

Oracle Fusion Cloud Applications Suite

Administering Oracle Transactional Business Intelligence



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Oracle Fusion Cloud Applications Suite Administering Oracle Transactional Business Intelligence,

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Contents

Preface

Audience	i
Related Resources	i
Conventions	i

1 Introduction to Administering Oracle Transactional Business Intelligence

About the Administration Page	1
Allow Safe Domains	2
Set Presentation Services Privileges for Application Roles	3
Monitor Users Who Are Signed In	4
Run Test SQL Queries	4
Manage Themes	5
Localize Catalog Captions	6
Export Captions from the Catalog	6
Localize Your Captions	7
Upload Localized Captions to the Catalog	8
Review Imported Caption Files	8
Delete Imported Caption Files	8
Set the Logging Levels for Presentation Services	9
Manage OTBI Folders	9
Create OTBI Folders	9
Set Folder Properties	10
Set Folder Permissions	10
About Duty Role Access to Seeded Shared Folders	11
Hide Seeded Folders and Their Content	12
About Backing Up and Restoring Content	14

2 Manage Map Information For Analyses

Set Up Maps for Dashboards and Analyses	1
Edit Background Maps for Dashboards and Analyses	3

3	Configure and Manage Agents	
	How Are Agents Used?	1
	How Do Privileges Affect Agents?	1
	Manage the Types of Devices that Deliver Content	1
	Monitor Active Agent Sessions	2
4	Tune Query Performance and Migrate Analytic Objects	
	Tune Query Performance	1
	About Queries and Performance	1
	Maximize Query Performance	2
	Diagnose Performance Using Subject Areas	3
	Analyze the Number of Users	4
	Analyze Query Performance	4
	Tune Performance for Reports	5
	Review SQL Statements Used in Analyses	6
	Migrate Analytic Objects	6
	Create an Archive	6
	Move an Archived Object to a New Location	7
5	Manage How Content Is Indexed and Searched	
	Configure Search Indexing	1
	Schedule Regular Content Crawls of Catalog Objects	1
	Monitor Search Crawl Jobs	2
6	Frequently Asked Questions for Oracle Transactional Business Intelligence	
	Top FAQs to Configure and Manage Oracle Transactional Business Intelligence	1
	Top FAQs to Index Content and Data	2
7	Troubleshooting for Oracle Transactional Business Intelligence	
	Troubleshoot General Issues	1
	Troubleshoot Issues with Analyses and Dashboards	1
8	OTBI Usage and Performance Subject Areas Reference	
	About the OTBI Usage Real Time Subject Area	1
	About the OTBI Performance Real Time Subject Area	2

Preface

Learn to manage users and configure Oracle Transactional Business Intelligence.

Topics:

- [Audience](#)
- [Related Resources](#)
- [Conventions](#)

Audience

This document is intended for administrators who are responsible for configuring Oracle Transactional Business Intelligence.

Related Resources

For a full list of guides, refer to the Books tab on Oracle Transactional Business Intelligence Help Center.

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Videos and Images

Your company can use skins and styles to customize the look of the application, dashboards, reports, and other objects. It is possible that the videos and images included in the product documentation look different than the skins and styles your company uses.

Even if your skins and styles are different than those shown in the videos and images, the product behavior and techniques shown and demonstrated are the same.

1

Introduction to Administering Oracle Transactional Business Intelligence

This chapter introduces system administration options that you can use in Oracle Transactional Business Intelligence.

Topics:

- [About the Administration Page](#)
- [Allow Safe Domains](#)
- [Set Presentation Services Privileges for Application Roles](#)
- [Monitor Users Who Are Signed In](#)
- [Run Test SQL Queries](#)
- [Manage Themes](#)
- [Localize Catalog Captions](#)
- [Set the Logging Levels for Presentation Services](#)
- [Manage OTBI Folders](#)
- [About Backing Up and Restoring Content](#)

About the Administration Page

The Administration page link is available under **My Profile** on the header.

Task	More Information
Manage Privileges	Oracle recommends that you keep the default privileges because they're optimized for analytics. Editing privileges might result in unexpected behavior or access to features.
Manage Safe Domains	You can add and manage a list of approved domains to enable embedded external content. See Allow Safe Domains .
Export Data to CSV and Tab-Delimited Files as Text	Specifies whether to add leading apostrophes when data is exported to CSV or tab-delimited files. When enabled, the analyses results exported to a CSV or tab-delimited file are treated as text. When disabled, a user opening the exported files might invoke unwanted formulas.
Manage Sessions	See which users are signed in and troubleshoot report queries. See Monitor Users Who Are Signed In .
Manage Agent Sessions	Monitor current active agent sessions that are triggered by Oracle BI Scheduler. See Monitor Active Agent Sessions .
Manage Device Types	Add devices that can deliver content for your organization. See Manage the Types of Devices that Deliver Content

Task	More Information
Toggle Maintenance Mode	Indicates whether Maintenance Mode is on or off. In Maintenance Mode, you make the catalog read-only so that other users can't modify its content. Users can still view objects in the catalog, but they can't update them.
Reload Files and Metadata	Use this link to reload XML message files, refresh metadata, and clear caches.
Reload Log Configuration	Oracle recommends that you keep the default log level. Oracle Support might suggest you change the log level to help troubleshoot an issue.
Issue SQL	Test and debug SQL queries. See Run Test SQL Queries .
Scan and Update Catalog Objects That Require Updates	Use this link to scan the catalog and update any objects that were saved with earlier versions.
Manage Themes	Change the default logo, colors, and heading styles for reporting pages, dashboards, and analyses. See Manage Themes .
Manage Captions (Export/Import)	Localize the names (captions) of reporting objects that users create. See Export Captions from the Catalog and Upload Localized Captions to the Catalog .
Manage Map Data	Define how users display their data on maps. See Manage Map Information For Analyses .
Manage Publisher	Set up data sources for pixel-perfect reports and delivery destinations. Configure the scheduler, font mappings, and many other runtime options.
Configure Crawl	Configure catalog crawls. See Configure Search Indexing .
Monitor Crawl	Monitor the status of crawl jobs. See Monitor Search Crawl Jobs .

Allow Safe Domains

You allow safe domains to approve access to specific content. For security reasons, external content can't be added to reports and reports can't be embedded in other applications unless it's safe to do so. Only administrators can allow safe domains.

Only authorized users may access the content. Except in cases where Single Sign On (SSO) is enabled, users are prompted to sign in when they access content on safe domains. After you have added a safe domain, users need to sign out and sign back in to access content from that source.

1. Click **My Profile**, and select **Administration** from the menu.
2. Click **Manage Safe Domains**.
3. To allow users to embed their analyses in content located on other domains, enter the name of the safe domain as well as the port. Here are a few formats you can use for port names:
 - www.example.com:<port number>
 - *.example.com:<port number>
 - https:
4. To display embedded videos or images from external sources in a report, add the domain name to the allow list. For example:

- <https://img03.en25.com:>*
 - <https://web.microsoftstream.com:>*
5. Select the types of resources you want to allow for a domain and block any resource types you think aren't safe. For example, to allow embedding, select **Embedding**.

Set Presentation Services Privileges for Application Roles

If you create an application role, you must set appropriate privileges to enable users with the application role to perform various functional tasks.

For example, you might want users with an application role named BISalesAdministrator to be able to create Actions. In this case, you grant them a privilege named Create Invoke Action.

If you create an application role to grant permissions, then you must set Presentation Services privileges for the new role.

Explicitly denying a Presentation Services permission takes precedence over user access rights either granted or inherited as a result of group or application role hierarchy.

Note

Privilege updates are retained after your instance is updated to Release 22A or later.

Existing catalog groups are automatically migrated during the upgrade process to corresponding new application roles that use the naming convention `_GRP2ROLE`, and grant the same Oracle BI Presentation Catalog privileges. You can delete any remaining catalog groups.

1. Log in as a user with Administrator privileges.
2. From the Home page select **Administration**.
3. In the Security area, click Manage Privileges.
4. Click an application role next to the privilege that you want to administer.
Use the Privilege `<privilege_name>` dialog to add application roles to the list of permissions, and grant and revoke permissions from application roles. For example, to grant the selected privilege to an application role, you must add the application role to the **Permissions** list.
5. Add an application role to the **Permissions** list, as follows:
 - a. Click **Add Users/Roles**.
 - b. Enter your application role search criteria in the **Search** field. Search criteria must use the exact string or the asterisk character (*). For example, enter BI Author, or BI*, or *Author to search for the role called BI Author.
 - c. Select **Application Roles** from the list and click **Search**.
 - d. Select the application role from the results list.
 - e. Use the shuttle controls to move the application role to the **Selected Members** list.
 - f. Click **OK**.
6. Set the permission for the application role by selecting **Granted** or **Denied** in the **Permission** list.
7. Save your changes.

Monitor Users Who Are Signed In

You can see how many users are signed in to your service and view detailed information about each user from the Manage Session page.

- **User ID:** Name that the user entered when they signed in.
 - **Host Address:** Name of the host computer.
 - **Session ID:** Unique identifier assigned to the user for each user session.
 - **Browser Info:** Information about the browser used to sign in.
 - **Logged On:** Time when the user signed in.
 - **Last Access:** Time stamp for the last activity for this user. This can be any kind of activity, such as switching from one page to another.
1. In the Oracle Transactional Business Intelligence Home page, click **My Profile**, and then click **Administration**.
 2. Click **Manage Sessions**.
The Sessions section at the top of the page shows how many users are currently signed in (Total Number of Sessions) and detailed information about these users.
 3. To monitor a particular user, select **Filter Cursors by Session**.
Information for this user displays in the Cursor Cache table.
Click **Clear Filter** to show information for all users.
 4. To change how messages are logged for a particular user, select a **Log Level** from the list.
By default, logging is disabled.

Run Test SQL Queries

Administrators can enter a SQL statement directly to query the Oracle Analytics server. This feature is useful for testing and debugging.

1. In the Oracle Transactional Business Intelligence Home page, click the **My Profile**, and then click **Administration**.
2. Click **Issue SQL**.
3. Enter the SQL statement. For example:

```
SELECT
  XSA('weblogic'. 'SalesTargets'). "Columns". "E1 Sales Rep Name" s_1
FROM XSA('weblogic'. 'SalesTargets')
```

4. Change the **Logging Level** if required.
5. Select **Use Oracle Analytics Presentation Services Cache**.
6. Click **Issue SQL**.

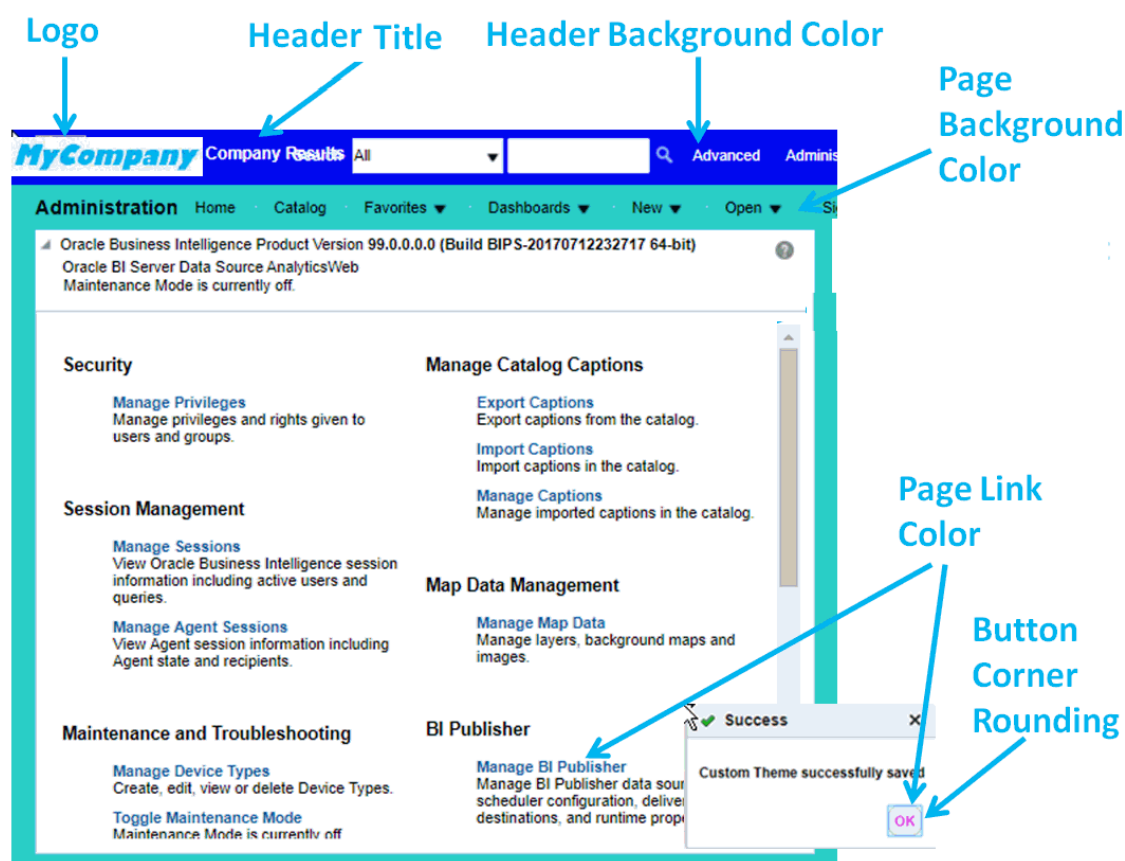
Manage Themes

Administrators manage themes to change the default logo, colors, and heading styles for reporting pages, dashboards, and analyses.

When working with themes, note the following:

- You can create multiple themes, but only one theme can be active at one time.
 - If you deactivate a theme, you revert to the default Oracle theme, unless you select a different one.
 - Themes are applied on pages with analyses and dashboards.
 - When you activate a theme, you apply it to the browser session of the currently signed-in administrator and to the browser sessions of end-users as they sign in.
1. In the Home page, click the user profile icon, and then click **Administration**.
 2. Click **Manage Themes**.
 3. Optional: To apply a previously created theme, select the theme you want from the Theme list, click **Active**, then click **Save**, then click **Back**.
 4. Optional: To revert to the default Oracle theme, clear the **Active** option, click **Save**, then click **Back**.
 5. Optional: To remove a theme completely, select the theme you want to remove, click **Delete**, then click **Back**.
 6. Optional: To create a dashboard style, in the **Theme** list, click **New Theme**.
 - a. In **Theme Name**, specify a name that's displayed in the **Style** list on the Dashboard Properties dialog.
 - b. Optional: In **Logo**, specify the page logo that you want displayed in the top left corner. To replace the default Oracle logo, click **Select Logo** and navigate to and select a different logo in PNG, JPG, or JPEG format. Logos can't exceed 136 pixels in width by 28 pixels in height.
 - c. Optional: In **Header Title**, specify the branding information that you want displayed in the top left corner next to the logo.
 - d. Select the header background color and the page background color.
 - e. Optional: Specify the page link color, button corner rounding, and header text color, which affects the title view of analyses and the section heading titles of dashboards.
 - f. In **Active**, click to apply the currently displayed theme when you click **Save**. If you click **Active**, then click **Back** without saving changes, the new theme isn't applied.

This diagram shows you what theme options affect different areas of the reporting environment.



Localize Catalog Captions

As an administrator, you can localize the names of reporting objects, or captions, that users create in the catalog. For example, you might localize the names of dashboards and analyses into Spanish and French.

To localize object names in the catalog:

1. Export the default captions from the catalog to an XML file.
2. Localize the downloaded XML file.
3. Upload the localized XML file to the catalog.

After the translated caption XML file is uploaded, the new strings take effect once the cache refreshes. Translated strings aren't affected by upgrades to OTBI.

Note

When you migrate content using archive/unarchive, you must update the translations.

Export Captions from the Catalog

The following steps describe how to export text strings in the catalog.

1. In the Home page, click the user profile icon and then click **Administration**.

2. In the **Manage Catalog Captions** area, click **Export Captions**.

A captions XML file is generated. Note that when you export captions, the last modified date of the object changes to the time when the captions were exported.

3. Click **Browse** to display the Catalog browser, select the folder that you want to localize.
For example, you might select /Shared Folders/Custom.
4. **Optional:** If you don't want descriptions in the export file, click **Exclude Descriptions**.
5. Click **OK**.
6. Save the downloaded XML file.

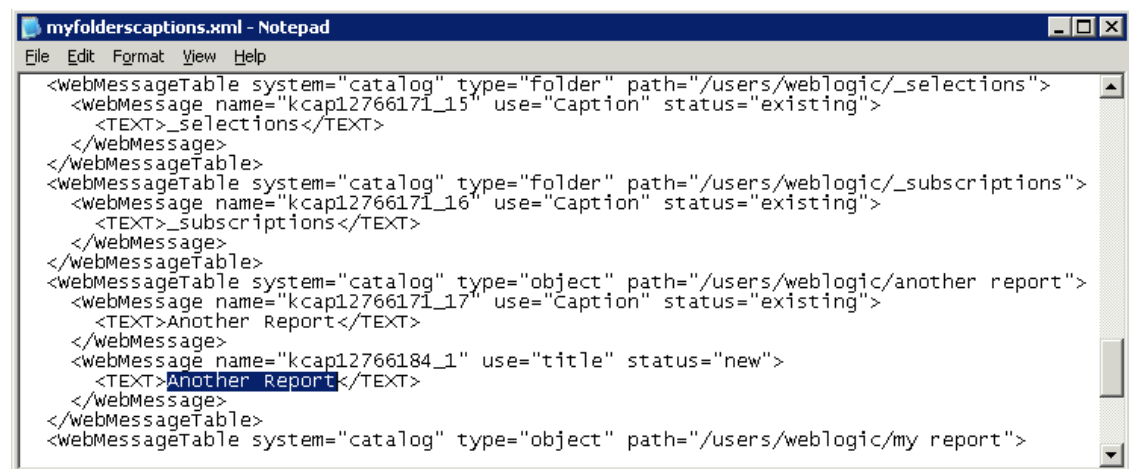
For example, if you selected the Custom folder to download, you'll save a file named `_shared_Custom_captions.xml`.

Localize Your Captions

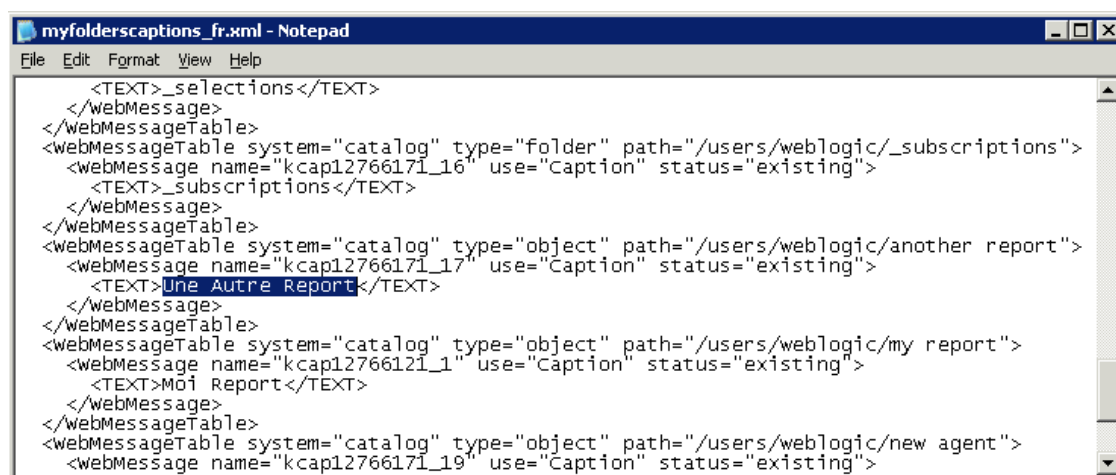
After you have exported your captions in an XML file, deliver the XML file to the localization team. For example, if you selected the Custom folder to download, you'll deliver a file named `_shared_Custom_captions.xml`.

You and the localization team are responsible for resolving any errors in the translated text strings. Consider that the contents of the catalog are updated whenever objects are added, deleted, or modified.

The first illustration shows an extract from an exported caption XML file before translation. The file is named `myfoldercaptions.xml`. The second illustration shows an extract from the file after translation. The file is named `myfoldercaptions_fr.xml`.



```
myfoldercaptions.xml - Notepad
File Edit Format View Help
<webMessageTable system="catalog" type="folder" path="/users/weblogic/_selections">
  <webMessage name="kcap12766171_15" use="Caption" status="existing">
    <TEXT>_selections</TEXT>
  </webMessage>
</webMessageTable>
<webMessageTable system="catalog" type="folder" path="/users/weblogic/_subscriptions">
  <webMessage name="kcap12766171_16" use="Caption" status="existing">
    <TEXT>_subscriptions</TEXT>
  </webMessage>
</webMessageTable>
<webMessageTable system="catalog" type="object" path="/users/weblogic/another report">
  <webMessage name="kcap12766171_17" use="Caption" status="existing">
    <TEXT>Another Report</TEXT>
  </webMessage>
  <webMessage name="kcap12766184_1" use="title" status="new">
    <TEXT>Another Report</TEXT>
  </webMessage>
</webMessageTable>
<webMessageTable system="catalog" type="object" path="/users/weblogic/my report">
```



Upload Localized Captions to the Catalog

After you have localized your captions in the required languages, you deploy the languages by uploading the translated XML files. Use the procedure for each language.

1. In the Home page, click the user profile icon and then click **Administration**.
2. In the **Manage Catalog Captions** area, click **Import Captions**.
3. Click **Browse** and navigate to and select the localized XML file, then click **Open**.
4. Use the **Select language** option to select the language to which you've localized, then click **OK**.

Review Imported Caption Files

After you have localized your captions in the required languages, you can review the translated caption files. Use the procedure for each language.

1. In the Home page, click **Profile** and then select **Administration**.
2. Click **Manage Captions**.
3. Click **Select language** and select the language of the XML file that you've imported.
4. Click **Download**, then click **OK** to open or save the XML file for review.

Delete Imported Caption Files

After you have localized your captions in the required languages, you can delete the translated caption files. Use the procedure for each language.

1. In the Home page, click **Profile** and then select **Administration**.
2. Click **Manage Captions**.
3. Click **Select language** and select the language of the XML file which you've imported.
4. Click **Delete**, then click **Yes**.

Set the Logging Levels for Presentation Services

You use options on the Administration page in Presentation Services to affect logging levels.

1. In the global header, click **Administration**.
2. In the Maintenance and Troubleshooting area, select the logging level to use under Reload Log Configuration.
3. Click **Reload Log Configuration** to allow the change to take effect without restarting Presentation Services.

The change remains in effect even when Presentation Services is restarted.

4. Click the **Manage Sessions** link to display the Manage Sessions page.
5. For each session, specify the appropriate level in the **Log Level** column of the table.

The updated level takes effect immediately for that session. When you select a level, ensure that its severity value is smaller than or equal to the value specified for all messages in Presentation Services.

Manage OTBI Folders

You can manage OTBI folders by following these guidelines.

Oracle might deliver new, updated content as a part of upgrade or patching process. When you audit, disregard the last modified date and owner information on all the seeded content. The seeded content is solely owned by Oracle and displays "System Account" or an internal patching user name as the owner. The timestamps correspond to the patching, upgrade, or provisioning dates.

Topics

- [Create OTBI Folders](#)
- [Set Folder Properties](#)
- [Set Folder Permissions](#)
- [About Duty Role Access to Seeded Shared Folders](#)
- [Hide Seeded Folders and Their Content](#)

Create OTBI Folders

You manage OTBI analyses and reports in the catalog, where you create folders to organize them.

Bear the following in mind as you manage folders:

- Regularly back up content in the My Folders and Shared Folders/Custom folders.
- Use care when renaming or deleting any folder under the Shared Folders/Custom folder.
- Don't rename or delete the Shared Folders/Custom folder.
- Don't store analyses and reports in the predefined folders in My Folders/Temp or My Folders/Draft. Oracle Analytics Publisher uses these folders and purges them automatically every 24 hours.

1. Click **Catalog** to display the catalog.
2. In the Folders pane, navigate to a folder location (such as Shared Folders/Custom) where you want to create the folder.
3. Click **New** and then click **Folder**.
4. Enter a name for the folder and click **OK** to create the folder.

Set Folder Properties

You can access the properties of user objects or the Custom folder and any of its subfolders in the catalog to set folder permissions and other attributes.

You can view system information, and change attributes or ownership. Other users can access and modify the properties of only the objects that they create or own.

1. Click **Catalog** to display the catalog.
2. Click **Shared Folders** and **Custom**, and navigate to the custom folder you want to assign properties to.
3. In the Tasks pane, click **Properties**.
4. In the Properties dialog, select any of the options in the **Attributes** section:
 - **Hidden** - Hides the object.
 - **System** - Makes the object a system object.
 - **Read-Only** - Makes the object read-only.
 - **Do Not Index** - Excludes the object from the index used by the full-text catalog search. Excluded objects don't display in the results of any full-text catalog search; the object can still be found using the basic catalog search.
5. Use the **Ownership** section to take ownership of a folder or object in the catalog.

This area displays only if the proper privileges were assigned to the user, group, or role. The owner of an object or folder can't automatically access the object or folder.

 - **Set ownership of this item** - Click to become the owner of the folder or object.
 - **Set ownership of this item and all subitems** - Click to become the owner of the folder and any sub-folders or sub-items contained within the item. For example, if you click this link for a dashboard folder, then you take ownership of all of the dashboard's components.

Set Folder Permissions

You can set permissions or change ownership for any catalog object or folder. Non-administrative users can access and modify the permissions of the objects that they create or own.

1. Click **Catalog** to display the catalog.
2. In the catalog select the folder or object.
3. In the Tasks pane, click **Permissions**.

The owner and any other users, roles, or groups with permissions are listed in the Permissions list

4. In the Permissions dialog choose from the following:

- To add a user or a role - Click **Add users/roles** and search for users or roles to add to the **Selected Members** list, then click **OK**.
- To delete a user or role - Select the account or role in the **Permissions** list and click **Delete selected users/role**.
- To set ownership for a user - Select **Custom** in the **Permissions** list for the account, click **Set Ownership**, and then click **OK**. You can also select the **Owner** option for the user or role.
- To set permissions for an object - Click the **Permissions** list for the account and select the permission.

5. Click **OK**.

About Duty Role Access to Seeded Shared Folders

Each seeded shared folder in the catalog is secured using a specific reporting role.

All authenticated users inherit a Custom BI Webcat Reporting Duty role, CUSTOM_BI_WEBCAT_REPORTING_DUTY. The Custom BI Webcat Reporting Duty role inherits all of the seeded folder reporting roles.

This table lists the mapping between shared seeded folders and folder reporting roles.

Folder Path	Duty Role	Duty Role Name
/shared/Common Content	BI_COMMON_CONTENT_REPORTING_DUTY	Common Content Folder Reporting Duty
/shared/Customer Data Management	BI_CDM_REPORTING_DUTY	Customer Data Management Folder Reporting Duty
/shared/Enterprise Contracts	BI_OKC_REPORTING_DUTY	Enterprise Contracts Folder Reporting Duty
/shared/Extension	BI_EXT_REPORTING_DUTY	Extension Folder Reporting Duty
/shared/Financials	BI_FIN_REPORTING_DUTY	Financials Folder Reporting Duty
/shared/Higher Education	BI_HED_REPORTING_DUTY	Higher Education Folder Reporting Duty
/shared/Human Capital Management	BI_HCM_REPORTING_DUTY	Human Capital Management Folder Reporting Duty
/shared/Incentive Compensation	BI_IC_REPORTING_DUTY	Incentive Compensation Folder Reporting Duty
/shared/Loyalty	BI_LOY_REPORTING_DUTY	Loyalty Folder Reporting Duty
/shared/Manufacturing	BI_MFG_REPORTING_DUTY	Manufacturing Folder Reporting Duty
/shared/Marketing	BI_MKT_REPORTING_DUTY	Marketing Folder Reporting Duty
/shared/Partner	BI_ZPM_REPORTING_DUTY	Partner Folder Reporting Duty
/shared/Procurement	BI_PRC_REPORTING_DUTY	Procurement Folder Reporting Duty
/shared/Projects	BI_PRJ_REPORTING_DUTY	Projects Folder Reporting Duty
/shared/Public Sector	BI_PSC_REPORTING_DUTY	Public Sector Folder Reporting Duty
/shared/Risk Management	BI_GRC_REPORTING_DUTY	Risk Management Folder Reporting Duty
/shared/Sales	BI_ZBS_REPORTING_DUTY	Sales Folder Reporting Duty
/shared/Service	BI_SVC_REPORTING_DUTY	Service Folder Reporting Duty
/shared/Subscription Management	BI_OSS_REPORTING_DUTY	Subscription Management Folder Reporting Duty

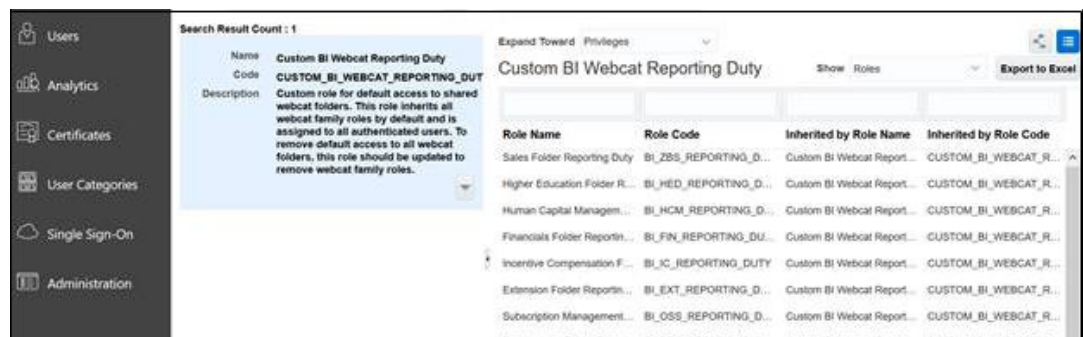
Folder Path	Duty Role	Duty Role Name
/shared/Supply Chain Management	BI_SCM_REPORTING_DUTY	Supply Chain Management Folder Reporting Duty
/shared/Functional Setup	BI_FSM_REPORTING_DUTY	Functional Setups Folder Reporting Duty *Not inherited by Custom BI Webcat Reporting Duty
/shared/Security	FBI_SECURITY_TRANSACTION_ANALYSIS_DUTY	Security Transaction Analysis Duty *Not inherited by Custom BI Webcat Reporting Duty

Hide Seeded Folders and Their Content

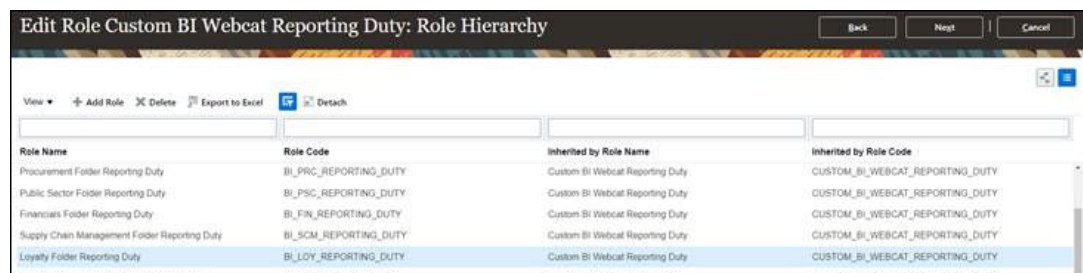
You can hide seeded folders and their content from users by removing associated folder reporting roles from the Custom BI Webcat Reporting Duty role.

For example, if your users are managers or HR employees, you might want them to only see the HCM folders, or if their primary job function is in dealing with Supply Chain, then you might only want them to see the Supply Chain folders. There are many seeded folders, so hiding the content that a user sees, focuses their attention toward only the content they need.

1. Log in to Fusion Applications Suite as a user with IT Security Manager privileges.
2. Click **Tools**, and then click **Security Console**.
3. Search for the Custom BI Webcat Reporting Duty.



4. Click the down arrow and select **Edit Role**.



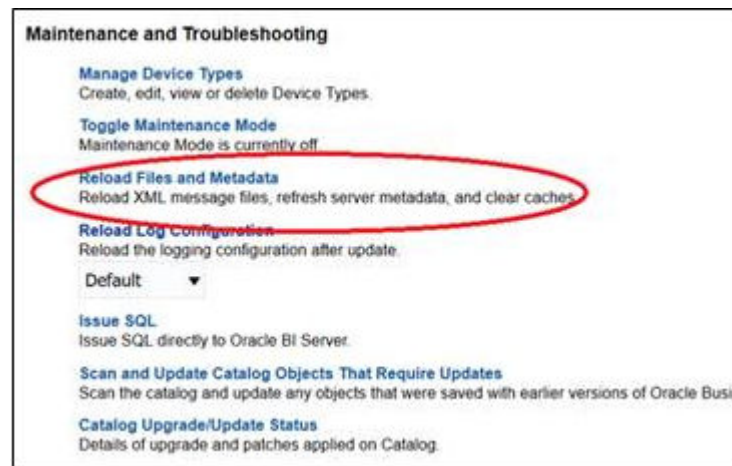
5. Click **Next** to go to the Role Hierarchy step, and delete any roles for which seeded content should be hidden.

For example, if you want to hide the Loyalty folder, then delete the Loyalty Folder Reporting Duty role.

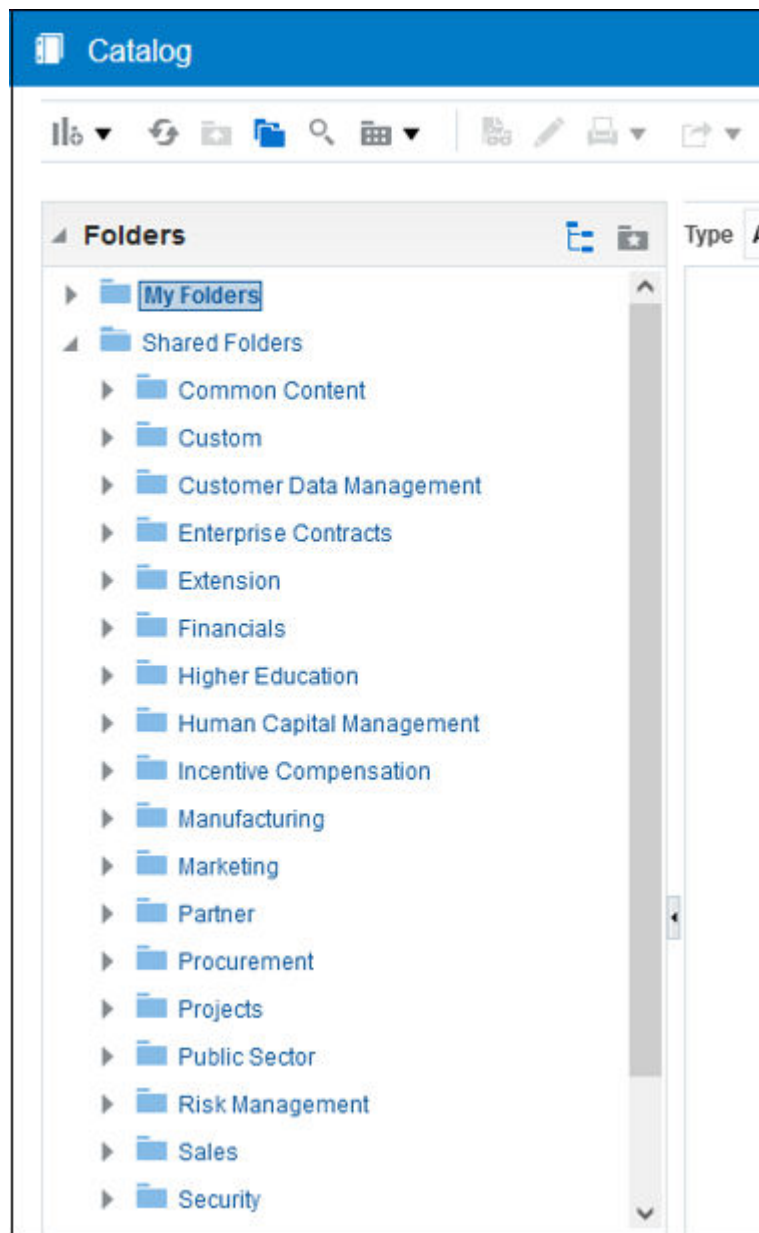
6. Click **Next** to go to the Summary step where you review and save changes.



7. Click **Save and Close**.
8. In the Oracle Transactional Business Intelligence Home page, click **My Profile**, and then click **Administration** from the menu.
9. In the Maintenance and Troubleshooting section, click **Reload Files and Metadata**.



10. Log in to Oracle Transactional Business Intelligence as any user without Administrator access and note the reduced folder list.



After you complete these steps users without administrator privileges can't see seeded folders. You can grant access to specific custom job roles by adding the folder reporting role to the role hierarchy of your custom role in the Security Console.

About Backing Up and Restoring Content

To avoid accidental deletions, maintain appropriate security on all content that users create and maintain. To minimize loss of objects, maintain regular backups of your custom content.

Use these methods to back up content:

- Keep content in multiple environments by copying content using the archive and unarchive processes or P2T/T2T.
- Periodically back up your organization's custom content using the archive process. See [Create an Archive](#).

Use these methods to restore content:

- Restore content from another environment by using the archive and unarchive processes. See [Move an Archived Object to a New Location](#).
- Restore content from a local archive.

Follow these guidelines when you use the archive and unarchive processes to achieve quick backup and restoration:

- Target specific reports or folders with smaller sizes..
- Avoid targetting folders with possibly large sizes such as the entire /shared/Custom folder.

The information in this section doesn't apply to Disaster Recovery Services, in which a major disaster is declared. In those instances, see [Oracle Cloud Hosting and Delivery Policies](#).

2

Manage Map Information For Analyses

This chapter describes how you set up map information for dashboards and analyses, so that users can visualize and interact with data through maps.

Topics:

- [Set Up Maps for Dashboards and Analyses](#)
- [Edit Background Maps for Dashboards and Analyses](#)

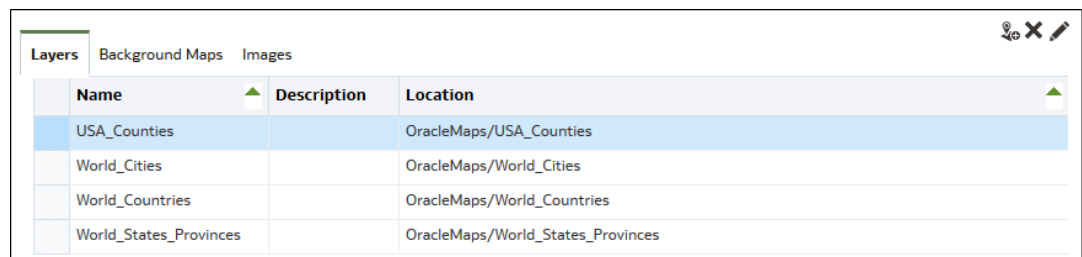
Set Up Maps for Dashboards and Analyses

As the administrator, you define how data columns that you've modeled are displayed on maps. You configure the map data, then users can analyze the data in map views.

Map views allow users to display data on maps in different formats and to interact with data. As the administrator, you must configure the metadata that defines the mapping between business intelligence data and spatial data.

Spatial features such as shape definitions are managed by database administrators for your instance. If a shape geometry definition doesn't exist for a particular column value, then the shape can't be shown on the map and might affect user interactions on the map.

1. In the Home page, click the user profile icon, **Administration**, and then click **Manage Map Data**.
2. On the **Layers** tab, click **Import Layers** from the toolbar.



Name	Description	Location
USA_Counties		OracleMaps/USA_Counties
World_Cities		OracleMaps/World_Cities
World_Countries		OracleMaps/World_Countries
World_States_Provinces		OracleMaps/World_States_Provinces

3. In the Import Layers dialog, select the layers you want to use and click **OK**.
4. Back on the Layers tab, select a layer and click the **Edit Layers** button.
5. In the Edit Layer dialog, associate layers with columns so that users can display data in the map view.
 - a. In **Name**, specify the layer name to display to users who work with map views.
 - b. In **Location**, specify which background map the layer originates from. Click **Location** to select a different layer.
 - c. In **Description**, specify information to help users when they hover over the layer name in the Map Formats area.

- d. In **Layer Key**, specify the column of spatial data that you can associate with data. Each column value corresponds to a "shape" that originates from the background map. For example, a MY_CITIES layer might have a layer key called CITY. The default value is a "best guess". Select the appropriate column from the list.

There are various reasons why a country such as Mexico might be drawn as a white area on a map:

- The column has a null value for the country of Mexico, but a shape exists for Mexico in the spatial column.
 - The column has a value for the country of Mexico, but no shape exists for Mexico in the spatial column.
 - The column has a value for the country of Mexico and the shape exists for Mexico in the spatial column, but the names are mismatched. The data columns might have the value MEX and the spatial column might have MXC.
- e. In **BI Key Delimiter**, Review the single ASCII character (such as a comma or underscore) to function as a delimiter for combining the data columns that form a key. This value is available only when multiple columns are specified for one key.
- f. In **Geometry Type**, specify whether the layer is a polygon, point, or line geometry layer. The type that you select affects the formatting that users can apply to the layer.
- g. In **BI Key Columns Area**, specifies the columns of data that you want to associate with the layer. You can have multiple columns associated with a single layer. You can select multiple columns from one subject area or from multiple subject areas. The columns and delimiter that you select must exactly match the name of the **Layer Key** value. Suppose the Layer Key value is STATE_CITY. You must select the STATE and CITY BI data columns and specify the underscore character in the **BI Key Delimiter** field.

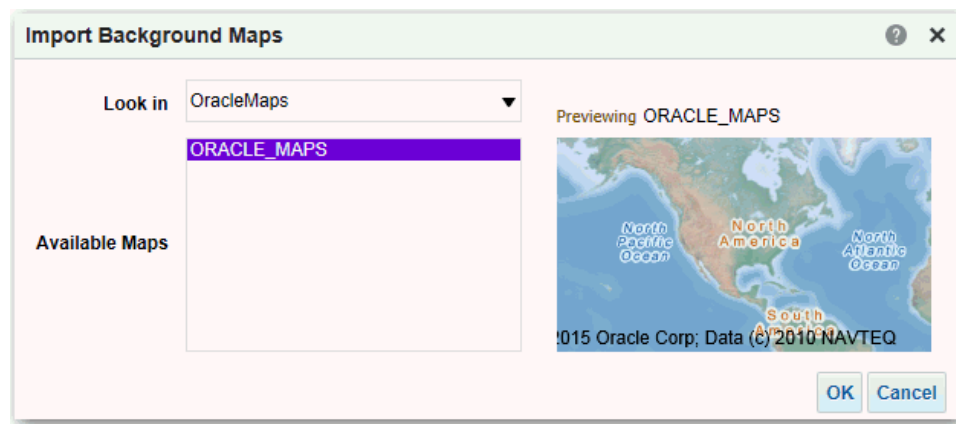
Use the various options in this area:

- **Add** — Displays the list of available subject areas. Select a subject area and select all the data columns that you want to associate with the layer.
- **Delete** — Deletes the selected key column.
- **Edit** — Lets you edit the data columns associated with a layer.

When a content designer creates a map view, a default main map is selected as the basis for that map view. If at least one data column from the analysis is associated with a layer that's associated with a main map, then that main map is selected by default.

- h. In **Show Qualified Names**, specifies whether to display the fully qualified name of the column in the BI Key Columns Area or simply the column name.
6. Click **OK** to close the dialog.
 7. Click the Background Maps tab, then click the **Import Background Maps** button.
 8. In the Import Background Maps dialog, select the connection in the **Look in** field and the main maps to use, then click **OK**.

The connection that you select for the main map can be different from the connection for the layers or images.



9. See [Editing Background Maps](#) for the steps required to prepare the background maps.

After you've added background maps and map layers, you can use the information to create a static image for a map. The static image is displayed to content designers and users who work with map views.

Edit Background Maps for Dashboards and Analyses

You edit background maps to ensure that users have a seamless experience with map views in dashboards and analyses.

A background map is a non-interactive map that serves as a base for the map view. It might display a satellite image or a map with roads. The background map specifies the order of layers on the map view.

The ordering of map layers is very important. You must pay close attention to ensure that users have a seamless experience while navigating on the map (that is, drilling and zooming). In the Edit Background Map dialog, you assign each layer a minimum and maximum zoom range. Given that the map zoom slider can slide only from bottom to top vertically, the layers with lower minimum zoom levels are placed at the bottom of the slider. Ensure that the layer grid on the Interactive BI Layers section of the dialog follows a similar pattern, so that you place layers with lower minimum zoom levels at the bottom of the list.

Layer ordering becomes irrelevant when the zoom ranges of layers don't intersect on the scale. Ordering becomes very important when layers have a common minimum and maximum zoom range. Use care to ensure that detailed layers aren't hidden by the aggregated layers during drilling or zooming operations.

1. In the Home page, click the user profile icon, **Administration**, and then click **Manage Map Data**.
2. Click the **Background Maps** tab, select a map, then click the **Edit Background Map** button to display the Edit Background Map dialog.
3. Specify the name and description of the map, which is displayed as a tooltip for the map when selecting a map from the list, when editing the map view.
4. The Location field displays the location of the background map in the data source. Click the **Location** button to change to a different map. If you select a background map that includes a different number of zoom levels, then the zoom levels are automatically adjusted for the layers that are associated with the map by scaling their ranges.

- Click the **Add Layers** button to display a list of the layers that have been imported on the Layers tab, then select the layers to add to the map. This button is unavailable when all layers from the Layers tab have been added to the background map.

When you add a layer that's part of the map definition, the layer displays at its default zoom levels. If the layer isn't part of the map definition, then specify the zoom levels yourself.

The layers are listed from bottom to top, in terms of how they're applied to the map. A sample order is Countries, States, Cities. The lower level layers generally have the lower zoom levels. For example, if you have a States layer and a Cities layer, then include lower zoom levels for State than City.

Interactive BI Layers and Feature Layers
For each layer, select the zoom levels at which it can be displayed.

	Zoom Level																		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
World_Cities																			
World_States_Provinces																			
World_Countries																			
USA_Counties																			

BI Layer Feature Layer

- Click the **Sort Layers By Zoom Level** button to list the layers in ascending or descending order based on visibility on the map. This button is unavailable when layers are listed in the proper order.

The sort order that's specified here doesn't affect the order in which layers are applied on the map. Instead, the sorting order affects the zoom levels. For example, the States layer might have zoom levels 1 through 3 and the Cities layer has zoom levels 4 through 9. The lower layers have the lower zoom level numbers. The zoom levels that you specify correspond to the tick marks on the zoom slider on the map.

You can include both layers that have been associated with a column by using the Edit Layer dialog and layers that haven't been associated. Ensure that BI layers are ordered higher than non-BI layers. If a non-BI layer is ordered higher than any BI layers, then the non-BI layer is displayed on top of the lower BI layers on the map, which prevents the BI layers from being interactive.

- Click the **Turn On Layer Visibility** or **Turn Off Layer Visibility** button to control the visibility of layers on the map. Use the buttons to indicate whether the layer is visible in the Preview map in this dialog only. The layer is still visible on a map view. You can modify the zoom levels for a layer with a visibility turned off.
- Click a cell under a zoom level for a layer to affect the zoom level:
 - If you click a blue cell that's between other blue cells, then you see a popup menu with **Clear Before** and **Clear After** buttons, which allow you to change the zoom level in either direction. For example, if you click the cell for zoom level 4 and click the eraser on the right, then all cells to the right are cleared for that zoom level.

- If you click a blue cell that is at the end of a line of blue cells, then the cell turns white to indicate that it's no longer part of that zoom level.
- If you click a white cell, then you increase the zoom level on either side of the existing blue cells. For example, suppose cells 4 through 6 are colored blue to reflect the zoom level. If you click in cell 2, then the zoom level becomes 2 through 6.

If you don't set any zoom levels for a layer, then that layer doesn't display on the map.

9. Click the action icon beside the layer name to display a menu from which you can make various selections:
 - **Delete** — Removes the layer from this background map. The layer continues to be available on the Layers tab and can be added to this area again.
 - **Move Up** or **Move Down** — Moves the layer up or down so you can specify the order in which layers are applied to the map.
 - **Reset to Default Visibility** — Resets the current visibility range for this layer as defined in the underlying map definition. If this layer isn't natively associated with the map, then this option is disabled for that layer.
10. Use the yellow border that surrounds the column of boxes for a zoom level to determine which zoom level is currently displayed in the map area.
11. Use the panning and zooming controls to specify how the map is displayed to users. If you hover over the zoom slider, then you see tooltips that specify the names of the layers that are currently associated with that zoom level.
12. Click **OK**.

3

Configure and Manage Agents

This chapter describes how configure and manage agents.

Topics:

- [How Are Agents Used?](#)
- [How Do Privileges Affect Agents?](#)
- [Manage the Types of Devices that Deliver Content](#)
- [Monitor Active Agent Sessions](#)

How Are Agents Used?

Agents deliver targeted analytics to users based on a combination of schedule and trigger event. Delivery can be by a variety of routes, for example to Dashboard Alerts or to email.

To create an agent, users (with the Create Agent privilege) define the operations that the agent is to perform. Oracle Transactional Business Intelligence packages information such as priority, delivery devices, and user, into a job, and schedules the job.

How Do Privileges Affect Agents?

This section provides information about how privileges affect agents.

You access the privilege settings for agents in the Delivers section of the Manage Privileges page in Presentation Services Administration. See About Controlling Access to Agents.

Manage the Types of Devices that Deliver Content

Oracle Transactional Business Intelligence can deliver content to a wide range of devices. You can add more devices for your organization, if users want to receive content on a device that's not on the list. You can't edit or delete default devices, such as AT&T Wireless.

1. On the Home page, click the user profile icon, and then click **Administration**.
2. Click **Manage Device Types**.
3. To define a new type of device:
 - a. Click **Create New Device Type**.
 - b. Enter information about the device, and click **OK**.
4. To edit a device that you added:
 - a. Click **Edit**.
 - b. Make your changes, and click **OK**.
5. To delete a device that you added:
 - a. Click **Delete**.

- b. Click **OK** to confirm.

Monitor Active Agent Sessions

Using the Manage Agent Sessions page in Presentation Services Administration, you monitor currently active agent sessions that are triggered by Oracle BI Scheduler. For example, you can see a list of active agents per session.

When one or more agent sessions are active, information about each agent session is displayed, such as the job identifier and the instance identifier that are assigned to the agent session by the Oracle BI Scheduler. Expanding the agent session shows the individual agents (one agent, or multiple agents if they are chained). The state of the agent is either Created, Populated, or Conditional Request Resolved.

Expanding a specific agent in a particular session shows the recipients for the agent and their type, such as the Engineering recipients defined in a group, or individual users. When the recipient is a group, the individual members of the group are not listed.

Note

When agents are chained, the recipient list depends on the parent agent. The recipients are shown for the parent agent definition only, and not for the actual execution of chained agents.

1. In the global header, click **Administration**.
2. Click the **Manage Agent Sessions** link to display the Manage Agent Sessions page.
3. The **Agent Sessions** section displays a table with information about each agent session. You can see details such as the job identifier, the instance identifier, the primary agent, and the day and time at which the agent session was last accessed. Do one of the following:
 - To sort agent sessions by their values in a particular column, click the **Sort** button for that column.

Re-sorting the list causes the page to refresh so the number of active agent sessions might increase or decrease as a result.
 - Click the link in the Primary Agent column to display the agent in the Agent editor.
 - To view more information about an agent session or about agents within a particular session, click the **Expand** button.
4. The **Agents** section displays a table with information about each agent. You can see details such as the path for the agent and its state. The state can be either Created, Populated, or Conditional Request Resolved. Do one of the following:
 - Click the link in the **Path** column to display the agent in the Agent editor.
 - Click the Expand button to see the list of recipients for that agent.
 - To view the definition of an individual agent, click its link.

4

Tune Query Performance and Migrate Analytic Objects

This chapter describes how you can manage query performance and migrate analytic objects.

Topics:

- [Tune Query Performance](#)
- [Migrate Analytic Objects](#)

Tune Query Performance

You can tune query performance to optimize queries and speed up query execution times.

- [About Queries and Performance](#)
- [Maximize Query Performance](#)
- [Diagnose Performance Using Subject Areas](#)
- [Tune Performance for Reports](#)
- [Review SQL Statements Used in Analyses](#)

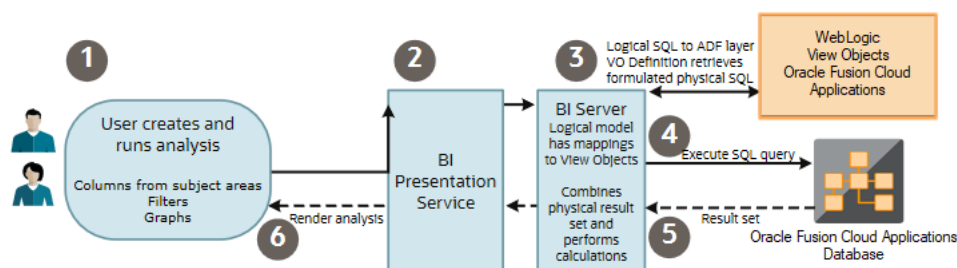
About Queries and Performance

When an analysis runs, database aggregation and processing is prioritized so that there's as little data as possible sent to the BI Server for more processing. When creating analyses, you should reinforce this principle to maximize performance.

Here's what happens when a query runs, in three phases:

1. SQL compiles.
2. Database SQL runs.
3. Result set is retrieved and displayed in an analysis.

Here's the query architecture with the steps that happen when a query runs.



Phase	Step	Description
1	1	You create an analysis with columns from one or more subject areas, add appropriate filters and graphs, and then run it.
1	2	Presentation Services receives the request and sends a logical SQL statement based on subject areas and columns to the BI Server.
1	3	The BI Server does these things: 1. Correlates the logical SQL with view objects and view links mapped in the metadata repository. • The SQL goes to the WebLogic ADF layer to get view object and view link SQL definitions. • Oracle Fusion Cloud Applications security is applied to these SQL definitions. 2. Aggregates the view object query to create physical database SQL.
2	4	The database query, including the aggregations and data security, runs in the database.
2	5	The aggregated dataset is returned to the BI Server, which merges the results and applies any additional calculations or filters.
3	6	The final dataset is returned to Presentation Services, where it's formatted for display and shown in the analysis.

Maximize Query Performance

The way you design an analysis affects how the BI Server builds the physical query, which determines how much processing is focused in the database to maximize performance.

You should consider some of the factors described here, while creating ad-hoc analyses.

Here are some key things you can do to improve how your analyses perform:

- Select only required subject areas and columns. What you select determines which view objects and database tables are used in the database query. Any unnecessary table means more queries and joins to process.
- Add proper filters to use database indexes and reduce the result data returned to the BI Server.
- Remove unnecessary visual graphs.
- Remove unused data columns. Any columns not used in visual graphs are included in the physical SQL execution, which may increase database query processing overhead.

Here are some of the factors that can hurt query performance, and what you can do to improve it.

Factor	Description	Suggestions
Security	Analyses may perform well for a user with broad security grants, but worse for those with more restrictions.	Review and simplify your security. Minimize the number of roles and don't use complex custom queries to enforce data security.
Cross-subject areas	Analyses including two or more subject areas can impact performance.	Review your analyses to see if you can remove some of the subject areas in the queries. Are all of the subject areas required? When you built the analysis, did you notice a performance impact while adding a particular subject area?

Factor	Description	Suggestions
Hierarchies	Hierarchies, particularly large ones, can impact performance. Queries on trees and hierarchical dimensions such as manager can have an impact on performance. The BI Server uses a column-flattening approach to quickly fetch data for a specific node in the hierarchy. But there's no pre-aggregation for the different levels of the hierarchy.	Remove hierarchies to see if performance improves. It's also important to carefully craft any query to apply enough filters to keep the result set small.
Number of attributes	Analyses often use a large number of columns that aren't required.	Reduce the number of columns in the criteria as much as possible.
Flexfields	Using too many flexfields in analyses can hurt performance in some cases.	Remove flexfields to see if the performance improves. Avoid flexfields in filters.
Data volumes	Analyses that query large volumes of data take longer. Some may query all records, but only return a few rows, requiring a lot of processing in the database or BI Server.	Consider adding filters in your analysis, especially on columns with indexes in the database. Avoid blind queries because they're run without filters and fetch large data sets. All queries on large transactional tables must be time bound. For example, include a time dimension filter and additional filters to restrict by key dimensions, such as worker. Apply filters to columns that have database indexes in the transactional tables. This ensures that a good execution plan is generated for the query from the BI Server.
Subquery (NOT IN, IN)	Filtering on IN (or NOT IN) based on the results of another query means that the subquery is executed for every row in the main query.	Replace NOT IN or IN queries with union set operators or logical SQL.
Calculated measures	Calculating measures can involve querying a lot of data.	Use the predefined measures in your subject areas wherever possible.
Filters	Analyses with no filters or filters that allow a large volume of data may hurt performance.	Add filters and avoid applying functions or flexfields on filter columns. If possible, use indexed columns for filters. Refer to OTBI subject area lineage for your offering, which documents indexed columns for each subject area.

Review further guidelines about analysis and reporting considerations in My Oracle Cloud Support KM ID [KB151083](#).

Diagnose Performance Using Subject Areas

These examples illustrate how you could use the OTBI Usage Real Time and Performance Real Time subject areas to understand usage and performance, so that you can diagnose performance bottlenecks and understand whether analyses are running slowly or could be optimized.

The OTBI Usage Real Time subject area monitors usage trends for OTBI by user, analysis and dashboard, and subject area. The OTBI Performance Real Time subject area monitors usage as well as analysis execution time, execution errors, and database physical SQL execution statistics. See [OTBI Usage and Performance Subject Areas Reference](#).

The OTBI usage subject areas are provisioned for two job roles: IT Security Manager and Application Implementation Consultant. To use them for other job roles, grant OTBI Usage Transactional Analysis Duty and OTBI Performance Transactional Analysis Duty to custom job

roles in the Security Console. Refer to specific subject area guides to see security details for each subject area.

Analyze the Number of Users

Use this example to understand whether the number of users might impact performance.

In this example, you create an analysis to determine the current number of users accessing OTBI so that you can determine system load, and a histogram analysis that identifies trends in long-running queries.

1. In the Reports and Analytics work area, click **Create** and select **Analysis**. Select the OTBI Usage Real Time subject area and click **Continue**
2. In the Select Columns page, expand your subject area and folders. Select **User Count** from the Facts - Usage Metrics folder and click **Next**. Because you aren't including a dimension in the analysis this provides a total of all users.
3. In the Select Views page, select a Table view and click **Next**.
4. In the remaining pages, click **Next** to accept the defaults.
5. In the Save page, enter a name for the analysis, select a catalog folder to save it in, and click **Submit**.

The result is a single-column table with the number of users on the system. To refine this analysis, you could add the Report Name and Report Path columns from the OTBI Report folder to the analysis to determine which reports are in use.

Analyze Query Performance

Use this example to diagnose performance bottlenecks and understand whether analyses are running slowly or could be optimized.

1. In the Reports and Analytics work area, click **Create** and select **Analysis**. Select the OTBI Performance Real Time subject area and click **Continue**
2. In the Select Columns page, expand your subject area and folders. Select **Report Name** from the OTBI Report folder and click **Next**.
3. Add Total Execution Time from the Derived Metrics folder in the Facts - Performance Tracking folder two times.
4. Add Report Row Count from the Query Execution Metrics folder. Click **Next**.
5. Add Report Count from the Query Execution Metrics folder. Click **Next**.
6. In the Select Views page, select a Pivot view and click **Next**.
7. In the remaining pages, click **Next** to accept the defaults.
8. In the Save page, name the analysis Performance Histogram, select My Folders, and click **Submit**.
9. Click **Catalog** and, in the catalog, navigate to My Folders and click **Edit** for your analysis.
10. Select the **Criteria** tab. Click **Options** and select **Sort Ascending** for the first Total Execution Time column.
11. Click **Options** for the second Execution Time and select **Edit Formula**. In the Edit Formula dialog, select **Custom Headings** enter **Total Execution Time Bin**, and enter the following statement in the Column Formula to bin by ranges of execution time, ranging from less than five seconds to greater than five minutes:

```

CASE WHEN "Derived metrics"."Total Execution Time" <= 5 THEN 'Less than
5Seconds' WHEN "Derived metrics"."Total Execution Time" BETWEEN 5 AND 30
THEN 'Between 5 and 30 Seconds' WHEN "Derived metrics"."Total Execution
Time" BETWEEN 30 AND 60 THEN 'Between 30 and 60 seconds' WHEN "Derived
metrics"."Total Execution Time" BETWEEN 60 AND 120 THEN 'Between 60 and 120
seconds' WHEN "Derived metrics"."Total Execution Time" BETWEEN 120 AND 300
THEN 'Between 120 and 300 seconds' ELSE 'Greater than 300 seconds' END

```

12. In the Results tab, click **Edit View** for the pivot table.

13. In the Layout pane of the Pivot Table editor:

- Move the Total Execution Time Bin column to the Rows section.
- Move Report Count to the Measures section.
- Move the rest of the columns to the Excluded section so they aren't shown in the pivot table.

14. Click **Done**.

You can present this information as a graph or table to view how many reports are running too long. Those with the highest usage and the longest execution times can then be prioritized.

Tune Performance for Reports

You can use SQL query tuning to improve the performance of reports.

Here are some factors that can slow down query performance, and some suggestions for improvement.

Factor	Description	Suggestions
Filters	Reports with no filters or filters that allow a large volume of data may hurt performance.	Use filter conditions to limit data.
Joins	Reports that join a lot of tables can run slowly.	Remove any unnecessary joins.
Data volumes	Reports with no filters or filters that allow a large volume of data may hurt performance.	Add filter conditions to limit data, preferably using columns with database indexes. Use caching for small tables.
Indexes	Filters that use database indexes can improve performance.	Use SQL hints to manage which indexes are used.
Sub-queries	Sub-queries can impact performance.	• Avoid complex sub-queries and use Global Temporary Tables where necessary. • Avoid too many sub-queries in where clauses if possible. Instead, rewrite queries with outer joins.
Aggregation	It helps performance to prioritize aggregation in the database.	• Use Oracle SQL Analytical functions for multiple aggregation. • Use CASE statements and DECODE functions for complex aggregate functions.

Review SQL Statements Used in Analyses

You can review logical and physical SQL statements using these steps.

Logical SQL is non-source specific SQL that's issued to the BI Server for an analysis. Logical queries use column names from the subject areas in the Presentation Layer in the repository (RPD) metadata. Based on the logical request, the BI Server issues optimized source-specific SQL to the actual data sources in the Physical Layer of the metadata. If you have administrative privileges, you can review both logical and physical SQL for analyses.

1. If you want to view the logical SQL when editing an analysis:
 - a. In the Reports and Analytics work area, click **Edit** to open the analysis for editing, then click the **Advanced** tab.
 - b. In the **SQL Issued** section, review the logical SQL statement.
2. If you want to view the SQL statement from the Administration page.
 - a. Click **My Profile** and then click **Administration**.
 - b. On the Administration page, in the Session Management section, click the **Manage Sessions** link.

You must be a Business Intelligence Administrator to access the Administration and Manage Sessions page.
 - c. On the Manage Sessions page, in the **Action** column, click the **View Log** link to review the SQL statement.

Migrate Analytic Objects

You can archive your analytic objects to back them up and move them to a new location. You can bundle the whole catalog, specific folders, or multi-component objects as a .catalog file and upload the file and unarchive its data in another location.

It's important to note that you must not change folders that contain seeded content. Moving or adding a child folder to a seeded folder results in analytics not being visible in dashboards or infolets.

- [Create an Archive](#)
- [Move an Archived Object to a New Location](#)

Create an Archive

You can create an archive of a catalog object or folder, to backup or move it to a different location.

1. Locate the folder or object in the catalog.
2. Optional: To archive an object, select the object, click **More** and then select **Archive**.
3. Optional: To archive a folder, select the folder and click **Archive**.
4. In the Archive dialog, select one or more of the following options:
 - **Keep Permissions:** Maintain the object or folder's existing permissions. If you don't select this, the archiving process doesn't include any permissions. Once unarchiving, the parent folder's permissions are assigned to all of the objects and folders.

- **Keep Time stamps:** Maintain the Creation Time, Last Modified, and Last Accessed times assigned to the object or folder. Upon unarchiving, the Last Modified time is updated to indicate the time when the object or folder is unarchived. If you select this option, the Old option in the Paste Overview area of the Preferences dialog is available when unarchiving. Use the Old option to overwrite existing catalog items older than the items in the archive.
If you don't select this option, then the archiving process doesn't include time information and the Old option in the Paste Overview area of the Preferences dialog isn't available.
5. Click **OK** to confirm that you want to save the archive.
 6. Browse to the folder where you want to save the archive, and click **Save** to download the archive file.

Move an Archived Object to a New Location

You can move an archived object or folder to a catalog location that you specify.

1. Select the folder in the catalog where you want to upload the archived file.
2. In the Tasks pane click **Unarchive**.
3. In the Unarchive dialog, browse for and select the archive file.
4. Use the **Replace** option to specify whether to replace an existing folder or object with the same name.
 - **All** - Replace any existing folders or objects with the same names as folders or objects included in the archive file that you're uploading.
 - **Old** - Replace folders or objects except those folders or objects that exist, unless they're older than the source.
 - **None** - Add any new folders or objects, but preserve any existing folders or objects.
 - **Force** - Add and replace all folders or objects.
5. Use the **Access Control Lists** option to specify how the folders or objects are assigned permissions using Access Control Lists Access when unarchived
 - **Inherit** - Inherits the folder or object's permissions from its new parent folder.
 - **Preserve** - Preserves the folder or object's permissions as it was in the original, mapping accounts as necessary.
 - **Create** - Preserves the folder or object's permissions as it was in the original, creating and mapping accounts as necessary.

5

Manage How Content Is Indexed and Searched

This chapter describes how you set up catalog content to be indexed and crawled so that users find the latest content when they search.

Topics:

- [Configure Search Indexing](#)
- [Schedule Regular Content Crawls of Catalog Objects](#)
- [Monitor Search Crawl Jobs](#)

Configure Search Indexing

The catalog is crawled and indexed so users can quickly find content when they search.

1. In the Home page, click the user profile icon and then click **Administration**.
2. Click **Configure Crawl**.
3. To ensure that users find the most recent information when they search for catalog content (analyses, dashboards, and reports), in the **Catalog** page, you must specify what to index. In most cases you shouldn't have to modify the settings in this tab.
 - Confirm that **Index** is selected in the **Crawl Status** column for each top level folder, otherwise no folders in the catalog are indexed, and the Home page search returns very limited and possibly no results.
 - Use the **Catalog Object (Shared Folders)** list to browse for and specify which folders, sub-folders, and items you want to index or not index. Select only the items needed to create useful search results. Indexing all items yields too many similar search results.
 - Oracle recommends that you don't set the **Crawl Status** field to **Don't Index** as a way of hiding an item from users. Users won't see the item in search results or on the Home page, but are still able to access the item. Instead, use permissions to apply the proper security to the item.

Schedule Regular Content Crawls of Catalog Objects

It's the administrator's job to select which folders to crawl and schedule when and how often to crawl the content.

1. In the Home page, click **My Profile** and then click **Administration**.
2. Click **Configure Crawl**.
3. In the **User to Run Crawl As** field, enter an administrative user.
4. For **Languages**, select all the languages for which you want to create indexes.

Crawl results are added to the index in the languages that you specify. For example, if your company's headquarters are in the United States, and you have offices in Italy, then you can choose *English* and *italiano* to create an indexes in both English and Italian.

5. Click **Select Date and Time** to select the date and time to begin the crawl.
6. Select how often the crawl runs by providing values in the **Run Every** and **Frequency** fields.

By default the catalog is crawled once daily. When the catalog is updated, the index is updated automatically.
7. To select which catalog objects get indexed, select **Index User Folders** to index the users' private content. By default **Index User Folders** is selected.
8. Select the folders you want the crawl to include by selecting **Index**. Exclude any folders that contain content you don't want others to find when they search by selecting **Don't Index**.
9. Click **Save**.

Monitor Search Crawl Jobs

Administrators can check the last time content was indexed and monitor the status of crawl jobs. You can stop any crawl job that is running, cancel the next scheduled crawl before it starts, or run a new crawl.

If users report search issues, check the status of crawls to ensure that they're current. After a crawl is completed, users might have to wait a few minutes before they can locate the latest content.

1. In the Home page, click the user profile icon, and then click **Administration**.
2. Click **Monitor Crawl**.

The Crawl Job Status page shows information about the past, current, and the next scheduled crawl. In the Progress column, XSA indicates a dataset.
3. The **Start Time**, **End Time**, and **Status** columns indicate when the content was last crawled, and the **Scheduled Time** column indicates when the next crawl is due.
4. Click **Cancel** to stop a crawl job that is Running or Scheduled.
5. To rerun a crawl with the status of Terminated or that displays progress totals of zero:
 - a. Click the **Configure Crawls** link.
 - b. Click **Run Now**.
 - c. Click the **Monitor Crawls** link and locate the scheduled job. The revised crawl runs in a few minutes time.

6

Frequently Asked Questions for Oracle Transactional Business Intelligence

This chapter provides answers to frequently asked questions for Oracle Transactional Business Intelligence.

Topics:

- [Top FAQs to Configure and Manage Oracle Transactional Business Intelligence](#)
- [Top FAQs to Index Content and Data](#)

Top FAQs to Configure and Manage Oracle Transactional Business Intelligence

The top FAQs for configuring and managing Oracle Transactional Business Intelligence are identified in this topic.

Can I see how many users are currently signed in?

Yes. In the Home page, click **Administration** under **My Profile**, and then click **Manage Sessions**. See [Monitor Users Who Are Signed In](#).

Can I change the default logo and dashboard style for the whole deployment?

Yes. In the Home page, click **My Profile**, click **Administration**, and then click **Manage Themes**. Create a new theme including dashboard properties such as logo, branding, page colors, and link colors, and click **Active**. This new style is applied for all new browser sessions.

Can I use the BISystem application role?

No. The BISystem application role is for internal use only, and you shouldn't associate it with any custom application roles. If your users need administrative permissions such as these, use the BIAdministrator, not the BISystem application role:

- Grant permission to use Job Manager to manage scheduled Delivers jobs.
- Grant permission to open, view, and edit repository files using the Administration tool or the Oracle BI Metadata web service.

Is there a limit for catalog object permission setting?

The Access Control List (ACL) of the catalog object defines who can access the catalog object. The maximum number of entries for the ACL of a catalog object is 64. If you attempt to update the catalog object ACL with more than 64 entries, you might see an error message such as the following:

```
Exceeded number of allowed ACL entries:Path:/shared/custom/Exchange Rate:  
New ACL size='xxxx',Allowed size is '64'
```

Don't add user IDs directly to the catalog object ACL. Instead, group users under an application role, then add the application role to the catalog object ACL.

Top FAQs to Index Content and Data

The top FAQs for indexing data models and catalog content are identified in this topic.

What can I index?

You can choose to index catalog content - analyses, dashboards, and reports. You must be an administrator to modify the catalog indexing preferences.

How often should I schedule a crawl?

The index updates automatically as users add or modify catalog content. In some cases you might want to change the crawl schedule, if automatic indexing didn't run, or if your data updates occur less frequently (for example, monthly).

Are there considerations when indexing subject areas with large tables?

You can index any size table, but big tables take longer to index. For large subject areas that have many tables or large tables, consider indexing only the columns that your users search for.

Because index files are compact, it's rare to exceed the storage space reserved for indexing.

How are search results ordered?

Search results are listed in this order:

1. Certified datasets
2. Personal datasets
3. Catalog items (analyses, dashboards, and reports)

Should I use Don't Index to secure my catalog items?

No. Oracle doesn't recommend setting the **Crawl Status** field to **Don't Index** as a way of hiding a catalog item from users. Users won't see the item in search results or on the home page, but are still able to access the item. Instead, use permissions to apply the proper security to the item.

How do I build an index most effectively?

For best results only index the subject areas, dimensions, catalog items. Indexing all items yields too many search results. Oracle recommends that you deselect all catalog items and then select only the items that the user needs. You can then add items to the index as needed.

Troubleshooting for Oracle Transactional Business Intelligence

This chapter describes common problems that you might encounter when using Oracle Transactional Business Intelligence and explains how to solve them.

Topics:

- [Troubleshoot General Issues](#)
- [Troubleshoot Issues with Analyses and Dashboards](#)

Troubleshoot General Issues

This topic describes common problems that you might encounter and explains how to solve them.

I can't access certain options from the Home page

Check with your administrator to ensure that you have the correct permissions to access the options that you need.

I see a performance decrease when using Mozilla Firefox

If you use Mozilla Firefox and notice a decrease in the performance of the cloud service, then ensure that the **Remember History** option is enabled. When Firefox is set to not remember the history of visited pages, then web content caching is also disabled, which greatly affects the performance of the service. See Firefox documentation for details on setting this option.

Troubleshoot Issues with Analyses and Dashboards

This topic describes common problems that you might encounter when using analyses and dashboards, and explains how to solve them.

I can't see data in an analysis

You open an analysis, but you don't see any data in it.

Ensure that you have the appropriate job and duty roles assigned. Contact your administrator for assistance.

You might not have the permissions needed to access the data. Contact the object's owner or administrator and ask them to check your access permissions. You'll need read permissions to the analysis and any artifacts included in the analysis.

Users must have subject area specific roles to see data in Fusion Applications Suite OTBI analyses. See documentation about each subject area by using the **Subject area** links in the [Fusion Cloud Applications Content](#) library page.

I can't access a particular analysis or dashboard

You attempt to display an analysis or dashboard and find that you don't have access.

Typically you can't access an analysis or dashboard if you lack the appropriate permissions or application role for accessing it. Contact the owner of the analysis or dashboard or your administrator for assistance in obtaining the proper permissions or application role.

I can't find an analysis or dashboard

Try searching the catalog. You can search for analyses or dashboards by name (full or partial) and by folder location. The search isn't case-sensitive. Searches of the catalog return only those objects that you have permission to see.

If you still can't find an analysis or dashboard and you suspect that it was deleted by mistake, restore content from another environment or from a local backup. See [About Backing Up and Restoring Content](#).

The analysis is running very slowly

You attempt to run an analysis and find that it takes a long time.

Various underlying circumstances can cause an analysis to run slowly. Contact your administrator and ask them to review log files associated with the analysis. After reviewing the log files with the administrator, make the appropriate adjustments in the analysis.

The analysis returned data that I didn't expect

Various underlying circumstances can cause an analysis to return unexpected results. For an analysis, in the Subject Areas pane of the Criteria tab, click **Refresh** to ensure that you're seeing the most recent information.

I don't understand why my analysis shows a view display error

When you display an analysis, you might see a message such as the following: "View Display Error. Exceed configured maximum number of allowed input records." This message indicates that you've selected more data than can be displayed in a view of that type. Add one or more filters to the analysis to reduce the amount of data. For example, add a filter that specifies a date range of only a few years.

Why do I see amounts of zero in analyses?

The currency exchange rates might not be set up correctly. For example, you choose Ledger currency as your preferred currency in general preferences, and your corporate currency is USD. Amounts in analyses are displayed in Ledger currency after conversion from USD, based on the current exchange rate. But if the exchange rate between Ledger currency and USD isn't set up, or if the conversion fails for any reason, then the amounts show as zero.

8

OTBI Usage and Performance Subject Areas Reference

This chapter describes the OTBI usage and performance subject areas.

OTBI Usage Real Time and Performance Real Time subject areas provide report authors and administrators real-time insight into usage and performance.

- OTBI Usage Real Time subject area helps you analyze the usage trends and patterns of subject area and analysis.
- OTBI Performance Real Time subject area helps you monitor and diagnose OTBI reporting performance. You can view OTBI usage and performance trends, commonly used subject areas, logical and physical database SQL execution time, and errors.

The OTBI Usage Real Time and Performance Real Time subject areas contain six months of OTBI execution data.

See [Diagnose Performance Using Subject Areas](#) for examples of how you can use the OTBI Usage Real Time and Performance Real Time subject areas, and see [Customer Connect](#) for a sample OTBI Usage Dashboard.

Topics:

- [About the OTBI Usage Real Time Subject Area](#)
- [About the OTBI Performance Real Time Subject Area](#)

About the OTBI Usage Real Time Subject Area

This topic lists the business questions that are answered by using the OTBI Usage Real Time subject area.

The OTBI Usage Real Time subject area answers the following business questions:

- How many users run OTBI analyses?
- Who are the top N OTBI users?
- How many analyses and dashboards have users run in the past month?
- What is the weekly analysis usage trend?
- What are the top N most frequently run OTBI analyses?
- How many predefined OTBI analyses have been run in the past month?
- How many custom OTBI analyses have been run in the past month?
- How many ad-hoc OTBI analyses have been run in the past month?
- What's the execution history of a given dashboard in the past month?
- Which analyses have low usage in the past three months?
- How many OTBI SOAP web services have been run in the past month?

- What is the SOAP API data load?

About the OTBI Performance Real Time Subject Area

This topic lists the business questions that are answered by using the OTBI Performance Real Time subject area.

The OTBI Performance Real Time subject area answers the following business questions:

- What are the long-running analyses in the past month?
- What is the OTBI execution time histogram for the past month?
- Which analyses have the longest response time?
- Which analyses have a high row count?
- Which analyses reached the OTBI maximum row limit?
- What are the common execution errors in the past month?
- How many analyses and dashboards failed in the past month?
- What are the most commonly used subject areas?
- What are the least used subject areas?
- Which subject areas have slow performance?
- Which analyses have low usage because of poor performance?
- How many database SQLs are executed by an analysis?
- What is the database SQL execution time and row count?