and his reporting employees have 200 assignments.

Example of an Organization Hierarchy with Hierarchical Aggregation



Zoom Window Selection

The Zoom Window Selection feature, also introduced in V8, provides an overview window for the diagram, and focuses on a specific process.

Context Menu

The Diagram context menu includes visual icons reflecting the business functionality for each option in the menu. The context menu can also include hyperlink actions.

Note: The context menu is not supported on iPads.

PDF Inline View

Beginning with V8, you can view a diagram in a **PDF Inline View** for collaboration. Click on the PDF icon, and then use the inline view option:

- File Name: PDF file name
- Option: Choose an option for viewing:
  - Top-Down: view the diagram from top to down
  - Bottom-Up: view the diagram from bottom to up
- Display Option: Select the main node based on which the PDF viewer will show the process flow.

> **Note:** The Display Option list displays the list of business entities, and those entities are not translated.

After selecting your options, click View to view the PDF.

You can print or download the PDF file in the PDF Inline view. In the PDF view, the diagram is displayed in the "Row Expander" view. The PDF view displays:

- PDF view date/time (server time)
- Diagram title
- Refinements applied on the dashboard that shapes the business flow
- Display option
- Business flow direction (top/down- bottom/up)
- Business entity images

> **Note:** Business entity images appear when there is more than one business entity in the diagram.

To return to the diagram view, open the PDF option and select **Close Preview**.

Timeline View

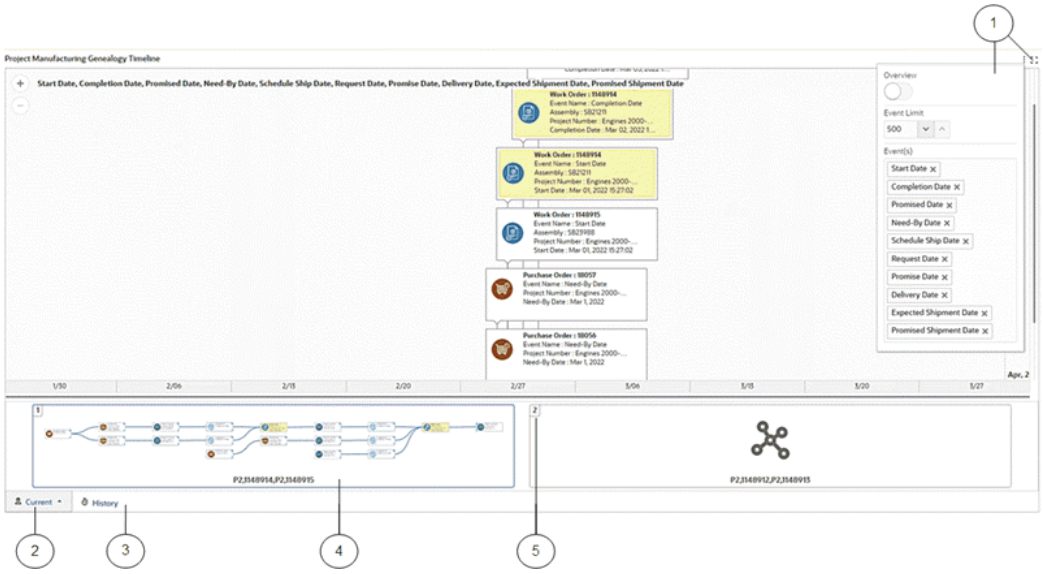
Beginning with V9, the diagram component supports displaying events from multiple data sets in a timeline view. This feature helps you understand the business flow with a chronological sequence of different events.

The timeline can have more than one event. You can select one or more events to be displayed using the runtime options. In addition, you can control the number of events,

or event limit, displayed on the timeline.

The timeline view also supports pagination and history.

Example of a Diagram in a Timeline View indicating the Chronological Sequence of Events from Multiple Related Datasets: Work Order and Purchase Order



1. Runtime options to enable the overview display, specify the event limit, and select event types

2. Current tab

3. History tab

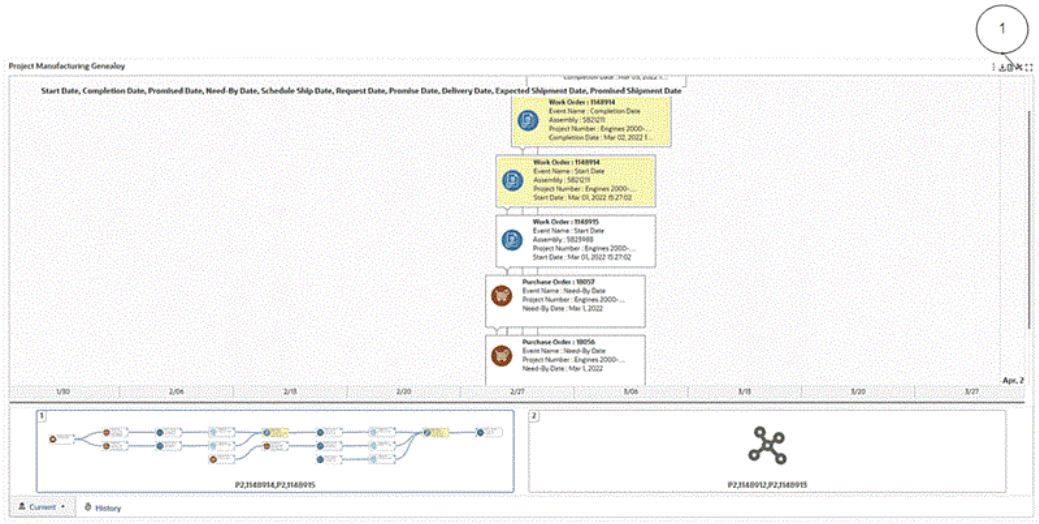
4. Thumbnail diagram depicting the underlying relationship between datasets in a network view

5. Filmstrip-like pagination support for viewing more than one timeline simultaneously

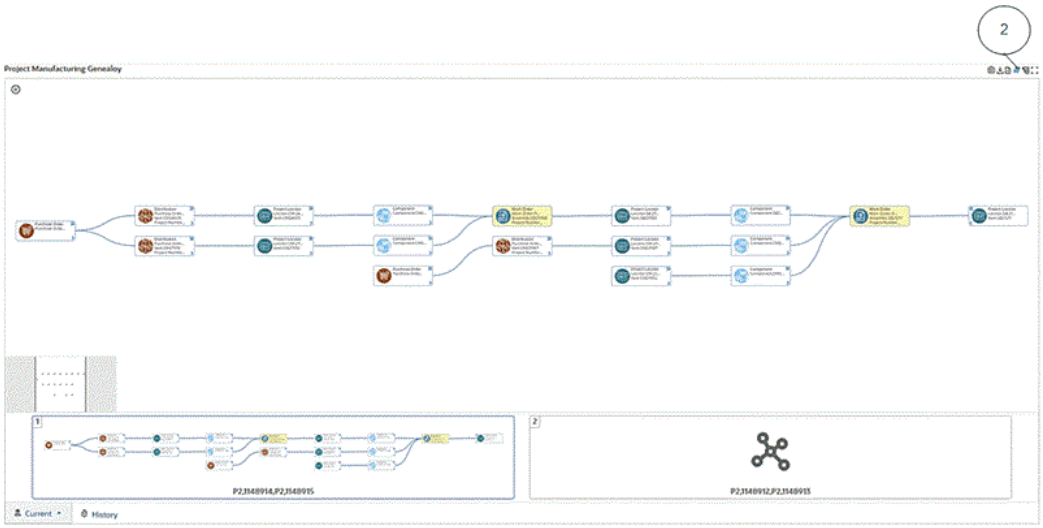
The diagram component can be presented in three forms: Network Diagram, Timeline, and Hybrid. A hybrid view uses both the network and timeline forms of display.

You can switch between the views as shown in the figures below.

Example of a Diagram in a Hybrid View



Example of a Diagram in a Network View



1. Icon to switch to the network diagram view
2. Icon to switch to the timeline diagram view

PDF Export

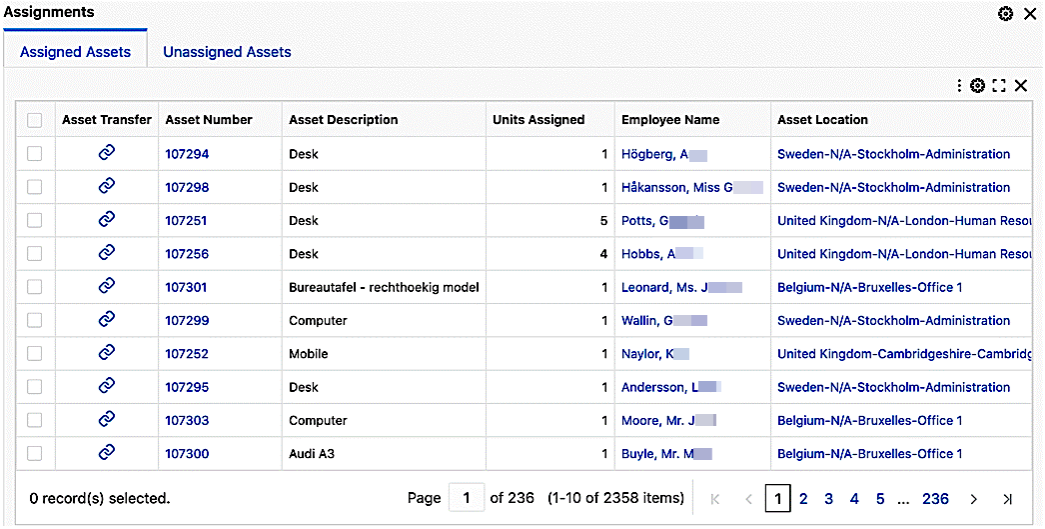
Beginning with V11, you can export a Diagram/Row Expander/Hierarchical Query component to a PDF file at the dashboard level. The view visible at the dashboard will be exported to the PDF file, and the diagram's visualization and comparison capabilities are carried over to the exported PDF file. Both the Search Within and Highlight Path

features are supported for Diagram/Row Expander/Hierarchical Query in exporting to a PDF file.

Tab Layout

Different dashboard components can be grouped into separate tabs based on functionality.

Example of a Tab Layout



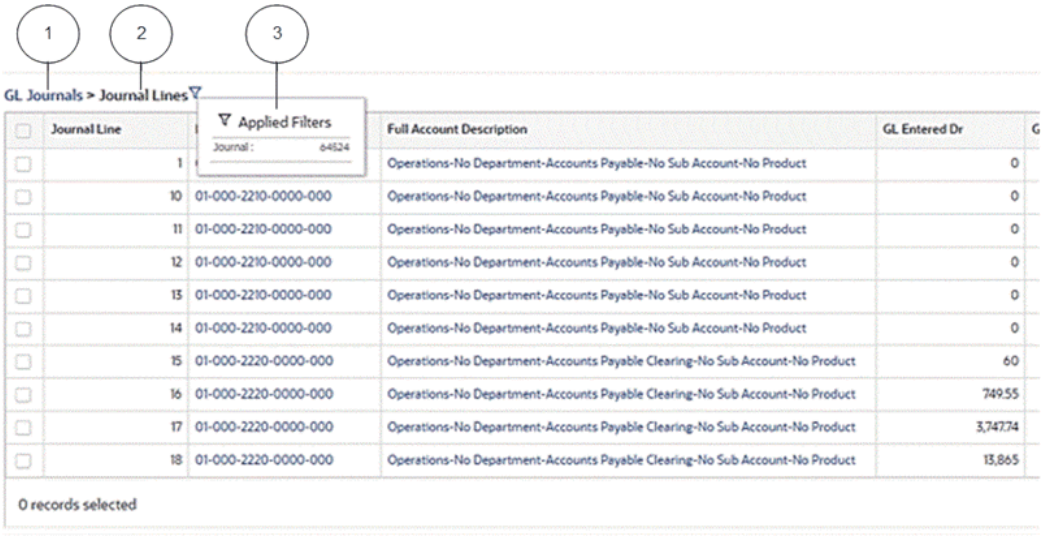
Administrators can delete or reorder tabs.

Inline View

Introduced in V9, the Inline View feature supports accessing linked contents as an overlay on parent visualization. You can access related information through intuitive navigation without leaving the context of the original dashboard.

The result table, timeline, and diagram components support inline view.

Example of Accessing Line-Level Journal Information using an Inline View



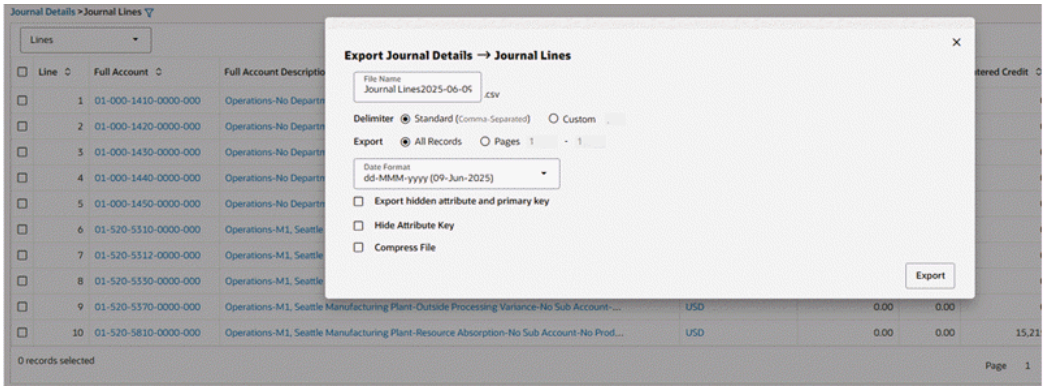
1. Parent Result Table (for example, GL Journals) showing the navigation link to return from the inline view

2. Inline Result Table (for example, Journal Lines) showing the line-level journal information as an overlay on the parent Result Table

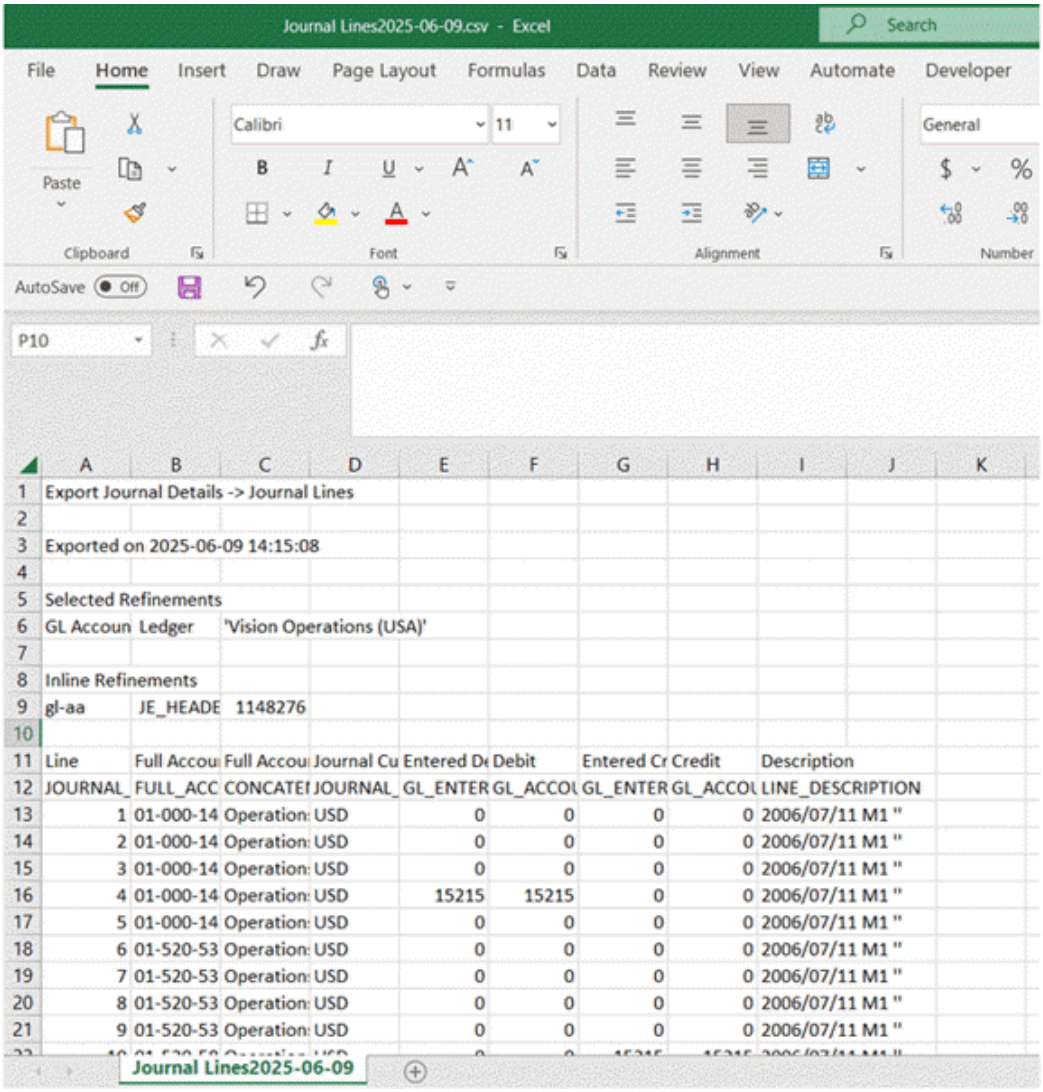
3. The refinement used to access related information

In V15, inline views triggered from main components such as a Results Table can now be exported as part of a CSV download. This enhancement allows you to extract not just the primary data but also the contextual details linked to the selected record. The export file clearly labels the parent-child relationship, includes metadata such as export timestamp and applied filters, and retains pagination or selection-based exports where applicable. This feature is particularly valuable for audit trails, offline analysis, and cross-functional collaboration because it ensures no loss of detail between what is shown onscreen and what is shared externally.

Exporting Line-Level Journal Information from an Inline View



Example Snapshot of Exported Inline Data



Common Features

Oracle Enterprise Command Center Framework includes features that are used in multiple components.

Comparing Records and Sorting Search Results

Oracle Enterprise Command Centers can offer detailed insights into the data through results tables and grids which help you gain insight as quickly as possible. You can then act on it by taking the necessary action to resolve a process bottleneck or address an exception.

On some results tables and grids you can use the Options icon to compare records or

perform other functions.

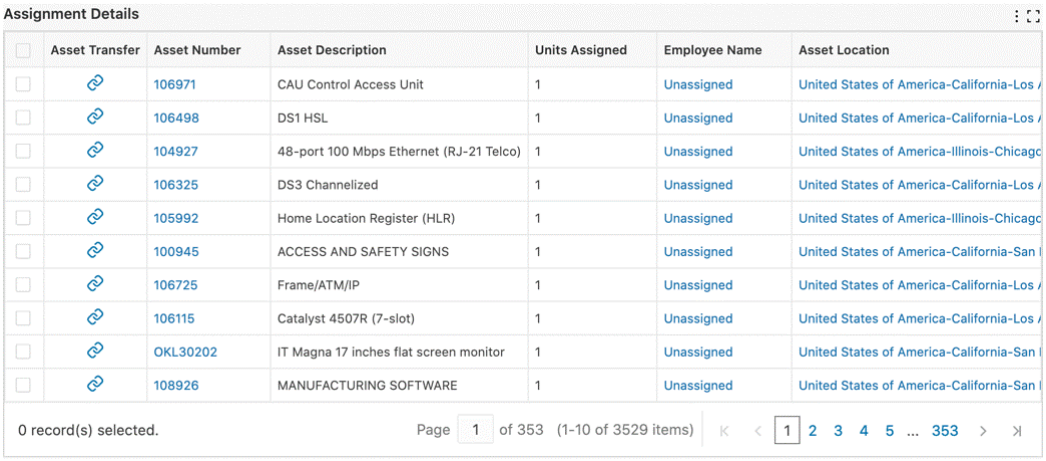
For record search only, you can control the order of the search results based on the record score in the data set. Data is sorted by "Score" by default. You can override this default order or add more sort options when you configure a dashboard. This ranking is supported only in results tables and grids.

Default Value

You can specify a context-sensitive default value for a data set instead of a NULL value. The default values behave like any other attribute value and can be used for display in the UI components. This capability allows you to refine the dashboard using these values.

For example, for a list of assets, any asset that has not been assigned to an employee could be given the value "Unassigned" for the Employee Name. You can then refine the results of this data set on your dashboard by the value "Unassigned".

Example of a Default Value in a Results Table Column



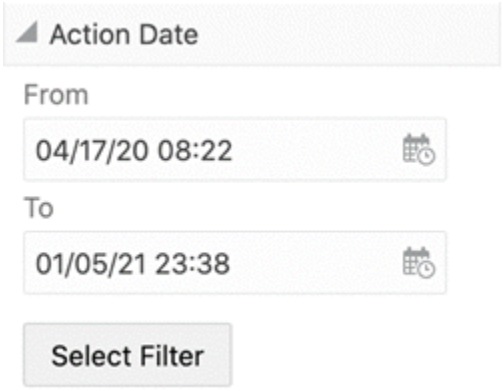
Support for Time Stamps and Time Zones

You can include the time along with the date in a date/time stamp. This capability improves precision in the data displayed and enables you to accurately filter data for the right period. The time stamp is available for all the components. You can use a time range in available refinements to filter the data on the dashboard.

You can leverage the dashboard to view information detail on the level of seconds. Enterprise Command Center dashboards can display the time difference from the current time on the seconds level.

Oracle Enterprise Command Center Framework considers a user's time zone for displaying time-sensitive data. This capability improves information accuracy and reliability.

Example of Time Stamps in Available Refinements



Page Display Preferences

Your changes to the runtime options of components are saved as Page Display Preferences. You can log in again or navigate back to the dashboard to see your changes. These changes persist until you explicitly reset either at the component level or page level.

Resetting options done on the component-level resets the changes done to the component. Resetting page-level changes affects the entire dashboard. The following table lists changes that are maintained across the components:

Components and Retained Changes

Component	Changes Retained
Available Refinements	Data set selected
Search Component	Data set selected Category value

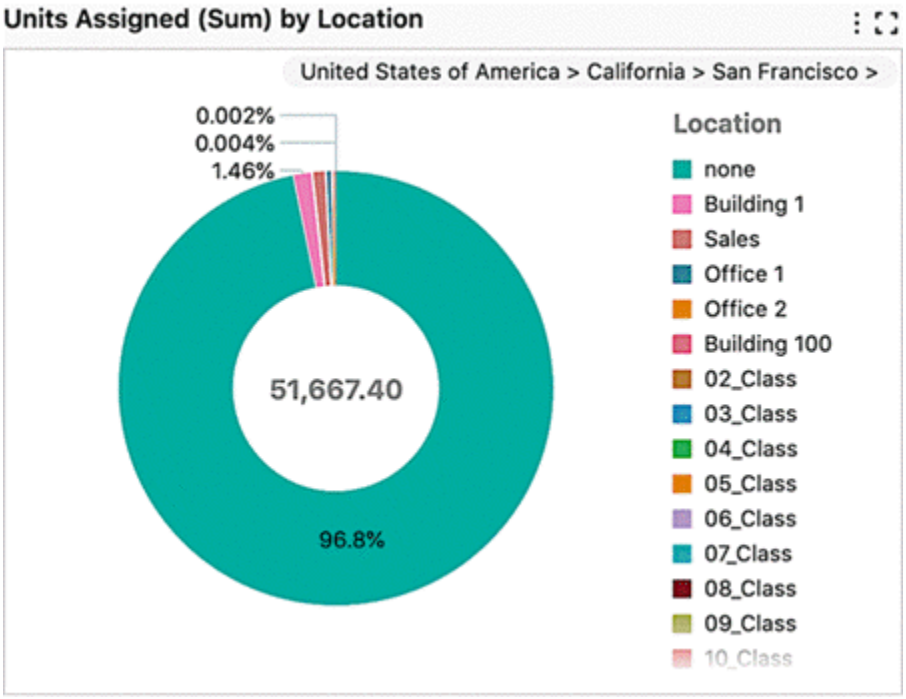
Component	Changes Retained
Chart Component	Runtime selection of dimensions and metrics
	Runtime sorting changes
	Changes to chart orientation and stacking
	Show as line
	Show multi-metric
	Split Y-axis for bar/line
	Number of dimensions displayed, order of display
	Show connecting lines (Waterfall chart)
	Show totals (Waterfall chart)
Tag Cloud	Runtime selection of dimensions and metrics
Tab Component	Selected Tab will be stored in session but not as a preference
Aggregated Table	Selected Attributes and Metrics from Runtime
	Runtime Sorting
Results Table	Runtime Sorting
Grid	Runtime Sorting

When you change the preferences, a Reset icon is provided for resetting the display. At component level, the Reset icon is in runtime options of the component. At the page level, the component is in the side navigation panel or on the top left of the dashboard.

Cascading Breadcrumbs

Cascading Breadcrumbs display the trail of cascading dimension values that give you an understanding of the drill-downs that display the current dimension. In Chart and Tag Cloud components, cascading breadcrumbs are displayed in the top right corner when the components are cascaded. Cascading breadcrumbs are displayed when you drill down from the component itself or if the component is auto-cascaded due to any filter.

Example of Cascading Breadcrumbs in a Chart



Lookahead Visualization

Charts serve as a powerful visualization tool for information discovery and analysis. The chart tool-tip enables you to look ahead to the next level of detailed available on a chart . For all charts that have cascading enabled, you can hover over the chart series and see the next level of details shown in a similar chart type. This lookahead visualization honors the chart sorting option, user preferences, and cascading breadcrumbs, and is available for all types of charts.

Note: The chart tool-tip is displayed at the last level of cascading.

Date Subsets

Introduced in ECC V8, the Date Subset feature is a transformation that enables the creation of different units from a date or date/time attribute. A date can then have month, year, and quarter attributes. A designer can enable the date subset and then create new attributes for the following time periods:

- Year
- Quarter
- Quarter-Year

- Month
- Month-Year

These new attributes can be used as standard attributes under Available Refinements.

Export

Export in Results Table and Grid

Records in results table and grid can be exported in a CSV file format. The exported file contains records organized in a tabular structure with attribute keys and attributes names as table headers. The exported file contains selected refinements on the page and timestamp of export.

Beginning with V10, you can select from four options for the date format in exporting to CSV format. They are:

- Default date format set as an Oracle E-Busines Suite preference. See: Specifying Settings, page 1-5.
- ECC Format (2023-02-23T12:51:27Z)
- MM/dd/yy (02/23/23)
- dd-MMM-yy (23-Feb-23)

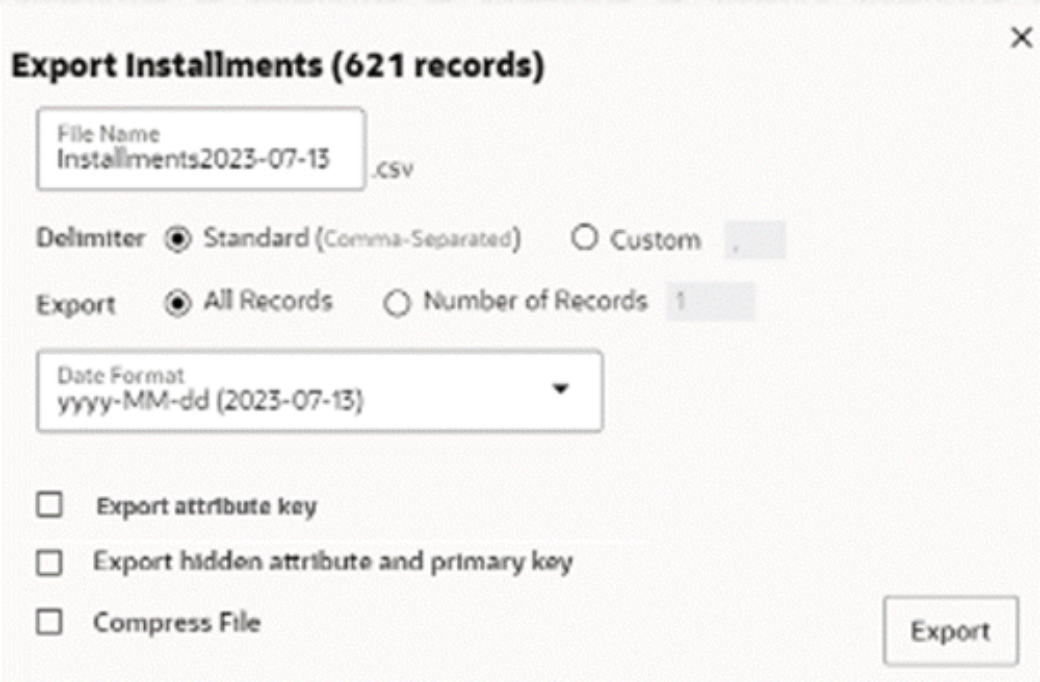
Beginning with V11, you have the option to exclude the attribute key in exporting to a CSV file.

To Export:

1. Click **Export** in runtime options to open a window with export options. The title of the new window is the component title or data set name when there is no component title, followed by the number of records.
2. Rename the default file name. The default file name is component title or data set name appended by timestamp.
3. Choose standard or custom delimiter.
4. Choose the Attributes to export.
5. Choose the number of records.
6. Choose the appropriate date format.
7. Choose whether to include the attribute key.
8. Choose if hidden attributes and primary key needs to be included.

9. Choose if the file needs to be compressed.

Example of an Export Window



Exporting Records from an Aggregated Table or an Aggregated Grid

Records in an aggregated table or an aggregated grid can be exported in a CSV file format. The exported file contains records organized in a tabular structure with attribute keys and attributes names as table headers.

The exported file honors all the runtime changes and contains selected refinements on the dashboard and timestamp.

Unlike with results tables and grids, Export pop-ups in aggregated tables and aggregated grids do not display the number of records in the pop-up header and pagination range.

To Export:

1. Click **Export** in runtime options to open a window with export options. The title of this window is the component title, or data set name when there is no component title.

2. Rename the default file name. The default file name is component title or data set name appended with a timestamp.

3. Choose standard or custom delimiter.

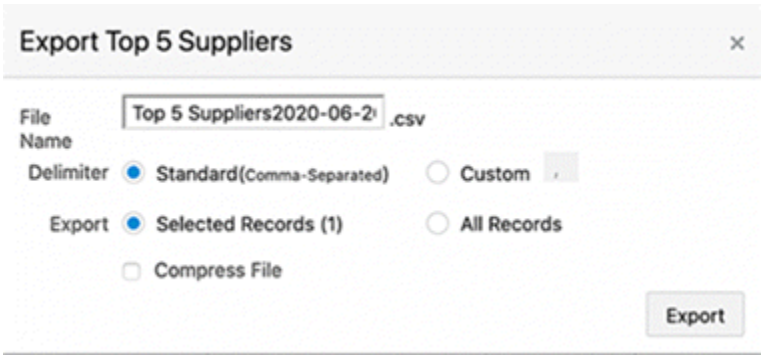
4. Choose the number of records (Only for aggregated grid).

5. Choose the appropriate date format.

6. Choose whether to include the attribute key.

7. Choose if the file needs to be compressed.

Example of an Export Window for Aggregated Grid



Export in Chart

The Chart component can be exported as a PNG image that contains a snapshot of the chart. The snapshot contains the chart as-is seen on the dashboard to honor runtime changes and any change in size with chart maximization.

To export the chart image, click on the camera icon in runtime options.

> **Note:** Chart Export Image is not supported in Internet Explorer.

Underlying data of the chart component can also be exported in a CSV file. Exported data also honors all the runtime changes. As the underlying data needs to be holistic, exported data of chart contains all the data even if Top N is configured.

1. Click **Export** in runtime options to open a window with export options. The title of this window is the component title.

2. Rename the default file name. The default file name is component title or data set name appended with a timestamp.

3. Choose standard or custom delimiter.

4. Choose the appropriate date format.

5. Choose whether to include the attribute key.

6. Choose if the file needs to be compressed.

Export in Tag Cloud

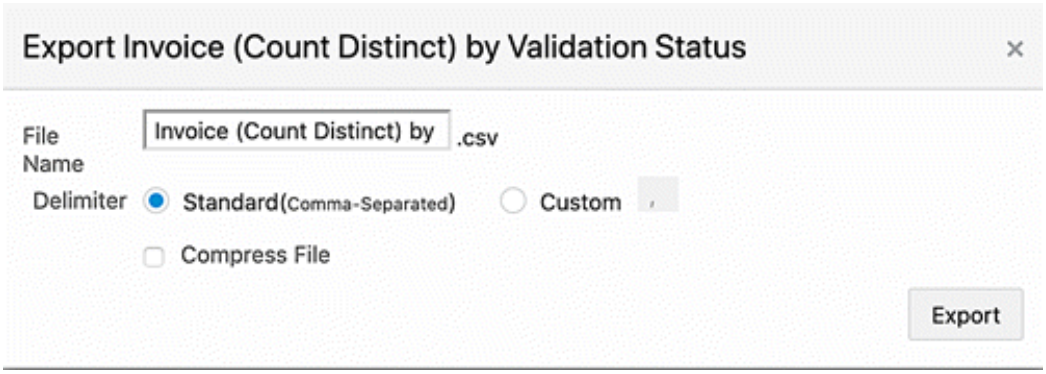
The underlying data of the Tag Cloud component can be exported in a CSV file. Exported data also honors all the runtime changes. As the underlying data needs to be holistic, the exported data of a tag cloud will contain all the data irrespective of how many dimensions are displayed.

To Export:

1. Click **Export** in runtime options to open a window with export options. The title of this window is the component title.
2. Rename the default file name. The default file name is component title or data set name appended with a timestamp.
3. Choose standard or custom delimiter.
4. Choose the appropriate date format.
5. Choose if the file needs to be compressed.

Example of Exporting a Tag Cloud

Example of Export Window for a Tag Cloud



Export Dashboard to PDF

Some solutions require team collaboration, which requires users to share the insights from the dashboard after drilling down to additional details. Sharing the entire dashboard at once improves collaboration between users and allow other users to view the same perspective of the dashboard. The Export Dashboard to PDF feature provides this capability.

To share a dashboard, you can click on the Share icon and export the dashboard to PDF.

> **Note:** This feature is disabled by default. An administrator can enable it.

The export process is initiated immediately after clicking **Export to PDF**.

Considerations of the Export to PDF feature are:

- Default Title of PDF is the name of Command Center followed by Dashboard Name and Timestamp and server time zone of the download time
- Filters applied on the dashboard are displayed at the top of the page.
- If there are no filters applied, selected refinement is not included in the exported file.
- Each refinement lists data set name, attribute display name, and filter value.
- The side navigation panel is not included in the exported file.
- The PDF has the current state of the dashboard, which includes the filters applied on the dashboard, and changes made by the user through components' runtime options.
- The entire dashboard with all the visualization components is exported in the PDF file
- Results table/grid records honor the PDF export limit set in the ECC property file for PDF export limit. (PDF_MAX_EXPORT_COUNT). The default limit for this property is 100 records.
- Hints are displayed for the Results Table, Grid, and Aggregate Table components, with the records limit.
- Grid and Aggregated Grid are exported in tabular format and honoring the PDF export limit.
- The exported file does not contain a visual representation of the following:

- Images
- Indicator Icons
- Star Rating
- Indicator Bar

The actual attribute value is displayed instead of the visual representation.

Limitations of the Export to PDF feature are:

- Only seven columns of a Results Table or Grid are exported in the PDF file.
- Grid cells are exported as columns in tabular format and all items in the cell will be exported in the same column.
- Export to PDF is disabled for RTL languages.
- Exporting of Charts and Tag Clouds is not supported in Internet Explorer. The exported file does not contain the charts and tag clouds in the exported dashboard.
- Diagrams are not included in the exported file.

Compare Window

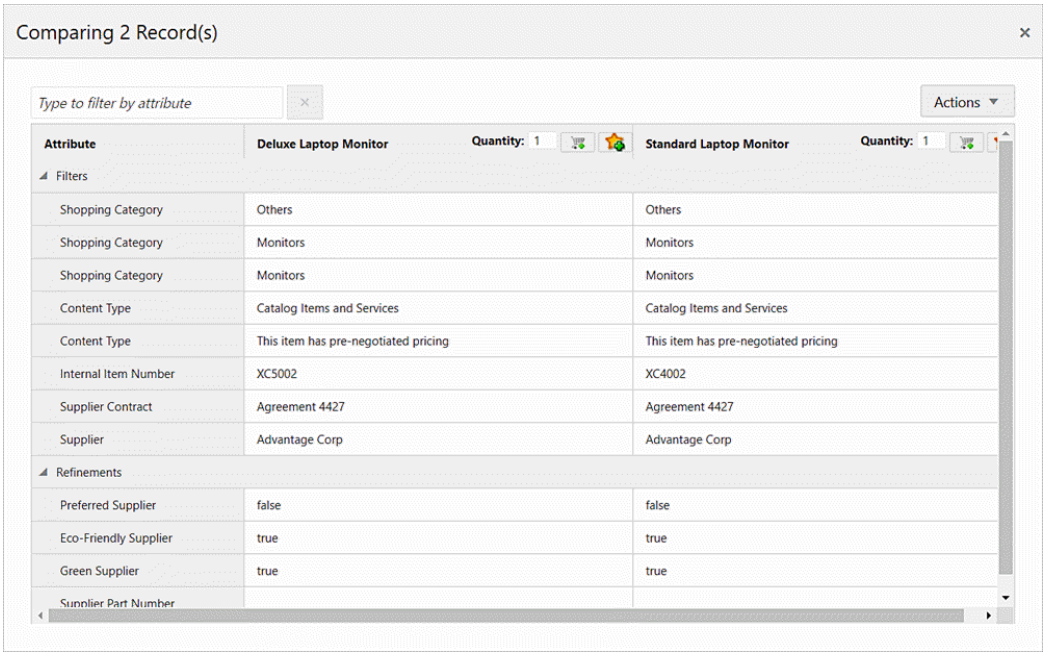
You can compare records in a results table or grid. The Compare window also allows you to compare among the records view information of attribute values. Attributes are organized into corresponding groups if configured.

The Compare window can also have dynamic titles as column headers. The column headers in the Compare window can include tokens to display a dynamic title for each record based on an attribute value.

Grid actions can also be accessible from the column headers of the window.

The Compare window includes the "Find Similar" feature for improved information discovery. The "Find Similar" feature is supported only in non-group based attributes in Results Tables and Grids.

Example of a Compare Window

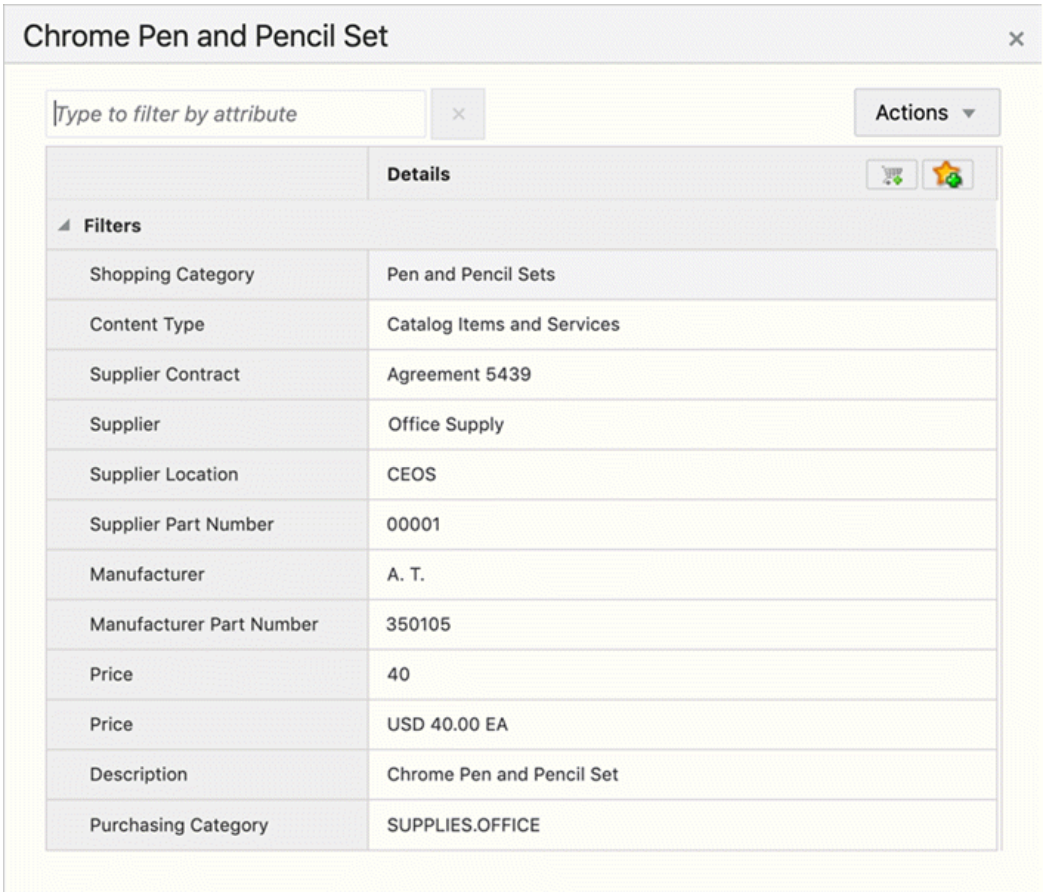


Record Details Window

The Record Details window allows you to view all the significant information of a record in a results table or grid in a tabular format. Attributes in a Record Details window can also be organized into respective groups if configured. Similar to the Compare window, the Record Details window also supports dynamic titles and column header grid actions.

The Record Details window includes the "Find Similar" feature for improved information discovery. The "Find Similar" feature is supported only in non-group based attributes in Results Tables and Grids.

Example of a Record Details Window



Number Abbreviation

Numbers can be abbreviated for improved readability in summarization bars and aggregated grids.

Number abbreviation is available in the Flags and Metrics of the summarization bar. The actual value is displayed in the tooltip. Any additional tooltip is displayed beneath the value.

Numbers in summarization bars can also use number formatting as defined in Oracle E-Business Suite, and are translatable.

Number Formatting

In V11 and later, designers can specify the formatting of numerical attributes so that these attributes are displayed uniformly in a dashboard.

Three types of number formatting are supported: General, Formatted Number, and Accounting.

For a numeric attribute, a designer specifies a Profile Type of `Int/Ints`, `Long/Longs`, or `Double/Doubles`. and then chooses the type of number formatting. These options are described in the tables below.

Number Formatting Types for Profile Type `Int/Ints`

Formatting Type	Formatting Logic	Example
No Formatting	Comma (,) as the thousands separator	`10,000` `-10,000`
General	Absence of the thousands separator	`10000` `-10000`
Formatted Number	Comma (,) as the thousands separator	`10,000` `-10,000`
Accounting	Comma (,) as the thousands separator Negative numbers within parentheses ()	`10,000` `(10,000)`

Number Formatting Types for Profile Type `Long/Longs`

Formatting Type	Formatting Logic	Example
No Formatting	Comma (,) as the thousands separator	`100,000` `-100,000`
General	Absence of the thousands separator	`100000` `-100000`
Formatted Number	Comma (,) as the thousands separator	`100,000` `-100,000`
Accounting	Comma (,) as the thousands separator Negative numbers within parentheses ()	`100,000` `(100,000)`

Number Formatting Types for Profile Type `Double/Doubles`

Formatting Type	Formatting Logic	Example
No Formatting	Comma (,) as the thousands separator	`100,000.00` `-100,000.1`
General	Absence of the thousands separator Non-uniform representation of decimals	`100000` `-100000.1`
Formatted Number	Comma (,) as the thousands separator Uniform decimal representation to two (2) places	`100,000.00` `-100,000.10`
Accounting	Comma (,) as the thousands separator Negative numbers within parentheses ()	`100,000.00` `(100,000.10)`

Custom Labels for Metrics

Introduced in V12, the Custom Label feature enriches effective communication by allowing you to align aggregated data with your organization's or team's internal language and conventions. Furthermore, it boosts flexibility and adaptability by catering to diverse user requirements, ensuring that visualizations resonate with their specific use cases, and thus enhancing their relevance and meaningfulness.

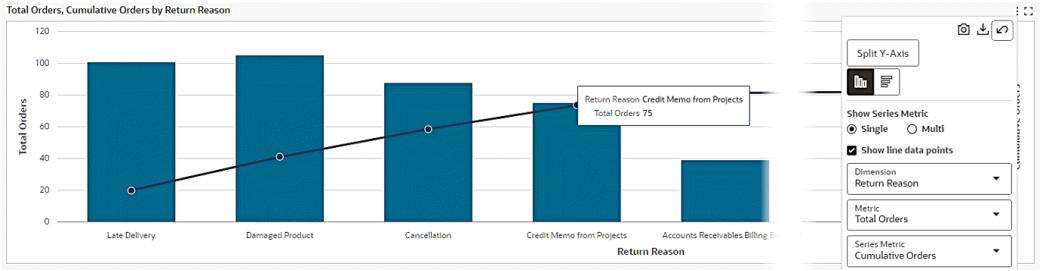
The following table lists components and UI elements that support custom labels.

Components and Elements that Support Custom Labels

Component	UI Element
Summary Bar	Flag pop-up metric title

Component	UI Element
Chart	• Axis title • Tooltip • Default chart title • Chart legend • Runtime option • Export • Cascaded chart
Aggregated Table (Pivot View)	• Column headers • Runtime option • Export
Tag Cloud	• Default component title • Runtime option
Network Diagram	• Node • Tooltip • Row expander • Export • Show detail • Compare
Grid	• Cell label • Export

Example of a Custom Label in Axis Title, Tooltip, and Runtime Option



Color Pinning

Color pinning is the display of context-specific colors in a component to reflect the meaning of what the component represents. Color pinning is subject to the designer's control.

Color pinning applies badge-style conditional formatting on categorical attributes. Numerical attributes may also support conditional formatting by highlighting the attribute value using specific colors

Inline Labels in Runtime Options

Beginning with V11, some components include a runtime option for inline labels which can enhance form usability. This additional choice allows you to manage the data presentation.

User Personalization

User Personalization is introduced in V10. It consists of two types:

- End User Personalization, formerly known as User Preferences
- Power User Personalization

User Personalization

User Personalization (also called End User Personalization) allows users to make changes in the dashboard that will suit their preferences.

User personalization provides the following features:

- Users can enhance the business user experience by editing components in the dashboard.
- A user's changes are preserved across the session.
- The component is displayed according to each user's preferences.

User personalization is available across visualization components such as Summary Bar, Tag Cloud and Charts. It is also available across detailed insights and aggregated components like Results Table/ Timeline, Aggregate Table/Pivot, and Grid/Aggregated Grid. Each component locally has a reset option under its runtime options that can be used to return to the default view of the component. User personalization can be reset either at the Component level or at the Page level. Below are examples of end user personalization done at the Component level.

Chart

You can personalize the chart by flipping the chart layout or using a different metric/dimension.

Tag Cloud

You can personalize the Tag Cloud by using a different metric/dimension.

Summarization Bar

You can personalize the Summarization Bar by reordering summary items or showing/hiding summary items from the view.

Results Table

You can personalize the Results Table by reordering attributes or showing/hiding attributes from the view.

Aggregate Table/Pivot

You can personalize the Aggregate Table/Pivot by reordering attributes, showing/hiding attributes, or enabling/hiding a sub-summary from the view.

Timeline

You can personalize the Timeline by changing the event limit or choosing the types of events shown the view.

Reset End User Personalization at Page Level

End User Personalization can be reset at Page level. This action would reset End User Personalization for all components in the dashboard, because it is performed at the Page level.

Power User Personalization

Power users can modify the dashboard to tailor it based on their business requirements.

Examples:

- A Credit Manager wants to track top past-due customers based on their profile class so that they can revisit customers' credit ratings and manage or update the

payment terms.

- A Payables Accountant wants to track the cash outflow for invoice payments per bank account so that they can analyze payments trend.

Note the following:

- A power user has the same designer experience as an administrator user.
- A user is enabled as a power user through the setting of the profile option "FND: ECC Power User Enabled" at the user level.
- All personalizations are saved without any deployment.
- A power user does not have access to the ECC Administrator pages.

Beginning with V11, an "i" icon on the dashboard is displayed for power user personalization. Clicking this icon opens a window with additional information as well as a **Personalize** button to enable personalization and an **Exit** button to exit personalization.

Examples of Power User Capabilities

Can Perform	Cannot Perform
Add a new component	Create a new data set
Modify an existing component	Create a new dashboard
Delete a component	Configure a component from a data set that is not part of the application datasets
Change dashboard layout	Create a public saved search

Power user personalizations are preserved during patching. A user is notified when a new version is available. Users can apply the new version and lose all the personalizations, or they can cancel and keep the personalized version.

The following table summarizes the differences between the two types of personalization.

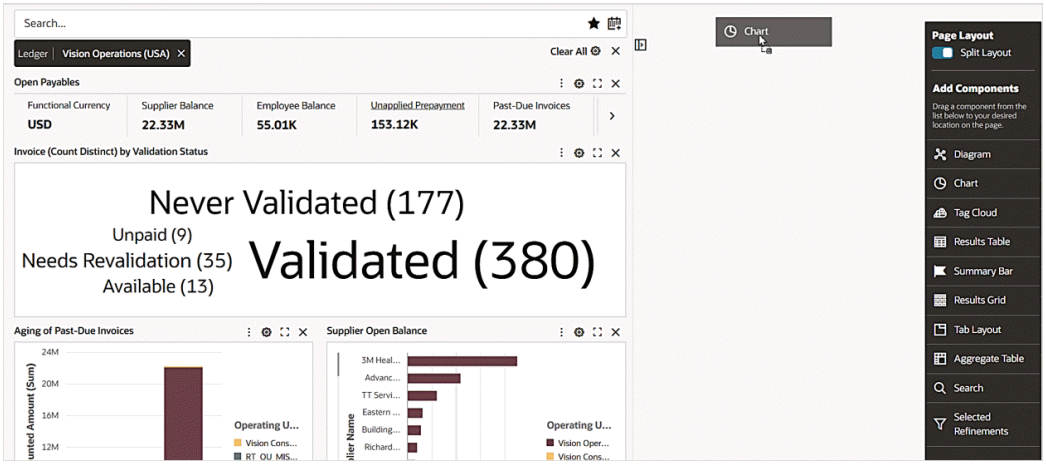
End User Personalization versus Power User Personalization

End User Personalization	Power User Personalization
All business users	Power users only
Runtime changes	Configuration changes (components)
Implicit saving as user utilizes run-time options	Explicitly saving for configuration changes
Involves no efforts from the user	Involves efforts from the user

The Above the Fold Layout, introduced in V14, allows users to divide their dashboard into a 70-30 visual split for viewing primary insights alongside supporting information. It is supported as part of power user personalization, enabling users to tailor the layout to their specific needs.

It is applicable to any ECC dashboard layout. It can be controlled using a toggle switch inside the component panel to enable or disable the Above the Fold Layout. Once enabled, components can be configured dragging and dropping components into the 70% and 30% sections. Power users can copy components across layouts, though drag-and-drop functionality is not yet available.

Example of a Dashboard Layout Personalization



The supported components in Above the Fold Layout are Summary Bar, Tag Cloud, Chart, Aggregated Table, and Grid. A maximum of three components can be added to a page. The Summary Bar shows up to four items, arranged in a two-by-two vertical tile format. The Aggregated Table displays the first five rows based on the configured sort, and Pivot View is not supported. Charts, Summary Bar, and Tag Cloud have a

borderless design.

The table below summarizes component specific guidelines for Above the Fold Layout.

Guidelines for Power User Personalization Using the Above the Fold Layout

Component	Guidelines
Summary Bar	Displays up to four items in a two-by-two vertical tile format. Borderless display in Above the Fold Layout.
Tag Cloud	Limit to 10 items for optimal readability. Borderless display in Above the Fold Layout.
Chart	Charts with low cardinality dimensions are recommended. Trellis view is not supported. Borderless display in Above the Fold Layout. Legends always appear on the right side.
Aggregated Table	Displays only the first five rows based on configured sort. Pivot view is not supported. Summary and footer are not supported. Limit the number of attributes to avoid horizontal scrolling.
Grid	Aggregated grids are recommended for better space utilization. A two-by-two grid is recommended for optimal display. Format attributes to display only relevant information.

Starting with V11, an "I" icon is available on the dashboard. By clicking this icon, users can view information on personalizations, as well as use the buttons **Personalize** and **Exit** to enable personalization and exit personalizations respectively.

In V14, the sharing of power user personalizations is made easier, removing the need for administrators to follow the Oracle E-Business Suite Oracle Application Framework

personalization process. Power users need to coordinate with the administrator to initiate the site-wide roll-out of a personalization. The administrator has the authority to share personalizations across the site.

Merging Personalizations

In V15, power users can merge their personalized dashboards with newly available versions of the dashboard page. This enhancement allows power users to retain their existing personalizations while selectively adopting new features or changes introduced through either Oracle application updates or internal changes made by an administrator. When a new version of a dashboard page becomes available, power users with personalizations on that page receive a page-level notification prompting them to review and manage their personalizations with options to Cancel, Override, or Merge changes.

Understanding Layout Changes

A layout change refers to any modification that alters the structure or positioning of components on the dashboard page. This includes:

- Introduction of a new component that results in new positions for existing components on the page.
- Repositioning an existing component to a different location (for example, from top to bottom or left to right).
- Deleting a component in a way that causes remaining components to shift or realign.
- Enabling or disabling the split layout (for example, switching between full-width and 70–30 split view)
- Add/delete a tab component

Notification Rules

Guidelines for Power User Personalization Using the Above the Fold Layout

Scenario	Notification Message	Available Actions	Notification During Post User Action
New or Modified Components This occurs when the new version introduces a new component or updates an existing component that the power user has also modified.	A new version of this dashboard is available. If you choose to override, all personalizations will be removed. Click "Merge" to selectively apply changes while preserving your personalizations.	**Cancel**: Retain current personalization. **Override**: Fully replace personalization with new version. **Merge**: Preview and selectively apply changes.	**Cancel**: Notification is removed for the current session only and reappears on session refresh. **Override**: Notification is removed permanently until a new version is released. **Merge**: Notification is removed permanently once all conflicts are resolved.
Partial Merge Power user has not resolved all the conflicts, but decided to close the preview drawer.	Unapplied Changes Detected: Some Component Changes have not been applied. Click Cancel to continue reviewing, or Close to exit the merge preview	**Cancel**: Stay in merge preview drawer, and resolve all the unapplied changes. **Close**: Close the merge preview drawer, and return to the personalized page.	**Cancel**: Notification is going to appear as long as all conflicts are not resolved. **Close**: No access to the Notification as the user comes out of merge preview drawer to access the personalized page. However, the personalized page level notification continues to appear as the merge is not resolved completely.

Scenario	Notification Message	Available Actions	Notification During Post User Action
Layout Changes This occurs when the new version alters the layout by deleting or repositioning existing components.	Layout Difference Detected	**View New Version**: Preview new layout in read-only mode. **Apply**: Preview new layout in read-only mode.	**View New Version**: Notification remains active until an action is taken. **Apply**: Notification is removed permanently.

Merge Rules

- If the new version introduces a new component:
  - Scenario 1: The new component changes the layout:
    - The power user will receive the option to:
      - Apply the new component.
      - Cancel to keep their current version.
  - Scenario 2: The new component replaces an existing one in the same position without a layout change:
    - If the power user has not modified the original component, the new component will automatically replace the old one on their page.
    - If the power user has modified the original component, they will get the option to apply or cancel the administrator's change.
- If the new version modifies a component:
  - Scenario 1: The power user has not modified the component:
    - The administrator's update will be automatically applied to the power user's page.
    - The power user does not need to take any action.
  - Scenario 2: The power user has also modified the same component:
    - The power user will receive the option to:
      - Apply the administrator's updated version.

- Cancel to keep their current version.

- If the new version deletes a component:
  - Scenario 1: The power user has not modified the component:
    - The component will be automatically removed from the power user's page.
    - The power user does not need to take any action.
  - Scenario 2: The power user has modified the same component:
    - 2(a) The power user has changed the layout.
      - The component will not be automatically removed from power user's page.
      - The power user will receive a notification about the layout change due to the administrator's deletion.
      - The power user can choose to "View the new layout" or "Apply the new layout." Applying the new layout will remove the component from the power user's page.
    - 2(b) The power user has not changed the layout.
      - The power user will not receive any notification.
      - The deleted component will remain in the power user's view.

- If the new version rearranges components:
  - The system shows a notification to the power user about the layout update.
  - The power user can choose to:
    - View the new layout.
    - Apply the new layout - this action rearranges the component on the power user's page to match the administrator layout.

A

Using Help

Getting Help

To get help

1. Choose *Window Help* from the **Help** menu, click the **Help** button on the toolbar, or press **Ctrl+h** to display help for the current window:

2. Navigate to the **Contents** tab to display online help for any of the Oracle E-Business Suite products.

   Note: You can also choose *Oracle Applications Library* from the **Help** menu.

   1. Click on a product name to display the list of top-level topics in that product's online documentation.

   2. Click on a topic of interest.

3. Navigate to the **Search** tab to find specific Oracle E-Business Suite information. Simply enter your search criteria in the text field and then press **Go**. For more search options click on the **Advanced Search** link.

For more information see Searching For Help, page A-1.

Searching For Help

You can perform a search to find the Oracle E-Business Suite help information you want.

1. Choose *Window Help* from the **Help** menu or click the **Help** button on the toolbar.

2. Navigate to the **Search** tab, enter your search criteria in the text field, then press **Go** to perform a simple search. For more search options click on the **Advanced Search** link.

   A list of titles, ranked by relevance and linked to the documents, is returned from your search.

3. Click on whichever title seems to best answer your needs to display the complete document.

   > **Tip:** If the selected document doesn't fully answer your questions, use the browser's back button to return to the list of titles and try another.

Simple Search

Simple search implies that the search should return documents that contain any expression entered in the search field.

The following table lists examples:

Examples of Simple Search

Use This Syntax	To Find Documents Containing ...
concurrent managers	the word "concurrent" or the word "managers"
"concurrent managers"	the phrase "concurrent managers"

Advanced Search

The advanced search feature contains these options:

- All Words
- Any Words
- Boolean

All Words

The *All Words* option implies that the search should return documents that contain ALL of the expression entered in the search field. For example, if you enter the expression *system administration*, the system finds documents containing both "system" and

"administration".

Any Words

The *Any Words* option implies that the search should return documents that contain ANY of the expression entered in the search field. For example, if you enter the expression *system administration*, the system finds documents containing either "system" or "administration".

Boolean

The *Boolean* option implies that the search should return documents based on the truth value of the expression entered in the search field. The values for the valid operators that you can use are shown in the following table:

Valid Values for Boolean Operators

Operator	Valid Values
And	AND, and, &, +
Or	OR, or, |
Not	NOT, not, -, ~

The following table lists examples:

Usage Examples of Boolean Operators

Use This Syntax	To Find Documents Containing ...
"concurrent manager" & "profile options"	the phrases "concurrent manager" and "profile options"
"menu options" - "profile options"	the phrase "menu options" and not the phrase "profile options"
menu & menuitem	the words "menu" and "menuitem".
profile | options	the word "profile" or the word "options"
((profile & categories) ~ options)	the words "profile" and "categories" and not the word "options"

("concurrent manager" & (request submission))	the phrase "concurrent manager" and the words "request" and "submission"

B

Oracle E-Business Suite Accessibility Features

Overview

This appendix describes accessibility features in Oracle E-Business Suite.

> **Note:** The content of this appendix is cumulative, so it describes features in Oracle E-Business Suite up to and including those for the latest release.

Enabling Accessibility Features for the HTML-Based Interface

Set the Accessibility mode on the login page under **Accessibility**.

Alternatively, the accessibility mode can be set on the Preferences page under "Accessibility" or by using the profile option *Self Service Accessibility Features*.

Once the Accessibility mode is set, it does not need to be set again for future sessions.

The options are:

- None: Pages include behaviors that are not accessible.
- Standard Accessibility: Pages are accessible to keyboard-only users and those using assistive technologies such as screen magnifiers.
- Screen Reader Optimized: Pages are accessible to screen reader users.

  When Screen Reader Optimized mode is on, it adds extra information and may move content around so that pages work better with a screen reader.

Required Form Controls

Oracle E-Business Suite uses an asterisk (*) to indicate that a control is required. In

Screen Reader Optimized mode, the required field indicator asterisk (*) is associated with the form control and non-visible text "(required)" is appended to the label that can be read by screen readers.

Field-Level Hints

In Screen Reader Optimized mode, tip text is displayed on the left side of the input field, depending on language session being used. In None or Standard mode, tip text is displayed below the input field.

Keyboard Interaction in the HTML-Based Interface

The following components are covered:

Access Keys

Access keys can be enabled or disabled using the Disable Access Keys checkbox on the

Preferences page.

Using Hot Keys

The following table lists the actions and associated hot keys that are supported in HTML-based applications.

To perform the action in Internet Explorer, press the Alt key + the key listed in the table. In this browser, the access key "activates" a button. That is, typing the access key moves the focus to the button and submits the associated action.

In Firefox on Windows, press Shift + Alt + the key listed in the table. In this browser, the access key places focus on the button but does not submit any action.

In Google Chrome on Windows, press Alt + the key listed in the table. In this browser, the access key places focus on the button but does not submit any action.

For Mac, use Control + Option + the key listed in the table.

On a Mac, you need to set a system preference to allow focusing on everything with just the keyboard. Go to System Preferences > Keyboard and under the Shortcuts tab, click on the "All controls" radio button. Once the Full Keyboard Access is set to all controls, you can use the Tab key together with arrow keys to navigate items on the screen. Use the space bar to select screen item that is in focus.

Actions and Associated Hot Keys

Action	Hot Key
Apply	p
Back	k
Cancel	l
Continue	c
Finish	i
Next	x
No	n
Save	s
Search	r

Action	Hot Key
Submit	m
Yes	y
Right Subtab	>
Left Subtab	<

Attachments

Enabled inline attachment pop-ups are focusable and are accessible by the Tab key. They may also be closed by pressing the Escape key.

Hide/Show Subtab Region

A Hide/Show subtab region contains a subtab layout that appears vertically on the page.

Using the keyboard, you can access the Hide/Show subtab layout by pressing the Tab key until focus reaches the first subtab of the layout. Pressing Tab again focuses on the subsequent component within that subtab.

To navigate between subtabs, use the navigation keys. Use the Down arrow key or Right arrow key to focus on the next subtab. Use the Up arrow key or the Left arrow key to focus on the previous subtab.

Inline Date Picker

When one or more date fields appear on a page, an Inline Date Picker may be displayed on the page, allowing users to quickly select dates for those fields.

- If you have the *Self Service Accessibility Features* profile set to "Screen Reader Optimized", the feature is not enabled. The date can be entered manually into the field without using the Inline Date Picker.

- If you have the *Self Service Accessibility Features* profile set to "Standard Accessibility" and there is more than one date field associated with the Inline Date Picker, you may need to enter the date manually into the fields or use the Date Picker pop-up window.

List Box

A list box lets a user select one or more values from a list.

With the focus on list box, pressing the Up or Down arrow key will shift the focus to the next item and select it. If Multi-Select Allowed is enabled, then holding the Shift key while pressing the Up/Down arrow key will select multiple items, if applicable.

Look Ahead LOV

The List of Values component has type-ahead search capabilities. As a user types in characters in the LOV search field, the results are fetched and displayed. The user can select a value from this look ahead window just as in the classic LOV window.

Keyboard navigation is as follows:

- Down arrow - Moves the focus to the first record if no record currently has the focus, or moves the focus to the next record if a record already has the focus.
- Up arrow - Moves the focus to the previous record. If the current record with focus is the first record, the Up arrow removes the focus from that record. If no record currently has focus, the Up arrow has no effect.
- Tab - Selects the current record with focus.
- Escape - Dismisses the Look Ahead LOV window without selecting a record.
- Alt+< or Alt+Shift+, (comma) - Navigates to the previous page of records.
- Alt+> or Alt+Shift+. (period) - Navigates to the next page of records.
- Alt+r - Opens the LOV window where you can refine your search.
- Spacebar - Selects the current value with focus.

> **Note:** The Look Ahead LOV is not available for Screen Reader Optimized mode.

Panel Splitter

If you have the *Self Service Accessibility Features* profile set to "Standard Accessibility" or "Screen Reader Optimized", use the following keys to interact with the panel splitter region.

- Tab - navigates focus onto the collapsible/expandable icon.
- Left arrow or Down arrow - with focus on the collapsible/expandable icon, moves the position of the splitter bar left or down.
- Right arrow or Up arrow - with focus on the collapsible/expandable icon, moves the position of the splitter bar right or up.

- Enter - with focus on the collapsible/expandable icon, expands or collapses the collapsible panel.

Pop-up Windows

Modal and non-modal pop-up windows are invoked by pressing the Enter key and navigable with the Tab and Shift+Tab keys. For modal pop-up windows, the focus stays within the pop-up until it is cancelled or submitted. For non-modal pop-up windows, pressing the F6 key moves the focus between the base page and current opened pop-up. They may be closed by pressing the Escape key.

Processing Page

A Processing page lets users know that a long-running process is working in the background. When Screen Reader Optimized mode is on, the user gets a **Refresh Process Status** button and must press it to continue.

Rating Bar

A rating bar allows users to rate a product, service, or entity.

Use the following keys to interact with an updatable rating bar:

- Left arrow or Down arrow - moves the focus to the previous rating image of the rating bar. If the focus is already on the first rating image, pressing either of these keys shifts the focus to the last rating image of the same rating bar.

- Right arrow or Up arrow - moves the focus to the next rating image of the rating bar. If the focus is already on the last rating image, pressing either of these keys shifts the focus to first rating image.

- Tab - moves the focus to the next page element. If the current focus is on the rating bar, pressing the Tab key shifts the focus to the next element on the page. If the current focus is on an element prior to a rating bar, pressing Tab moves the focus to the rated image of the rating bar. For example, if a rating bar rates a three out of five, then pressing Tab from a previous page element shifts the focus to the third image of the rating bar.

- Shift+Tab - moves the focus to the previous page element from the rating bar. If the previous page element is another rating bar, pressing Shift+Tab shifts the focus to rated image of the previous rating bar.

- Spacebar or Enter - if focus is on a rating image on a rating bar, pressing the Spacebar or Enter key rates the current rating bar with that rating value. For example, if the focus is on the fourth star of a rating bar, pressing either of these keys rates the rating bar with four stars.

Rich Interactions of Tables

If you have the *Self Service Accessibility Features* profile set to "Standard Accessibility" or "Screen Reader Optimized", you may still take advantage of the following rich table interactions through a simpler user interface that does not require a mouse (except for resizing a column).

Actions

Use the Tab key or Shift+Tab key combination to move the cursor focus to the Actions icon in the control bar.

Press the Enter key to toggle the display of the menu.

Alternatively, with the focus on the Actions icon, you may press the Down arrow key to display the menu and move the focus onto the first item of the menu.

> **Note:** Accessibility behavior may differ based on the language session used. For example, in an Arabic session Left arrow functions like the English Right arrow.

To Detach a Table

1. To move the cursor up or down between form fields of the same column of a detached table, use Alt+Up arrow or Alt+Down arrow key combinations, respectively. To move the cursor forwards or backwards between form fields, use the Tab key or the Shift+Tab key combination, respectively.

2. Use the Escape key to reattach the table to its base page.

To Scroll Through a Table

Users can scroll vertically and horizontally with Up/Down arrow keys and Left/Right arrow keys, respectively. In Screen Reader Optimized mode, rather than vertical scrolling, there is pagination so user may select the "Next" and "Previous" links to display next or previous sets of rows.

To Reorder a Column

1. Select the Columns option from the Actions menu. Use the Spacebar key or Right arrow key to display a list of the columns of the table.

2. Use the Up arrow key or the Down arrow key to navigate between column names, "wrapping" at the top and bottom of the menu.

3. With focus on a column name, press Control+Up arrow to move the column up the menu list, keeping focus on the moved column.

4. With focus on a column name, press Control+Down arrow to move the column down the menu list, keeping focus on the moved column.

5. With the focus on a column name, you can apply the change by pressing the Escape key which also closes the menu.

To Hide/Show a Column

1. Select the Columns option from the Actions menu. Use the Spacebar key or Right arrow key to display a list of the columns of the table.

2. Use the Spacebar key to move the focus to the column names in the menu.

3. Use the Up arrow key or the Down arrow key to navigate between column names, "wrapping" at the top and bottom of the menu.

4. With the focus on a column name, press the Spacebar key to check or uncheck the focused column name. A check shows the column.

5. With the focus on a column name, you can apply the change by pressing any of the following:

   - Escape - which also closes the menu and returns focus to the menu-enabled item.

   - Tab - which also closes the menu and navigates to the next item on the page.

   - Shift+Tab - which also closes the menu and moves focus back to the menu-enabled item.

To Resize a Column

Column resizing is not supported if the *Self Service Accessibility Features* profile is set to "Standard Accessibility" or "Screen Reader Optimized".

To Freeze a Column

If you have the *Self Service Accessibility Features* profile set to "Screen Reader Optimized", the column freeze feature is disabled.

If you have the *Self Service Accessibility Features* profile set to "Standard Accessibility", you can use the following keyboard commands.

1. Select the Freeze option from the Actions menu. Use the Spacebar key or Right arrow key to display a list of the columns of the table.

2. Use the Up arrow key or the Down arrow key to navigate between column names, "wrapping" at the top and bottom of the menu.

3. With the focus on a column name, press the Spacebar key to select the column to freeze.

4. With the focus on a column name, you can apply the change by pressing any of the following:

   - Escape, which also closes the menu and returns focus to the menu-enabled item.

   - Tab, which also closes the menu and navigates to the next item on the page.

   - Shift+Tab, which also closes the menu and moves focus back to the menu-enabled item.

5. Select Unfreeze from the Freeze menu to unfreeze a column.

Use the Left arrow or Right arrow keys to scroll the table horizontally.

Table Selection

The tri-state checkbox is used to select or deselect all of the rows in a table. The tri-state checkbox may be selected or deselected with the Spacebar key.

See: Querying and Viewing Data, page 2-5 for more information.

Rich Text Editor

The Rich Text Editor is rendered in Text Mode when the *Self Service Accessibility Features* profile is set to "Standard Accessibility" or "Screen Reader Optimized". When the profile is set to "None" then the Rich Text Editor is rendered in Rich Text Mode, along with a Switch Mode link.

Shuttle

A shuttle component is used to assemble a list of items, by moving or adding items from one list to another.

Keyboard navigation is as follows: press Tab or Shift+Tab to navigate through leading lists, trailing lists, and buttons.

For selection: with the focus on either the leading list box or trailing list box, pressing the Up arrow key or the Down arrow key will shift the focus to the next item and select it. If Multi-Select Allowed is enabled, you can select multiple items by holding the Shift key while pressing the Up or Down arrow key.

With the focus on any of the buttons (Move, Remove or Reorder), you can take the corresponding action on selected items by pressing Space.

Spin Box

A spin box allows a user to select a numeric value from a predefined range.

With the focus is on the spin box input field, the following keystrokes result in the given actions:

- Up arrow - increases the current value by the defined step size, as long as the maximum value has not been reached. If the maximum value displays, nothing happens.
- Down arrow - decreases the current value by the defined step size, as long as the minimum value has not been reached. If the minimum value displays, nothing happens.
- Tab - triggers the action associated with the spin box, if any.
- Page Up - same as Up arrow.
- Page Down - same as Down arrow.
- Home - set to maximum value.
- End - set to minimum value.

Subtabs

A subtab allows you to access a single page's contents in a tabbed layout.

Horizontal and Vertical Subtabs

At runtime, users can navigate from one horizontal subtab to the next by using accelerator keys on the keyboard. Note that the accelerator keys do not cycle to the first subtab from the last subtab or to the last subtab from the first subtab.

- For Microsoft Internet Explorer, use [Alt] + [.] and [Alt] + [,]. These keys only focus on the subtab elements but do not activate them. To display the subtab content, you also need to press the [Enter] key.
- For Google Chrome, use [Alt] + [.] and [Alt] + [,]. These keys select and also activate the next and previous subtab in the browser respectively.
- For Mozilla Firefox, use [Alt] +[Shift]+[.] and [Alt] +[Shift]+[,]. These keys select and activate the next and previous subtab in the browser respectively.
- For Mac, use [Ctrl] + [Option] + [.] and [Ctrl] + [Option] + [,].

Users can navigate from one vertical subtab to the next by using the up, down, left or right arrow keys and then press [Tab] to access the content within the vertical subtab layout.

Tiles

In general, keyboard interaction for tiles is similar to that for subtabs. The keyboard interactions common to both vertical and horizontal display mode of tiles are:

- Tab - moves focus to next page element. Note that only the active tile is in the tab order. If the current focus is on the active tile itself, pressing the Tab key shifts focus to the first "tab-able" element in the active tile's content region.

- Home - with focus on active tile, pressing the Home key shifts focus to the first tile of the tile list and activates that tile.

- End - with focus on active tile, pressing the End key shifts focus to last tile of the tile list and activates that tile.

- Control+Page Up - with focus anywhere within the tile's content region, pressing Control+Page Up shifts focus from the current tile to the previous tile and activates it. If the currently selected tile is the first tile, then this action shifts the focus to the last tile and activates it.

- Control+Page Down - with focus anywhere within the tile's content region, pressing Control+Page Down shifts focus from the current tile to the next tile and activates it. If the currently selected tile is the last tile then this action shifts the focus to the first tile and activates it.

Keyboard interactions for **horizontal** display mode:

- Left or Right arrow - with focus on the active tile, pressing the Left/Right arrow key shifts focus to the previous/next (next/previous in a right-to-left session) tile in the tile list and activates it. If the currently selected tile is the last tile, pressing the Right arrow key (Left arrow key for a right-to-left session) shifts focus to the first tile. If the currently selected tile is the first tile, pressing the Left arrow key (Right arrow key for a right-to-left session) shifts focus to the last tile.

- Control+Up arrow- with focus anywhere within the tile's content region, pressing Control+Up arrow shifts focus to the currently selected tile.

Keyboard interactions for vertical display mode:

- Up arrow or Down arrow - with focus on the active tile, pressing the Up/Down arrow key shifts focus to the previous/next tile in tile list and activates it. If the currently selected tile is the last tile, pressing the Down arrow key shifts focus to the first tile. If the currently selected tile is the first tile, pressing the Up arrow key shifts focus to the last tile.

- Control+Left arrow (Right arrow in a right-to-left session) - with focus anywhere within the tile's content region, pressing Control+Left arrow (Right arrow in a right-to-left session) shifts focus to the currently selected tile.

Top-level Menu

With the Top-level Menu Display Style set to "Icons and Links", you can use the keyboard to navigate the top-level menu as follows:

- Tab - moves focus to the next page element. Only the active menu item of the top-level menu is in the tab order. With the focus on an active menu in the top-level menu, pressing the Tab key again shifts the focus to the next tab-able element in the content region.

- Home - with focus on an active menu, pressing the Home key shifts the focus to the first menu item of the top-level menu and activates that menu.

- End - with focus on an active menu, pressing the End key shifts focus to the last menu item of the top-level menu and activates that menu.

- Control+Page Up - with focus anywhere within a content region of a selected menu, pressing Control+Page Up shifts focus from the currently selected menu to the previous menu and activates it; if the currently selected menu is the first menu item in the top-level menu, then focus shifts to the last menu item in the top-level menu and activates it.

- Control+Page Down - with focus anywhere within a content region of a selected menu, pressing Control+PageDown shifts focus from the currently selected menu to the next menu and activates it; if the currently selected menu is the last item in the top-level menu, then focus shifts to the first menu item in the top-level menu and activates it.

- Left arrow/Right arrow - with focus on the active menu, pressing the Left arrow key or Right arrow key shifts focus to the previous or next (or next/previous in a right-to-left session) menu item in the top-level menu and activates it. If the currently selected menu is the last menu item in the top-level menu, pressing Right arrow (or Left arrow for a right-to-left session) shifts focus to first menu and vice versa.

- Control+Up arrow - with focus anywhere within a content region, pressing Control+Up arrow shifts focus to the currently selected menu.

Accessibility in Forms-Based Applications

Users with low vision can:

- Run forms with any color scheme set on the operating system by using the Generic look and feel or use one of several pre-defined schemes with the Oracle look and feel

- Turn off hard-coded colors

- Set operating system Font Size with DPI which affects the overall size of all items in a form
- Use a screen magnifier that supports Java.

Users with physical limits can:

- Run forms with just the keyboard
- Use access keys to activate menu items, push buttons, radio buttons, checkboxes
- Invoke the "List Tab Pages" function (typically mapped as F2) to switch tab pages
- Change forms keystroke mappings that are displayed in the "Keyboard Help"
- Use operating system accessibility features such as Sticky Keys and Toggle Keys
- Use a voice recognition program to give commands and enter data

Screen reader users can:

- Run forms with just the keyboard
- Use access keys to activate menu items, push buttons, radio buttons, checkboxes
- Invoke the "List Tab Pages" function (typically mapped as F2) to switch tab pages
- Change forms keystroke mappings that are displayed in the "Keyboard Help"
- Use operating system accessibility features such as Sticky Keys and Toggle Keys
- Run forms with a screen reader that supports Java such as JAWS or SuperNova
- Use Oracle E-Business Suite features that display all items and push buttons in a window
    - Key-F9 function -- Prompt/Value LOV (typically mapped as Ctrl+Shift+F9)
    - Key-F8 function -- Actions LOV (Typically mapped as Ctrl+Shift+F8)
- Use Oracle E-Business Suite feature called Forms Personalization to change "speakable prompts"

Hearing impaired users can:

- Turn on operating system accessibility feature SoundSentry to generate a visual warning when the system makes a sound

Configuration Steps for Screen Reader Users

Java Access Bridge

Oracle Forms supports the Java Access Bridge, which allows integration with assistive technologies that also support Java. The Java Access Bridge must be enabled so that Oracle Forms, the Java Runtime Engine (JRE) and the Java enabled assistive technology may interact. For information how to enable the Java Access Bridge, please see the *Java Accessibility Guide* at https://docs.oracle.com/javase/8/docs/technotes/guides/access/index.html.

Actions and Values LOVs

Oracle E-Business Suite incorporates a feature that allows any user to see the current screen in a compressed, text-only pop-up window format called LOV (List of Values). Fields which cannot take focus because they are 'non-navigable' will not allow a screen reader to read their value and prompt. To account for this, Oracle E-Business Suite has special code that presents all fields in the current window, as well non-navigable fields in the window in special LOVs. Included in the LOVs are the values of display items, which otherwise would not be easily discernible with a screen reader because they are not keyboard navigable. These special text-only pop-up windows allow a screen reader user to quickly identify all widgets in the current window (but just the current row for multi-row blocks).

The 'Actions' LOV is invoked through the "KEY-F8" function and is a list of all push buttons in the current window. The 'Values' LOV is invoked through the "KEY-F9" function and is a list of all other widgets in the current window like text items, radio buttons, checkboxes and poplists. Each row in the LOV will be spoken by a screen reader. The LOVs are in alphabetical order. Both LOVs also show access keys for radio buttons, checkboxes and push buttons. Choosing a value from either the Actions or Values LOV will not cause focus to move to those fields or buttons.

The access keys displayed in the LOVs are within braces for translations purposes. For example, access key c is displayed as {C} and a screen reader will speak the text as "brace C brace". Check with the screen reader manufacturer if there is a way to change it to speak "Alt C" instead of "brace C brace" if this is annoying.

Note that the "KEY-Fn" function is not necessarily the "Fn" button on the keyboard. The current key mapping for the function can be shown in the "Keyboard Help" window. Typically the "KEY-Fn" function is mapped to Ctrl+Shift+Fn via the Oracle Terminal resource file.

Forms Personalization

Oracle E-Business Suite users can take advantage of a powerful feature called Forms Personalization if they don't like some of the "speakable prompts". My Oracle Support Note 395117.1 is available that explains Forms Personalization.

Runtime options for users with low vision

Profiles *Java Look and Feel* and *Java Color Scheme*

Users with low vision may set the desired colors using the operating system's provided schemes, then set profiles *Java Look and Feel* and *Java Color Scheme*.

- To specify the look and feel, set profile *Java Look and Feel* to either "generic" or "oracle".
- If the "oracle" look and feel is used, the profile *Java Color Scheme* can be specified as follows: "teal", "titanium", "red", "khaki", "blue", "olive", or "purple".
- The *Java Color Scheme* profile has no effect if *Java Look and Feel* is set to "generic".

Profile *FND: Indicator Colors*

Oracle E-Business Suite by default renders:

- Required fields are displayed in yellow.
- Queryable fields are displayed in a different color while in enter-query mode.
- Read-only fields are rendered in dark gray.

To turn off these features when running Oracle E-Business Suite Forms-based applications, set profile *FND: Indicator Colors* to "No".

Font Size

Operating system settings such as Font Size, will affect the overall size of all items in a form. Often this is the only technique to adjust font sizes within a form, as they typically are hard-coded.

Windows 7 operating system instructions:

1. Go to Windows Control Panel] Fonts] Change font size] Set custom text size (DPI) = 200%
2. Restart the computer.
3. Launch Forms and you should have a larger font.

Runtime options for users with physical limits

All items used within Oracle Forms follow the standard operating system conventions for keyboard use. For example, on the Microsoft Windows operating systems use Alt+[letter] to activate items with access keys, Alt+down to open a poplist, and Alt to move focus to the menu. Oracle Forms should inherit operating system accessibility functions such as Sticky Keys. Tabs can be switched by invoking the "List Tab Pages" function

(typically F2), in addition to using access keys on each tab label.

The "Keyboard Help" window displays the keystrokes to achieve normal Forms operations, such as 'Next Block' and 'Clear Record'. This window can be viewed at any time by pressing Ctrl+K. The keyboard mappings can be customized by the System Administrator. For more information, see the *Oracle E-Business Suite Setup Guide*.

A user running a screen reader will most likely need a modified keyboard mapping file, or will have to change the Assistive Technology keystrokes, as some of the default function mappings may conflict.

The following table lists common default Forms keystrokes on Microsoft Windows:

Common Default Keystrokes for Forms-Based Applications on Microsoft Windows

Action	Keystroke
List of Forms Keys	Ctrl+k
Next Record	Down Arrow
Previous Record	Up Arrow
Next Field	Tab
Previous Field	Shift+Tab
Next Field (From a Multi-Line Text Item)	Ctrl+Tab
Next Block	Shift+Page Down
Previous Block	Shift+Page Up
Actions LOV	Ctrl+Shift+F8
Values LOV	Ctrl+Shift+F9
Activate default push button in a window if one exists	Enter Pressing the Enter key with the focus on a button will activate that button. If the focus is not on a button (or menu item), then the Enter key should activate the default button if one exists.
Save Record (Commit)	Ctrl+S

Action	Keystroke
Clear Record	F6
Create Record	The standard keystroke may be consumed by the screen reader, so you need to run with different terminal resource file to map Ctrl+Down Arrow to something else or just use the pull-down menu.
Close Window	Ctrl+F4
List of Tab Pages	F2
Activate Menu	Alt and then navigate with up/down and left/right arrow keys
Activate push buttons, radio buttons, checkboxes and topmost menu items	Alt+access key
Toggle between open/close poplist	Alt+Up/Down arrow keys
Activate current push button, Toggle checkbox yes/no	Spacebar
Cycle through and select a radio button within a radio group	Left/Right arrow keys and then Spacebar
Move to beginning of line	Home
Move to end of line	End
Select to end of line (there is no keystroke for "Select All")	Shift+End or Shift+Insert+End
Cut	Ctrl+x
Copy	Ctrl+c
Paste	Ctrl+v
Select the current tree node	Spacebar

Action	Keystroke
Activate the current tree node (this expands or contracts the node if it is not a leaf node)	Enter
Move up the tree	Up arrow
Move down the tree	Down arrow
Move up the tree branch one parent at a time collapsing nodes	Left arrow
Move down the tree expanding parent nodes	Right arrow key
Move focus within tree without selection	Ctrl+Up/Down arrow keys
Move focus up/down the tree branch but not the selection	Ctrl+Left/Right arrow keys

List of Values

Oracle E-Business Suite includes a feature that renders an iconic button next to each field that has an LOV. The LOV can also be invoked from the keyboard by pressing the "List of Values" function (typically Ctrl+L).

Tab Pages

Tabs in Oracle E-Business Suite can only be changed from the keyboard using the "List Tab Pages" function. Individual tab labels do not have access keys due to translation issues.

Keyboard Interaction in the Oracle Enterprise Command Center Dashboards

This section describes keyboard interaction in Oracle Enterprise Command Center dashboards using Oracle Enterprise Command Center Framework.

Note: The following functions are not possible with keyboard only:

- Selection of multiple values from available refinements.
- Navigation across dimensions in the tag cloud and applying as

refinements.

Navigation Components

The following table lists keyboard actions for functions within the Search component.

Keyboard Navigation for the Search Component

Target	Navigation
Reach Search Component	Use the Tab key.
Switch Data Set	Reach options icon using Tab key. Use the Enter key to open the options menu. Use Arrow keys to select the data set.
Perform Search	Enter the search query. Click Enter OR click Tab to move to magnifying glass icon, and then press Enter.
Select from suggestions	Enter the search query. Use Arrow keys to navigate among search values. Click Enter.
Use Search Category	Reach Search Category using Tab key. Use the Down arrow key to view the list. Navigate using Arrow keys. Click Enter to select.

The following table lists keyboard actions for functions related to Selected Refinements.

Keyboard Navigation for Selected Refinements

Target	Navigation
Reach Selected Refinements	For any page type, use the Tab key.

Target	Navigation
Clear All Refinements	Reach the Clear All Refinements icon using the Tab key. Use the Enter key to remove refinement.
Remove Individual Refinements	Reach the Clear Refinement Icon using the Tab key. Use the Enter key to remove refinement.
Navigate within funnel icon	Press Enter to open the Selected Refinements window. Press F6 and Tab keys to navigate through.

The following table lists keyboard actions for functions related to Available Refinements.

Keyboard Navigation for Available Refinements

Target	Navigation
Reach Available Refinements	For any page type, use the Tab key.
Expand or Collapse Accordions of Attribute Group/Attributes	Reach accordions using the Tab key. Use Enter or Space keys to expand/collapse accordions.
Search within Attribute	Reach the Search Bar using Tab key. Enter search query. Press Enter or click Tab to move to the magnifying glass icon and press Enter for search.
Select value	Use Tab keys to move through the attribute values and press Enter.

The following table lists keyboard actions for functions related to the Breadcrumbs feature.

Keyboard Navigation for Breadcrumbs

Target	Navigation
Clear Refinements	Use Tab keys to move to the Remove icon and press Enter.
Clear All Refinements	Use Tab keys to move to the Clear All icon and press Enter.
View Collapsed Filters	Use the Tab key to move to the Collapse/Expand icon and press Enter. Use the Enter key to open a pop-up list. Use the Tab key to move to the list. Use the Tab key to clear filters in the list.

Visualization Components

The following table lists keyboard actions for functions related to the Summarization Bar.

Keyboard Navigation for Summarization Bar

Target	Navigation
Navigate through	Use the Tab key to move the focus.
Apply metric refinement	Use the Enter key on the metric.
Open LOV from a flag	Use the Enter key on the flag.
Select a value from LOV	Use Arrow keys to move across rows. Press F2 to move within a row. Press enter to refine by dimension. Close the LOV using the Escape key.

The following table lists keyboard actions for functions used with the Tag Cloud.

Keyboard Navigation for Tag Clouds

Target	Navigation
Move focus to next element.	Tab
Move focus to the previous element.	Shift + Tab
Move focus and selection to the previous data item	Up Arrow *or* Left Arrow
Move focus and selection to the next data item	Down Arrow *or* Right Arrow
Move focus to previous data item, without changing the current selection	Ctrl + Up Arrow *or* Ctrl +Left Arrow
Move focus to next data item, without changing the current selection	Ctrl + Down Arrow *or* Ctrl + Right Arrow

The following table lists keyboard actions for functions related to charts.

Keyboard Navigation for Charts

Target	Navigation
Navigate across dimensions	Use Shift+Arrow keys to change focus on dimensions.
Apply Refinements	Use the Enter key on a dimension.
Use runtime options	Use the Tab key to reach runtime options. Use the Enter key to open runtime options. Use the Tab key to navigate across options.
Add Refinement	Use the Enter key.

Target	Navigation
Change the number of dimensions or other actions	Use the Tab key to reach runtime options. Change the number of dimensions using number keys. Change the order of display using arrow keys. Change the threshold using number keys.

The following table lists keyboard actions for functions related to aggregated tables.

Keyboard Navigation for Aggregated Tables

Target	Navigation
Navigate across rows	Use the Up Arrow and Down Arrow keys.
Navigate across items in a record	Use Arrow keys to move across rows. Press F2 and Tab to navigate within a row.
Use runtime options	Use the Tab key to reach runtime options. Use the Enter key to open runtime options. Use Tab keys to navigate across options.
Add Refinements	Use the Enter key.
Sort column	Use the Tab key to navigate across column headers. Use the Enter key to sort by the column.
Change pagination	Use the Tab and Enter keys.

Detailed Insights Components

The following table lists keyboard actions for functions related to results tables.

Keyboard Navigation for Results Tables

Target	Navigation
Navigate across rows	Use the Up Arrow and Down Arrow keys.
Navigate across items in a record	Use Arrow keys to move across rows. Press F2 and Tab to navigate within a row.
Use runtime options	Use the Tab key to reach runtime options. Use the Enter key to open runtime options. Use Tab keys to navigate across options.
Add Refinements	Use the Enter key.
Sort column	Use the Tab key to navigate across column headers. Use the Enter key to sort by the column.
Make Selection	Use Arrow keys to move across rows. Use the Space key to select the record. For multiple selections, use Shift key and navigate across rows.
Use row actions	Use Arrow keys to move across rows. Press F2 and Tab keys to reach row actions. Use the Enter key.
Change pagination	Use Tab and Enter keys.

The following table lists keyboard actions for functions related to results grids.

Keyboard Navigation for Results Grids

Target	Navigation
Navigate across grid cells	Use Up Arrow and Down Arrow keys.

Target	Navigation
Navigate across items in a grid	Use Arrow keys to move across rows. Press F2 and Tab to navigate within a row.
Use runtime options	Use the Tab key to reach runtime options. Use the Enter key to open runtime options. Use Tab keys to navigate across options.
Add Refinements	Use the Enter key.
Make Selection	Use Arrow keys to move across grid cells. Use the Space key to select the record. For multiple selections, use Shift key and navigate across grid cells.
Use grid items like input and button	Use Arrow keys to move across grid cells. Press F2 and Tab keys to reach attributes.
Change pagination	Use Tab and Enter keys.

The following table lists keyboard actions for functions related to Enterprise Command Center pop-up windows (pop-ups).

Keyboard Navigation for Enterprise Command Center Pop-Ups

Target	Navigation
Close ECC Pop-up	Press the F2 + Tab keys to reach the attributes and action item. Once the content in the ECC pop-up loads: • Use Shift + Tab to move the focus out of the pop-up content. • Click Escape to close the pop-up. • Alternatively, click Enter when the focus is on the Close icon.

The following table lists keyboard actions for functions related to diagrams.

Keyboard Navigation for Diagrams

Target	Navigation
Move focus to next element.	Tab
Move focus to the previous element.	Shift + Tab
When the focus is on a node, move focus and selection to the nearest node left/right.	Left Arrow or Right Arrow
When the focus is on a node, move focus and selection to the nearest node up/down.	Up Arrow or Down Arrow
Open/Close an active container node (grouping node).	Ctrl + Shift + Space
Open context menu for the selected node.	Shift + F10
Navigate between context menu options.	Up Arrow or Down Arrow
Multi-select node with focus.	Shift + Up Arrow or Down Arrow

Layout Components

The following table lists keyboard actions for the Tabbed Component Container.

Keyboard Navigation for a Tabbed Component Container

Target	Navigation
Switch tab	Use Tab key to change focus and use the Enter key to switch tab.

Other Component Controls

The following table lists keyboard actions for other components.

Keyboard Navigation for Other Component Controls

Feature	Navigation
Record Details	Use F2 to reach record details icon and use the Enter key. Use Escape key to close the window.
Compare	Use Arrow, Space, and Shift keys to make a selection. Navigate to compare in runtime options using Tab and press Enter. Use Escape key to close the Header.
Actions	Use the Tab key to navigate through column headers. Use F2 and Tab keys to navigate through header items.
Export	Use Arrow, Space and Shift keys to make a selection. Navigate to Export in runtime options using Tab and press Enter. Use the Tab key to navigate through options in the Export window. Use the Escape key to close the window.
Switch Data Set	Use the Tab key to navigate to switch data set option. Use the Up Arrow and Down Arrow keys to change the data set. Use Escape key to close the window.
Saved Search	Use the Tab key to navigate to the star icon. Use Enter to create/edit saved search window. Press F6 to navigate inside the window use the Tab to navigate within the window. Use Escape key to close the window.
Export to PDF	Use Shift + F6 to open the Share pop-up window. Use Tab to navigate to the Export option. Use Enter to launch the export process.