Oracle® E-Business Suite

Administering Enterprise Command Centers

Release 12.2

Part No. F34732-06

April 2024

ORACLE

Oracle E-Business Suite Administering Enterprise Command Centers, Release 12.2

Part No. F34732-06

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- Does the structure of the information help you with your tasks?
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Note: Before sending us your comments, you might like to check that you have the latest version of the document and if any concerns are already addressed. To do this, access the new Oracle E-Business Suite Release Online Documentation CD available on My Oracle Support and www.oracle.com. It contains the most current Documentation Library plus all documents revised or released recently.

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Preface

Intended Audience

Welcome to Release 12.2 of the *Oracle E-Business Suite Administering Enterprise Command Centers.*

> **Note:** Some of the screenshots used in this book were captured on an earlier version. Although the images have the appearance of the earlier version, the functionality they illustrate also applies to the current version.

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

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Structure

1 Introduction
2 Administration of Enterprise Command Centers
3 Auditability
4 Diagnosing Enterprise Command Center Issues
A Enterprise Command Centers Developer Page

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 E-Business Suite Concepts

This book is intended for all those planning to deploy Oracle E-Business Suite Release 12.2, or contemplating significant changes to a configuration. After describing the Oracle E-Business Suite architecture and technology stack, it focuses on strategic topics, giving a broad outline of the actions needed to achieve a particular goal, plus any installation and configuration choices that are available.

Oracle E-Business Suite User's Guide

This guide explains how to navigate products, enter and query data, and run concurrent requests by means of the user interfaces (UI) of Oracle E-Business Suite. It

includes basic information on setting preferences and customizing the UI. An introduction to Oracle Enterprise Command Centers is also included. Lastly, this guide describes accessibility features and keyboard shortcuts for Oracle E-Business Suite.

Oracle E-Business Suite: Extending Enterprise Command Centers

This book provides an overview of the Oracle Enterprise Command Center Framework architecture and the anatomy of an Enterprise Command Center dashboard. It also describes how to extend Enterprise Command Center dashboards to meet requirements specific to your implementation.

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

Introduction

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.

Installing Enterprise Command Centers

Oracle Enterprise Command Center Framework installation is done using the QuickInstall package, which includes Oracle WebLogic Server 12c. Installing ECC is a guided process that allows customers to install ECC using the required patches and Configure Oracle E-Business Suite and the Oracle Enterprise Command Center Framework installation for an integrated system. Following the integration process, access to command centers can be provided to users.

Oracle Enterprise Command Center Framework can be installed with high availability cluster setup that allows installation on more than two machines. ECC can be enabled with SSL for communication with EBS provided EBS is TLS enabled. For more information refer to *Installing Oracle Enterprise Command Center Framework, Release 12.2*, My Oracle Support Knowledge Document 2495053.1.

Enterprise Command Center Concepts

Oracle Enterprise Command Center Framework has four major building blocks:

- Data Sets: A data set is both a logical and a physical grouping of attributes to support business dashboard operations and use cases. ECC allows administrators to review shipped data load rules, security rules, and provides the flexibility to add new data load rules or update security rules. For more details on extending a data set, refer to Extending an Existing Data Set, *Oracle E-Business Suite: Extending Enterprise Command Centers*.

- Metadata: Metadata encompasses vital information for controlling the behavior of the dashboard, its underlying components, and the data elements included within. For more information on metadata, refer to Metadata in Oracle Enterprise Command Center Framework, *Oracle E-Business Suite: Extending Enterprise Command Centers*.

- Application: An application encapsulates all elements needed to power the dashboard. It contains one or more dashboards according to the application business area. It references data sets, which in turn control how data is populated through load rules and behavior of every attributes on the UI through metadata. An application can reference data sets owned by other applications.

- Page: A dashboard (page) is a home for all the visualization components that are designed to perform a specific type of function: Filtering the data displayed on the page, displaying visual representations of data, displaying lists of records or record attributes, or highlighting specific values.

2

Administration of Enterprise Command Centers

Introduction to Enterprise Command Centers Administration

The Administrator UI in Oracle Enterprise Command Center Framework is accessible through the ECC Developer responsibility and provides core functions that drive ECC functionality. The ECC Administrator UI is also used for diagnostics and extensibility. It allows administrators to perform the operations described in this chapter.

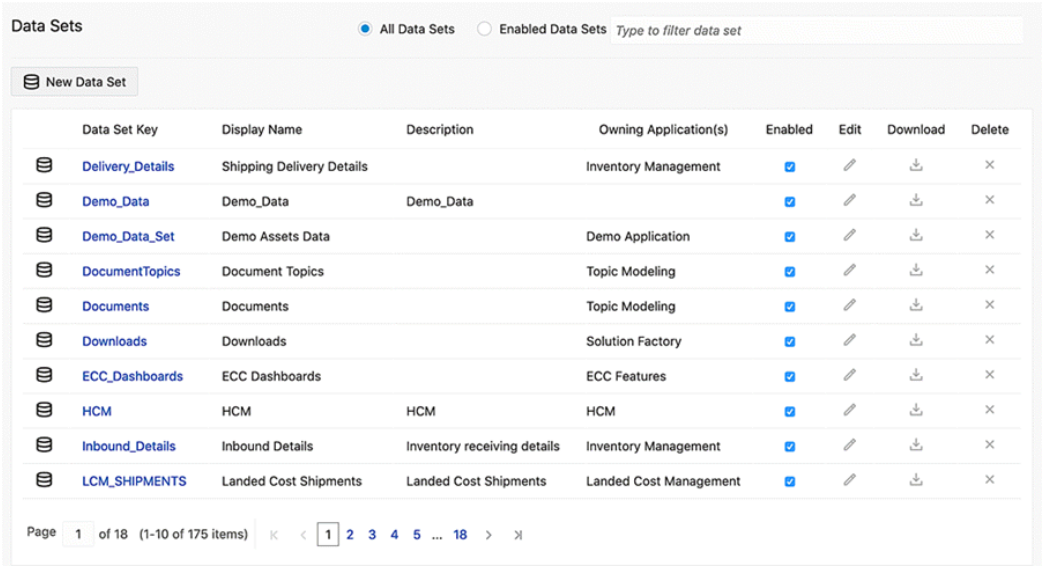
Data Set Export

Oracle Enterprise Command Center Framework provides the ability to export of data sets along with attribute names and keys as column headers. The new file is exported in CSV format and has a timestamp of the export in the first row.

This allows users to study the data, and create or modify attributes based on the user's discretion. The number of records that can be exported is subject to a limit set in the `MAX_EXPORT_COUNT` property in the `EccConfig.properties` file with the default value of 1000 records. The feature honors data security and exports the contents accessible by user. For more information, refer to the section "Configure the Oracle Enterprise Command Center Framework Installation" in My Oracle Support Knowledge Document 2495053.1, *Installing Oracle Enterprise Command Center Framework*.

To export the contents of the data set, navigate to Data Sets in the Administrator UI and click the Download icon for the desired data set.

Example of Exporting a Data Set



Bulk Actions

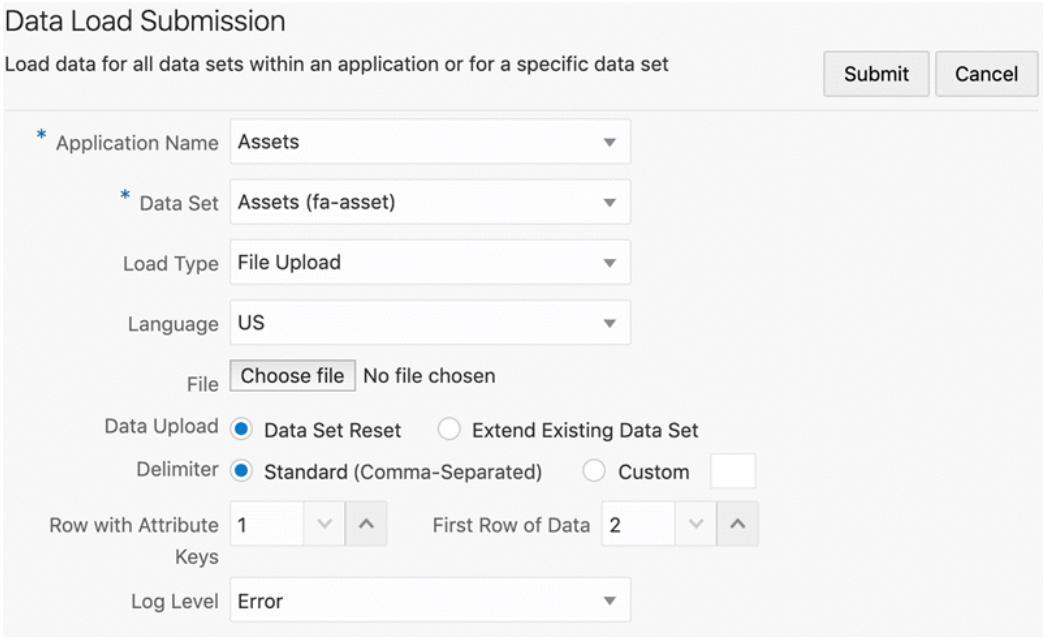
Oracle Enterprise Command Center Framework allows runtime actions on all the records in the results table at once. The configuration property `MAX_ACTION_RECORD_COUNT` in the `EccConfig.properties` file control the upper limit of the number of records with the default value of 1000. For more information, refer to the section "Configure the Oracle Enterprise Command Center Framework Installation" in My Oracle Support Knowledge Document 2495053.1, *Installing Oracle Enterprise Command Center Framework*.

Ingesting Data

File Upload

Oracle Enterprise Command Center Framework allows for the importing of data into a data set using '.csv.' files. File upload can be done to completely refresh the data set with a new set of records, or extend the data set by modifying existing data and updating the data. File upload provides the flexibility to use a file with any custom text separator. File upload is specific to the language of the data in the file. The file ingester can be used to import a downloaded data set after any modifications.

Example of File Upload



To use the File Upload feature, navigate to Data Load Submission section, and perform the following steps:

1. Select an application.
2. Select the desired data set.
3. Select **File Upload** for **Load Type**.
4. Select the language of the data.
5. Select the file.
6. Select the choice of data ingestion - to reset or to extend.
7. Select the text separator in the file.
8. Specify the row containing the attribute keys and the row from which your desired data starts.
9. Select the desired log level.
10. Click **Submit**.

Query Upload

Query upload allows users to input SQL query to ingest data into the data set from any database connected to ECC. Query upload can also be used to do a complete refresh of the data set with a new set of records or extend the data set by modifying existing data and updating the data.

To use the Query Upload feature, navigate to Data Load Submission section, and perform the steps below:

1. Select an application.
2. Select the desired data set.
3. Select **Query Upload** for **Load Type**.
4. Select the language of the data.
5. Select the connected database.
6. Enter the query.
7. Select the choice of data ingestion - to reset or to extend.
8. Select the desired log level.
9. Click **Submit**.

Data Load Tracking

Administrators can use the Enterprise Command Center Data Load Tracking page to diagnose issues related to data load. If there are failures in data load, then administrators can download log file from here and also inspect the log per data set to see if all the SQL statements executed. This step helps in resolving any SQL exceptions that are raised during loading.

> **Note:** Enterprise Command Center concurrent programs should be used to run the data load. Submitting the data load using data load submission from the ECC Administration UI can only be used for diagnostic purposes.

Debug

Oracle Enterprise Command Center Framework allows administrators to submit a data load using a debug log level that captures additional details in the data load log file; regardless of how the program is submitted, administrators get access to logs from the

tracking page as well. This serves as the first step of assessment to understand the reasons behind unsuccessful data loads.

SQL Trace

Oracle Enterprise Command Center Framework enables administrators to submit a data load with a SQL trace that monitors and records database activity during the SQL execution for the data load.

Trace files are generated with run ID as prefix. The path of trace files can be found using the query:

```
SELECT VALUE FROM V$DIAG_INFO WHERE NAME = 'Default Trace File';
```

in the Oracle E-Business Suite instance database.

Data Load Tracking

The data load tracking section lists all the submitted data loads types, such as full, incremental, and metadata loads. Administrators can also track other load types such as Query/Data Load, Partial Incremental Load, and Push Model Load. Administrators can review the status of submitted loads. Each data load has a unique Run ID. Data loads are organized per application, and furthermore have different Audit Data Set IDs for the various data sets associated with them.

The data load tracking section allows administrators to filter data loads by Application Name, Data Set, Load Type, Status, Run ID, and Time of Data Load execution.

To view just the data loads submitted through the Data Ingester feature, you can filter the data loads by selecting "Query/Data Load".

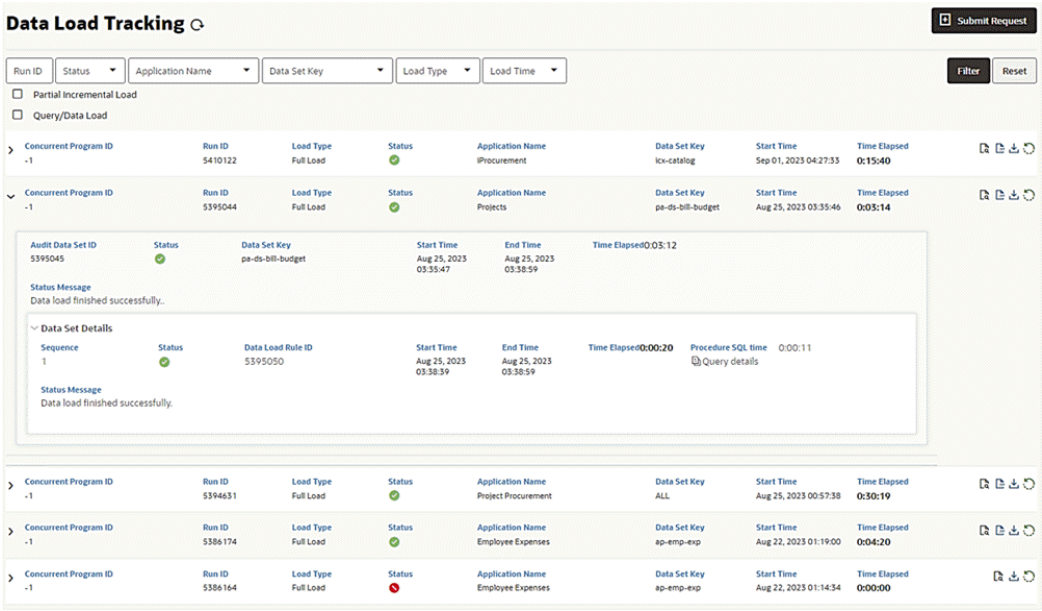
Administrators can access detailed information about data uploads by clicking on the **Show Details** icon. In addition, they can download SQL plan details,which provide insights into how queries were executed during the data upload process. This download comes in the form of a compressed file containing two CSV files:

- Data Load Tracking Details: This file contains a comprehensive record of all the steps and information related to the data upload request. It can be likened to a complete log of events during the data loading process.

- SQL Plan Statistics: This file provides valuable statistics about how each query performed during the data upload. It can be thought of as a report card for the queries, showing how well they executed.

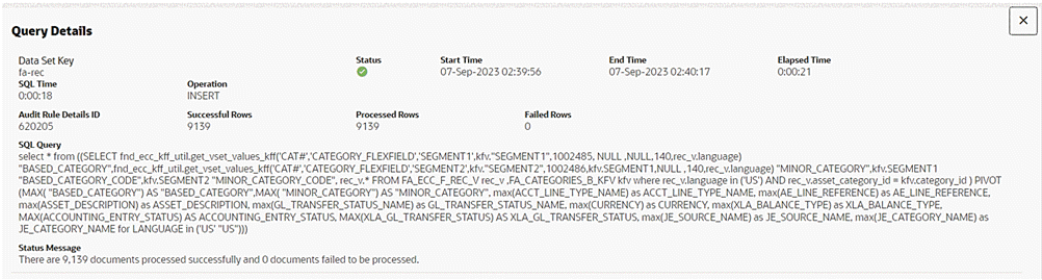
Administrators can also download the data load logs for each load by clicking on the Download icon to check errors and debug messages. Any failed data loads can be resubmitted using the Resubmit icon against the data load.

Example of the Data Load Tracking Page



Administrators can also view the query details used for data loads; all queries appear here including total time in SQL versus total elapsed time. Any SQL exceptions are also displayed. This feature can provide a quick diagnosing step for any issue related to data load or performance. To access the Query Details page, click the Query details link under Data Set Details for a Run ID.

Example of the Query Details Page



Online Full Load

Oracle Enterprise Command Center Framework supports online data load for minimizing the impact of downtime due to running the full load. The feature is useful for dashboards that have a high volume of data and high usage. Users can still use the dashboard as full data load runs in the background. Once the full load process is completed, the new data replaces the existing data.

Enabling Online Full Load

This feature can be enabled during installation by setting the properties in `EccConfig.properties`. For more details on installation, refer to *Installing Oracle Enterprise Command Center Framework*, My Oracle Support Knowledge Document 2495053.1. Specifically:

1. Set the property `ecc.onlinefulload.isEnabled` to `true` to enable online full load. The default value is `false`.

2. Data sets that require this feature should be included in the property: `ecc.onlinefulload.enabled.datasets`. There are no data sets included by default.

3. Specify a location in which to create a temporary backup in the property `ecc.onlinefulload.staging.location`. There is no location specified by default.

Sequential Full Load

Sequential load employs a staggered data load mechanism by segregating the data load execution based on unique values of the attribute set as a sequential load controller. The Sequential Full Load feature serializes the data load by languages, generating fine-grained queries that yield better performance compared to the conventional data load process that uses coarse-grained queries.

This feature can improve the data load performance as it provides better flexibility for customers to load only a subset of essential data rather than the full data.

How Sequential Full Load Works

A conventional full load resets all the data to reflect the state of data in Oracle E-Business Suite, whereas an incremental load identifies the last run date at the data set level, and then fetches the incremental changes from that date to update the Enterprise Command Center data set.

Sequential full load is a composite of full data loads for all the identifiers that form the data set and it sequences the full loads per identifier. Sequential full load ensures that the last run date is set at an identifier level so that you can run an incremental load considering this last run date.

Sequential data load also allows you to set a composite identifier basis, in which the full data loads are sequenced.

Sequential data load is triggered from a wrapper concurrent program. The data load request sends the identifier along with the other standard parameters to the central data load concurrent program. The following steps are performed:

1. The last run date for each identifier is gathered. Empty identifiers are treated as a

null value.

2. If the last run has no identifier, then the last run date is set for all the identifiers that make a composite identifier.

3. If a data set has been reset after a run for the identifiers, then the last run date would be considered to have a null value.

Purge Data Load Audit Requests

In Enterprise Content Collaboration, the option to remove old audit data load tracking records is needed. Without this functionality, performance issues can occur in environments with frequent data loads, since all data is fetched by ECC, even when it may not be needed later.

For a single dataset, various types of data loads, such as "incremental load," "data load," and "query load," can accumulate over time. However, in practice, only specific data load details are necessary:

1. For regular loads (those without any unique identifier), only the latest successful full or incremental loads for a dataset are required.

2. For sequential loads, all data loads that occurred after the last successful full load for each relevant identifier are needed.

The ECC Purge Data Load Audit Requests program can be used to remove the old audit data load tracking records. This program allows completed data load records to be selectively purged, including those with statuses of Success, Failure, or Canceled, within a specified date range. Importantly, it excludes the data loads that meet the criteria mentioned above.

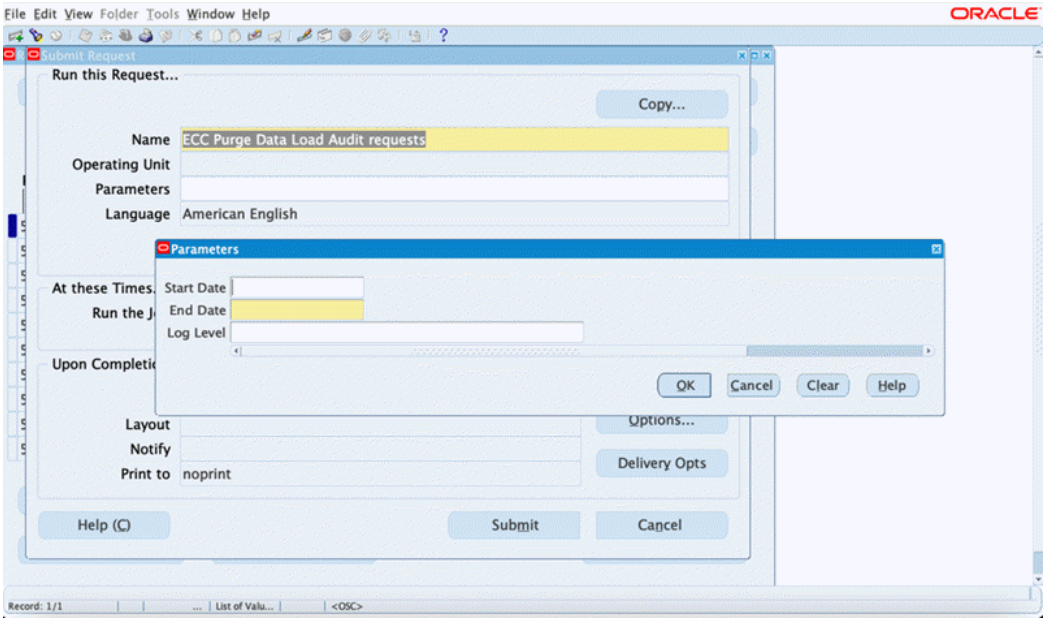
The key parameters for this program are as follows:

- Start Date: Specifies the beginning date from which data load requests should be purged.

- End Date: Specifies the end date until which data load requests should be purged. This parameter is mandatory.

- Log Level: This parameter is used to set the level of logging for capturing relevant information.

Submitting a Request for the ECC Purge Data Load Audit Requests Concurrent Program



Export/Import

The Administrator UI allows you to export or import any application. This capability helps in sharing the application for a quick assessment, creating a backup before extending, moving an application to a different environment, or restoring the shipped state of a command center. An application can be exported for any specific language, and an application can be imported preserving any custom pages or custom load rules.

Collaboration

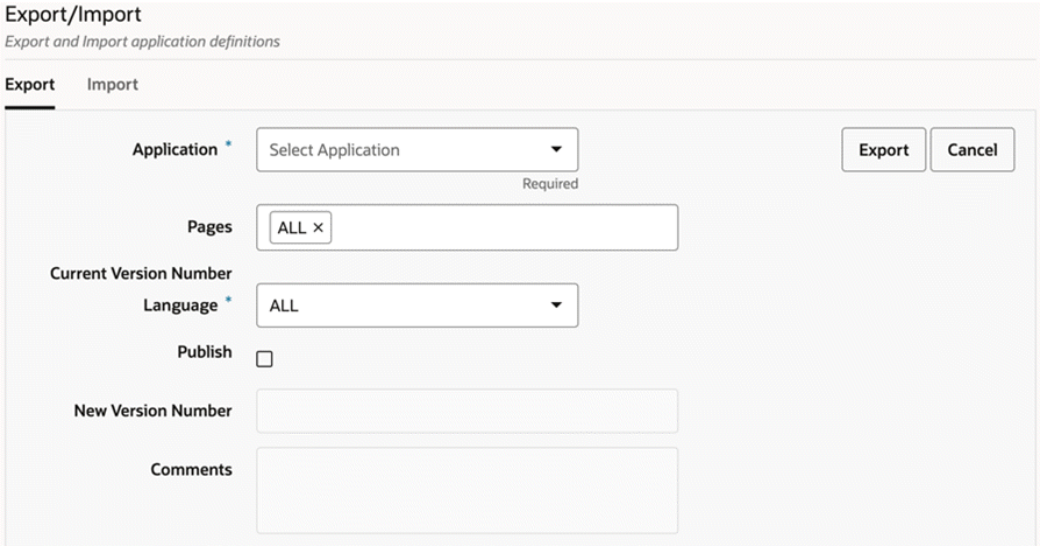
Collaboration: Export

Beginning with V11, an administrator can export a subset of pages when exporting the application. This flexibility allows the administrator to target and update only the pages that they intend to modify is targeting without affecting other pages within the destination application during the import process. Previously, an update to a single page necessitated exporting the entire application, with unintended updates to other pages in the process.

All pages are initially selected by default; administrators can deselect and choose specific pages.

Associated views of exported data sets are automatically included in the export.

Export/Import Page



Collaboration: Import

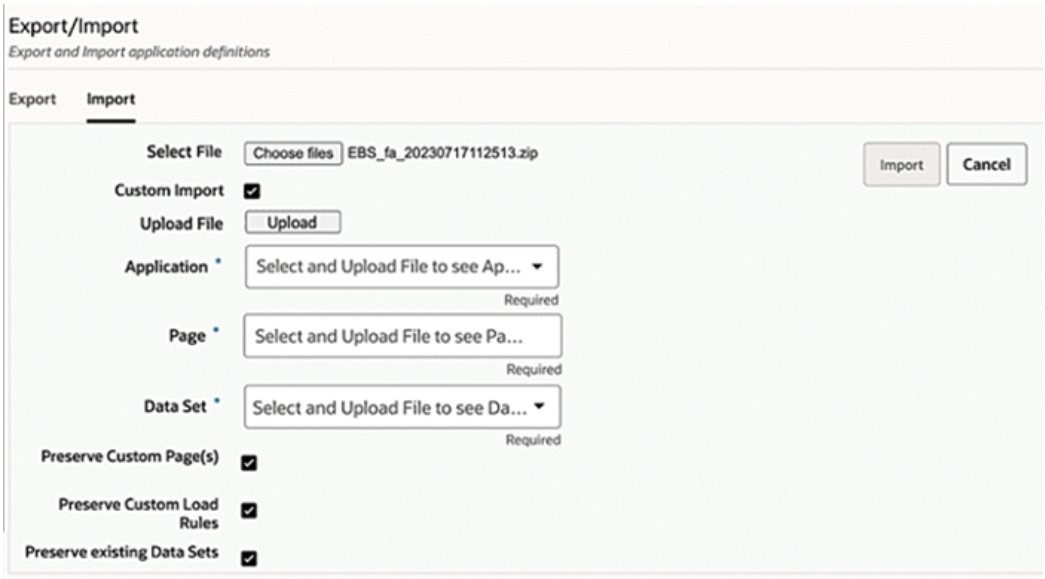
Introduced in V12, the Import feature:

- Allows developers to merge their Applications/Pages easily without having to override/disrupt other people's changes.
- Provides users the ability to import a subset of pages and data sets within an application.
- Provides users the ability to choose to preserve data sets.

Users must enable the **Custom Import** checkbox to see a more detailed selection choice, which allows them to import a subsection of pages or data sets, within the same or different application. It also allows them to choose to preserve existing data sets.

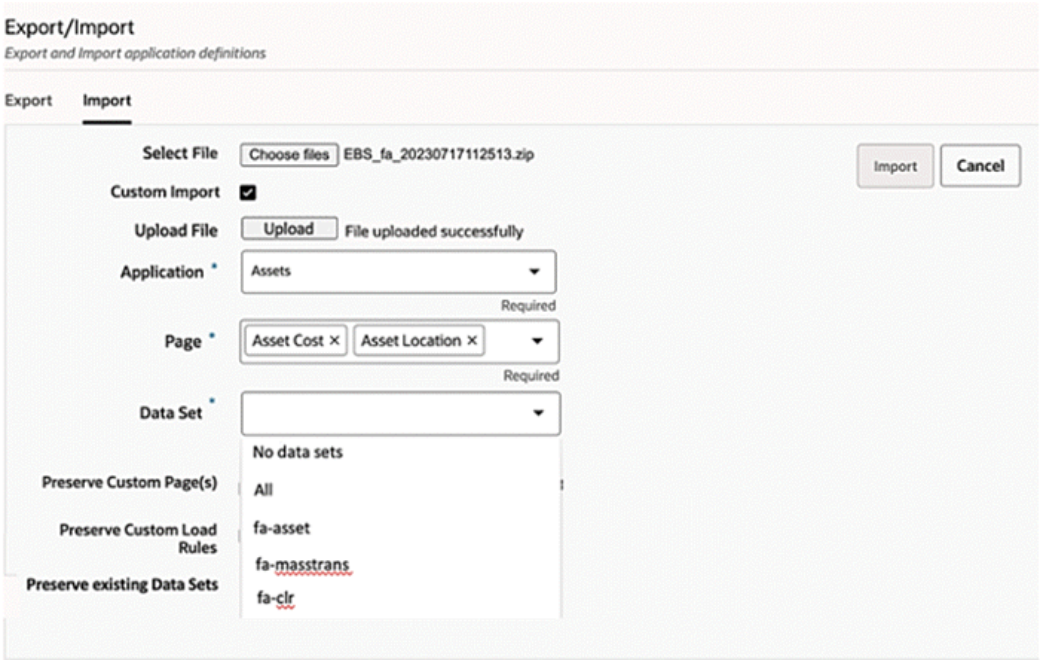
Users must select the necessary ZIP file, upload it, and then choose the application into which to import. They must then choose the respective pages and data sets, and then click on **Import**.

Import Tab on the Export/Import Page



For example, a user could choose to import the Asset Cost and Asset Location pages for the Assets application.

Example of Importing Specific Pages for an Application



Collaboration: Move/Copy Pages

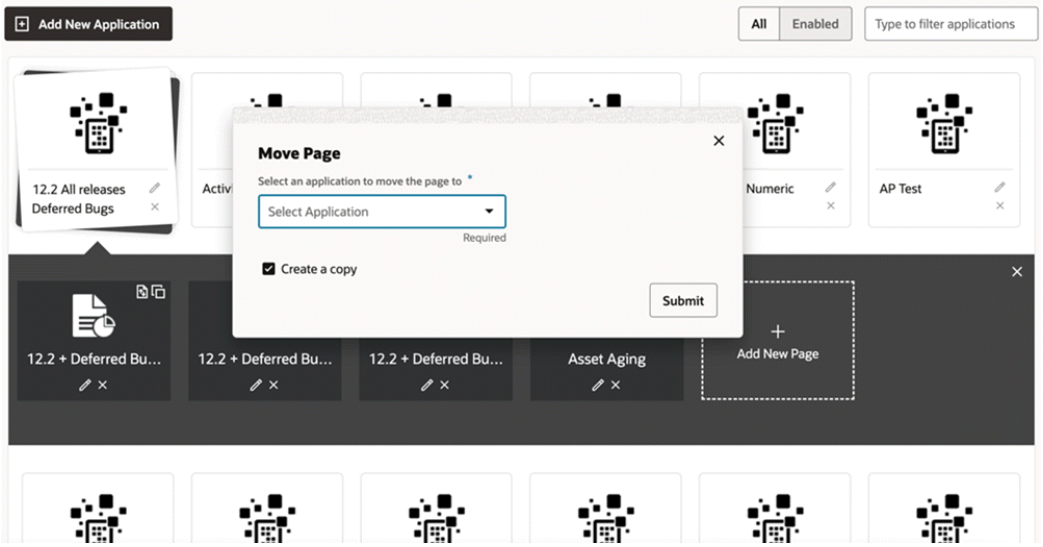
Beginning with V11, administrators can seamlessly transfer or duplicate pages from one application to another. When an administrator chooses to "copy" a page, an identical copy of the page is created in the destination application while the original page in the source application is kept intact. On the other hand, when an administrator selects the "move" option, the page is removed from the source application and is relocated in the destination application.

An administrator can click on the new Move icon within any page section under any particular application to move or copy the page.

From the pop-up window, the administrator can select to which application to move or copy the page.

To copy and not move the page, the administrator can select the **Create a copy** checkbox. If this checkbox is not selected, the page will be moved in its entirety to the target application.

Move Page

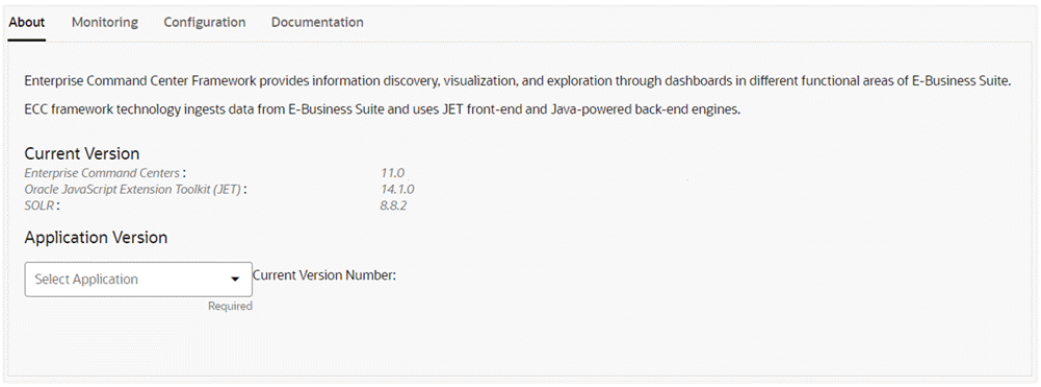


About ECC

Oracle Enterprise Command Center Framework has a section in its Administration UI for describing essential details of the framework called About ECC. About ECC is subdivided into four sections: About, Monitoring, Configuration, and Documentation.

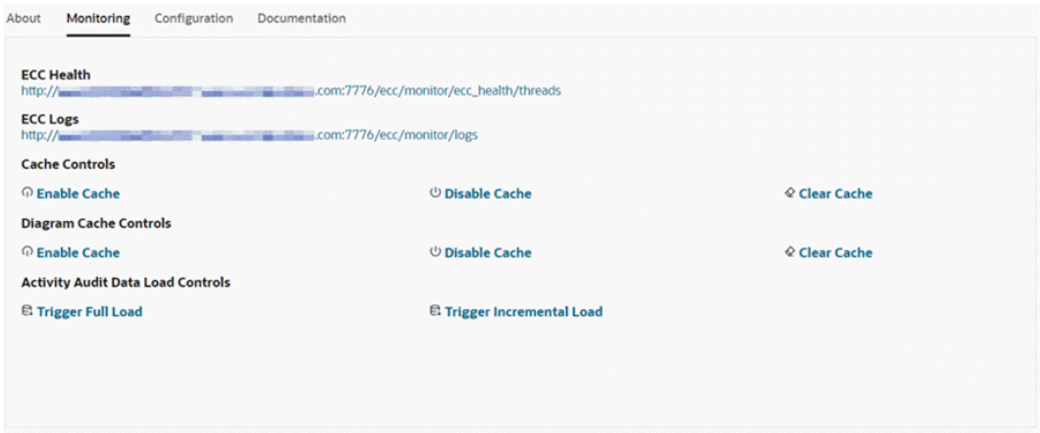
The About section describes the version details of Oracle Enterprise Command Center and the driving technologies behind it: JavaScript Extension Toolkit (JET) and Apache Solr. This section also provides version details of all the applications.

About ECC Tab in Administration UI



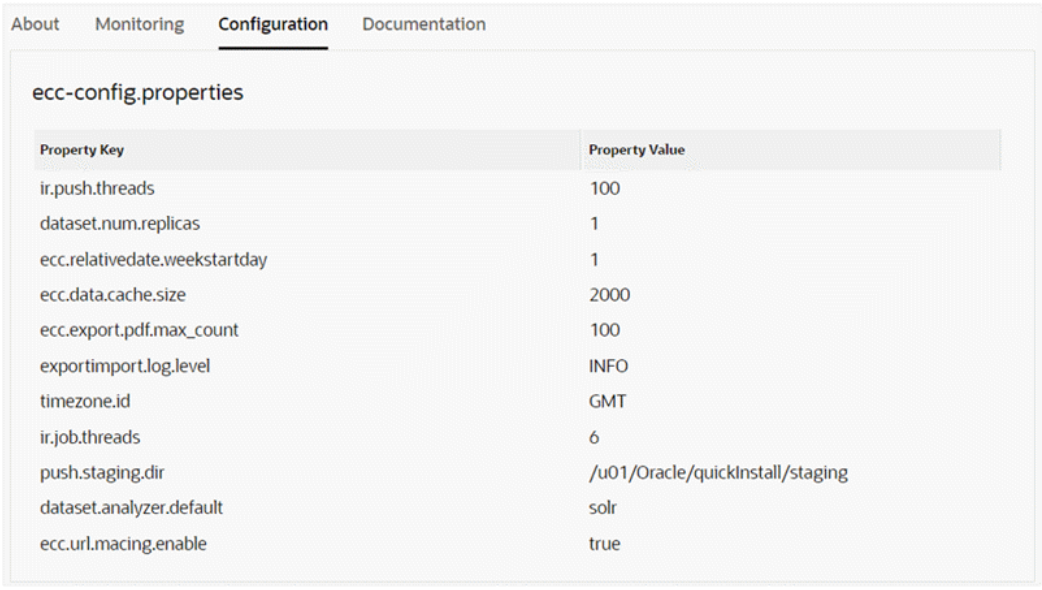
The Monitoring tab provides information for the assessment of Enterprise Command Center health, access to Enterprise Command Center logs, and controls for the cache.

Monitoring Tab in About ECC



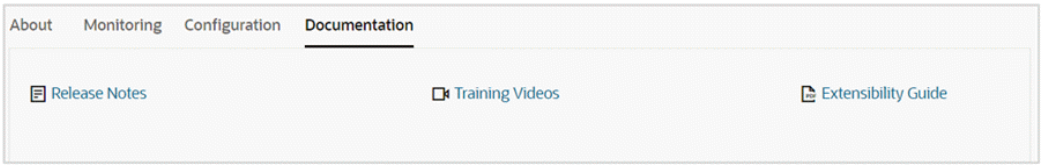
The Configuration section lists configuration properties of ECC and Java organized in a tabular structure.

Configuration Tab in About ECC



The Documentation section contains links to the documentation and tutorials required for understanding ECC or basic troubleshooting of ECC.

Documentation Tab in About ECC



User Interface Components

Administrators can control specific aspects of some user interface components, as described below.

Tab Layout

Oracle Enterprise Command Center Framework provides a tab layout component to group different dashboard components into distinct tabs based on functionality. Administrative users can delete or reorder tabs.

Exporting a Dashboard to PDF

Some solutions require team collaboration that 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. This feature is disabled by default, and an administrator can enable it by setting the configuration property `EXPORT_PDF_ENABLED` to `true`.

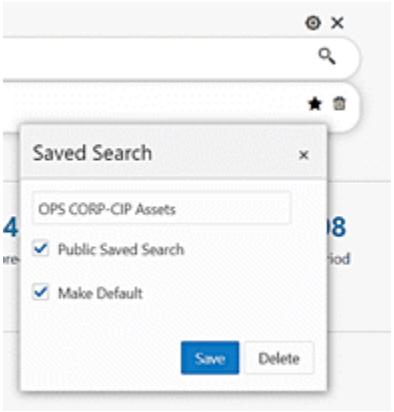
For more information on exporting a dashboard to PDF, see: Highlights of an Enterprise Command Center, *Oracle E-Business Suite User's Guide*.

Default Saved Search

Administrative users can create a public saved search for a dashboard and make it the default refinements search for all users who have access to the dashboard.

To do so, select the **Public Saved Search** and **Make Default** options in the Saved Search window.

Options for a Default Saved Search



For more information on the Saved Search feature, see: Highlights of an Enterprise Command Center, *Oracle E-Business Suite User's Guide*.

Personalizations

Personalizations allow users to make changes in the dashboard that will suit their preferences. The Personalization features are described in more detail in User Personalization, *Oracle E-Business Suite User's Guide* and Personalization, *Oracle E-Business Suite Extending Enterprise Command Centers* .

Share Personalization

Introduced in V12, Share Personalization functionality presents enhanced user engagement and fosters improved collaboration and communication. It enables users to share personalized dashboards seamlessly across an Oracle E-Business Suite responsibility.

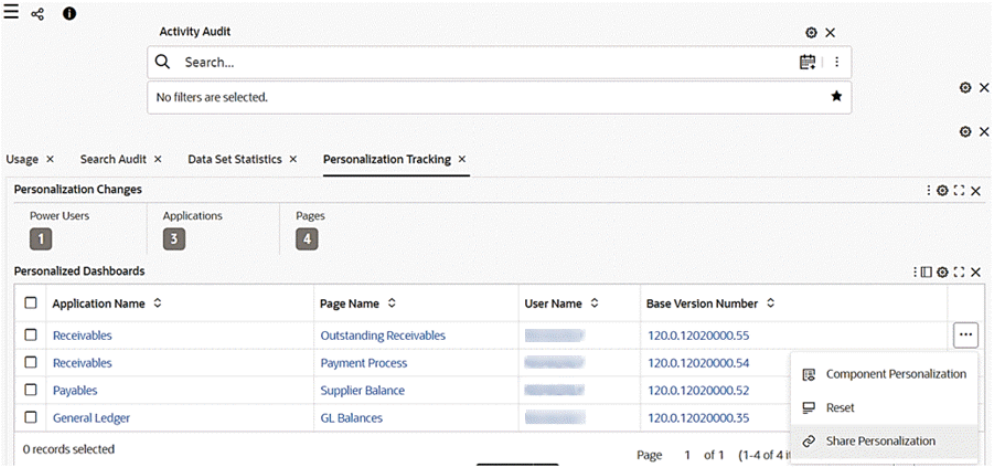
Share Personalization Process Example

1. A power user has requested an administrator to share their personalization with everyone using their responsibility.

   The administrator visits the activity audit dashboard and filters by Page name and username to find the personalization detail.

   The administrator accesses the corresponding row action "Share Personalization."

Share Personalizations Action Selected on Personalizations Tracking Tab

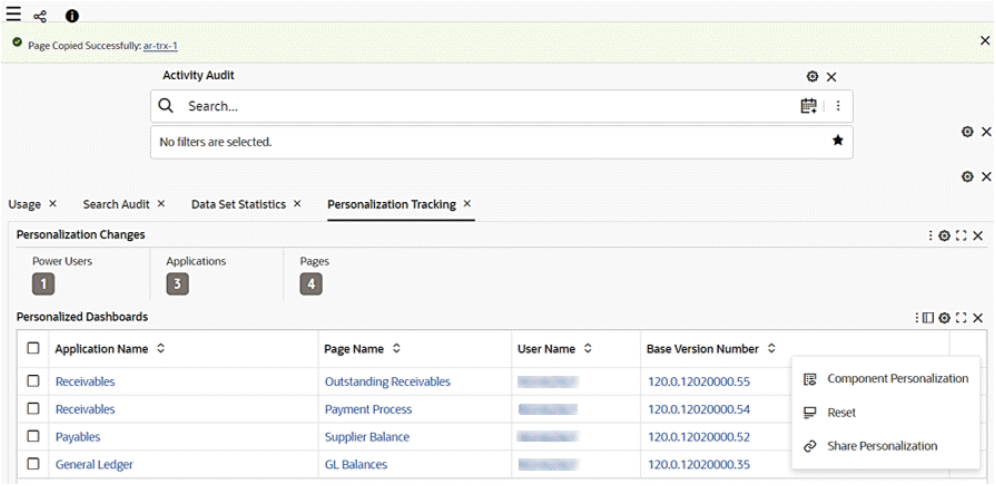


2. As soon as share personalization is clicked, the page is copied.

   A message with the page key provided upon successful copy of page appears upon the successful copying of page.

   The message disappears only when user explicitly click on close button corresponding to the message.

Example of "Page Copied Successfully" Message



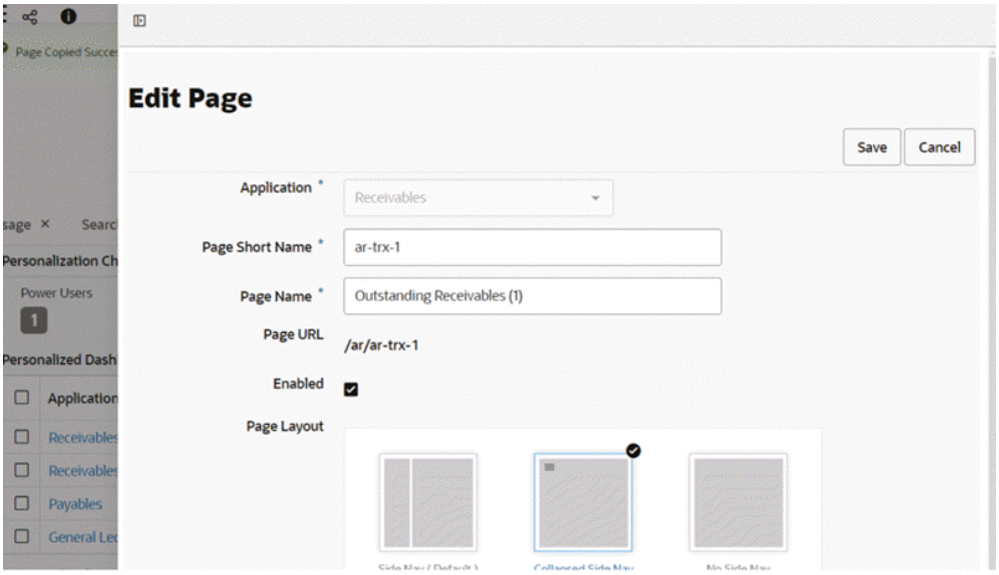
3. Upon a user clicking the hyperlink, a drawer opens with page detail of the copied page and the user can make amendments and save the changes.

   The naming convention of the copied page is as follows:

- Page short name: `<existing name> <-> <personalized>-1`
- Page Name: `<existing name> <space> <Personalized (1)>`

Note that the first copy has the number *1*, and the nth copy would have the number *n*.

Edit Page for the Copied Page

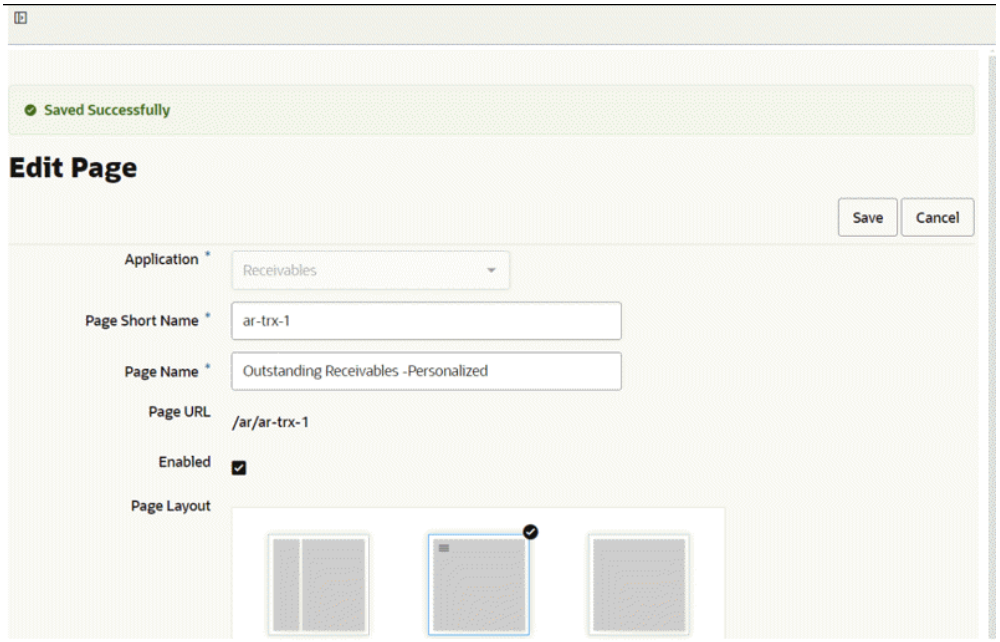


4. If the user amends name, key , or orientation and clicks **Save**, a message appears inside the drawer indicating that the changes are saved.

   The drawer is closed automatically.

   If the user clicks **Cancel**, the drawer is closed immediately.

"Saved Successfully" Message for an Updated Page



5. The administrator then continues with the rest of the process, such as creating new FND function and assigning a permission set in an Oracle E-Business Suite environment to complete the process.

Once the personalization is shared, if any of the users using the shared version of personalized wants to use the original version of the dashboard then they need to collaborate with the administrator. In a situation where a few users want the personalized version of the dashboard and a few want the shipped version of the dashboard, the administrator needs to create different responsibilities to handle those scenarios.

> **Important:** When a newer product version is adopted, there will be no automatic notification since the shared personalization page is essentially a copied page. Therefore, any communication pertaining to the newer shipped version must be handled offline between the administrator and the business users. It is essential to ensure that all relevant parties are informed and updated regarding any changes or updates to the product version to maintain effective collaboration and workflow management.

3

Auditability

Overview of Activity Auditing

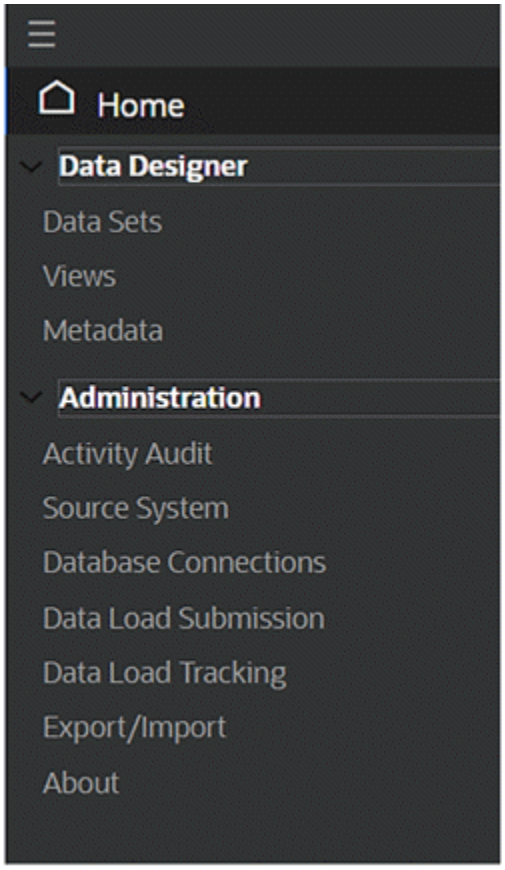
The Activity Audit dashboard gives full insight into the use of the Enterprise Command Center dashboards. It allows business analysts and administrators to know whether dashboards are being used or not, who uses them, and at what times and which dashboard is used more. It also helps generate valuable new insights into user searches.

Activity Audit provides the following benefits:

- Capitalize on ECC investment
    - Track dashboard usage
    - Capture audit trail of user activities on dashboards
    - Tune deployment and tune extract, transform, and load (ETL) processes
- Tune business operations
    - Monitor search activity
    - Identify and analyze user intents
    - Resolve issues as they arise
- Track personalizations

To access the dashboard, navigate to the Activity Audit section in the Administration UI.

Menu Showing Activity Audit under Administration



Tracking User Activity

Nine types of user activity are tracked, as described in the table below.

Every user action is captured as a separate record along with additional information such as:

- Action Details: Refinements that are applied on the dashboard due to user action. Multiple values of an attribute are separated by '|'. Each filter is captured along with the corresponding data set.
- Filters Applied: Total filters in Selected Refinements. Multiple values of an attribute separated by '|'. Each filter is included along with the corresponding data set.
- Component Title: Title of the component where the user action has been performed.
- Component Type: Type of component where the user action has been performed.
- Number of Results: Total number of records in detailed insight components

(Results Table and Grid) after the user action.

- Application Name: Name of application for the dashboard.
- Page Name: Name of dashboard.
- Data Set Name: Name of the data set for the user action.

Details Captured in User Activity Tracking

User Action	Details	What is Captured
Access	Following actions are captured: • Accessing the dashboard • Accessing the dashboard through deeplink • Refreshing the browser while on dashboard • Switching tabs within the dashboard	• Action Details - Captures page short name.
Add Filter	Following actions are captured: • Refinements from available refinements • Refinements or drill-downs from any components	• Action Details • Filters Applied • Number of Results • Component Type • Component Title

User Action	Details	What is Captured
Remove Filter	Following actions are captured: • Removal of refinements from selected refinements	• Action Details - Captures refinements removed. • Filters Applied • Number of Results • Component Type • Component Title
Record Search	Following actions are captured: • Searches made by user without selecting any value from search suggestions	• Action Details • Filters Applied • Number of Results • Component Type • Component Title
Value Search	Following actions are captured: • Any search resulting in search suggestions • Selecting a value from search suggestions	• Action Details • Filters Applied • Number of Results - also captures number of suggestions. • Component Type • Component Title

User Action	Details	What is Captured
Like Search	Following actions are captured: • Wild card searches, searches made within in the attribute in Available Refinements	• Action Details • Filters Applied • Number of Results • Component Type • Component Title
Saved Search	Following actions are captured: • Applying saved searches	• Action Details • Filters Applied • Number of Results • Component Type • Component Title
Export	Following actions are captured: • Export from chart, tag cloud, aggregate table, results table, grid, aggregate grid	• Filters Applied • Number of Results • Component Type • Component Title

User Action	Details	What is Captured
JS Function Call	Following actions are captured: • Row actions in results table and buttons in grid configured with JS Function Call actions	• Action Details - Captures inputs to the action separated by '|'. For example, in the iProcurement dashboard, action details capture the item description and quantity. • Action Name - Captures the name of the action. • Filters Applied • Number of Results • Component Type • Component Title

Enabling Activity Audit

The following properties in the `EccConfig.properties` file control activity auditing. This feature can be enabled during installation by setting the properties in `EccConfig.properties`. For more details on installation, refer to *Installing Oracle Enterprise Command Center Framework*, My Oracle Support Knowledge Document 2495053.1.

- Set the property `ecc.activity.audit.isenabled` to true or false for enabling or disabling the feature respectively.
- Add the data sets to the property `ecc.activity.audit.enabled.datasets = <data set 1>, <data set 2>` for capturing user activities in the dashboards configured with these data sets. Each data set key must be separated by a comma (,). By default, no data set is specified.

  Note: If the property is not set with any data set, the feature will be enabled to all the data sets. Dashboards (and corresponding data sets) with frequent usage where user activity needs to be captured for compliance or analytical purposes should be considered for activity audit.

- Set the property `ecc.activity.audit.ingest.limit` to define the limit on the number of user actions beyond which a Data Load is triggered to refresh the

dashboard data. The default limit is 100. This can be updated to adjust the frequency of data loads based on the number of dashboards, users and the average activity.

Capturing User Activity

User activity is captured if Activity Audit application is available.

On Oracle Enterprise Command Center Framework server startup, the Activity Audit data is ingested to Oracle Enterprise Command Center Framework asynchronously by following the above procedure.

Users need not submit a data load separately. If a data load is submitted, it resets the data set and once the scheduled query load is triggered, the updated data is ingested into the Activity Audit data set.

Application and Data Set Details

- Dataset Name: **Activity Audit**
- Dataset Key: **activity-audit**
- Application Name: **Activity Audit**
- Application Short Name: **activity-audit**
- Page Name: **Activity Tracker**
- Page Short Name: **activity-tracker**

The Activity Audit dashboard is designed to support two use cases: tracking user activity and tracking search activity.

Usage Tab

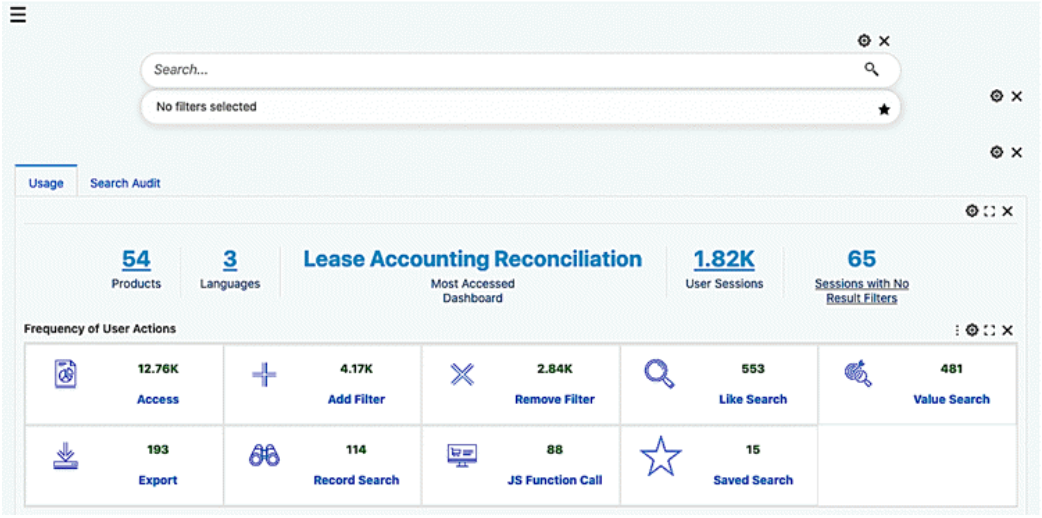
Use this tab to derive insights on holistic usage of command centers across users and their sessions, corresponding actions to identify usage that requires attention, or any exceptions usage.

Use this section of the dashboard to:

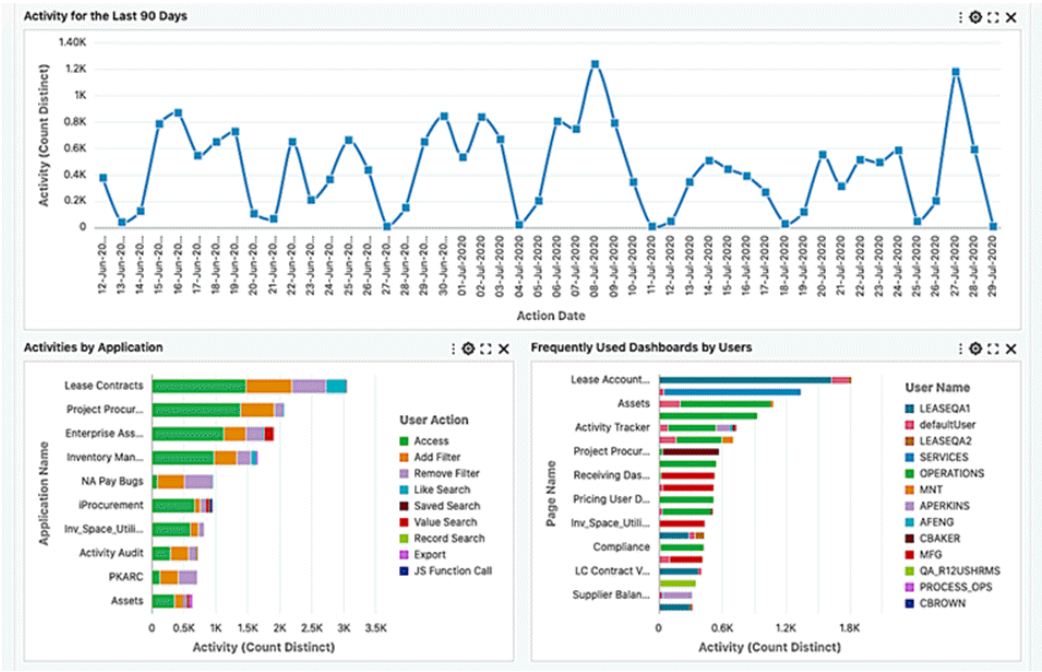
- Review the overall usefulness of command centers by tracking a variety of user interaction.
- Track actual usage across a timeline and assess changes in the pattern.
- Understand if the right users are regularly interacting with the dashboards as expected.

- Track every interaction steps of a user in any session.

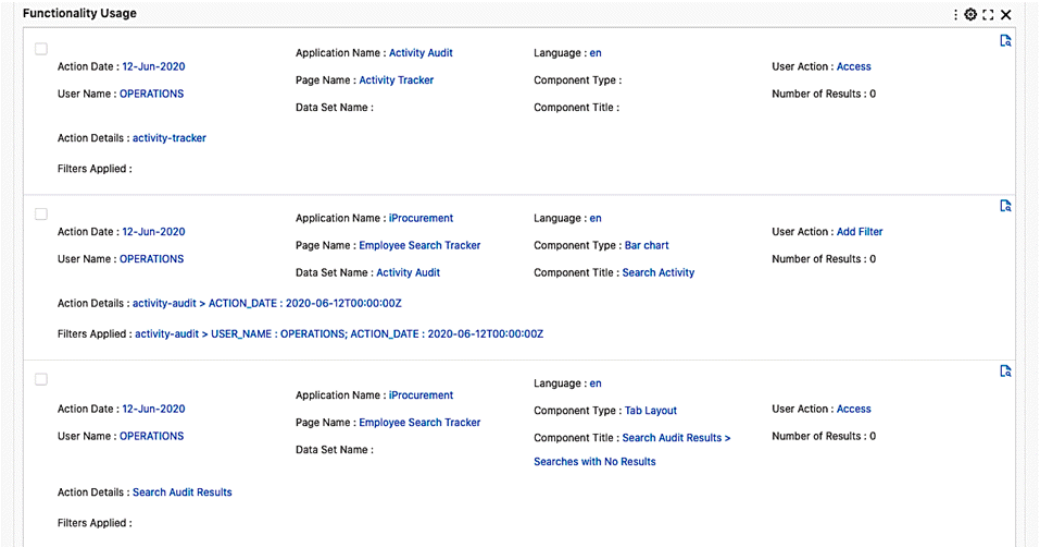
Usage Tab Example - Usage Summary and Frequency of User Actions



Usage Tab Example - Activity Charts



Usage Tab - Functionality Usage



Components of the Usage Dashboard

Component	Description
Usage (summary bar)	The summary bar displays overall usage metrics. • Products: This flag shows the total number of products or command centers currently being used. The flag also lists all the products organized by the total activity count. • Languages: This flag shows the total number of languages in current use. The flag also lists the languages organized by their respective activity counts. • Total Sessions: This flag shows the total number of unique user sessions. The flag also lists all the sessions organized by usage time and several activities. This flag is useful to filter and view the full activity of a user in that particular session. • Sessions with no result filters: This metric shows the number of sessions where user applied filters that fetched no results. This metric can also be used to refine the dashboard with actions resulting in no data for the last 7 days.

Component	Description
Frequency of User Actions (Aggregated Grid)	The aggregated grid displays the different user action types organized by their frequency.
Activity for the Last 90 Days (Line Chart)	The chart is a symbolic representation of user activity for a rolling window of the previous 90 days. The chart can be used to display a trend of unique sessions for a rolling window of 90 days.
Activities by Application (Stacked Bar Chart)	The chart is an indicative representation of purposefulness of a dashboard by showing the division of user action types by each product.
Frequently Used Dashboards by Users (Stacked Bar Chart)	The chart shows the top twenty dashboards with the division of users by their usage.
Functionality Usage (Grid)	The grid shows record level detail of user interactions on the dashboards along with action details (filters) and cumulative filters applied.
Functionality Usage (Record Details)	Record details display an additional level of details for the corresponding record. Additional details include: Security filters, Conditions and actual JSON strings of Action Details and Filters Applied.

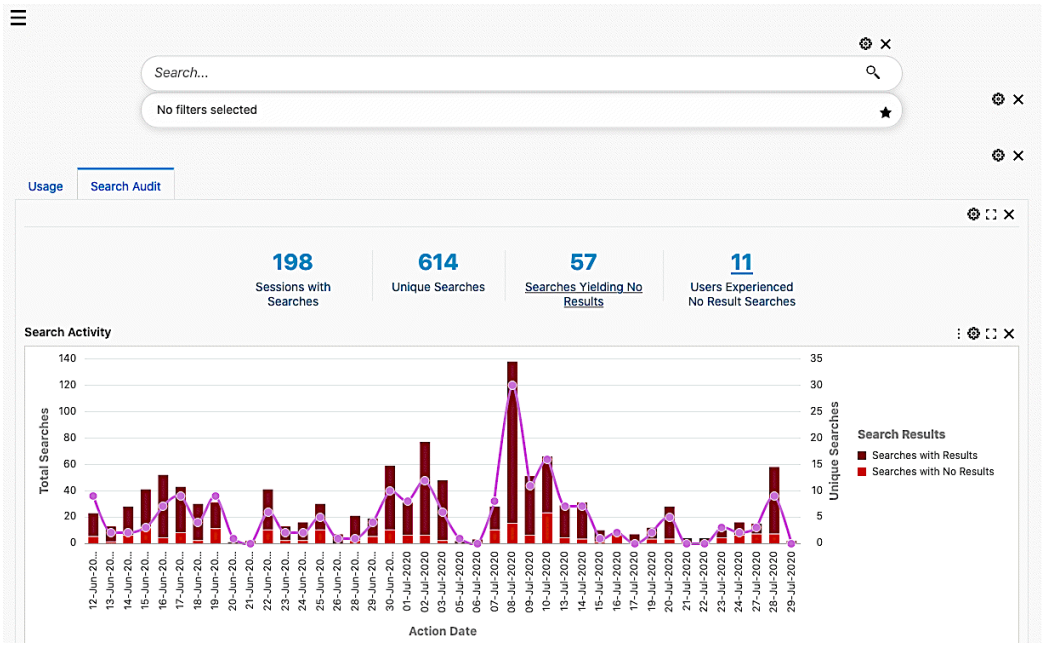
Search Audit Tab

Use this tab to tune business operations based on user search activity. You can track user searches across dashboards to analyze user intents and identify any potential issues.

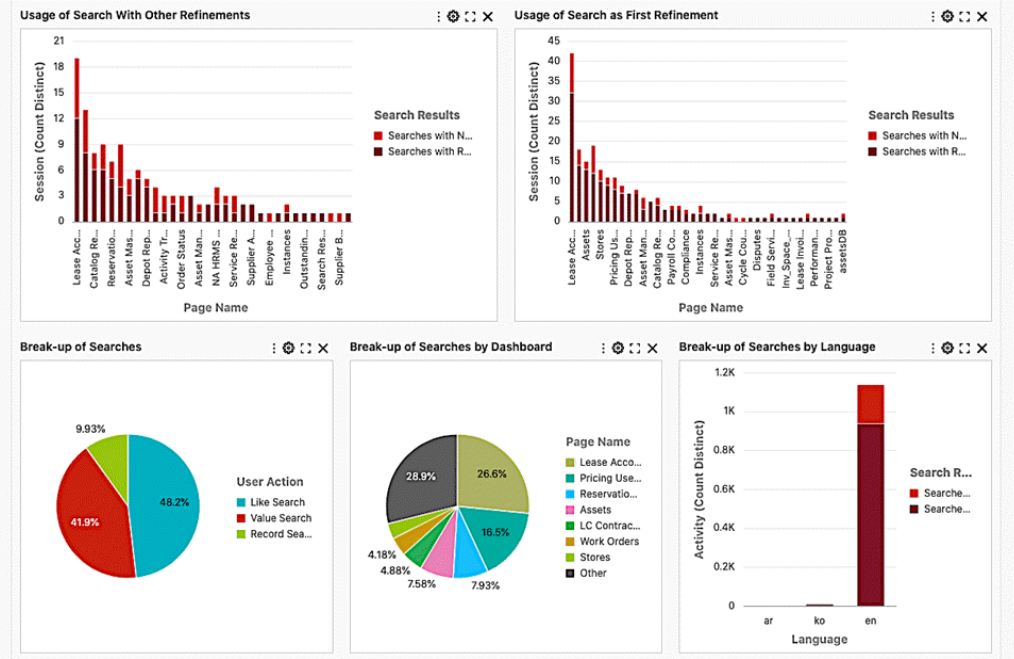
Use this section of the dashboard to:

- Review the trend of total searches and unique searches in a timeline.
- Focus on user search queries that yielded no results.
- Identify dashboards, languages, search types contributing to larger share for no result search queries.
- Understand common queries and full filter structure for identifying the root cause.

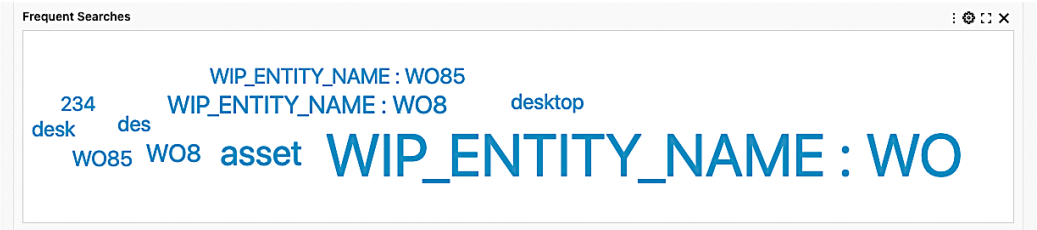
Example of Search Audit Tab - Summary and Search Activity Chart



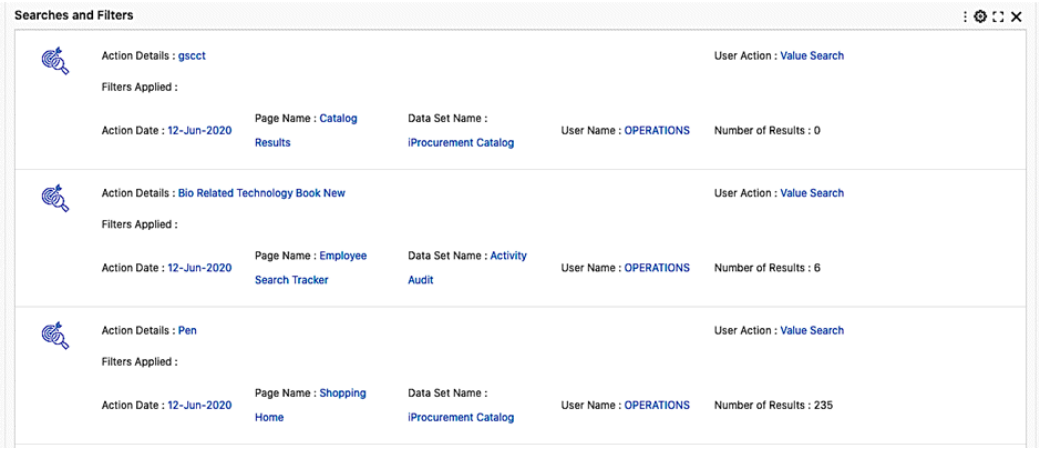
Example of Search Audit Tab - Charts Based on Refinements and Break-up of Searches



Example of Search Audit Tab - Tag Cloud for Frequent Searches



Example of Search Audit Tab - Functionality Usage



Components of the Search Audit Tab

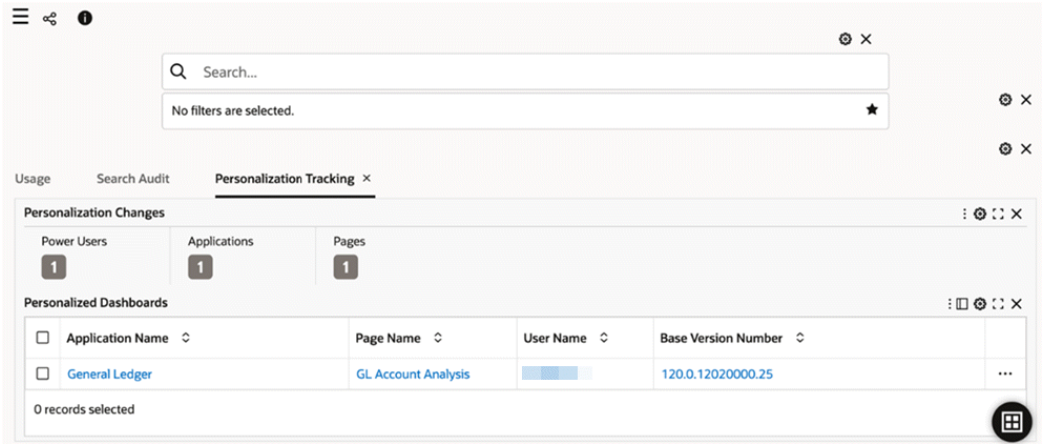
Component	Description
Search Audit (summary bar)	The summary bar displays overall search usage metrics: • Sessions with Searches: This metric shows the total number of user sessions that had a search. • Unique Searches: This metric shows the number of unique search queries. • Searches Yielding No Results: This metric shows the number of search queries that yielded no results. This metric can also be used to refine the dashboard for the searches that resulted in no data. • Users Experienced No Result Searches: This flag shows the number of users who used search queries that fetched no results.
Search Activity (Bar/Line Chart)	The chart shows the number of searches and unique searches over a timeline. Number of searches are shown divided into searches that yielded any results and those that did not yield any results.
Usage of Search with Other Refinements (Bar Chart)	The chart shows the number of searches made after applying a filter by dashboards.

Component	Description
Usage of Search as First Refinement (Bar Chart)	The chart shows the number of searches applied as the first refinement by dashboards.
The Break-up of Searches (Pie Chart)	The chart shows the division of total searches by search types.
The Break-up of Searches by Dashboard (Pie Chart)	The chart shows the division of total searches by dashboard.
The Break-up of Searches by Language (Stacked Bar Chart)	The chart shows searches separated by language and users.
Frequent Searches (Tag Cloud)	The tag cloud shows frequent search queries by users.
Searches and Filters (Grid)	The grid shows record-level details of user searches and resulting Filters Applied.

Personalization Tracking Tab

Use this tab to track or revert personalization by power users.

Example of Personalization Tracking Tab



Components of the Personalization Tracking Tab

Component	Description
Personalization Changes (summary bar)	The summary bar displays overall personalization metrics: • Power Users: This metric shows the total number of power users. • Applications: This metric shows the number of unique applications personalized. • Pages: This metric shows the number of unique pages personalized.
Personalized Dashboards (Results Table)	The table shows the details about personalization: • Name of the application that is personalized. • Name of the page that is personalized. • User who made the personalization. • Base version number on which the personalization is applied. • Row action to reset personalization at the component level or page level.

4

Diagnosing Enterprise Command Center Issues

Diagnosing Issues

Administrators can leverage the About ECC section for quick understanding of application version and different configuration settings.

Installation Issues

The installation process leverages a logging mechanism that captures all the events during the installation process of Oracle Enterprise Command Center Framework. A variety of logs are captured at different steps of installation. These logs can be reviewed for diagnosing the situation. ECC Analyzer can be run post-installation to assess if any installation step has been missed or requires attention.

Common steps to diagnose installation issues are:

- Review ECC Analyzer output. For more information on ECC Analyzer, refer to *Oracle E-Business Suite Enterprise Command Center (ECC) Analyzer*, My Oracle Support Knowledge Document 2587090.1.
- Confirm the Oracle Enterprise Command Center Framework version.
- Confirm that the required patches are applied.
- Rule out security and data load as root causes.
- Confirm that Oracle Enterprise Command Center Framework standalone is working fine before integrating with Oracle E-Business Suite.
- Confirm if applications are successfully imported. Review `import.log`.
- Confirm that all installation steps are successful, or if the issue occurs after upgrade.

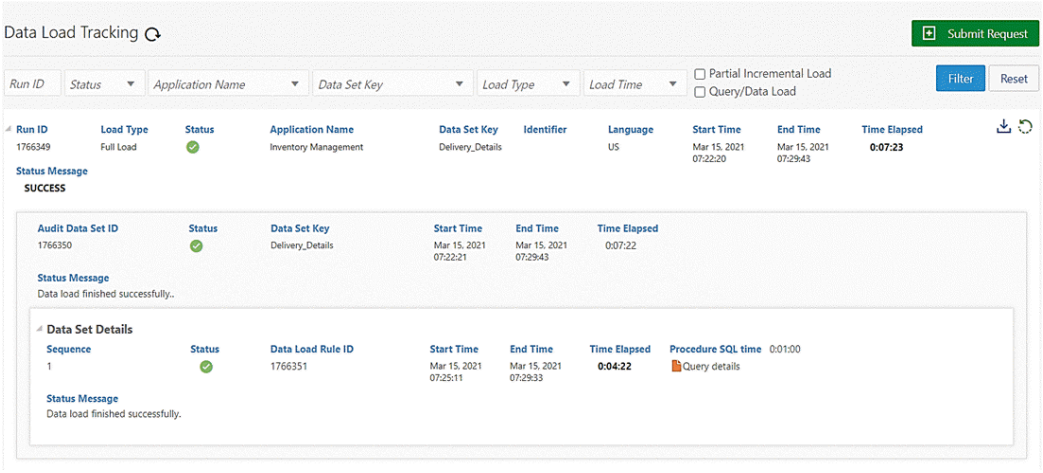
Review error messages and corresponding log files such as the setup log, domain log, and Oracle Enterprise Command Center Framework log.

Performance Issues

The data load tracking page provides details regarding the time elapsed at various stages of data load execution. This serves as a robust assessment of performance allowing the administrator to take initiatives related to performance improvement.

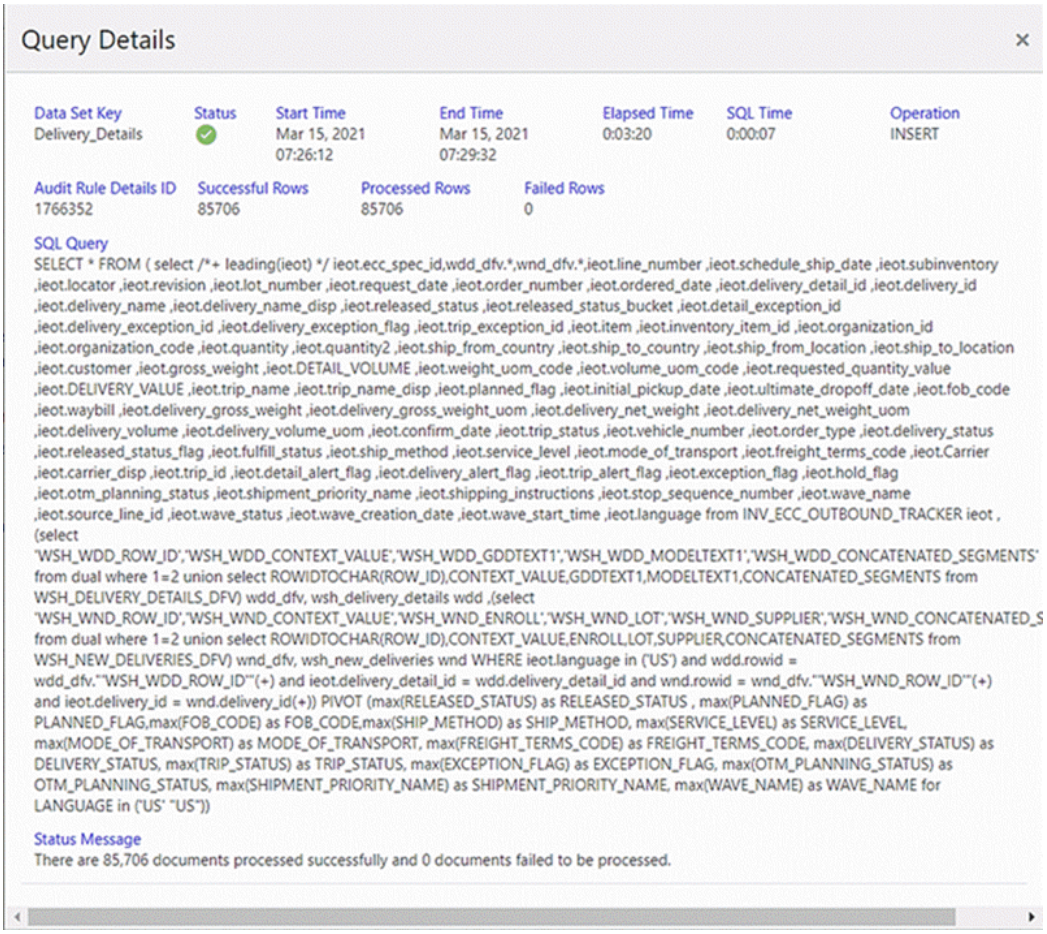
The Data Load Tracking page lists data loads, along with a search feature. For a given load, you can access the run ID, load type, status, application name, data set key, language(s), and time of load. For more information, see: Data Load Tracking, page 2-5.

Example of Data Load Tracking



You can expand the Data Set Details region for a link to the Query Details page. This page includes SQL query run, the time it was run, and the number of rows processed, and other information.

Example of a Query Details Page



Common steps to diagnose performance issues are:

- Review if data load is successful.
- Review time taken for data load completion.
- Confirm if data load completion takes very long time.
- Review data load log file and SQL ETL (extract, transform, and load) issues.

ETL Issues

The data load tracking page also details the SQL query that has been executed during the data load operation for each data set, the number of records processed, and the number of records ingested. These details allow administrators to determine if there are any data- or query-related issues so that they can take corrective actions in the proper direction.

Common steps to diagnose ETL issues:

- Review ECC Analyzer Output.
- Confirm if right concurrent manager is triggered.
- Confirm which child job is failing.
- Review concurrent program log for child job.
- Review missing profile options.
- Review logs with debug log level.

A

Enterprise Command Centers Developer Page

Enterprise Command Centers Developer Page

The Enterprise Command Centers Developer page includes links for many features.

Under Data Designer:

- Data Sets, page 2-1
- Views
- Metadata, *Oracle E-Business Suite Extending Enterprise Command Centers*

Under Administration:

- Activity Audit, page 3-1
- Source System, *Oracle E-Business Suite Extending Enterprise Command Centers*
- Database Connections
- Data Load Submission, page 2-2
- Data Load Tracking, page 2-4
- Export/Import, page 2-9
- About, page 2-13