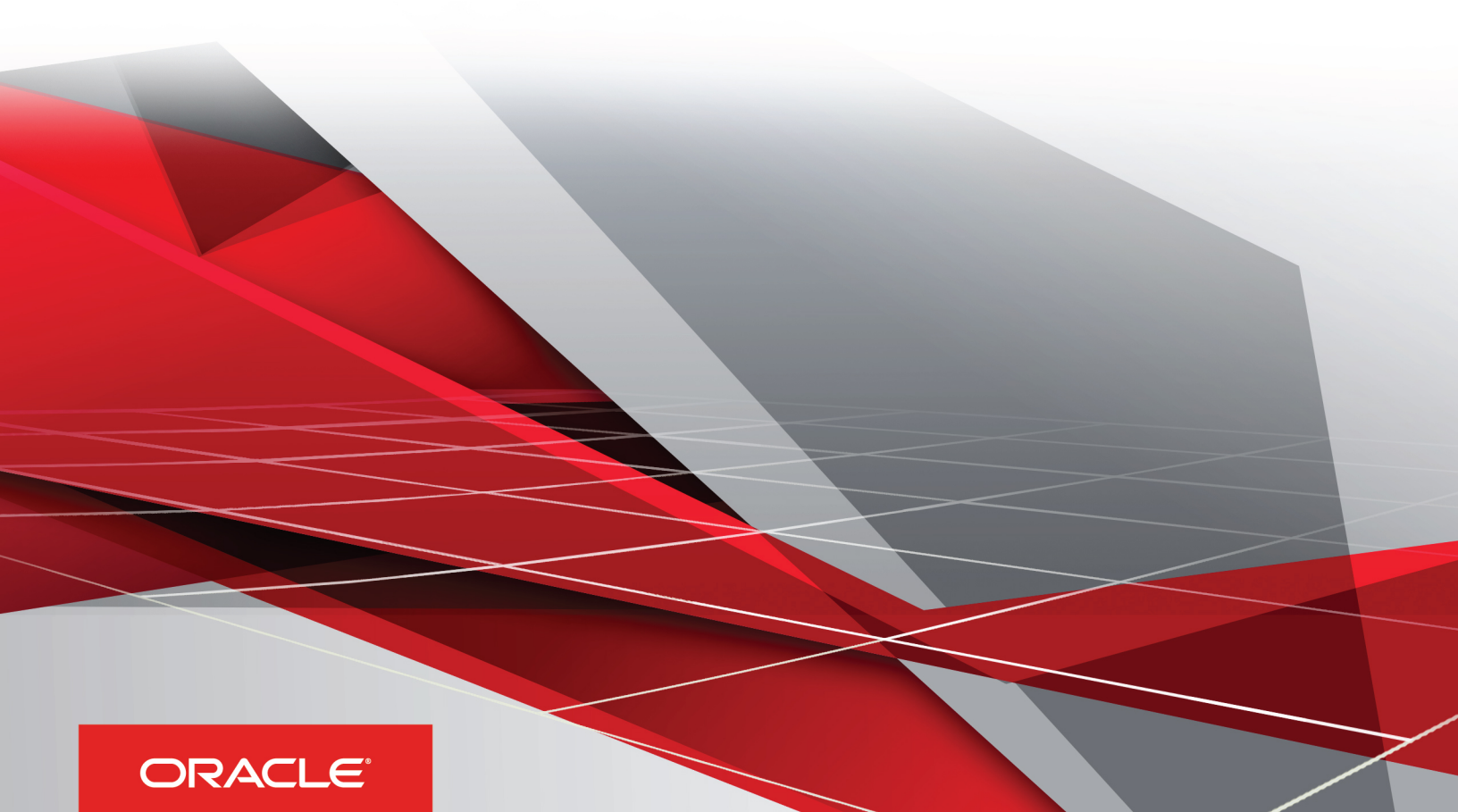
Oracle

Human Capital Management Cloud

Creating and Administering Analytics and Reports

Release 12

This guide also applies to on-premises implementations



Oracle® Human Capital Management Cloud Creating and Administering Analytics and Reports

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Author: Lynn Flink

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Preface

This preface introduces information sources that can help you use the application.

Oracle Applications Help

Use the help icon to access Oracle Applications Help in the application. If you don't see any help icons on your page, click the Show Help icon in the global header. Not all pages have help icons. You can also access Oracle Applications Help at https://fusionhelp.oracle.com.

Using Applications Help

Watch: This video tutorial shows you how to find help and use help features.

Additional Resources

- **Community:** Use **Oracle Applications Customer Connect** to get information from experts at Oracle, the partner community, and other users.
- **Guides and Videos:** Go to the **Oracle Help Center** to find guides and videos.
- **Training:** Take courses on Oracle Cloud from **Oracle University** .

Documentation Accessibility

For information about Oracle's commitment to accessibility, see the **Oracle Accessibility Program** .

Comments and Suggestions

Please give us feedback about Oracle Applications Help and guides! You can send e-mail to: oracle_fusion_applications_help_ww_grp@oracle.com.

1 Overview

About This Guide

This guide is intended for advanced users and administrators who want to modify and create custom analytics and reports, as well as perform setup and maintenance tasks for business intelligence. The guide contains both conceptual and procedural information intended to help you build and manage analyses, reports, and dashboards that are tailored to the content needs of your line of business or company. You can also use the information in this guide to help you set up business intelligence.

Creating and Administering HCM Analytics and Reports: Overview

The predefined analyses, dashboards, and reports help you meet business intelligence requirements. You might want to edit them or create new ones for your own purposes. If you have the appropriate roles, you can customize analytics and reports and make them available for use by others.

Setup and Administration

Several tasks exist that support creating and editing analytics and reports. For example, an implementor or administrator can:

- Secure access to custom analytics and reports.
- Archive and move custom analytics and reports from one environment to another.

For more information about security tasks, see Oracle Applications Cloud: Administering Analytics and Reports

Related Topics

- Creating and Editing Analytics: Highlights
- Creating and Editing Reports: Explained

Securing HCM Analytics and Reports: Overview

All users with appropriate roles can create and access analyses and reports based on role access to subject areas and catalog folders.

Analyses and reports are secured by applying job roles with associated duty roles to users. Duty role assignments determine access to subject areas for analyses as well as catalog folders. For information about the job and duty roles provided with HCM, and how to customize your security model by creating custom job roles and assigning duty roles to them, see the HCM Security Guide.

How can I find analytics and reports?

See if the analysis or dashboard already appears on your page, maybe on a separate tab. Or there might be, for example, a link to the report you want to use. Also look for the Reports and Analytics pane, which may appear on your work area as a panel tab or in the regional area. In the pane, you find analytics and reports specific to the work area you're on.

To see all the analytics and reports that you have access to, use the Reports and Analytics work area (**Navigator - Tools - Reports and Analytics**).

Reports and Analytics Pane: Explained

The Reports and Analytics pane is a central place for you to quickly view or run analytics and reports that are related to your work. If you have the permission, you can create and edit analytics and reports here, or add them from the business intelligence (BI) catalog to the pane. You may find this pane in a panel tab or in the regional area on some work areas. In the Reports and Analytics work area (**Navigator - Tools - Reports and Analytics**), the pane appears as the Contents pane.

What's In the Pane

This table describes what's in the top level folders of the Reports and Analytics pane.

Folder	Content
My Folders	Any custom analyses or reports that you saved for your own use only.
Shared Folders	• Any predefined analyses and reports that are relevant to your role. Or, in the Reports and Analytics work area, all the analytics and reports that you have permissions to access. Any shared custom reports and analytics in the Custom subfolder. Place your shared reports and analytics in this folder to protect them during upgrades.

Business Intelligence Catalog: Explained

Reports, analyses, dashboards, and other business intelligence (BI) objects are stored and administered in the business intelligence catalog.

Navigating to the Catalog

To navigate to the catalog:

1. Click **Reports and Analytics** under **Tools** in the Navigator.
2. In the Reports and Analytics pane, click the **Browse Catalog** icon.

Identifying Objects in the Catalog

The catalog stores the BI objects in a directory structure of individual files, organized by product family.

BI objects and reports are organized in the following folder hierarchy:

- Shared Folders (top level)
- Product family (example: Financials)
- Product (example: Payables)
- Report groups (example: Invoices)
- Dashboard reports
- Data Models
- Report Components
- BI Publisher reports
- Prompts

The following table describes the common BI objects that you find in the catalog:

Catalog Object	Description	Location
Analysis	Analyses are used primarily by dashboards.	Report Components folder
Dashboard	Dashboards organize analytical content and catalog objects, and present them in a meaningful way.	Reporting group folder
Dashboard Prompt	Dashboard prompts allow users to filter dashboard content using provided values.	Prompts folder
Filter	Filters are used in dashboards and analyses.	Prompts folder
Report	Reports are operational reports created in Business Intelligence Publisher.	Reporting group folder
Data Model	Subtemplates are used by reports created in Business Intelligence Publisher.	Data Models folder
Subtemplate	Data models are used by reports created in Business Intelligence Publisher.	Reporting group folder

Saving Analytics and Reports: Points to Consider

You save analyses, dashboards, and reports in the business intelligence (BI) catalog, along with other objects, including prompts and filters. The catalog has a hierarchy of folders, with My Folders and Shared Folders at the top. One important folder is Custom, which you find under Shared Folders and use to store your custom analytics and reports.

My Folders

You're the only one who can access anything that you save in My Folders. You can see your saved items in My Folders on the Reports and Analytics work area, but not in My Folders in the Reports and Analytics pane on any other work area. The only exception is when you create an analysis using the wizard in the Reports and Analytics pane, and save it in My Folders. In this case, the analysis is available in the pane on all work areas.

Shared Folders

If you have the appropriate roles, you can also save in Shared Folders so that your custom analytics or reports are available to anyone with the right access. You should save objects under the Custom subfolder, which has subfolders organized by product family.

Regarding predefined analytics and reports in Shared Folders:

- You should save a copy of the predefined analysis or dashboard in the corresponding product family subfolder under the Custom folder, and edit only the copy. Directly edit predefined analytics only when necessary, to make sure that any references to the analysis or dashboard still work properly.
- For predefined reports only, you can use a special Customize option to copy the report and also the folder structure and permissions. The copy is linked to the original, so editing the copy is like directly editing the original.

Custom Folder

Keep all custom analytics and reports in the Custom folder so that:

- You ensure that customized copies of those objects are not affected during upgrades, which can change predefined analytics and reports outside the Custom folder. You might lose customizations saved outside the Custom folder during upgrades.
- You can easily find customized objects.
- You can edit objects in the Custom folder without compromising security on the original objects.

When you copy an object into the Custom folder, the copied object inherits the permission settings of the Custom folder. An administrator can reset the permissions on the object and the folder that it's in.

Related Topics

- Creating and Editing Reports: Explained
- Creating and Editing Analytics: Highlights
- Using the Customize Option for Predefined Reports: Points to Consider

What happens to customized analytics and reports when a patch is applied?

All custom analytics and reports are preserved if you save them in the Custom subfolder within Shared Folders, or in My Folders in the business intelligence (BI) catalog. Changes to predefined analytics and reports outside the Custom folder are preserved only if the patch doesn't include a new version of those BI objects. If the patch does include a new version of a predefined object that you edited outside the Custom folder, then:

- The new version overwrites the existing predefined object.
- A copy of the existing object (with your edits) is automatically created in the same folder, with a new name that indicates it's a custom version.

If the patch includes a new version of both the predefined object and a folder in its file path, then:

- The new folder, along with the new version of the object, overwrites the existing predefined folder and object.
- A copy of the existing folder (along with your edited object) is automatically created. The folder is renamed to indicate that it's a custom version, but your edited object is not renamed.

Note: Future patches won't affect renamed custom objects or anything within a renamed custom folder.

Setup and Administration Overview

Tools for Administering Analyses and Reports: Explained

You can use several different tools to manage and administer analyses and reports.

These components support modification and administration of your analyses and reports:

- Use the Business Intelligence catalog to interact directly with your reports and analyses. Use this interface to manage permissions, properties, and the organization of your analyses and reports.
- Use the Oracle Business Intelligence Publisher administration pages to configure settings specific to the running and scheduling of operational reports, such as setting up your delivery servers, managing scheduler work load, and setting run-time properties for reports.
- Use the Oracle BI Administration Tool to edit the Oracle BI repository (RPD), which contains the metadata upon which reports and analyses are built. The Administration Tool is a Windows application that you use to edit the RPD based on your requirements.You can use the Administration Tool to perform data modeling tasks such as adding new fact or dimension tables, reorganizing Presentation layer metadata, and creating BI view objects for tables. This tool isn't available in Oracle Cloud implementations.
- Use the Catalog Manager to perform online and offline management of the catalog. Tasks that you can perform with the tool include managing folders, shortcuts, global variables, and Oracle BI objects such as analyses, filter, prompts, and dashboards; viewing and editing catalog objects in XML, and searching for and replacing catalog text. This tool isn't available in Oracle Cloud implementations.

- Use the Oracle Enterprise Manager Cloud Control to monitor your IT environment unattended. It's delivered with a predefined set of performance and health metrics that enable you to monitor key environment components, access real-time performance charts, and perform strategic tasks such as trend analysis and reporting. This tool isn't available in Oracle Cloud implementations.

Define Transactional Business Intelligence Configuration: Overview

Use the Define Transactional Business Intelligence task list in the Setup and Maintenance work area to complete configuration of business intelligence in your application. Some tasks in this task list are performed during Oracle Applications Cloud provisioning and require no further action from you. The Define Transactional Business Intelligence Configuration task list includes the following tasks:

- Optimize Transactional Business Intelligence Repository

  Trim unused projects from the business intelligence repository based on configured Oracle Applications Cloud offerings. This optimization is automated during the provisioning process and requires no further action from you.

- Manage Transactional Business Intelligence Connections

  Review data source connections in the physical layer of the business intelligence repository. Connections are set up and reviewed during the provisioning process, and this task requires no further action from you.

- Manage Security for Transactional Business Intelligence

  Review security for business intelligence users. The default security configuration can be modified. Refer to the security documentation for your cloud services to review or change the default user security model.

- Configure Key Flexfields for Transactional Business Intelligence

  Define the key flexfield segments and validation for use as classification keys. You must define these key flexfields for Oracle Fusion Transactional Business Intelligence to operate correctly.

- Configure Descriptive Flexfields for Transactional Business Intelligence

  Define validation and display properties of descriptive flexfields, which are used to add custom attributes to entities. You enable and import flexfields for use in analyses.

- Import Essbase Cubes into Transactional Business Intelligence Repository for Financials General Ledger

  Import Essbase cubes into the business intelligence repository. You must perform this task if you're using Oracle Fusion General Ledger.

- Manage User Currency Preferences in Transactional Business Intelligence

  Manage user currency preferences, which control regional currency settings, currency used in reports, and corporate currency.

Related Topics

- Essbase Rule File and Cubes: Overview
- Configuring Flexfields for Use in Analyses: Overview
- Configuring Descriptive Flexfields for Transactional Business Intelligence: Overview
- Importing Flexfield Changes: Overview

- Setting Currency Preferences for Analytics

2 Setup and Configuration

Mapping to Work Areas

Setting Up the Reports and Analytics Pane: Procedure

You can find the Reports and Analytics pane in many work areas, and the analytics and reports you see in the pane depends on the work area. You can define what's available for a specific work area, by mapping reports from the business intelligence (BI) catalog to that work area. In this mapping context, reports refer to both analytics and reports. Your changes apply to all users who have access to the work area you're mapping.

Mapping Reports from Your Work Area

To map reports to the work area that you're in:

1. Click the **Edit Settings** icon in the Reports and Analytics pane.

   You see all the reports that are currently mapped to your work area.
2. Click **Select and Add**.
3. Find the report in the catalog and select it.
4. Click **OK**.
5. To remove any mapping, select the report and click **Remove**.
6. Save your work.

Mapping Reports to Any Work Area

To map reports to any work area that you have access to:

1. Go to the Setup and Maintenance work area and open the Map Reports to Work Areas task.
2. Select the application of the work area you want to map to.
3. Select the work area.
4. Click **Search** and see all the reports that are currently mapped to that work area.
5. Click **Select and Add**.
6. Find the report in the catalog and select it.
7. Click **OK**.
8. To remove any mapping, select the report and click **Remove**.

   > **Tip:** Click **Synchronize** to remove all mappings to any reports that are no longer in the catalog. You synchronize all work areas, not just the one you're mapping.
9. Save your work.

Related Topics

- Setting Reports Up for Scheduling in the Reports and Analytics Pane: Procedure
- Reports and Analytics Pane: Explained

Why can't I see reports when mapping reports to work areas for the Reports and Analytics pane?

Either no reports are currently mapped to the work area you select on the Map Reports to Work Areas page, or you don't have access to the reports that are mapped.

Similarly, when you're selecting a report to map, you can see only the reports that you have access to. Ask your administrator to either:

- Assign you roles that have access to the reports you want to map to work areas.
- Grant the Reports and Analytics Region Administration Duty to someone who already has access to those reports.

Why can't I see reports when I edit settings for the Reports and Analytics pane?

In the Edit Settings window, you might not see a currently mapped report because you don't have access to it.

Similarly, when you're selecting a report to map, you can see only the reports that you have access to. Ask your administrator to either:

- Assign you roles that have access to the reports you want to map to work areas.
- Grant the Reports and Analytics Region Administration Duty to someone who already has access to those reports.

Setting Up Currency

Why do I see amounts of zero in analyses?

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

Configuring Business Intelligence Publisher

Managing Report Delivery Servers: Overview

Oracle Business Intelligence Publisher, the report generation and delivery engine, requires configuration and tuning to deliver reports to users.

Report requests are received by Publisher from:

- Oracle Enterprise Scheduler

- The Reports and Analytics pane
- Application pages

Requests submitted through Oracle Enterprise Scheduler are processed by the Oracle BI Publisher scheduler. Requests submitted through the Reports and Analytics pane can be either real-time online requests or scheduled requests. Requests submitted through an application may invoke Oracle Enterprise Scheduler or may return report request results directly back to the application page.

Oracle BI Publisher is configured to accept requests from Oracle Applications Cloud. However, before you can deliver report documents to their destinations, you must define the delivery servers in Oracle BI Publisher. Use the Oracle BI Publisher Administration page to define your delivery servers.

Once delivery servers are defined, you can further configure the number of report processor and delivery threads to best handle your processing and delivery requirements. In addition, you can configure report properties for the system or at the report level to tune performance of your reports. To diagnose report processing issues, BI Publisher provides a set of scheduler diagnostics.

Navigating to the Oracle BI Publisher Administration Page: Procedure

You use the Oracle BI Publisher Administration Page to perform most tasks related to report delivery and performance.

Use the Oracle BI Publisher Administration page to:

- Configure delivery servers
- Manage report and delivery processors
- View scheduler diagnostics
- Set system properties and report runtime configuration properties

Request the Oracle Applications Cloud security administrator to assign the BI Platform Administrator duty role (BI stripe) to the person responsible for administering BI analyses, dashboards, and BI Publisher reports. Administration tasks include security permissions for objects, organizing objects into folders, accessing log files, and several other tasks.

Navigating to the Administration Page

To navigate to the Oracle BI Publisher Administration page:

1. Under Tools, click **Reports and Analytics**.
2. In the Reports and Analytics pane, click **Catalog**.
3. In the Catalog page, click **Administration**, then click **Manage BI Publisher.**

Configuring Report Delivery Servers: Procedure

Set up the report delivery servers to support printing.

Configuring Servers

To configure delivery servers:

1. From the BI Publisher Administration page, click **Delivery Configuration**.
2. Enter values in the Delivery Configuration Options tab to set general properties for email deliveries and notifications.
3. To configure a delivery server, click the appropriate tab.

Understanding the Report and Delivery Processors: Overview

When Oracle Enterprise Scheduler initiates a job, it is picked up by the BI Publisher scheduler queue.

- Job Processor: Listens for requests from the scheduler queue. When the job information is received, the job processor executes the data model (and splits the data for bursting jobs), stores the data in the shared temporary folder, and sends the report metadata to the report queue.
- Report Processor: Listens for requests from the report queue. When the report information is received, the report processor generates the report documents, stores it in the shared temporary folder and puts the delivery information in the delivery queue.
- Delivery Processor: Listens to the delivery queue and handles the delivery of reports for its channel. The delivery processors are:
    - Email Processor
    - File Processor
    - FTP Processor
    - Print Processor
    - WebDAV Processor
    - Fax Processor

Managing Report Processing and Delivery Server Load: Procedure

Manage the processors in the BI Publisher Scheduler Configuration page.

Managing Processing and Server Load

By default, each processor is enabled and the thread count for each is set to five. For each managed server that is running in the BI cluster, a table for that instance's processors is displayed. Use the table to enable or disable processors for the instance and configure the thread counts.

To configure processor threads:

1. From the BI Publisher Administration page, click **Scheduler Configuration**.
2. In the the Cluster Instances region of the Scheduler Configuration page, enter the Number Threads value in the processor configuration table.
3. All processors are automatically set to use the number of threads defined in the Threads Per JMS Processor value of the JMS Configuration region of the page. Enter a value in the Number Threads column to change the value from this default.

After performing the scale-out procedure, configure the processor threads for each cluster instance using the steps above.

Diagnosing Report Processing Issues: Procedure

The Scheduler Diagnostics page provides the runtime status of the scheduler. It provides status of its JMS configuration, JMS queues, cluster instances, scheduler Database, Top link, and Oracle Enterprise Scheduler.

Diagnosing Issues

To access the Scheduler Diagnostics page:

1. Navigate to the Oracle Business Intelligence Publisher **Administration** page.
2. In the System Maintenance group, click **Scheduler Diagnostics**.

Configuring System Properties for Reports: Procedure

Use the Oracle BI Publisher Runtime Configuration page to set the system-level runtime properties for reports.

Configuring Reporting Properties

To access the Runtime Configuration page:

1. Navigate to the Oracle Business Intelligence Publisher **Administration** page.
2. In the Runtime Configuration group, click **Properties**.

Uploading PGP Public Key Files to GPG Keystore: Procedure

To support encrypted communication channel from the BI Publisher Server to an FTP site, you upload a PGP public key file to a GPG keystore on the cloud and then provide it to a registered FTP location.

Uploading PGP Keys

You upload, test, and delete PGP keys in the BI Publisher Administration page.

To upload PGP keys:

1. Navigate to the BI Publisher Administration page.
2. In the Security Center section, click the **PGP Keys** link to open the PGP Keys page.
3. In the PGP Keys section, click **Browse** and select the PGP key file in the Open dialog box.
4. Click **OK**.
5. Click **Upload**. After the file is uploaded, it is imported into the keystore and its details are visible in the PGP Keys table. If a key with the same ID is imported again, the file is overwritten.
6. Click the **Download** icon of the key in the Encrypted Test Output column of the PGP Keys table to download and decrypt a test output file using the secret key of the imported public key. Successful decryption confirms the encryption is working for your keys.

Deleting a PGP Key

To delete an imported public key, click the **Delete** icon.

Configuring an FTP Delivery Channel Using PGP Keys

To create an FTP channel:

1. Navigate to the BI Publisher Administration page.
2. In the Delivery section, click the **FTP** link to open the FTP page.
3. Add a new FTP Server and click **Test Connection** to test it. The Filter Command field is read-only and is updated automatically when you select a PGP key.

4. Select the PGP Key ID of the key you uploaded from the drop-down.
5. Select the **true** check box for Sign Output to sign the encrypted document. If you select this check box, a -s parameter is added to the existing filter command.
6. Test the connection again to confirm that an encrypted test file is sent to the remote directory. The FTP delivery channel can now be used in a scheduled job.

3 Subject Areas

Data Structure for Analytics: Explained

The business intelligence (BI) repository contains the metadata that defines which columns you can include in analyses, and the source of that data. The repository is organized into subject areas, which contain folders with the columns.

Note: You can also use the BI repository as a data source for reports.

Columns

This table describes the three types of columns available when you create or edit analyses..

Column Type	Description	Example	Icon for Column Type
Fact	Provides a measure of something, meaning that the values are numbers.	Total	Blue ruler
Attribute	Represents a piece of information about a business object, with values that are dates, IDs, or text. **Note:** Attribute columns can be flexfield segments imported into the BI repository.	Start Date	Blue column
Hierarchy	Holds data values that are organized in a hierarchical manner.	Time, with sublevels: • Year • Quarter • Month	Tree structure of blue rectangles

Subject Areas

When you create an analysis, you first select a subject area, which contains columns related to a specific business object or area. You then open folders within the subject area to find the columns to include.

Folders

Each subject area has one fact folder and a number of dimension folders. Folders can have subfolders.

- **Fact folders:**
  - Contain fact columns.

- Are usually at the bottom of the list of folders and are usually named after the subject area.

- **Dimension folders:**
  - Contain attribute and hierarchical columns.
  - Are joined to the fact folder within a subject area.

    For example, if your analysis has the Currency attribute from a dimension folder, you see currencies in the results. If you also add the Total fact, then your analysis includes only records with both a currency and a total amount. The more columns you add, the smaller the query set for your analysis.
  - Can be common folders, or common dimensions, that appear in more than one subject area.

    If your analysis has columns from multiple subject areas, then you:
    - Should include columns only from dimension folders that are common to all of those subject areas. At least one such column is required.
    - Must include one column from the fact folder in each of those subject areas.

Related Topics

- Creating and Editing Analytics: Highlights
- Creating and Editing Analyses with Advanced Features: Procedure
- Creating and Editing Analyses Using a Wizard: Procedure
- Customizing Data Models: Procedure

Why do I get a list of all legal employers instead of only one when I create a report?

If you select only one dimension in an analysis, the dimension is not secured by the data security of the user. The resulting report returns all dimension values. Add one or more dimensions or metrics to the analysis, to filter the report by the security profile of the user.

4 Flexfields

Configuring Flexfields for Use in Analyses: Overview

Flexfields are extensible sets of placeholder fields associated with business objects which can be placed on application pages. You can use flexfields to extend business objects and meet your data management requirements without changing the data model or performing any database programming. To include flexfields you have used for extension or customization for use in analyses, you must enable them for business intelligence.

Extension of analyses using flexfields is available for Oracle Enterprise Resource Planning Cloud and Oracle Human Capital Management Cloud. For Oracle Sales Cloud, the Extensibility Framework supports extension.

Flexfield Types

The following types of flexfields are available and provide a means to customize application features without programming:

- Descriptive
- Extensible
- Key

Depending on the flexfield type, business intelligence enablement is performed differently and has different requirements. Once they are enabled for business intelligence, you can import any changes made to flexfields automatically using an import scheduled process.

Configuring Key Flexfields for Transactional Business Intelligence

Enabling Key Flexfields for Business Intelligence Reporting: Procedure

To include flexfields in your Transactional Business Intelligence reporting, you must enable them for Business Intelligence. Extensibility of analysis using flexfields is used for Enterprise Resource Planning and Human Capital Management. For Customer Relationship Management, the Extensibility Framework supports this.

To designate key flexfields as BI-enabled:

1. Navigate to Manage Key Flexfields in Oracle Applications Cloud.
2. Enter your search value in Key Flexfield Code.
3. Click **Manage Structure Instances**.
4. Enter your search value in Structure Instance Code.
5. Click **Edit** to display the Edit Key Flexfield Structure Instance dialog box.
6. Select the **BI Enabled** option, then click **OK**.
7. For each flexfield segment instance, repeat steps 5 through 6.

8. Click **Save**.
9. Populate the BI Object Name for each of the segment labels:
    a. Query the Key Flexfield Code in the Manage Key Flexfields window.
    b. From the Actions menu, select **Manage Segment Labels**.
    c. Populate the BI Object Name for each segment label to be mapped. The BI Object Name for the following qualified segment labels should not be modified:

Segment Label Code	BI Object Name
FA_COST_CTR	Dim - Cost Center
GL_BALANCING	Dim - Balancing Segment
GL_ACCOUNT	Dim - Natural Account Segment

    Before you deploy a flexfield, you must access the Chart of Accounts Instance and assign the newly created segment label to the appropriate segment in the Chart of Accounts.
    d. Click **Deploy Flexfield**.
    e. Click **Save and Close**.

Related Topics

- Enabling Key Flexfield Segments for Business Intelligence: Points to Consider

Supported Key Flexfields: Overview

Key flexfields are used to store internally defined codes unique to a particular business, specifying part numbers, general ledger accounts, and other business entities.

Product Area	Key Flexfield	Dimension
Fixed Assets	Category (CAT#)	Dim - Asset Category
Fixed Assets	Location (LOC#)	Dim - Asset Location
General Ledger	Accounting (GL#)	Dim - Balancing Segment Dim - Cost Center Dim - Natural Account
Payroll	Costing	Dim - Costing Segments
Supply Chain Management	Locator	Dim - Inventory Org
Supply Chain Management	Item Category	Dim - Item

Product Area	Key Flexfield	Dimension
Revenue Management	Pricing Dimensions (VRM)	Dim - VRM Segment
Budgetary Control	Budgeting (XCC)	Dim - XCC Segment

Mapping Non-Qualified Segments to BI Objects: Procedure

To map non-qualified segments that need to be mapped and used in analysis, create a new label and associate a BI object with the label. Associate this new segment label with the segment code.

To map non-qualified segments to BI objects:

1. From Manage Key Flexfields, search for the appropriate key flexfield code.
2. From the Actions menu, select **Manage Segment Labels**.
3. Click the **Add Row** icon.
4. Enter the details for the Segment Label Code, including name, description, and BI Object name. Enter the BI object names carefully and note whether there is a space between **Segment** and the number.
   This table provides examples of Key Flexfields and associated BI object names.

Key Flexfield	BI Object Name
Accounting (GL)	Dim - GL Segment1 through Dim - GL Segment10
Budgetary Control (XCC)	Dim - XCC Segment1 through Dim - XCC Segment10
Revenue Management (VRM)	Dim - VRM Segment 1 through Dim - VRM Segment 10

5. Complete the mapping by assigning unique segment labels to the key flexfields.

Setting Up the GL Accounting Flexfields: Procedure

This is the workflow for setting up Accounting key flexfields, but these steps also apply for other key flexfields.

- Understanding Accounting Key Flexfields
- Identifying Accounting Key Flexfields
- Assigning Unique Segment Labels
- Performing Column Flattening
- Designating GL Accounting Segment Instances as BI-Enabled
- Deploying Accounting Key Flexfields

Understanding Accounting Key Flexfields

The Accounting Key Flexfield is used to identify GL accounts.

A chart of accounts segment is a component of the accounting key flexfield. Each segment has a value set attached to it to provide formatting and validation of the set of values used with that segment. The combination of segments creates the

account combination used for recording and analyzing financial transactions. You must set up your Chart of Accounts (COA) as part of implementing Oracle Applications Cloud.

Examples of segments that may be found in a chart of accounts structure include Company, Cost Center, Department, Division, Region, Account, Product, Program, and Location.

The Natural Account segment of the General Ledger Accounting Key Flexfield defines the account used in the account combination to record transactions.

The logical segment dimensions in the Oracle BI metadata are **`Dim - Cost Center`**, **`Dim - Balancing Segment`**, **`Dim - Natural Account Segment`** and all **`Dim - GL Segmentn`**dimensions. These dimension tables are populated from a Tree value object or from a Value Set value object depending on whether a tree was associated with the segment in the Oracle Applications Cloud setup:

- For each segment associated with trees, two value objects are generated (Tree and TreeCode) with the following naming structure:

  `FscmTopModelAM.AccountBIAM.FLEX_TREE_VS_segmentlabel_VI &`

  `FscmTopModelAM.AccountBIAM.FLEX_TREECODE_VS_segmentlabel_VI`

- For each segment without trees, one view object are generated with the following naming structure:

  `FscmTopModelAM.AccountBIAM.FLEX_VS_ XXX_VI`

In addition to the segment dimension tables, the BI Extension process also extends **`Flex BI Flattened VO`**; **`FscmTopModelAM.AccountBIAM.FLEX_BI_Account_VI`**. This view object has a pair of columns for each segment; segmentlabel_ and segmentlabel_c.

For example, for your Cost Center segment which has the segment label FA_COST_CTR, there are two columns in this view object, named FA_COST_CTR_ and FA_COST_CTR_c.

Identifying Accounting Key Flexfield Segments

Identify and map segments of the chart of accounts.

For each Chart of Accounts (Accounting Key Flexfield) used to analyze Transactional Business Intelligence facts, identify the segments of the chart of accounts and map them to the Transactional Business Intelligence GL Accounting Segment logical dimensions.

Accounting Key Flexfield Segment	Segment Label	Transactional Business Intelligence GL Accounting Segment Logical Dimension
Balancing	GL_BALANCING	Dim - Balancing Segment
Natural Account	GL_ACCOUNT	Dim - Natural Account Segment
Cost Center	FA_COST_CTR	Dim - Cost Center
Other segments to be equalized across the charts of accounts	Other unique segment label	Dim - GL Segment n where n is an integer from 1 to 10

Assigning Unique Segment Labels

You must assign a unique segment label to the charts of accounts segments that are the balancing segments or the natural account segments, and that are used for specific purposes.

For example, assign the Primary Balancing segment label to the segment used for your company or legal entities in order to provide a correct recording of intercompany transactions and company analysis. You can assign other segment labels when required.

To assign unique segment labels to charts of accounts segments:

1. Launch the **Manage Charts of Accounts** task and then navigate to the Manage Chart of Accounts page.
2. In the Search section, enter the GL# for the **Key Flexfield Code** and click the **Search** button.
3. In the Search Results section, select **Accounting Flexfield** and click the **Manage Structures** button to navigate to Manage Key Flexfield Structures.
4. In the Search section, enter the chart of accounts code or the name for Structure Code or Name and click the **Search** button.
5. In the Search Results section, select the chart of accounts and click **Edit** to navigate to the Edit Key Flexfield Structure window
6. Select the **Enabled** check box to code-enable the Structure code.
7. In the Segments section, select the applicable segments and click **Edit** to navigate to the Edit Key Flexfield Segment window.
8. Select the Enabled check box to enable the segments.
9. In the Segment Labels section, select the unique segment labels to equalize the segments across the charts of accounts, and click the **right arrow** to move the segments to the selected list.
10. Click **Save and Close** to return to the Edit Key Flexfield Structure window.
11. Click **Done** to return to the Manage Key Flexfields window.

Performing Column Flattening

Column flattening of trees is required in order for OTBI hierarchy analyses to be populated with correct data.

To flatten columns for account hierarchies:

1. Launch **Manage Trees and Tree Versions** and navigate to the Manage Trees and Tree Versions window.
2. In the Search section, enter **GL_ACCT_FLEX** for the Tree Structure Code and the involved tree code or name, and click **Search**.
3. In the Search Results section, select the tree version you want to flatten. If the status of the Tree Version is Draft, to make the Tree Version active, select **Actions**, then **Status**, and then **Active**.
4. (Optional): After the tree version is specified, perform an audit on the Tree Version to ensure its integrity before launching the flattening job. Select **Actions** and then **Audit**. See the section on working with Trees in the Developer's Guide.
5. Choose **Column Flattening** from the **Actions** drop-down menu.
6. Click the **Online Flattening** button to launch the flattening job immediately, or click the **Schedule Flattening** button to schedule the flattening job according to your requirements.

Designating GL Accounting Segment Instances as BI-Enabled

Specify the applicable chart of accounts segment instances that are BI-enabled to make them available for use in Transactional Business Intelligence.

To specify the chart of accounts segment instances as BI-enabled:

1. In the Search Results section of the Manage Key Flexfields window, select **Accounting Flexfield** and click the **Manage Structure Instances** button to navigate to the Manage Key Flexfield Structure Instances window.
2. In the Search section, select the chart of accounts for Structure Name and click the **Search** button.

3. In the Search Results section, select the structure instance and click **Edit** to navigate to the Edit Key Flexfield Structure Instance window.
4. Check the **Enabled** check box to code-enable the structure instance.
5. In the Segment Instances section, select the segment instances and click **Edit** to update. Each of the segment instances must be selected individually.
6. Select the **Business Intelligence enabled** check box in the Edit Key Flexfield Segment pop-up window and click **OK** to return to Edit Key Flexfield Structure Instance window.
7. After you have enabled all applicable segment instances for Business Intelligence, click **Save and Close** to save the changes and return to the Edit Key Flexfield Structure Instance window.
8. Repeat steps 2 - 6 for each chart of accounts to enable all the applicable segment instances for Business Intelligence.
9. Click **Done** to return to the Manage Key Flexfields window.
10. After you have configured all the charts of accounts, click the **Deploy Flexfield** button to deploy the Accounting Flexfield and make the latest definition available for use.

Deploying Accounting Key Flexfields

After you have set up accounting key flexfields, you must deploy them.

Accounting key flexfields have one of the following deployment statuses:

- Edited: The flexfield definition has not been deployed or changes have been made to the structure, the structure instances, or the value sets.
- Patched: The flexfield definition has been modified through an update, but the flexfield has not yet been deployed so the updated definition is not reflected.
- Deployed to Sandbox: The flexfield is deployed and available in a flexfield-enabled sandbox.
- Deployed: The flexfield definition is deployed and available to end users.
- Error: The deployment attempt failed.

To deploy accounting key flexfields:

1. Access **Manage Chart of Accounts** from Setup and Maintenance work area.
2. Click **Search**.
3. Locate the Deployment Status column.
4. Click the icon under the heading.
5. Select **Edited**.
6. Click **Deploy Flexfield**.
7. Monitor the Deployment Status and when it reaches 100% click **OK**.
8. Verify that a green check mark displays in the Deployment Status column.
9. Click **Done**.

Related Topics

- Specifying Performance Options for a Tree Structure: Points to Consider
- Deploying Flexfields Using the Command Line: Explained

Adding an Analysis to the Human Resources Dashboard: Worked Example

This example shows how to add an analysis to the Human Resources dashboard. This dashboard is a page in the application, not a dashboard in the business intelligence (BI) catalog.

You can add predefined or custom analyses to any desktop page that you can personalize or customize.

The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
Which analysis do you want to add?	Position Occupancy. **Warning:** Make sure that the analysis isn't querying against a large volume of records. If it is, then the Human Resources dashboard can take a long time to open after you add the analysis.
Do you have to change the layout of the page?	Yes, to a two-column layout that is wider on the right side. **Note:** The one- or two-column layout gives enough space to properly display analyses.
Do you want all or only one view of the analysis?	All views.
Are these changes for you only, or for all users of the Human Resources dashboard?	You only.

Adding an Analysis to the Human Resources Dashboard

1. Open the Human Resources dashboard.
2. Click your name in the global area and select **Edit Current Page**.
3. Click **Change Layout** and select **Two columns, narrow left**.
4. Click **Add Content** for the wider column.

   The **Reports and Analytics** folder in the Add Content dialog box contains what's in the BI catalog.
5. Click through the folders in the catalog until you see the name of the analysis, and click **Add** to include all views of the analysis.

   If you instead click **Open** or **Position Occupancy**, you can select a specific view to add.
6. Click **Close** after you see the analysis added to the top of the wider column on the dashboard.
7. Click **Save** and then **Close**.

Configuring Descriptive Flexfields for Transactional Business Intelligence

Configuring Descriptive Flexfields for Transactional Business Intelligence: Overview

Configure descriptive flexfields to track unique information not typically found on business forms.

Descriptive flexfields can store several important details on a form without cluttering it. For example, several details may make an asset form heavy and unmanageable. However, the user still needs to access those details and therefore, they must be present on the form. In such cases, descriptive flexfields are convenient to use and are easy to manage.

Descriptive flexfields provide a way for you to add custom attributes to entities and to define validation and display properties for them. A descriptive flexfield is a logical grouping of attributes (segments) that are mapped to a set of extension columns which are shipped as part of Oracle Applications Cloud tables.

Configuring Descriptive Flexfield Segments: Procedure

If a descriptive flexfield is enabled for Oracle Business Intelligence, you can enable global and context segments for Oracle Business Intelligence, and you can select segment labels. Not all descriptive flexfields are supported for Business Intelligence.

Configuring a Descriptive Flexfield Segment

If a descriptive flexfield is enabled for Oracle Business Intelligence, you can enable global and context segments for Oracle Business Intelligence, and you can select segment labels. Not all descriptive flexfields are supported for Business Intelligence.

To configure available descriptive flexfield segments:

1. Navigate to the Setup and Maintenance window.
2. Navigate to the Manage Descriptive Flexfields window.
3. If the **BI Enabled** option is cleared, select it.
4. Select the options for deployment of the descriptive flexfields.

Setting Descriptive Flexfields as BI-Enabled: Procedure

If a descriptive flexfield is already defined, you can enable it for use in Business Intelligence reports. Not all descriptive flexfields are supported for Business Intelligence.

Setting a Flexfield as BI-Enabled

1. Navigate to **Setup and Maintenance** work area.
2. Navigate to the **Edit Descriptive Flexfields** window.
3. Enter the descriptive flexfield name.
4. Check the **BI Enabled** option on the desired descriptive flexfields. If the option is unavailable, the flexfield is a non-supported entity.

5. Click **OK**.
6. Click **Save**.

Configuring Extensible Flexfields for Transactional Business Intelligence

Configuring Extensible Flexfields: Procedure

You can use extensible flexfields to configure more segments.

An extensible flexfield is similar to a descriptive flexfield in that it provides a customizable expansion space that you can use to configure additional attributes (segments) without additional programming. As with descriptive flexfields, each segment is represented in the database as a single column. However, with extensible flexfields, the context values and context-sensitive segments are stored in an extension table.

Categories and Contexts

You can combine and arrange the segments into attribute groups that are tailored to your specific needs. For example, you can group related segments so that they appear together on the page. The attribute groups are referred to as contexts. You can optionally set up an extensible flexfield to enable categorization of contexts.

You can add contexts and segments to extensible flexfields just like the descriptive flexfields. To see the extensible flexfields in analyses, you need to deploy them and then run the BI Extender Essbase scheduled process.

Configuring Extensible Flexfields

To configure extensible flexfields:

1. Open the Manage Extensible Flexfield task in the Setup and Maintenance work area.
2. Search for the EFF you want to configure, then select it and click the **Edit** icon.
3. In the Edit Extensible Flexfield dialog, highlight the category Display Name, then select **Manage Contexts**.
4. In the Manage Context dialog, search for the context that contains the segment you want to configure, highlight it, then click the **Edit** icon.
5. In the Edit Context dialog, click the **Edit** icon.
6. Edit the segment, as required, then click **Save**.

Related Topics

- Flexfield Usages: Explained

Setting Extensible Flexfields as BI-Enabled: Procedure

Extensible flexfields are BI enabled if at least one segment in a context is BI enabled.

Setting Extensible Flexfields as BI-Enabled

To set extensible flexfields as BI-enabled:

1. Navigate to **Setup and Maintenance**.
2. Navigate to **Manage Extensible Flexfields**.
3. Enter the extensible flexfield name; for example, **Organization Information EFF**.
4. Select the applicable extensible flexfield, and then click **Edit**.
5. Select the applicable Category. The category contexts are populated automatically.
6. Click **Manage Contexts**
7. In the Edit Context page, select the applicable Context, and then click **Edit**.
8. Select the applicable Segment, and then click **Edit**.
9. In the Edit Segment page, select the **BI Enabled** check box at the bottom of the screen.
10. Click **Save**.

Essbase Rule File and Cubes: Overview

Generate the Essbase rule file by running the Create Rules XML File for BI Extender Automation scheduled process.

The Essbase rule file must be generated for all Oracle Essbase cubes mapped in the repository file (RPD).

Job Status Conditions

The process status displays one of these conditions.

- INIT: The process has just begun and is waiting for the extender command line JAR to update the status with more details.
- COMPLETED_NO_EXTENSION_NEEDED: No new Flex changes were detected in any of the Oracle Applications Cloud sources; because the RPD is already synchronized with all Flex changes, no changes were made in the RPD.
- COMPLETED: The RPD was successfully updated with Flex changes and uploaded into the Oracle Business Intelligence server.
- FAILED: Error conditions exist which require manual intervention.

Related Topics

- Submitting Scheduled Processes and Process Sets: Procedure

Importing Changes to Flexfields Automatically

Importing Flexfield Changes: Overview

You can use the Import Oracle Fusion Data Extensions for Transactional Business Intelligence scheduled process to import your flexfield changes.

Use the Import Oracle Fusion Data Extensions for Transactional Business Intelligence scheduled process to automatically import the following types of changes:

- Key Flexfield changes
- Descriptive Flexfield changes
- Extensible Flexfield changes

The Import Oracle Fusion Data Extensions for Transactional Business Intelligence scheduled process imports extensible data, including data in descriptive flexfield segments, key flexfield segments, and General Ledger balances in Essbase cubes.

If you have changes to key flexfields and descriptive flexfields, you can import all the changes in the same scheduled process.

This is an Oracle Applications Cloud scheduled process; it is not related to BI Applications. Detailed information on this process can be found in Oracle Applications Cloud documentation.

> **Note:** We strongly recommend that you backup the Oracle Business Intelligence Enterprise Edition prior to importing any flexfield changes. Running the process disconnects all users from the server. You should not run this process when maintenance operations or system updates are being performed on the server.

Running the Import Scheduled Process: Procedure

To import changes, run the Import Oracle Fusion Data Extensions for Transactional Business Intelligence scheduled process.

Running the Job

To run the process:

1. In the **Scheduled Processes** window, select **Search and Select: Name**.
2. Select **Search and Select: Name**.
3. Highlight **Import Oracle Fusion Data Extensions for Transactional Business Intelligence**.
4. Click **OK**.
5. Schedule the process.

Process Status Conditions

When the process is finished, the biExtenderCMDUtility.jar writes the status of the process into the JNDI file ess_biExtenderEssJob_jobStatus, which can be viewed in Oracle WebLogic Server.

The process status displays one of the following conditions:

- INIT: The process has just begun and is waiting for the extender command line JAR to update the status with more details.
- COMPLETED_NO_EXTENSION_NEEDED: No new Flex changes were detected in any of the Oracle Applications Cloud sources; because the Oracle Business Intelligence is already synchronized with all Flex changes, no changes were made in the Oracle Business Intelligence.

- COMPLETED: Oracle Business Intelligence was successfully updated with Flex changes and uploaded into the Oracle Business Intelligence Server.
- COMPLETED: PROCESS_ERRORS: Oracle Business Intelligence was updated with the Flex changes but with some warnings that require manual intervention.
- FAILED: Error conditions exist that require manual intervention.

Successful Import Process

If the import process is successful, you can perform the following actions:

- Query subject areas by segment dimensions such as Balancing Segment and Cost Center.
- Access DFF attributes for analyses.
- Use the General Ledger - Balances Real Time subject area to query Oracle Essbase cubes.

Disabling Flexfields as BI-Enabled

Overview

If you created a flexfield that you no longer want to use or report against, you can disable the flexfield as BI-enabled.

There may be times, such as during development phases, when you try using a flexfield and later determine it is no longer needed.

> **Note:** If you are considering disabling flexfields, keep in mind that any flexfields created in Oracle Applications Cloud must be designated as BI-enabled to be exposed in Transactional Business Intelligence. If you disable a flexfield, it cannot be deployed. Also, error conditions may occur if you disable a descriptive flexfield that has been implemented in BI Applications. If error conditions arise from disabling flexfields as BI-enabled, troubleshooting the errors can be difficult and time-consuming.

Disabling Key Flexfields as BI-Enabled: Procedure

If you created a flexfield that you no longer want to use or report against, you can disable the flexfield as BI-enabled.

If you are considering disabling key flexfields, keep in mind that any flexfields created in Oracle Applications Cloud must be designated as BI-enabled to be exposed in Transactional Business Intelligence.

Disabling Key Flexfields

To disable key flexfields as BI-enabled:

1. Navigate to **Manage Key Flexfields** .
2. Enter your search value in **Key Flexfield Code**.
3. Click **Manage Structure Instances**.
4. Enter your search value in **Structure Instance Code**.
5. Click **Edit**. The Edit Key Flexfield Structure Instance dialog box displays.
6. In **Edit Key Flexfield Segment Instance**, deselect the **BI Enabled** option.

7. Click **OK**, then **Save**.

Disabling Descriptive Flexfields as BI-Enabled: Procedure

If you created a flexfield that you no longer want to use or report against, you can disable the flexfield as BI-enabled.

If you are considering disabling descriptive flexfields, keep in mind that any flexfields created in Oracle Applications Cloud must be designated as BI-enabled to be exposed in Transactional Business Intelligence.

Disabling Descriptive Flexfields

To disable descriptive flexfields as BI-enabled:

1. Navigate to **Setup and Maintenance**.
2. Navigate to the **Edit Descriptive Flexfields** window.
3. Enter the **Descriptive Flexfield Name**.
4. Deselect the **BI Enabled** option on the desired descriptive flexfields.
5. Click **OK**, then **Save**.

Disabling Extensible Flexfields as BI-Enabled: Procedure

If you created a flexfield that you no longer want to use or report against, you can disable the flexfield as BI-enabled.

If you are considering disabling extensible flexfields, keep in mind that any flexfields created in Oracle Applications Cloud must be designated as BI-enabled to be exposed in Oracle Transactional Business Intelligence.

Disabling Extensible Flexfields

To disable extensible flexfields as BI-enabled:

1. Navigate to **Setup and Maintenance**, then **Manage Extensible Flexfields**.
2. Enter the extensible flexfield Name; for example, "Organization Information EFF."
3. Select the applicable extensible flexfield and click **Edit** to navigate to Edit Extensible Flexfield.
4. Select the applicable Category. The category contexts are populated automatically.
5. Click **Manage Contexts** to navigate to Manage Contexts.
6. Select the applicable Context and click **Edit** to navigate to Edit Context.
7. Select the applicable Segment and click **Edit** to navigate to Edit Segment.
8. Deselect the **BI Enabled** option displayed at the bottom of the screen.
9. Click **Save**.

Dimensions Supported by Descriptive Flexfields

Human Capital Management Descriptive Flexfields for Oracle Transactional Business Intelligence

This topic lists the Human Capital Management descriptive and extensible flexfields that you can use with Oracle Transactional Business Intelligence and includes:

- Oracle HCM Cloud page where the flexfield appears.
- Folder in Transactional Business Intelligence that contains the flexfield after you import it.

This table lists the descriptive flexfields.

Descriptive Flexfield Code and Name	Location in Oracle HCM Cloud	Location in Transactional Business Intelligence
PER_ ABSENCE_DFF Absence Attributes	Record Absence	Dimension: Assignment Absences Details
PER_ACT_DFF Additional Action Attributes	Manage Employment Actions	Dimension: HR Action
PER_ ACT_LEG_DDF Legislative Action Attributes	Manage Actions	Dimension: HR Action
PER_ ACT_ REASONS_DFF Additional Action Reason Attributes	Manage Employment Actions	Dimension: HR Action Reason
PER_ ADDRESSES_DFF	Manage Person	Dimension: Location
PER_ ALL_ PEOPLE_DFF	Manage Person	Dimension: Person Details
PER_ASG_DF Assignment Attributes	Employment Assignment	Dimension: Worker Assignment Details
PER_ ASG_LEG_DDF Legislative Assignment Attributes	Employment Information page, Assignment tab for these tasks: • Add Contingent Worker • Manage Employment • Add Assignment • Add Employment Terms (Also appears on the Terms tab for this task)	

Descriptive Flexfield Code and Name	Location in Oracle HCM Cloud	Location in Transactional Business Intelligence
	Employment Information page, Assignments tab, Contracts region (Single Contract Single Assignment) for these tasks: • Hire an Employee • Add NonWorker • Add Pending Worker • Create Work Relationship Job Details page in Manager Self Service (Line Manager) for these tasks: • Promote • Transfer • Change Working Hours	
PER_ CITIZENSHIPS_ DFF Citizenship Attributes	Manage Person	Dimension: Person Citizenship
PER_ CONTACT_ RELSHIPS_DFF Contact Relationships Attributes	Manage Person	Dimension: Person Contact Relationship
PER_ CONTRACT_DF Contract Attributes	Manage Employment - Employment Term	Dimension: Employment Contract Details
PER_ CONTRACT_ LEG_DDF Contract Legislative Information	Employment Information page, Terms tab, Contracts region (Single Contract Single Assignment) for these tasks for the Line Manager and HR Specialist: • Hire an Employee • Add NonWorker • Add Pending Worker • Create Work Relationship Also appears on these pages: • Manage Employment (HR Specialist) - Terms tab • Add Assignment - Employment Information page, Assignment tab • Add Employment Terms -Employment Information page, Terms tab	Dimension: Employment Contract Details
PER_ DOC_ OF_ RECORD_ LEG_DDF	Document of Record Legislative Information Manage Documents of Record	Dimension: Document of Record Details
PER_ DOC_ OF_ RECORD_ LEG_DFF Documents of Record Attributes	Manage Documents of Record	Dimension: Document of Record Details

Descriptive Flexfield Code and Name	Location in Oracle HCM Cloud	Location in Transactional Business Intelligence
PER_ DRIVERS_ LICENSE_ TYPES_DFF Drivers License Types Attributes	Manage Person	Dimension: Person Driver License
PER_ EMAIL_ ADDRESSES_DFF E-mail Addresses Attributes	Manage Person	Dimension: Person Email Addresses
PER_ ETHNICITIES_ DFF Ethnicity Attributes	Manage Person	Dimension: Person Ethnicity
PER_GRADES_DF Grade Additional Details	Manage Grades	Dimension: HR Grade
PER_JOBS_DFF Job Attributes	Manage Jobs	Dimension: Job
PER_ JOB_ FAMILY_DFF Job Family Attributes	Manage Job Family	Dimension: Job
PER_ LOCATIONS_DF Location Attributes	Manage Location	Dimension: Worker Location
PER_ NATIONAL_ IDENTIFIERS_ DFF National Identifiers Attributes	Manage Person	Dimension: Person National Identifiers
PER_ ORGANIZATION_ UNIT_DFF Organization Attributes	Manage Department	Dimension: Department
PER_ PERSON_ ADDR_USG_DFF Person Address Usage Attributes	Manage Person	Dimension: Person Address
PER_ PERSON_ CONTACT_ RELATIONSHIP_ DDF	Person Contact Relationship Information Manage Person	Dimension: Person Contact Information
PER_ PERSON_ DISABILITY_ DFF Person Disability Attributes	Manage Person	Person Disability
PER_ PERSON_ DISABILITY_ LEG_DDF	Manage Person	Person Disability

Descriptive Flexfield Code and Name	Location in Oracle HCM Cloud	Location in Transactional Business Intelligence
Person Disability Legislative Information		
PER_ PERSON_ DLVRY_ METHODS_DFF Delivery Methods Attributes	Manage Person	Dimension: Person Delivery Methods
PER_ PERSONDRIVERS_ LICENSE_ LEG_DDF Person Drivers License Legislative Information	Manage Person	Dimension: Person Driver License
PER_ PERSON_ LEGISLATIVE_ DATA_LEG_DDF Person Legislative Information	Manage Person and New Hire	Dimension: Person Legislative Information
PER_ PERSON_ LEGISLATIVE_ DFF Person Legislative Attributes	Legislative section of Manage Person	Dimension: Person Legislative Information
PER_ PERSON_ NAME_DFF	Manage Person	Dimension: Person Names
PER_ PERSON_ NAME_LEG_DDF Person Name Legislative Information	Not exposed	Dimension: Person Names
PER_ PERSON_ PASSPORT_ LEG_DDF Person Passport Legislative Information	Manage Person and New Hire	Dimension: Person Passport Details
PER_ PERSON_ TYPE_USG_DFF	Manage Person	Dimension: Person Types
PER_ PERSON_ VISA_LEG_DDF Person Visa Legislative Information	Manage Person and New Hire	Dimension: Person Work Permit
PER_ PERSONS_DFF Persons Attributes	New Hire	Dimension: Worker
PER_PHONES_DFF Phones Attributes	Manage Person	Dimension: Person Phones
PER_ POSITIONS_DFF Position Attributes	Manage Position	Dimension: HR Position

Descriptive Flexfield Code and Name	Location in Oracle HCM Cloud	Location in Transactional Business Intelligence
PER_ PPS_LEG_DDF Work Relationship Legislative Information	Employment Information page, Work Relationship Details region for Line Manager and HR Specialist for these tasks: • Hire an Employee • Add Contingent Worker • Add NonWorker • Add Pending Worker • Create Work Relationship • Manage Work Relationship (HR Specialist) - Work Relationship Details Work Relationship Details region in these tasks: • Manager Self Service (Line Manager and HR Specialist), Terminate • Manage Work Relationship (HR Specialist)	Dimension: Work Relationship Details
PER_PPS_DF Work Relationship Attributes	Manage Work Relationship, Termination, Add Person, Create Work Relationship	Dimension: Work Relationship Details
PER_ RELIGIONS_DFF Religions Attributes	Manage Person	Dimension: Person Religion
PER_ VISA_PERMIT Visa Permit Attributes	Manage Person	Dimension: Person Work Permit

This table lists the extensible flexfields in HCM (Core HR and Payroll).

Extensible Flexfield Name and Code	Location in Oracle HCM Cloud	Location in Transactional Business Intelligence
PER_ ASSIGNMENT_ EIT_EFF	• Hire an Employee (Line Manager and HR Specialist) - Employment Information page, Assignment tab • Hire an Employee (Line Manager and HR Specialist) - Employment Information Page, Contracts Region (Single Contract Single Assignment) • Manage Employment (HR Specialist) - Assignment tab	Dimension: Worker Assignment Details
PER_ JOBS_EIT_EFF	Manage Jobs	Dimension: Job
PER_ JOBS_LEG_EFF	Manage Jobs	Dimension: Job
PER_ LOCATION_ INFORMATION_ EFF	Manage Locations	Dimension: Worker Location

Extensible Flexfield Name and Code	Location in Oracle HCM Cloud	Location in Transactional Business Intelligence
PER_ LOCATION_ LEG_EFF	Manage Locations	Dimension: Worker Location
PER_ ORGANIZATION_ INFORMATION_ EFF	Manage Departments	Dimension: Department
PER_ PERSON_ EIT_EFF	Manage Person	Fact - Person
PER_ POSITIONS_ EIT_EFF	Manage Positions	Dimension: HR Position
PER_ POSITIONS_ LEG_EFF	Manage Positions	Dimension: HR Position

5 Analytics Customization

Creating and Editing Analytics: Highlights

Edit and create custom analytics to provide ad hoc reporting on your transactional data. The predefined analyses and dashboards help answer many of your business questions, but you can also create your own to meet custom requirements.

This table gives a just a few examples of creating or editing analytics.

Task	Example
Create an analysis	Your team needs a simple list of all your accounts, sorted by account ID. You include the account name, ID, and address in a new analysis, and add sorting on the ID column.
Create a view	A predefined analysis has a bar graph. You save a custom version of this analysis with a table view and add it below the graph.
Create a view selector	You later decide that you want to toggle between viewing a table and a graph. You add a view selector that includes the table and graph views.
Edit a dashboard prompt	A predefined dashboard has a Start Date prompt. You make a copy of the dashboard and replace Start Date with a date range prompt.
Create a dashboard	You create a dashboard that includes an analysis and a report to view both together.

Tip: A wizard in the Reports and Analytics pane is available to help you create or edit analyses.

Data Source Customization

Administrators can customize the business intelligence (BI) repository to determine the columns available for you to use.

- They enable flexfields (which support custom attributes) for BI, and import them into the repository.
- You can then select attributes from flexfields to include in your analyses.

Related Topics

- Reports and Analytics Pane: Explained
- Data Structure for Analytics: Explained
- Configuring Flexfields for Use in Analyses: Overview

Analyses

Creating and Editing Analyses Using a Wizard: Procedure

You can use a wizard that guides you through creating and editing analyses. Even though the wizard doesn't give you all available features, you can still use it to make typical changes, for example adding views or filters. For other tasks, such as creating dashboards or deleting analyses, use the advanced business intelligence features.

Creating an Analysis

1. Open the Reports and Analytics work area, or the Reports and Analytics pane if available in other work areas.
2. Click **Create** and select **Analysis**.
3. Select the subject area that has the columns you want for your analysis.
4. Optionally, add more subject areas or remove any that you no longer need.
5. Select the columns to include, set options for each column, and click **Next**.
6. Optionally, enter a title to appear at the top of the analysis, above the analysis name that you enter in the last step.
7. Select the type of table or graph to include, specify the layout of the views, and click **Next**.

   Note: At any point after this step, you can click **Finish** to go to the last step, to save your analysis.
8. Optionally, set more options for the table or graph, and click **Next**.
9. Optionally, add sorts or filters based on any of the columns you included, and click **Next**.
10. If you have a table, optionally define conditional formatting for select columns, for example to display amounts over a certain threshold in red. Click **Next**.
11. Enter the name of your analysis and select a folder to save it in.
12. Click **Submit**.

Editing an Analysis

1. Open the Reports and Analytics work area, or the Reports and Analytics if available in other work areas where you can find the analysis.
2. Select your analysis in the pane and click **Edit**.
3. Perform steps 4 through 10 from the preceding Creating an Analysis task, as needed.
4. To update an existing analysis, select the same name in the same folder. To save this analysis as a new copy, either name it with a new name or save it in a new folder.
5. Click **Submit**.

Related Topics

- Reports and Analytics Pane: Explained
- Saving Analytics and Reports: Points to Consider
- Data Structure for Analytics: Explained

Creating an Absences by Department Analysis: Worked Example

You are an HR specialist and you want to create an analysis to help you review what types of absences are occurring across all departments.

The following table summarizes key decisions for creating the analysis.

Decisions to Consider	In This Example
What information to include?	• Department name • Absence reason • Number of absences
What type of layout is required?	Table with a bar graph below it.
Do the table columns require any special formatting?	Yes, for the purpose of easier scanning. For the table, associate colors with thresholds so that 30 or more absences of one type are highlighted in red. And, associate colors with thresholds so that 10 or fewer absences of one type are highlighted green.
Is this analysis available for others to use?	No. Save it to My Folders.

To create an analysis of absences by department, complete these tasks:

1. Select columns
2. Define the layout
3. Add column formatting
4. Save the analysis

Selecting Columns

1. Navigate to the Reports and Analytics work area.
2. Click **Create**.
3. Select **Analysis**.
4. In the Select Subject Area window, select the **Workforce Management - Absence Real Time** subject area.
5. On the Create Analysis: Select Columns page, expand the **Workforce Management - Absence Real Time** folder.
6. Expand the **Department** folder.
7. Select **Name** and click the **Add** icon button to move the column to the Selected Columns area.
8. Expand the **Absence Reason** folder.
9. Select **Absence Reason Name** and click the **Add** icon button to move the column to the Selected Columns area.
10. Expand the **Assignment Absences** folder.
11. Select **# Of Absences** and click the **Add** button to move the column to the Selected Columns area.
12. Click **Next**.

Defining the Layout

1. On the Create Analysis: Select Views page, enter Absence by Department in the **Name** field.
2. Next to the Table field, click **None** to open the Table menu.
3. Select **Table** (recommended).
4. Next to the Graph field, click **None** to open the Graph menu.
5. Select **Bar** (recommended).
6. Use the default layout value of Table above Graph.
7. Click **Next**.
8. On the Create Analysis: Edit Graph page, click **Next**.
9. On the Create Analysis: Sort and Filter page, click **Next**.

Adding Column Formatting

1. On the Create Analysis: Highlight page, click **Add Column Format** in the Formatting region.
2. Select **# Of Absences**.
3. In the first **Threshold** field, enter 10, and click the down arrow in the first **Color** field. Select the color Green.

   Tip: If you hover over the colors, hover text shows the name of the color.
4. In the second **Threshold** field, enter 30, and click the down arrow in the third **Color** field. Select the color Red (leave the second color yellow).
5. Click **Next**.

Saving the Analysis

1. In the Create Analysis: Save page, Save In region, enter Absence by Department in the **Analysis Name** field, enter a description, and then select **My Folders**.
2. Click **Submit**.
3. Click **OK**.

Creating and Editing Analyses with Advanced Features: Procedure

Even though you can use a wizard to create or edit analyses, you might have to use advanced features for complicated analyses or specific requirements. For example, you can create view selectors so that users can toggle between views within an analysis, or define criteria for filters using SQL statements.

You can also perform other actions on analyses, for example delete them or copy and paste them within the business intelligence catalog.

Creating or Editing an Analysis

1. Open the Reports and Analytics work area, or the Reports and Analytics pane if available in other work areas.
2. Click the **Browse Catalog** button.
3. Click the **New** button, select **Analysis** under **Analysis and Interactive Reporting**, and select a subject area.

   Or, select your analysis in the Folders pane and click **Edit**.
4. Use the tabs as described in this table.

Tab	Task
Criteria	Select and define the columns to include. Add filters.
Results	Add views and set options for results.
Prompts	Define prompts to filter all views in the analysis.
Advanced	View or update the XML code and logical SQL statement that the analysis generates. Set options related to query performance.

5. Save your analysis.

Performing Other Actions on an Analysis

1. Open the Reports and Analytics work area, or the Reports and Analytics pane if available in other work areas where you can find the analysis.
2. Select your analysis in the pane and click **More**.
3. Click **More** for your analysis and select the desired action, for example **Delete** or **Copy**.

Related Topics

- Reports and Analytics Pane: Explained
- Data Structure for Analytics: Explained
- Saving Analytics and Reports: Points to Consider

Reporting for HCM as of a Specific Date: Explained

The ability to report as of a specific date depends on whether you are reporting on event-type measures or non-event type measures.

Event-Type Measures

Event-type measures in Transactional Business Intelligence are those that include a time dimension, or specific date associated with them. Examples include assignment events, absences, and performance. Because these measures have specific dates associated with them, you can run queries against them as of a specific date. You can produce trend reports for any subject area that has the time dimension, meaning any subject area that contains event-type measures.

Non-Event Type Measures

Non-event type measures don't have a specific date associated with them. Examples include headcount and salary. Transactional Business Intelligence is designed to report on non-event measures as of the current date. To report on non-event measures as of a specific date, add a prompt for the date to your analysis. And, add this SQL statement to the analysis: `SET VARIABLE PARAM_EFFECTIVE_DATE='@{AsOfDate}';`

Related Topics

- Creating a Date-Effective Headcount Analysis: Worked Example

Dashboards

Creating and Editing Dashboards: Procedure

You can create and edit dashboards to determine their content and layout. In addition to objects in the business intelligence (BI) catalog, such as analyses, reports, and prompts, you can add text, sections, and more to a dashboard.

Creating a Dashboard

1. Open the Reports and Analytics work area, or the Reports and Analytics pane if available in other work areas.
2. Click **Browse Catalog**.
3. Click **New** and select **Dashboard** under **Analysis and Interactive Reporting**.
4. Enter the dashboard's name and description, and select a folder to save in.
5. With the **Add content now** option selected, click **OK**.
6. Optionally, add more pages, or tabs, within the dashboard.
7. Drag and drop items from the Dashboard Objects or Catalog pane to add content to a page.
8. Click **Save**.

Note: The first dashboard page is saved with the **page 1** name by default. To rename this page:

1. Click the **Catalog** link.
2. In the Folders pane, select your dashboard.
3. For **page 1**, click **More** and select **Rename**.
4. Enter the new name and click **OK**.

Editing a Dashboard

1. Open the Reports and Analytics work area, or the Reports and Analytics pane if available in other work areas where you can find the dashboard.
2. Select your dashboard in the pane and click **More**.
3. Click **Edit**.
4. Perform steps 5 and 6 from the preceding Creating Dashboards task, and make other changes as needed, for example:
    - Remove content from the dashboard.
    - Drag and drop within a page to move content around.
    - Change the layout of a page.

Related Topics

- Saving Analytics and Reports: Points to Consider
- Reports and Analytics Pane: Explained

Cross-Subject Area Analyses

Cross-Subject Area Analyses: Explained

You can create analyses that combine data from more than one subject area. This type of query is referred to as a cross-subject area analysis. Cross-subject area analyses can be classified into three broad categories:

- Using common dimensions

- Using common and local dimensions
- Combining more than one result set from different subject areas using set operators such as union, union all, intersection and difference.

Common Dimensions

A common dimension is a dimension that exists in all subject areas that are being joined in the report. For example, Workforce Management - Worker Assignment Real Time and the Workforce Management - Worker Assignment Event Real Time subject areas have Worker, Job, and Department available. These dimensions are considered common dimensions between these two subject areas and they can be used to build a cross-subject area report.

Common and Local Dimensions

The Worker Assignment Details dimension in the Workforce Management - Worker Assignment Real Time subject area is not available in the Workforce Management - Worker Assignment Event Real Time subject area. Therefore it's a local dimension for the purposes of a cross-subject area query between these two subject areas.

Creating a Cross-Subject Area Analysis for HCM: Worked Example

This example demonstrates how to create a real-time analysis that includes more than one subject area, which is referred to as a cross-subject area analysis. In this example, you create an analysis of headcount by department with the annualized salary in the local currency.

The following table summarized key decisions for this scenario.

Decisions to Consider	In This Example
Which subject areas are needed?	For headcount by department, select Workforce Management - Worker Assignment Real Time. For salary, select Compensation - Salary Details Real Time.
Does the analysis require an SQL statement?	Yes, to join the two subject areas.

Creating a Cross-Subject Area Analysis

1. In the Reports and Analytics work area, click **Browse Catalog**.
2. Click **New** and select **Analysis**.
3. In the Select Subject Area window, select the **Workforce Management - Worker Assignment Real Time** subject area.
4. In the Subject Area region of the Criteria tab, expand the Department folder.
5. Click **Name** and drag it to the Selected Columns area.
6. Expand the Worker Assignment folder.
7. Click **Head Count** and drag it to the Selected Columns area to the right of the Department Name column.
8. In the upper-right corner of the Subject Areas region, click **Add/Remove Subject Areas**.
9. In the Add/Remove Subject Areas window, select **Compensation - Salary Details Real Time**.
10. Click **OK**.
11. In the Subject Areas region of the Criteria tab, expand the Compensation - Salary Details Real Time folder.
12. Expand the Salary folder.

13. Click **Annualized Salary** and drag it to the Selected Columns area to the right of the Head Count column.
14. Click the **Results** tab to see the results of the analysis.
15. Click the **Criteria** tab again to return to the analysis definition.
16. In the Subject Areas region on the Criteria tab, expand the Salary Details folder in the Compensation - Salary Details Real Time folder.
17. Click **Apps Local Currency Code** and drag it to the Selected Columns area to the right of the Annualized Salary column.
18. Click the **Results** tab to view the report again. The Head Count column is now blank.
19. To correct the blank headcount, click the **Advanced** tab.
20. On the Advanced tab, scroll down to the Advanced SQL Clauses region.
21. Select the **Dimensionality** check box.

    When you select this check box, the logical SQL is appended with the following request variable value, enabling you to join the two subject areas: SET VARIABLE ENABLE_DIMENSIONALITY = 1;
22. Click **Apply SQL**.
23. In the Message from Web page window, click **OK**.
24. Click the **Results** tab again to see that the Head Count column now has numbers.
25. Click **Save Analysis**.
26. Save to My Folders, and enter Headcount by Department in the **Name** field, and enter a description for your analysis.

6 Reports Customization

Creating and Editing Reports: Explained

Use reports to generate and print documents for internal operations, external business transactions, or legal requirements. To meet specific requirements, you may need to create or edit reports to capture different data, or present data in another way.

Report Components

Each report has components that you can customize, as described in this table:

Report Component	Description	Tool for Customizing
Data model	Defines the data source, data structure, and parameters for the report. Multiple reports can use the same data model. Each report has one data model.	Data model editor in the application
Layout	Defines the presentation, formatting, and visualizations of the data. A report can have multiple layouts. There are different types of layout templates, for example Excel and RTF.	Depending on the template file type: • **XPT:** Layout editor in the application • **RTF:** Microsoft Word • **PDF:** Adobe Acrobat Professional • **Excel:** Microsoft Excel • **eText:** Microsoft Word
Properties	Specifies formatting and other settings for the report.	Report editor in the application

What You Can Create or Edit

This table gives just a few examples of creating or editing reports.

Task	Example
Edit the layout of a report.	Add your company logo to the report output.
Add a new layout to a report.	Design a new layout template that provides less detail than the existing template.
Edit a data model.	Add two fields to the data model used by a report so you can add those new fields to a custom layout for the report.
Create a new report based on a new data model.	Create a new data model based on data from an external system, and create reports using the custom data model.

Accessing Report Components to Customize: Points to Consider

To create or edit reports, you must access the business intelligence (BI) catalog. In the catalog, objects of type Report represent the report definition, which includes report properties and layouts. Data models are separate objects in the catalog, usually stored in subfolders called Data Models.

Accessing the BI Catalog

You can access the BI catalog in any of the following ways:

- In the Reports and Analytics pane, click **Browse Catalog** to open the BI catalog, and find your report or data model in the Folders pane.
- In the Reports and Analytics pane, find your report and select **More** to go to the report directly in the catalog. The data model associated with the report should be in the Data Models subfolder within the same folder as the report.
- Sign in to the application directly (for example: `http://host:port/analytics/saw.dll`) to open the catalog.
- Sign in to the BI server directly (for example: `http://hostname.com:7001/xmlpserver`) to open the catalog.
    - Alternatively, once you are in the catalog using another method, for example, through the Reports and Analytics pane, change the final node of the URL. For example, change (`http://host:port/analytics/saw.dll`) to `xmlpserver`. So the URL you use would be: `http://host:port/xmlpserver`.

Predefined Reports

A special Customize option is available only:

- For predefined reports, not data models.
- Through direct access to the BI server using the `/xmlpserver` URL. When you find your report in the BI catalog, select **Customize** from the **More** menu.

The Customize option automatically creates a custom copy of a predefined report and stores it in the **Shared Folders - Custom** folder within the catalog. The new report is linked to the original, so that when users open or schedule the original, they are actually using the custom version.

If you don't have access to the Customize option or don't want the original version linked to the new report, then make a copy of the predefined report and save it in the Custom folder.

Predefined Data Models

Don't edit predefined data models. Instead, copy the data model into the Custom folder and edit the copy.

Related Topics

- Saving Analytics and Reports: Points to Consider
- What happens to customized analytics and reports when a patch is applied?

Using the Customize Option for Predefined Reports: Points to Consider

The Customize option automatically creates a custom copy of a predefined report and stores it in the **Shared Folders - Custom** within the business intelligence (BI) catalog. The custom copy includes the report definition, folder structure, and original report permissions, and is linked internally to the original report. You can edit the custom copy of the report, leaving the original report intact. When users open or schedule the original report, they are actually using the custom version.

Benefits of the Customize Option

In addition to conveniently copying a predefined report to the Custom folder, the Customize option:

- Makes it unnecessary to update processes or applications that invoke the report. For example, if the original report is set up to run as a scheduled process, you don't need to change the setup. When users submit the same scheduled process, the custom report runs instead of the original.
- Automatically copies the security settings of the original report.
- Removes the risk of patches overwriting your edits. If a patch updates the original report, the custom report is not updated in any way.

> **Note:** The custom report still references the original data model. The data model is not copied. A patch that updates the data structure of the data model might affect your custom report.

Accessing the Customize Option

To access the Customize option:

1. Sign in to the BI server (for example, `http://hostname.com:7001/xmlpserver`).
2. In the Folders pane, select the predefined report.
3. Select **Customize** from the **More** menu for the report.
4. The copied report in the Custom folder opens, so proceed to edit this report.

To edit the custom report again later, you don't need to be in the BI server. Just go to the BI catalog and either:

- Select the **Customize** or **Edit** option for the original report.
- Find your custom report in the Custom folder and select **Edit**.

Related Topics

- Saving Analytics and Reports: Points to Consider
- What happens to customized analytics and reports when a patch is applied?

Links Between Original and Custom Reports: Points to Consider

The Customize option for predefined reports creates a custom copy of the report that is linked to the original. Consider the following points when you work with both the original and custom versions.

Maintaining the Link Between Reports

The link between the predefined and custom report is based on the name of the custom report and its location within the Custom folder in the business intelligence (BI) catalog.

- If you manually create a report with the same name as a predefined report, and give it the same folder path under the Custom folder, then the new report becomes a custom version of the original. It would be as if you had used the Customize option to create the custom report.
- You can edit the custom report so that it uses a different data model. But if the original data model is updated later, then your custom report doesn't benefit from the change.

Important: The link to the original report breaks if you rename the custom or original report.

Tasks Performed on Original Reports

This table describes what happens when you use the original report and a corresponding custom report exists.

Task Performed on the Original Report	Result When There's a Custom Report
Open	Opens the custom report.
Schedule	Creates a report submission for the custom report.
Edit	Edits the custom report.
Delete	Deletes the original report only. If you delete the custom report, the original report is not deleted.
Copy	Copies the original report.
Cut and Paste	Cuts and pastes the original report.
Rename	Renames the original report. The custom report name is not changed. **Caution:** This breaks the link between the original and custom reports.
Download	Downloads the custom report.
Customize	Edits the custom report.

Task Performed on the Original Report	Result When There's a Custom Report
History	Opens the job history of the custom report.

Related Topics

- Saving Analytics and Reports: Points to Consider
- What happens to customized analytics and reports when a patch is applied?

Layouts

Creating and Editing Report Layouts: Overview

The layout determines what and how data is displayed on report output. Each report has at least one layout template. This topic describes the following aspects of report templates:

- Layout templates
- Layout template types
- Overall process of managing layouts
- Deleting layout templates

Layout Templates

To customize a layout, you edit the layout template, which:

- Defines the presentation components, such as tables and labeled fields.
- Maps columns from the data model to these components so that the data is displayed in the right place.
- Defines font sizes, styles, borders, shading, and other formatting, including images such as a company logo.

Layout Template Types

There are a few types of template files to support different report layout requirements.

- **RTF:** Rich text format (RTF) templates created using Microsoft Word.
- **XPT:** Created using the application's layout editor, these templates are for interactive and more visually appealing layouts.
- eText: These templates are specifically for Electronic Data Interchange (EDI) and electronic funds transfer (EFT) information.

You can also create and edit other types of templates using Adobe PDF, Microsoft Excel, Adobe Flash, and XSL-FO.

Overall Process to Create or Edit Layouts

Editing or creating report layout, for example using Microsoft Word or the layout editor, involves making the actual changes to the template file. But that task is just one part of the entire process for customizing layouts.

1. Copy the original report and save the custom version in **Shared Folders - Custom** in the business intelligence (BI) catalog. You create or edit templates for the custom copy of the report.

   Tip: You can use the Customize option if the original is a predefined report.

2. Review report settings for online viewing.
3. Generate sample data for the report.
4. Edit or create the layout template file.
5. Upload the template file to the report definition. Skip this step if you're using the layout editor.
6. Configure the layout settings.

Deleting Layout Templates

To remove a layout template for a report:

1. Select your report in the BI catalog and click **Edit**.
2. In the report editor, click **View a list**.
3. Select the layout template and click **Delete**.

Making Reports Available for Online Viewing: Procedure

Some reports are set up so that you can only view them through another application or submit them as scheduled processes. To view your report online while you're editing it, you must define a few settings. When you're done editing your report, make sure that you reset these settings as needed.

Updating Report Properties

1. Select your report in the business intelligence catalog and click **Edit**.
2. In the report editor, click **Properties** at the top of the page.
3. In the Report Properties dialog box, select **Run Report Online** and deselect **Report is Controlled by External Application**.

Updating Layout Settings

1. Back in the report editor, click **View a list**.
2. Make sure that the **View Online** check box is selected.

Generating Sample Report Data: Procedure

Depending on the type of report layout changes you're making, sample data can be required or optional. You generate sample data, and then load it for use with your layout so that you can map data fields to layout components. For example, for the Start Date table column in your layout, you can set it so that the data displayed in that column comes from the Start Date field in the sample data.

You can generate sample data from the:

- Report data model
- Report viewer
- Scheduler

Generating Sample Data from the Data Model

Follow these steps:

1. Select your data model in the business intelligence (BI) catalog and click **Edit**.

   Tip: If you're not sure which data model is the source for your report, find the report in the catalog and click **Edit**. The data model is displayed in the upper left corner of the report editor.

2. In the data model editor, click **View Data**.
3. Enter values for any required parameters, select the number of rows to return, and click **View**.
4. To save the sample data to the data model, click **Save As Sample Data**.

   If you're designing an RTF template, click **Export** to save the file locally.
5. Save the data model.

Saving Sample Data from the Report Viewer

For reports that are enabled for online viewing, you can save sample data from the report viewer:

1. Select the report in the BI catalog.
2. Click **Open** to run the report in the report viewer with the default parameters.
3. On the Actions menu, click **Export**, then click **Data**.
4. Save the data file.

Saving Sample Data from the Scheduler

For reports that are enabled for scheduling (not necessarily as a scheduled process), you can save sample data from the scheduler:

1. Select the report in the BI catalog.
2. Click **Schedule**.
3. On the General tab, enter values for any report parameters.
4. On the Output tab, ensure that **Save Data for Republishing** is selected.
5. Click **Submit**.
6. Open the Report Job History page.
7. On the global header, click **Open**, then click **Report Job History**.
8. Select your report job name in the Job Histories table.
9. On the details page, under Output and Delivery, click the **XML Data Download** icon button.

Layout Templates

Creating and Editing Report Layout Templates Using the Layout Editor: Procedure

The layout editor in the application provides an intuitive, drag-and-drop interface for creating pixel-perfect reports with PDF, RTF, Excel, PowerPoint, and HTML output. The layout template files you create with this tool have an `.xpt` extension. The

layout editor tool is the only editing tool that provides dynamic HTML output. Users can interact with this output in a browser, for example by sorting, applying filters, and so on.

Prerequisite

Make sure that sample data is generated from the data model that your report is using.

Using the Layout Editor

To customize XPT templates:

1. Select the report in the business intelligence (BI) catalog and click **Edit**.
2. In the report editor, click **Edit** to update a template.

   Or, click **Add New Layout** and select a template type under the Create Layout section.
3. Create or edit the layout.
4. Click **Save** to save the layout to the report definition.

Setting Up for RTF and Excel Report Layout Templates: Procedure

You can use Microsoft Word or Microsoft Excel to create or edit RTF and Excel layout templates, in addition to the layout editor in the application. If you use Word or Excel directly, you must download and install the appropriate add-in so that the Microsoft application has the features you need to design report layouts.

> **Note:** If you're designing a new layout for your report, consider using the layout editor instead unless you are an experienced layout designer.

Installing the Add-In

1. Open the Reports and Analytics work area, or the Reports and Analytics pane if available in other work areas.
2. Click the **Browse Catalog** button.
3. Click **Home**.
4. Under the Get Started pane, click **Download BI Desktop Tools**.
5. Select the add-in for the type of template you're working with.
   - **Template Builder for Word:** RTF templates
   - **Analyzer for Excel:** Excel templates
6. Save and then run the installer.

Creating and Editing RTF Report Layout Templates: Procedure

An RTF template is a rich text format file that contains the layout instructions to use when generating the report output. Use Microsoft Word with the Template Builder for Word add-in to design RTF templates.

Prerequisites

Install the Template Builder for Word add-in, and generate sample data.

Using Template Builder for Word

To customize an RTF template:

1. If you are editing an existing layout:
   a. Select your report in the business intelligence catalog and click **Edit**.
   b. In the report editor, click the **Edit** link of the layout to download the RTF file.

If you are creating a new layout, skip this step.
2. Open the downloaded RTF template file in Microsoft Word. Or, if you're creating a new template, just open Microsoft Word.
3. Load the sample data that you generated.
4. Edit or create the layout template.
5. Save the file as Rich Text Format (RTF).

eText Report Layout Templates: Explained

An eText template is an RTF-based report template that is used for Electronic Funds Transfer (EFT) and Electronic Data Interchange (EDI). The template is applied to an input XML data file to create a flat text file that you transmit to a bank or other organizations. Use Microsoft Word to create or edit eText templates.

File Format

Because the output is for electronic communication, not printing, you must follow specific format instructions for exact placement of data on the template. You design eText templates using tables.

- Each record is represented by a table.
- Each row in a table corresponds to a field in a record.
- The columns of the table specify the position, length, and value of the field.

Special Commands

You might need to set up special handling of the data from the input XML file. This table describes the two levels of handling and where you declare the corresponding commands.

Level	Example	Setup
Global	Character replacement Sequencing	Declare global commands in separate setup tables.
Record	Sorting	Declare functions in command rows, in the same table as the data.

Uploading the Layout Template File to the Report Definition: Procedure

If you're creating or editing a report layout using the layout editor, the layout is automatically saved to the report definition, so you can skip this step. For all other layout types, for example RTF, upload the template file to the report definition after you're done making layout changes.

Uploading the Template File

1. Select your report in the business intelligence catalog and click **Edit**.
2. In the report editor, click **View a list**.
3. In the table that lists the layouts, click **Create**.
4. Under **Upload or Generate Layout**, click **Upload**.

5. In the Upload Template File dialog box:
    a. Enter a layout name.
    b. Browse for and select the layout template file that you created or edited.
    c. Select the template file type.
    d. Select the locale, which you can't change once the template file is saved to the report definition.
    e. Click **Upload**.
6. Save the report definition.

Configuring Layout Settings for Reports: Procedure

As part of creating or editing layout, you can set report properties related to layout. These settings determine, for example, which layouts users can choose from when viewing or scheduling the report. The settings apply only to your report.

Setting Layout Properties

1. Select your report in the business intelligence catalog and click **Edit**.
2. In the report editor, click **View a list**.
3. Set layout properties, some of which are described in this table.

Setting	Usage
Output Formats	Depending on the requirements for a report, you may want to limit the output file formats (for example PDF or HTML) that users can choose from. The available output formats vary depending on the template file type.
Default Format	When multiple output formats are available for the report, the default output format is generated by default when users open the report in the report viewer.
Default Layout	When multiple layouts are available for the report, you must select a default layout to present it first in the report viewer.
Active	Active layouts are available for users to choose from when they view or schedule the report.
View Online	Select this check box so that layouts are available to users when they view the report. Otherwise, the layout is available only for scheduling the report.

4. Click **Save Report**.

Data Models

Customizing Data Models: Procedure

A data model defines where data for a report comes from and how that data is retrieved. If a data model can't give you all the data that you need in your report, then you can either copy and edit an existing data model or create a new one.

Creating a Data Model

1. In the business intelligence (BI) catalog, click the **New** button and select **Data Model** under **Published Reporting**.
2. Optionally click the **Data Model** node in the Data Model pane to set properties for the data model.
3. Click the **Data Set** node in the Data Model pane to create or edit data sets, which determine where and how to retrieve data.
4. Click the **New Data Set** button and select a data set type. It's best practice to use the BI repository as a data source, so you should select either:
    - **Oracle BI Analysis:** To use columns from a selected analysis.
    - **SQL Query:** To use a Query Builder tool to define what to use from the repository. Select **Oracle BI EE** as the data source.
5. Optionally, to limit the data included in the report output, click the **Parameters** node in the Data Model pane to define variables that users can set when they use the report.

    Note: The order of parameters is important if there are job definitions defined for reports that use your data model. If you change the order in the data model, you must also update the job definitions.
6. Optionally, define other components of the data model.
7. Save your data model.

Editing a Data Model

1. To edit a predefined data model:
    a. Find the data model in the BI catalog and click **Copy**.
    b. Paste within **Shared Folders - Custom** in a subfolder that has a folder path similar to the folder that stores the original data model.
    c. For the data model you pasted, click **More**, and select **Edit**.
2. Optionally click the **Data Model** node in the Data Model pane to set properties for the data model.
3. Click the **Data Set** node in the Data Model pane to create or edit data sets.

    Most predefined data models are of type SQL Query, and are set up to get application data from the following tables:
    - **ApplicationDB_FSCM:** Financials, Supply Chain Management, Project Management, Procurement, and Incentive Compensation
    - **ApplicationDB_CRM:** Sales
    - **ApplicationDB_HCM:** Human Capital Management
4. Perform steps 5 through 7 from the preceding Creating a Data Model task, as needed.

Related Topics

- Setting Reports Up to Run as Scheduled Processes: Points to Consider
- Data Structure for Analytics: Explained

Creating a New Data Model for an HCM Report: Worked Example

This example shows how to create a data model for an Oracle Business Intelligence Publisher report. In this example, you create a data model using an absence by department analysis that you created previously.

Creating a Data Model

1. Navigate to the Reports and Analytics work area and click **Browse Catalog** to open the Oracle Business Intelligence Catalog.
2. On the OBI EE home page under Create, Published Reporting, click **More** and select **Data Model**.
3. On the Diagram tab, click **New Data Set** and select **Oracle BI Analysis**.
4. In the New Data Set - Oracle BI Analysis window enter a name for your data model.
5. In the Oracle BI Analysis field, click **Search**.
6. In the Oracle BI Catalog window, click **Users**.
7. Click the name of the person who created the analysis.
8. Locate and select the absence by department analysis that you have previously created.
9. In the **Time Out** field, enter 120.
10. Click **OK**.
11. Click the **Structure** tab.
12. In the **XML Tag Name** field for the Department Name, replace the default value with DEPT_NAME, and replace the default value in the Display Name with Department.
13. In the **XML Tag Name** field for the Absence Reason, replace the default value with ABSENCE_REASON, and replace the default value in the Display Name with Reason for Absence.
14. In the **XML Tag Name** field for the Assignment Absences, replace the default value with NUMBER_ABSENCES, and replace the default value in the Display Name with Number of Absences.
15. Click the **Data** tab.
16. On the Data tab, click **View**.
17. View the report structure and click **Save As Sample Data**.
18. Click **OK**.
19. In the upper-right corner, click **Save**.
20. In the Save As window, select **My Folders**, and enter Absence by Department Data Model.

New Reports

Creating Custom Reports: Procedure

Create a custom report when the predefined reports don't provide the data you need. Or, if you want to use a predefined data model, and also want to change other aspects of the report other than layout. Save your custom report to **Shared Folders - Custom** in the business intelligence catalog.

Creating a Report

1. Open the Reports and Analytics work area, or the Reports and Analytics pane if available in other work areas.
2. Click **Create** and select **Report**.
3. Select the data model to use as the data source for your report.
4. Continue with the wizard to create the report layout, or choose to use the layout editor and close the wizard.
5. Define the layout for the report.
6. Click the **Properties** button in the report editor to set specific formatting, caching, and processing options for your report.

Setting Up Access

You or your administrator can:

- Create a job definition so that users can run your custom report as a scheduled process.
- Set up the report for scheduling in the Reports and Analytics pane.
- Secure general access to your report and its job definition, if any.

Related Topics

- Setting Reports Up to Run as Scheduled Processes: Points to Consider
- Setting Reports Up for Scheduling in the Reports and Analytics Pane: Procedure

Creating an Absence by Department Report: Worked Example

This example demonstrates how to create an Oracle Business Intelligence Publisher report. In this example, you use a data model that you created using an Oracle Transactional Business Intelligence analysis for reporting on absence data by department.

The following table summarizes key decisions for this scenario.

Decision to Consider	In This Example
Which data model to use?	Use the Absence by Department data model that you previously created.
Which layout options to use?	Select Landscape and select Chart and Pivot table.
Add any additional charts to the report?	Yes. Add a chart with the same configuration as the graph. Add this chart above the graph. When you click on the different bars in the chart, it will filter the graph by that criteria.
Are filters needed for the report?	Yes. Add filters to the chart, graph, and table to exclude records where the Reason for Absence is blank.
Is conditional highlighting needed?	Yes. Add conditional highlighting to the pivot table so that departments with 20 or more absences are highlighted in red.

Creating a Report

1. Click **Browse Catalog** to open the BI Catalog.
2. On the OBI EE home page, under Published Reporting, click **Report** in the Create region.
3. In the Create Report window, verify that Use **Data Model** is selected.
4. Click **Search** in the **Data Model** field.
5. In the Select Data Model window, select the absence by department data model that you created.
6. Click **OK**.
7. On the Create Report page, verify that the **Guide Me** option is selected, and click **Next**.
8. On the Create Report, Select Layout page, select **Landscape** for the layout.
9. Select the **Page Header** and **Page Footer** options.
10. Select the **Chart and Pivot Table** option.
11. Click **Next**.
12. On the Create Report, Create Chart page, drag Number of Absences and drop it onto the **Drop Value Here** box.
13. Drag Reason for Absence and drop it onto the **Drop Series Here** box.
14. Drag Department and drop it onto the **Drop Label Here** box.
15. Click **Next**.
16. On the Create Report, Create Table page, review the location of each element in the table to make sure it's formatted correctly.
17. Click **Next**.
18. Select **View Report**, and then click **Finish**.
19. In the Save As window, save your report in My Folders, and name it Absence by Department Report.
20. Click **OK**.
21. The report appears.

Adding Additional Details to the Report

1. In the upper right corner of the Absence by Department Report tab, click **Actions** to view the options you have for exporting, editing, and so on.
2. Click **Edit Report**.
3. Click **Edit.**
4. On the Insert tab, select **Chart**.
5. Drag the Chart component down to the report area, and drop it directly below the report title.

   When you drag the chart component down to the report area, a blue bar appears that you can use as a guide to decide where to drop the chart. Drop the chart when the blue bar is directly below the report title.
6. In the Data Source region, click on Number of Absences, and drag it and drop it onto the **Drop Value Here** box.
7. Click on Reason for Absence and drag and drop it onto the **Drop Label Here** box.
8. Click on the new graph. A yellow border appears.
9. Click in the bottom right corner of the yellow border, and drag the corner out to the right so that the graph occupies the entire page.
10. In the Filter options on the Chart tab, click **Filter**.
11. In the Filter window, select Reason for Absence from the **Data Field** menu.
12. In the **Operator** field, select is greater than or equal to from the drop down list.
13. In the **Value** field, enter 0.
14. Click **OK**.
15. Toggle 3D Effect on and off and choose one of the settings, based on your preference.
16. Repeat steps 9 through 14 for the second graph.

17. Click on the pivot table to refocus the page on the pivot table. The yellow border appears.
18. In the Filter options on the Table tab, click **Filter**.
19. In the Filter window, select Reason for Absence from the **Data Field** drop down list.
20. In the **Operator** field, select is greater than or equal to from the drop down list.
21. In the **Value** field, enter 0.
22. Click **OK**.
23. Click on the cells in the Number of Absences column.
24. In the Conditional Formatting region of the Pivot Table Data tab, click **Highlight**.
25. In the **Operator** field, select is greater than or equal to from the drop down list.
26. In the **Value** field, enter 20.
27. Click in the **Background Color** field.
28. In the **Color Picker** window, select Red (ff0000)
29. Click **OK**.
30. In the Highlight window, click **OK**.
31. Click **Save** to save the changes to your report.
32. Click **Return.**
33. Click **View Report**.
34. In the upper graph, click on the different bars to see how the lower graph filters the results.

Related Topics

- Creating an Absences by Department Analysis: Worked Example

7 Analytics and Reports Management

Managing Folders

Creating Folders: Procedure

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

Creating Folders

Follow these steps:

1. In the catalog, navigate to the desired location of the new folder in the Folders pane.
2. In the catalog toolbar, click **New**, and select **Folder**.
3. In the New Folder dialog box, enter the folder name, and click **OK**.

Addressing Automatically Created Folders

If conflicts are detected during upgrade, folders named backup_nnn are automatically created in the catalog. After reviewing and resolving any conflicts, Oracle recommends that you manually delete the backup folders from the catalog. You can contact your help desk to request an automated removal if you have a large number of folders to delete.

Setting Folder Permissions and Attributes: Procedure

Business intelligence catalog folder properties control folder permissions and other attributes. You can access the properties of any object or folder in the catalog to perform tasks such as viewing system information or changing attributes or ownership. All other users can only access and modify the properties of the objects that they create or own.

Setting Folder Properties

Follow these steps:

1. In the catalog, select the folder you want to assign properties to.
2. In the Tasks pane, click **Properties**.
3. In the Properties dialog box, select any of the options in the Attributes section:
    - Hidden: Specifies that the object is hidden.
    - System: Specifies that the object is a system object.
    - Read Only: Specifies that the object is read-only.
    - Do Not Index: Excludes the object from the index used by the full-text catalog search. Excluded objects do not display in the results of any full-text catalog search; the object can still be found using the basic catalog search.

4. 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. Note that 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 sub items: 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.

Setting Folder Permissions: Procedure

You can assign permissions on folders and other objects.

Accessing and Setting Permissions

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

To set folder permissions:

1. In the catalog, select the folder or object.
2. In the Tasks pane click **Permissions**.
3. In the Permissions dialog box, the owner and any other users, roles, or groups with permissions are listed in the Permissions list. To add a user or role, click **Add users/roles** in the toolbar and search for users or roles to add them to the Selected Members list in the Add Application Roles, Catalog Groups and Users dialog box. To delete a user or role, select the account or role in the Permissions list and click Delete selected users/roles.
4. In the Permissions list, to set ownership for a user, select Custom in the Permissions drop-down list for the account, then select **Set Ownership** in the Custom Permissions dialog box and click **OK**. You can also select the Owner option for the user or role.
5. Use the Permissions drop-down to set permissions for the object. Object permissions vary by object.
6. Use the Apply permissions to sub-folders option to assign permissions to the folder's subfolders, and the Apply permissions to items within a folder to assign them to objects in the folder but not to subfolders.

Using Briefing Books

Creating Briefing Books: Procedure

A briefing book is a collection of updatable or static analyses or dashboard pages (which can contain reports). The static snapshots give you a picture of what's going on at the time that the analysis or dashboard page is added to the briefing book. You can download briefing books as PDF or MHTML for viewing or printing, and share them with others. The PDF file includes a table of contents for the book. Like analytics and reports, briefing books are stored in the business intelligence (BI) catalog.

Adding Content to New Briefing Books

Follow these steps:

1. Open the Reports and Analytics work area, or the Reports and Analytics pane if available in other work areas.
2. Click the **Browse Catalog** button.
3. Select your analysis, then click **More** and select **Add to Briefing Book**.

Or, find your dashboard and click **Open**.

a. Go to the dashboard page you want to add.
b. Click the **Page Options** button and select **Add to Briefing Book**.

4. Indicate if you want the analysis or dashboard results to change (**Updatable**) or not (**Snapshot**) whenever the briefing book is downloaded or rerun.
5. Click **Browse**.
6. Name your briefing book and save it in **My Folders**.

Adding Content to Existing Briefing Books

Follow these steps:

1. Open the Reports and Analytics work area, or the Reports and Analytics pane if available in other work areas.
2. Click **Browse Catalog**.
3. Select your analysis, then click **More** and select **Add to Briefing Book**.

   Or, find your dashboard and click **Open**.

   a. Go to the dashboard page you want to add.
   b. Click the **Page Options** button and select **Add to Briefing Book**.
4. Indicate if you want the analysis or dashboard results to change (**Updatable**) or not (**Snapshot**) whenever the briefing book is downloaded or rerun.

Downloading and Editing Briefing Books

Follow these steps:

1. Open the Reports and Analytics work area, or the Reports and Analytics pane if available in other work areas.
2. Click **Browse Catalog** to locate your briefing book.

   You can find briefing books only in the BI catalog.

Related Topics

- Reports and Analytics Pane: Explained

Scheduling Analytics and Reports

Setting Reports Up to Run as Scheduled Processes: Points to Consider

You can create a job definition for predefined or custom reports so that users can run them as scheduled processes. Use the Define Custom Enterprise Scheduler Jobs task in the Setup and Maintenance work area to create job definitions. Otherwise, users can open reports (which are set up to be run online) through the Reports and Analytics pane, or open and schedule them from the business intelligence catalog.

General Job Definition Information

This table describes the general information to enter for your job definition.

Field	What You Enter
Job Type	BIPJobType
Report ID	The path to the report in the catalog, starting with the folder beneath Shared Folders, for example: Custom/ <Family Name>/ <Product Name>/<Report File Name>.xdo. Make sure to include the .xdo extension for the report definition.
Default Output	A default output format.

Parameters

You can define parameters to be available to users when they submit scheduled processes based on your job definition. When users run the scheduled process, the values they enter for the parameters:

- Are passed to the data model that the report is using.
- Determine the data to be included in the report.

The parameters that you define must be in the same order as parameters in the data model. For example, the data model has parameters in this order:

- P_START_DATE
- P_END_DATE
- P_CURRENCY

You create parameters as follows:

- Start Date
- End Date
- Currency

Note: Because you define parameters using the list of values sources from the Define Custom Enterprise Scheduler Jobs task, you should not define lists of values in the data model.

User Property

The only user property you need to define is **`EXT_PortletContainerWebModule`**. Only lists of values associated with the application that you select are made available for parameters in this job definition.

Related Topics

- Managing Job Definitions: Highlights
- Managing List of Values Sources: Highlights
- Customizing Data Models: Procedure
- Creating Custom Reports: Procedure

Setting Reports Up for Scheduling in the Reports and Analytics Pane: Procedure

You can set up reports as scheduled processes, which means users can submit them from the Scheduled Processes and other work areas. If you want users to also submit these scheduled processes from the Reports and Analytics pane, then you must configure properties for the corresponding reports.

Enabling a Report for Scheduling

To enable scheduling in the Reports and Analytics pane:

1. Select the report in the business intelligence catalog and click **Edit**.
2. Click **Properties**.
3. On the General tab in the Properties dialog box, enter the following fields:

Field	Value
Enterprise Scheduler Job Package Name	The path for the job definition, for example: / oracle/ apps/ ess/<product family>/ <product>/ <business area>/ Jobs
Enterprise Scheduler Job Definition Name	The job definition name (not display name), for example: ABCDEFG

Related Topics

- Setting Up the Reports and Analytics Pane: Procedure
- Accessing Report Components to Customize: Points to Consider

Scheduling Analytics and Briefing Books: Procedure

Analytics and briefing books can run based on a schedule that you define. You can set up other automated tasks, for example to deliver results to specific recipients or send notifications. You create what's called an agent to set this all up for an analysis, dashboard, or briefing book. The agent itself is saved as an object in the business intelligence (BI) catalog.

Creating an Agent

1. Open the Reports and Analytics work area, or the Reports and Analytics pane if available in other work areas.
2. Click the **Browse Catalog** button.
3. Click **New** and select **Agent** under **Actionable Intelligence**.
4. Ensure that you enter information on the Delivery Content tab to specify the analysis, dashboard, or briefing book to run.
5. Save the agent in **My Folders**.

Note: To edit an agent, browse the BI catalog to find the agent.

Related Topics

- Reports and Analytics Pane: Explained

Scheduling Reports: Procedure

Reports can run based on a schedule that you define. You can set up other automated tasks, for example to deliver results to specific recipients or send notifications. You submit a report with the schedule and criteria for other automated tasks defined.

If a report is set up as a scheduled process, you submit the process as you would any scheduled process. You can schedule them from:

- Any work area where there's a link to the report.
- The Scheduled Processes work area, where you can submit all processes that you have access to.
- The Reports and Analytics work area or pane, if the report is set up for submission from there.

Submitting a Report or Scheduled Process

Follow these steps:

1. Open the Reports and Analytics work area, or the Reports and Analytics pane if available in other work areas where you can find the report.
2. Click the name of your report.
3. Click **Schedule** if the option is there. The report is set up as a scheduled process.
    a. Enter any parameters to avoid unnecessarily large results.
    b. Click **Advanced** to enter a schedule, deliver results to a specific destination (including e-mail or printer), or define criteria for sending notifications.
4. If you don't see **Schedule**, then click **View**.
    a. Click the **Actions** button for the report and select **Schedule**.
    b. Enter information similar to step 3.

Related Topics

- Scheduled Processes: Explained
- Reports and Analytics Pane: Explained
- Managing Scheduled Processes That You Submitted: Points to Consider
- Submitting Scheduled Processes and Process Sets: Procedure

Adding Analyses to Application Pages

Adding an Analysis to the Human Resources Dashboard: Worked Example

This example shows how to add an analysis to the Human Resources dashboard. This dashboard is a page in the application, not a dashboard in the business intelligence (BI) catalog.

You can add predefined or custom analyses to any desktop page that you can personalize or customize.

The following table summarizes key decisions for this scenario.

Decisions to Consider	In This Example
Which analysis do you want to add?	Position Occupancy. **Warning:** Make sure that the analysis isn't querying against a large volume of records. If it is, then the Human Resources dashboard can take a long time to open after you add the analysis.
Do you have to change the layout of the page?	Yes, to a two-column layout that is wider on the right side. **Note:** The one- or two-column layout gives enough space to properly display analyses.
Do you want all or only one view of the analysis?	All views.
Are these changes for you only, or for all users of the Human Resources dashboard?	You only.

Adding an Analysis to the Human Resources Dashboard

1. Open the Human Resources dashboard.
2. Click your name in the global area and select **Edit Current Page**.
3. Click **Change Layout** and select **Two columns, narrow left**.
4. Click **Add Content** for the wider column.

   The **Reports and Analytics** folder in the Add Content dialog box contains what's in the BI catalog.
5. Click through the folders in the catalog until you see the name of the analysis, and click **Add** to include all views of the analysis.

   If you instead click **Open** or **Position Occupancy**, you can select a specific view to add.
6. Click **Close** after you see the analysis added to the top of the wider column on the dashboard.
7. Click **Save** and then **Close**.

8 Maintenance and Migration

Performance Tuning for Analytics and Reports: Points to Consider

When you create analytics and reports, don't use blind queries and include sufficient filters when creating analytics or reports with hierarchies.

Blind Queries

Avoid blind queries because they are performed without filters and therefore fetch large data sets. Performance could be an issue with these queries and can easily overload the application. All Transactional Business Intelligence queries on large transaction tables must be time bound. For example, include a time dimension filter and additional filters to restrict by key dimensions such as worker. In addition, apply filters to columns that have database indexes in the transaction tables. This ensures a good execution plan is generated for the Business Intelligence query.

Hierarchies and Trees in Transactional Business Intelligence

Queries on trees and hierarchical dimensions such as manager can have an impact on performance. Transactional Business Intelligence uses a column-flattening approach to quickly fetch data for a specific node in the hierarchy. Still, because there is no pre-aggregation for the different levels of the hierarchy, carefully craft any query involving hierarchies to ensure that sufficient filters are applied to keep the result set small.

Reviewing SQL Statements Used in Analyses: Procedure

You can review the SQL statement using either of the following procedures.

Using Analysis in Edit Mode

1. Open the analysis in Edit mode and click the Advanced tab.
2. In the SQL Issued section, review the logical SQL statement.

Using Administration Page

1. On the Administration page, in the Session Management section, click the Manage Sessions link.

   Note: You must be a Business Intelligence Administrator to access the Administration and Manage Sessions page.

2. On the Manage Sessions page, in the Action column, click the View Log link to review the SQL statement.

Moving Analyses and Reports: Procedure

You can archive to bundle the entire catalog, specific folders, or multi component objects as a .catalog file and upload the .catalog file to unarchive the data to another location in the catalog. Use the archive process to transfer specific data across environments, for example from a development environment to a production environment.

Creating an Archive

To create an archive file:

1. Locate the object in the catalog.
2. Select **More** and then select **Archive**.
3. In the Archive dialog box, select one or more of the following options:
    - Keep Permissions: Maintain the object or folder's existing permissions. If you do not select this option, then the archiving process does not include any permissions. Upon 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 LastModified time is updated to indicate the time at which the object or folder is unarchived. If you select this option, the Old option in the Paste Overview area of the Preferences dialog box is available when unarchiving. You use the Old option to overwrite existing catalog items that are older than the catalog items in the archive.
      If you do not select this option, then the archiving process does not include time information and the Old option in the Paste Overview area of the Preferences dialog box is not available.
4. Click **OK** to download the archive file.

Moving a File to a New Location

To unarchive a file:

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 box, 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: Select this option to replace any existing folders or objects with the same names as folders or objects included in the archive file that you are uploading.
    - Old: Select this option to replace folders or objects except those folders or objects that exist, unless they are older than the source.
    - None: Select this option to add any new folders or objects, but preserve any existing folders or objects.
    - Force: Select this option to add and replace all folders or objects.
5. Use the ACL option to specify how the folders or objects are assigned permissions using Access Control Lists (ACLs) when unarchived.
    - Inherit: Inherits the folder or object's permissions (ACL) from its new parent folder.
    - Preserve: Preserves the folder or object's permissions (ACL) as it was in the original, mapping accounts as necessary.

- Create: Preserves the folder or object's permissions (ACL) as it was in the original, creating and mapping accounts as necessary.

6. Click **OK**.

Glossary

analysis

A selection of data displayed in one or more views, such as a table or chart, to provide answers to business questions.

analytics

Business intelligence objects such as analyses and dashboards that provide meaningful data to help with decision making.

briefing book

A collection of static or updatable analyses or dashboard pages that you can download, print, and share with others.

business intelligence catalog

The repository where all business intelligence objects, including analytics, reports, briefing books, and agents, are stored. The catalog contains separate folders for personal, shared, and custom objects.

business intelligence repository

The metadata that determines all of the columns, or pieces of data, that you can include in analytics. You can also use the repository as a source of data for reports.

customization

A change to the predefined artifacts of the application. Customizations impact multiple users.

dashboard

A collection of analyses and other content, presented on one or more pages to help users achieve specific business goals. Each page is a separate tab within the dashboard.

data model

The metadata that determines where data for a report comes from and how that data is retrieved.

desktop page

A page that's optimized for extended periods of use with monitors.

EDI

Abbreviation for electronic data interchange.

EFT

Acronym for Electronic Funds Transfer. A direct transfer of money from one account to another, such as an electronic payment of an amount owed a supplier by transferring money from a payer's disbursement bank account into the supplier's bank account.

flexfield

A flexible data field that you can customize to contain one or more segments or store additional information. Each segment has a value and a meaning.

flexfield segment

An extensible data field that represents an attribute and captures a value corresponding to a predefined, single extension column in the database. A segment appears globally or based on a context of other captured information.

global area

The region at the very top of the user interface that remains the same no matter which page you're on.

job definition

The metadata that determines what a job does and what options are available to users when they submit the scheduled process. A job is the executable for a scheduled process.

panel tab

A tab on the right side of the page that slides out when you open it. Each panel tab has an icon as the tab label.

personalization

A change that users make to control the look or behavior of the application. Personalizations impact only the user making the change.

prompt

A parameter that you set when you use analytics, limiting the data in the analysis or in all analyses on the dashboard or dashboard page (tab).

regional area

The collapsible region in the work area that lets you control what's in the local area, for example by selecting a task or running a search.

report

An output of select data in a predefined format that's optimized for printing.

role

Controls access to application functions and data.

scheduled process

A program that you run to process data and, in some cases, generate output as a report.

subject area

A set of columns, or pieces of data, related to a specific business object or area.

view

A specific way to present the results of an analysis, for example as a table or graph. Other types of views, such as the title view, show other components of the analysis.

work area

A set of pages containing the tasks, searches, and other content you need to accomplish a business goal.