

# **Oracle® Fusion Transactional Business Intelligence**

## **Administrator's Guide**

Release 11.1.1.6.0

Transactional Business Intelligence Administrator's Guide, 11.1.1.6.0

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## Product Overview

Oracle Fusion Transactional Business Intelligence (OTBI) is a real time, self service reporting solution offered to all Oracle® Fusion application users to create ad hoc reports and analyze them for daily decision-making. With Oracle Business Intelligence Enterprise Edition (Oracle BI EE) as the standard Oracle query and reporting tool, Oracle Business Intelligence Applications, and Oracle BI Dashboard end-user tools, business users are provided an easy-to-use interface to perform current state analysis of their business applications. Constructed queries and reports are executed in real-time against the transactional schema supported by Application Development Framework (ADF). View objects are critical in Transactional Business Intelligence. View objects represent Facts and Dimensions, implement applications data security, and handle multilanguage support. For more information on View objects, see [“View Objects Overview” on page 98](#).

## Key Features of Transactional Business Intelligence

- Self-service ad-hoc analysis—Easily access, analyze, and use the transactional information with minimum maintenance and fewer reports to maintain using Oracle BI EE platform.
- Access real-time data—Create reports with real-time transactional data without any latency directly from Oracle Fusion applications data.
- Seamless integration with Oracle Fusion applications:
  - Single sign-on and Presentation subject areas and folders are designed according to business function and role.
  - Security setup—Transactional Business Intelligence delivers a security integration with Oracle Fusion applications.
  - Integrated security—Transactional Business Intelligence uses the same data security as Oracle Fusion applications, with no separate data security setup required for Transactional Business Intelligence. Any changes done on Oracle Fusion applications data security are immediately available in Transactional Business Intelligence.

- Report building capability—Built on top of Oracle BI EE platform for ease of use, Oracle Business Intelligence Answers is used as the interface to build and modify reports for ad-hoc analysis. You can also use BI Composer to build and modify reports.
- Value-added and cross-functional content—Derived Measures in addition to operational metrics from Oracle Fusion applications with cross-functional analysis.
- Enhanced usability—Folder structures similar to Oracle Fusion applications, User Interface labels propagated to Presentation layer, prebuilt calculated measures, ease of setup and configuration.
- Flexible and extensible—Architected to seamlessly leverage Oracle Fusion applications concepts; for example: flexfields, trees, single sign-on, embedded content, multilanguage support.
- Customizable—Add additional attributes, measures, or reports.



# Getting Started

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## In This Chapter

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## System Requirements and Certification

Refer to the system requirements and certification documentation for information about hardware and software requirements, platforms, databases, and other information. Both of these documents are available on Oracle Technology Network (OTN).

The system requirements document covers information such as hardware and software requirements, minimum disk space and memory requirements, and required system libraries, packages, or patches:

<http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-requirements-100147.html>

The certification document covers supported installation types, platforms, operating systems, databases, JDKs, and third-party products:

<http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html>

## Transactional Business Intelligence System Architecture

### Subtopics

- [Technical Overview](#)
- [Oracle BI Repository Architecture](#)

## Technical Overview

Transactional Business Intelligence is designed to meet ever-increasing demands for real-time, ad-hoc, current state reporting and analysis of operational data. It is designed to work with

Oracle Fusion application and combines the Oracle Fusion application features and Business Intelligence (BI) technologies to provide flexible, simple, secured, ad-hoc reporting and analysis solutions.

Prominent features:

- Self-service, real-time, ad-hoc reporting capability
- Seamless integration with Oracle Fusion applications for extensibility constructs
- Embedded analytics in Oracle Fusion applications user interface
- Common Semantic Model with BI Applications
- Value added and cross functional content
- Reuses Oracle Fusion applications data security
- Designed using Oracle Fusion Middleware technologies

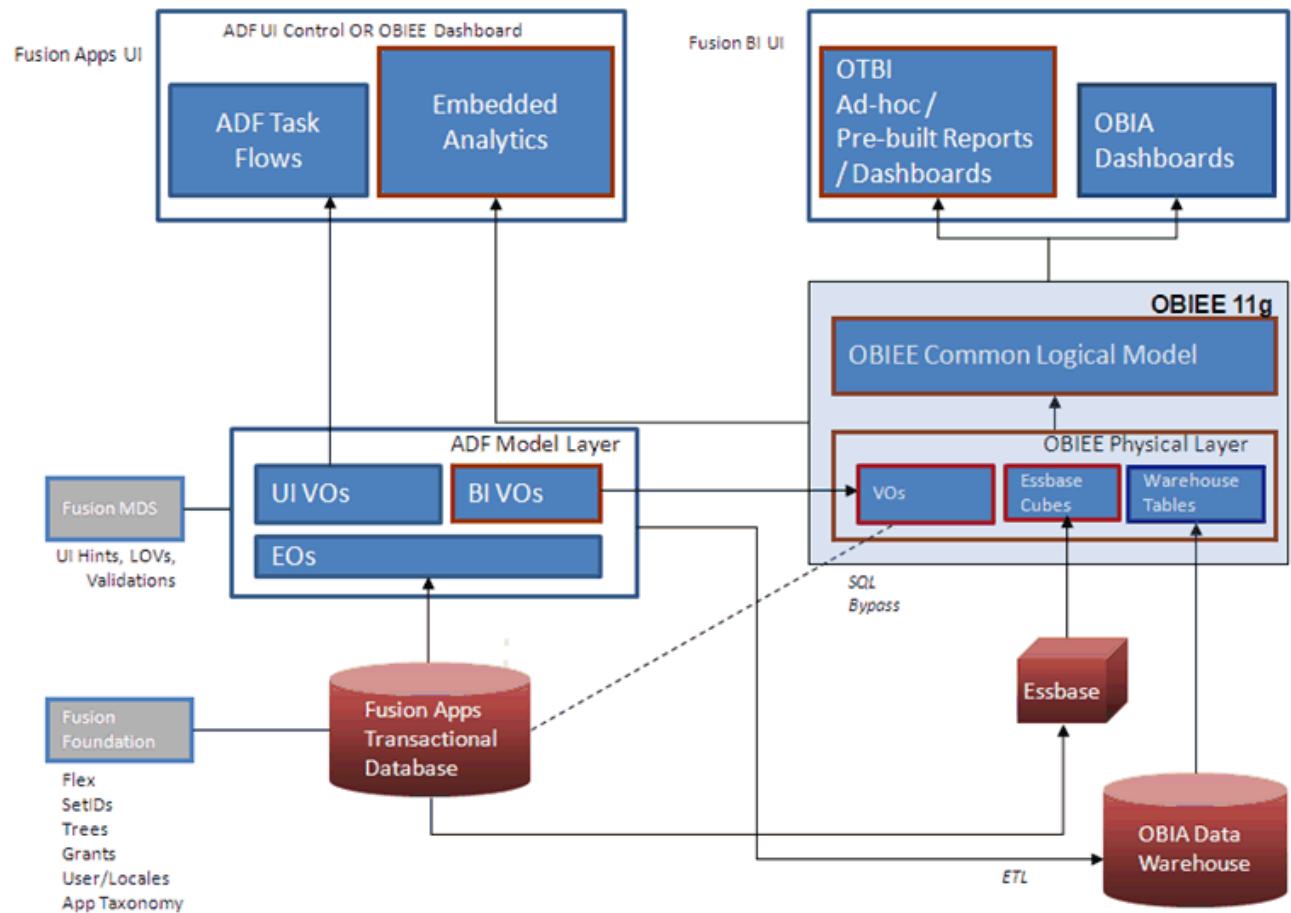
## **Transactional Business Intelligence Components**

The components of Transactional Business Intelligence:

- [“Oracle Fusion Applications” on page 15](#)
- [“Oracle BI EE” on page 15](#)
- [“Essbase \(Optional\)” on page 16](#)

Figure 1 Transactional Business Intelligence Architecture Diagram

## OTBI Architecture



### Oracle Fusion Applications

Oracle Fusion applications are the main source of data for Transactional Business Intelligence. Transactional data can be accessed using view objects in Oracle Application Development Framework (Oracle ADF) that are deployed on the WebLogic server. View objects implement the functional concepts of Oracle Fusion applications, including data security, set IDs, trees, flexfields, labels, effective dates, and translation.

### Oracle BI EE

Oracle BI EE is a comprehensive suite of business intelligence tools and infrastructure designed to bring greater business visibility and insight to the broadest audiences of users, allowing any user in an organization to have web-based self-service access to up-to-the moment, relevant, and actionable intelligence.

Transactional Business Intelligence uses Oracle BI EE for building semantics that are needed for real-time, ad-hoc analysis of Oracle Fusion applications data (no extract, transform, and load (ETL) is required).

### Essbase (Optional)

This is an optional component depending on the Oracle Fusion applications that are installed. In Oracle Fusion Financials applications, General Ledger (GL) Balances are stored in Oracle Essbase cubes. GL Balances sourced from Essbase cubes is available for analysis in Transactional Business Intelligence. See [“Modeling Essbase Cubes” on page 50](#) for configuration steps.

## Design Principles

Transactional Business Intelligence uses Oracle BI EE for capturing the metadata and also as the end-user reporting and ad-hoc query tool. Its metadata source is view objects, Oracle ADF components that represent SQL queries. Built using Oracle Fusion Middleware, these view objects simplify access to data and abstract the underlying data model and business logic complexities. For more information, see [“View Objects Overview” on page 98](#).

For information on how to embed Oracle BI objects in Oracle ADF applications, see “Oracle Fusion Middleware Developer's Guide for Oracle Business Intelligence Enterprise Edition”. It contains steps for adding content to Oracle ADF applications.

Wherever applicable, Transactional Business Intelligence and BI Applications use a common semantic model (single logical definition of the object in the Oracle BI EE Business Model and Mapping layer), which is a unifying factor that allows users to see the Oracle Fusion applications data from either a transactional or a historical perspective. Most of the common dimensions and a few facts in the Business Model and Mapping layer of Oracle BI repository are shared between Transactional Business Intelligence and BI Applications.

## Oracle BI Repository Architecture

The following sections provide details of the Oracle BI repository model followed in Transactional Business Intelligence.

### Physical Layer

The Physical layer contains the metadata of Oracle ADF View objects and Essbase Cubes used for building Transactional Business Intelligence business model. See [“Modeling Essbase Cubes” on page 50](#) for Essbase connection details.

In accordance with the Oracle Fusion applications deployment model, Transactional Business Intelligence uses three database connections of type Oracle ADF in this layer. Financials, Oracle Fusion Supply Chain Management Connection Pool, Projects, and Incentive Compensation use the FSCM connection. For more information on Oracle Fusion applications, see the Oracle Fusion Applications Help.



Figure 2 Transactional Business Intelligence Oracle ADF Connections in the Physical Layer

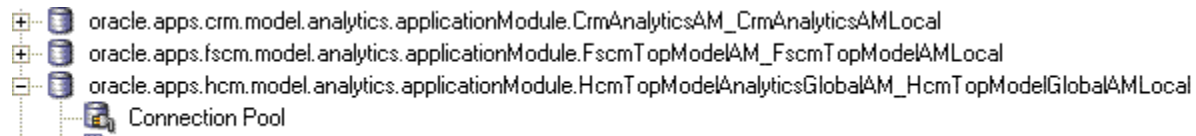
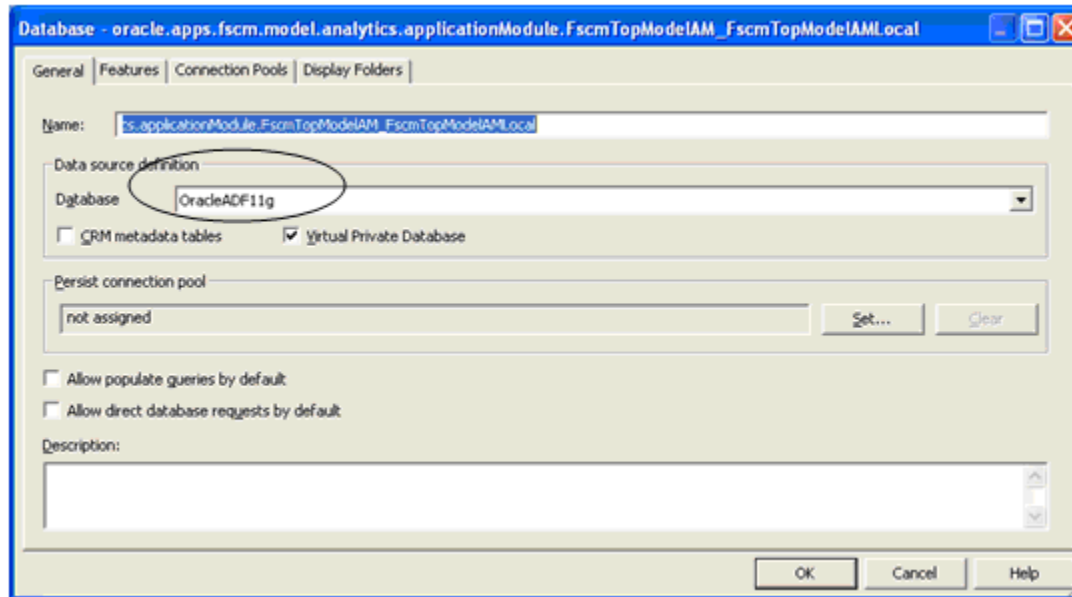
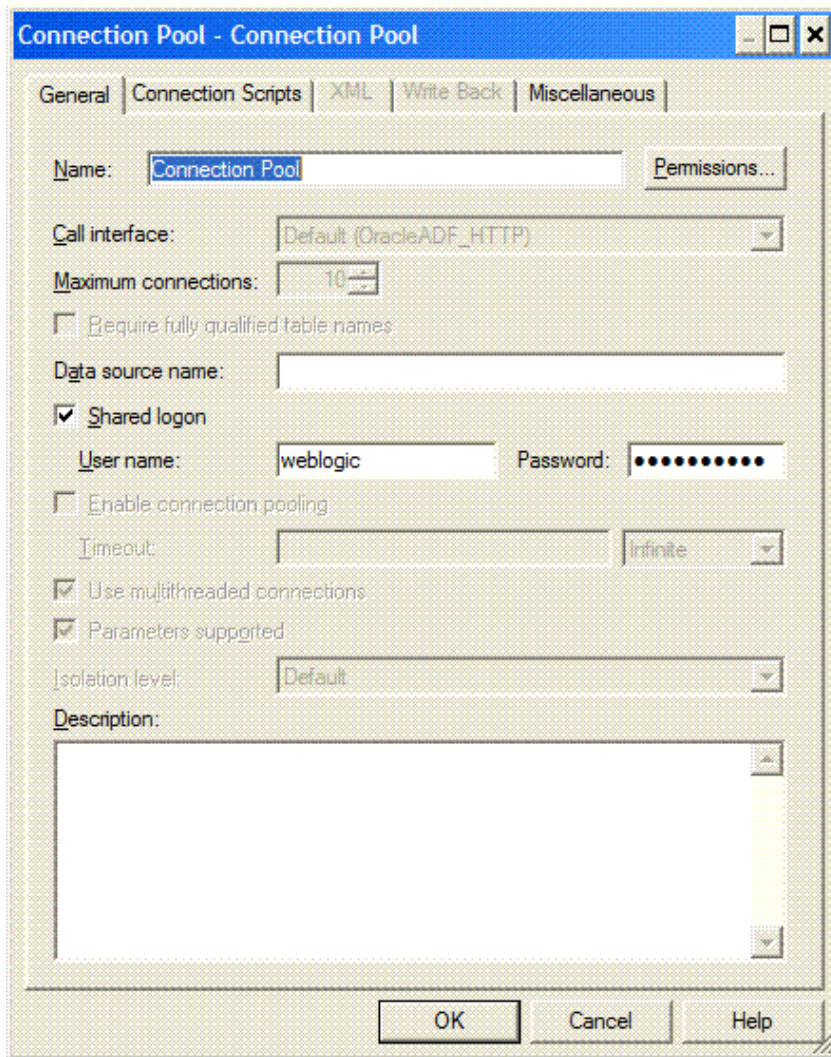


Figure 3 Financials and Supply Chain Management Oracle ADF Connection Properties



Each connection has one connection pool containing Oracle ADF server connection information, such as application server, application module name, and user information. Oracle BI Server uses this information in connecting to the data source.

Figure 4 Connection Pool – General Tab

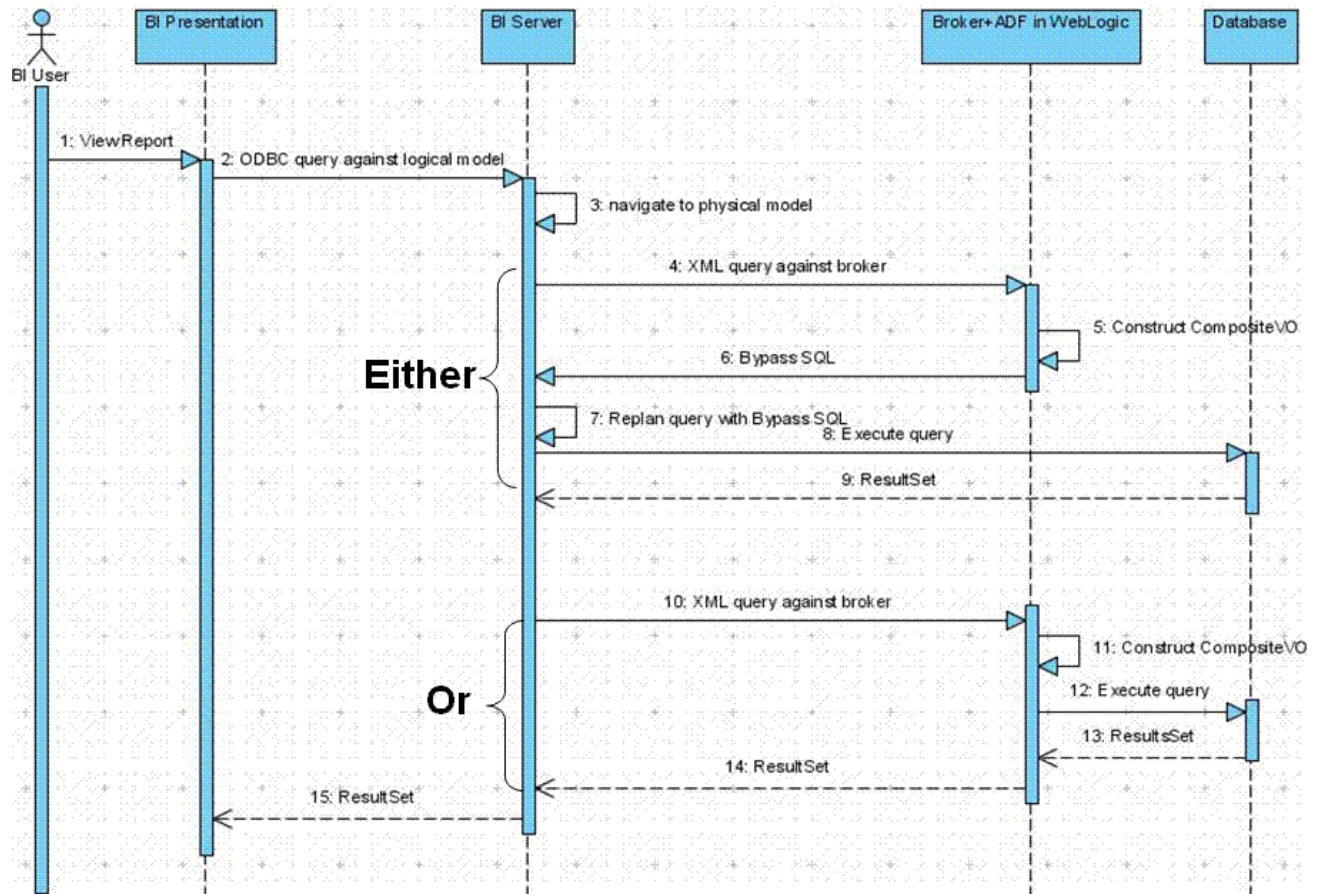


## Setting SQL Bypass Database

**Note:** Setting up an SQL Bypass Database is required.

Setting the SQL Bypass Database option is an important feature for Transactional Business Intelligence. Setting a value for this property allows Oracle BI EE to extract the underlying SQL of view objects and send it directly to the database for execution, eliminating the extra processing overhead that may come by going through the Oracle ADF view object layer and then to the database. [Figure 5](#) illustrates how query execution works in Transactional Business Intelligence.

Figure 5 Diagram of SQL Bypass Functionality

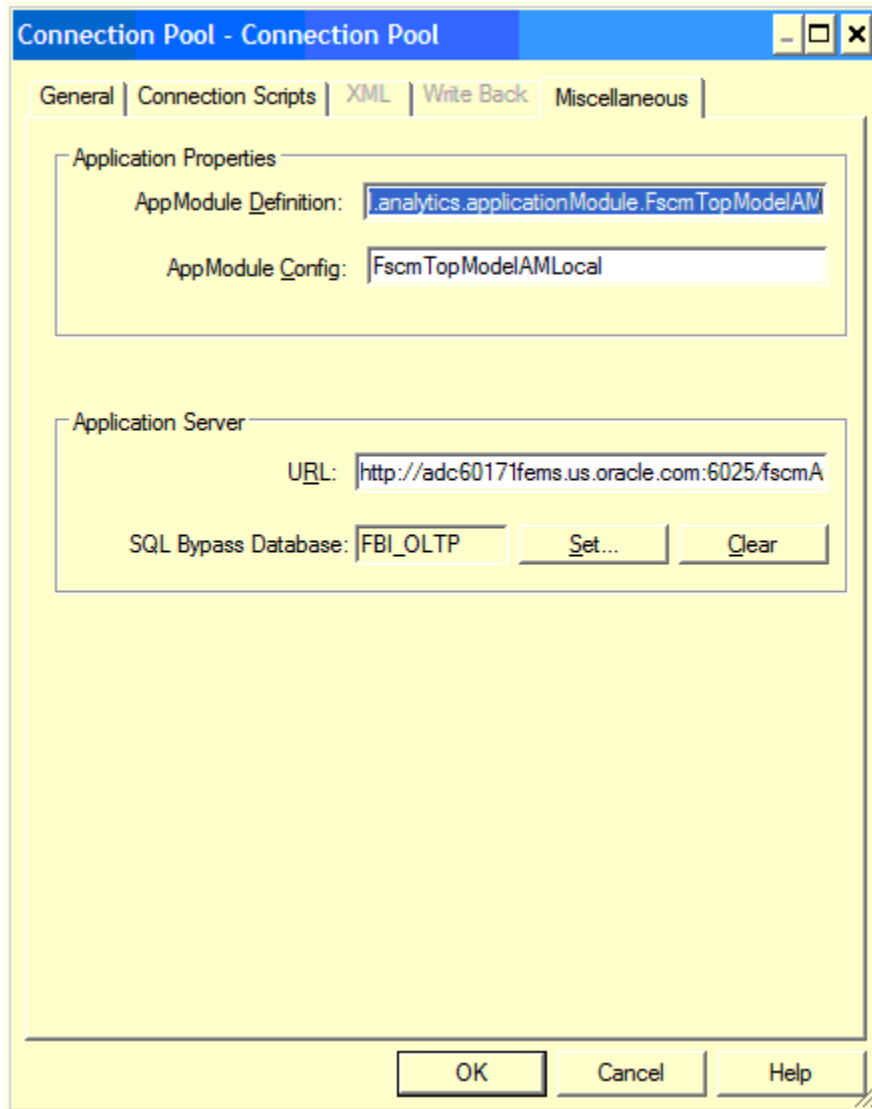


**Note:** Setting up an SQL Bypass Database is required.

➤ To set the SQL Bypass Database option:

- 1 Create a database connection pointing to an Oracle Fusion application database in the physical layer.
- 2 Open the connection pool from Transactional Business Intelligence database connection.
- 3 Select the **Miscellaneous** tab.
- 4 Select **Set**.  
Available database connections are displayed.
- 5 Select the database connection that is pointing to the Fusion Applications database, as shown in [Figure 6](#).
- 6 Select **OK**.

Figure 6 Connection Pool Miscellaneous Tab



See the “Oracle Fusion Middleware Developer's Guide for Oracle Business Intelligence Enterprise Edition” for more information on options available in the connection pool screen. Each connection has all the view objects and corresponding alias objects that are used in building the business model.

View objects are named using the following convention, which can help in tracking back to the corresponding module in Oracle Fusion applications:

**Global Application Module Name. Sub-Application Module Name.view object-Name.**

For example:

HCMTTopModelAnalyticsGlobalAM.AnalyticsServiceAM.CurrenciesPVO, where

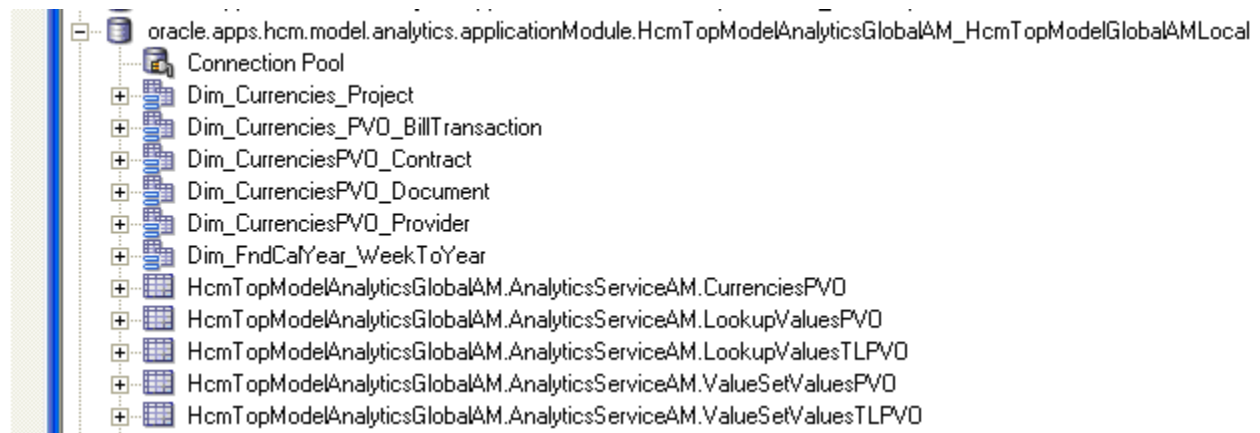
HCMTTopModelAnalyticsGlobalAM is the application module name,

AnalyticsServiceAM is the sub-application module name, and

CurrenciesPVO is the view object name.

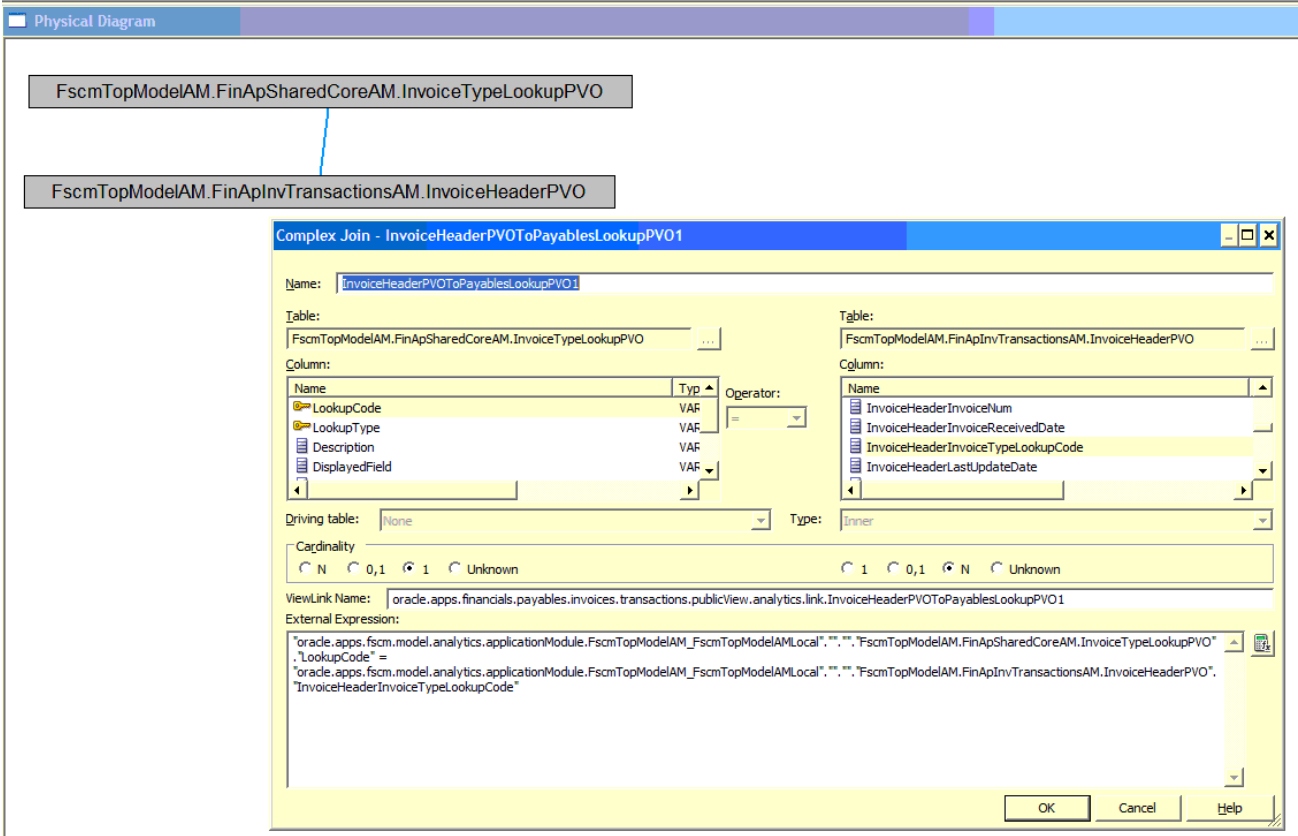
Similarly, all the alias physical tables are named as <Dim/Fact>\_\_VO-Name\_Role.

Figure 7 View Objects and Aliases in a Connection



You can see attributes in a view object by expanding the view object in the physical layer. Attribute names are the same as in the underlying view object in Oracle ADF. The relationship between Oracle ADF view objects is created using Oracle ADF view links component. View links are modeled as physical joins in Oracle BI EE. Finding the join between view objects in the Oracle BI repository is the same as finding the physical join between tables. [Figure 8](#) displays a physical join between view objects using a view link.

Figure 8 View Link Between View Objects

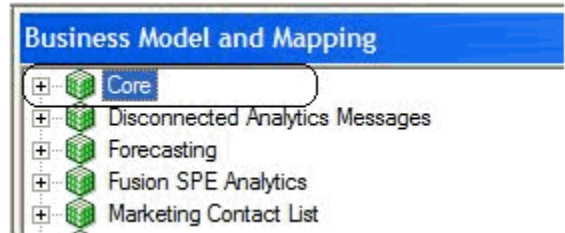


## Business Model and Mapping Layer

The Business Model and Mapping layer is where business or logical modes are defined and the mapping between Business Model and Physical layer schemas are specified. Business models are always dimensional (Star schema) and contain dimensions, facts (Logical Tables in Oracle BI EE terminology) and hierarchies (Logical Dimension in Oracle BI EE.) Multiple business models exist in the shipped Oracle BI repository.



All Transactional Business Intelligence objects are part of business model *Core*, which is a common business model for both Transactional Business Intelligence and BI Applications objects.

Figure 9 Core Business Model

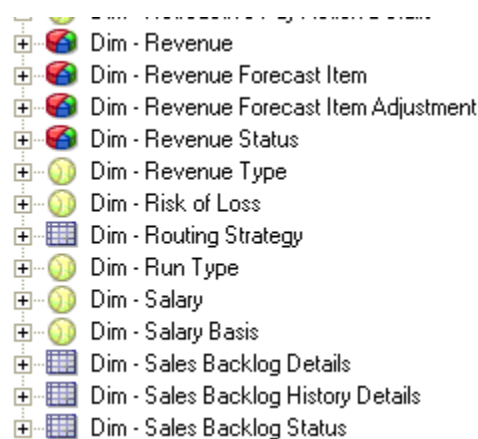


The following icons are used for the Dimensions and Facts objects.

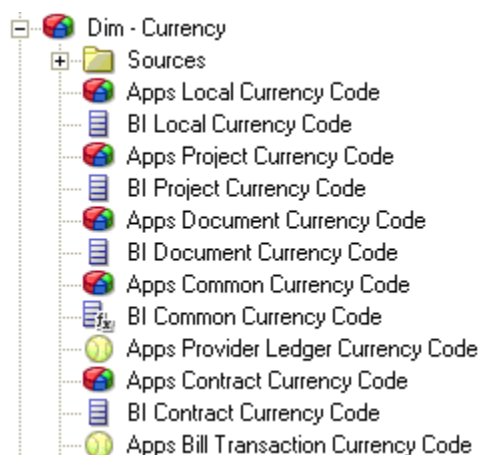
**Table 1** Transactional Business Intelligence and BI Applications Objects

Icon	Description
	Shared objects between BI Applications and Transactional Business Intelligence.
	Objects that are specific to Transactional Business Intelligence.

Any objects that do not have these icons are specific to BI Applications, except for hierarchies. [Figure 10](#) is an example of how the chart and tennis ball icons are used in the Oracle BI repository.

**Figure 10** Example of Logical Objects (Dimension/Fact) Icons

Similar icons are being used for attributes within the shared objects as displayed in [Figure 11](#).

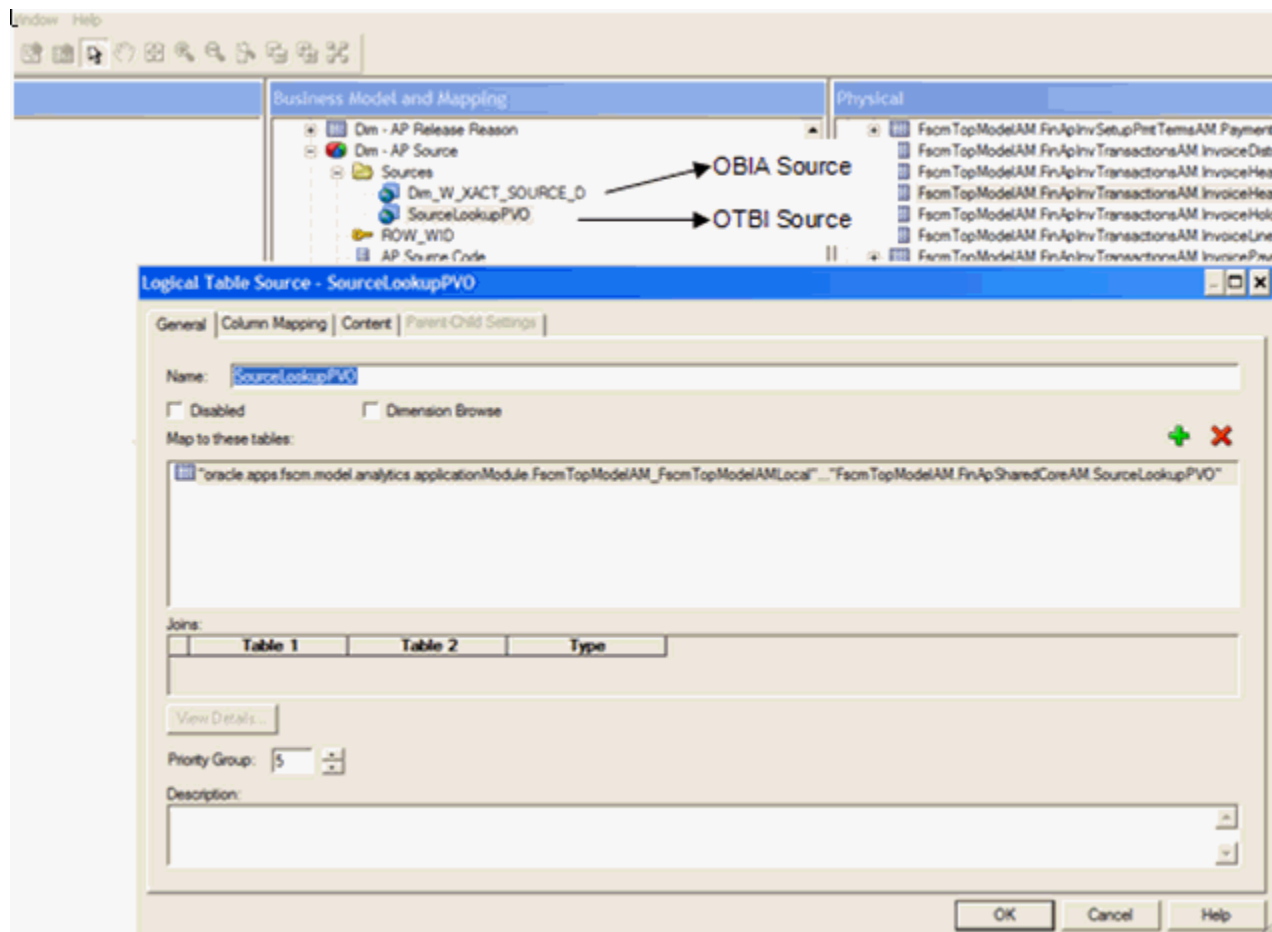
**Figure 11** Example of Logical Attribute Icons

For more details on the icons that are available, see [“Icons Used in the Business Model and Mapping Layer” on page 121](#). In addition, navigation object names are prefixed. For example, dimensions are prefixed with **Dim** – and Facts with **fact** –.

Shared logical objects, such as Dimension and Fact, have sources (Logical Table Source) from both BI Applications and Transactional Business Intelligence physical objects. Oracle BI EE uses

the source redirection feature to route the query either to BI Applications or Transactional Business Intelligence sources based on the Priority Group setting of each Logical table source. For more information, see [“Query Redirection” on page 93](#).

Figure 12 Shared Logical Object Logical Table Source (LTS) and Priority Group Setting

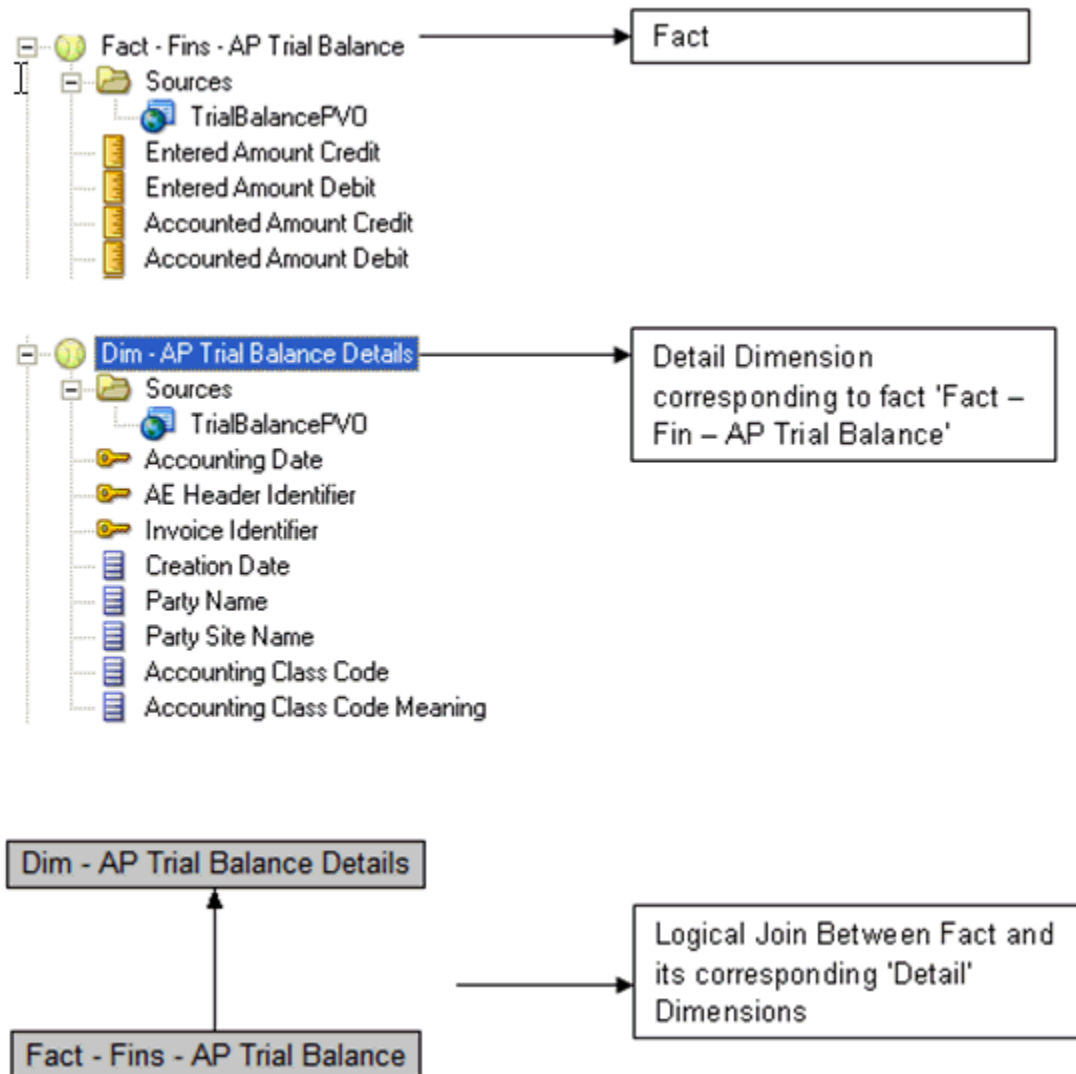


The following guidelines were implemented for ease of use and maintainability:

- Transactional Business Intelligence Logical source names are similar to the physical view object names and all of the Logical source names have PVO (public view object) as part of the name. For example, InvoiceHeaderPVO.
- All facts have only measures.
- All textual attributes and nonadditive measures from fact source are designed as a separate dimension, and these two are logically joined. These dimensions have the same name as a fact with a suffix of **Details**. See the following figure as an example.



Figure 13 Detail of Dimension, Fact, and Logical Join



## Presentation Layer

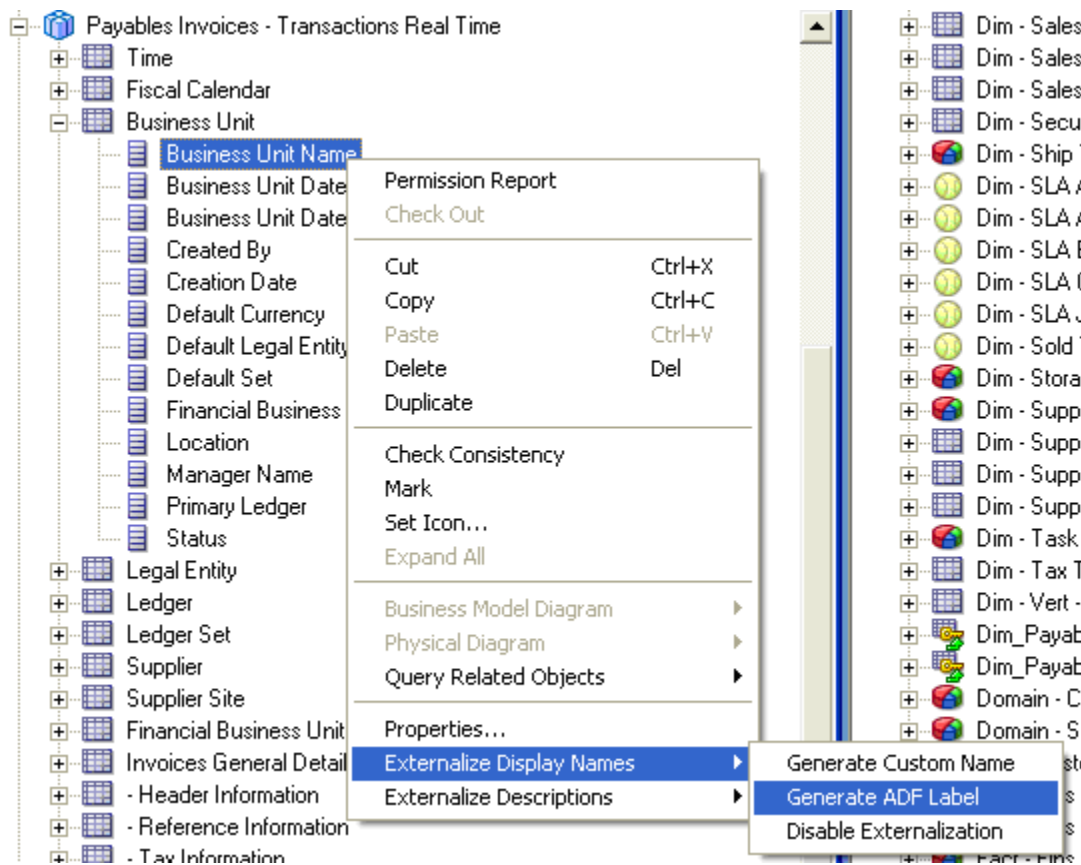
Objects in the Presentation layer are visible to a Transactional Business Intelligence user when performing an ad-hoc analysis. Content in the Presentation layer is organized in a consistent, easy-to-use manner that hides the complexity of the business model.

These guidelines can help you navigate content and build reports:

- Transactional Business Intelligence subject areas. The naming standard: *<Module name> - <logical fact name> - Real Time*.
- Subject area descriptions are displayed as a tool tip when subject areas are in focus.
- Each subject area has multiple folders, arranged in this order:
  - Common Dimensions are usually first, followed by fact-specific dimensions, such as Sources and Party Name

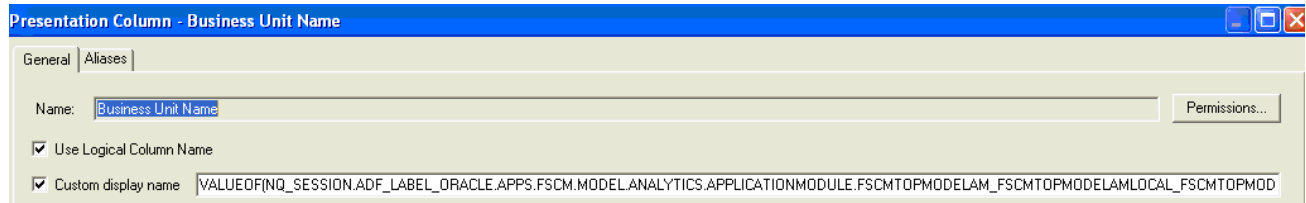
- Fact Details (textual attributes of fact), for example, Creation Date
- Facts (Measures), for example, Accounted Amount Credit
- Attributes in the folder are also arranged for ease of use and better correlation to similar attributes seen in the Oracle Fusion applications screens.
  - If a folder has more than 25 attributes, they are arranged in subfolders based on the business context
  - Key attributes are arranged first in the folder
  - Most of the date attributes follow the key attributes
  - The entire attribute is displayed in the selected language. Supported languages are based on the Oracle BI EE and Oracle Fusion applications installation.
- User Interface (UI) hints are enabled for most Transactional Business Intelligence presentation attributes. This feature enables users to see the attribute name as it is displayed on the online transaction processing (OLTP) screens, except when an attribute is not shown on the screen or attribute name is not self-explanatory in the context of Transactional Business Intelligence folder structures. [Figure 14](#) displays how to display a UI hint.

**Figure 14 Example of How to Display UI Hints (Generate Oracle ADF Label)**



- [Figure 15](#) displays how custom display names look after enabling the UI hints.

Figure 15 Custom Display Name – UI Hint



You may prefer to use labels instead of UI hints where the attribute is of type Oracle BI EE lookup or sourced from a lookup view object. See [“Labels and Tool Tips” on page 95](#) for more details.

- Transactional Business Intelligence subject areas are secured objects. Only users who are assigned the appropriate duty privileges can see them, similar to a user having access to an application or screens in transaction applications. This restriction, known as functional security, is the first layer of security. Apart from this, Transactional Business Intelligence also handles data security by adopting Oracle Fusion applications security. See [“Transactional Business Intelligence and Oracle Fusion BI Security” on page 136](#) for more details on security implementation in Transactional Business Intelligence.

## Setup and Configuration

### Oracle Fusion Application Configuration

The offerings in Oracle Fusion applications are the highest-level groupings of Oracle Fusion applications functionality. They are typically the starting points for configuration decisions, a feature of standardized Oracle Fusion applications functionality that is typically sold, implemented, and serviced as a unit. Transactional Business Intelligence is a required feature of certain Oracle Fusion application offerings. Because Transactional Business Intelligence has a limited set of actual Oracle Fusion setup tasks, the required tasks related to Transactional Business Intelligence are included as subtasks for these Oracle Fusion application offerings. These tasks are documented in the Functional Setup Manager (FSM) as a common set of tasks (see [Table 2](#)).

See also:

- *Oracle Fusion Applications Information Technology Management, Implement Applications Guide*
- *Oracle Fusion Applications Common Implementation Guide*

**Table 2 Functional Setup Manager - Transactional Business Intelligence Tasklist**

✓	Task	Description
	Define Transactional Business Intelligence Configuration:  Optimize Transactional Business Intelligence Repository	Configure Transactional Business Intelligence for ad-hoc reporting. Complete this task after all desired Oracle Fusion application offerings are configured:  Trim unused projects from Transactional Business Intelligence repository (Oracle BI repository) file based on configured Oracle Fusion application offerings. See <a href="#">“Optimizing the Repository File (RPD) for Transactional Business Intelligence” on page 29</a> .
	Define Transactional Business Intelligence Configuration:  Manage Transactional Business Intelligence Connections	Configure Transactional Business Intelligence for ad-hoc reporting. Complete this task after all desired Oracle Fusion application offerings are configured:  Define data source connections in the physical layer of the Transactional Business Intelligence repository file.  <b>Note:</b> This task is automatically handled through provisioning. See <a href="#">“Provisioning Users” on page 137</a> .
	Define Transactional Business Intelligence Configuration:  Review security for Transactional Business Intelligence users	Provision Transactional Business Intelligence users and data with appropriate security levels.  See <a href="#">“Provisioning Users” on page 137</a> and <a href="#">“Transactional Business Intelligence and Oracle Fusion BI Security” on page 136</a> .
	Manage User Currency Preferences in Transactional Business Intelligence	Manage user preferences in display of currency data in Transactional Business Intelligence:  See <a href="#">“Coverage for Currency” on page 122</a> .
	Manage Oracle Fusion Data Extensions for Transactional Business Intelligence:  Configure Key Flexfields	Review functional Oracle Fusion setups to be used in Transactional Business Intelligence:  Turn on and turn off BI-enabled flag for Key Flexfield segments for use in Transactional Business Intelligence  For a sample query which uses flexfields, see <a href="#">“Sample COA Query” on page 72</a> .  <b>Note:</b> Key Flexfields are usually implemented as dimensions.
	Manage Oracle Fusion Data Extensions for Transactional Business Intelligence:  Configure Descriptive Flexfields	Review functional Oracle Fusion setups to be used in Transactional Business Intelligence:  Turn on and turn off BI-enabled flag for Descriptive Flexfield segments for use in Transactional Business Intelligence
	Manage Oracle Fusion Data Extensions for Transactional Business Intelligence:  Import Essbase Cubes into Transactional Business Intelligence repository	Review functional Oracle Fusion setups to be used in Transactional Business Intelligence:  Import Essbase cubes into Transactional Business Intelligence repository.  <b>Note:</b> This is required for Oracle Fusion General Ledger and optional for Oracle Fusion Project Portfolio Management.

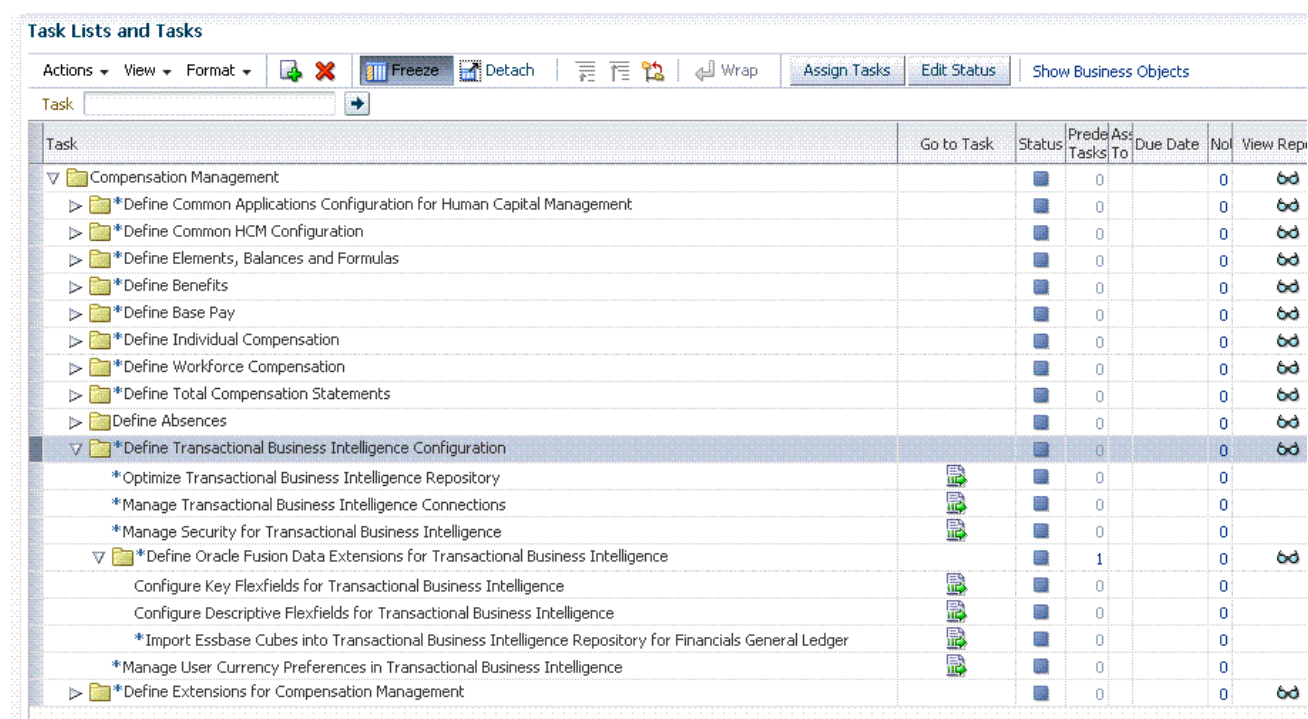
Transactional Business Intelligence is included as part of the following offerings in Oracle Fusion applications:

- Oracle Fusion Compensation
- Oracle Fusion Enterprise Contracts
- Financials
- Oracle Fusion Accounting Hub
- Oracle Fusion Incentive Compensation

- Oracle Fusion Marketing
- Oracle Fusion Materials Management and Logistics
- Oracle Fusion Order Orchestration
- Oracle Fusion Procurement
- Oracle Fusion Product Management
- Oracle Fusion Project Management
- Oracle Fusion Sales
- Oracle Fusion Workforce Deployment
- Oracle Fusion Workforce Development

The individual tasks for configuring Transactional Business Intelligence are found in Define Transactional Business Intelligence Configuration in the Transactional Business Intelligence application as illustrated below:

**Figure 16 OTBI Configuration Tasks Menu**



Task	Go to Task	Status	Prede Tasks	Ass To	Due Date	No	View Rep
▼ Compensation Management		■	0			0	🔗
▶ *Define Common Applications Configuration for Human Capital Management		■	0			0	🔗
▶ *Define Common HCM Configuration		■	0			0	🔗
▶ *Define Elements, Balances and Formulas		■	0			0	🔗
▶ *Define Benefits		■	0			0	🔗
▶ *Define Base Pay		■	0			0	🔗
▶ *Define Individual Compensation		■	0			0	🔗
▶ *Define Workforce Compensation		■	0			0	🔗
▶ *Define Total Compensation Statements		■	0			0	🔗
▶ Define Absences		■	0			0	🔗
▼ *Define Transactional Business Intelligence Configuration		■	0			0	🔗
*Optimize Transactional Business Intelligence Repository	🔗	■	0			0	
*Manage Transactional Business Intelligence Connections	🔗	■	0			0	
*Manage Security for Transactional Business Intelligence	🔗	■	0			0	
▼ *Define Oracle Fusion Data Extensions for Transactional Business Intelligence		■	1			0	🔗
Configure Key Flexfields for Transactional Business Intelligence	🔗	■	0			0	
Configure Descriptive Flexfields for Transactional Business Intelligence	🔗	■	0			0	
*Import Essbase Cubes into Transactional Business Intelligence Repository for Financials General Ledger	🔗	■	0			0	
*Manage User Currency Preferences in Transactional Business Intelligence	🔗	■	0			0	
▶ *Define Extensions for Compensation Management		■	0			0	🔗

## Optimizing the Repository File (RPD) for Transactional Business Intelligence

Oracle Fusion applications include one Oracle BI repository that contains content for all offerings. The content in the Oracle BI repository is striped by project. Each Oracle BI repository project is mapped to an Oracle Fusion application and BI application offering. Based on the offerings the customer deploys in Oracle Fusion applications, the corresponding projects must

be extracted from the deployed Oracle BI repository. Optimizing the Oracle BI repository provides the following:

- Improves usability—For a majority of clients only a subset of BI content is required. Deploying only the required components makes it easier to use.
- BI Server start up—Deploying a smaller Oracle BI repository speeds server startup.

In Oracle Fusion Middleware, the Oracle BI repository is trimmed using the Administration Tool (Windows-only client). After users deploy Oracle Fusion applications, they are redirected to extract the relevant Transactional Business Intelligence and BI Applications Oracle BI repository projects using the Administration Tool. See “Oracle Fusion Middleware Metadata Repository Builder's Guide for Oracle Business Intelligence Enterprise Edition”.

**Note:** For subsequent Oracle Fusion applications, users must use the Administration Tool to re-extract the relevant Oracle BI repository projects and perform a three-way merge to preserve any customizations they may have done.

See [Appendix A, “Mapping Between Oracle Fusion Offerings and Transactional Business Intelligence Subject Areas”](#).

## Connections

Oracle Fusion applications has created three J2EE applications to support BI:

1. Financials and Supply Chain Management (FSCM)—Includes Financials, Supply Chain Management, Procurement, Oracle Projects and Oracle Fusion Incentive Compensation
2. Customer Relationship Management (CRM)
3. Human Capital Management (HCM)

In addition to the standard WebLogic Server configuration required to support these applications, some manual configurations are required to correctly set the data sources or connections in the Oracle BI repository. The BI Administrator should manually configure these settings:

- Database Connection Settings

**Note:** For more information on Oracle Fusion Applications architecture design, refer to the Oracle Fusion Applications Concepts Guide. For more information on Oracle Fusion applications, see “Oracle Fusion Middleware Configuration Guide for Oracle Business Intelligence Applications”.

- SQL Bypass Database Settings

**Note:** Setting up an SQL Bypass Database is required.

**Note:** A SQL Bypass database connection should point to the same database as an Oracle Fusion application, for example one pointed to by Transactional Business Intelligence Oracle ADF view objects. If a customer has set a replication database for Oracle Fusion OLTP database and if Transactional Business Intelligence Oracle ADF view objects are pointing to the main OLTP database, the SQL bypass connection cannot point to the replication database.

- Essbase Connection Settings
- Translations Schema Connection Setting

## Trees

If additional BI-enabled attributes are required in the tree-based dimension, then the shape of the view object changes. The administrator re-imports the view object into the Oracle BI repository and remaps the logical layer. See the *Oracle Fusion Developer Guide* for full information on designing, configuring, and generating BI-enabled view objects (BICVOs) for Fusion Trees."

## Key Flexfields

To ready key flexfields for use in Transactional Business Intelligence, perform the following tasks:

- [“Designating Key Flexfields as BI-Enabled ” on page 31](#)
- [“Importing Key Flexfield Changes into Transactional Business Intelligence” on page 33](#)

**Note:** For a list of supported key flexfields, see [“Supported Key Flexfields” on page 35](#).

### Designating Key Flexfields as BI-Enabled

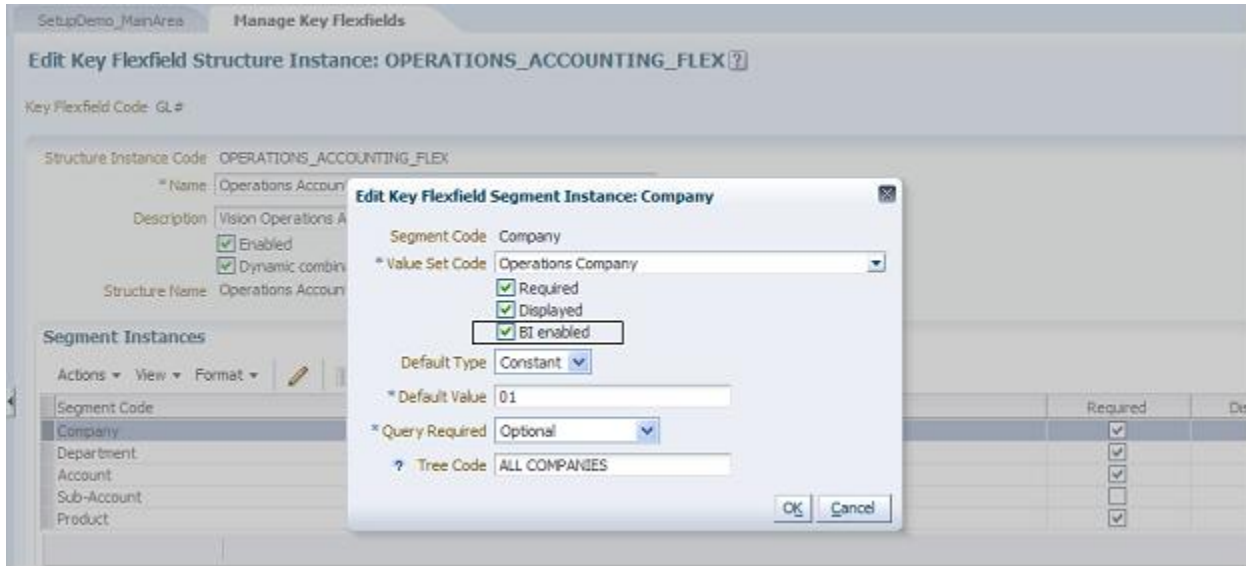
Key flexfields which have been created in Oracle Fusion Applications must be designated as business intelligence-enabled in order to expose them to Transactional Business Intelligence.

➤ To designate the key flexfields as BI-enabled:

- 1 Navigate to **Manage Key Flexfields** in your Fusion Seed Data application.
- 2 Enter the search value in **Key Flexfield Code**.
- 3 Click the **Manage Structure Instances** button.

The Edit Key Flexfield Segment Instance dialog box appears as shown in [Figure 17 on page 32](#).

Figure 17 BI Enabling



- 4 In **Edit Key Flexfield Segment Instance**, select the **BI Enabled** check box.
- 5 Click **OK**.
- 6 For each flexfield segment instance, repeat steps 2 through 4.
- 7 Click **Save**.
- 8 Populate the BI Object Name for each of the segment labels:

**Note:** The BI Object Name is the Logical Table name in the RPD used as the dimension for the corresponding segment.

- a. Query the Key Flexfield Code in the Manage Key Flexfields window.
- b. From the **Actions** menu, select **Manage Segment Labels** as shown in [Figure 18 on page 33](#).



Figure 18 Manage Key Flexfields

- c. Populate the BI Object Name for each segment label to be mapped in the RPD as shown in Figure 19 on page 33.

Figure 19 Manage Segment Labels

Segment Label Code	Name	Description	BI Object Name
FA_COST_CTR	Cost Center Segment	Identifies the cost center segment.	Dim - Cost Center
GL_INTERCOMPANY	Intercompany Segment	Identifies the intercompany segment.	Dim - GL Segment15
GL_MANAGEMENT	Management Segment	Identifies the management segment.	
GL_ACCOUNT	Natural Account Segment	Identifies the natural account segment.	Dim - Natural Account Segment
GL_BALANCING	Primary Balancing Segment	Identifies the primary balancing segment. This is typically the company segment.	Dim - Balancing Segment
GL_SECONDARY_TRACKING	Second Balancing Segment	Identifies the second balancing segment.	
GL_BALANCING_3	Third Balancing Segment	Identifies the third balancing segment.	

- d. Click Save.

## 9 Click the **Deploy Flexfield** button to deploy the flexfield.

## Importing Key Flexfield Changes into Transactional Business Intelligence

**Note:** We strongly recommend that you backup the OBIEE RPD every time prior to importing key flexfield changes.

- To import key flexfield changes into Transactional Business Intelligence:

### 1 Using Oracle BI Administration Tool, open the Transactional Business Intelligence RPD file.

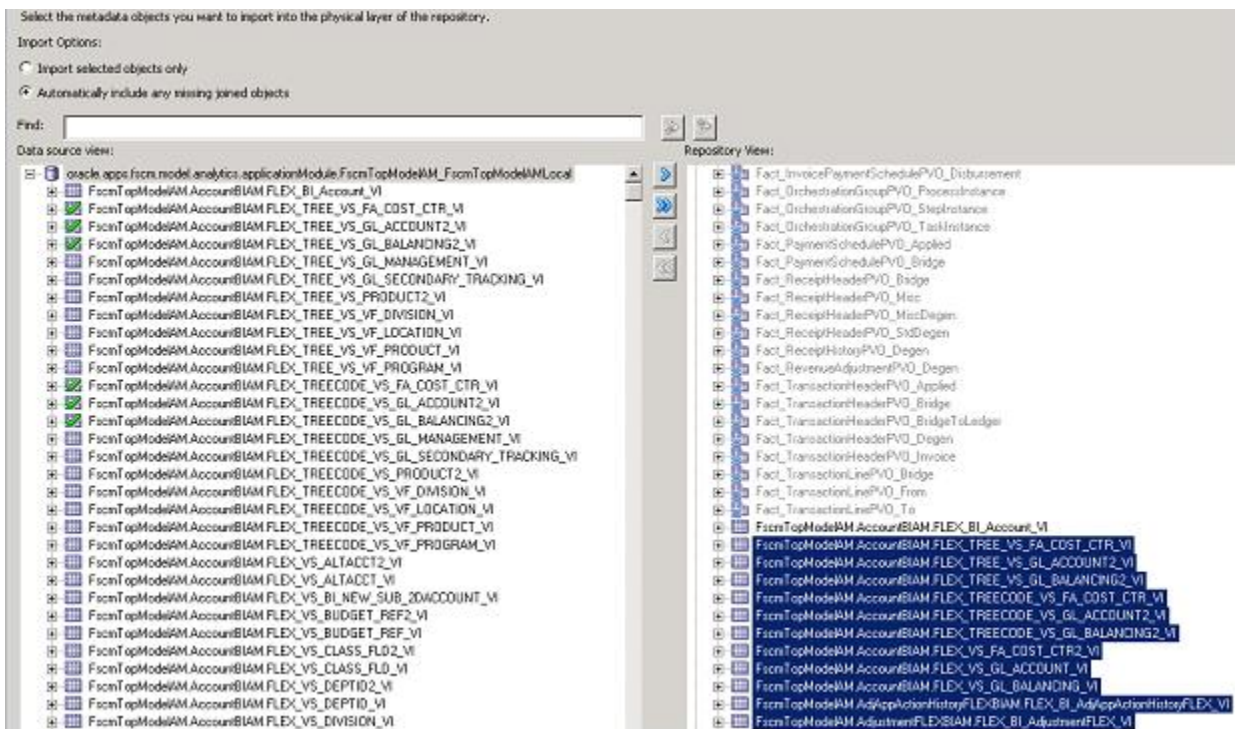
- 2 Navigate to the desired Oracle ADF database in the physical layer.
- 3 Right click on the connection pool under the Oracle ADF database and select **Import Metadata**.  
The Select Metadata Objects window is displayed.
- 4 Verify that the **Automatically include any missing joined objects** option is selected.
- 5 Click the **Synchronize with the data source** icon in the right-hand corner as shown in [Figure 20](#) on page 34:

Figure 20 Synchronize with Data Source Option



This imports all view objects which need to be mapped to the logical tables in the RPD. This mapping is based on the mapping between segment labels and the BI Objects as discussed in “Designating Key Flexfields as BI-Enabled ” on page 31. (See [Figure 21](#) on page 34.)

Figure 21 Importing View Objects



- 6 After the importing is completed, click **Next**.  
The Select Metadata Objects window is displayed.
- 7 Verify that the **Automatically include any missing joined objects** option is selected.

- 8 Click the **Synchronize with the data source** icon in the right-hand corner as shown in [Figure 20 on page 34](#):

This imports all view objects which need to be mapped to the logical tables in the RPD. This mapping is based on the mapping between segment labels and the BI Objects as discussed in “[Defining Segment Labels](#)” on page 43. (See [Figure 21 on page 34](#).)

- 9 In the **Map to Logical Model** window, you see that view objects imported in [step 5 on page 34](#) are automatically mapped to logical tables. You also see that the logical columns are automatically mapped to the VO columns in the bottom pane of the window as shown in [Figure 22 on page 35](#).

Figure 22 Mapping to Logical Model

Physical Tables	Logical Tables	VO Type	Hierarchy
FscmTopModelAM.AccountBIAM.FLEX_BI_Account_VI	Dim - GL Account	Normal	<input type="checkbox"/>
FscmTopModelAM.AccountBIAM.FLEX_TREE_VS_FA_COST_CTR_VI	Dim - Cost Center	Normal	<input checked="" type="checkbox"/>
FLEX_TREE_VS_FA_COST_CTR_VI_Dim - AP Account Cost Center	Dim - AP Account Cost Center	Normal	<input checked="" type="checkbox"/>
FLEX_TREE_VS_FA_COST_CTR_VI_Dim - AP Asset Account Cost Center	Dim - AP Asset Account Cost Center	Normal	<input checked="" type="checkbox"/>

- 10 Expose the newly added DFF attributes from the **Logical Tables** into the necessary presentation subject areas as required.

## Supported Key Flexfields

[Table 3 on page 35](#) lists the supported key flexfields for the corresponding key flexfield dimensions.

Table 3 Supported Key Flexfields

Product Area	Key Flexfield	Dimension
Fixed Assets	Category	Dim - Asset Category
Fixed Assets	Location	Dim - Asset Location
General Ledger	Accounting	Dim - GL Account 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

## Descriptive Flexfields

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 Fusion Applications tables.

To prepare descriptive flexfields for use in Transactional Business Intelligence, perform the following tasks:

- [“Configuring Descriptive Flexfields for Transactional Business Intelligence” on page 36](#)
- [“Designating Descriptive Flexfields as BI-Enabled” on page 38](#)
- [“Importing Descriptive Flexfield Changes into Transactional Business Intelligence” on page 38](#)

For a list of supported descriptive flexfields, see [Appendix C, “Supported Descriptive Flexfields”](#).

### Configuring Descriptive Flexfields for Transactional Business Intelligence

If a descriptive flexfield has been enabled for Oracle Business Intelligence, you can enable global and context segments for Oracle Business Intelligence, and you can select segment labels. See the Configuring Flexfields section of the Using Flexfields for Custom Attributes chapter of the *Oracle Fusion Applications Extensibility Guide*.

➤ To configure descriptive flexfield segments:

- 1 Navigate to the **Setup and Maintenance** window.
- 2 Navigate to the **Manage Descriptive Flexfields** window as shown in [Figure 23 on page 37](#)

Figure 23 Descriptive Flexfield Segments

**Edit Descriptive Flexfield: Purchasing Document Headers** Manage Contexts Manage Segment Labels Save Save and Close ?

Name: Purchasing Document Headers  
 Flexfield Code: PO\_HEADERS  
 Description: A document header which contains identifying information.

Segment Separator: .  
 Application: Purchasing  
 Module: Common Purchasing Entities

**Global Segments**

Actions View Format Freeze Detach Wrap

* Sequence	Name	Table Column	Value Set	Prompt
10	PO_HEADER_TEST	ATTRIBUTE1	15 Characters	PO_HEADER_TEST

Columns Hidden: 8

**Context Segment**

\* Prompt: Context Prompt  
 Value Set:   
 Default Type:   
☐ Required

☒ Displayed  
 Derivation Value:   
☐ BI Enabled  
 BI Label:

**Context Sensitive Segments**

Specify segments based on the defined context value.  
 No contexts to display.

- 3 Select the options for deployment of the descriptive flexfields as shown in [Figure 24 on page 37](#).

Figure 24 Descriptive Flexfield Deployment Options

**Edit Segment** Save Save and Close Cancel

Flexfield Name: Purchasing Document Headers  
 Flexfield Code: PO\_HEADERS

\* Name: PO\_HEADER\_TEST ☒ Enabled  
 Code: PO\_HEADER\_TEST  
 Description:

**Column Assignment**

Data Type: Character  
 Table Column: ATTRIBUTE1

**Validation** View Value Set

Value Set: 15 Characters  
 Value Set Description: 15 Characters  
 Range Type:   
☐ Required

**Initial Default**

Default Type:   
 Derivation Value:

**Display Properties**

\* Prompt: PO\_HEADER\_TEST  
 \* Short Prompt: PO\_HEADER\_TEST  
 Display Type: Text Box  
 Display Size:   
 Display Height:   
☐ Read-only

**Business Intelligence**

☒ BI Enabled  
 BI Label:

## Designating Descriptive Flexfields as BI-Enabled

- To designate descriptive flexfields as BI-enabled:
- 1 Access Oracle Fusion Applications.
- 2 Navigate to the **Setup and Maintenance** window.
- 3 Navigate to the **Edit Descriptive Flexfields** window as shown in [Figure 25 on page 38](#)

Figure 25 BI Enabled Check Box

The screenshot shows the 'Edit Descriptive Flexfield: PO\_HEADERS' window. The fields are as follows:

- Descriptive Flexfield Code: PO\_HEADERS
- \* Descriptive Flexfield Name: Purchasing Document Headers
- Description: A document header which contains identifying information.
- Application Name: Purchasing
- Module: Common Purchasing Entities
- \* Delimiter: .
- BI Enabled: ☒ BI Enabled (highlighted with a red box)

Buttons at the top right: Save, Save and Close, Cancel.

- 4 Enter the **Descriptive Flexfield Name**.
- 5 **Optional:** Enter a **Description**.
- 6 Check the **BI Enabled** check box on the desired descriptive flexfields.

## Importing Descriptive Flexfield Changes into Transactional Business Intelligence

**Note:** We strongly recommend that you backup the OBIEE RPD every time prior to importing descriptive flexfield changes.

- To import descriptive flexfield changes into Transactional Business Intelligence:
- 1 Using Oracle BI Administration Tool, open the Transactional Business Intelligence RPD file.
- 2 Navigate to the desired Oracle ADF database in the physical layer.
- 3 Right click on the connection pool under the Oracle ADF database and select **Import Metadata**.  
The Select Metadata Objects window is displayed.
- 4 Verify that the **Automatically include any missing joined objects** option is selected.
- 5 Click the **Synchronize with the data source** icon in the right-hand corner as shown in [Figure 26 on page 39](#):

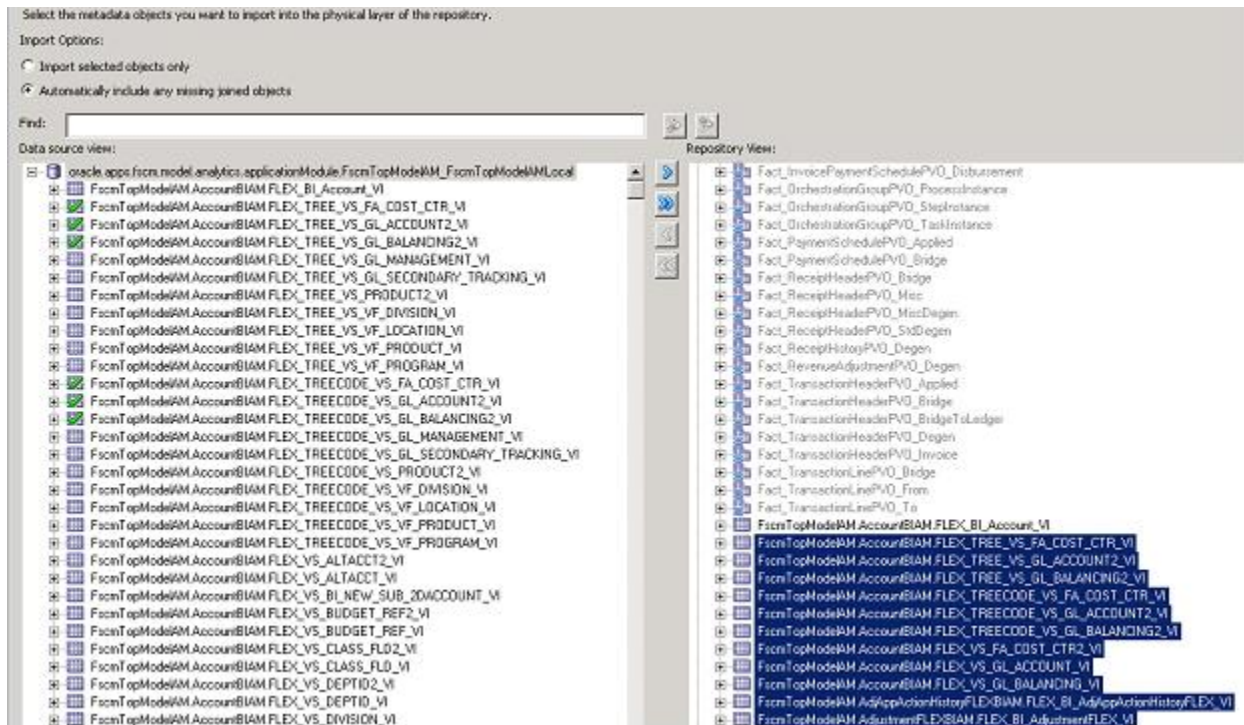


Figure 26 Synchronize with Data Source Option



This imports all view objects which need to be mapped to the logical tables in the RPD. This mapping is based on the mapping between segment labels and the BI Objects discussed in “Designating Descriptive Flexfields as BI-Enabled” on page 38. (See Figure 27 on page 39.)

Figure 27 Importing View Objects



- 6 After the importing is completed, click **Next**.

The Select Metadata Objects window is displayed.

- 7 Verify that the **Automatically include any missing joined objects** option is selected.
- 8 Click the **Synchronize with the data source** icon in the right-hand corner as shown in Figure 26 on page 39:

This imports all view objects which need to be mapped to the logical tables in the RPD. This mapping is based on the mapping between segment labels and the BI Objects discussed in “Configuring Descriptive Flexfields for Transactional Business Intelligence” on page 36. (See Figure 27 on page 39.)

- 9 In the **Map to Logical Model** window, you see that view objects imported in step 5 on page 38 are automatically mapped to logical tables. You also see that the logical columns are automatically mapped to the VO columns in the bottom pane of the window as shown in Figure 28 on page 40.

Figure 28 Mapping to Logical Model

Map Selected Metadata Objects to Logical Model

Business Model to Map to: Core Create Logical Joins Reset to default Mappings

Table Mapping:

Physical Tables	Logical Tables	VO Type	Hierarchy
FscmTopModelAM.AccountBLAM.FLEX_BI_Account_VI	Dim - GL Account	Normal	<input type="checkbox"/>
FscmTopModelAM.AccountBLAM.FLEX_TREE_VS_FA_COST_CTR_VI	Dim - Cost Center	Normal	<input type="checkbox"/>
FLEX_TREE_VS_FA_COST_CTR_VI_Dim - AP Account Cost Center	Dim - AP Account Cost Center	Normal	<input checked="" type="checkbox"/>
FLEX_TREE_VS_FA_COST_CTR_VI_Dim - AP Asset Account Cost Center	Dim - AP Asset Account Cost Center	Normal	<input checked="" type="checkbox"/>
FLEX_TREE_VS_FA_COST_CTR_VI_Dim - AP Asset Account Cost Center	Dim - AP Asset Account Cost Center	Normal	<input checked="" type="checkbox"/>

10 Expose the newly added DFF attributes from the **Logical Tables** into the necessary presentation subject areas as required.

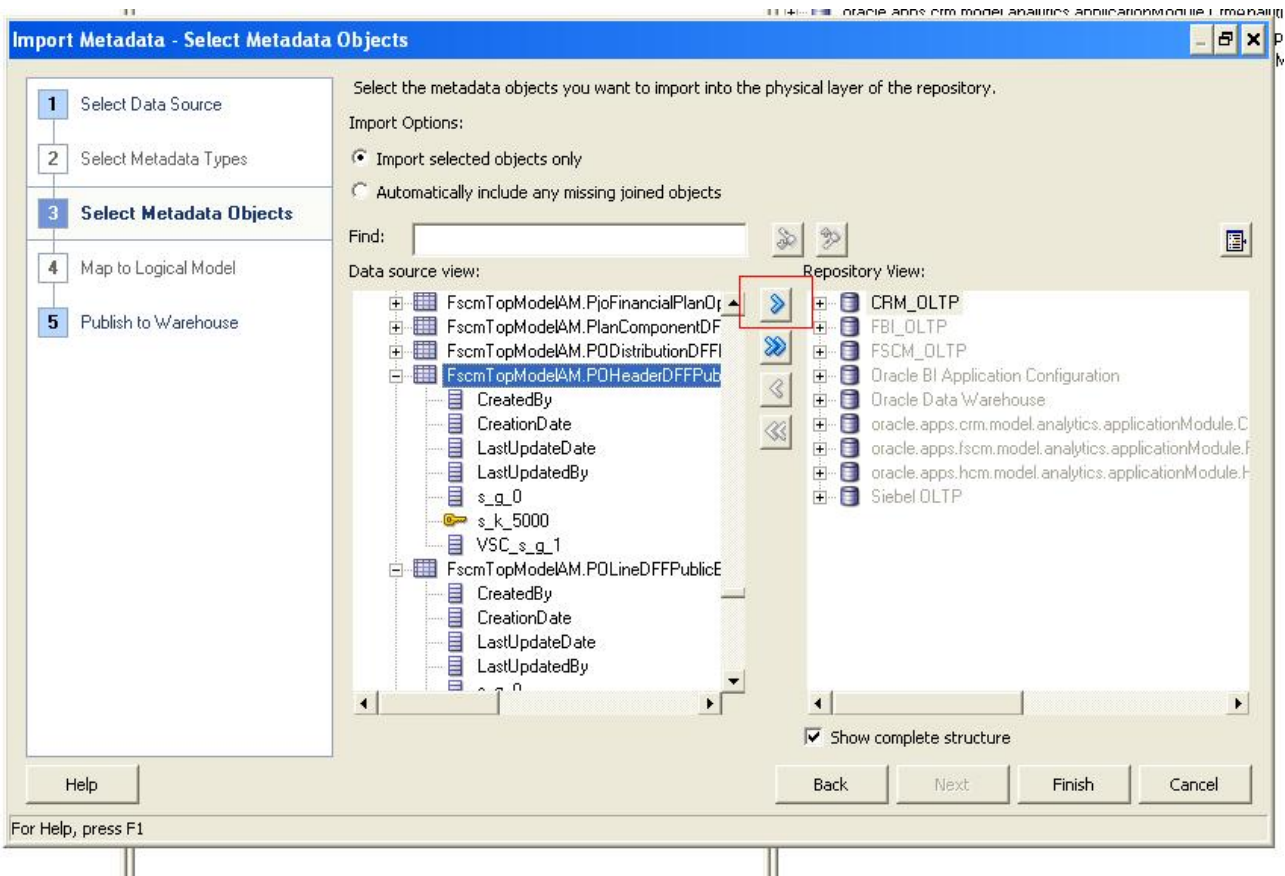
## Importing Descriptive Flexfield Changes into Transactional Business Intelligence RPD

**Note:** We strongly recommend that you backup the OBIEE RPD every time prior to importing descriptive flexfield changes.

- To import descriptive flexfield changes into the Transactional Business Intelligence RPD:
  - 1 Navigate to the **Import Metadata** window as shown in [Figure 29 on page 41](#).



Figure 29 Importing Descriptive Flexfield Changes



- 2 Enter values in **Select Data Source** screen and click **Next**.
- 3 Under **Import Options**, click **Import selected objects only**.
- 4 In **Data source view** pane, select the key flexfield view objects, and import the view objects into the **Repository View** (physical layer) pane using the right arrow.
- 5 Click **Finish**.
- 6 Close the **Import Metadata** window.
- 7 Navigate to the imported DFF VO in the physical layer.
- 8 Identify the Logical Tables and the Logical Table Sources (LTS) in this DFF VO which must be added.
- 9 Drag and drop the VO from the physical layer into this LTS.
- 10 Expose the newly added DFF attributes from the Logical Table into the necessary presentation subject areas as required.

## Setting up the GL Accounting Segment

A chart of accounts segment is a component of the account combination. 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 reporting financial transactions.

**Note:** You must set up your Chart of Accounts (COA) as part of implementing Fusion FAH.

Examples of segments that may be found in a chart of accounts structure include:

- Company
- Cost center
- Department
- Division
- Region
- Account
- Product
- Program
- Location

The General Ledger Accounting Segment is the principal use of key flexfields. Setting up the GL Accounting Segment consists of performing the following tasks:

1. [“Identifying Accounting Flexfield Segments” on page 42](#)
2. [“Defining Segment Labels” on page 43](#)
3. [“Assigning Unique Segment Labels” on page 43](#)
4. [“Specifying Segment Instances” on page 43](#)
5. [“Performing Column Flattening” on page 44](#)
6. [“Importing GL Accounting Flexfield Changes” on page 44](#)

## Identifying Accounting Flexfield Segments

For each Chart of Accounts (Accounting Flexfield) used to analyze OTBI facts, identify the segments of the chart and map them to the OTBI GL Accounting Segment logical dimensions as shown in [Table 4 on page 42](#).

**Table 4** Accounting Flexfield Segment to OTBI GL Accounting Segment Logical Dimension Mapping

Accounting Flexfield Segment	Segment Label	OTBI 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 <i>n</i> where <i>n</i> is an integer from 1 to 10

**Note:** See [“Renaming Dimensions and Hierarchies” on page 56](#).

## Defining Segment Labels

Define the new unique segment label(s) if you need them to equalize the segments across the charts of accounts. For more information, see the *Oracle Fusion Applications Developer's Guide*.

## Assigning Unique Segment Labels

Assign a unique segment label to the chart of accounts segments that serve the same purpose in different charts of accounts and you wish to be equalized across charts of accounts.

- To assign unique segment labels to the chart of accounts segments:
  - 1 Launch the **Manage Charts of Accounts** task and then navigate to the **Manage Chart of Accounts** window.
  - 2 In the **Search** section, enter the **GL#** for the **Key Flexfield Code** and then click the **Search** button.
  - 3 In the **Search Results** section, select **Accounting Flexfield** and then 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 then click the **Search** button.
  - 5 In the **Search Results** section, select the chart of accounts and then 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 then 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 then click the right arrow to move the segments to the selected list.
  - 10 Click **Save** and then click **Close** to return to the **Edit Key Flexfield Structure** window.
  - 11 Click **Done** to return to the **Manage Key Flexfields** window.

## Specifying Segment Instances

Specify the applicable chart of accounts segment instances that are BI Enabled to make them available for use in OTBI.

- To specify the chart of accounts segment instances:
  - 1 In the **Search Results** section of the **Manage Key Flexfields** window, select **Accounting Flexfield**, and then 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.

**Note:** Each segment instances must be selected individually.

- 6 Check 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 then **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 Accounting Flexfield and make the latest definition available for use.

## Performing Column Flattening

Perform column flattening for the account hierarchies needed for reporting in Transactional Business Intelligence.

► 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 and choose **Column Flattening** from the **Actions** drop-down menu.
- 4 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.

**Note:** For more information on Key Flexfields, Trees and their management, see the *Oracle Fusion Applications Common Implementation Guide* and the *Oracle Fusion Applications Developer's Guide*.

## Importing GL Accounting Flexfield Changes

This section describes how to import the GL Accounting flexfield changes.

- [“Overview of GL Accounting Flexfield Changes” on page 45](#)
- [“Setting Up BI Extensions for Importing Flexfield Changes” on page 45](#)

**Note:** We strongly recommend that you backup the OBIEE RPD every time prior to invoking the extension process.

## Overview of GL Accounting Flexfield Changes

The logical segment dimensions in the RPD metadata are Dim - Cost Center, Dim - Balancing Segment, Dim - Natural Account Segment and all Dim - GL Segment dimensions. These dimension tables will be 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 Fusion Applications setup:

- For each segment associated with trees, two value objects will be 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 will be 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 will have 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 will be two columns in this view object, named `FA_COST_CTR_` and `FA_COST_CTR_c`.

## Setting Up BI Extensions for Importing Flexfield Changes

There are two tasks to perform in setting up the BI Extensions for importing Flexfield Changes:

- [“Importing View Objects from ADF Data Source” on page 45](#)
- [“Validating Automatic Mappings of View Objects” on page 47](#)

### Importing View Objects from ADF Data Source

➤ To import the View Objects (VOs) from the ADF data source:

- 1 Using Oracle BI Administration Tool, open the RPD file (for example, `OracleBIAnalyticsApps.rpd`).
- 2 Navigate to the Oracle ADF database in the physical layer:

---

```
oracle.apps.fscm.model.analytics.applicationModule.FscmTopModelAM_FscmTopModelAMLocal
```

---

- 3 Click the connection pool and select **Import Metadata**.

The Select Metadata Objects displays.

- 4 Select all **Tree**, **Tree Code**, and **Value Set VOs** in the `FscmTopModelAM.AccountBIAM` application module (`FscmTopModelAM.AccountBIAM.FLEX_TREE*` & `FscmTopModelAM.AccountBIAM.FLEX_VS*`)

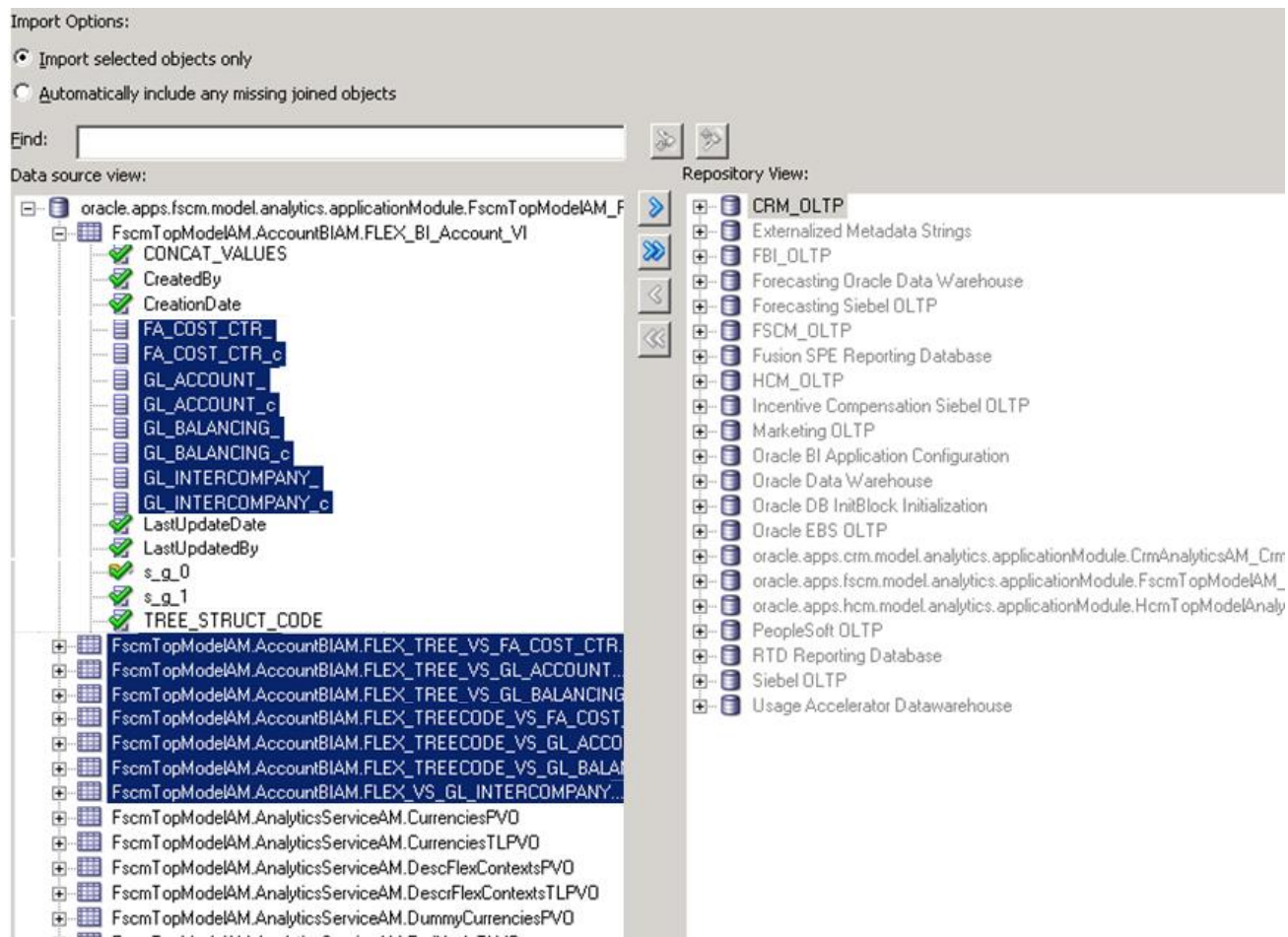
5 Select all columns ending with “\_” and “\_c” from

FscmTopModelAM.AccountBIAM.FLEX\_BI\_Account\_VI that have not yet been imported into the RPD. (See Figure 30 on page 46 as an example.)

**Note:** Verify that the view object name itself is *not* selected and only the columns are selected.

**Tip:** You can select all the columns from this view object and then UNSELECT the columns which are already imported into the RPD. Columns that are already imported into the RPD during any prior imports are marked with a special icon.

Figure 30 Importing View Objects from ADF Data Source



6 Make sure the **Import Selected Objects Only** option is selected and import the objects selected into the right pane.

**Caution!** Make sure that all the objects you selected in steps 4 and 5, above, are imported to the right pane in a single import.

7 After the import is completed, click **Next**.



**Note:** When certain complex Chart of Account structures are defined in Fusion Applications, multiple view objects may be generated for the same segment label. In such a case you would see a warning message as shown in [Figure 31 on page 47](#). Record the information posted in the message as this may be needed for manual configuration in subsequent steps.

**Figure 31 Multiple view object Warning Message**



8 Click **OK**.

## Validating Automatic Mappings of View Objects


After you have imported the view objects, the Map to Logical Model window displays as shown in [Figure 32 on page 47](#)

**Figure 32 Map to Logical Model**

Map Selected Metadata Objects to Logical Model





Business Model to Map to: 

Core

 ☐ Create Logical Joins

Reset to default Mappings

Table Mapping:

Physical Tables	Logical Tables		VO Type	Hierarchy
FscmTopModelAM.AccountBIAM.FLEX_GL_Account_VI	Dim - GL Account		Normal	<input type="checkbox"/>
FscmTopModelAM.AccountBIAM.FLEX_TREE_VS_FA_COST_CTR_VI	Dim - Cost Center		Normal	<input checked="" type="checkbox"/>
FLEX_TREE_VS_FA_COST_CTR_VI_Dim - AP Account Cost Center	Dim - AP Account Cost Center		Normal	<input checked="" type="checkbox"/>
FLEX_TREE_VS_FA_COST_CTR_VI_Dim - AP Asset Account Cost Center	Dim - AP Asset Account Cost Center		Normal	<input checked="" type="checkbox"/>

You should see that the value objects imported in [“Importing View Objects from ADF Data Source” on page 45](#) are automatically mapped to the appropriate logical tables. You should also see that the logical columns are automatically mapped to the view object columns in the bottom panel.

Using the following guidelines, validate that all automatic mappings have taken place as expected:

- For tree based segments, both **Tree** and **Tree Code VO** should be mapped to the same logical table. The **Hierarchy** option should be checked for both.
- For non tree segments, the **Hierarchy** option should *not* be checked.

- FscmTopModelAM.AccountBIAM.FLEX\_BI\_Account\_VI should be mapped to Dim - GL Account.
- For view objects mapped to logical tables, the necessary view object columns are also mapped to the appropriate logical columns.

**Note:** If you received the “Multiple view objects” warning message shown in [Figure 31 on page 47](#), none of the view objects mentioned in the message will be mapped to a logical table. This is because multiple view objects have been generated for the same segment label, and you must therefore select which view object to map to a logical table.

If you want to map these view objects in BI Applications, you need to map to one of the generic GL segment dimensions (Dim - GL Segment $n$ ) manually at this stage. For each view object that you manually map at this step, you also need to map the corresponding columns in FscmTopModelAM.AccountBIAM.FLEX\_BI\_Account\_VI to the appropriate logical column in Dim - GL Account.

After you have validated your mappings, click **Finish** to complete the extension process.

## Enabling User Currency Preference Settings

This section provides instructions for enabling user currency preference settings for BI Applications. This section contains the following topics:

- [“Enabling the Currency User Preference File” on page 48](#)
- [“Editing Currency Display Names” on page 49](#)
- [“Enabling Document Currency” on page 49](#)

### Enabling the Currency User Preference File

The Currency User Preference file is userpref\_ currencies\_OBIA.xml. The file instanceconfig.xml used by Oracle BI Presentation Services must point to this file. To do this, modify the UserprefCurrenciesConfigFile parameter in instanceconfig.xml to point to userpref\_ currencies\_OBIA.xml.

Both the instanceconfig.xml and userpref\_ currencies\_OBIA.xml files are located in the following directory: `INSTANCE_ HOME\config\OracleBIPresentationServicesComponent\coreapplicatio n_obipsn`

► To enable the user currency preference file:

- 1 Access the following directory on the Oracle BI instance: `INSTANCE_ HOME\config\OracleBIPresentationServicesComponent\coreapplica tion_obips1`
- 2 Open the file `instanceconfig.xml` for editing.



- 3 **Modify the** `UserprefCurrenciesConfigFile` **parameter in** `instanceconfig.xml` **to point to** `userpref_currencies_OBIA.xml`.
- 4 Click **Save** and close `instanceconfig.xml`.
- 5 Using OPMN, restart Presentation Services.

## Editing Currency Display Names

Oracle Business Intelligence is installed with a set of preferred currencies with pre-configured Preferred Currency Codes and Preferred Currency Names. You can use the out-of-the-box Currency Display Names, or you can specify new Currency Display Names as described in this section. You edit Preferred Currency Name values to change the currency labels that are displayed in all modules associated with BI dashboards. For example, you might want to change the “Local Currency” label from “Ledger Currency” to “Local Currency”.

► To edit a Currency Display Name:

- 1 **1. Log in to Oracle BI Applications Configuration Manager as a user with the Business Intelligence Applications Administrator duty role.**  
  
**Note:** For more information about how to log in and use Oracle BI Applications Configuration Manager, see Appendix A.4, "How to Start Oracle BI Applications Configuration Manager."
- 2 From the **Tasks** bar, click **Manage Preferred Currencies** to display the **Manage Preferred Currencies** dialog
- 3 Select a currency in the **Preferred Currencies** list. Selecting the currency displays the associated modules in the bottom table.
- 4 Click the value in the **Preferred Currency Name** column (or click the Edit icon) to display the **Preferred Currency Name** dialog box.
- 5 In the Preferred Currency Name field, specify a currency name. This is the name that will appear for end users in the Currency drop-down list, located in Preferences tab of the My Accounts dialog window of Oracle Business Intelligence.
- 6 Click **Save** and **Close**.

## Enabling Document Currency

By default, Document currency is excluded from the Currency drop-down list (located in the Preferences tab of the My Accounts dialog window of Oracle Business Intelligence). To include Document currency, you must remove a specific filter from all the following security groups in the RPD:

- OBIA\_PROJECT\_CURRENCY\_PREFERENCES
- OBIA\_HCM\_CURRENCY\_PREFERENCES
- OBIA\_SCM\_CURRENCY\_PREFERENCES
- OBIA\_FINANCIAL\_CURRENCY\_PREFERENCES

- OBIA\_PROCUMENT\_CURRENCY\_PREFERENCES
- OBIA\_MARKETING\_CURRENCY\_PREFERENCES
- OBIA\_PARTNER\_CURRENCY\_PREFERENCES
- OBIA\_CRM\_CURRENCY\_PREFERENCES
- OBIA\_SALES\_CURRENCY\_PREFERENCES

► To enable document currency:

- 1 Start the Oracle BI Administration Tool.
- 2 Click **Manage**, and then **Identity**.
- 3 In the **Identity Manager** dialog window, click **BI Repository**.
- 4 Select the **Application Roles** tab.
- 5 For each of the security groups in the RPD list above, do the following:
  - a. Double-click the security group. . c.
  - b. Click **Permission**, and then select the **Data Filters** tab.
  - c. Remove the following filter in the data filter column:

```
AND "Core"."Fact - Preference List"."Currency Preference Code" <>
'Document Currency'
```

For example, the original filter:

```
"Core"."Fact - Preference List"."Module Code" = 'PROJECT_ AN' AND
"Core"."Fact - Preference List"."Currency Preference Flag" in
('W', 'B') AND "Core"."Fact - Preference List"."Currency
Preference Code" <> 'Document Currency'
```

should become as follows *after* you remove the filter:

```
"Core"."Fact - Preference List"."Module Code" = 'PROJECT_ AN' AND
"Core"."Fact - Preference List"."Currency Preference Flag" in
('W', 'B')
```

- 6 Click **Save**.

## Modeling Essbase Cubes

The BI Administrator must make the General Ledger (GL) Balances cubes available to GL users who are enabled to query Transactional Business Intelligence as the source for GL Transactional Balances Real Time subject areas.

## Physical Layer Changes

Changes to the physical layer of the Oracle BI repository include importing Essbase cubes, converting multiple hierarchies into one hierarchy, creating measures and flattening

dimensions, creating LedgerId attribute in ledger dimension of each cube, and renaming dimensions and hierarchies.

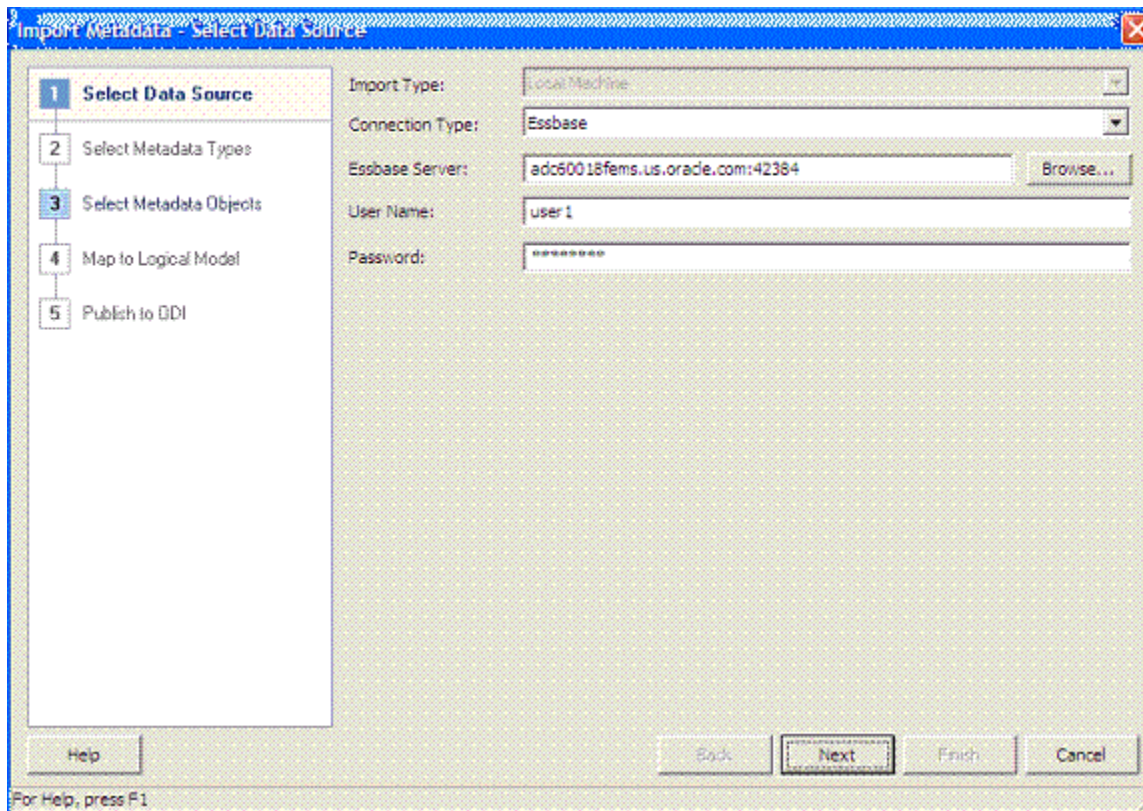
After GL cubes are generated in Essbase, the BI Administrator must configure the connection (see [Chapter 6, “Additional Links”](#)). The administrator must also import the cube and map the contents to the logical layer.

## Importing Essbase Cubes

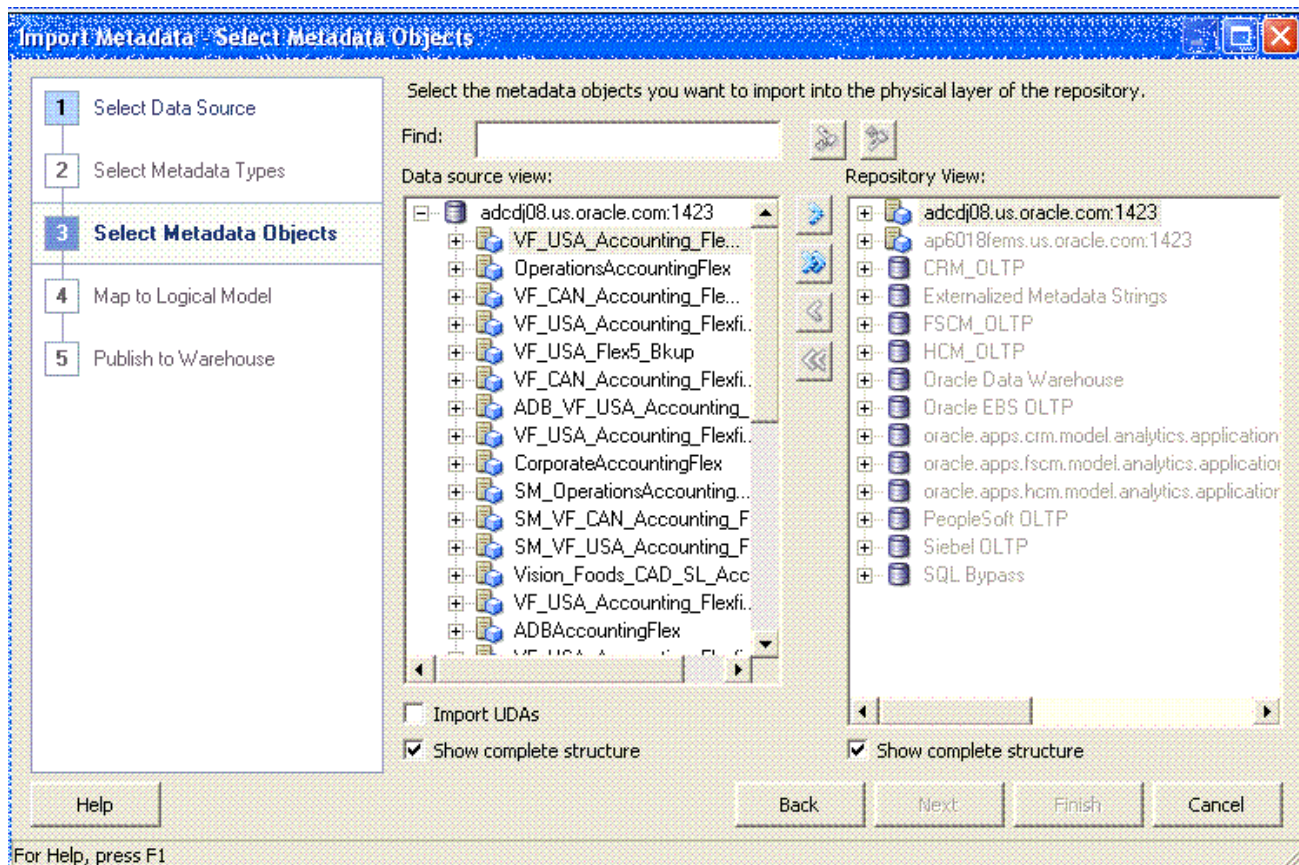
Follow these steps to import Essbase cubes into the physical layer of Oracle BI EE.

➤ To import Essbase cubes:

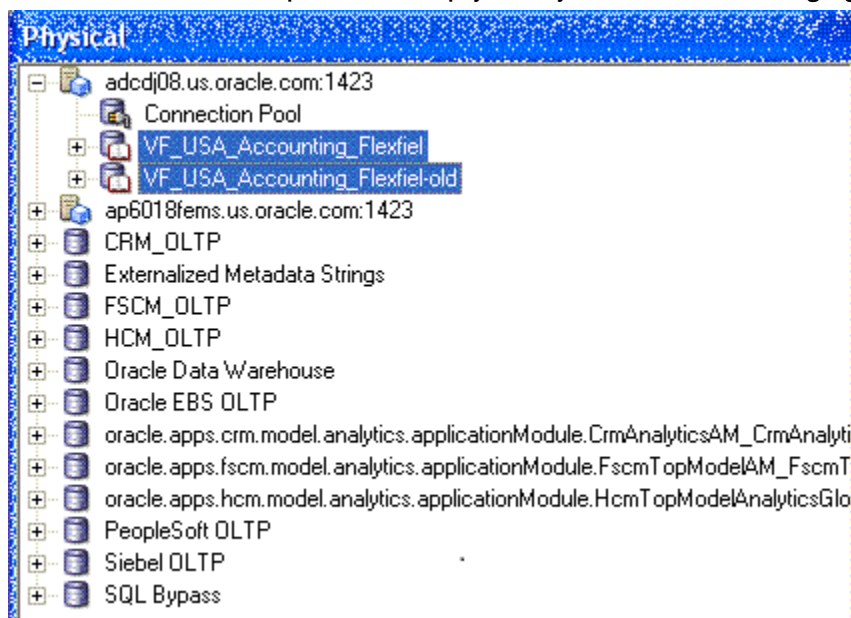
- 1 **Select File** and then **Import Metadata**.
- 2 Select **Connection Type** Essbase, provide Essbase Server details, user name, and password, and then select **Next**.



- 3 Each cube is uniquely defined by the Chart of Accounts and Accounting Calendar. Select the cubes from **Data source View**, and move them to **Repository View**.



- 4 Leave the **Import UDAs** check box clear. If selected, Oracle BI EE creates measures of Account Dimension when converting from multiple Hierarchies to Single Hierarchy view. See [“Converting Multiple Hierarchies into One Hierarchy”](#) on page 53.
- 5 Select **Finish** after the cubes are selected.
- 6 Selected cubes are imported into the physical layer of Oracle BI EE as highlighted in the figure below:



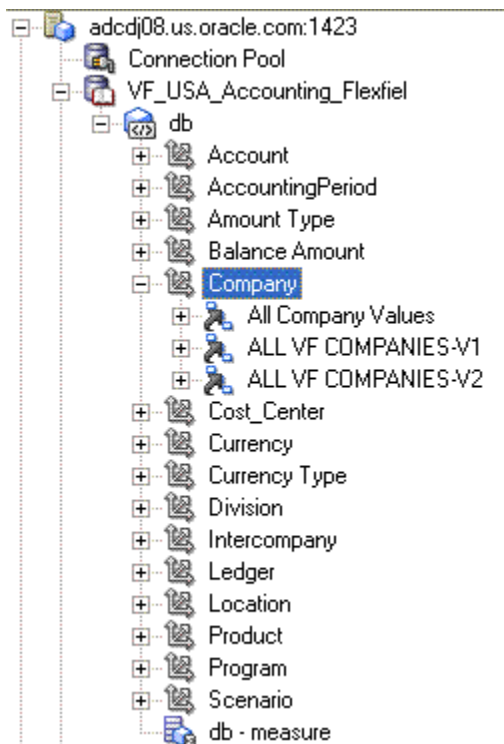
After the cubes are imported, you must make these changes in the physical layer:

**Note:** The following sections illustrate the modeling of one cube. Follow the same steps for all imported cubes.

### Converting Multiple Hierarchies into One Hierarchy

By default, when imported, the cubes resemble the Essbase hierarchy. [Figure 33](#) displays the Company Dimension after import.

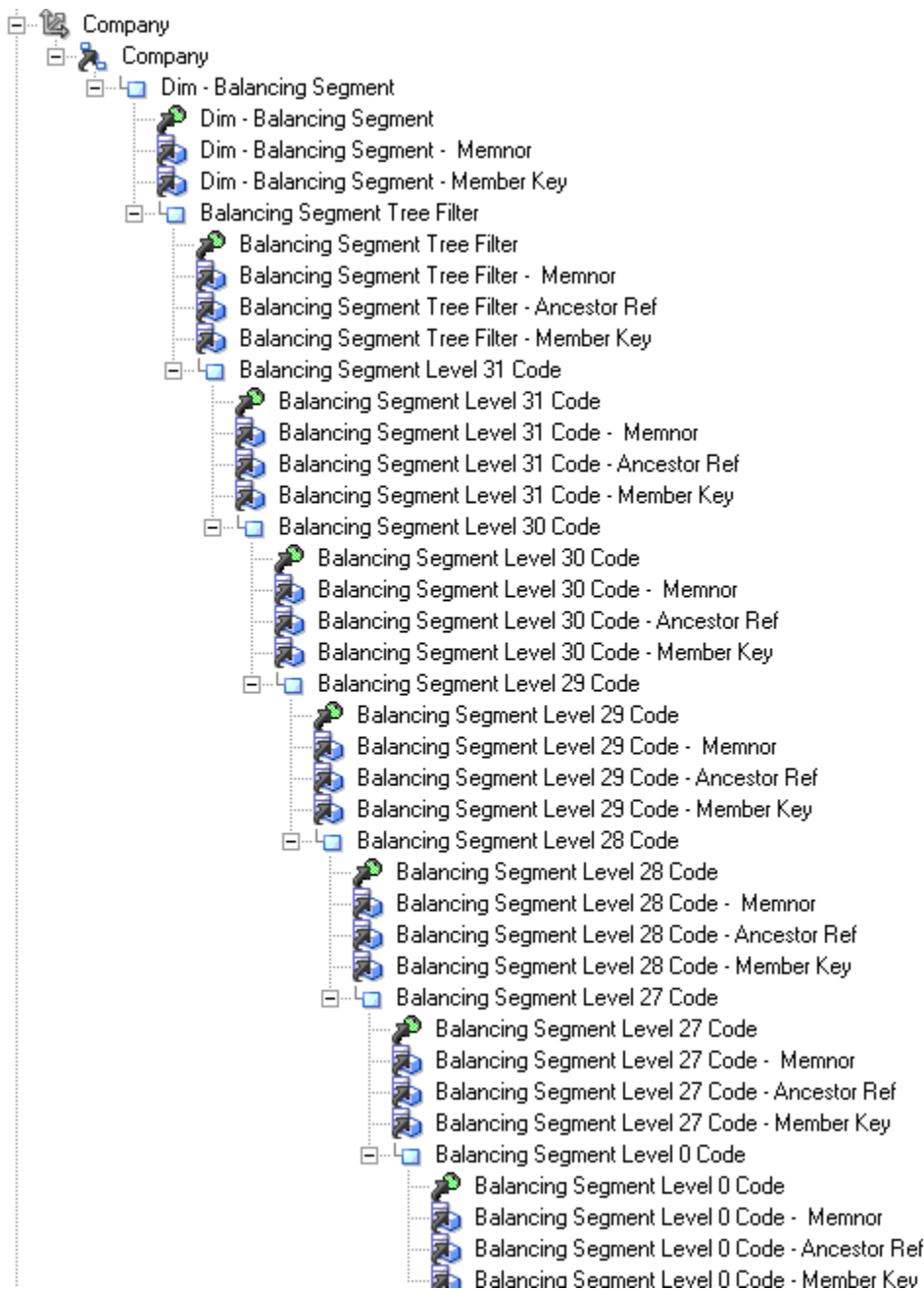
**Figure 33** Dimension with Multiple Hierarchies



You must convert multiple hierarchies into one hierarchy.

➤ To convert to a single hierarchy:

- 1 Right-click on the dimension.
- 2 Select **Convert to Single Hierarchy View** option. Results are as displayed in the following figure.

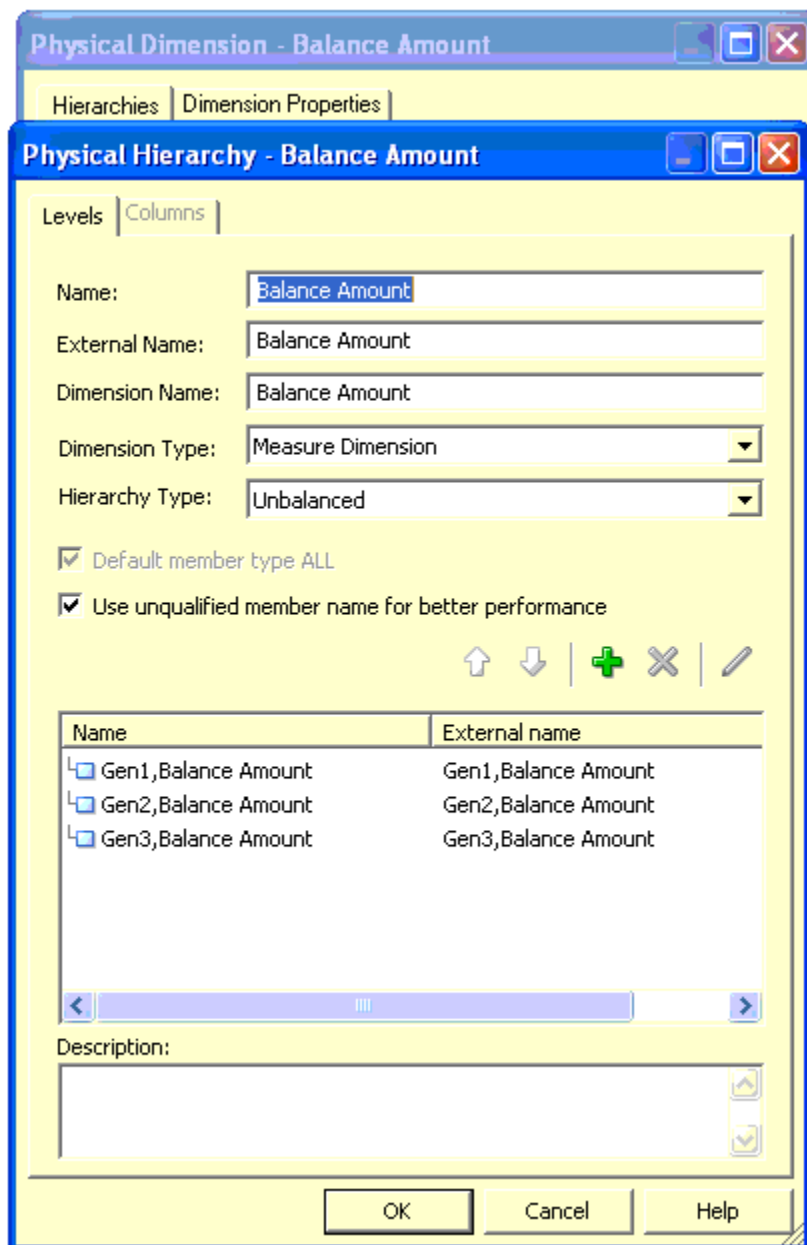


## Creating Measures and Flattening Dimensions

Use the following steps to create measures by flattening the Balance Amount Dimension.

► To create measures and flattening dimensions:

- 1 Double-click the db (Cube Table Object) and go to the **Hierarchies** tab.
- 2 Double-click the Balance Amount dimension and change the **Dimension Type** from **other** to **Measure Dimension** and select **OK** twice to close all open dialog boxes. The following figure is an example.



- 3 Right-click **Database** and select **Convert measure Dimension to Flat Measures**. All measures based on the Balance Amount Dimension are displayed in the physical layer.

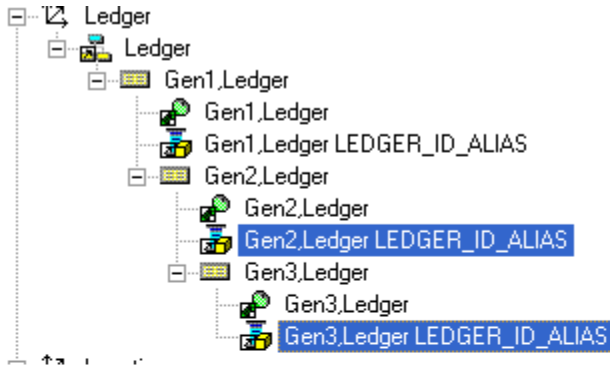
### Creating Ledger ID and Ledger Description attributes in Ledger Dimension of each Cube

Ledger ID is the primary key in the Business Model and Mapping layer and must be mapped from the physical layer. Ledger ID is not available as an attribute of Ledger dimension in the Essbase cubes after import. You must manually create Attributes.

➤ To create the Ledger ID attribute:

- 1 Right-click the Ledger Dimension and select **Create Columns For Alias Table**.

- 2 Select **LEDGER\_ID\_ALIAS** from the list. Ledger\_id is added to all the levels of Ledger Dimension.



- 3 Similarly, add the Default alias (Select Default) in [step 2](#), which provides the Ledger Description.
- 4 Default Alias is added to all levels of the Ledger dimension.

## Renaming Dimensions and Hierarchies

Essbase dimension and hierarchy names in the physical layer of the Essbase cube do not match those in the Business Model and Mapping Layer Model; therefore, Essbase cube dimension and hierarchy names must be changed so that their names are based on the mapping between the segment labels to BI objects done in Fusion OLTP. This must be done in order for the Drag and Drop feature to work.

### Physical Layer

The renaming of Essbase qualified segment dimensions and hierarchies should follow the guidelines in [Table 5 on page 56](#).

**Table 5** Qualified Segment Names

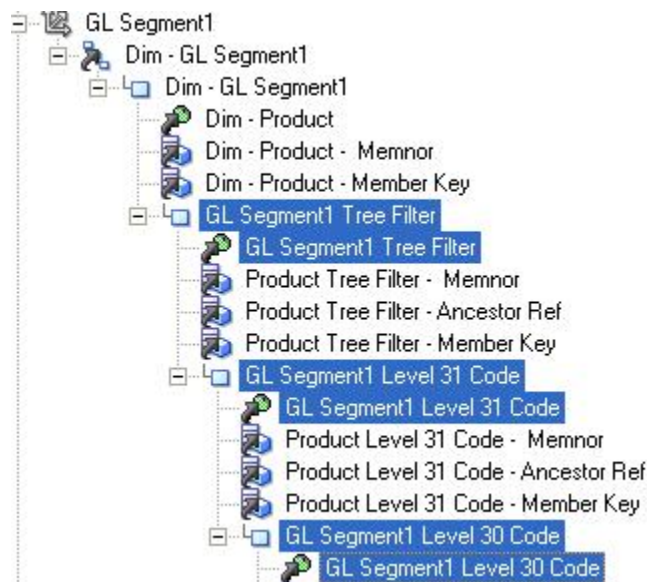
Essbase Segment Name	Segment Label Code (Defined in OLTP)	Modified Dimension Name	Modified Hierarchy Name
Company	GL_BALANCING	Dim - Balancing Segment	Balancing Segment
Account	GL_ACCOUNT	Dim - Natural Account Segment	Natural Account Segment
Department	FA_COST_CTR	Dim - Cost Center	Cost Centers



If a non-qualified segment dimension is present in an Essbase cube, then the dimension name should be renamed to Dim - GL Segment $x$ , and the hierarchy to GL Segment $x$  where  $x$  is a value from 1 to 10, depending upon which dimension it is mapped to in Fusion OLTP.

For example, if Product Dimension is mapped to GL Segment 1, then Product Dim is renamed to Dim-GL Segment1 and Hierarchy is renamed to GL Segment1 in the physical layer. In addition, for non-qualified segment dimensions, rename the code attributes inside the dimension to match attributes of GL Segment $x$  in the Business Model and Mapping layer. (See [Figure 34 on page 57.](#))

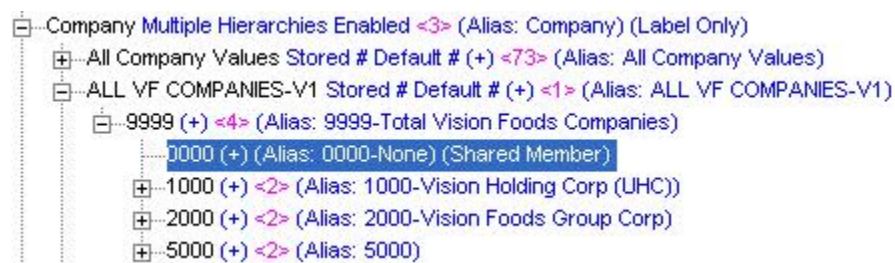
**Figure 34 Renaming Non-qualified Segment Dimensions**



**Note:** The attributes ending with Memnor, Ancestor Ref, and Member Key are not renamed, because they are deleted. See [“The Business Model and Mapping Layer Changes” on page 60.](#) For dimensions that share members across hierarchies, clear Use Unqualified Name for better performance . If you fail to do so, unknown member errors can occur.

[Figure 35 on page 57](#) shows a company Dimension with shared members.

**Figure 35 Company Dimension with Shared Members**



The renaming of dimensions other than Segment Dimensions should follow the guidelines in [Table 6 on page 58](#).

**Table 6** Dimensions other than Segment Dimensions

Essbase Definition	Modified Dimension Name	Modified Hierarchy name
Accounting Period	Dim - Date Fiscal Calendar	Date - Fiscal Calendar
Currency	Dim - Currency	Currency
Amount Type	Dim - Amount Type	Amount Type
Currency Type	Dim - Currency Type	Currency Type

## Renaming Procedure

➤ To rename hierarchies and dimensions:

- 1 For the company Dimension (Renamed `Dim-Balancing Segment`), in the physical layer of the Oracle BI repository, double-click the dimension and select the **Hierarchies** tab.
- 2 Select the hierarchy and clear **Use unqualified name for better performance** as shown in [Figure 36 on page 59](#).

Figure 36 Physical Hierarchy - Dim - Balancing Segment

**Physical Dimension - Balancing Segment**

Hierarchies | Dimension Properties

**Physical Hierarchy - Dim - Balancing Segment**

Levels | Columns

Name: Dim - Balancing Segment

External Name: Company

Dimension Name: Company

Dimension Type: Other

Hierarchy Type: Unbalanced

☒ Default member type ALL

☐ Use unqualified member name for better performance

↑ ↓ + × | ✎

Name	External name
Dim - Balancing Segment	Dim - Balancing Segment
Balancing Segment Tree Filter	Company Tree Filter
Balancing Segment Level 31 Code	Balancing Segment Level 31 C
Balancing Segment Level 30 Code	Balancing Segment Level 30 C
Balancing Segment Level 29 Code	Balancing Segment Level 29 C
Balancing Segment Level 28 Code	Balancing Segment Level 28 C
Balancing Segment Level 27 Code	Balancing Segment Level 27 C

Description:

OK Cancel Help

- 3 Click **OK** twice.
- 4 Click **OK** in the Physical Dimension-Balancing Segment dialog box.

**Note:** Do not rename the External name.

### Data Type Changes

You must change the data type of these attributes in the physical layer before mapping them to the Logical Model.

➤ To change the Ledger Dimension for the following attributes:

- 1 Double-click the dimension in the physical layer to modify the data type of any dimension.
- 2 Double-click **Gen2, Ledger – LEDGER\_ID\_ALIAS** and change the data type to double.
- 3 Click **OK**.
- 4 Double-click and change the data type to double.
- 5 Click **OK**.

➤ To change the Date – Fiscal Calendar Dimension for the following attributes:

- 1 Double-click **Fiscal Year attribute of Date - Fiscal Calendar** and change the data type to double.
- 2 Click **OK**.

## The Business Model and Mapping Layer Changes

Changes to the business model and mapping layer are made in the Business Model and Mapping layer of the Oracle BI repository.

The following sections describe the mapping of the Dimensions and then the Facts.

### Mapping Essbase Attributes to Existing Logical Dimensions

You can map attributes from the Essbase cube to the existing model.

See:

- [“Attribute Mapping” on page 60](#)
- [“Dragging” on page 63](#)

After completing the attribute mapping or dragging procedure,


see [“Balance Fact–Modeling” on page 70](#).

### Attribute Mapping

This section describes the mapping of each dimension in Essbase to the existing Business Model and Mapping Layer. From each Dimension in Essbase, the attributes must be dragged into the corresponding Dimension in the Business Model and Mapping layer.

### Amount Type

Amount Type in the physical layer must be mapped to Dim-Amount Type in the logical layer.

Logical Column	Expression	Physical Table
AmountType	AmountType	 db

### Date-Fiscal Calendar

Date-Fiscal Calendar in physical layer must be mapped to Dim-Date Fiscal Calendar in the logical layer. The mappings of Date-Fiscal Calendar Dimension are show below:

Logical Column	Expression		Physical Table
Fiscal Calendar Name	'Accounting14'	✗	
Fiscal Period	Fiscal Period	✗	db
Fiscal Period Key	Fiscal Period	✗	db
Fiscal Period Number	Fiscal Period - Memnor	✗	db
Fiscal Period Wid	Fiscal Period - Memnor	✗	db
Fiscal Quarter	Fiscal Quarter	✗	db
Fiscal Quarter Key	Fiscal Quarter	✗	db
Fiscal Quarter Number	Fiscal Quarter - Memnor	✗	db
Fiscal Quarter Wid	Fiscal Quarter - Memnor	✗	db
Fiscal Quarter Wid sort order DTBI	Fiscal Quarter - Memnor	✗	db
Fiscal Year	cast(''adcdak04.us.oracle.com:10215''.'VF_USA_Accounting_Flexfiel'':''.'db'':Fiscal Year'' as char)	✗	db
Fiscal Year Number	Fiscal Year	✗	db
Fiscal Year Wid	Fiscal Year	✗	db

**Note:** The **Fiscal year** attribute must be shown in the **Expression** column of the preceding figure. Here, **VF\_USA\_Accounting\_Flexfiel** is the name of the cube. In addition, the Fiscal Calendar Name should be determined as explained in section [“Balance Fact–Modeling” on page 70](#) and typed in as well.

## Ledger and Ledger Set

Ledger Dimension attributes are mapped to Dim-Ledger and Dim-Ledger Set in the Business Model and Mapping layer. Ledger dimension mapping is shown below:

Logical Column	Expression		Physical Table
Chart Of Account	'Operations Accounting Flex'	✗	
Ledger Description	Gen3.Ledger - Default	✗	db
Ledger Key	Gen3.Ledger - LEDGER_ID_ALIAS	✗	db
Ledger Name	Gen3.Ledger	✗	db

**Note:** Chart of Account should be determined as explained in [“Balance Fact–Modeling” on page 70](#).

Ledger Set dimension mapping is shown below:

Logical Column	Expression		Physical Table
Ledger Set Key	Gen2.Ledger - LEDGER_ID_ALIAS	✗	db
Ledger Set Name	Gen2.Ledger	✗	db

## Segment Dimensions

The mapping starts from the top level in the Essbase Dimension hierarchy to the Business Model and Mapping layer. For example, in the Business Model and Mapping layer:

- XSegment Tree Filter attribute from the Essbase Dimension maps to the XSegment Tree Filter attribute
- Level X Code attribute of Essbase Dimension maps to Segment Level Xcode
- Balancing Segment Level 31 Code in Essbase Dimension maps to Balancing Segment Level 31 Code attribute
- Balancing Segment Level 0 Code in Essbase Dimension maps to Balancing Segment Code attribute
- XSegment Level 0 Code in Essbase Dimension maps to the Leaf level attribute X Segment Code

Because the Essbase hierarchy does not have 32 levels, and the Logical Dimension has 32 levels, the intermediate levels must be mapped to the Leaf level from Essbase hierarchy. This is true for all the segment Dimensions. For example, if the Essbase Dimension Hierarchy has Level 31 code, Level 30 code, Level 29 Code, and Level 0 Code, then all the Level 0 code of Essbase Dimension must be mapped to all the attributes from Xsegment Level 28 Code until Leaf level as shown in the figure below.

Balancing Segment in the Essbase cube should be mapped to Dim - Balancing Segment in the Business Model and Mapping layer also as shown below:

Logical Column	Expression	Physical Table
Balancing Segment Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 1 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 10 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 11 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 12 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 13 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 14 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 15 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 16 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 17 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 18 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 19 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 2 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 20 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 20 Description	Balancing Segment Level 0 Code	db
Balancing Segment Level 21 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 22 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 23 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 24 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 25 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 26 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 27 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 28 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 29 Code	Balancing Segment Level 29 Code	db
Balancing Segment Level 3 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 30 Code	Balancing Segment Level 30 Code	db
Balancing Segment Level 31 Code	Balancing Segment Level 31 Code	db
Balancing Segment Level 4 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 5 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 6 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 7 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 8 Code	Balancing Segment Level 0 Code	db
Balancing Segment Level 9 Code	Balancing Segment Level 0 Code	db
Balancing Segment Tree Filter	Balancing Segment Tree Filter	db
Balancing Segment Value Set Code	Balancing Segment Level 0 Code	db

Similar mappings must be done for Cost Center Dimension in the Essbase cube that gets mapped to Dim - Cost center in the logical layer and Account Segment in Essbase cube that gets mapped to the Dim - Natural account Segment.

For Non Qualified Segment dimensions, the Essbase dimensions can be mapped to any of the GL Segment dimensions Dim-GL Segment1 to Dim-GL Segment10. For example, Product Dimension in Essbase is mapped to Dim - GL Segment1 as shown below:

Logical Column	Expression		Physical Table
Level 1 Code	Product Level 0 Code		db
Level 10 Code	Product Level 0 Code		db
Level 11 Code	Product Level 0 Code		db
Level 12 Code	Product Level 0 Code		db
Level 13 Code	Product Level 0 Code		db
Level 14 Code	Product Level 0 Code		db
Level 15 Code	Product Level 0 Code		db
Level 16 Code	Product Level 0 Code		db
Level 17 Code	Product Level 0 Code		db
Level 18 Code	Product Level 0 Code		db
Level 19 Code	Product Level 0 Code		db
Level 2 Code	Product Level 0 Code		db
Level 20 Code	Product Level 0 Code		db
Level 21 Code	Product Level 0 Code		db
Level 22 Code	Product Level 0 Code		db
Level 23 Code	Product Level 0 Code		db
Level 24 Code	Product Level 0 Code		db
Level 25 Code	Product Level 0 Code		db
Level 26 Code	Product Level 0 Code		db
Level 27 Code	Product Level 0 Code		db
Level 28 Code	Product Level 0 Code		db
Level 29 Code	Product Level 0 Code		db
Level 3 Code	Product Level 0 Code		db
Level 30 Code	Product Level 0 Code		db
Level 31 Code	Product Level 31 Code		db
Level 4 Code	Product Level 0 Code		db
Level 5 Code	Product Level 0 Code		db
Level 6 Code	Product Level 0 Code		db
Level 7 Code	Product Level 0 Code		db
Level 8 Code	Product Level 0 Code		db
Level 9 Code	Product Level 0 Code		db
Segment Code	Product Level 0 Code		db
Segment Value Set Code	Product Level 0 Code		db
Tree Filter	Product Tree Filter		db

## Currency

The currency dimension in Essbase maps to Dim - Currency in logical layer as shown below:

Logical Column	Expression		Physical Table
Apps Document Currency Code	CurrencyCode		db
Apps Local Currency Code	CurrencyCode		db

## Currency Type

The Currency Type dimension in Essbase maps to Dim - Currency Type in logical layer as shown below:

Logical Column	Expression		Physical Table
Converted Currency Type	Gen3.Currency Type		db
Currency Type	Gen2.Currency Type		db

## Dragging

Dragging the database (just below the Essbase cube) from the physical layer into the Business Model and Mapping layer model (Core). Drag and drop functionality maps to the existing dimensions of the cube if the Dimension is already present in the Business Model and Mapping layer. If not, it creates a Dimension.

If you have created a hierarchy with the same name as that of the renamed dimensions, you must delete the following hierarchies from the Business Model and Mapping layer:

- Dim-Date Fiscal Calendar
- Dim-Natural Account Segment

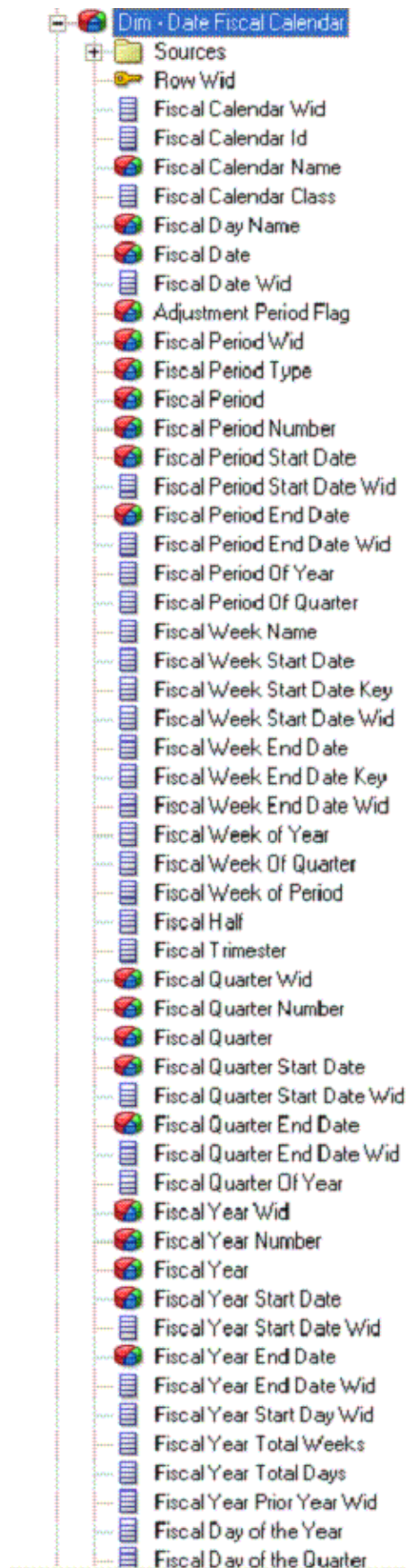


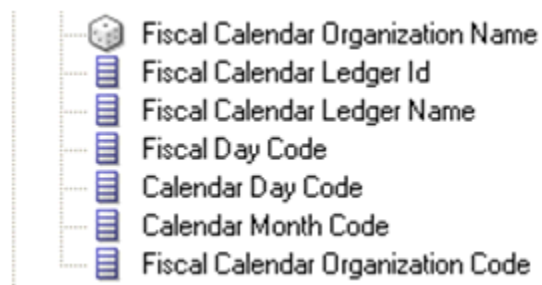
- Dim-Balancing Segment
- Dim-Currency
- Dim-Cost Center
- Dim-Amount Type
- Currency Type
- All the Non Qualified Segment Dimension hierarchies (Dim-Segment X)

**Note:** Because of dragging, within each mapped dimension, additional attributes were created. You must delete them as well as the attributes with names similar to Dim-X. XX-member, xx-Member Key should be deleted also.

For example, before dragging, Dim - Date Fiscal Calendar has the following attributes:







However, after dragging, the following attributes are created and must be deleted:

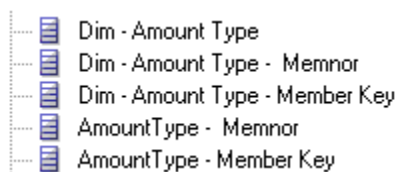


The lists of attributes created for each dimension, which must be deleted, are displayed in the following figures:

Currency:



Amount Type:



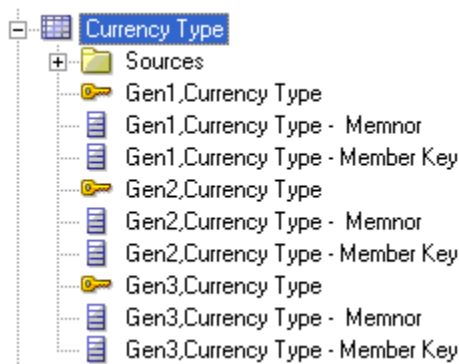
Segment Dimensions:

- ..... Dim - Balancing Segment
- ..... Dim - Balancing Segment - Memnor
- ..... Dim - Balancing Segment - Member Key
- ..... Company Tree Filter - Memnor
- ..... Company Tree Filter - Member Key
- ..... Balancing Segment Level 31 Code - Memnor
- ..... Balancing Segment Level 31 Code - Member Key
- ..... Balancing Segment Level 30 Code - Memnor
- ..... Balancing Segment Level 30 Code - Member Key
- ..... Balancing Segment Level 29 Code - Memnor
- ..... Balancing Segment Level 29 Code - Member Key
- ..... Balancing Segment Level 28 Code - Memnor
- ..... Balancing Segment Level 28 Code - Member Key
- ..... Balancing Segment Level 27 Code - Memnor
- ..... Balancing Segment Level 27 Code - Member Key
- ..... Balancing Segment Level 0 Code - Memnor
- ..... Balancing Segment Level 0 Code - Member Key

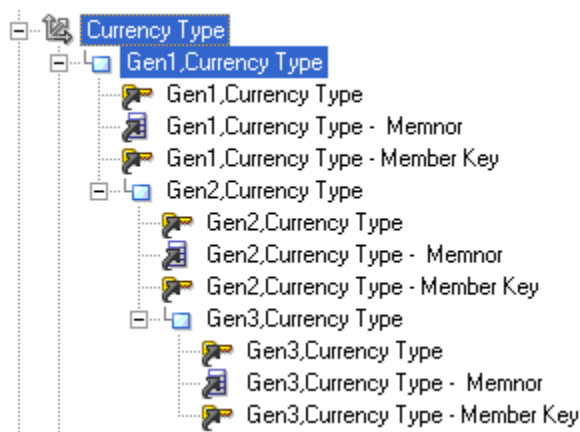
**Note:** This example of Balancing Segment Hierarchy stops at Level 27 and then has the leaf level. However, there may be more or fewer attributes, depending on the hierarchy of the Segment Dimensions.

### Currency Type Dimension Mapping

Because of dragging, a dimension Currency Type is created in the Business Model and Mapping layer apart from the existing Dim - Currency Type.



Also, a new hierarchy is created inside the existing Currency Type dimensions hierarchy and must be deleted.



Attributes of Currency Type Dimension must be manually mapped. Gen2, Currency Type and Gen3, Currency Type (attributes) in the physical layer that are highlighted in the figure below must be mapped to Currency Type and Converted Currency Type attributes in Dim - Currency Type in the Business Model and Mapping layer.

Figure 37 Currency Type in Physical Layer

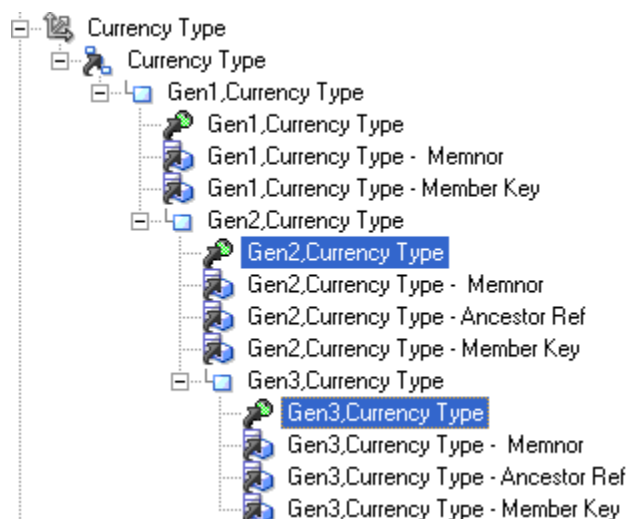
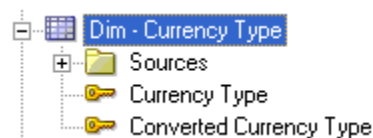


Figure 38 Currency Type in Logical Layer



## Ledger Dimension Deletion

After the cube is dragged and dropped, it creates a new dimension called Ledger and also creates a new hierarchy inside the Ledger Hierarchy starting from Gen1, Ledger. You must manually delete this new Dimension (Ledger) and its corresponding hierarchy (hierarchy inside Ledger

starting from Gen1.Ledger) from the Business Model and Mapping layer, because this dimension is manually mapped.

## Ledger Dimension and Ledger Set Dimension Mapping

In the physical layer, the Ledger Dimension present in the Essbase cube should be mapped to Ledger Dimension and LedgerSet Dimension in the Business Model and Mapping layer.

- To map the Ledger and LedgerSet Dimensions in the Business Model and Mapping layer:
  - 1 Drag the Gen2,Ledger(attribute), Gen2.Ledger\_Id\_Alias from Gen2,Ledger (Generation) of the Essbase Cube to the LedgerSet Name, LedgerSet Key of the Dim - LedgerSet.
  - 2 Drag the Gen3,Ledger (attribute), Gen3,Ledger\_Id\_Alias and Gen3, Ledger- Default from Gen3, Ledger (Generation) of the Essbase cube to the Ledger Name, Ledger Key, and Ledger Description attributes of Dim - Ledger.

## Mapping to Chart Of Account Attribute

You must map the Essbase Logical Table Source (LTS) to Chart of Account attribute in Ledger Dimension for redirection in the fact.


To map the Chart of Accounts attribute, in the **Column Mapping** tab of Essbase LTS, enter <COA name> for the cube. This is the same name used in the Fact's Fragmentation content. See [step 3 on page 71](#) under the section “Balance Fact–Modeling” on page 70.
























General | Column Mapping | Content | Parent-Child Settings |

☒ Show mapped columns

☒ Show unmapped columns

Logical column to physical column mapping:



Logical Column	Expression		Physical Table
Ledger Key	Gen2.Ledger - LEDGER_ID_ALIAS		db
Ledger Name	Gen3.Ledger		db
Ledger Short Name			
Ledger Description	Gen3.Ledger - Default		db
Chart Of Account	US COA	 	
Ledger Currency			
Accounting Calendar Name			
Sub Ledger Accounting Method Code			
Sub Ledger Accounting Method Name			
Ledger Category Code			
Ledger Category Name			
Source Id			
Key Id			
Set Id			
Real Time			
Balancing Segment Column Name			
Balancing Segment Value Option			
Chart Of Accounts Id			
Sub Ledger Accounting Method Type			
Suspense Posting Allowed Flag			
Suspense Posting Allowed Flag Meaning			
InterCo Concatenated Segment Values			

## Time Dimension Mappings

You must create additional mappings that need to be done in Dim - Date Fiscal Calendar for the proper redirection and federation to Essbase cube sources. Similar to the mapping for Chart Of Accounts attributes, you must do a few manual mappings for the Time dimension.

- To perform additional mappings for the time dimension:
  - 1 In the column mapping, for the Essbase cube LTS, the Calendar Name of the cube must be written directly. To obtain the Calendar Name of the cube, see [“The Business Model and Mapping Layer Changes” on page 60](#).

- 2 Drag the Fiscal Year attribute from the physical layer of the cube into the Fiscal Year Number and Fiscal Year Wid. You must enter and map Fiscal Year as shown below.

Fiscal Year Number	cast("adcdak04.us.oracle.com:1423"."VF_USA_Accounting_Flexfield"."db"."Fiscal Year" as double)	db
Fiscal Year Wid	cast("adcdak04.us.oracle.com:1423"."VF_USA_Accounting_Flexfield"."db"."Fiscal Year" as double)	db

- 3 Perform the following:

- a. Drag the Fiscal Quarter, Fiscal Period attributes from the physical Layer of the cube into the Fiscal Quarter Wid, Fiscal Quarter Key and Fiscal Period Wid, Fiscal Period Key.
- b. Map the Fiscal Period Memnor to Fiscal Period Number.
- c. Map the Fiscal Quarter Memnor to Fiscal Quarter Number and Fiscal Quarter Wid sort order OTBI.

Figure 39

Logical Column	Expression	Physical Table
Fiscal Calendar Name	'Accounting14'	
Fiscal Period	Fiscal Period	db
Fiscal Period Key	Fiscal Period	db
Fiscal Period Number	Fiscal Period - Memnor	db
Fiscal Period Wid	Fiscal Period - Memnor	db
Fiscal Quarter	Fiscal Quarter	db
Fiscal Quarter Key	Fiscal Quarter	db
Fiscal Quarter Number	Fiscal Quarter - Memnor	db
Fiscal Quarter Wid	Fiscal Quarter - Memnor	db
Fiscal Quarter Wid sort order OTBI	Fiscal Quarter - Memnor	db
Fiscal Year	cast("adcdak04.us.oracle.com:10215"."VF_USA_Accounting_Flexfield"."db"."Fiscal Year" as char)	db
Fiscal Year Number	Fiscal Year	db
Fiscal Year Wid	Fiscal Year	db

- 4 Click **OK** after all of the mappings are completed.

## Scenario Dimension Deletion

A dimension called Scenario is created in the Business Model and Mapping layer by dragging the cube. You must manually delete this dimension and its hierarchy, because only Actual Balances is supported, and this condition is added in the Fact. See [“Balance Fact–Modeling” on page 70](#).

## Balance Fact–Modeling

With dragging, a Fact database is created in the Business Model. You must delete the Mapping layer and map the measures to the existing Fact-Fins Essbase Balance.

- To map the measures that were created in the physical layer:

- 1 Drag the following measures from the physical layer:

- Beginning Balance
- Beginning Balance Cr
- Beginning Balance Dr
- Ending Balance
- Ending Balance Cr
- Ending Balance Dr

- Period Activity
- Period Activity Cr
- Period Activity Dr

into:

- Fact-Fins-Essbase Balances
- Existing Beginning Balance Credit
- Beginning Balance Debit
- Beginning Balance
- Ending Balance
- Ending Balance Credit
- Ending Balance Debit
- Period Net Activity
- Period Net Activity Credit
- Period Net Activity Debit

An LTS called database is created in the Fact.

**2 Double-click the database and select the **Content** tab.**

**3 In the Fragmentation content, select **Ellipse**.**

**Note:** To obtain the COA name and the Calendar name, query the COA ID and Period Set Name attributes of the GL\_BALANCES\_CUBES table.

With the COA Id, you can get the COA name from `fnd_kf_str_instances_b` and `fnd_kf_str_instances_TL` tables.

The COA name and the Fiscal Calendar name should exactly match the names that you mapped to Chart Of account attribute in Ledger Dimension and Fiscal Calendar Name in Dim - Date fiscal Calendar Dimension.

**4 In addition, for segment dimensions with a ragged hierarchy, select the **Ragged** option in the Hierarchy in the Logical Dimension-Balancing Segment dialog box.**

**5 Redirect the query to a particular cube, because there can be many cubes, with each specific a chart of accounts and Accounting Calendar combination:**

- Select Logical tables from the Type.
- Select **Dim - Date Fiscal Calendar** from the list of tables and **Fiscal Calendar Name** to get the condition

Core.Dim-Date Fiscal Calendar.Fiscal Calendar Name=<Enter the Calendar name that is associated with the cube>AND Dim-Ledger.Chart Of Accounts=<Enter the COA name>.

**6 Click **OK** to return to the Content tab.**

**7** Select **These sources should be combined with other Sources at this level** below the fragmentation Content.

**8** In the Where condition, select **Ellipse** and add the condition `cubename.database.Scenraio.Gen2.Scenario='Actual'`.

**9** In addition, set all Logical Levels of the Dimensions of the cube as follows:

- Ledger-Detail
- Date-Fiscal Calendar–Fiscal Period
- Amount Type–Detail
- Currency–Detail
- Currency Type-Detail
- All COA Segments–Level0 or Detail
- Ledger Set–Detail

**10** Click **OK**.

In all Logical Facts and Dimensions in which you map Essbase cubes, set the priority of the database (cube) logical table sources (LTS) to 5. This guideline applies to the following Logical Facts and Dimensions:

- Dim-Ledger
- Dim-Ledger Set
- Dim-Date-Fiscal Calendar
- Dim-Amount Type
- Dim-Currency
- Dim-Currency Type
- All Segment dimensions

In all dimensions containing both View Object (VO) sources and General Ledger balances cube sources, the VO source should be placed first among Oracle Fusion Transactional Business Intelligence logical table sources (LTS), followed by the General Ledger balances cube LTS. This is to ensure that in case of a dimension-only query, values are pulled from the VO source. This guideline applies to the following dimensions:

- Dim-Ledger
- Dim-Ledger Set
- Dim-Date-Fiscal Calendar
- Dim-Currency
- All Segment Dimensions mapped both from VO and Essbase sources

### Sample COA Query

The following query can be executed to get the Chart of Account name:



```

Select Period_set_name, chart_of_accounts_id from gl_balances_cubes where
Application_name = <Cube Name>
Select structure_instance_code from fnd_kf_str_instances_b where application_id = 101
and Key_flexfield_code = 'GL#' and structure_instance_number = <chart_of_accounts_id
from Query1>.
Select name from fnd_kf_str_instances_tl where application_id = 101 and
Key_flexfield_code = 'GL#' and structure_instance_code = < structure_instance_code From
Query 2> and language = <UserLang>

```

For example,

```

Select Period_set_name, chart_of_accounts_id from gl_balances_cubes where
Application_name = 'OperationsAccountingFlex2' This results in chart_of_accounts_id =
101
Select structure_instance_code from fnd_kf_str_instances_b where application_id = 101
and Key_flexfield_code = 'GL#' and structure_instance_number = 101 This results in
structure_instance_code as OPERATIONS_ACCOUNTING_FLEX
Select name from fnd_kf_str_instances_tl where application_id = 101 and
Key_flexfield_code = 'GL#' and structure_instance_code = 'OPERATIONS_ACCOUNTING_FLEX'
and language = 'US

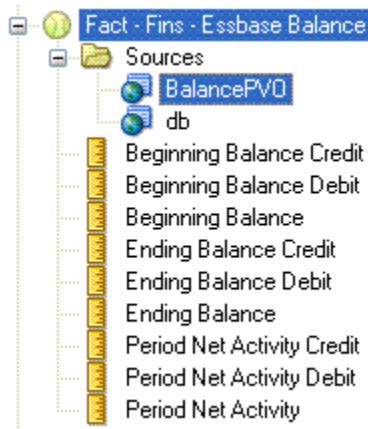
```

## Disabling Relational Source for Essbase Dimensions and Facts

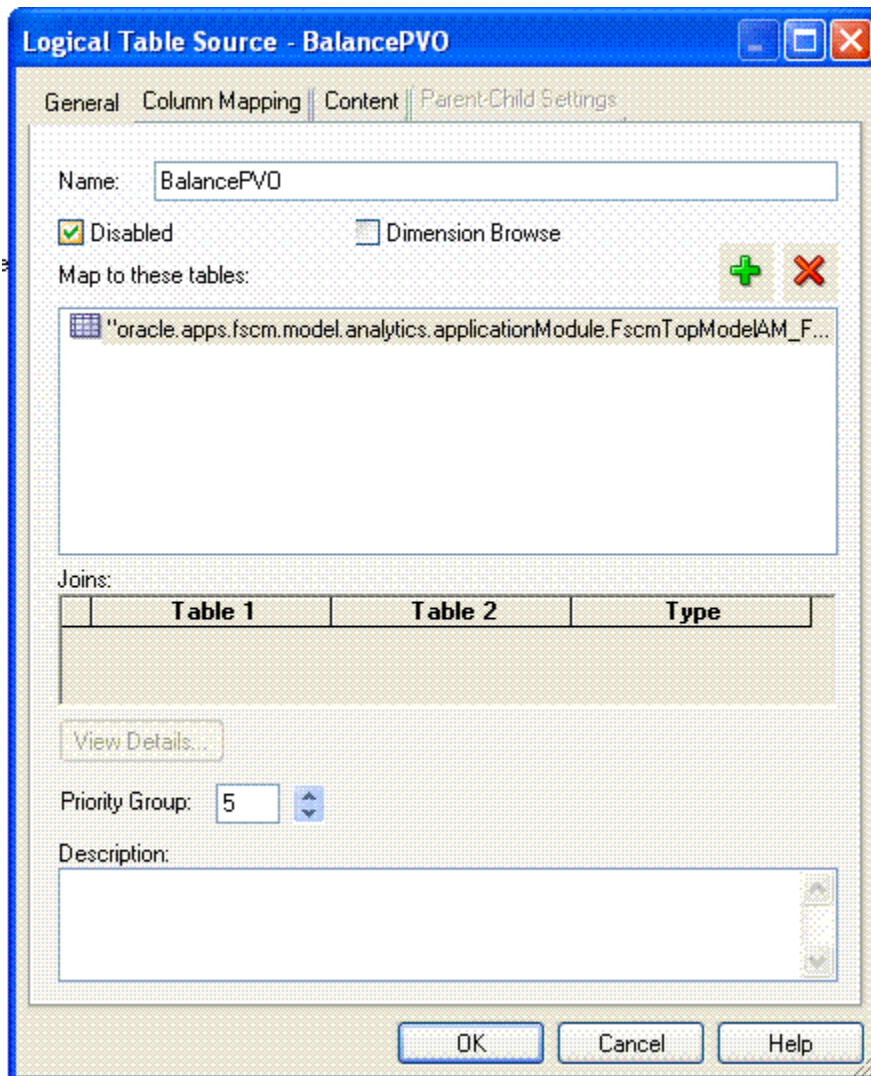
Essbase Dimensions (Dim-Amount Type and Dim-Currency Type) and Facts (Fact-Fins-Essbase Balance), have BalancePVO as the source. This Logical Table Source (LTS) must be disabled so that querying the Fact queries the Essbase cube sources.

► To disable the BalancePVO source, perform the following steps:

1 Double-click the BalancePVO LTS of Fact-Fins-Essbase Balance.



2 On the **General** tab, select **Disabled** and select **OK**. Disabled source BalancePVO is displayed as disabled.



3 Repeat previous steps for Dim-Amount Type and Dim-Currency Type to disable BalancePVO LTS as shown below.

**Note:** In all of the Logical Facts and Dimensions where Essbase cubes are mapped, the priority of the database (cube) LTS should be set to 5. The dimensions and facts are shown in the following list:

- Dim-Ledger
- Dim-Ledger Set
- Dim-Date-Fiscal Calendar
- Dim-Amount Type
- Dim-Currency
- Dim-Currency Type
- All Segment dimensions

In all dimensions where there are both view object sources and Essbase sources, the view object source should be placed first among the Transactional Business Intelligence LTS(s) followed by the Essbase cube LTS(s). This ensures that, in a dimension-only query, values are pulled from the view object source.

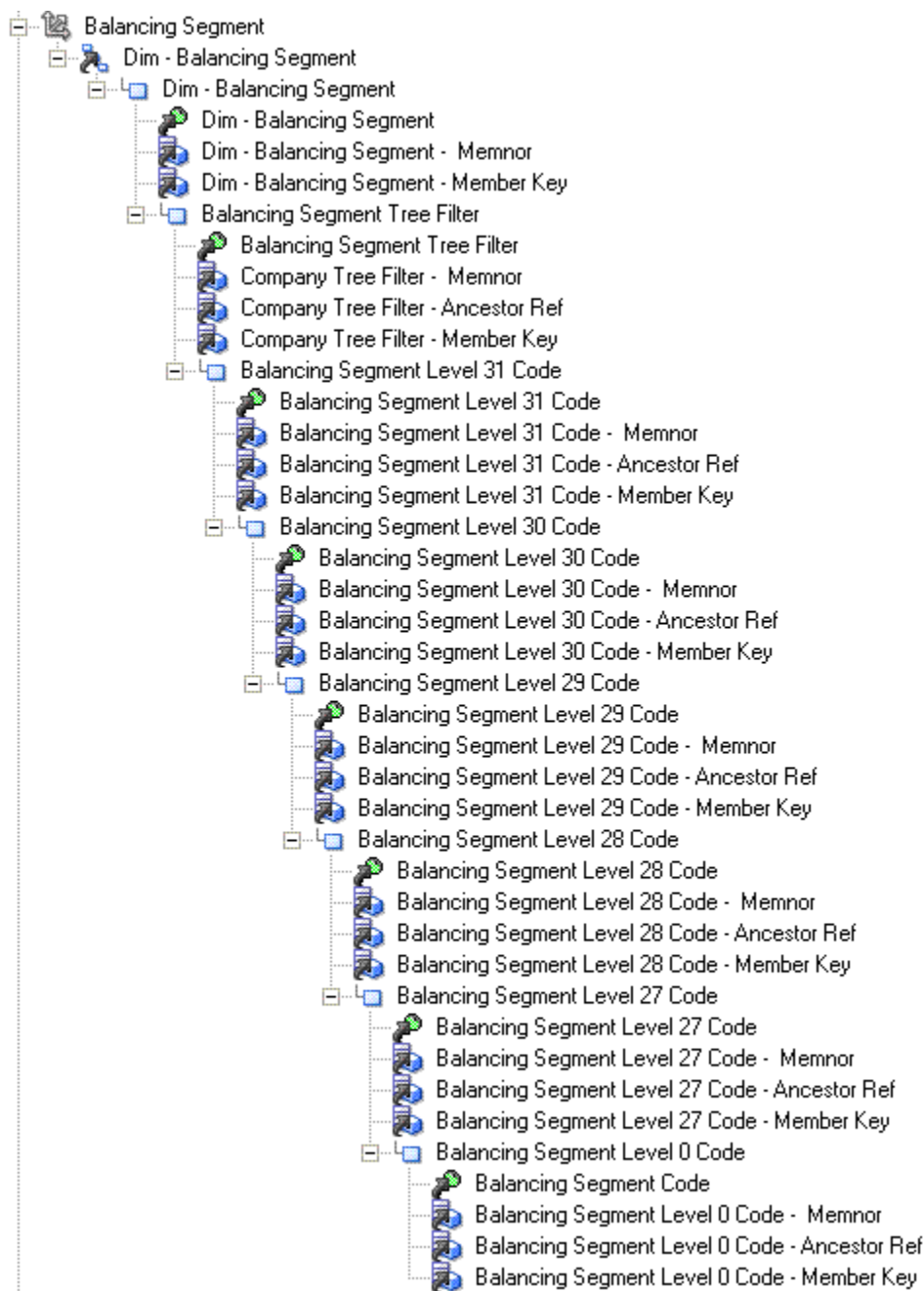
This guideline is applicable to the following dimensions:

- Dim-Ledger
- Dim-Ledger Set
- Dim-Date-Fiscal Calendar
- Dim-Currency
- All Segment dimensions mapped from both view object and Essbase sources

## Presentation Layer Changes

For basic installations, 10 levels of Qualified Segment Dimension attributes along with the leaf level are exposed in the Presentation layer. However, you may want to expose as many levels (from the top) and then the leaf level as the number of generations applicable for the segments.

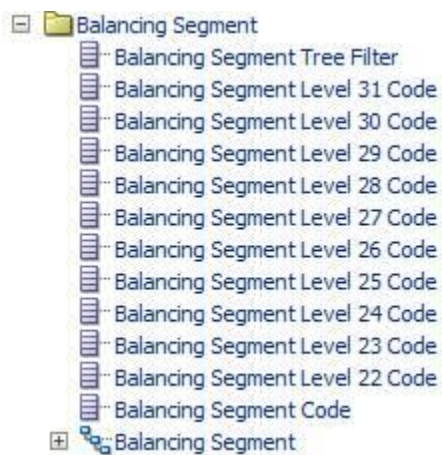
For example, after importing the cube and completing the Physical layer changes, the Balancing Segment Dimension hierarchy is displayed as follows:



Expose the following attributes in the Presentation layer:

- Balancing Segment Tree Filter
- Balancing Segment-Level 31 Code to Balancing Segment Level 27 Code
- Balancing Segment Code (at leaf level)

Figure 40 Balancing Segment Tree



For Tree Based Qualified Segment dimensions, expose attributes Segment Tree Filter, Segment Level n code (n is a value between 31 and 1), and Segment Code. Create the Presentation Hierarchy with only the Levels Tree code and Version, Level n (n is a value between 31 and 1 whose attributes are exposed) detail.

Remove the intermediate attributes and Presentation levels from the Hierarchy as shown below:

- If the Segment has only 5 Generations in the Physical layer of the RPD as shown in the following example:
  - Balancing Segment Tree Filter - Generation 2
  - Balancing Segment Level 31 Code - Generation 3
  - Balancing Segment Level 30 Code - Generation 4
  - Balancing Segment Level 0 Code - Generation 5
- In the Presentation layer, show only the following attributes:
  - Balancing Segment Tree Filter
  - Balancing Segment Level 31 Code
  - Balancing Segment Level 30 Code
  - Balancing Segment Code (Balancing Segment Level 0 Code in the physical layer)

Delete the other attributes. Similarly, once you create the Presentation hierarchy, remove the levels from Level 29 to Level 1.

**Note:** For the Natural Account Segment, in addition to the above changes, Detail Snowflake level should also be deleted from the Presentation Hierarchy

- For the Value Set based Qualified Segment dimensions, expose only the Segment code attribute in the Presentation folder. Remove the other attributes currently exposed (Segment Tree Filter, Segment Level n code) and delete the Presentation hierarchy.
- For the Tree Based Non Qualified Segment Dimensions, create a new Presentation folder with the attributes Segment Tree Filter, Segment Level n code, Segment Code. Create the Presentation Hierarchy with the Tree Code and Version Level, the Level n and the detail

level. Delete the Intermediate attributes and levels as explained for the Tree Based Qualified Segment dimensions (Balancing Segment).

- For the Value set based Non Qualified Segment Dimensions, create a new Presentation folder with only the Segment code attribute.

The General Ledger - Balances Real Time Subject Area does not support the Segment Description attribute in qualified (Balancing Segment, Natural Account Segment, and Cost Center Segment) or non-qualified segment dimension (Dim - GL Segment $n$ , where  $n = 1$  to 10) folders. In Key Flexfield mapping, if the Segment Description attribute is exposed in any of the segment dimension folders in the General Ledger - Balances Real Time Subject Area, then the attribute should be deleted from the respective Segment Description folders in the presentation layer.

## Using Filters with BI Answers

When you run BI Answers with any of the Essbase measures, you must apply a filter to the following:

- Fiscal Calendar Name
- Chart of Account (COA) Name

When you query, you use filters to connect to the correct source (Essbase cube).

See the section that describes creating and managing Presentation columns in “Oracle® Fusion Middleware Metadata Repository Builder's Guide for Oracle Business Intelligence Enterprise Edition.”

To connect OBIEE to Essbase, for security purposes you need to setup CSS token. For detailed setup steps, refer to the Oracle BI EE Administrator's Guide.

## Searching BI Applications and Transactional Business Intelligence Content Roles

You can search content roles by specific categories, such as Sales OTBI, Project OBIA, Opportunity Landscape OTBI, and so forth. [Figure 41 on page 79](#) displays a sample search for content roles.

Figure 41 Searching Content Roles

The screenshot displays the Oracle Entitlements Server Authorization Policy Manager web interface. The browser address bar shows the URL <https://slcae172.us.oracle.com:10614/apm/faces/AuthorizationPolicyManager>. The page title is "Oracle Entitlements Server".

The main interface is divided into several sections:

- Search Management:** Includes a search bar with the text "obi" and a dropdown menu for "Search Roles". The dropdown list shows a search for roles starting with "obi" and categorized by "CRM - Sales OTBI".
- Role Catalog:** A table listing search results for roles starting with "obi". The table has columns for "Display Name", "Role Name", and "Category".
- Search Results:** A table showing the results of the search. The table has columns for "Display Name", "Role Name", and "Category".
- Role Mapping Details for Sales Administrative Transaction Analysis Duty:** A section providing details for a specific role, including its display name, role name, description, and category.

The search results table is as follows:

Display Name	Role Name	Category
Sales Administrative Transaction Analysis...	FBI_SALES_ADMINISTRATIVE_TRANSA...	CRM - Sales OTBI
Sales Campaign Transaction Analysis D...	FBI_SALES_CAMPAIGN_TRANSACTION...	CRM - Sales OTBI
Sales Executive Transaction Analysis D...	FBI_SALES_EXECUTIVE_TRANSACTION...	CRM - Sales OTBI
Sales Managerial Transaction Analysis D...	FBI_SALES_MANAGERIAL_TRANSACTI...	CRM - Sales OTBI

The role mapping details for "Sales Administrative Transaction Analysis Duty" are as follows:

Role	Display Name	Role Name	Description	Category
Sales Administrative Transaction Analysis Duty	Sales Administrative Transaction Analysis Duty	FBI_SALES_ADMINISTRATIVE_TRANSA...	BI duty role to administer analysis in all key areas in Sales, including but not limited to Reven...	CRM - Sales OTBI

The footer of the page includes the copyright notice "Copyright © 2011, Oracle and/or its affiliates. All rights reserved." and the version information "Oracle Entitlements Server | 11.1.1.6.0".





# 3

## Postinstallation - Additional Tasks and Guidelines

### In This Chapter

Product-Specific Considerations.....	81
Report Folder Structure for Transactional Business Intelligence, BI Applications, and Embedded Reports.....	82
Administrative Requirements for Security Tasks .....	83

## Product-Specific Considerations

This section covers processes that must be executed in Oracle Fusion applications before running reports that are based on Transactional Business Intelligence catalogs mentioned in this section.

As part of Oracle Fusion applications installation, users must schedule the Transactional Business Intelligence tasks in the table below.

**Table 7 Financials**

Transactional Business Intelligence Catalog Name	Oracle Fusion Applications Job Dependency Details	Document Reference
Subledger Accounting-Receivables Summary Reconciliation Real Time	AP/AR Reconciliation Data Extraction program	"Oracle Fusion Applications Help"
Subledger Accounting-Payables Summary Reconciliation Real Time	AP/AR Reconciliation Data Extraction program	"Oracle Fusion Applications Help"
Payables Invoices-Trial Balance Real Time	TrialBalMaintain ESS Job. This ESS job is generated by Create Accounting batch program.	"Oracle Fusion Applications Help"

**Table 8 Supply Chain**

Transactional Business Intelligence Catalog Name	Oracle Fusion Applications Job Dependency Details	Document Reference
Costing-COGS and Gross Margin Real Time	Cost Processes	Processes, reports, and analytics are described in the "Oracle Fusion Applications Common User Guide"
Costing-Cost Accounting Real Time	Cost Processes	Processes, reports, and analytics are described in the "Oracle Fusion Applications Common User Guide"

Transactional Business Intelligence Catalog Name	Oracle Fusion Applications Job Dependency Details	Document Reference
Costing-Inventory Valuation Real Time	Cost Processes	Processes, reports, and analytics are described in the “Oracle Fusion Applications Common User Guide”
Costing-Item Cost Real Time	Cost Processes	Processes, reports, and analytics are described in the “Oracle Fusion Applications Common User Guide”
Costing-Receipt Accounting Real Time	Cost Processes	Processes, reports, and analytics are described in the “Oracle Fusion Applications Common User Guide”

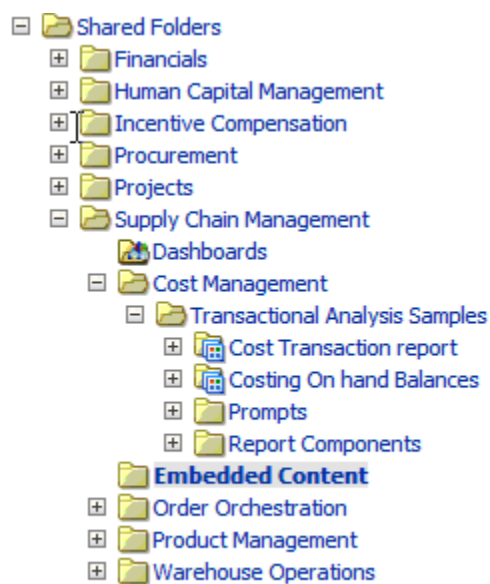
## Report Folder Structure for Transactional Business Intelligence, BI Applications, and Embedded Reports

Transactional Business Intelligence reports are organized in these Presentation Catalog sub-folders:

- **Shared Folders:** This is the main folder, which shares content across users who have access to the folders and reports. Details on Presentation Catalog security are provided in [“Transactional Business Intelligence and Oracle Fusion BI Security” on page 136](#).
  - **Oracle Fusion applications product areas:** This is the second-level subfolder, used to organize all reports by Oracle Fusion applications product families, for example, Financials, and Supply Chain Management, Incentive Compensation, Procurement, Projects:
    - **Dashboards:** All Oracle Fusion application dashboards are organized under this subfolder.
    - **Product area:** This subfolder contains all the sample reports related artifacts for the product.
      - **Prompts:** This subfolder organizes all the prompts for the sample reports for the product area.
      - **Report Components:** These are the components of the sample reports.
    - **Embedded Content:** This folder contains the reports embedded in Oracle Fusion applications.

**Note:** When you move reports or rename the path to reports, you disable the embedded analytics.

Figure 42 Example of Folder Levels



## Administrative Requirements for Security Tasks

Administrative aspects of Transactional Business Intelligence security is performed by application administrators and consists of adjusting preseeded content, possibly adding new content, and provisioning user accounts and passwords. See [“Provisioning Users” on page 137](#) for more information.



# 4

## Maintaining Transactional Business Intelligence

### In This Chapter

Upgrading.....	85
Uninstalling and Reinstalling.....	85
Query Governance .....	85
Performance Tuning.....	86

### Upgrading

If you are upgrading Transactional Business Intelligence, you are required to update the Security Application Policies. You must use the Authorization Policy Manager to manually resolve any conflicts in the policies. For additional information and instructions, see Chapter 4, “Patching Oracle Fusion Applications Artifacts,” in the *Oracle Fusion Applications Patching Guide*.

### Uninstalling and Reinstalling

For more information on uninstalling and reinstalling, see the “Oracle Fusion Applications Installation Guide”.

### Query Governance

You can manage the query environment by setting query limits (governors) in the Oracle BI repository for users or application roles. See *Setting Query Limits* in [Oracle Fusion Middleware Metadata Repository Builder's Guide for Oracle Business Intelligence Enterprise Edition](#) and *Blocking Analyses Based on Criteria* in “Oracle Fusion Middleware System Administrator's Guide for Oracle Business Intelligence Enterprise Edition.”

# Performance Tuning

## Subtopics

- [Blind Queries](#)
- [Hierarchies and Trees in Transactional Business Intelligence](#)
- [How to Debug Slow-Running Queries](#)
- [Caching Options in Transactional Business Intelligence](#)
- [Using Transactional Business Intelligence or BI Applications for Reporting](#)
- [Improving Performance of Reports for Marketing or Sales Analytics](#)

Transactional Business Intelligence is the real-time reporting solution for Oracle Fusion Applications. Transactional Business Intelligence reports query data directly from the transaction tables to ensure real time reporting. If the transaction data is not changing constantly, or if up-to-the-minute reporting is not required, then query performance can be improved by changing the caching options available in Oracle BI EE. Oracle BI EE can cache at two levels. BI Server can cache query result sets and use this to service additional queries on the same data set. By default, this option is disabled for Transactional Business Intelligence.

See the *Managing Performance Tuning and Query Caching* section in “Oracle Fusion Middleware System Administrator's Guide for Oracle Business Intelligence Enterprise Edition.”

All Transactional Business Intelligence queries execute directly against the Oracle Fusion applications transaction tables, unless the query data is retrieved from the cache. This architecture supports up-to-the-minute BI reporting on the state of your business.

Transactional Business Intelligence queries should focus on operational reporting. Because most Transactional Business Intelligence queries do not execute against pre-aggregated sources, they should not be used for querying very large volumes of historical data or generating trend reports that span multiple years. Use the BI Applications, which query the Oracle Business Analytics Warehouse, for any such complex and historical analysis. See [Chapter 6, “Additional Links.”](#)

## Blind Queries

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

## Hierarchies and Trees in Transactional Business Intelligence

Queries on trees and hierarchical dimensions such as manager, GL Segments, and so on 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.

## How to Debug Slow-Running Queries

You can debug and fix Transactional Business Intelligence slow-running queries that are not performing well. As discussed earlier, Transactional Business Intelligence is for real-time operations reporting and Oracle does not recommend running queries that do not fall into this category or to query very large volumes of historical data.

If the query is not performing well, check the filters first. Blind queries on very large tables can be difficult to tune. If querying large transaction tables, ensure that good time dimension filters restrict data to a few days, weeks, or months. Additionally, ensure that good filters on the dimensions being used to analyze the fact data exist. Add filters to restrict queries.

Next, examine the physical query in the Oracle BI Server query log. The query log file is named `nqqueryn.log`, where *n* is the date and timestamp. Issues encountered in Transactional Business Intelligence queries can be diagnosed in `nquery.log`.

You can enable query logging in two ways:

1. Follow the steps in the “Diagnosing and Resolving Issues in Oracle Business Intelligence” chapter in [Oracle Fusion Middleware System Administrator's Guide for Oracle Business Intelligence Enterprise Edition](#).
2. Enable the log level to 2 in Log Level system variable in Oracle BI repository.

You may see additional filters being added by the application logic and security. Ask your database administrator to help tune the execution plan for this query to see which joins are causing performance issues. Avoid full table scans and hash table joins on large transaction tables. If you see these, attempt to add specific filters for these tables which use existing indexes.

You can also enable query caching to improve query performance. You can see dramatic improvement in query performance on cached queries. “[Caching Options in Transactional Business Intelligence](#)” on page 87 explains how to enable caching for Transactional Business Intelligence.

## Caching Options in Transactional Business Intelligence

Caching is turned off by default for the Transactional Business Intelligence content to ensure the Transactional Business Intelligence reports always return real-time data. If not absolutely necessary, then you can enable caching to obtain better query performance. You have the following options to enable caching and set a cache timeout in Transactional Business Intelligence:

- Use the Cache Manager to manually manage the cache entries after you enable caching for Transactional Business Intelligence view objects. Enable view object level caching by using the Oracle BI Administration tool and editing the master Oracle BI repository as follows:
  - Edit the view object properties and check the Cacheable check box.

**Note:** if the source view object property has already been changed, do not edit the properties for aliases . It is reflected in the alias automatically.

- Set the Cache Persistence Time property to determine how frequently the cache should expire.
- You can also use the following two options for automating the cache management process:
  - Use the Oracle BI Administration Tool to set the Cacheable and Cache Persistence Time properties for any view object that you want cached.
  - Use the Configure Oracle BI Server Event Polling Tables to purge the cache. Doing so requires a trigger that you would have to implement to populate this table when there are changes to the application's transaction tables, ensuring that you always avoid hitting a stale cache.

See *Oracle Fusion Middleware System Administrator's Guide for Oracle Business Intelligence Enterprise Edition*.

## Using Transactional Business Intelligence or BI Applications for Reporting

Depending on the type of report you are running, you may have to use Transactional Business Intelligence or BI Applications as the product of preference. Transactional Business Intelligence gives you real-time data, and BI Applications reports on historical data.

Examples of reports and which product to use:

- For more highly aggregated, time series-based queries, consider using BI Applications.
- For Oracle Fusion Financials reports:
  - For current-month holds on invoices and the reasons for the holds, use Transactional Business Intelligence.
  - Calculate the total AP Invoice amount for last year along with Average Aging amount, use BI Applications.

Based on the characteristics of the report that you are running, the following table can help you decide which product to use.

**Table 9** Running Reports: Compare and Contrast

Characteristic	Transactional Business Intelligence	BI Applications
Business Solution	Current State Analysis	Enterprise Integration and Reporting Platform
Business Process Reporting	Tactical Reporting	Strategic Reporting
Target Users	Oracle Fusion Application Operational User	Enterprise Users—Executive, Manager, Analyst
Data Sources	Homogeneous—Oracle Fusion Applications Centric	Heterogeneous—Multiple business areas and disparate applications



Characteristic	Transactional Business Intelligence	BI Applications
Data Availability	Real Time	Mostly Latent Data
Data Preparation	Mostly Views, Nonpersisted Data	Mostly Tables, Persisted Data, Massive Data Movement, and Bulk ETL Processing
Data Granularity	Lots of Detail, some Aggregations	Some Detail, lots of Aggregations
Historical Trending	History limited by Oracle Fusion source data	Extensive Time Trending, Versioning, and Historical Analysis
Cross Functional Analysis	Oracle Fusion Applications Specific	Extensive Cross Functional Analysis
Calculations, Aggregations	Simple to medium	Simple to complex

## Improving Performance of Reports for Marketing or Sales Analytics

The following procedure describes the steps to improve the performance of Transactional Business Intelligence custom reports that contain the presentation ID column filter. See [Figure 43 on page 91](#) for the Marketing presentation and [Figure 44 on page 91](#) for the Sales presentation.

➤ To improve performance of custom reports that contain the presentation ID column filter:

**1 Open the Oracle BI Administration tool and then open the Oracle BI repository.**

**2 Find the following columns:**

- The corresponding logical column under Business Model and Mapping layer for the performance problematic presentation ID column, if the logical column uses CAST() function to convert data type as following:

```
CAST("oracle.apps.crm.model.analytics.applicationModule.CrmAnalyticsAM_CrmAnalyticsAMLocal"."Dim_CrmCampaignAM_MarketingActivity"."CampaignId" AS VARCHAR(100))
```

- The corresponding physical column under Physical layer, if the data type of the physical column is DOUBLE.

**3 Edit the physical ID column to change Type as VARCHAR. Set Length as 100 as the same length as the above logical column CAST( ... AS VARCHAR(100)) function used.**

**4 For the corresponding logical column in Business Model and Mapping layer, remove the CAST() function from the corresponding logical ID column. For example:**

**Before:**

```
CAST("oracle.apps.crm.model.analytics.applicationModule.CrmAnalyticsAM_CrmAnalyticsAMLocal"."Dim_CrmCampaignAM_MarketingActivity"."CampaignId" AS VARCHAR(100))
```

**After:**

```
"oracle.apps.crm.model.analytics.applicationModule.CrmAnalyticsAM_CrmAnalyticsAMLocal"."Dim_CrmCampaignAM_MarketingActivity"."CampaignId"
```

**Note:**

To avoid physical data type changes overwritten by a future reimport of the VO (View Object) in Physical layer, change the data type of the physical ID from DOUBLE to VARCHAR at AM level.

**Example:**

1. Use `CrmAnalyticsAM.CampaignAM.MarketingActivityPVO.CampaignId` as an example.
2. Modify `CampaignAM` to add the Custom Property to this AM level:

Key: `EnforceCustomDataType_  
CrmAnalyticsAM.CampaignAM.MarketingActivityPVO`

Value: `"CampaignId": "VARCHAR"`

or

Value: `"CampaignId": "VARCHAR"; "CampaignProfileId": "VARCHAR"`

**Note:**

- `CampaignAM` is the nested AM in `CrmAnalyticsAM`.
- Since the Customer Property is created at the nested AM level, the Key value needs to contain the fully qualified name of VO for importing code to read it. For example, `"EnforceCustomDataType_CrmAnalyticsAM.CampaignAM.MarketingActivityPVO"`.
- If the Value field has only one ID column, then you do not add the semicolon (;) at the end.
- If the Value field has more than one ID column, then add the semicolon (;) as separator. The last entry will not have the semicolon (;) at the end.

Figure 43 : ID Columns Exposed in the Marketing Presentation Catalog

Presentation Column Name
Marketing - CRM Campaign Launch, "Marketing Source", "Stage ID"
Marketing - CRM Campaign Launch, "Segment and List", "Key Id"
Marketing - CRM Campaign Launch, "Treatment", "Treatment Id"
Marketing - CRM Campaign Performance, "Marketing Source", "Stage ID"
Marketing - CRM Campaign Performance, "Segment and List", "Key Id"
Marketing - CRM Campaign Performance, "Treatment", "Treatment Id"
Marketing - CRM Campaigns and Contacts Real Time, "Marketing Source", "Stage ID"
Marketing - CRM Campaigns and Contacts Real Time, "Treatment", "Treatment Id"
Marketing - CRM Campaigns and Leads Real Time, "Lead", "Lead Id"
Marketing - CRM Campaigns and Leads Real Time, "Marketing Source", "Stage ID"
Marketing - CRM Campaigns and Opportunities Real Time, "Marketing Source", "Stage ID"
Marketing - CRM Campaigns and Opportunities Real Time, "Opportunity", "Parent Organization Id"
Marketing - CRM Campaigns and Opportunities Real Time, "Treatment", "Treatment Id"
Marketing - CRM Interactions and Campaigns Real Time, "Interaction", "Interaction Row ID"
Marketing - CRM Interactions and Campaigns Real Time, "Marketing Source", "Stage ID"
Marketing - CRM Interactions and Campaigns Real Time, "Treatment", "Treatment Id"
Marketing - CRM Interactions and Leads Real Time, "Interaction", "Interaction Row ID"
Marketing - CRM Interactions and Leads Real Time, "Lead", "Lead Id"
Marketing - CRM Interactions Real Time, "Interaction", "Interaction Row ID"
Marketing - CRM Lead to Order, "Marketing Source", "Stage ID"
Marketing - CRM Leads and Opportunities Real Time, "Lead", "Lead Id"
Marketing - CRM Leads and Opportunities Real Time, "Opportunity", "Parent Organization Id"
Marketing - CRM Leads Real Time, "Lead", "Lead Id"
Marketing - CRM Leads, "Lead", "Lead Id"
Marketing - CRM Leads, "Marketing Source", "Stage ID"
Sales Prospector Dashboard, "Lead", "Lead Integration ID"
Territory Management - CRM Leads, "Lead", "Integration Id"
Territory Management - CRM Leads, "Sales Channel", "Key Id"
Territory Management - CRM Leads, "Territory Zone Geo", "Base Zone Id"
Territory Management - CRM Leads, "Territory Zone Geo", "Level 1 Geo Zone Id"
Territory Management - CRM Leads, "Territory Zone Geo", "Level 2 Geo Zone Id"
Territory Management - CRM Leads, "Territory Zone Geo", "Level 3 Geo Zone Id"
Territory Management - CRM Leads, "Territory Zone Geo", "Level 4 Geo Zone Id"
Territory Management - CRM Leads, "Territory Zone Geo", "Level 5 Geo Zone Id"
Territory Management - CRM Leads, "Territory Zone Geo", "Level 6 Geo Zone Id"
Territory Management - CRM Leads, "Territory Zone Geo", "Level 7 Geo Zone Id"
Territory Management - CRM Leads, "Territory Zone Geo", "Level 8 Geo Zone Id"
Territory Management - CRM Leads, "Territory Zone Geo", "TopLevel Geo Zone Id"

Figure 44 ID Columns Exposed in the Sales Presentation Catalog

Presentation Column Name
Sales - CRM Pipeline, "Reference", "Reference Row Id"
Sales - CRM Pipeline, "Interaction", "Interaction Row ID"
Sales - CRM Interactions and Customers Real Time, "Interaction", "Interaction Row ID"
Sales - CRM Interactions and Opportunities Real Time, "Interaction", "Interaction Row ID"
Sales - CRM Opportunities and Competitors Real Time, "Reference", "Reference Row ID"
Sales - CRM Opportunities and Products Real Time, "Reference", "Reference Row ID"
Sales - CRM Products and Opportunities Real Time, "Reference", "Reference Row ID"
Territory Management - CRM Pipeline, "Territory Zone Geo", "Level 1 Geo Zone Id"
Territory Management - CRM Pipeline, "Territory Zone Geo", "Level 2 Geo Zone Id"
Territory Management - CRM Pipeline, "Territory Zone Geo", "Level 3 Geo Zone Id"
Territory Management - CRM Pipeline, "Territory Zone Geo", "Level 4 Geo Zone Id"
Territory Management - CRM Pipeline, "Territory Zone Geo", "Level 5 Geo Zone Id"
Territory Management - CRM Pipeline, "Territory Zone Geo", "Level 6 Geo Zone Id"
Territory Management - CRM Pipeline, "Territory Zone Geo", "Level 7 Geo Zone Id"
Territory Management - CRM Pipeline, "Territory Zone Geo", "Level 8 Geo Zone Id"
Territory Management - CRM Pipeline, "Territory Zone Geo", "Top Level Geo Zone Id"
Territory Management - CRM Pipeline, "Territory Zone Geo", "Base Zone Id"
Territory Management - CRM Pipeline, "Revenue Status", "Key Id"
Territory Management - CRM Sales Accounts, "Territory Zone Geo", "Level 1 Geo Zone Id"
Territory Management - CRM Sales Accounts, "Territory Zone Geo", "Level 2 Geo Zone Id"
Territory Management - CRM Sales Accounts, "Territory Zone Geo", "Level 3 Geo Zone Id"
Territory Management - CRM Sales Accounts, "Territory Zone Geo", "Level 4 Geo Zone Id"
Territory Management - CRM Sales Accounts, "Territory Zone Geo", "Level 5 Geo Zone Id"
Territory Management - CRM Sales Accounts, "Territory Zone Geo", "Level 6 Geo Zone Id"
Territory Management - CRM Sales Accounts, "Territory Zone Geo", "Level 7 Geo Zone Id"
Territory Management - CRM Sales Accounts, "Territory Zone Geo", "Level 8 Geo Zone Id"
Territory Management - CRM Sales Accounts, "Territory Zone Geo", "Top Level Geo Zone Id"
Territory Management - CRM Sales Accounts, "Territory Zone Geo", "Base Zone Id"
Territory Management - CRM Forecast, "Territory Zone Geo", "Level 1 Geo Zone Id"
Territory Management - CRM Forecast, "Territory Zone Geo", "Level 2 Geo Zone Id"
Territory Management - CRM Forecast, "Territory Zone Geo", "Level 3 Geo Zone Id"
Territory Management - CRM Forecast, "Territory Zone Geo", "Level 4 Geo Zone Id"
Territory Management - CRM Forecast, "Territory Zone Geo", "Level 5 Geo Zone Id"
Territory Management - CRM Forecast, "Territory Zone Geo", "Level 6 Geo Zone Id"
Territory Management - CRM Forecast, "Territory Zone Geo", "Level 7 Geo Zone Id"
Territory Management - CRM Forecast, "Territory Zone Geo", "Level 8 Geo Zone Id"
Territory Management - CRM Forecast, "Territory Zone Geo", "Top Level Geo Zone Id"
Territory Management - CRM Forecast, "Territory Zone Geo", "Base Zone Id"
CRM - Sales Predictor ROI Reports, "Sales Geography Zone", "Level 1 Geo Zone Id"
CRM - Sales Predictor ROI Reports, "Sales Geography Zone", "Level 2 Geo Zone Id"
CRM - Sales Predictor ROI Reports, "Sales Geography Zone", "Level 3 Geo Zone Id"

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## Query Redirection

Query redirection provides a mechanism for BI Server to determine the set of logical table sources (LTS) applicable to a logical request whenever a request can be satisfied by more than one LTS.

The Oracle BI repository shipped in Oracle Fusion applications contains metadata content for real-time reporting analysis (using Transactional Business Intelligence) and historical reporting (using BI Applications).

The logical and physical layer within the Oracle BI repository is shared between Transactional Business Intelligence and BI Applications.

The subject areas in the presentation layer can be built for real-time analysis using the transactional tables, for historical analysis using the Business Analytics Warehouse, or for both. Based on the subject area, the underlying query should use the common logical and physical content and be able to source the data from the transactional tables, the historical reporting, or both. The underlying feature that facilitates this is called query redirection.

Two settings are pre-configured in the metadata content for query redirection to work as expected:

1. Set Priority group in the LTS.

Setting Priority group numbers in the LTS enables you to determine which logical table source should be used for queries in cases where there are multiple logical table sources that can satisfy the requested set of columns in the query.

The values being used for priority group are 0 through 5 for BI Applications and Transactional Business Intelligence respectively. The lower the priority group value, the higher priority it takes for being selected as the underlying source.

2. Set the session variable (REVERSED\_LTS\_PRIORITY\_SA\_VEC) and Initialization Block (IB\_REVERSED\_LTS\_PRIORITY\_SA\_VEC)

A string vector session variable (REVERSED\_LTS\_PRIORITY\_SA\_VEC) is defined and initialized with subject area names for which the logical table source priority should be permanently reversed.

An initialization block (IB\_REVERSED\_LTS\_PRIORITY\_SA\_VEC) is pre-configured to use the "FBI\_OLTP" connection pool. The FBI\_OLTP connection pool is based on two repository variables FBI\_OLTP\_DSN and FBI\_OLTP\_USER. See "Oracle Fusion Middleware Metadata Repository Builder's Guide for Oracle Business Intelligence Enterprise Edition" for further information on connection (pool) setup and Setting Priority Group Numbers for Logical Table Sources.

Depending on the type of implementation, you might need to customize query redirection. Typically, you might need these customization types :

1. Add a Transactional Business Intelligence subject area.
  - a. Create a Transactional Business Intelligence subject area in Presentation layer.
  - b. Ensure that the underlying logical sources, on which the Presentation layer is based, has at least one real-time source.
  - c. Add the new Transactional Business Intelligence subject area into the query redirection initialization block variable (IB\_REVERSED\_LTS\_PRIORITY\_SA\_VEC), similar to other subject areas that are already part of the variable.
2. Modify the existing Transactional Business Intelligence subject area name.
  - a. Identify the Transactional Business Intelligence subject area for which you want to modify the name.
  - b. Modify the Transactional Business Intelligence subject area name in query redirection initialization block variable (IB\_REVERSED\_LTS\_PRIORITY\_SA\_VEC).
3. Add a logical table source apart from the regular Oracle BI repository modeling that is needed to add a new logical table source. Set the Priority Group to a value based on the LTS being added. For an aggregated source, initialize the priority group to a value less than 5. For a nonaggregated or real-time source, initialize the priority group to a value greater than the aggregated source LTS.
4. Reorder logical table source: Exercise caution when reordering logical table sources, because reordering could affect how the query redirection works. Use the following general guidelines to aid you in setting logical table source priorities:
  - a. Keep all of the logical table sources with a lower priority group on top followed by the logical table sources with the next-highest priority groups.

**Note:** The lower the priority group value, the higher the priority it takes for being selected as the underlying source.

- b. When more than one LTS has the same priority group mapped to a column being selected, the LTS with a lower cost is chosen. When the cost is the same, the LTS list higher in the priority group is used for the query.
- c. When you are running a query with multidimensions and with a fact, the LTS that is joined (physically) in the physical layer would be used for query generation.

For more information, refer to the section *Managing Logical Table Sources* in “Oracle Fusion Middleware Metadata Repository Builder's Guide for Oracle Business Intelligence Enterprise Edition”.

## Support for Multiple Languages

Transactional Business Intelligence supports multiple languages by providing view objects that join the \_B base tables and \_TL translation tables in the query. The filter on the language is provided by an LTS filter using the session variable USER\_LANGUAGE\_CODE:

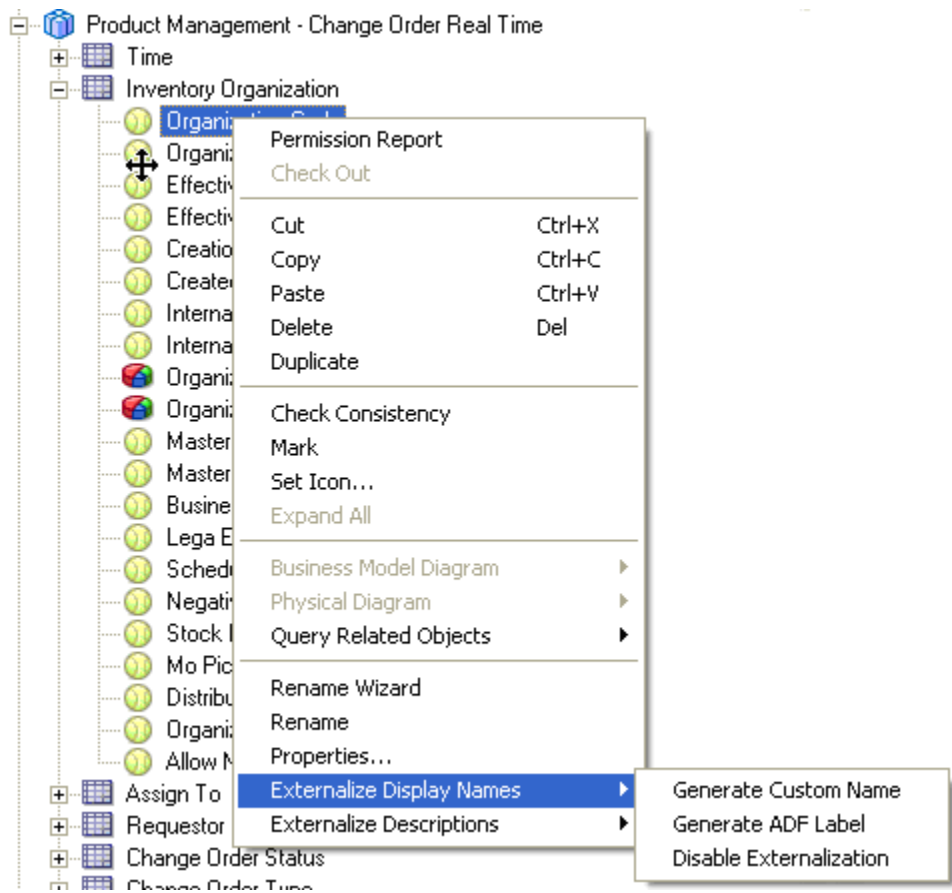
```
"oracle.apps.fscm.model.analytics.applicationModule.FscmTopModelAM_FscmTopModelAMLocal"."FscmTopModelAM.EgpItemsPublicModelAM.Item"."OrganizationUnitTLPEOLanguage" = VALUEOF(NQ_SESSION."USER_LANGUAGE_CODE")
```

## Labels and Tool Tips

In Transactional Business Intelligence, labels for logical attributes sourced from Oracle ADF view objects are created using an Oracle BI EE feature for externalizing the Oracle ADF view object UI hint. These UI hints are sourced from the .ear file, which is posted from the same string repository used for Oracle Fusion applications. The labels for subject areas, presentation folders, and derived metrics come from the translation tables C\_RPD\_MSGS, C\_RPD\_MSGS\_TL, C\_RPD\_MSGS\_REL.

Figure 45 describes how to set the translatable display name for an attribute. Select **Generate Custom Name** to externalize logical attributes that are not sourced from Oracle ADF view objects. Select **Generate Oracle ADF Label** to externalize attributes sourced from Oracle ADF view objects to use their UI hints.

Figure 45 Translatable Display Name for an Attribute

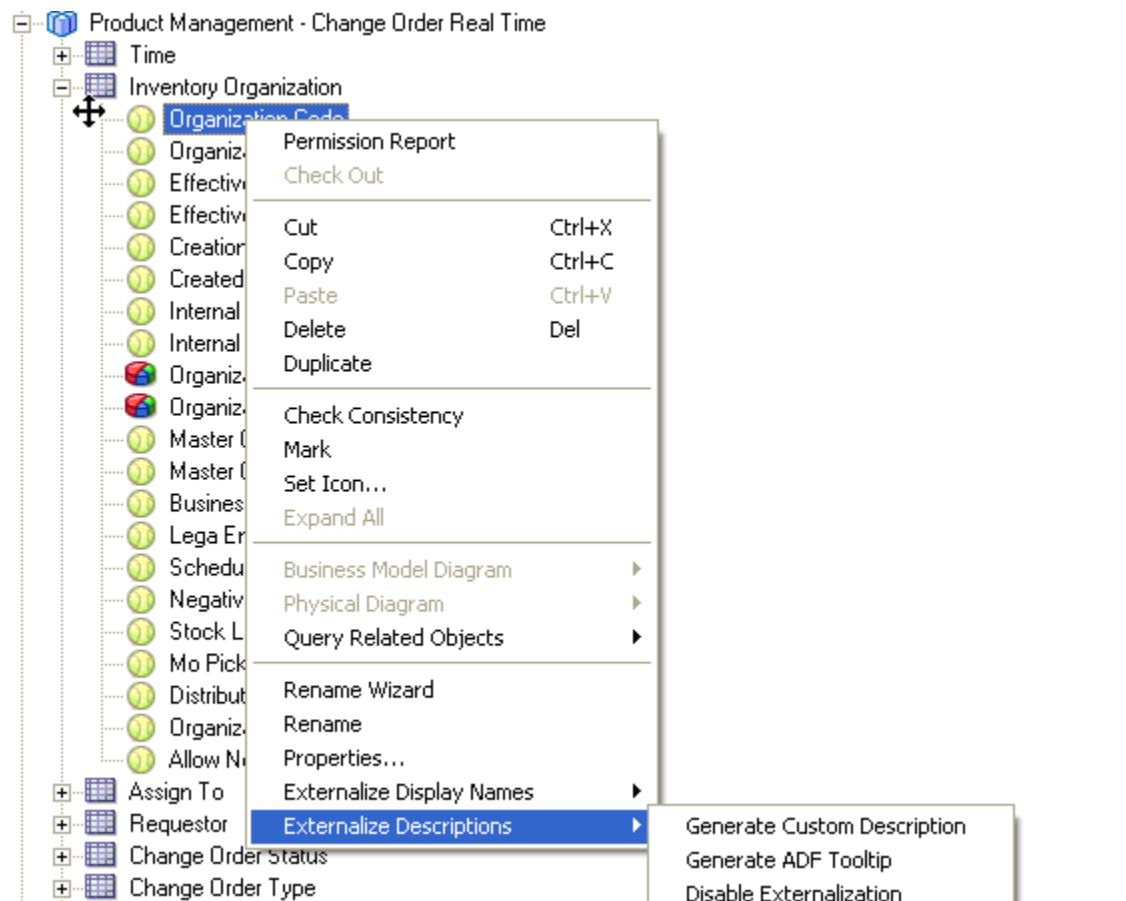


Tooltips are created for subject areas, presentation folders, and derived metrics by externalizing the descriptions from the translation tables C\_RPD\_MSGS, C\_RPD\_MSGS\_TL, C\_RPD\_MSGS\_REL.

Figure 46 describes how to set the translatable descriptions or tool tip for an attribute or a presentation folder. Select **Generate Custom Description** for externalizing logical attributes that are not sourced from Oracle ADF view objects. Select **Generate Oracle ADF Tooltip** for externalizing attributes sourced from Oracle ADF view objects to use their UI hints.



Figure 46 Setting the Translatable Descriptions or Tooltip for an Attribute or a Presentation Folder



## Lookups

Transactional Business Intelligence lookups are implemented using the Physical lookups. See the *Oracle Fusion Middleware Developer's Guide for Oracle Business Intelligence Enterprise Edition* for more information. The following is an example:

```
LOOKUP( SPARSE
"oracle.apps.fscm.model.analytics.applicationModule.FscmTopModelAM_Fscm
TopModelAMLocal"."."."."FscmTopModelAM.AnalyticsServiceAM.LookupValuesT
LPVO"."Meaning",
"oracle.apps.fscm.model.analytics.applicationModule.FscmTopModelAM_Fscm
TopModelAMLocal"."."."."FscmTopModelAM.EgpItemsPublicModelAM.Item"."Ite
mBasePEOAllowExpressDeliveryFlag",
VALUEOF(NQ_SESSION."USER_LANGUAGE_CODE"),
"oracle.apps.fscm.model.analytics.applicationModule.FscmTopModelAM_Fscm
TopModelAMLocal"."."."."FscmTopModelAM.EgpItemsPublicModelAM.Item"."Ite
mBasePEOAllowExpressDeliveryFlag", 'EGP_CATALOG_YES_NO', 0, 0)
```

## View Objects Overview

A view object represents a SQL query. View objects are imported into the physical layer of the Oracle BI repository to support the modeling of dimensions and facts in Transactional Business Intelligence. Each Oracle Fusion application represents a self-contained J2EE application for Transactional Business Intelligence. All Oracle Fusion application view objects required to support the modeling of objects in a product are contained in these J2EE applications. View objects were created for Transactional Business Intelligence to support the following technical concepts.

## Oracle ADF Composite View Object

Oracle BI EE requires the ability to efficiently access data from two or more master or detail linked view objects in order to aggregate, present, or report on that combined data set. An essential requirement is to efficiently retrieve the levels of related information as a single, flattened query result, to perform subsequent aggregation and transformation. The Oracle ADF Composite view object API allows the caller to create a new view object at runtime. It contains the hierarchical results from two or more existing view-linked view objects into a single, flattened query retrieving the same effective set of data.

## SQL Pruning in Oracle ADF

View objects whose SQL Mode property is set to Declarative formulate their SQL statement at runtime rather than at design time. This behavior enables them to be informed of the set of attributes that the user wants to include in the result and, where possible, simplify the SQL statement through a combination of:

- Removing columns in the SELECT list corresponding to view row attributes not selected
- Removing tables in the FROM clause if the pruning rules allow

## Invoking ADF Page from Oracle BI EE Report

Invoking an ADF page from a Oracle BI EE report is effected in two tasks:

- [“Configuring ActionFrameworkConfig.xml in Oracle BI EE Folder” on page 98](#)
- [“Embedding Fusion Application URL in Oracle BI EE Credit Details Report” on page 99](#)

## Configuring ActionFrameworkConfig.xml in Oracle BI EE Folder

The first task in invoking an ADF page from a Oracle BI EE report consists of configuring the `ActionFrameworkConfig.xml` file. The objective here is twofold:

- To substitute the ADF page environment details
- To avoid any changes in the report whenever there is a change in the ADF page environment

The ActionFrameworkConfig.xml file is located at the following location:<OBIEE home location>\user\_projects\domains\bifoundation\_domain\config\fmwconfig\biinstances\coreapplication

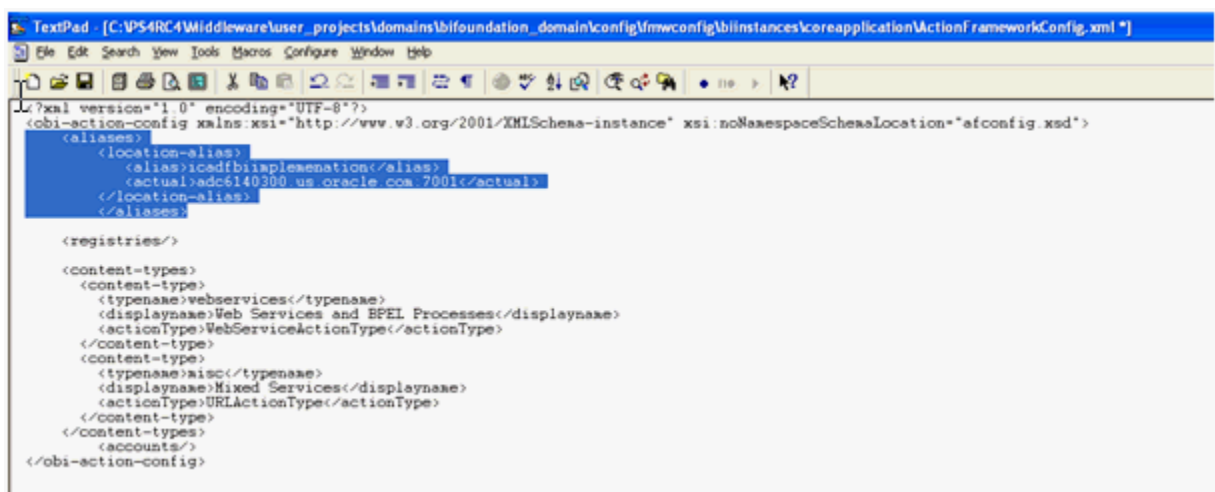
➤ To configure the ActionFrameworkConfig.xml in the Oracle BI EE folder:

- 1 Open the ActionFrameworkConfig.xml file with an editor.
- 2 Add the following code:

```
<aliases>
  <location-alias>
    <alias>icadfbimplementation</alias>
    <actual>Server Name</actual>
  </location-alias>
</aliases>
```

Figure 47 shows an example of adding the above code to the ActionFrameworkConfig.xml file:

Figure 47 Adding code to ActionFrameworkConfig.xml File



## Embedding Fusion Application URL in Oracle BI EE Credit Details Report

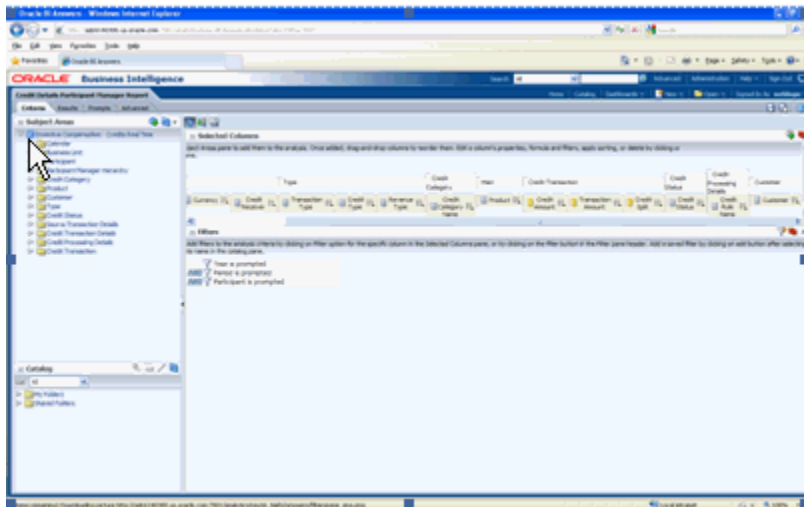
The second task in invoking an ADF page from a Oracle BI EE report consists of embedding the Fusion Application URL in the Oracle BI EE Credit Details report with an action link.

**Note:** The ADF URL `https://icadfbimplementation/homePage/faces/AtkHomePageWelcome` used in this step is static for Incentive Compensation FA. **This URL may not be changed.** The variable `icadfbimplementation` holds the server name and a variable used in ActionFrameworkConfig.xml.

➤ To embed the Fusion Application URL in the Oracle BI EE Credit Details report:

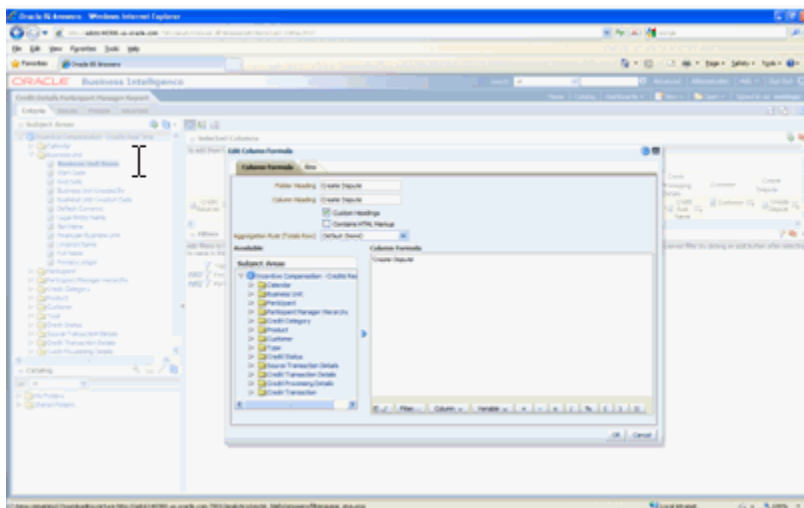
- 1 Open the credit details report in edit mode as shown in Figure 48:

Figure 48 Opening Credit Details Report in Edit Mode



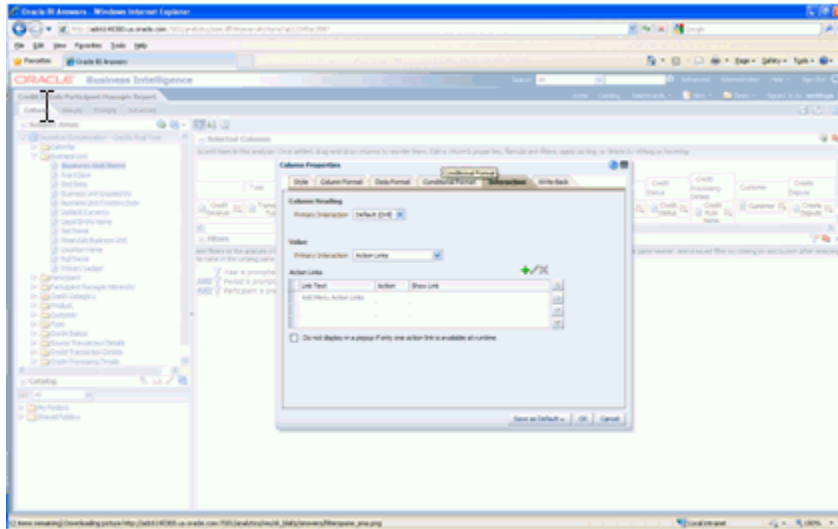
- 2 Select **Edit Column Formula**.
- 3 Select the **Column Formula** tab.
- 4 Add a new column (derived column) to embed the URL <https://icadfbimplementation/homePage/faces/AtkHomePageWelcome> as shown in Figure 49:

Figure 49 Adding New Column to Embed the URL



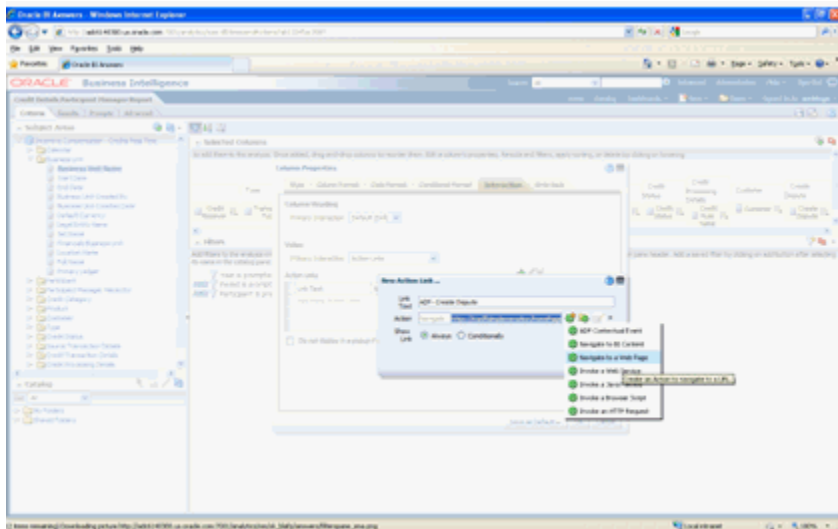
- 5 Select **Properties**.
- 6 Select the **Interaction** tab.
- 7 In the **Value** field, select **Action Links** as shown in Figure 50.

Figure 50 Selecting Action Links in Value Field



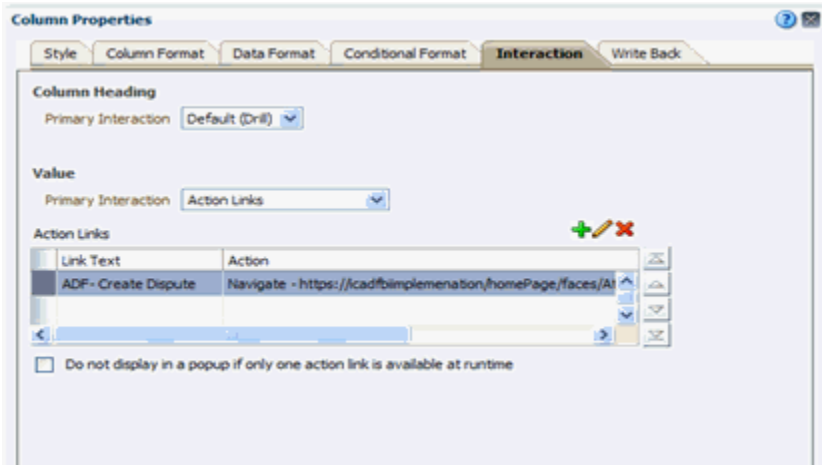
8 Click the + button and choose the **Action** Navigate to a Web Page as shown in Figure 51:

Figure 51 Selecting the Action of Navigating to Web Page



9 In the **Interaction Tab**, embed the URL as shown in Figure 52.

Figure 52 Embedding the URL



10 Run the report.

11 Select the **Create Dispute** link to display the **Compound Layout** page as shown in Figure 53.

Figure 53 Compound Layout Page

Currency	Credit Receiver	Transaction Type	Credit Type	Revenue Type	Credit Category Name	Product	Credit Amount	Transaction Amount	Credit Split	Credit Status	Credit Rule Name	Customer	Create Dispute
USD	Green,Mark	Accounts receivable revenue adjustment	Direct credit	Revenue			-11,000.00	-122,000.00	50	Roll up during crediting			Create Dispute
	Roberts,Caden	Accounts receivable revenue adjustment	Direct credit	Revenue			-11,000.00	-122,000.00	50	Roll up during crediting			Create Dispute
EUR	King,Haley	Order	Direct credit	Revenue	Audio Electronics		\$4,200.00		50	Eligible	West Region - Audio Equipment		Create Dispute
USD	Cox,Jully	Order	Indirect credits	Nonrevenue	Audio Electronics		\$12,000.00	\$12,000.00	100	Eligibility error	NA Regional Computers		Create Dispute
	Richardson,Alexander	Order	Direct credit	Revenue	Audio Electronics		\$6,000.00	\$12,000.00	50	Eligible	West Region - Audio		Create Dispute

12 Click the **ADF-Create Dispute** button to display the **FA** page as shown in Figure 54:

Figure 54 FA Page

Currency	Credit Receiver	Transaction Type	Credit Type	Revenue Type	Credit Category Name	Product	Credit Amount	Transaction Amount	Credit Split	Credit Status	Credit Rule Name	Customer	Create Dispute
USD	Green, Maria	Accounts receivable revenue adjustment	Direct credit	Revenue			-\$11,000.00	-\$22,000.00	50	Roll up during crediting			Create Dispute
	Roberts, Caden	Accounts receivable revenue adjustment	Direct credit	Revenue			-\$11,000.00	-\$22,000.00	50	Roll up during crediting			Create Dispute
EUR	King, Henry	Order	Direct credit	Revenue	Audio Electronics		\$4,200.00		50	Eligible	West Region - Audio Equipment		Create Dispute
USD	Cox, Lily	Order	Indirect credits	Nonrevenue	Audio Electronics		\$12,000.00	\$12,000.00	50	Eligibility error	NA Regional Computers		Create Dispute
	Richardson, Alexander	Order	Direct credit	Revenue	Audio Electronics		\$6,000.00	\$12,000.00	50	Eligible	West Region - Audio Equipment		Create Dispute

## SQL Bypass in Oracle BI EE

From a performance perspective, because the Oracle ADF Model Layer does not support aggregation, such queries tend to be slow (aggregations performed on low-level data in Oracle BI EE). Going through additional servers (JavaHost plus Oracle ADF) in the network is slower than directly querying the database. The related SQL Bypass feature directly queries the database and pushes down aggregations and other transformations where possible, reducing the amount of data streamed and worked on in Oracle BI EE.

The SQL Bypass functionality in Oracle BI EE uses the Composite view object API feature to construct and return a flattened SQL Bypass query that incorporates all (and no more) of the required columns, filters, and joins required by the BI query. Oracle BI EE then executes this query directly against the database.

**Note:** Setting up an SQL Bypass Database is required.

## Date-Effective Entities

Date Effectivity allows an object's attributes to change over time while retaining records of historical values. For example, the following figure displays the promotion history for an employee named Kath Nash:

Figure 55 Sample Promotion History

Sample Promotion History				
Effective Start Date	Effective End Date	Employee ID	Job	Grade
11-Apr-2006		13877	ACCT04	4
01-Jun-2000	10-Apr-2006	13877	ACCT03	3
01-Jan-1999	31-May-2000	13877	ACCT02	2

Notice that Kath's Employee ID, which is constrained to be unique across employees, remains static over time, while Kath's Job and Grade change over time. The effective date ranges do not overlap and are gapless. Therefore, only one row can be fetched from the object for any given date.

See the Oracle Fusion applications documentation for more information about date effectivity and which business objects support date effectivity.

In general, Transactional Business Intelligence analysis is based on the most current information as contained in the transaction database. For date effectivity enabled dimensions and facts, analysis can be done based on current date or as of a particular date in the past or future. Transactional Business Intelligence logical objects are modeled as date-effective entities when the dimension or fact is sourced from Oracle Fusion applications transaction objects that support date effectivity.

By default, all Transactional Business Intelligence requests fetch data based on the current date. No special setup or configuration is needed to do analysis based on the current date's data. Advanced users of Transactional Business Intelligence can submit Transactional Business Intelligence requests as of a particular date in the past or in the future. See [“How to Create As-of Date Analysis” on page 106](#).

## Handling Date-Effective Entities

The Composite view object API has specific support for handling Date-Effective entities. This feature is leveraged either by passing hints to the Composite view object API through Oracle ADF or by setting certain BI Server variables through BI Answers.

### Current Date Analysis

Entities are marked Date Effective by setting the Effective Date property to True in the Oracle ADF Model layer, which automatically adds the SysEffectiveDate transient variable to the Entity. Examples of effective dated dimensions in HCM are Worker, Job, Position, Department, Location. This entity should already have Effective Start Date and Effective End Date attributes as a part of its composite primary key. The Composite view object API uses these hints to identify an entity as a Date-Effective entity and understands that it must be handled specially. A Date-Effective clause as shown below is automatically added, provided that no other hints are supplied or present for it to be handled in some other way:



```
WHERE SYSDATE BETWEEN <DateEffective_Entity>.EFFECTIVE_START_DATE AND
<DateEffective_Entity>.EFFECTIVE_END_DATE
```

This feature does not call for any change in the Oracle BI repository. All the configurations mentioned should be done in the Oracle ADF Model layer.

## As-of Date Analysis

As-of Date Analysis or Point-in-time Analysis functionality can be achieved by passing a variable `PARAM_EFFECTIVE_DATE` from BI Answers to BI Server and eventually to the Composite view object API. The variable `PARAM_EFFECTIVE_DATE` holds the date as of which the analysis must be performed on Date-Effective Entities. BI Server interprets the parameter and passes specific hints to the Custom view object API to use the specified date instead of `SYSDATE` in the actual query. The query returned is similar to Current Date Analysis, with the only difference being that the date value passed through `PARAM_EFFECTIVE_DATE` is used instead of `SYSDATE`. This date value is applied for all Date Effective entities being queried, irrespective of it being a fact or a dimension.

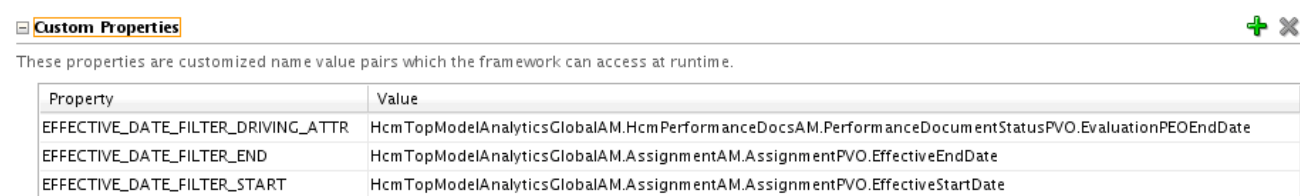
## Transaction Date-Based Analysis

The following scenario is common: the Logical Fact is based on Transaction Tables, with Transaction date stamped on those tables, and the Logical Dimension is Date-effective. These scenarios can be resolved using a `BETWEEN` join, where the Logical Fact Transaction date is between the Effective dates of the Date effective dimensional entity. Special support in Composite view object API handle this kind of join.

To leverage this feature provided by the Composite view object API, you must pass specific hints through Custom Properties in the view link between the Fact entity and Dimension entity at the Oracle ADF Model layer. Following are the properties (name-value pairs) that must be set in the view link explicitly for the Composite view object API to understand the hints being passed and interpret them correctly.

- `EFFECTIVE_DATE_FILTER_DRIVING_ATTR` = Transaction Date
- `EFFECTIVE_DATE_FILTER_END` = Dimension Effective End Date
- `EFFECTIVE_DATE_FILTER_START` = Dimension Effective Start Date

**Figure 56 Custom Properties**



Property	Value
<code>EFFECTIVE_DATE_FILTER_DRIVING_ATTR</code>	<code>HcmTopModelAnalyticsGlobalAM.HcmPerformanceDocsAM.PerformanceDocumentStatusPVO.EvaluationPEOEndDate</code>
<code>EFFECTIVE_DATE_FILTER_END</code>	<code>HcmTopModelAnalyticsGlobalAM.AssignmentAM.AssignmentPVO.EffectiveEndDate</code>
<code>EFFECTIVE_DATE_FILTER_START</code>	<code>HcmTopModelAnalyticsGlobalAM.AssignmentAM.AssignmentPVO.EffectiveStartDate</code>

As shown in [Figure 56](#), the values for the custom properties represent entity attribute names and should be expressed as fully qualified names. The Composite view object API interprets these Custom Properties and generates a query similar to that shown below.

```
WHERE <Fact_Entity>.Transaction_Date IS BETWEEN  
<DE_Dimension_Entity>.EFFECTIVE_START_DATE AND  
<DE_Dimension_Entity>.EFFECTIVE_END_DATE
```

This feature does not call for any change in the Oracle BI repository. Do all configurations mentioned in the Oracle ADF Model layer.

## How to Create As-of Date Analysis

To create As-of Date Analysis, you must create a dashboard prompt for entering the effective date on which you want to query the records, a saved analysis with Date effective records (which you want to analyze), and a dashboard comprised of the prompt and analysis. You need not create a filter or prompt in the analysis for the dashboard prompt, because the basis of using the dashboard prompt is to override the effective date (which is the system date by default) through a request variable.

► To create an As-of Date Analysis:

- 1 Log in to Oracle BI EE.
- 2 From the Home page, select **New**, and then **Dashboard Prompt**.
- 3 Select a Subject Area.
- 4 Select **New (+)**, and then select **Column Prompt**.
- 5 In **Select Column**, select any non-Date data type attribute for the prompt.
- 6 In **New Prompt**, set the Label to something meaningful. For example, As-of Date.
- 7 In **Operator**, select **is equal to/is in**.
- 8 In **User Input**, select **Text Field**.
- 9 Expand the **Options** section.
- 10 Leave the **Default** section as **None** unless you need to analyze data on a specific date rather than the current date every time.
- 11 In **Set a variable**, select **Request Variable**.
- 12 Enter the variable name, for example `PARAM_EFFECTIVE_DATE`. This is a Non-system Session variable created in the Oracle BI repository. The value is to be overridden at runtime with the user's input. The date value is in the yyyy-mm-dd format.
- 13 Click **OK** to close the New Prompt window.
- 14 Save the prompt in the **Shared Folder**.
- 15 Go to the **Home** page to create a dashboard where this prompt can be used. You can also use the prompt in existing dashboards as well as for your analysis.
- 16 Create and save an analysis with the Date effective records in the shared folder if you do not have one already. You need not create a specific filter in the Analysis to prompt for the date.
- 17 Create a dashboard by selecting **New**, and then **Dashboard** from the Home page.

- 18 Enter the name and location for the dashboard. Verify that **Add content now** is selected and select **OK**.
- 19 From the Dashboard page, on the left, expand the **Shared Folder** under the **Catalog** menu.
- 20 Select the dashboard prompt that you created and drag it onto the dashboard page.
- 21 Drag the saved Analysis (with Date Effective records) and drop it onto the dashboard page.
- 22 Save the dashboard and run it.
- 23 Input the date for which you want to check the records in the As of Date prompt in the format yyyy-mm-dd, and then select **Apply**.

## ATG Trees, Hierarchies, and ESS Jobs for Populating Denormalized Tables

Oracle Fusion Trees represent the functional hierarchies of Oracle Fusion Applications, and are exposed to Transactional Business Intelligence through column-flattened business intelligence view objects, or BICVOs. Many of the administrative aspects of Trees—creating, populating, updating, auditing, and flattening Trees—fall within the administrative scope of specific Oracle Fusion Applications. Therefore, the descriptions for that functionality are not documented in this guide. Aspects of Trees administration that are particularly of interest to Transactional Business Intelligence are described including the configuring and launching of flattening jobs for Oracle Fusion Trees. For more information on Fusion Trees and their management, see the *Oracle Fusion Applications Developer's Guide*.

**Note:** The following information is provided to assist in understanding the rationale behind the administrative tasks for Oracle Fusion Trees in support of Transactional Business Intelligence.

### ATG Trees

In an attempt to standardize Oracle Fusion Trees based on common tables, metadata, and services, the Application Technology Group (ATG) developed Oracle Fusion Tree Management, a central service for defining and managing application Trees. You can refer to Trees managed by Oracle Fusion Tree Management as ATG Trees, or ATG-registered Trees. Many applications have adopted Oracle Fusion Tree Management services rather than develop their own custom Trees services.

### Non-ATG (Custom) Trees

Traditionally, Trees have been defined on a case-by-case basis by each Oracle Fusion application that uses hierarchically structured data. Most application-specific Trees are constructed from Oracle ADF View Objects that are related by View Links and assembled into master-detail pairs. Often, such Trees implement application-specific data security schemes, are date-effective, and support row-based or column-based flattening (or both), depending on the performance

requirements of the application. Custom application-specific Trees are referred to as Non-ATG Trees.

## Tree Representations

Regardless of whether Trees are managed by ATG services, application Trees generally have three common representations, and these representations conform directly to specific tables in the underlying database schema of the application:

- **Parent-Child**—The normalized, canonical representation of a Tree, as a directed graph of nodes, where each node represents some value of the underlying data source. A node may have multiple child nodes (unless it is a leaf node) and usually at most one parent node (unless it happens to be the root node). Nodes may be labeled by depth or by level, generally supporting the specification of value-based or level-based hierarchies, respectively. In the application database schema, a parent-child table, or node table, directly stores this canonical representation of the Tree. An example of a parent-child representation of a tree is the following hierarchy: Corporation , Sales Division, Region.
- **Row-Flattened**—A physically optimized but semantically equivalent transformation of the parent-child structure into a tabular form, where each row represents a node, along with precisely one descendant of that node. One such row exists for each unique node-descendant pair, and a Tree of any arbitrary depth can always be accommodated by adding more rows. Row-flattened representation optimizes certain kinds of searches—for example, retrieving the entire subtree rooted at some specified node. In the underlying application database schema, a row-flattened table stores the row-flattened equivalent of the parent-child table content. Usually, some asynchronous process is relied upon to read the content of a parent-child table and transform and load it into a corresponding row-flattened table. A row-flattened representation of the previous parent-child tree would consist of the following rows with child and ancestor columns:
  - Sales Division, Corporation
  - Region, Sales Division
  - Region, Corporation
- **Column-Flattened**—A physically optimized but semantically equivalent transformation of the parent-child structure into a tabular form, where each row represents a node, along with all ancestors of that node, up to and including the root node of the Tree. One such row exists for each node of the Tree, and the table requires a unique column corresponding to each depth (or level) of the Tree. A Tree of any arbitrary depth can always be accommodated by adding more columns (however, for obvious practical reasons, the number of columns is usually specified and fixed by the table definition). Column-flattened representation optimizes certain kinds of searches—for example, determining the complete rollup structure for some specified node. In the underlying application database schema, a column-flattened table stores the column-flattened equivalent of the parent-child table content. And as with row-flattened representations, some asynchronous process is likewise usually employed to transform the content of a parent-child table and load it into a corresponding column-flattened table. A column-flattened representation of the previous parent-child tree would consist of the following rows with a column for each distinct level of the tree:

- Corporation, Corporation, Corporation
- Sales Division, Sales Division, Corporation
- Region, Sales Division, Corporation

## ATG Implementation of Tree Representations

As mentioned, ATG's Oracle Fusion Tree Management service provides a standardized implementation of Trees that has been adopted by a large number (but not all) of Oracle Fusion applications. Oracle Fusion Tree Management consists of standard metadata, database tables, Oracle ADF Business Components, UI components, and processes, for managing the complete life cycles of Trees on behalf of applications. The following are the most important of the ATG standard components for Trees administration, mainly as background for the subsequent discussion on Transactional Business Intelligence administrative processes for Tree flattening:

- **Tree Structure**—A metadata construct defining a single family or class of Trees by name. Tree Structures are usually defined by application developers. An example of a Tree Structure: "DEPT\_TS".
- **Tree**—A metadata construct defining a particular Tree (that is, an instance of a Tree Structure). Trees are likewise usually defined by application developers. An example of a Tree: "SALESDEPT".
- **Tree Version**—A metadata construct defining a particular version of a Tree. Versions are usually created by application users or administrators. A version of a Tree may carry an Effective Date. Tree versions and their content are transformed by the flattening processes. An example of a Tree Version: "SALEDEPT.09252011".
- **Tree Node Table**—ATG database table storing the parent-child representation of the Tree. The default, shared table defined by ATG is called FND\_TREE\_NODE. However, developers using ATG Oracle Fusion Tree Management services may create and register custom tree node tables with application-specific names; for example, ABC\_TREE\_NODE.
- **Row-Flattened Table**—ATG database table storing the row-flattened representation of the Tree Node Table. The default, shared table defined by ATG is FND\_TREE\_NODE\_RF. However, developers using ATG Oracle Fusion Tree Management services may create and register custom row-flattened tables with application-specific names; for example, ABC\_TREE\_NODE\_RF.
- **Column-Flattened Table**—ATG database table storing the column-flattened representation of the Tree Node Table. The default, shared table defined by ATG is called FND\_TREE\_NODE\_CF. However, developers using ATG Oracle Fusion Tree Management services may create and register custom column-flattened tables with application-specific names; for example, ABC\_TREE\_NODE\_CF.
- **Data Source View Object**—Oracle ADF Business Components component representing the data source of a particular Tree Version. This object represents the physical data source whose stored values are effectively "shaped" by the content of FND\_TREE\_NODE (or an application-provided equivalent of the Tree Node table). Usually, a unique data source view object is defined for each level of the Tree Version.

- **Column-Flattened Business Intelligence View Object (BICVO)**—Oracle ADF Business Components representing a column-flattened Tree Version. The BICVO joins the column-flattened representation of the Tree Version with relevant data source values otherwise exposed by the Data Source view object. It also defines security on the column-flattened Tree Version in terms of an attached Oracle ADF view criteria object. BICVOs, designed by developers, are automatically generated through the Trees Application Launch Page. The column-flattening process is the means by which a BICVO is populated for use by Transactional Business Intelligence. Notice that, in general, no equivalent BICVO-like construct exists for row-flattened Tree Versions. See the *Oracle Fusion Developer Guide* for additional information on how to construct BICVOs, including information on enabling data source attributes to be brought into the BICVO result set.
- **Effective Date**—A range of start and end dates that indicate when a Tree Version of a Tree is “current” or “in effect.”
- **Trees Application Launch Page**—Oracle ADF browser-based UI entry point for creating and managing Tree Structures, Trees, Tree Versions, and Labels, as well as the asynchronous processes of Auditing and Flattening, and the generation of BICVOs.
- **Auditing**—ATG asynchronous process that validates the overall correctness of a Tree Structure and its instances. An Audit can be configured to run on demand (either immediately or as soon as possible), or scheduled for a specified date and time.
- **Flattening**—ATG asynchronous process that reads the FND\_TREE\_NODE table (or an equivalent, application-specified, custom Tree Node Table) and converts it either to Column-Flattened or Row-Flattened format, storing it respectively in either the FND\_TREE\_NODE\_CF table or FND\_TREE\_NODE\_RF table (or an equivalent application-specified, custom Column or Row-Flattened Table). Flattening may be configured to run on-demand (either immediately or as soon as possible), or scheduled for a specified date and time.
- **Incremental Flattening**—The method ATG uses in applying its flattening algorithm at any point after the initial time that Flattening is run after installation of the application. After the initial installation, running the Flattening process (whether on demand or scheduled) results in the entire Tree Node Table for a particular Tree Version being transformed and loaded into the relevant Column or Row-Flattened Table for that Tree Version. However, following this initial load, subsequent modifications to the Tree Node Table (in the form of a record of Tree Node operations—that is, the operations modifying specific Tree nodes) are recorded in a log file. The next time the Flattening process runs, it applies only those incremental changes to the Tree Node Table recorded in the log file, eliminating the need to transform and reflatten or reload the entire Tree. Specifically, incremental flattening is supported by the following ATG database tables:
  - FND\_TREE\_FLATTENING\_HISTORY—Records the last Tree Node operation to be flattened.
  - FND\_TREE\_LOG—Records all updated Tree Node operations against the Tree Node Table since the last flattened Tree Node operation (captured in FND\_TREE\_FLATTENING HISTORY).
  - FND\_TREE\_LOG\_PARAMS—A separate table that stores all relevant parameter values for the recorded update Tree Node operations against the Tree Node Table.

- **Tree Structure Service API**—ATG service API for managing Tree Structures.
- **Tree Service API**—ATG service API for managing Trees and Tree Versions. This service API implements the flattening processes.
- **Tree Node Service API**—ATG service API for managing Tree Nodes (contents of the Tree Nodes Table). API implements Tree Node operations.
- **Enterprise Scheduler Service (ESS)**—Generic Oracle Fusion Application scheduling service used to configure, schedule, and run asynchronous jobs. Using ESS together with the ATG Tree Service API is one way of developing custom Flattening jobs, or application-specific interfaces and UIs for Flattening jobs against ATG Trees. Most Oracle Fusion applications based on ATG Trees launch the ATG Flattening process in this manner, rather than through the ATG Trees UI.

## Transactional Business Intelligence Administration of Oracle Fusion Trees

From the perspective of Transactional Business Intelligence administration, management of a Tree is handled by an administrator of the Oracle Fusion application that owns the Tree. In the case of an ATG Tree, an application administrator may either use the ATG Tree UI directly in managing the Tree's life cycle (including the launching or scheduling of a flattening job), or may rely on application-specific UIs and services that invoke ATG operations on behalf of the administrator through the Trees Services API. In the case of a Non-ATG Tree, the implementation of any Tree-related services is a custom aspect of the application. The sections that follow provide an overview of the administrative steps supported by the generic ATG Tree UI and indicate which Oracle Fusion applications rely on the generic Tree UI for this purpose. For more information on using the generic Tree UI, see the *Oracle Fusion Applications Developer's Guide*. For information on a specific application's tree management UI, see product-level documentation.

## Generic ATG Tree Administration

Generic creation, maintenance, and administrative tasks using ATG Oracle Fusion Tree Management services may be handled through the various pages of the Trees Application Launch Page provided as part of Oracle ADF. Alternatively, an application that has standardized on ATG services might optionally have provided a collection of custom administration pages that nonetheless leverage ATG Oracle Fusion Trees services through calls to the Tree Service API.

Much of the functionality supported by the Trees Application Launch Page is of interest to developers only. Only a subset of this functionality is used for postinstallation setup of Trees. However, that functionality is described by what follows. For more information on using the Trees Application Launch Page, see the information on working with Trees in the *Oracle Fusion Applications Developer's Guide*.

The specification of a flattening strategy for the Tree Structure is a development step in the creation of the Tree, but a prerequisite for the Tree flattening steps are presented here. A column-flattened table must have been specified for the Tree Structure, as well as a refresh interval for

applying updates to the Tree Node Table against either of the two flattened tables. You can accomplish these tasks from the Performance page of the Trees Application Launch Page and is illustrated in the figure below. This step is discussed only as as a prerequisite; it was already performed by the developer of the tree and not by the Transaction Intelligence administrator.

**Note:** For purposes of Transactional Business Intelligence, only column-flattening is of interest.

Figure 57 Specification of Flattening Strategies and Tables

Navigation: << DataSources Performance Access Rules >>

**Create Tree Structure: Performance**

Buttons: Cancel Save and Continue Back Next

Name: Test\_TS  
Code: TEST\_TS  
Application: Oracle Fusion Applications Administration

Row Flattened Table: [Dropdown]  
Column Flattened Table: [Dropdown]

Tree Sharing Method: OPEN  
Description: Test TS for doc.

Refresh Interval: ☒ Scheduled background ☐ Near real-time

The second prerequisite is finding the Tree Version that you want to flatten. Assuming this Tree Version already was created, you can find it from the Edit Tree Version page of the Trees Application Launch Pages. Searching for the Tree Version by name brings it into the current context so you may initiate the background flattening job for the Tree Version.

Figure 58 illustrates the Edit Tree Version page.



Figure 58 Edit Tree Version Page

➤ After the Tree Version is specified, a flattening process can be launched by performing the following steps.

1 If the status of the Tree Version is **Draft**, to make the Tree Version active, select **Actions**, then **Status**, and then **Active**.

2 Optional:

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 *Oracle Fusion Application Developer's Guide*.

3 Select row or column-flattening from the **Actions** menu for the Tree Version to display the Flattening page. For Transactional Business Intelligence, only column-flattening is of interest.

Figure 59 Tree Version Flattening Page

4 Click the **Schedule Flattening** tab.

Figure 60 Scheduling Window

The screenshot shows a web-based interface for scheduling a job. At the top right is a 'Submit' button. Below it, the 'Process Name' is 'FlattenJob' and the 'Description' is 'Flatten Tree Version'. There are two tabs: 'Parameters' and 'Schedule', with 'Schedule' being the active tab. Under the 'Schedule' tab, there is a 'Run' section with two radio button options: 'As Soon As Possible' (which is selected) and 'Use a Schedule'.

- 5 Depending on your requirements for timing the running of the flattening job, select **As Soon As Possible**, which results in the job being launched almost immediately, or **Use a Schedule**, which allows for scheduling to run the job on a specified date and time. For more information, see both the sections on working with Trees and working with Enterprise Scheduler Extensions, in the *Oracle Fusion Application Developer's Guide*. Then click the Submit button to either launch the job or schedule it for deferred execution.
- 6 The Scheduling Window is refreshed and displays a Request ID number for the ESS flattening job. Note the Request ID if you want to check the ESS job's progress from the ESS job history screen.

## Product - Specific ATG Tree Administration: Project Task Hierarchy

The Task Hierarchy Dimension exposed by the Oracle Fusion Projects application for Transactional Business Intelligence uses an ATG-generated column-flattened BI view object (BICVO) named PjfTaskHierarchyBICVO. This BICVO is dependent on the PJF\_PROJ\_ELEMENTS\_CF table to provide a column-flattened representation of the value-based trees defined by the PJF\_PROJ\_ELEMENTS\_B table. As a postinstallation initialization step, the PJF\_PROJ\_ELEMENTS\_CF table must be populated with data using an Enterprise Scheduler Service (ESS) job within the Oracle Fusion Projects application. PJF\_PROJ\_ELEMENTS\_CF, when populated, contains the keys of each column-flattened level of the Task Hierarchy. It contains up to 20 uppermost levels of the Task Hierarchy, including the Structure level, plus the base or leaf level. The Task Hierarchy Dimension does not contain Task Structure level.

The PJF\_PROJ\_ELEMENTS\_CF is populated with data from the PJF\_PROJ\_ELEMENTS\_B table by any of the following actions:

- User selects the option Synchronize Project Updates from the Actions menu on the Project Plan page.

- User goes to the ESS Monitor page and selects the column-flattening ESS job. See [“Running the Column-Flattening ESS Job” on page 115](#).
- A Project is created by the application. You need not perform any specific actions. The Copy Project action internally invokes the ESS job to populate the PJF\_PROJ\_ELEMENTS\_CF table.

**Note:** When a Project is created from Microsoft Projects, an invocation of the ESS flattening job is not performed automatically. You must enter the Projects Application and run the ESS job directly.

## Running the Column-Flattening ESS Job

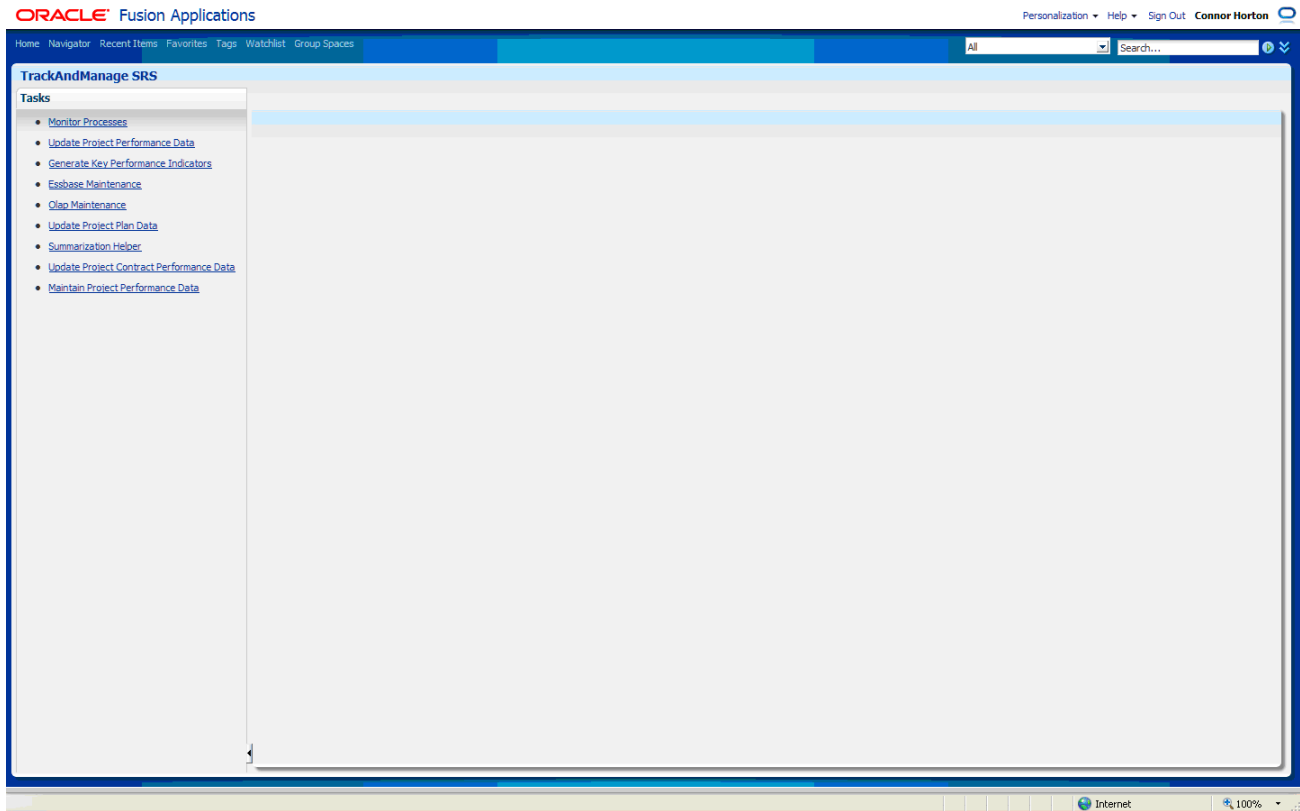
**Note:** A user should have access to the privilege Manage Project Task Structure through the application roles Project Definition Duty, Project Foundation Task Structure Duty, and Project Scheduling Integration web Services Duty.

➤ To run the column-flattening ESS job:

- 1 Log in to an Oracle Fusion application and select the **Navigator** link in the upper left corner.
- 2 In Tools, select **Scheduled Process**.

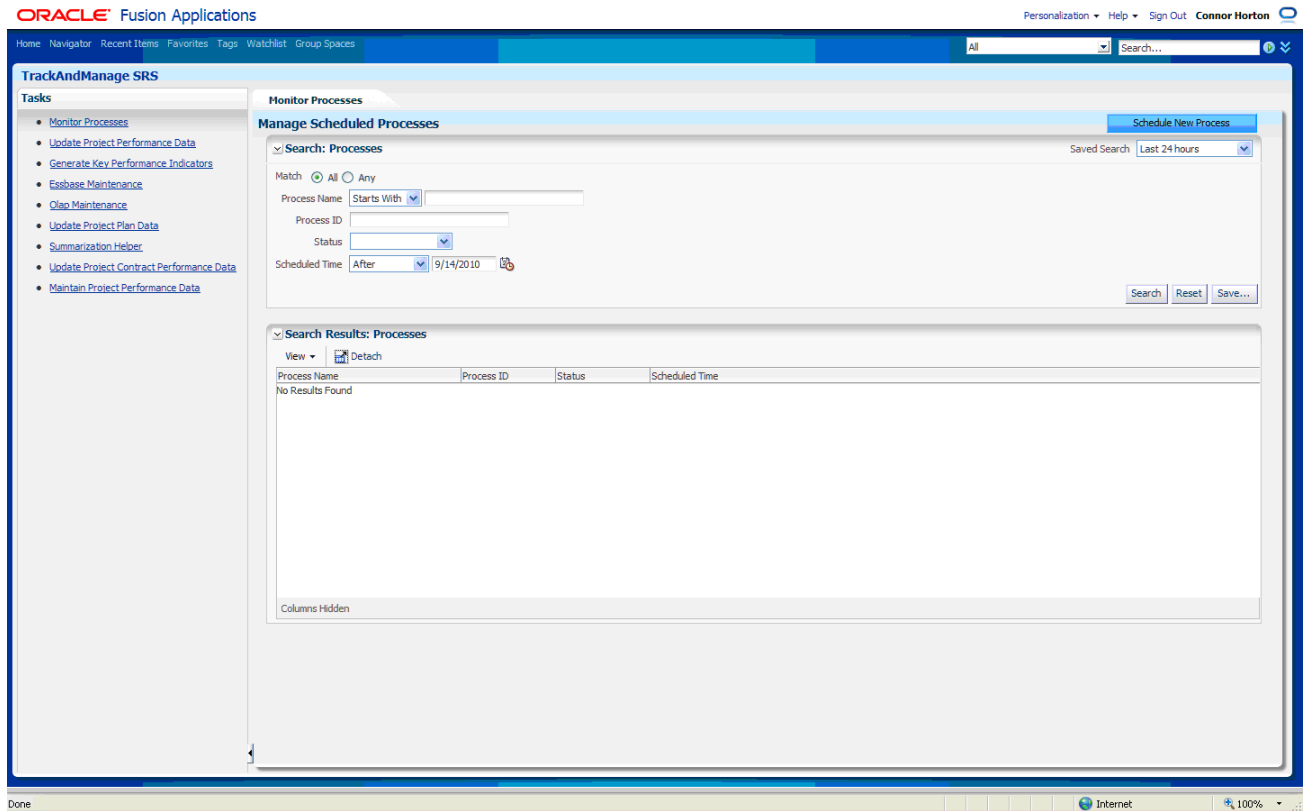
**Tip:** In the upper left corner, select **Manage Scheduled Processes**.

Figure 61 Monitor Processes Link



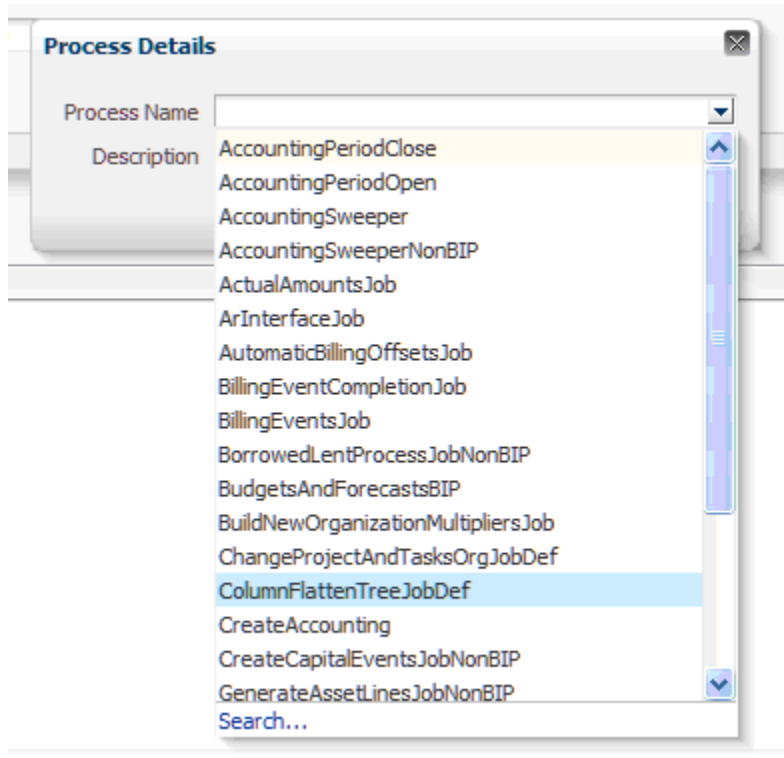
- 3 Select **Manage Scheduled Process** button in the upper left corner.
- 4 Select **Schedule New Process** button in the upper right corner.

Figure 62 Schedule New Process



5 Select the process name **ColumnFlattenTreeJobDef**.

Figure 63 Process Details



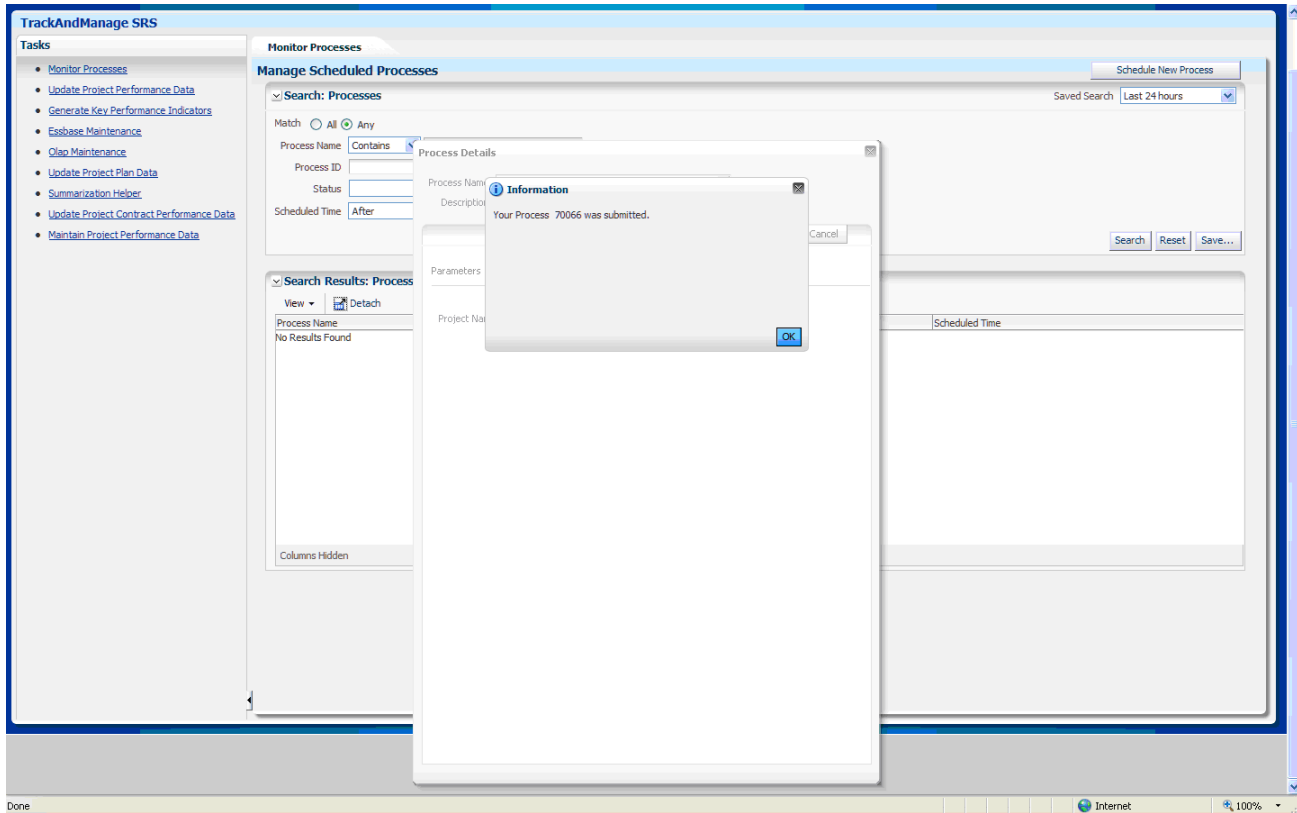
- 6 A list of existing Project names is displayed. Select the desired Project.

Figure 64 Project Name

The screenshot shows a 'Process Details' dialog box. At the top, the 'Process Name' is set to 'ColumnFlattenTreeJobDef'. Below it, the 'Description' is 'To do Column Flattening for the Tree Structure PJF\_TASK\_HIERARCHY.'. There are four buttons: 'Settings', 'Advanced', 'Submit', and 'Cancel'. The 'Parameters' section contains a 'Project Name' dropdown menu. The dropdown is open, showing a list of options: 'SMName-00000000000000000007', 'SMName-00000000000000000008', 'SMName-00000000000000000013', 'SMName-00000000000000000014', 'SMName-00000000000000000019', 'SMName-00000000000000000020', 'SMName-00000000000000000021', 'Time and Materials Template', 'Building 100 Construction', and 'Search...'. The 'SMName-00000000000000000007' option is currently selected.

- 7 A confirmation on the process submission is displayed. Note the Process ID.

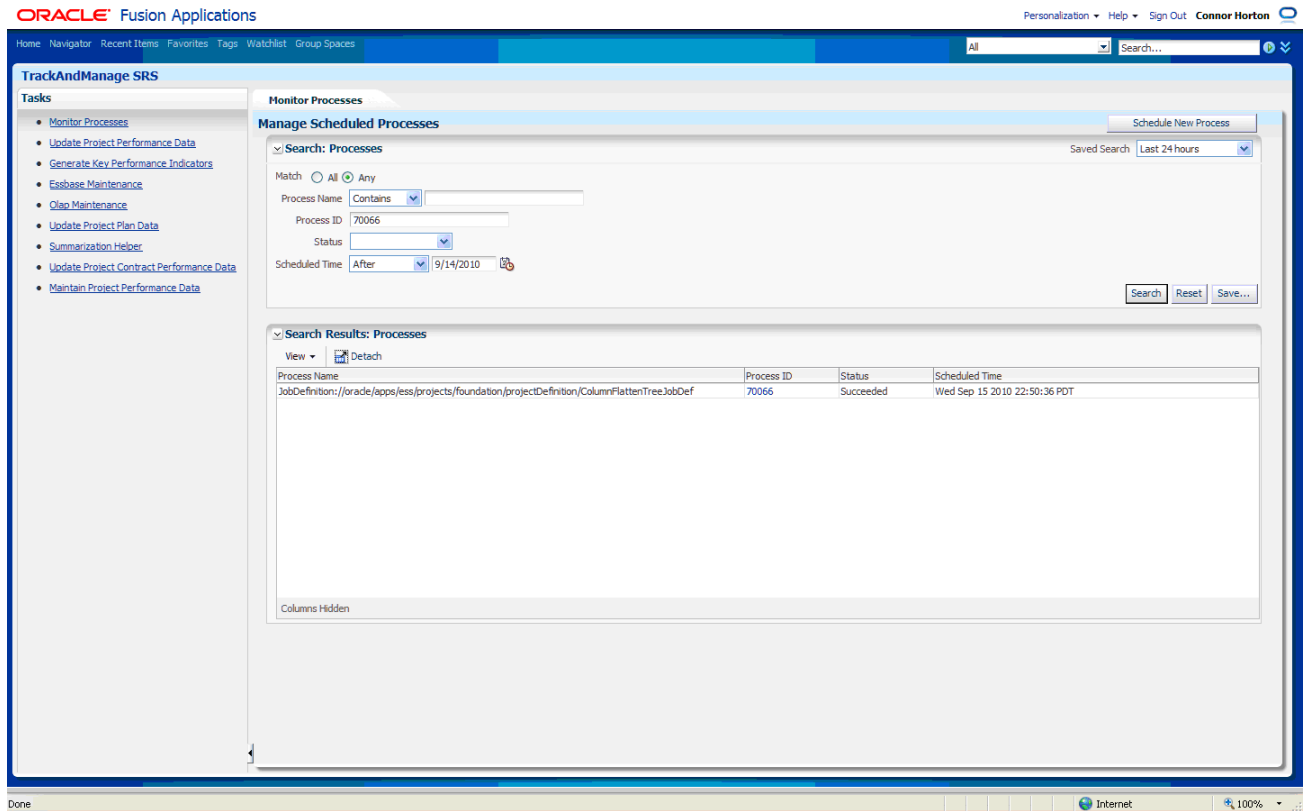
Figure 65 Process ID Confirmation



- 8 Selecting the confirmation button launches the ESS column-flattening job as a background ESS process. From this point forward, you can monitor the progress of the column-flattening job through the Process Status window using the previously returned Process ID.







Figure 66 Search for Process ID




## Icons Used in the Business Model and Mapping Layer

To recognize which facts and dimensions belong to the Transactional Business Intelligence application, a tennis ball icon is used for the logical facts and dimensions.

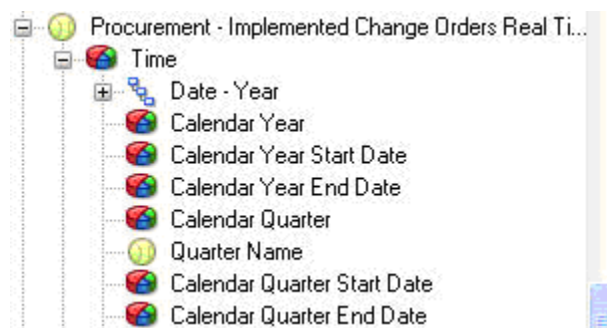
-  Fact - Participant Enrollment Results
-  Fact - Person in Life Event
-  Fact - Potential Life Event Reason for Person
-  Fact - Program Hierarchy

A chart icon is used for shared entities (Facts and Dimensions) or attributes shared with BI Applications. The tennis ball icon is specific to Transactional Business Intelligence entities and attributes only. Logical Table Sources (LTS) do not have the tennis ball icon.

-  Fact - Supply Chain - Inventory Balance

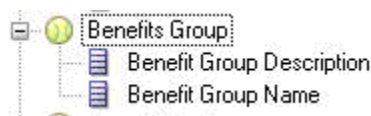
The following figure displays how you can have Transactional Business Intelligence metrics and attributes, represented by the tennis ball icon, and shared metrics and attributes, represented by the chart icon in the subject area for Transactional Business Intelligence.

Figure 67 Example of Transactional Business Intelligence Subject Area with Shared Attributes and Metrics

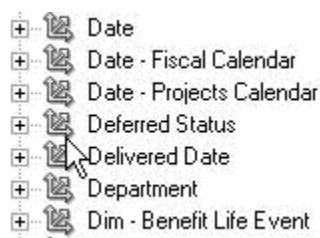


If an entity is specific to Transactional Business Intelligence, then you have to use the tennis ball icon only at the entity level. There is no need to set a tennis ball icon for each attribute that belongs to a Transactional Business Intelligence specific entity.

Figure 68 Transactional Business Intelligence Specific Entity



The tennis ball icon is not set for anchored (default three arrows icon) dimensions created by Oracle BI EE tool when a dimension is created.



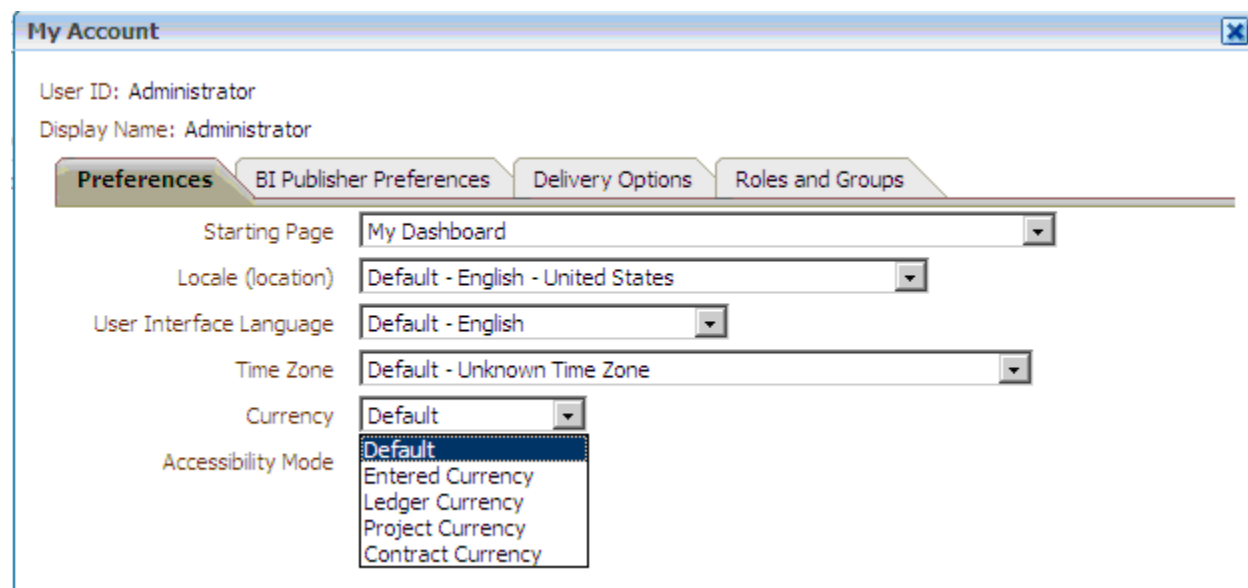
## Coverage for Currency

Transactional Business Intelligence supports reporting amount metrics in multiple currency types; for example, Document currency, Transaction currency, and Project currency. You can set the preferred currency type option through the user preferences screen available in BI Answers; see “Configuring Currency Options” in the *Oracle Fusion Middleware System Administrator's Guide for Oracle Business Intelligence Enterprise Edition*.

## User Preferred Currency Type

To set the preferred currency, on the BI Answers Home page, select **My Account**.

Figure 69 Set Preferred Currency Type



These multicurrency types are loaded from an XML file created during the installation in the following location. To add new currency types, you can customize these XML files.

Figure 70 Customized XML Files

Path: `ORACLE_HOME\instances\instance1\config\OracleBIPresentationServicesComponent\core\application_obips\userpref_currencies.xml`

```
<UserCurrencyPreferences currencyTagMappingType="static">
  <UserCurrencyPreference sessionVarValue="Document Currency" displayMessage="kms gldMyCurrency1" currencyTagSourceType="column" />
  <UserCurrencyPreference sessionVarValue="Local Currency" displayMessage="kms gldMyCurrency2" currencyTagSourceType="column" />
  <UserCurrencyPreference sessionVarValue="Project Currency" displayMessage="kms gldMyCurrency3" currencyTagSourceType="column" />
  <UserCurrencyPreference sessionVarValue="Contract Currency" displayMessage="kms gldMyCurrency4" currencyTagSourceType="column" />
  <UserCurrencyPreference sessionVarValue="OTBI Currency" displayMessage="kms gldMyCurrency5" currencyTagSourceType="column" />
</UserCurrencyPreferences>
```

Path: `ORACLE_HOME\Oracle_BI1\bi\foundation\web\msnsgb\l_en\messages\usercurrencymessages.xml`

```
<WebMessageTables xmlns:sawm="com.siebel.analytics.webmessage.v1">
  <WebMessageTable lang="en" system="CurrencyDisplay" table="Messages" code="false">
    <WebMessage name="kms gldMyCurrency1"><TEXT>Entered Currency</TEXT></WebMessage>
    <WebMessage name="kms gldMyCurrency2"><TEXT>Ledger Currency</TEXT></WebMessage>
    <WebMessage name="kms gldMyCurrency3"><TEXT>Project Currency</TEXT></WebMessage>
    <WebMessage name="kms gldMyCurrency4"><TEXT>Contract Currency</TEXT></WebMessage>
    <WebMessage name="kms gldMyCurrency5"><TEXT>OTBI Currency</TEXT></WebMessage>
  </WebMessageTable>
</WebMessageTables>
```

**Note:** The multicurrency types are loaded from an XML file in a Transactional Business Intelligence-only install. In a BI Applications and Transactional Business Intelligence combined install, the implementation is different. For BI Applications details, see the *Oracle Fusion Middleware System Administrator's Guide for Oracle Business Intelligence Enterprise Edition*.

Reporting in multiple currency types is available only for certain Facts. Not all Facts support this feature, and some Facts do not support or honor the preferred currency type set by user. If the

current preferred currency type set by the user is not supported by the Fact, then the measures from that Fact are shown with no value or with null values.

**Table 10** Product Currency Type

Product	Currency Type
Transactional Business Intelligence	NA
Oracle Fusion Supply Chain Management	<ul style="list-style-type: none"><li>● Local currency</li><li>● Document currency</li></ul>
Oracle Fusion Procurement	<ul style="list-style-type: none"><li>● Local currency</li><li>● Document currency</li></ul>
<ul style="list-style-type: none"><li>● Oracle Fusion Project Billing</li><li>● Oracle Fusion Project Control</li><li>● Oracle Fusion Project Costing</li><li>● Oracle Fusion Project Management</li></ul>	<ul style="list-style-type: none"><li>● Local currency</li><li>● Project currency</li><li>● Document currency</li><li>● Contract currency</li></ul>

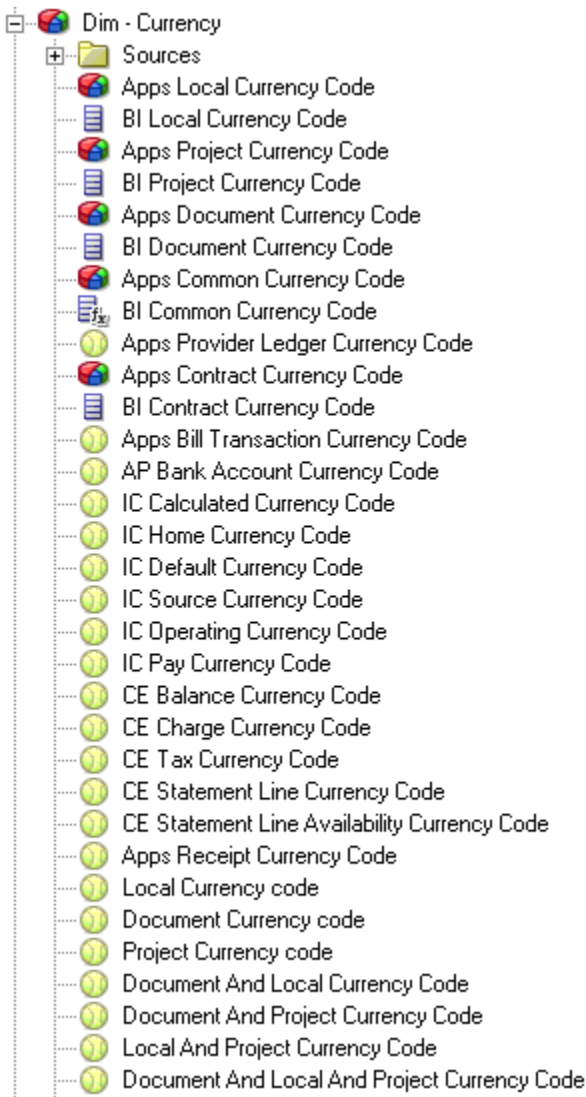
## No Currency Conversion

Reporting in multiple currency types should not be construed as currency conversion. In Transactional Business Intelligence, Fact amounts are never converted from one currency to other currencies. Fact amounts are simply aggregated by currency codes along with other dimensions involved in the report. If a Fact supports multiple currency types reporting, then the Fact contains one amount column (or only one amount column for all currency types) and one currency column (or only one currency column for all currency types) for each currency type that it supports. The correct logical column for the amount metric and currency code are selected, during run time, depending on the preferred currency type set in the user preferences screen. In Transactional Business Intelligence reporting, if an amount metric is added into the report, select the currency code column from the Fact degenerate Dimension (usually contains the word **details** and comes after the Fact folder).

## Currency Dimension

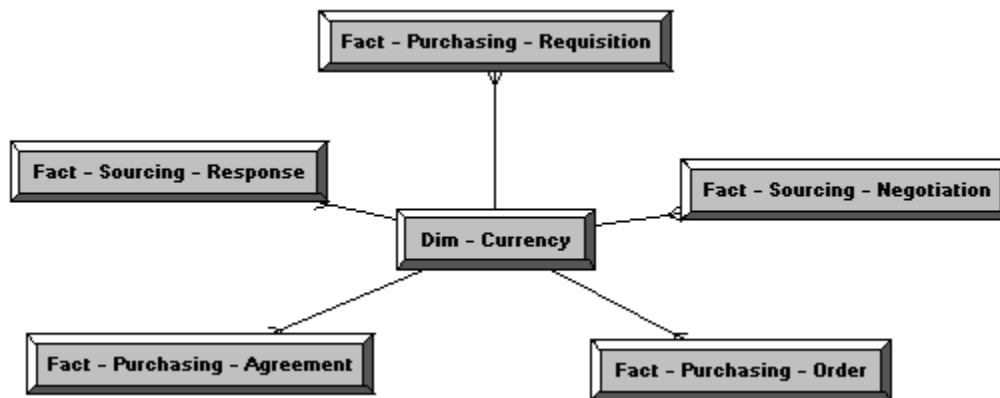
The currency dimension is common to all functional areas and has all supported currency type values which is derived from the respective sources. All the Facts that ever have amount metrics share this Dimension to report on the respective currency as set from the user preference.

Figure 71 Currency Dimension



The following diagram displays a sample overview of how the Facts share the Currency Dimension.

Figure 72 Facts Sharing the Currency Dimension



## Sample Currency Code Expression

The Currency Code column is derived from the currency dimension and the amount column is derived from the respective Fact. During runtime, based on the user preference currency type which is passed to BI Server session variable, `PREFERRED_CURRENCY` is used to evaluate the currency column and the amount column based on the below expressions.

Figure 73 Sample of Currency Code Expression

### Sample Expression for Currency Code Logical Column

```

INDEXCOL( CASE VALUEOF(NQ_SESSION."PREFERRED_CURRENCY")
  WHEN 'Document Currency' THEN 0
  WHEN 'Local Currency' THEN 1
  ELSE 2 END ,
  "Core"."Dim - Currency"."Apps DocumentCurrencyCode ",
  "Core"."Dim - Currency"."Apps Local Currency Code ",
  CAST( NULL AS VARCHAR ( 5 )))
  
```

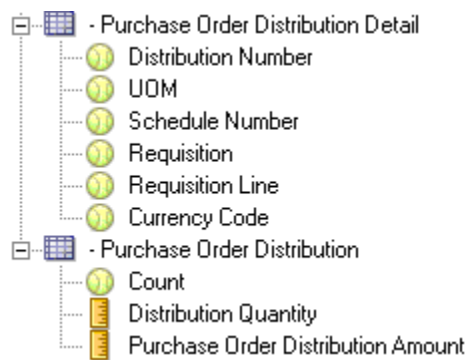
### Sample Expression for Amount Logical Column

```

Sum(INDEXCOL( CASE VALUEOF(NQ_SESSION."PREFERRED_CURRENCY")
  WHEN 'Document Currency' THEN 0
  WHEN 'Local Currency' THEN 1
  ELSE 2 END ,
  "Core"."Fact - Purchasing Order"."Requisition Amount",
  "Core"."Fact - Purchasing Order"."Requisition Transfer Amount ",
  CAST( NULL AS VARCHAR ( 5 ))))
  
```

In BI Answers, these columns are exposed as shown below. A Currency Type change is transparent to the end user. When querying in BI Answers, pull the currency code with the Purchase Order Distribution Amount.

Figure 74 Currency Code Column



This feature does not support formatting the amount that enables Oracle BI EE to automatically display the correct currency symbol based on the user's preferred currency. Instead, use the currency code column for each currency type which is pulled into every report along with the currency amount column.

For more information, see the section about configuring currency options in the *Oracle Fusion Middleware System Administrator's Guide for Oracle Business Intelligence Enterprise Edition*.

## Coverage for Time Dimension

### Subtopics

- [Calendars Supported](#)
- [Calendar Hierarchies](#)
- [Gregorian Calendar](#)
- [Fiscal Calendar](#)
- [Fixed Assets Calendar](#)
- [Projects Calendar](#)
- [Incentive Compensation Calendar Hierarchy](#)
- [Role-Playing Time Dimensions](#)
- [Canonical Time Dimension](#)
- [Cross-Functional Analysis By Time](#)

Time is a common dimension across all product families supported within Transactional Business Intelligence. The time dimension is the basis of classifying all Fact data into different time buckets. The time dimension is a dimension for most Transactional Business Intelligence Facts.

## Calendars Supported

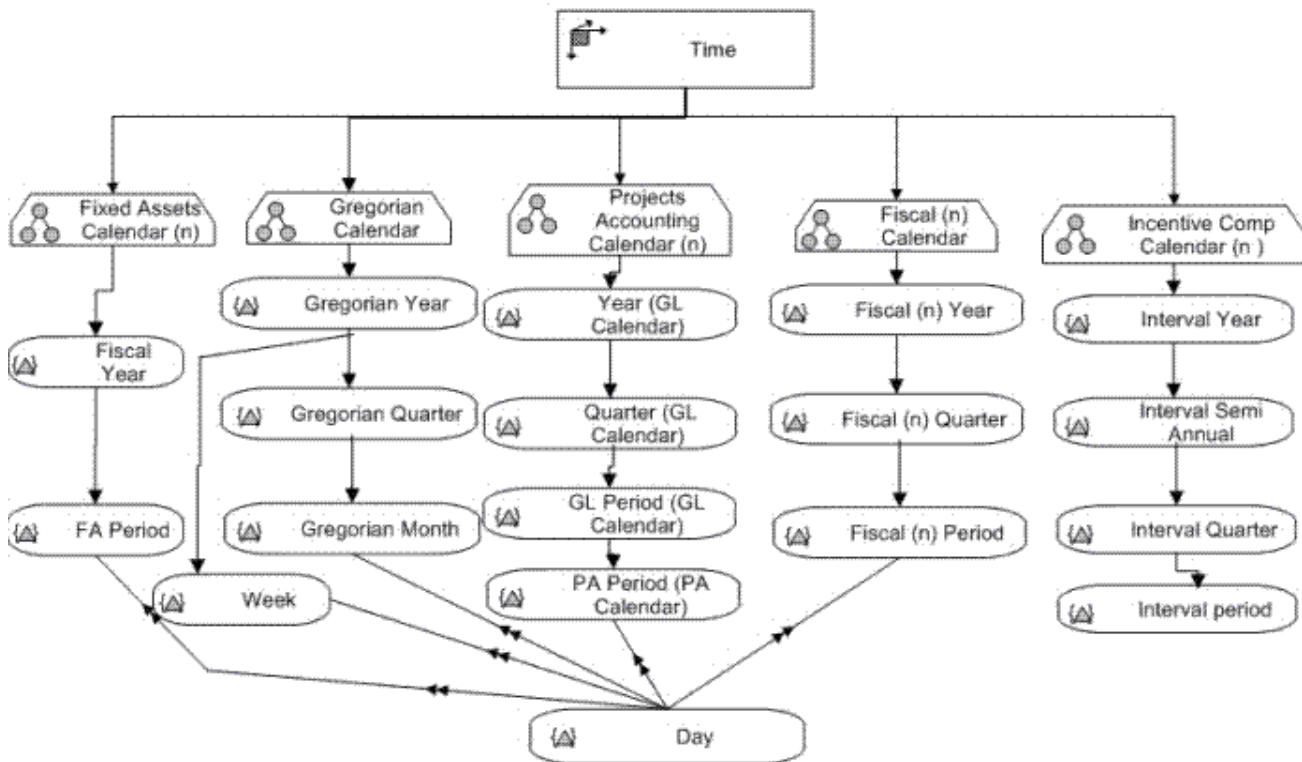
The following calendars are supported in Transactional Business Intelligence:

- Gregorian Calendar
- Fiscal Calendar

- Fixed Assets Calendar
- Projects Calendar
- Incentive Compensation Calendar

## Calendar Hierarchies

The figure below displays the overall view of different calendar hierarchies:



## Gregorian Calendar

The Gregorian Calendar is created for analysis based on the standard daily calendar. In this calendar, a year is composed of 12 months and four quarters. A quarter is defined as three months. The Gregorian Calendar is defined as Dim-Date in the Business Model and Mapping layer.

### Gregorian Calendar Hierarchy:

Data can be rolled either from: day to month to quarter to Year: Day, Month, Quarter, Year  
or from day to week to year: Day, Week, Year



## Fiscal Calendar

The Fiscal Calendar, which stores information about the financial calendars defined in Oracle Fusion General Ledger, is used to analyze financial data.

The Fiscal Calendar allows dimensional analysis by Fiscal Calendar hierarchy. The Fiscal Calendar is defined as Dim-Date Fiscal Calendar in the Business Model and Mapping layer. It supports the following hierarchy:

### Fiscal Calendar Hierarchy

Day, Fiscal Period, Fiscal Quarter, Fiscal Year, Fiscal Calendar

Multiple Fiscal Calendars can be exposed in the hierarchy. The data at the day level rolls up to Fiscal Period, which is then rolled up to Fiscal Quarter and Fiscal Year level of a specific Fiscal Calendar.

**Note:** Because multiple Fiscal Calendars can be defined, users are always expected to filter on the Fiscal Calendar name in Transactional Business Intelligence queries in order to get the intended data while querying.

## Fixed Assets Calendar

Multiple Fixed Asset Books can exist, and each book may have a different Fixed Asset Calendar attached to it. A Fixed Asset Calendar dimension contains all the calendars attached to Asset books. A Fixed Asset Calendar is defined as Dim-Date Fixed Assets Calendar in the Business Model and Mapping layer.

### Fixed Asset Calendar Hierarchy

Day, Fixed Assets Period, Fixed Assets Year, Fixed Assets Calendar

The data rolls up from the day level into the Fixed Assets period and then into the Fixed Assets Year of a specific Fixed Asset Calendar.

**Note:** Because there can be multiple Fixed Asset Calendars defined, it is always expected to filter on the Fixed Asset Calendar name in order to get the intended data while querying.

## Projects Calendar

Projects Calendar is used for accounting and classifying project costs, and this calendar is used only in Project Module. Project Calendar is defined as Dim-Date Projects Calendar in the Business Model and Mapping layer.

### Project Calendar Hierarchy

Day, PA period (PA Calendar), GL period (GL Calendar), Quarter (GL Calendar), Year (GL Calendar), Calendar Name

The Fact data rolls up from the day level into the Projects Period and then into the GL Period, which encapsulates the projects period, and then into Fiscal Quarter and Fiscal Year of a specific Fiscal Calendar.

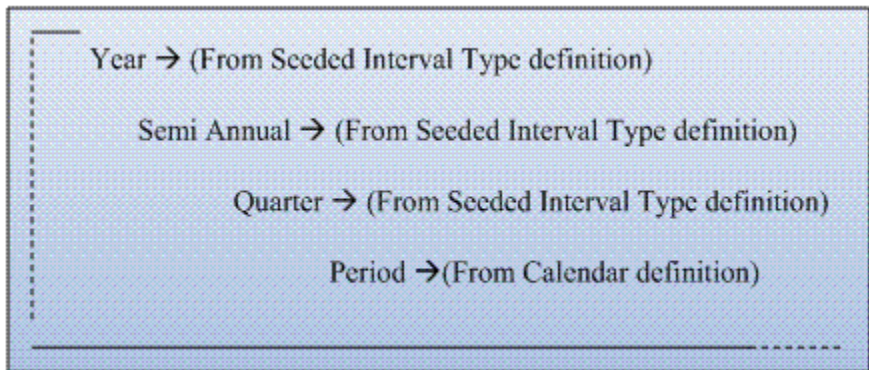
**Note:** Because multiple Fiscal Calendars can be defined, always filter on the Fiscal Calendar name to get the right data while querying.

## Incentive Compensation Calendar Hierarchy

The Incentive Compensation Calendar Dimension is different from the Common Time Dimension. While the Common Time Dimension has a granularity of Date and based on Gregorian Calendar hierarchy, the Incentive Compensation Calendar has Period as its granularity.

### Incentive Compensation Calendar Hierarchy:

Period, Quarter, Half Year, Year



Incentive Compensation has its own calendar to set up Periods specific to Incentive Compensation. The calendar has Period Type definitions, and Incentive Compensation Periods are defined for the calendar based on the Period Type selected. The calendar in Incentive Compensation need not follow the fiscal or calendar year.

After calendars are defined, they are associated with a Business Unit. A single Incentive Compensation Calendar can be associated to one or more Business Units. After a calendar is associated to a Business Unit, the period information defined at the calendar level is brought into Business Unit specific Period tables. The calendar dimension should have a hierarchical structure with Year, Semiannual, Quarter, and Period.

## Role-Playing Time Dimensions

To support the analysis of Facts by dates other than base dimension that plays different role in the context of Fact, role playing dimension has been created. For example, Payable Invoice Fact has Invoice date, Invoice Distribution Accounting Date, and SLA Distribution Accounting Date as dimensions.

To analyze by Invoice date, Fiscal Calendar Time Dimension is used. However, to analyze by either Invoice Distribution Accounting Date or SLA Distribution Accounting Date, the following role-playing dimensions are used, respectively.

- AP Accounting Date
- GL Accounting Date

The role-playing dimensions follow a standard naming convention to end with the base dimensions Name.

For example, Dim-GL Accounting Date Fiscal Calendar is a role-playing dimension of the base dimension Dim-Date Fiscal Calendar Dimension.

## Canonical Time Dimension

Dimensions Dim-Date, Dim-Date Fiscal Calendar are Standard or Canonical Time Dimensions that are used to analyze almost all of the Fact metrics across subject areas. The Facts joins to these dimensions on the standard date attributes that they would be analyzed by. They can be used for performing a cross-fact analysis across modules.

For example, if a functional requirement is to analyze the Procurement metrics and compare them with the Payable or Receivable metrics, then you can use the Dim-Date or Dim-Date Fiscal Calendar to perform this cross-functional area analysis. The Time dimension attribute can be selected along with the Procurement metric and the Payable or Receivables metrics across subject areas.

## Cross-Functional Analysis By Time

To allow for cross-functional analysis by time, different Facts were joined to the time dimension using canonical date. For example, Invoice Amount from Invoice Fact and Payment Amount from Invoice Installment Fact can be analyzed using Gregorian Calendar Time Dimension. Role-playing Time Dimensions can also be used to perform cross-functional analysis. For example, GL Accounting Date in Financials can be used to reconcile the amounts between Accounts Payable and Accounts Receivable, SubLedger Accounting, and General Ledger.

## Creating Time-Based Filters

While performing ad-hoc analysis using Transactional Business Intelligence, it is important that filters are applied on common dimensions such as Time, Ledger, Business Unit, and so on to filter the data to retrieve the appropriate data set.

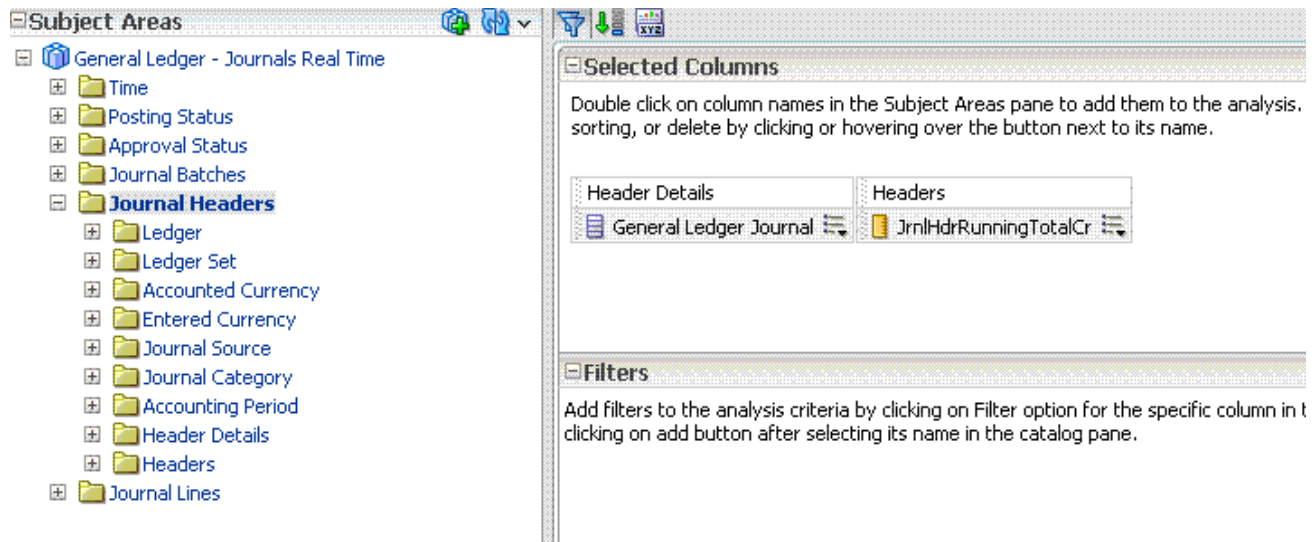
Filters must be applied on the Time dimension for calendars that are applicable to the data being analyzed. For Time dimensions that expose multiple calendars, filters must be applied on the calendar name to get the right data.

For example, if an ad-hoc query must be created to view the unposted journals in a given period, the Journal Header Name is selected, along with measures such as Header Running total credit

or debit along with the Posting Status Dimension. Then you apply filters on Posting Status as Unposted and also on the Fiscal Period and calendar of Fiscal Calendar Time Dimension.

In the following figure, Journal Header name (General Ledger Journal) and Header Running Total Credit (JrnlHdrRunningTotalCR) is selected.

Figure 75 Selecting Attributes

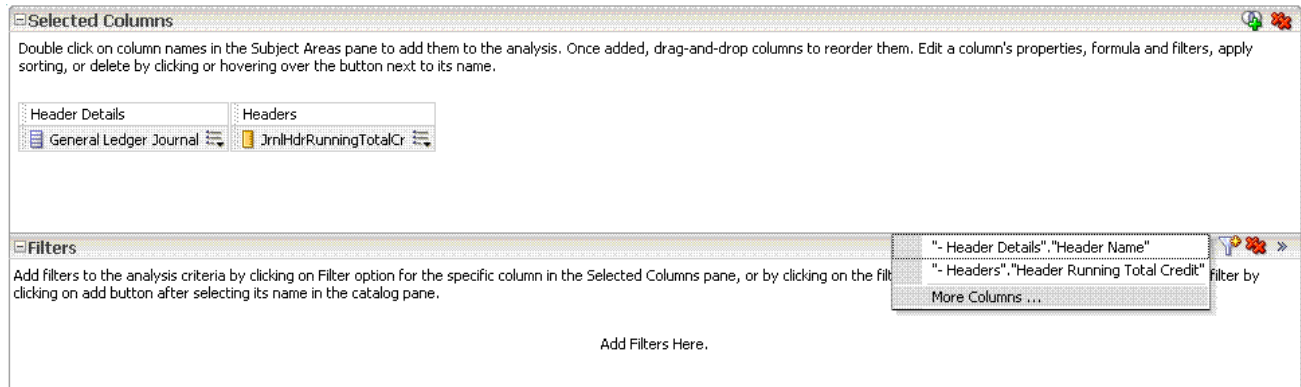


After selecting the required attributes, you must follow these steps to filter on Time.

► To filter on Time:

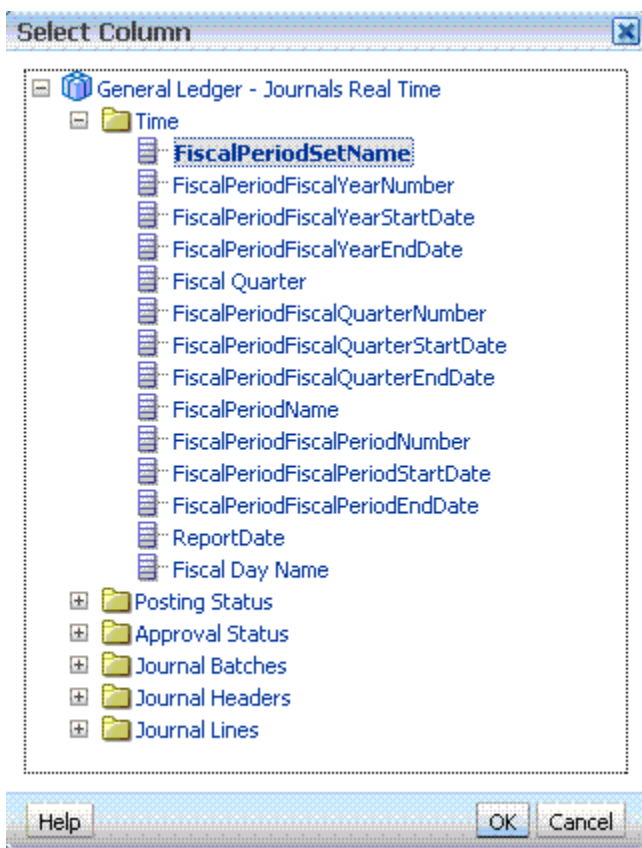
- 1 In the Filters section, select + and select more columns to display the subject area contents in a Select column.

Figure 76 Selected Columns



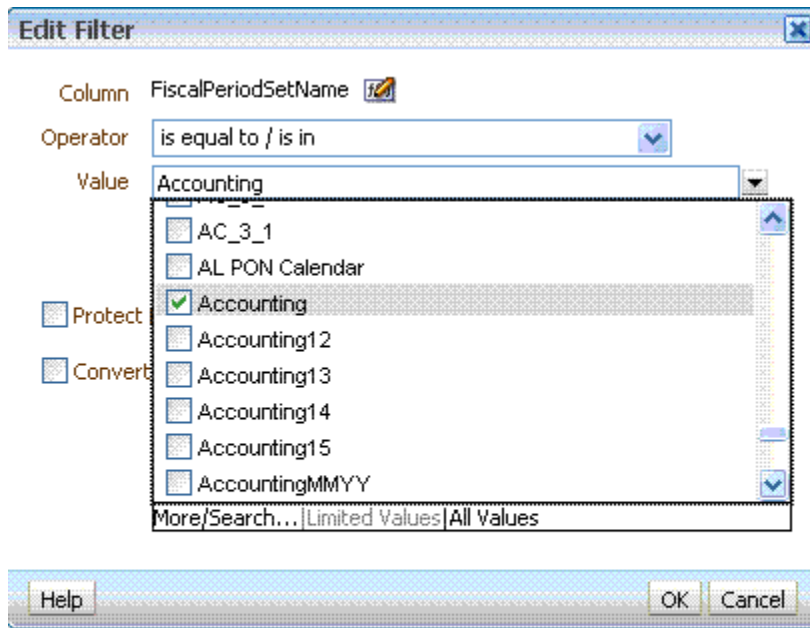
- 2 Select **Fiscal Calendar Name** from the Time folder and select **OK**.

Figure 77 Select a Column



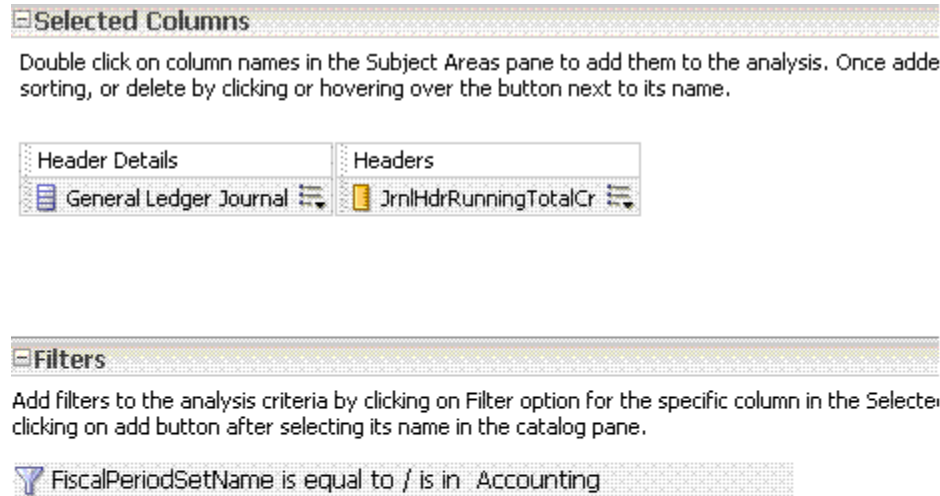
- 3 Make a selection in **Fiscal Calendars**, and then click **OK**.

Figure 78 Edit Filters



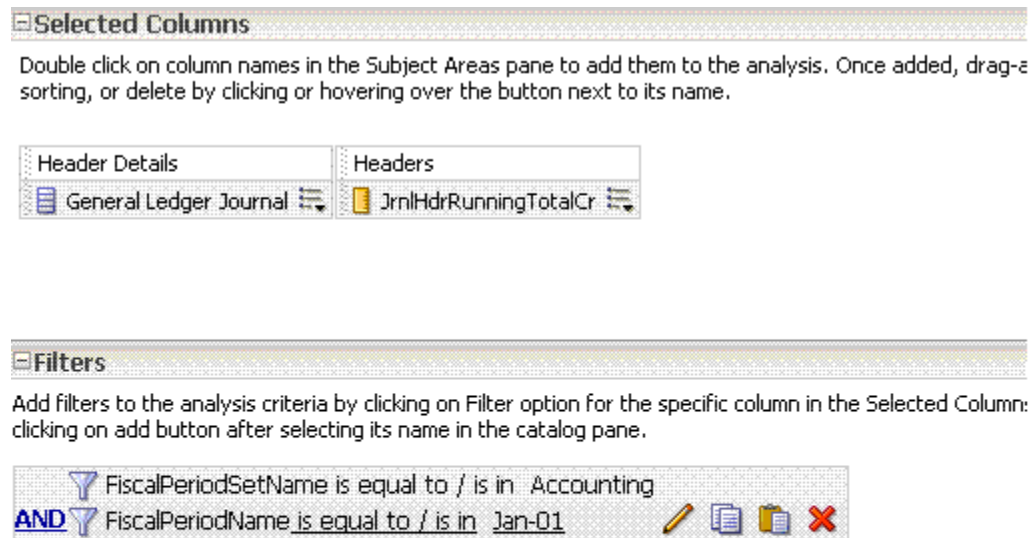
This adds a filter to the analysis:

Figure 79 Selected Columns



- Similarly, add another filter on the Fiscal Period Name. This filter gets added with the AND clause:

Figure 80 Selected Columns with AND Clause



- 5 Select **Save Filters** to use the filter in future analyses. For more details on how to create and use filters, see the [Oracle Fusion Middleware Oracle Business Intelligence documentation](#).

**Note:** Similar to the preceding example, when Fixed Assets Calendar, Projects Calendar, or Incentive Compensation Calendar is used for analysis, you must always apply a filter on the calendar name.

## Transactional Business Intelligence and Oracle Fusion BI Security

The same security model for Transactional Business Intelligence and Oracle Fusion BI Security must span multiple applications and reporting technologies. Each major Oracle Fusion component has its own underlying implementation of this model, but the model has a single global view from the perspective of a user.

This section provides an overview of the Oracle Fusion BI Security model as background for subsequent discussions of security-related administrative tasks for Transactional Business Intelligence. It describes the basic administrative tasks for the Transactional Business Intelligence-specific portion of Oracle Fusion BI Security.

### Users, Job Roles, Duty Roles, and Privileges

The Oracle Fusion BI Security model consists primarily of users, job roles, duty roles, and privileges. The term job role is synonymous with enterprise role, and duty role is synonymous with application role. In this section, job role and duty role are used.

A user is a member of the deploying organization who is permitted access to installed applications and reporting tools as part of the job function. Within the security model, a user is assigned one or more job roles. A job role is descriptive of the user's job function, such as Accounts Payable Manager. A user is said to be granted a job role. A job role has one or more associated duty roles, where a duty role describes a task related to the job function, such as Payable Invoice Approval. A given job role may span all applications, whereas a duty role is specific to an application. Job roles are grouped hierarchically to reflect lines of authority and responsibility.

Privileges allow specific access to an application or reporting objects and data sets; for example: read access to a report, or read or update access to a table. Privileges are associated with duty roles, and a given duty role grants certain privileges. It is the responsibility of each underlying application or technology to decide how to realize each data or object privilege that it supports.

**Note:** A job role is ultimately empowered with the aggregate or union of all the data/object privileges associated with its collection of duty roles.

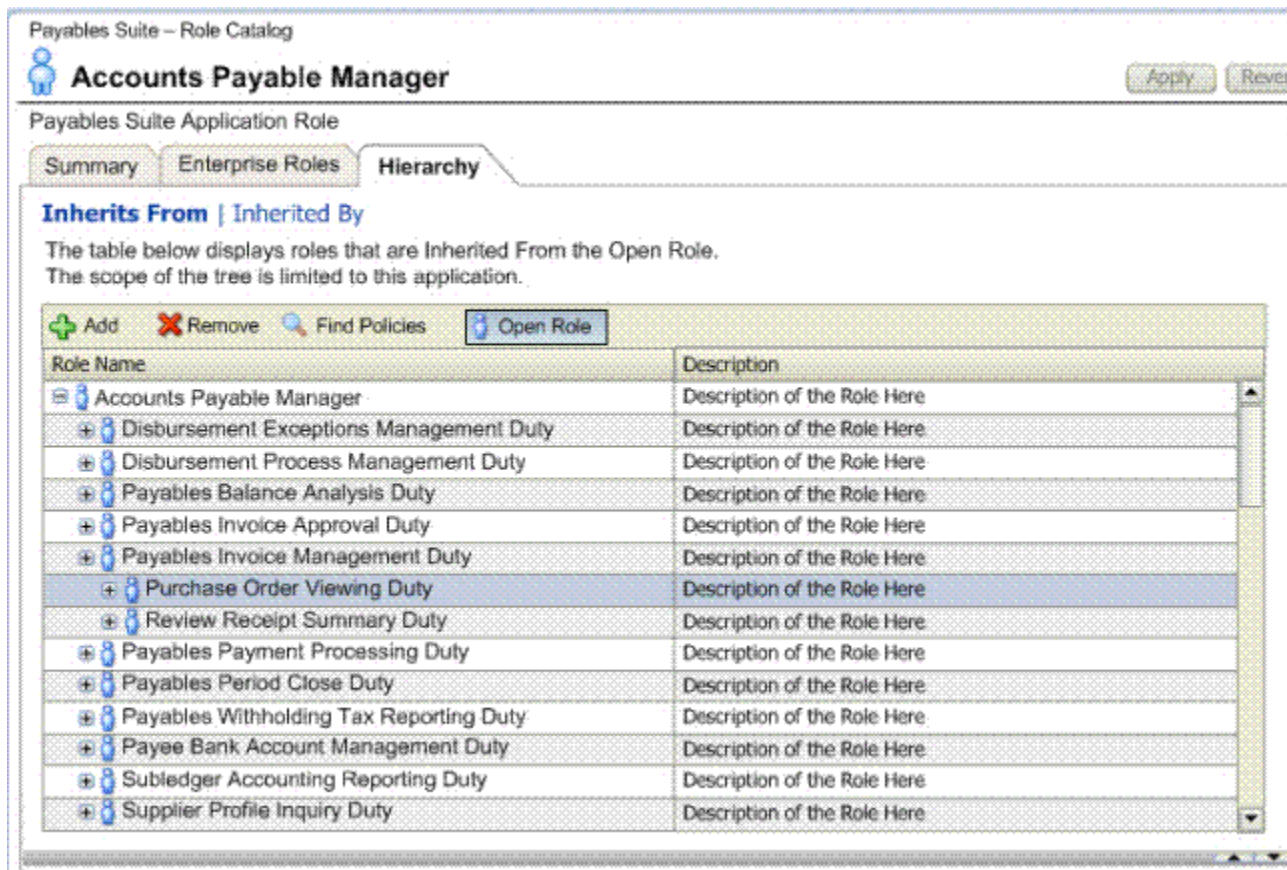
The Assignment Manager dimension is secured by the logged in user. The logged in user sees aggregated data for the user or the people reporting to the user. The dimensional browse is also secured by the logged in user. This security is in addition to the Fusion data security that is



present in other facts and dimensions. For example, when a manager views a head count of directs, the manager sees only directs that he has access to.

Within a deployment of Oracle Fusion BI, user identities are provisioned and maintained through either Oracle LDAP or the user's preferred LDAP service provider. Job role-duty role mappings are maintained in Oracle LDAP and managed by Oracle Platform Security Services and its associated UI. [Figure 81](#) is an example of a job role-duty role mapping, also known as the role hierarchy.

Figure 81 Sample Job Role and Duty Role Mappings



## Provisioning Users

Oracle Fusion applications contain preseeded job roles, duty roles, and object privileges. The same set of job roles generally apply across all Oracle Fusion applications, as well as any Oracle Business Intelligence products deployed in the same environment; for example: Oracle BI EE, BI Applications, Oracle Essbase, Oracle Data Integrator (ODI), Oracle Business Intelligence Publisher, and Real Time Decisions (RTD).

Users can define user names and passwords, grant predefined job roles to users, and define new privileges for customer-specific data. Users can also define new job roles and grant preseeded job roles to them and alter preseeded job roles by modifying duty role assignments. These tasks modify the role hierarchy, and are performed through Oracle® Platform Security Services.

**Note:** This is primarily the extent to which security is modified for the Oracle Fusion BI security model. Normally no code or other implementation artifacts are modified.

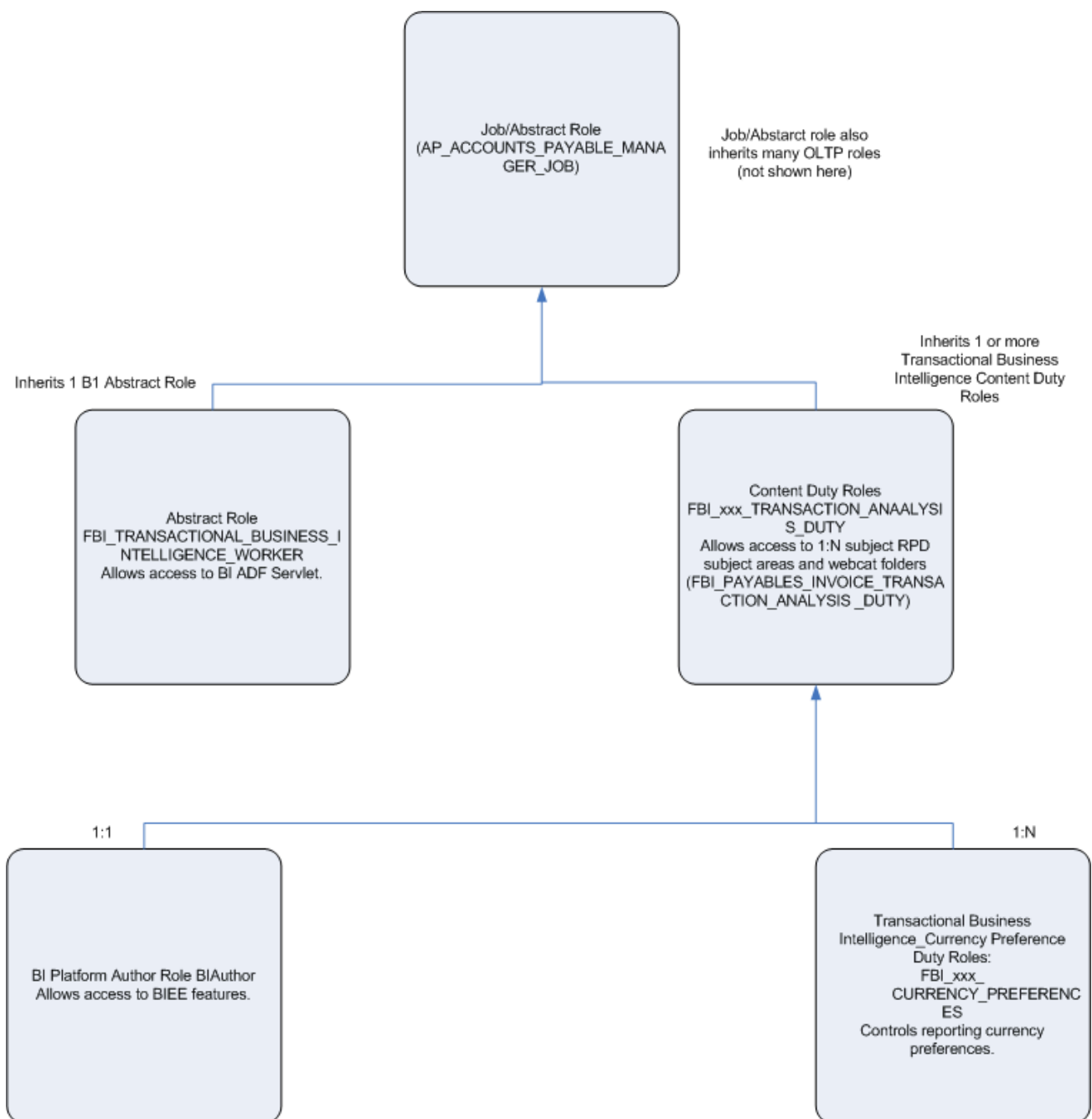
Many administrative aspects of Transactional Business Intelligence security are performed by application administrators. They consist of adjusting preseeded content, possibly adding new content, and provisioning user accounts and passwords. The following sections detail the tasks and dependencies for accomplishing this as part of the postinstallation setup of any deployed Oracle Fusion BI system.

Within the Oracle Fusion BI Security model, object security and data security are based on duty roles and indirectly on job roles. Because Transactional Business Intelligence view objects directly access the OLTP tables of the Oracle Fusion Applications, they must respect the data security constraints on these tables configured by the Application administrator. There are three key aspects of Oracle Fusion BI Security for Transactional Business Intelligence that affect the administration of Transactional Business Intelligence security. These are Oracle Fusion OLTP Function Security, Oracle Fusion OLTP Data Security, and Transactional Business Intelligence Function Security, respectively. OLTP Function Security has no direct applicability to Transactional Business Intelligence, while Transactional Business Intelligence data security is effectively the same as OLTP Data Security, and Transactional Business Intelligence Function Security is specific only to Transactional Business Intelligence.

- To ensure users are properly enabled for baseline BI reporting access, the following steps may need to be performed within a given Fusion Application:
  - 1 Launch the **Manage Data Role and Security Profiles** task.
  - 2 Search for an appropriate job role that should be used to authorize BI reporting access via OTBI (that is, an appropriate job for the user that directly or indirectly inherits from `FBI_TRANSACTIONAL_BUSINESS_INTELLIGENCE_WORKER`, as mentioned above).
  - 3 Click **Assign** to open the **Security Criteria** page.
  - 4 In the **Public Security Profile** region, open the **Person Security Profiles** list of values and select **View All Workers**.
  - 5 Scroll the list by clicking **Next**.
  - 6 Make assignments as necessary.

For more detailed information for a specific Fusion Application, refer to the help topics for that application.

For a comparison, a parallel abstract job role, `OBIA_BUSINESS_INTELLIGENCE_APPLICATIONS_WORKER`, is similarly defined for BI Applications. The following figure illustrates the inheritance relationships between the abstract job role and Transactional Business Intelligence content duty roles, with example job and duty names in parentheses.



The following sections describe each role in varying detail, depending on its relevance to Transactional Business Intelligence security administration.

## Oracle Fusion OLTP Function Security

Job roles and their associated duty roles and privileges are assigned to users of Oracle Fusion Applications. When an enterprise ultimately defines how a user may access a software object (for example, an application menu or work flow page), it is referred to as function security. The function security mechanism implemented by the various Oracle Fusion Applications leverages the Java Runtime to hide or disable functions the user is not authorized to invoke through the

Application UI. Oracle Fusion OLTP function security is directly applicable to the Oracle Fusion Applications only; however, the design of Transaction Business Intelligence function security follows from the same functions that a user can perform in OLTP. It is important for an application administrator (possibly responsible for both Oracle Fusion Applications and Transactional Business Intelligence administration) to realize this point and understand how Oracle Fusion Application objects are secured.

## Oracle Fusion OLTP Data Security

Transactional Business Intelligence data security relies heavily on the Oracle Fusion Application concept of data security. It is through the various applications' implementation of the Oracle Fusion BI Security model that Transactional Business Intelligence realizes its own data security model. Transactional Business Intelligence administrators must understand Oracle Fusion Application data security and how it relates to Transactional Business Intelligence security administration.

Oracle Fusion Application data security is based on data security roles and privileges stored in FND\_GRANTS as the security component providing data security services of the Oracle Fusion Application. This content encodes the role (which spans all applications), the application-specific privileges, which indicate which action can be performed against which entity (where an entity is a logical business object that may be comprised of multiple OLTP tables in the database schema), and a specification of the actual tables and SQL WHERE clause that filters the data base rows constituting the logical entity.

Privileges are assigned to job roles in FND\_GRANTS. This security implementation model means that the same privilege can be specified by any number of roles for any number of row sets (which define the logical entities).

An Oracle Fusion Business Intelligence View Object (BI view object)—the type of Oracle ADF view object defined by Oracle Fusion Applications on behalf of Oracle BI (and Transactional Business Intelligence in particular)—enforces OLTP data security by looking up its security specification at runtime, from FND\_GRANTS.

An existing FND\_GRANT security specification is referenced indirectly through a single Oracle ADF view criteria object attached to the BI view object. The BI view object's view criteria is the security filter of the BI VO and is given a name of the form

FNDDSxxx\_Privilege\_ObjectName\_ObjectAlias. The text of the name in this format directly references a FND\_GRANTS specification.

The ATG runtime logic uses the BI view object's view criteria name to find the relevant FND\_GRANTS specification and uses that specification in the generation of a declarative-mode SQL WHERE clause that enforces data security while also implementing the intended business functionality of the BI view object.

**Note:** These BI view object view criteria are initially designed and developed as part of the design and development of Transactional Business Intelligence-targeted content of the Oracle Fusion Application itself, and might not require initial administrative steps. Ongoing administration of Transactional Business Intelligence security is handled within the context of a deployed application and the management of role hierarchies and provisioning of user names and passwords and data security privileges within the Oracle Fusion Application schema is handled through Oracle Platform Security Services.

As mentioned, users can add job roles, associate new privileges with existing duty roles, and modify the mappings of job roles to duty roles. See the Transactional Business Intelligence User Help.

## Transactional Business Intelligence Function Security

Similar to Oracle Fusion OLTP Function Security, somewhat beyond the scope of Oracle BI, Transactional Business Intelligence function security also secures access to Transactional Business Intelligence reporting objects by assigning BI-specific duty roles to BI-specific job roles.

The basic convention that defines these mappings is as follows: For a given subject area a single BI duty role is defined, using the naming convention “<xyz>Analysis Duty”. The association of BI duty roles to subject areas is always one-to-one. If the same job role is already defined for Oracle Fusion applications, that job role is mapped to the BI-specific duty role.

Transactional Business Intelligence function security is defined according to each of the following tables. All mapped job roles are shown in the flattened columns to the right of each table.

**Note:** For guidance on how to extend security in Oracle BI Applications, see *Oracle® Fusion Middleware Reference Guide for Oracle Business Intelligence Applications*.

Figure 82 Transactional Business Intelligence Procurement Pre-configured Function Security Mapping

	Duty Role	Subject Area	Job Roles (Flat List arranged horizontally)				
Product			Job Role 1	Job Role 2	Job Role 3	Job Role 4	Job Role 5
Purchasing	Purchase Order Transaction Analysis Duty	Purchase Orders		Buyer	Procurement Manager	Category Manager	Procurement Contract Administrator
Purchasing	Agreement Transaction Analysis Duty	Purchase Agreements		Buyer	Procurement Manager	Category Manager	Procurement Contract Administrator
Purchasing	Pending Change Order Transaction Analysis Duty	Pending Change Orders		Buyer	Procurement Manager	Category Manager	Procurement Contract Administrator
Purchasing	Implemented Change Order Transaction Analysis Duty	Implemented Change Orders		Buyer	Procurement Manager	Category Manager	Procurement Contract Administrator
Self Service Procurement	Purchase Requisitions Transaction Analysis Duty	Requisitions		Buyer	Procurement Manager	Category Manager	
Sourcing	Sourcing Transaction Analysis Duty	Supplier Negotiations, Supplier Responses, Supplier Awards			Procurement Manager	Category Manager	Procurement Contract Administrator

Figure 83 Transactional Business Intelligence Supply Chain Management Pre-configured Function Security Mappings

	Duty Role	Subject Area	Job Role (Flat List arranged horizontally)		
Product			Job Role 1	Job Role 2	Job Role 3
Inventory Management	Inventory Transaction Analysis Duty	Inventory	Supply Chain Analyst	Inventory Manager	Warehouse Manager
Product Model	Product Transaction Analysis Duty	Product Model	Supply Chain Analyst	Product Manager	Product Data Steward
Product and Catalog Management	Product Catalog Transaction Analysis Duty	Product and Catalog	Supply Chain Analyst	Product Manager	Product Data Steward
Distributed Order Orchestration	Order Transaction Analysis Duty	Orchestration Orders	Supply Chain Analyst	Order Manager	Order Administrator
Distributed Order Orchestration	Orchestration Process Transaction Analysis Duty	Orchestration Process Instances	Supply Chain Analyst	Order Manager	Order Administrator
Distributed Order Orchestration	Order Holds Transaction Analysis Duty	Orchestration Order Holds	Supply Chain Analyst	Order Manager	Order Administrator
Shipping	Order Pick Transaction Analysis Duty	Shipping	Supply Chain Analyst	Shipping Manager	Warehouse Manager
Cost Management	Cost Transaction Analysis Duty	Cost Accounting	Supply Chain Analyst	Cost Accountant	
Cost Management	COGS and Gross Margin Transaction Analysis Duty	COGS and Gross Margin	Supply Chain Analyst	Cost Accountant	
Cost Management	Receipt Accounting Transaction Analysis Duty	Receipt Accounting	Supply Chain Analyst	Cost Accountant	
Receiving	Receiving Transaction Analysis Duty	Receiving	Supply Chain Analyst	Warehouse Manager	

Figure 84 Transactional Business Intelligence Projects Pre-configured Function Security Mapping (Job Roles 1-4)

	Duty Role	Subject Area	Job Role (Flat List arranged horizontally)			
Product			Job Role 1	Job Role 2	Job Role 3	Job Role 4
Projects	Project Costing Transaction Analysis Duty	Project Costing	Program Manager	Project Accountant	Project Administrator	Project Manager
Projects	Project Journals Transaction Analysis Duty	Project Journals		Project Accountant		
Projects	Project Contract Revenue Transaction Analysis Duty	Project Revenue	Program Manager	Project Accountant	Project Administrator	Project Manager
Projects	Project Contract Invoice Transaction Analysis Duty	Project Invoice	Program Manager	Project Accountant	Project Administrator	Project Manager
Projects	Project Budget Transaction Analysis Duty	Project Control	Program Manager	Project Accountant	Project Administrator	Project Manager
Projects	Project Foundation Transaction Analysis Duty	Project Foundation	Program Manager	Project Accountant	Project Administrator	Project Manager

Figure 85 Transactional Business Intelligence Projects Pre-configured Function Security Mapping (Job Roles 5-9)

	Duty Role	Subject Area	Job Role (Flat List arranged horizontally)				
Product			Job Role 5	Job Role 6	Job Role 7	Job Role 8	Job Role 9
Projects	Project Costing Transaction Analysis Duty	Project Costing	Project Portfolio Manager	Project Executive		Projects Analyst	Project Management Duty
Projects	Project Journals Transaction Analysis Duty	Project Journals				Projects Analyst	
Projects	Project Contract Revenue Transaction Analysis Duty	Project Revenue	Project Portfolio Manager	Project Executive		Projects Analyst	Project Management Duty
Projects	Project Contract Invoice Transaction Analysis Duty	Project Invoice	Project Portfolio Manager	Project Executive	Billing Specialist (under AR)	Projects Analyst	Project Management Duty
Projects	Project Budget Transaction Analysis Duty	Project Control	Project Portfolio Manager	Project Executive		Projects Analyst	Project Management Duty
Projects	Project Foundation Transaction Analysis Duty	Project Foundation	Project Portfolio Manager	Project Executive		Projects Analyst	Project Management Duty



Figure 86 Transactional Business Intelligence Human Capital Management Pre-configured Function Security Mapping

Product	Duty Role	Subject Area	Job Role (Flat List arranged horizontally)				
			Job Role 1	Job Role 2	Job Role 3	Job Role 4	Job Role 5
Core HR	Absence Management Transaction Analysis Duty	Absence Management		Human Resource Analyst	Human Resource Manager		
Core HR	Work force Transaction Analysis Duty	Work force Management		Human Resource Analyst	Human Resource Manager		
Advance Benefits	Benefits Transaction Analysis Duty	Benefits		Human Resource Analyst	Benefits Specialist	Benefits Manager	Benefits Administrator
Compensation	Compensation Transaction Analysis Duty	Compensation		Human Resource Analyst	Compensation Manager	Compensation Administrator	Compensation Analyst
Payroll	Payroll Transaction Analysis Duty	Payroll		Human Resource Analyst	Payroll Administrator	Payroll Manager	
Profile Management	Work force Profile Transaction Analysis Duty	Work force Profiles		Human Resource Analyst	Human Resource Specialist	Human Resource Manager	
Performance Management	Work force Performance Transaction Analysis Duty	Work force Performance		Human Resource Analyst	Human Resource Specialist	Human Resource Manager	
Goal Management	Work force Goals Transaction Analysis Duty	Work force Goals		Human Resource Analyst	Human Resource Specialist	Human Resource Manager	

Figure 87 Transactional Business Intelligence Incentive Compensation Pre-configured Function Security Mapping

Product	Duty Role	Subject Area	Job Role (Flat List arranged horizontally)			
			Job Role 1	Job Role 2	Job Role 3	Job Role 4
Incentive Compensation	Incentive Compensation Transaction Analysis Duty	Incentive Compensation		Incentive Compensation Manager	Incentive Compensation Analyst	Incentive Compensation Participant Manager

Figure 88 Transactional Business Intelligence Payables and Receivables Pre-configured Function Security Mapping (Job Roles 1-4)

	Duty Role	Subject Area	Job Role			
Product			Job Role 1 (New Job Role)	Job Role 2	Job Role 3	Job Role 4
AP	Payables Invoice Transaction Analysis Duty	Payable Invoices - Transactions Real Time		Accounts Payable Manager	Accounts Payable Specialist	Accounts Payable Supervisor
AP	Payables Invoice Transaction Analysis Duty	Payable Invoices - Invoice Installments Real Time		Accounts Payable Manager	Accounts Payable Specialist	Accounts Payable Supervisor
AP	Payables Invoice Transaction Analysis Duty	Payable Invoices - Invoice Holds Real Time		Accounts Payable Manager	Accounts Payable Specialist	Accounts Payable Supervisor
AP	Payables Invoice Transaction Analysis Duty	Payable Invoices - Invoice Withholding Real Time		Accounts Payable Manager	Accounts Payable Specialist	Accounts Payable Supervisor
AP	Payables Invoice Transaction Analysis Duty	Payable Invoices - Prepayment Invoice Distributions Real Time		Accounts Payable Manager	Accounts Payable Specialist	Accounts Payable Supervisor
AP	Payables Payment Transaction Analysis Duty	Payable Payments - Disbursements Real Time		Accounts Payable Manager	Accounts Payable Supervisor	
AP	Payables Payment Transaction Analysis Duty	Payable Payments - Payment History Real Time		Accounts Payable Manager	Accounts Payable Supervisor	
AR	Receivables Transaction Analysis Duty	Receivables Transactions Real Time		Receivable Manager	Receivable Specialist	Billing Manager
AR	Receivables Receipts Transaction Analysis Duty	Receivables Miscellaneous Receipts Real Time		Receivable Manager	Receivable Specialist	
AR	Receivables Transaction Analysis Duty	Receivables Payment Schedules Real Time		Receivable Manager	Receivable Specialist	Billing Manager
AR	Receivables Receipts Transaction Analysis Duty	Receivables Receipt History Real Time		Receivable Manager	Receivable Specialist	
AR	Receivables Receipts Transaction Analysis Duty	Receivables Receipt Rate Adjustments Real Time		Receivable Manager	Receivable Specialist	
AR	Adjustments Transaction Analysis Duty	Receivables Revenue Adjustments Real Time				Revenue Manager
AR	Receivables Receipts Transaction Analysis Duty	Receivables Standard Receipts Real Time		Receivable Manager	Receivable Specialist	
AR	Receivables Transaction Analysis Duty	Receivables Adjustments Real Time		Receivable Manager	Receivable Specialist	Billing Manager
AR	Receivables Receipts Transaction Analysis Duty	Receivables Credit Memo Applications Real Time		Receivable Manager	Receivable Specialist	Billing Manager
AR	Receivables Transaction Analysis Duty	Receivables Credit Memo Requests Real Time		Receivable Manager	Receivable Specialist	Billing Manager
AR	Receivables Transaction Analysis Duty	Receivables Dispute History Real Time		Receivable Manager	Receivable Specialist	Billing Manager

Figure 89 Transactional Business Intelligence Payables and Receivables Pre-configured Function Security Mapping (Job Roles 5-7)

	Duty Role	Subject Area			
Product			Job Role 5	Job Role 6	Job Role 7
AP	Payables Invoice Transaction Analysis Duty	Payable Invoices - Transactions Real Time			
AP	Payables Invoice Transaction Analysis Duty	Payable Invoices - Invoice Installments Real Time			
AP	Payables Invoice Transaction Analysis Duty	Payable Invoices - Invoice Holds Real Time			
AP	Payables Invoice Transaction Analysis Duty	Payable Invoices - Invoice Withholding Real Time			
AP	Payables Invoice Transaction Analysis Duty	Payable Invoices - Prepayment Invoice Distributions Real Time			
AP	Payables Payment Transaction Analysis Duty	Payable Payments - Disbursements Real Time			
AP	Payables Payment Transaction Analysis Duty	Payable Payments - Payment History Real Time			
AR	Receivable transaction analysis Duty	Receivables Transactions Real Time	Billing Specialist	Revenue Manager	Revenue Analyst
AR	Receivables Receipts Transaction Analysis Duty	Receivables Miscellaneous Receipts Real Time			
AR	Receivables Transaction Analysis Duty	Receivables Payment Schedules Real Time	Billing Specialist	Revenue Manager	Revenue Analyst
AR	Receivables Receipts Transaction Analysis Duty	Receivables Receipt History Real Time			
AR	Receivables Receipts Transaction Analysis Duty	Receivables Receipt Rate Adjustments Real Time			
AR	Adjustments Transaction Analysis Duty	Receivables Revenue Adjustments Real Time	Revenue Analyst		
AR	Receivables Receipts Transaction Analysis Duty	Receivables Standard Receipts Real Time			
AR	Receivables Transaction Analysis Duty	Receivables Adjustments Real Time	Billing Specialist	Revenue Manager	Revenue Analyst
AR	Receivables Receipts Transaction Analysis Duty	Receivables Credit Memo Applications Real Time	Billing Specialist		
AR	Receivables Transaction Analysis Duty	Receivables Credit Memo Requests Real Time	Billing Specialist	Revenue Manager	Revenue Analyst
AR	Receivables Transaction Analysis Duty	Receivables Dispute History Real Time	Billing Specialist	Revenue Manager	Revenue Analyst

Figure 90 Assets and Cash Management Pre-configured Function Security Mapping

Product	Duty Role	Subject Area	Job Role			
			Job Role 1 (New Job Role)	Job Role 2	Job Role 3	Job Role 4
FA	Fixed Asset Details Transaction Analysis Duty	Financials - Asset Details - Asset Assignments Real Time		Asset Accountant	Asset Accounting Manager	
FA	Fixed Asset Details Transaction Analysis Duty	Financials - Asset Details - Asset Financial Information Real Time		Asset Accountant	Asset Accounting Manager	
FA	Fixed Asset Details Transaction Analysis Duty	Financials - Asset Details - Asset Source Lines Real Time		Asset Accountant	Asset Accounting Manager	
FA	Fixed Depreciation Transaction Analysis Duty	Financials - Asset Depreciation Real Time		Asset Accountant	Asset Accounting Manager	
FA	Fixed Asset Transaction Analysis Duty	Financials - Asset Retirements/Reinstatements Real Time		Asset Accountant	Asset Accounting Manager	
FA	Fixed Asset Transaction Analysis Duty	Financials - Asset Balance Real Time		Asset Accountant	Asset Accounting Manager	
FA	Fixed Asset Transaction Analysis Duty	Financials - Asset Transactions Real Time		Asset Accountant	Asset Accounting Manager	
FA	Fixed Asset Transaction Analysis Duty	Financials - Asset Transactions - Asset Transfer Real Time		Asset Accountant	Asset Accounting Manager	
CE	Cash Management Transaction Analysis Duty	CE bank statement balances real time		Cash Manager	Treasury Accountant	Treasury Analyst
CE	Cash Management Transaction Analysis Duty	CE bank statement line charges real time		Cash Manager	Treasury Accountant	Treasury Analyst
CE	Cash Management Transaction Analysis Duty	Bank Statement Real time		Cash Manager	Treasury Accountant	Treasury Analyst
CE	Cash Management Transaction Analysis Duty	External Cash Transactions Real Time		Cash Manager	Treasury Accountant	Treasury Analyst

Figure 91 Subledger Accounting, Receivables, Payables, General Ledger, Financials Common Module Pre-configured Function Security Mapping (Job Roles 1-4)

	Duty Role	Subject Area	Job Role (Flat List arranged horizontally)			
Product			Job Role 1 (New Job Role)	Job Role 2	Job Role 3	Job Role 4
SLA	Subledger Accounting Transaction Analysis Duty	Subledger Accounting Journals Real Time		Accounts Payable Manager	Accounts Payable Supervisor	Accounts Receivable Manager
SLA	Subledger Accounting Transaction Analysis Duty	Subledger Accounting Supporting Reference Real Time		Accounts Payable Manager	Accounts Payable Supervisor	Accounts Receivable Manager
AR-SLA	Receivables to Ledger Reconciliation Transaction Analysis Duty	Subledger Accounting - AR Summary Reconciliation Real Time		Accounts Receivable Manager	General Accountant	General Accounting Manager
AP-SLA	Payables to Ledger Reconciliation Transaction Analysis Duty	Subledger Accounting - AP Summary Reconciliation Real Time		Accounts Payable Manager	General Accountant	General Accounting Manager
GL	General Ledger Transaction Analysis Duty	General Ledger Balances Real Time		Chief Financial Officer	Controller	General Accounting Manager
GL	General Ledger Transaction Analysis Duty	General Ledger Journals Real Time		Chief Financial Officer	Controller	General Accounting Manager
GL	General Ledger Transaction Analysis Duty	General ledger Period Statuses Real Time		Chief Financial Officer	Controller	General Accounting Manager
FUN	Inter Company Transaction Analysis Duty	Inter Company Real Time		Intercompany Accountant	Financial Analyst	

Figure 92 Subledger Accounting, Receivables, Payables, General Ledger, Financials Common Module Pre-configured Function Security Mapping (Job Roles 5-8)

	Duty Role	Subject Area	Job Role (Flat List arranged horizontally)			
Product			Job Role 5	Job Role 6	Job Role 7	Job Role 8
SLA	Subledger Accounting Transaction Analysis Duty	Subledger Accounting Journals Real Time	Asset Accountant	Asset Accounting Manager	Billing Manager	Billing Specialist
SLA	Subledger Accounting Transaction Analysis Duty	Subledger Accounting Supporting Reference Real Time	Asset Accountant	Asset Accounting Manager	Billing Manager	Billing Specialist
AR-SLA	Receivables to Ledger Reconciliation Transaction Analysis Duty	Subledger Accounting - AR Summary Reconciliation Real Time	Controller	Chief Financial Officer		
AP-SLA	Payables to Ledger Reconciliation Transaction Analysis Duty	Subledger Accounting - AP Summary Reconciliation Real Time	Controller	Chief Financial Officer		
GL	General Ledger Transaction Analysis Duty	General Ledger Balances Real Time	General Accountant	Financial Analyst		
GL	General Ledger Transaction Analysis Duty	General Ledger Journals Real Time	General Accountant	Financial Analyst		
GL	General Ledger Transaction Analysis Duty	General ledger Period Statuses Real Time	General Accountant	Financial Analyst		
FUN	Inter Company Transaction Analysis Duty	Inter Company Real Time				

Figure 93 Subledger Accounting, Receivables, Payables, General Ledger, Financials Common Module Security Mapping (Job Roles 9-12)

	Duty Role	Subject Area	Job Role (Flat List arranged horizontally)			
Product			Job Role 9	Job Role 10	Job Role 11	Job Role 12
SLA	Subledger Accounting Transaction Analysis Duty	Subledger Accounting Journals Real Time	Cash Manager	Treasury Accountant	Revenue Manager	Revenue Analyst
SLA	Subledger Accounting Transaction Analysis Duty	Subledger Accounting Supporting Reference Real Time	Cash Manager	Treasury Accountant	Revenue Manager	Revenue Analyst
AR-SLA	Receivables to Ledger Reconciliation Transaction Analysis Duty	Subledger Accounting - AR Summary Reconciliation Real Time				
AP-SLA	Payables to Ledger Reconciliation Transaction Analysis Duty	Subledger Accounting - AP Summary Reconciliation Real Time				
GL	General Ledger Transaction Analysis Duty	General Ledger Balances Real Time				
GL	General Ledger Transaction Analysis Duty	General Ledger Journals Real Time				
GL	General Ledger Transaction Analysis Duty	General ledger Period Statuses Real Time				
FUN	Inter Company Transaction Analysis Duty	Inter Company Real Time				

## Project Costing–Actual Costs Real Time

Expenditure Items (EI) of a project or business unit have subledger journals associated with them. Program managers, project accountants, and project analysts typically need to verify the following for each EI:

- Has the required subledger journal for the EI exist?
- What journals have been created?
- What is the posting status for the EI and the associated journals?
- What is the period of posting for the EI and the associated journals?
- Is the data for any EI created without an associated subledger journal visible?

## Duty Role and Job Roles for Project Costing–Actual Costs Real Time

Project Costing–Actual Costs Real Time is applicable to the Duty Role of Project Costing Transaction Analysis Duty.

Project Costing–Actual Costs Real Time is applicable to the following Job Roles:

- Program Manager
- Project Accountant
- Project Administrator
- Project Manager
- Project Portfolio Manager
- Project Executive
- Projects Analyst
- Project Management Duty

## Project Costing–Actual Costs Real Time Data

A single report can be generated to provide information for those EIs generating subledger journals and for those not generating subledger journals. This facilitates the reconciliation of EI amounts to Journal totals. The report can also be used as further analyze projects by allowing the user to use dimensions describing the EI to verify that the EI is charged correctly within any given project.

A typical report could include some of the the following data:

- Project Information
  - Business Unit
  - Project Number
  - Project Name
  - Project Description
  - PM Name
- Expenditure Information
  - Number
  - Expenditure Type name
  - EI Date
  - Entered Raw Cost
  - Burden Amount
  - Burdened Cost
- Debit Information



- Amount
- Concatenated Segments
- Credit Information
  - Amount
  - Concatenated Segments
- Accounting Information
  - Accounting Entry Status Code
  - XLA AE HEADERS Description
  - Accounting Date
- Cost Accounting Details
  - Cost Accounting Record Information
  - Distribution Link Created By
  - Distribution Link Creation Date
  - Subledger Journal Lines Last Update Date
  - Subledger Journal Lines Last Updated By
  - Distribution Link Record Last Update Login
- Cost Accounting Transaction Measures
  - Unrounded Entered Amount Cr
  - Unrounded Entered Amount Dr
  - Unrounded Accounted Amount Cr
  - Unrounded Accounted Amount Dr
  -
- Dimensions Information
  - 
  - Accounting Class Dimensions
  - General Ledger Account Dimensions
  - Natural Account Dimensions
  - Balancing Segment Dimensions
  - Cost Center Segment Dimensions
  - Cost Accounting Distribution Detail Dimensions
- Other Information
  - Entity Short Name
  - Source Distribution Type
  - Journal Entry Rule Set Short Name
  - Journal Line Rule Name

- Event Class Name
- Event Type Name
- Gain Loss Reference
- Calculate Accounted Amounts Indicator
- Calculate Gain or Loss Amounts Indicator
- Document Rounding Level
- Rounding Class Short Name
- Merge Duplicate

## Project Costing–Actual Costs Real Time Report Example

Below is a example of a typical Costing–Actual Costs Real Time Report:

Figure 94 Sample Project Cost Audit Report

Pre packaged report # 1		Project Cost Audit Report													
Filters:		Fiscal Period													
Expenditure Item										Debit		Credit			
Business Unit	Project Number	Project Name	Project Desc	PM Name	Number	Expenditure Type Name	ET Date	Entered Raw Cost	Burden Amount	Burdened Cost	Amount	Concatenated Segments	Amount	Concatenated Segments	Accounting Entry Status Code
															XLA_AE_HEADERS Description
															Accounting Date

## Cross-Subject Analysis in Fusion Transactional Business Intelligence

Transactional Business Intelligence organizes reporting data elements by business functions which are referred to as Subject Areas. This section discusses analyzing data across subject areas.

- [“Overview of Cross-Subject Analysis” on page 154](#)
- [“Creating a Cross-Subject Analysis” on page 155](#)
- [“Restrictions in Using Cross-Subject Analysis” on page 159](#)

### Overview of Cross-Subject Analysis

Transactional Business Intelligence organizes reporting data elements by business functions which are referred to as Subject Areas. Each subject area contains a collection of dimensional attributes and measures relating to one set of fact tables such as head count, FTE, salary, and so forth.

Transactional Business Intelligence allows you to create an BI Answers query that combines data from multiple subject areas. For example, at performance review time, you can create a query that reports the goal-setting status of employees by department. In this example, the cross-subject analysis would include “Full Time-Equivalent” from the “Workforce Management –

Worker Assignment Real Time” subject area and “Count of Goals in Different Status without a Goal Plan” from the “Workforce Goals - Goal Status Overview Real Time” subject area.

BI Answers gives an administrator the flexibility to create a query joining any subject areas within the allowed security access. There are, however, some restrictions in using cross-subject analysis. See [“Restrictions in Using Cross-Subject Analysis” on page 159](#).

## Creating a Cross-Subject Analysis

In Oracle Business Intelligence Answers, there are two ways of creating cross-subject area queries:

- Creating a single-result set by combining data from multiple subject areas. See [“Creating a Single-Result-Set Analysis” on page 155](#).
- Combining multiple result sets using Set Operators (such as Union, Union All, Intersection, and Difference). See [“Creating a Multiple-Result-Set Analysis” on page 157](#).

In a multiple set operation, each subset query is an independent query based on the same or different subject areas.

**Note:** Unless the sub-query spans more than subject area, the limitation of using shared common dimensions will not apply to set-operation type of queries. See [“Restrictions in Using Cross-Subject Analysis” on page 159](#).

## Creating a Single-Result-Set Analysis

You can create a single-result set by combining data from multiple subject areas.

➤ To create a single-result-set cross-subject area analysis:

- 1 Access Transactional Business Intelligence.
- 2 Select the **Criteria** tab.
- 3 Right click on the desired Subject Area and select **Add/Remove Subject Areas**.
- 4 Select the check box for each needed subject area.
- 5 Click **OK**.
- 6 Select the **Results** tab.

[Figure 95 on page 156](#) illustrates the selection of subject areas in a single-result-set cross-subject-area analysis.

Figure 95 Example of Adding Subject Areas for a Single-Result-Set Cross-Subject Area Analysis

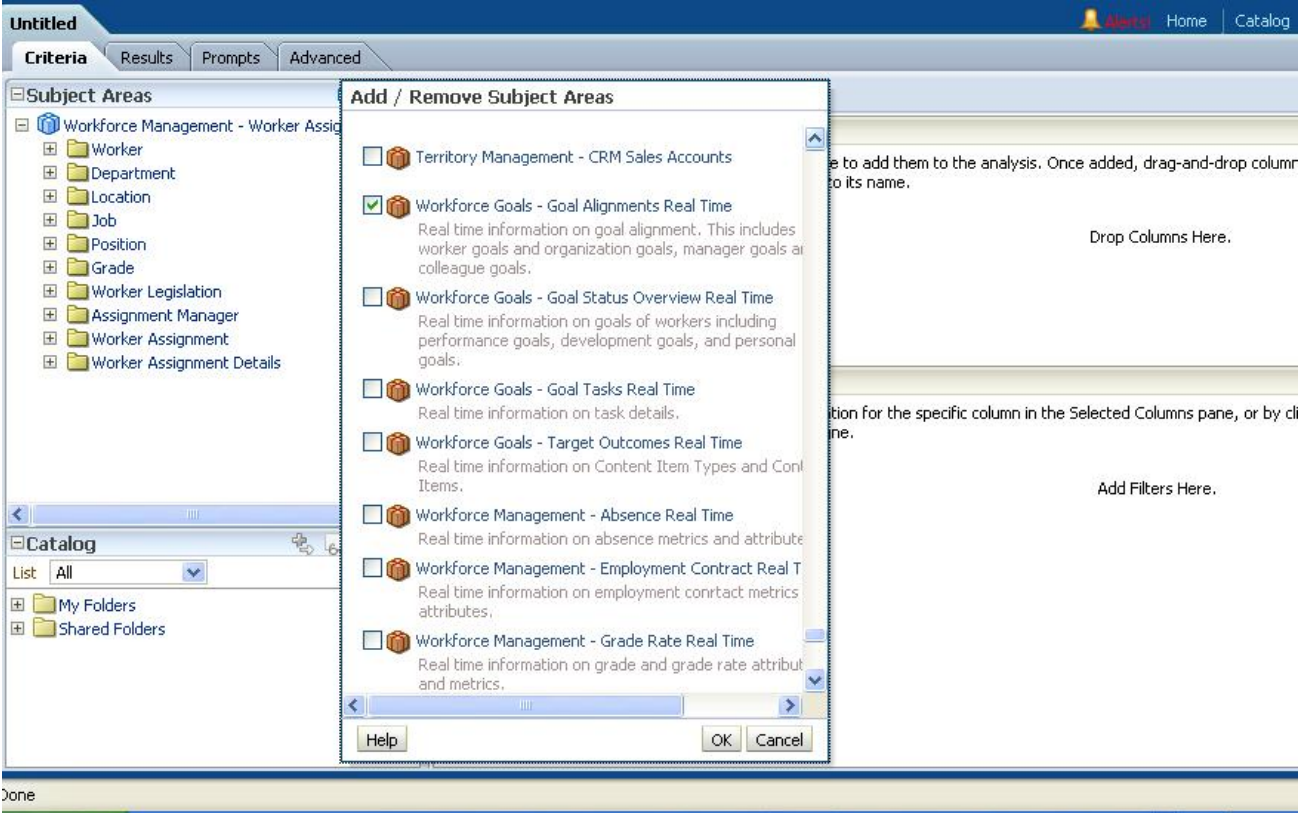
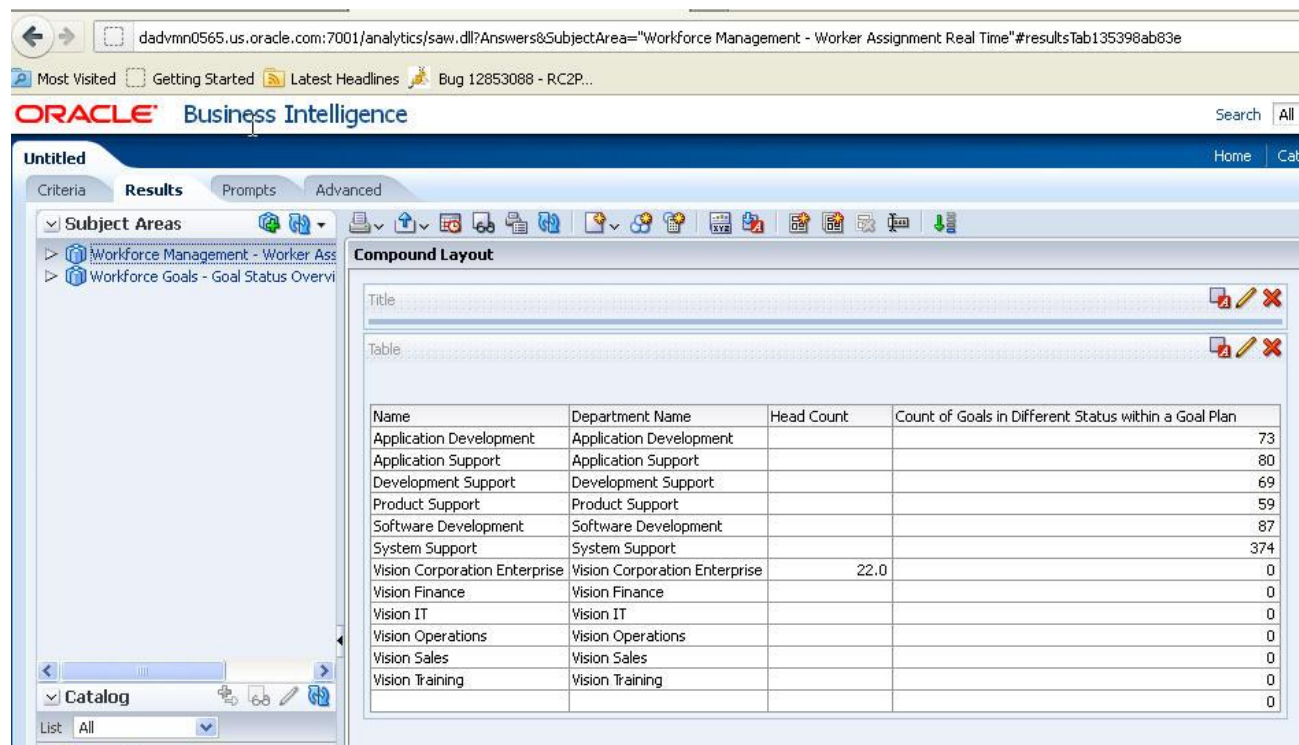


Figure 96 on page 157 illustrates the results of a single-result cross-subject area query.

Figure 96 Sample Results of Single-Result-Set Query



## Creating a Multiple-Result-Set Analysis

You can combine multiple result sets by using set operators, thus using data from multiple subject areas.

- To create a multiple-result-set cross-subject area analysis by using set operators:
  - 1 Access Transactional Business Intelligence.
  - 2 Select the **Criteria** tab.
  - 3 Right click on the desired Subject Area and select the desired column.
  - 4 Click **OK**.
  - 5 Repeat Steps 2 and 3 for each subject area and column to use in the cross-subject area analysis.
  - 6 Select the **Results** tab.

Figure 97 on page 158 is an example of a multiple-set query that is a union of two result subsets combining employees personal status change from the Person subject area.

Figure 97 Example of Combining Personal Status Change from Person Subject Area

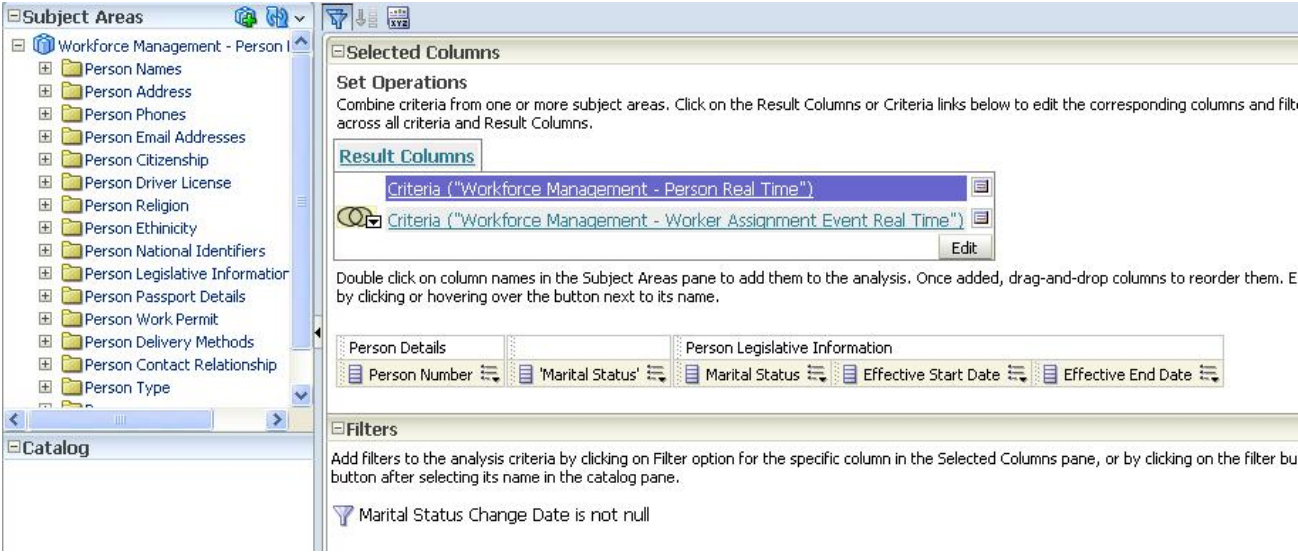


Figure 98 on page 158 is an example of a multiple-set query that is a union of two result subsets combining employees personal status change from the Worker Assignment subject area.

Figure 98 Example of Combining Personal Status Change from Worker Assignment Subject Area

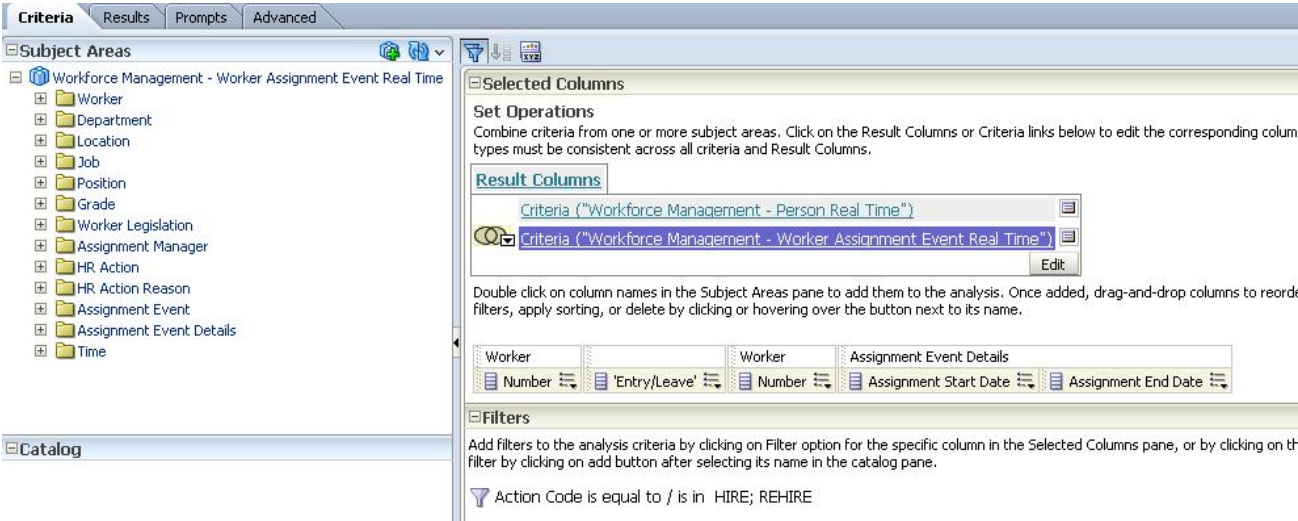


Figure 99 on page 159 illustrates the results of a multiple-result cross-subject area query.



Figure 99 Sample Results of Multiple-Result-Set Query

**Subject Areas**

Result columns are those columns that will be returned when an analysis combines more than one criteria.

Numbers of columns and their data types must be consistent across all criteria and Result Columns. Adding a result column therefore requires that you add a column of the same type to each of the combined criteria.

**Catalog**

List: All

My Folders

Shared Folders

**Compound Layout**

Title: Demo - Payroll Interface Record Type Status

Table:

Person Number	Status Type	Status Category	Status Start Date	Status End Date
07346189345	Entry/Leave	07346189345	5/1/09 12:00 AM	12/31/12 12:00 AM
07738593764	Entry/Leave	07738593764	6/1/10 12:00 AM	12/31/12 12:00 AM
07937548912	Entry/Leave	07937548912	1/1/10 12:00 AM	12/31/12 12:00 AM
300000001309806	Marital Status	Married	11/23/11 12:00 AM	12/31/12 12:00 AM
300000001530796	Marital Status	Married	12/8/11 12:00 AM	12/31/12 12:00 AM
	Entry/Leave		1/1/06 12:00 AM	12/31/12 12:00 AM
			1/1/08 12:00 AM	12/31/12 12:00 AM
			4/10/08 12:00 AM	12/31/12 12:00 AM
			6/12/09 12:00 AM	12/31/12 12:00 AM
			1/1/10 12:00 AM	1/30/12 12:00 AM
				12/31/12 12:00 AM

## Restrictions in Using Cross-Subject Analysis

Keep in mind the following restrictions when using cross-subject analysis:

- You can create a query joining only subject areas within your security access.
- A cross-subject area query is limited by the underlying schema relationship and is only possible through common dimensions shared by the select subject areas.
- Degenerate dimensions are not supported.

A “degenerate dimension” is a local dimension that exists only in the selected subject area. If additional attributes are added, the query does not return correct data.

Figure 100 on page 160 shows the incorrect data resulting from using the Worker Assignment Details dimension which exists only in the Worker Assignment subject area. Here, the Worker Assignment Details.Primary Flag attribute has been added, causing the column Count of Goals in Different Status with a Goal Plan to not display any data.

Figure 100 Example of Data Results When Using Degenerate Dimension

The screenshot shows the Oracle Business Intelligence interface. The 'Subject Areas' pane on the left includes 'Workforce Management - Worker Assignment' and 'Workforce Goals - Goal Status Overview'. The main area displays a table with the following data:

Name	Department Name	Head Count	Count of Goals in Different Status within a Goal Plan	Primary Flag
Vision Corporation Enterprise	Vision Corporation Enterprise	22.0		0 Yes
Vision Finance	Vision Finance			0 Yes
Vision IT	Vision IT			0 Yes
Vision Operations	Vision Operations			0 Yes
Vision Sales	Vision Sales			0 Yes
Vision Training	Vision Training			0 Yes

- Non-conforming dimensions are not supported.

“Conforming dimensions” are those dimensions that exist in all subject areas selected for the query; thus a “non-conforming” dimension is one which does not exist in all subject areas selected for the query.

Figure 101 on page 160 shows the incorrect data resulting from adding Performance Goals .Performance Goal to the query. Because Performance Goals is non-conforming dimension, the column Head Count is missing data.

Figure 101 Example of Data Results When Using Non-Conforming Dimension

The screenshot shows the Oracle Business Intelligence interface. The 'Subject Areas' pane on the left includes 'Performance Goal Name'. The main area displays a table with the following data:

Name	Department Name	Head Count	Count of Goals in Different Status within a Goal Plan	Performance Goal Name
Application Development	Application Development			12 Design, develop and deliver three customer validation sessions by end of year
Application Development	Application Development			12 Drive customer satisfaction score to 89 points by end of year
Application Development	Application Development			12 Execute 100% of unit tests every build with 95% success rate
Application Support	Application Support			13 Proactively reduce bug backlog to 2 weeks of incoming bugs, for generally available releases.
Application Support	Application Support			13 Design, develop and deliver three customer validation sessions by end of year
Application Support	Application Support			13 Drive customer satisfaction score to 89 points by end of year
Application Support	Application Support			13 Execute 100% of unit tests every build with 95% success rate
Development Support	Development Support			14 Proactively reduce bug backlog to 2 weeks of incoming bugs, for generally available releases.
Development Support	Development Support			11 Design, develop and deliver three customer validation sessions by end of year
Development Support	Development Support			11 Drive customer satisfaction score to 89 points by end of year
Development Support	Development Support			11 Execute 100% of unit tests every build with 95% success rate
Product Support	Product Support			12 Proactively reduce bug backlog to 2 weeks of incoming bugs, for generally available releases.
Product Support	Product Support			9 Design, develop and deliver three customer validation sessions by end of year
Product Support	Product Support			9 Drive customer satisfaction score to 89 points by end of year
Product Support	Product Support			9 Execute 100% of unit tests every build with 95% success rate
Software Development	Software Development			11 Proactively reduce bug backlog to 2 weeks of incoming bugs, for generally available releases.
Software Development	Software Development			15 Design, develop and deliver three customer validation sessions by end of year
Software Development	Software Development			15 Drive customer satisfaction score to 89 points by end of year
Software Development	Software Development			15 Execute 100% of unit tests every build with 95% success rate
System Support	System Support			15 Proactively reduce bug backlog to 2 weeks of incoming bugs, for generally available releases.
System Support	System Support			0 91% Customer Satisfaction
System Support	System Support			0 Add 10 New Customers
System Support	System Support			0 Add 5 New Accounts
System Support	System Support			0 Add 5 New Customers
System Support	System Support			62 Design, develop and deliver three customer validation sessions by end of year



## Talent Review

The Oracle Fusion Talent Review solution is designed to support a wide variety of business requirements across industries, business sectors, geographies, and organizations. Some aspects of the talent review meeting, such as the use of the nine-box matrix, have found wide adoption across industry and geographic boundaries; other elements, however, such as organizational diversity and risk assessment, have not. To accommodate these differences, not only within industry verticals, but also within organizations, the Talent Review solution utilizes a user-defined template that allows organizations to control the layout of the analytic (six box, nine box, 12 box, and so on) as well as the data elements that are visible during the talent review meeting, such as age, gender, ethnicity, risk of loss, and mobility.

The talent review process is centered around one or more talent review meetings intended to evaluate organizational trends, assess strengths, and address areas of risk for an entire organization. The people invited to participate in the meeting, who are generally managers within the organization that is being reviewed, can review and evaluate existing profile, performance, goals, and compensation data for individuals within the organization and calibrate the data before and during the talent review meeting. The human resource (HR) specialist (or other designated HR business partner) is responsible for organizing and facilitating the meeting in conjunction with the organizational business leader.

**Note:** Oracle Fusion Talent Review meetings are conducted by Human Resources to analyze a particular segment of an organization. Talent Review meetings should not be confused with individual performance evaluations.

## Talent Review Meetings

**Note:** For background and conceptual information on Talent Review, as well as detailed information on using the Talent Review templates, see the *Oracle Fusion Applications Workforce Development Guide* and the *Oracle Fusion Applications Workforce Development Implementation Guide*.

The Talent Review Meetings user interface is structured to provide the following functionality:

- Meeting organization
  - Scheduling participants and reviewers
  - Collecting participant data
  - Tracking completion status
- Filtering
- Drilling to participant details
- Graphical presentation and analysis
  - Actual performance compared with expected potential (displayed on an X - Y axis)
  - Changes in data from meeting to meeting

- Averages
- Colors and shapes to emphasize types of data:
  - **Demographics:** Gender; age; ethnicity
  - **Job and position data:** Job level; compensation
  - **Metrics:** Risk of loss; impact of loss; mobility
- Notes
- Tasks
- Calibration
  - Performance updates
  - Potential updates
  - Updates of other talent metrics
- Reviewee history
- Actions
  - Assigning goals and tasks
  - Assigning talent pools
  - Assigning succession plans
  - Initiating succession plans
  - Generating Reports (see [“Talent Review Reports” on page 162](#))

## Talent Review Reports

Talent Review reports facilitate the analysis of team performance. You can generate several Talent Review reports. These reports include such metadata as the following:

- Demographic data
- Names
- Roles
- Titles
- Competencies
- Goals
- Changes in goals
- Actual performance compared with goals
- Talent scores
- Performance scores
- Potential scores
- Talent categories such as “Misaligned Talent”, “Solid Talent”, “Top Talent”, and so forth
- Changes in scores

- Risk of loss
- Notes

## Guidelines for Generating Talent Review Reports

When generating Talent Review reports, note the following:

- To limit the amount of information in a given report, you can filter Talent Review reports by meeting, organization, meeting date, and reviewee(s).
- Reports can be generated for meetings not started, meetings in progress, and completed meetings
- Reports based on meetings not started or meetings in progress will not have calibrated data. Only when a meeting is completed is the data calibrated.
- Reports generated using data that is accessed from the Meeting Facts and Reviewee Talent Data subject areas will list scores and ratings for completed review meetings only. These reports will not list any scores or ratings from review meetings still in progress.

## Talent Review Security Levels

Each role in a Talent Review Meeting has a specific, assigned security level as follows:

- **Facilitator:** Has access to all data for all meetings for which they are a facilitator
- **Facilitator Manager:** Has access to all data in all meetings for all facilitators who are direct reports.
- **Reviewee Manager:** Has access to all talent review data for all meetings for all persons who are direct reports
- **Participant:** Has limited access to information for meetings in which they have participated

## Terminated Workers

By default, all workers are defined in the subject areas and are displayed in Talent Review reports. Terminated workers, however, may not show up in reports because of confidentiality and security reasons:

- The data security level of the person generating the report (see [“Talent Review Security Levels” on page 163](#))
- The organization security level
- Criteria or conditions in the report which filter out terminated workers

For example, if a user is generating reports by Manager Hierarchy, no terminated workers are listed because Manager Hierarchy is based on *active* assignments.

To include or exclude terminated workers in a report, you can set the **Assignment Status** attribute in the following subject areas:

- Workforce Goals – Goal Alignments Real Time
- Workforce Goals – Goal Status Overview Real Time
- Workforce Goals – Goal Tasks Real Time
- Workforce Goals – Target Outcomes Real Time
- Workforce Performance – Performance Document Status Real Time
- Workforce Performance – Performance Rating Real Time
- Workforce Profiles – Person Profile Real Time
- Workforce Performance – Performance Rating Distribution Real Time
- Workforce Talent Review – Talent Review Meeting Real Time

Terminated workers are not defined in the Workforce Performance – Performance Task Status Real Time subject area.

**Note:** If you do not actively filter out terminated workers, they will be automatically included in reports.

## Assignment Manager

If you are a manager or have supervisory power, you can assign goals to all direct and indirect reports or to selected individuals. You can also determine whether to enable employees to update key attributes of their goals, such as goal name, target completion date, and so forth.

Only facilitators can create and assign tasks for a Talent Review meeting. Facilitators can also assign tasks during multiple phases of the review cycle. This can be done in one of three locations:

- Prepare Review Content page
- Oracle Fusion Talent Review dashboard
- Review Action Plan page

When a line manager is changed, the roles of both new and previous line managers are updated.

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## Embedding Reports in Oracle ADF Applications

For information on embedding a report in Oracle ADF, see “Oracle Fusion Middleware Developer's Guide for Oracle Business Intelligence Enterprise Edition”. It contains steps for adding BI content to Oracle ADF.

## Invoking ADF Page from Oracle BI EE Reports

To invoke an ADF page from Oracle BI EE reports, see “[Invoking ADF Page from Oracle BI EE Report](#)” on page 98.

## Links to BI Applications, Oracle BI EE, and Oracle Fusion Applications Documentation

- Oracle Business Intelligence Applications
- Oracle Business Intelligence Enterprise Edition
- Oracle Fusion Applications

## Link to Oracle Fusion Middleware Master Glossary

The following is a link to the Oracle Fusion Middleware Master Glossary: [Oracle Fusion Middleware Master Glossary](#)





# Mapping Between Oracle Fusion Offerings and Transactional Business Intelligence Subject Areas

**Table 11** Mapping between Oracle Fusion offerings and OTBI subject areas

Oracle Fusion Applications Offering	Subject Area	Repository (rpd) Project
Compensation Management	Benefits—Action Items Real Time	Fusion Compensation Management Transactional Analysis
Compensation Management	Benefits—Enrollment Opportunities Real Time	Fusion Compensation Management Transactional Analysis
Compensation Management	Benefits—Enrollments Real Time	Fusion Compensation Management Transactional Analysis
Compensation Management	Benefits—Potential Life Events Real Time	Fusion Compensation Management Transactional Analysis
Compensation Management	Benefits—Setup Real Time	Fusion Compensation Management Transactional Analysis
Compensation Management	Compensation—Salary Details Real Time	Fusion Compensation Management Transactional Analysis
Compensation Management	Compensation—Stock Details Real Time	Fusion Compensation Management Transactional Analysis
Compensation Management	Payroll—Payments Costing Real Time	Fusion Compensation Management Transactional Analysis
Compensation Management	Payroll—Payments Distribution Real Time	Fusion Compensation Management Transactional Analysis
Compensation Management	Payroll—Payroll Run Costing Real Time	Fusion Compensation Management Transactional Analysis
Compensation Management	Payroll—Payroll Run Results Real Time	Fusion Compensation Management Transactional Analysis
Compensation Management	Payroll—Retroactive Pay Real Time	Fusion Compensation Management Transactional Analysis
Compensation Management	Compensation—Workforce Compensation Budgets Real Time	Fusion Compensation Management Transactional Analysis

<b>Oracle Fusion Applications Offering</b>	<b>Subject Area</b>	<b>Repository (rpd) Project</b>
Compensation Management	Compensation—Workforce Compensation Real Time	Fusion Compensation Management Transactional Analysis
Fusion Accounting Hub	Financials Common Module— Intercompany Transactions Real Time	Fusion Financial Control and Reporting Transactional Analysis
Fusion Accounting Hub	General Ledger—Balances Real Time	Fusion Financial Control and Reporting Transactional Analysis
Fusion Accounting Hub	General Ledger—Journals Real Time	Fusion Financial Control and Reporting Transactional Analysis
Fusion Accounting Hub	General Ledger—Period Status Real Time	Fusion Financial Control and Reporting Transactional Analysis
Fusion Accounting Hub	General Ledger—Transactional Balances Real Time	Fusion Financial Control and Reporting Transactional Analysis
Financials	Cash Management—Bank Statement Balances Real Time	Fusion Financials Transactional Analysis
Financials	Cash Management—Bank Statement Line Charges Real Time	Fusion Financials Transactional Analysis
Financials	Cash Management—Bank Statements Real Time	Fusion Financials Transactional Analysis
Financials	Cash Management—External Cash Transactions Real Time	Fusion Financials Transactional Analysis
Financials	Financials Common Module—Intercompany Transactions Real Time	Fusion Financials Transactional Analysis
Financials	Fixed Assets—Asset Assignments Real Time	Fusion Financials Transactional Analysis
Financials	Fixed Assets—Asset Balances Real Time	Fusion Financials Transactional Analysis
Financials	Fixed Assets—Asset Depreciation Real Time	Fusion Financials Transactional Analysis
Financials	Fixed Assets—Asset Financial Information Real Time	Fusion Financials Transactional Analysis
Financials	Fixed Assets—Asset Retirements and Reinstatements Real Time	Fusion Financials Transactional Analysis
Financials	Fixed Assets—Asset Source Lines Real Time	Fusion Financials Transactional Analysis
Financials	Fixed Assets—Asset Transactions Real Time	Fusion Financials Transactional Analysis
Financials	Fixed Assets—Asset Transfer Real Time	Fusion Financials Transactional Analysis
Financials	General Ledger—Balances Real Time	Fusion Financials Transactional Analysis
Financials	General Ledger—Journals Real Time	Fusion Financials Transactional Analysis
Financials	General Ledger—Period Status Real Time	Fusion Financials Transactional Analysis
Financials	General Ledger—Transactional Balances Real Time	Fusion Financials Transactional Analysis
Financials	Payables Invoices—Holds Real Time	Fusion Financials Transactional Analysis



<b>Oracle Fusion Applications Offering</b>	<b>Subject Area</b>	<b>Repository (rpd) Project</b>
Financials	Payables Invoices—Installments Real Time	Fusion Financials Transactional Analysis
Financials	Payables Invoices—Prepayment Invoice Distributions Real Time	Fusion Financials Transactional Analysis
Financials	Payables Invoices—Transactions Real Time	Fusion Financials Transactional Analysis
Financials	Payables Invoices—Trial Balance Real Time	Fusion Financials Transactional Analysis
Financials	Payables Invoices—Withholding Real Time	Fusion Financials Transactional Analysis
Financials	Payables Payments—Disbursements Real Time	Fusion Financials Transactional Analysis
Financials	Payables Payments—Payment History Real Time	Fusion Financials Transactional Analysis
Financials	Receivables—Adjustments Real Time	Fusion Financials Transactional Analysis
Financials	Receivables—Credit Memo Applications Real Time	Fusion Financials Transactional Analysis
Financials	Receivables—Credit Memo Requests Real Time	Fusion Financials Transactional Analysis
Financials	Receivables—Disputes History Real Time	Fusion Financials Transactional Analysis
Financials	Receivables—Miscellaneous Receipts Real Time	Fusion Financials Transactional Analysis
Financials	Receivables—Payment Schedules Real Time	Fusion Financials Transactional Analysis
Financials	Receivables—Receipt Conversion Rate Adjustments Real Time	Fusion Financials Transactional Analysis
Financials	Receivables—Receipts History Real Time	Fusion Financials Transactional Analysis
Financials	Receivables—Revenue Adjustments Real Time	Fusion Financials Transactional Analysis
Financials	Receivables—Standard Receipts Real Time	Fusion Financials Transactional Analysis
Financials	Receivables—Transactions Real Time	Fusion Financials Transactional Analysis
Financials	Subledger Accounting—Journals Real Time	Fusion Financials Transactional Analysis
Financials	Subledger Accounting—Payables Summary Reconciliation Real Time	Fusion Financials Transactional Analysis
Financials	Subledger Accounting—Receivables Summary Reconciliation Real Time	Fusion Financials Transactional Analysis
Financials	Subledger Accounting—Supporting References Real Time	Fusion Financials Transactional Analysis
Incentive Compensation	Incentive Compensation—Earning and Attainment Summary Real Time	Fusion Incentive Compensation Transactional Analysis
Incentive Compensation	Incentive Compensation—Attainments Real Time	Fusion Incentive Compensation Transactional Analysis
Incentive Compensation	Incentive Compensation—Compensation Plan Assignments Real Time	Fusion Incentive Compensation Transactional Analysis

<b>Oracle Fusion Applications Offering</b>	<b>Subject Area</b>	<b>Repository (rpd) Project</b>
Incentive Compensation	Incentive Compensation—Credits Real Time	Fusion Incentive Compensation Transactional Analysis
Incentive Compensation	Incentive Compensation—Disputes Real Time	Fusion Incentive Compensation Transactional Analysis
Incentive Compensation	Incentive Compensation—Earnings Real Time	Fusion Incentive Compensation Transactional Analysis
Incentive Compensation	Incentive Compensation—Participant Balances Real Time	Fusion Incentive Compensation Transactional Analysis
Incentive Compensation	Incentive Compensation—Participant Compensation Plan Real Time	Fusion Incentive Compensation Transactional Analysis
Incentive Compensation	Incentive Compensation—Participant Detail Real Time	Fusion Incentive Compensation Transactional Analysis
Incentive Compensation	Incentive Compensation—Participant Interval Goals Real Time	Fusion Incentive Compensation Transactional Analysis
Incentive Compensation	Incentive Compensation—Participant Period Goals Real Time	Fusion Incentive Compensation Transactional Analysis
Incentive Compensation	Incentive Compensation—Pay Group Assignments Real Time	Fusion Incentive Compensation Transactional Analysis
Incentive Compensation	Incentive Compensation—Payment Plan Assignments Real Time	Fusion Incentive Compensation Transactional Analysis
Incentive Compensation	Incentive Compensation—Payments Real Time	Fusion Incentive Compensation Transactional Analysis
Incentive Compensation	Incentive Compensation—Paysheet Summary Real Time	Fusion Incentive Compensation Transactional Analysis
Incentive Compensation	Incentive Compensation—Transactions Real Time	Fusion Incentive Compensation Transactional Analysis
Marketing	CRM—Sales Predictor Input	Fusion Marketing Transactional Analysis
Marketing	CRM—Sales Predictor ROI Reports	Fusion Marketing Transactional Analysis
Marketing	CRM—Sales Predictor Sales Estimation Analysis	Fusion Marketing Transactional Analysis
Marketing	Marketing—CRM B2B Customers	Fusion Marketing Transactional Analysis
Marketing	Marketing—CRM B2C Customers	Fusion Marketing Transactional Analysis
Marketing	Marketing—CRM Campaign Launch	Fusion Marketing Transactional Analysis
Marketing	Marketing—CRM Campaign Performance	Fusion Marketing Transactional Analysis
Marketing	Marketing—CRM Campaigns and Contacts Real Time	Fusion Marketing Transactional Analysis

<b>Oracle Fusion Applications Offering</b>	<b>Subject Area</b>	<b>Repository (rpd) Project</b>
Marketing	Marketing—CRM Campaigns and Leads Real Time	Fusion Marketing Transactional Analysis
Marketing	Marketing—CRM Campaigns and Opportunities Real Time	Fusion Marketing Transactional Analysis
Marketing	Marketing—CRM Interactions and Campaigns Real Time	Fusion Marketing Transactional Analysis
Marketing	Marketing—CRM Interactions and Leads Real Time	Fusion Marketing Transactional Analysis
Marketing	Marketing—CRM Interactions Real Time	Fusion Marketing Transactional Analysis
Marketing	Marketing—CRM Lead to Order	Fusion Marketing Transactional Analysis
Marketing	Marketing—CRM Leads	Fusion Marketing Transactional Analysis
Marketing	Marketing—CRM Leads and Opportunities Real Time	Fusion Marketing Transactional Analysis
Marketing	Marketing—CRM Leads Real Time	Fusion Marketing Transactional Analysis
Marketing	Marketing Segmentation Cache and Saved Results Real Time	Fusion Marketing Transactional Analysis
Marketing	Marketing Segmentation Campaigns	Fusion Marketing Transactional Analysis
Marketing	Marketing Segmentation Interactions	Fusion Marketing Transactional Analysis
Marketing	Marketing Segmentation Leads	Fusion Marketing Transactional Analysis
Marketing	Marketing Segmentation Opportunities	Fusion Marketing Transactional Analysis
Marketing	Marketing Segmentation Responses	Fusion Marketing Transactional Analysis
Marketing	Marketing Segmentation Targets	Fusion Marketing Transactional Analysis
Marketing	RTD—Model Analysis	Fusion Marketing Transactional Analysis
Marketing	Sales Predictor Output	Fusion Marketing Transactional Analysis
Marketing	Sales Prospector Dashboard	Fusion Marketing Transactional Analysis
Marketing	Territory Management—CRM Leads	Fusion Marketing Transactional Analysis
Marketing	Territory Management—CRM Sales Accounts	Fusion Marketing Transactional Analysis
Materials Management and Logistics	Costing—COGS And Gross Margin Real Time	Fusion Materials Management and Logistics Transactional Analysis
Materials Management and Logistics	Costing—Cost Accounting Real Time	Fusion Materials Management and Logistics Transactional Analysis
Materials Management and Logistics	Costing—Inventory Valuation Real Time	Fusion Materials Management and Logistics Transactional Analysis
Materials Management and Logistics	Costing—Item Cost Real Time	Fusion Materials Management and Logistics Transactional Analysis

<b>Oracle Fusion Applications Offering</b>	<b>Subject Area</b>	<b>Repository (rpd) Project</b>
Materials Management and Logistics	Costing—Receipt Accounting Real Time	Fusion Materials Management and Logistics Transactional Analysis
Materials Management and Logistics	Inventory—Inventory Balance Real Time	Fusion Materials Management and Logistics Transactional Analysis
Materials Management and Logistics	Inventory—Inventory Supply Real Time	Fusion Materials Management and Logistics Transactional Analysis
Materials Management and Logistics	Inventory—Inventory Transactions Real Time	Fusion Materials Management and Logistics Transactional Analysis
Materials Management and Logistics	Inventory—Organization Real Time	Fusion Materials Management and Logistics Transactional Analysis
Materials Management and Logistics	Receiving—Interorganization Receipts Real Time	Fusion Materials Management and Logistics Transactional Analysis
Materials Management and Logistics	Receiving—Intransit Advanced Shipment Notifications Real Time	Fusion Materials Management and Logistics Transactional Analysis
Materials Management and Logistics	Receiving—Intransit Interorganization Inventory Transfers Real Time	Fusion Materials Management and Logistics Transactional Analysis
Materials Management and Logistics	Receiving—Intransit Shipments Real Time	Fusion Materials Management and Logistics Transactional Analysis
Materials Management and Logistics	Receiving—Purchase Receipts Real Time	Fusion Materials Management and Logistics Transactional Analysis
Materials Management and Logistics	Receiving—Receipts Real Time	Fusion Materials Management and Logistics Transactional Analysis
Materials Management and Logistics	Receiving—Transactions Real Time	Fusion Materials Management and Logistics Transactional Analysis
Materials Management and Logistics	Receiving—Unordered Receipts Real Time	Fusion Materials Management and Logistics Transactional Analysis
Materials Management and Logistics	Shipping Real Time	Fusion Materials Management and Logistics Transactional Analysis
Order Orchestration	Distributed Order Orchestration—Fulfillment Lines Real Time	Fusion Order Orchestration Transactional Analysis
Order Orchestration	Distributed Order Orchestration—Order Headers Real Time	Fusion Order Orchestration Transactional Analysis
Order Orchestration	Distributed Order Orchestration—Order Holds Real Time	Fusion Order Orchestration Transactional Analysis
Order Orchestration	Distributed Order Orchestration—Order Lines Real Time	Fusion Order Orchestration Transactional Analysis
Order Orchestration	Distributed Order Orchestration—Price Adjustments Real Time	Fusion Order Orchestration Transactional Analysis

<b>Oracle Fusion Applications Offering</b>	<b>Subject Area</b>	<b>Repository (rpd) Project</b>
Order Orchestration	Distributed Order Orchestration—Process Instances Real Time	Fusion Order Orchestration Transactional Analysis
Sales	Partners—CRM Leads and Opportunities Real Time	Fusion Partner Transactional Analysis
Sales	Partners—CRM Opportunities and Products Real Time	Fusion Partner Transactional Analysis
Sales	Partners—CRM Partner Overview	Fusion Partner Transactional Analysis
Sales	Partners—CRM Partner Performance Real Time	Fusion Partner Transactional Analysis
Sales	Partners—CRM Partner Programs	Fusion Partner Transactional Analysis
Sales	Partners—CRM Partners and Products Real Time	Fusion Partner Transactional Analysis
Sales	Partners—CRM Program Enrollments Real Time	Fusion Partner Transactional Analysis
Sales	Partners—CRM Program Performance Real Time	Fusion Partner Transactional Analysis
Sales	Partners—CRM Registered Leads Real Time	Fusion Partner Transactional Analysis
Procurement	Procurement—Implemented Change Orders Real Time	Fusion Procurement Transactional Analysis
Procurement	Procurement—Pending Change Orders Real Time	Fusion Procurement Transactional Analysis
Procurement	Procurement—Purchasing Agreements Real Time	Fusion Procurement Transactional Analysis
Procurement	Procurement—Purchasing Real Time	Fusion Procurement Transactional Analysis
Procurement	Procurement—Requisitions Real Time	Fusion Procurement Transactional Analysis
Procurement	Sourcing—Supplier Awards Real Time	Fusion Procurement Transactional Analysis
Procurement	Sourcing—Supplier Negotiations Real Time	Fusion Procurement Transactional Analysis
Procurement	Sourcing—Supplier Responses Real Time	Fusion Procurement Transactional Analysis
Procurement	Sourcing—Supplier Real Time	Fusion Procurement Transactional Analysis
Product Management	Product Management—Change Order Line Real Time	Fusion Product Management Transactional Analysis
Product Management	Product Management—Change Order Real Time	Fusion Product Management Transactional Analysis
Product Management	Product Management—Components Real Time	Fusion Product Management Transactional Analysis
Product Management	Product Management—Cross Reference Item Real Time	Fusion Product Management Transactional Analysis
Product Management	Product Management—Item Revisions Real Time	Fusion Product Management Transactional Analysis

<b>Oracle Fusion Applications Offering</b>	<b>Subject Area</b>	<b>Repository (rpd) Project</b>
Product Management	Product Management—New Item Request Line Real Time	Fusion Product Management Transactional Analysis
Product Management	Product Management—New Item Request Real Time	Fusion Product Management Transactional Analysis
Product Management	Product Management—Related Item Real Time	Fusion Product Management Transactional Analysis
Product Management	Product Management—Source System Item Real Time	Fusion Product Management Transactional Analysis
Product Management	Product Management—Structures Real Time	Fusion Product Management Transactional Analysis
Product Management	Product Management—Trading Partner Item Real Time	Fusion Product Management Transactional Analysis
Product Management	Project Billing—Invoices Real Time	Fusion Projects Transactional Analysis
Product Management	Project Billing—Revenue Real Time	Fusion Projects Transactional Analysis
Product Management	Project Control—Budgets Real Time	Fusion Projects Transactional Analysis
Product Management	Project Costing—Actual Costs Real Time	Fusion Projects Transactional Analysis
Product Management	Project Costing—Commitments Real Time	Fusion Projects Transactional Analysis
Product Management	Project Costing—Unprocessed Transactions Real Time	Fusion Projects Transactional Analysis
Sales	Sales—CRM Customer Overview	Fusion Sales Transactional Analysis
Sales	Sales—CRM Customers and Contacts Real Time	Fusion Sales Transactional Analysis
Sales	Sales—CRM Customers and Sales Resources Real Time	Fusion Sales Transactional Analysis
Sales	Sales—CRM Forecasting	Fusion Sales Transactional Analysis
Sales	Sales—CRM Interactions and Customers Real Time	Fusion Sales Transactional Analysis
Sales	Sales—CRM Interactions and Opportunities Real Time	Fusion Sales Transactional Analysis
Sales	Sales—CRM Opportunities and Competitors Real Time	Fusion Sales Transactional Analysis
Sales	Sales—CRM Opportunities and Partners Real Time	Fusion Sales Transactional Analysis
Sales	Sales—CRM Opportunities and Products Real Time	Fusion Sales Transactional Analysis
Sales	Sales—CRM Pipeline	Fusion Sales Transactional Analysis
Sales	Sales—CRM Quota Management	Fusion Sales Transactional Analysis
Sales	Sales—CRM Sales Activity	Fusion Sales Transactional Analysis
Sales	Sales—Prospector Dashboard	Fusion Sales Transactional Analysis

<b>Oracle Fusion Applications Offering</b>	<b>Subject Area</b>	<b>Repository (rpd) Project</b>
Sales	Territory Management—CRM Forecast	Fusion Sales Transactional Analysis
Sales	Territory Management—CRM Leads	Fusion Sales Transactional Analysis
Sales	Territory Management—CRM Pipeline	Fusion Sales Transactional Analysis
Sales	Territory Management—CRM Quota	Fusion Sales Transactional Analysis
Sales	Territory Management—CRM Sales Accounts	Fusion Sales Transactional Analysis
Workforce Deployment	Benefits—Action Items Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Benefits—Enrollment Opportunities Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Benefits—Enrollments Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Benefits—Potential Life Events Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Benefits—Setup Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Compensation—Salary Details Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Compensation—Stock Details Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Payroll—Payments Costing Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Payroll—Payments Distribution Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Payroll—Payroll Run Costing Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Payroll—Payroll Run Results Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Payroll—Retroactive Pay Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Workforce Goals—Goal Alignments Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Workforce Goals—Goal Status Overview Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Workforce Goals—Goal Tasks Real Time	Fusion Workforce Deployment Transactional Analysis

<b>Oracle Fusion Applications Offering</b>	<b>Subject Area</b>	<b>Repository (rpd) Project</b>
Workforce Deployment	Workforce Goals—Target Outcomes Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Workforce Management—Absence Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Workforce Management—Employment Contract Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Workforce Management—Grade Rate Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Workforce Management—Person Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Workforce Management—Position Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Workforce Management—Work Relationship Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Workforce Management—Worker Assignment Event Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Workforce Management—Worker Assignment Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Workforce Performance—Performance Document Status Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Workforce Performance—Performance Rating Distribution Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Workforce Performance—Performance Rating Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Workforce Performance—Performance Task Status Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Workforce Profiles—Library Objects Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Workforce Profiles—Model Profile Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Workforce Profiles—Person Profile Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Compensation—Workforce Compensation Budgets Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Compensation—Workforce Compensation Real Time	Fusion Workforce Deployment Transactional Analysis
Workforce Deployment	Workforce Talent Review—Talent Review Meeting Real Time	Fusion Workforce Deployment Transactional Analysis



<b>Oracle Fusion Applications Offering</b>	<b>Subject Area</b>	<b>Repository (rpd) Project</b>
Workforce Development	Workforce Goals—Goal Alignments Real Time	Fusion Workforce Development Transactional Analysis
Workforce Development	Workforce Goals—Goal Status Overview Real Time	Fusion Workforce Development Transactional Analysis
Workforce Development	Workforce Goals—Goal Tasks Real Time	Fusion Workforce Development Transactional Analysis
Workforce Development	Workforce Goals—Target Outcomes Real Time	Fusion Workforce Development Transactional Analysis
Workforce Development	Workforce Management—Absence Real Time	Fusion Workforce Development Transactional Analysis
Workforce Development	Workforce Management—Employment Contract Real Time	Fusion Workforce Development Transactional Analysis
Workforce Development	Workforce Management—Grade Rate Real Time	Fusion Workforce Development Transactional Analysis
Workforce Development	Workforce Management—Person Real Time	Fusion Workforce Development Transactional Analysis
Workforce Development	Workforce Management—Position Real Time	Fusion Workforce Development Transactional Analysis
Workforce Development	Workforce Management—Work Relationship Real Time	Fusion Workforce Development Transactional Analysis
Workforce Development	Workforce Management—Worker Assignment Event Real Time	Fusion Workforce Development Transactional Analysis
Workforce Development	Workforce Management—Worker Assignment Real Time	Fusion Workforce Development Transactional Analysis
Workforce Development	Workforce Performance—Performance Document Status Real Time	Fusion Workforce Development Transactional Analysis
Workforce Development	Workforce Performance—Performance Rating Distribution Real Time	Fusion Workforce Development Transactional Analysis
Workforce Development	Workforce Performance—Performance Rating Real Time	Fusion Workforce Development Transactional Analysis
Workforce Development	Workforce Performance—Performance Task Status Real Time	Fusion Workforce Development Transactional Analysis
Workforce Development	Workforce Profiles—Library Objects Real Time	Fusion Workforce Development Transactional Analysis
Workforce Development	Workforce Profiles—Model Profile Real Time	Fusion Workforce Development Transactional Analysis
Workforce Development	Workforce Profiles—Person Profile Real Time	Fusion Workforce Development Transactional Analysis

<b>Oracle Fusion Applications Offering</b>	<b>Subject Area</b>	<b>Repository (rpd) Project</b>
Workforce Development	Compensation—Workforce Compensation Budgets Real Time	Fusion Workforce Development Transactional Analysis
Workforce Development	Compensation—Workforce Compensation Real Time	Fusion Workforce Development Transactional Analysis
Workforce Development	Workforce Talent Review—Talent Review Meeting Real Time	Fusion Workforce Development Transactional Analysis



# Embedded Reports

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## Embedded Reports

Several reports are generated by Oracle Fusion applications, displaying a broad range of data. These reports are embedded in the applications, covering two major areas:

- “Partner Analytics Embedded Reports” on page 179
- “Sales Analytics Embedded Reports” on page 186

## Partner Analytics Embedded Reports

The following embedded reports are available for Partner Analytics:

- “Registered Lead Watch” on page 180
- “Registered Lead Distribution” on page 180
- “Registered Lead Trends” on page 181
- “Revenue by Product Group” on page 181
- “Revenue by Program” on page 182
- “Program Performance Dials ” on page 182
- “Partners at a Glance” on page 183
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## Registered Lead Watch

The Registered Lead Watch report is a table listing registered leads which meet the following criteria:

- The leads are all open registered leads
- The user has access to the leads

### Registered Lead Watch Report Data

The following data is displayed in the Registered Lead Watch report:

- **Registered Lead:** The registered lead owner
- **Customer:** The customer name
- **Revenue:** Defaults to preferred currency of user
- **Age:** How old the lead is, measured in days
- **Last Interaction:** Date of last interaction with lead
- **Quarter:** The quarters on which a user can filter
- **Alert Icon:** Indicates that the lead is going to expire within a week from the current date

### Registered Lead Watch Links

You can access the following reports from the Registered Lead Watch report by clicking on the field names:

- **Registered Lead Name:** Accesses the Lead Detail page
- **Customer Name:** Accesses the customer 360 page

## Registered Lead Distribution

The Registered Lead Distribution report is a pie chart displaying registered leads by several parameters. The report helps indicate which areas are more successful in generating registered leads. The parameters for the Registered Lead Distribution report include the following:

- Product
- Registered Lead Source
- Industries
- Customer

### Registered Lead Distribution Report Data

The following data is displayed in the Registered Lead Distribution report:

- Number of registered leads
- Closed channel revenue

- **Customer:** The customer name
- **Industry:** The primary industry of the customer on the registered lead
- **Product Group:** The product group on the revenue line of the opportunity to which the registered lead is associated

### Registered Lead Distribution Links

There are no links to other reports from the Registered Lead Distribution report.

### Registered Lead Trends

The Registered Lead Trends report is a stacked bar graph displaying registered leads by status over time. The vertical axis displays the number of registered leads with each stack being a registered lead status. The horizontal axis displays the time period.

### Registered Lead Trends Data

The following data is displayed in the Registered Lead Trend report:

- Number of draft registered leads
- Number of submitted registered leads
- Number of withdrawn registered leads
- Number of pending approval registered leads
- Number of approved registered leads
- Number of rejected registered leads
- Registered lead status
- Partner
- Time period

### Registered Lead Trends Links

There are no links to other reports from the Registered Lead Trends report.

### Revenue by Product Group

The Revenue by Product Group report is a pie chart displaying the revenue of product groups. The report helps indicate which product groups a partner is most and least successful in selling.

### Revenue by Product Group Data

The following data is displayed in the Revenue by Product Group report:

- Closed channel revenue

- **Product Group:** The sales product group associated to the product on the revenue line item
- **Product:** The product on the revenue line item
- **Partner:** The partner organization stamped on the revenue line item
- **Time Period:** A quarter based on the revenue line item close date

### Product Group Drills Links

You can access the details of the revenues for individual products by clicking on the product group name.

### Revenue by Program

The Revenue by Program Group report is a pie chart displaying the closed revenue of sales programs of an individual partner. The report helps indicate which programs are most and least successful in generating revenue.

**Note:** By default, the data displayed in the Revenue by Program report is for the current year.

### Revenue by Program Data

The following data is displayed in the Revenue by Program report:

- Closed channel revenue
- Program
- Time Period (Enterprise Quarter)

### Revenue by Program Links

There are no links to other reports from the Revenue by Program report.

### Program Performance Dials

The Program Performance Dials report is a dial display showing actual versus targeted values. Each sales program has a corresponding dial chart. By default the following dial charts are available:

- Revenue
- Number of Enrollments
- Number of Leads Registered
- Number of leads Generated

### Program Performance Dials Data

The following data is displayed in the Program Performance Dials:

- Closed Revenue
- Revenue Target
- Number of Enrollments
- Number of Enrollments Target
- Number of Leads Registered
- Number of Leads Registered Target
- Number of Leads
- Number of Leads Target
- Program

### **Program Performance Dials Links**

There are no links to other reports from the Program Performance Dials.

### **Partners at a Glance**

The Partners at a Glance report is a table displaying the partners managed by a channel manager. Listed also are key performance indicators for each partner.

### **Partners at a Glance Data**

The following data is displayed in the Partners at a Glance report:

- Closed Revenue
- Number of Registered Leads
- Average Registered Lead Size
- Number of Leads Generated
- Opportunity Win Rate
- Partner

### **Partners at a Glance Links**

You can access the Partner Detail report by clicking on a partner name.

### **Partner Performance Against Peers**

The Partner Performance Against Peers report is a table listing key performance indicators of partners. The report helps indicate how a partner is performing compared to other partners. The key performance indicators displayed on the report include the following:

- Closed Revenue
- Number of Registered Leads

- Win Rate
- Average Registered Lead Size

### **Partner Performance Against Peers Data**

The following data is displayed in the Partner Performance Against Peers report:

- Closed Channel Revenue
- Number of Approved Registered Leads
- Average Registered Lead Size
- Number of Leads
- Opportunity Win Rate
- Partner
- Time Period (Enterprise Quarter)

### **Partner Performance Against Peers Links**

You can access the Partner Center report by clicking on a partner name.

### **Partner Revenue Trends**

Partner Revenue Trends is a bar chart displaying closed revenue by partners over time. The report helps indicate how much revenue has been generated by individual partners compared to their peers during the quarter.

For each quarter, two bars are displayed:

- Closed revenue for the partner during the quarter
- Average revenue in the peer group

**Note:** The peer group consists of partners who are at the same partner level.

### **Partner Revenue Trends Data**

The following data is displayed in the Partner Revenue Trends report:

- Closed Channel Revenue
- Average Peer Closed Channel Revenue
- Time Period (Enterprise Quarter)
- Partner

### **Partner Revenue Trends Links**

There are no links to other reports from the Partner Revenue Trends report.



## Enrollment Trends

The Enrollment Trends report is a bar chart displaying the number of enrollments per type of sales program over time. This report helps indicate both the overall success rate of programs in enrolling partners and how successful the programs are during specified time periods.

### Enrollment Trends Data

The following data is displayed in the Enrollment Trends report:

- Number of Enrollments
- Time Period (Enterprise Quarter)
- Program Name
- Program Type

### Enrollment Trends Links

There are no links to other reports from the Enrollment Trends report.

## Programs Summary

The Programs Summary report is a table displaying the active sales programs managed by a channel manager. Listed also are key performance indicators.

### Programs Summary Data

The following data is displayed in the Programs Summary report:

- Program
- Number of Partners
- Revenue (defaults to preferred currency of user)

### Programs Summary Links

There are no links to other reports from the Programs Summary report

## Top Partners

The Top Partners report is a Pareto chart displaying the revenue raised by a partner as well as the cumulative percent of revenue. This report helps indicate how much a partner contributes in a relative scale. Each bar in the chart represents the closed revenue of a partner in the current quarter. The graph above the bars displays the cumulative percent.

### Top Partners Data

The following data is displayed in the Top Partners report:

- Cumulative Revenue %
- Total Closed Channel Revenue
- Closed Channel Revenue
- Time Period (Enterprise Quarter)
- Partner

### Top Partners Links

You can access the Partner Center report by clicking on a partner bar.

## Partner Presence by Product

The Partner Presence by Product report is a table/matrix displaying the products sold by a partner to a customer. This report helps the channel manager see the penetration made by individual partners into a specific set of customers.

### Partner Presence by Product Data

The following data is displayed in the Partner Presence by Product report:

- Closed Channel Revenue
- Customer
- Time Period (Enterprise Quarter)
- Product Group
- Partner

### Partner Presence by Product Links

You can access the Customer 360 report by clicking on a customer name.

## Sales Analytics Embedded Reports

The following embedded reports are available for Customer Relations Management (CRM) Sales Analytics:

- [“Team at a Glance” on page 187](#)
- [“Sales Representative Account Activity Chart” on page 188](#)
- [“Current Period Performance” on page 188](#)
- [“Past Period Performance” on page 189](#)
- [“Pipeline Report” on page 189](#)
- [“Opportunity List” on page 190](#)
- [“Opportunities at a Glance” on page 191](#)

- “Relationship Whitespace” on page 192
- “Stalled Opportunities” on page 192
- “Opportunity Watch” on page 193
- “Current Revenue at Stake” on page 193
- “Opportunity List for Current Quarter” on page 193
- “Competitor Win – Loss Trends” on page 194
- “Win – Loss Reasons” on page 195
- “Customer Revenue Trends” on page 195
- “Reference Effectiveness” on page 196
- “Competitor Win Rate” on page 196
- “Customers at a Glance” on page 196
- “Customer Watch” on page 197
- “Campaign Watch” on page 197
- “Leads at a Glance” on page 197
- “Lead Watch” on page 198
- “Team at a Glance Real Time” on page 199
- “Opportunity Watch Real Time” on page 199
- “Opportunities at a Glance Real Time” on page 200
- “Customers at a Glance Real Time” on page 200
- “Forecasted Revenue by Customer” on page 201
- “Forecasted Revenue by Product with Sales Channel Selector” on page 201
- “Opportunity Contribution to Forecast” on page 202

## Team at a Glance

The Team at a Glance report is a table listing sales users who report directly to the logged-in user. Listed also are key performance indicators for each sales user for the current enterprise quarter. Also accessible is data for indirect reports.

### Team at a Glance Data

The following data is displayed in the Team at a Glance report:

- **Resource:** The sales user. If the resource has direct reports, this displays as a hyperlink.
- **Account Coverage:** The number of interactions in the current enterprise time period for all opportunities
- **Lead-Opt Conversion:** The percentage of leads that are converted to opportunities by this resource
- **Average Deal Size:** The average deal size per opportunity for that resource

- **Average Close Time:** Average time taken by resource to close deals
- **Win Rate:** Measures the percentages of opportunities the resource has closed with a status code of Won in the current enterprise time period

### Team at a Glance Links

You can access the [“Sales Representative Account Activity Chart” on page 188](#) by clicking on Account Coverage.

## Sales Representative Account Activity Chart

The Sales Representative Account Activity Chart is accessed by drilling on Account Coverage in [“Team at a Glance” on page 187](#).

The Sales Representative Account Activity Chart is a bar graph displaying the number of accounts owned by a sales representative and the number of sales activities (interactions) performed by the representative against the accounts in the current enterprise period.

### Sales Representative Account Activity Chart Data

The following data is displayed in the Sales Representative Account Activity Chart:

- **Time:** The current enterprise quarter
- **Employee:** The employee ID
- **Sales Account:** The customer name
- **Number of Interactions:** The number of interactions that have occurred with this sales

### Sales Representative Account Activity Chart Links

There are no links to other reports from the Sales Representative Account Activity Chart.

## Current Period Performance

The Current Period Performance report is a bar graph displaying the percentage of target sales quota attained during the current time period.

### Current Period Performance Data

The following data is displayed in the Current Period Performance report:

- **Target Quota:** The target quota for the sales representative as defined by the Sales Administrator for the selected time period
- **Closed Revenue:** The sum of opportunity revenue line where the opportunity close date falls with the selected time period
- **Difference:** The closed revenue minus the target quota. (Negative values are represented with parenthesis.)

- **Open Revenue.** The sum of opportunity values not yet closed
- **Quota Attained:** A percentage: (Closed revenue divided by target quota) times 100

### Current Period Performance Links

There are no links to other reports from the Current Period Performance report.

## Past Period Performance

The Past Period Performance report is a bar graph displaying the percentage of target sales quota attained during a past time period.

### Past Period Performance Data

The following data is displayed in the Past Period Performance report:

- **Target Quota:** The target quota for the sales representative as defined by the Sales Administrator for the selected time period
- **Closed Revenue:** The sum of opportunity revenue line where the opportunity close date falls with the selected time period
- **Difference:** The closed revenue minus the target quota. (Negative values are represented with parenthesis.)
- **Open Revenue.** The sum of opportunity values not yet closed
- **Quota Attained:** A percentage: (Closed revenue divided by target quota) times 100

### Past Period Performance Links

There are no links to other reports from the Past Period Performance report.

## Pipeline Report

The Pipeline report is a combination of displays presenting a snapshot of the sales function for current enterprise time period. Users can see how many opportunities are available in each step, detect bottlenecks, and spot stages in which there are insufficient opportunities.

### Pipeline Report Data

The following data is displayed in the Pipeline report:

- [“Pipeline Report Funnel Graph” on page 190](#)
- [“Pipeline Report Table” on page 190](#)
- [“Pipeline Report Line Chart” on page 190](#)

## Pipeline Report Funnel Graph

In the Pipeline Report funnel graph, each segment of the funnel represents a sales stage. The widest part of the funnel displays the beginning stage of the sales process. As opportunities become fewer and fewer through the sales stages, the funnel narrows. At the narrow end of the funnel are found the remaining opportunities.

## Pipeline Report Table

The following data is displayed in the Pipeline Report Table:

- Sales Stage
- Quota Factor
- Sales Stage Target Revenue
- Opportunity Line Revenue
- Average Days at Stage
- Qualification
- Building Vision
- Agreement
- Negotiation
- Closed

## Pipeline Report Table

You can access the [“Opportunity List” on page 190](#) by clicking on Opportunity Line Revenue in the [“Pipeline Report Table” on page 190](#).

## Pipeline Report Line Chart

The following data is displayed in the Pipeline Report Line Chart:

- **Sales Stage:** This is displayed along the horizontal axis
- **Opportunity Revenue per Sales Stage:** This is displayed along the vertical axis
- **Sales Stage Target:** This is displayed as a red line graph along the vertical axis

## Pipeline Links

There are no links to other reports from the Pipeline report.

## Opportunity List

The Opportunity List report is accessed by drilling on the Opportunity Line Revenue in the [“Pipeline Report Table” on page 190](#).

The Opportunity List report is a table displaying summary data

## Opportunity List Data

The following data is displayed in the Opportunity List report:

- Enterprise Year
- Sales Method Name
- Sales Stage Name
- Customer Name
- Opportunity Name
- Product Name
- Revenue Status
- Win Probability (percentage)
- Close Date
- Opportunity Line Revenue
- Sales Credit Split (percentage)
- Employee Name
- Territory

## Opportunity List Links

There are no links to other reports from the Opportunity List report.

## Opportunities at a Glance

The Opportunities at a Glance report is a table displaying a quick view of opportunities.

## Opportunities at a Glance Data

The following data is displayed in the Opportunities at a Glance report:

- **Opportunity:** The opportunity name
- **Win Probability:** The likelihood of closing the sale (expressed as a percentage)
- **Days Stalled:** The number of days the opportunity has failed to close
- **Value:** The trend of the opportunity value
- **Opportunity Coverage:** The relationship strength with the customer

## Opportunities at a Glance Links

You can access the [“Relationship Whitespace” on page 192](#) by clicking on Opportunity Coverage in [“Opportunities at a Glance” on page 191](#).

## Relationship Whitespace

The Relationship Whitespace report is accessed by clicking on Opportunity Coverage in [“Opportunities at a Glance”](#) on page 191.

The Relationship Whitespace is a table displaying types and counts of interactions with a customer over a given time period.

### Relationship Whitespace Data

The following data is displayed in the Relationship Whitespace report:

- Interaction Type
- Department
- Contact Name
- Influence Level:
  - Political Player
  - Inner Circle
  - None

### Relationship Whitespace Links

There are no links to other reports from the Relationship Whitespace report.

## Stalled Opportunities

The Stalled Opportunities report is a table displaying a quick view of stalled opportunities.

### Stalled Opportunities Data

The following data is displayed in the Stalled Opportunities report:

- **Opportunity:** The opportunity name
- **Sales Account:** The customer name
- **Sales Stage:** The likelihood of closing the sale (expressed as a percentage)
- **Days Stalled:** The number of days the opportunity has failed to close
- **Revenue:** The trend of the opportunity value

### Stalled Opportunities Links

There are no links to other reports from the Stalled Opportunities report.



## Opportunity Watch

The Opportunity Watch report is a table listing the opportunities that meet a watch criteria specified by the user.

### Opportunity Watch Data

The following data is displayed in the Opportunity Watch report:

- **Opportunity:** The opportunity name
- **Sales Account :** The customer name
- **Value:** The opportunity value with a key performance indicator trend (indicated with up and down arrows)
- **Win Probability:** Indicates if the likelihood of closing the sale has changed
- **Days to Close:** The number of days until the expected close date of the opportunity
- **Status:** The current status of the opportunity

### Opportunity Watch Links

There are no links to other reports from the Opportunity Watch report.

## Current Revenue at Stake

The Current Revenue at Stake report is a bar chart displaying an overall picture of the progress and size of currently open competitive opportunities where a certain competitor is present.

### Current Revenue at Stake Data

The following data is displayed in the Current Revenue at Stake report.

- **Open Competitive Revenue:** The revenue amounts of the open opportunities (displayed on the vertical axis)
- **Sales Stage:** The stage of the open opportunities

### Current Revenue at Stake Links

You can access the [“Opportunity List” on page 190](#) by clicking on Sales Stage in [“Current Revenue at Stake” on page 193](#).

## Opportunity List for Current Quarter

The Opportunity List for Current Quarter report is a table displaying summary list of opportunity data for the current data.

### Opportunity List for Current Quarter Data

The following data is displayed in the Opportunity List for Current Quarter report.

- Enterprise Year
- Sales Method Name
- Sales Stage Name
- Customer Name
- Opportunity Name
- Product Name
- Revenue Status
- Win Probability (percentage)
- Close Date
- Opportunity Line Revenue
- Sales Credit Split (percentage)
- Employee Name
- Territory

### Opportunity List for Current Quarter Links

There are no links to other reports from the Opportunity List for Current Quarter report.

### Competitor Win – Loss Trends

The Competitor Win – Loss Trends report is a graph displaying opportunity won and lost by the deploying organization against competitors for all customers.

### Competitor Win – Loss Trends Data

The following data is displayed in the Competitor Win – Loss Trends report:

- Competitor
- Year
- Closed Revenue
- Quarters
- Won Revenue
- Lost Revenue

### Competitor Win – Loss Trends Links

There are no links to other reports from the Competitor Win – Loss Trends report.

## Win – Loss Reasons

The Win – Loss Reasons report is a pie chart displaying the aggregate sums of lost or won revenue lines by reason.

### Win – Loss Reasons Data

The following data is displayed in the Win – Loss Reasons report:

- **Competitor:** The competitor name
- **Enterprise Quarter:** The applicable quarter
- **Categories:** The reasons for the win or loss

### Win – Loss Reasons Links

There are no links to other reports from the Win – Loss Reasons report.

## Customer Revenue Trends

The Customer Revenue Trends report is a combination of displays presenting the closed revenues for a customer over a time period. This report assists sales users in understanding the following types of information:

- Purchasing trends of a customer over time
- Performance of the sales organization relative to a specific customer
- Revenue trends of the product groups by time period

### Customer Revenue Trends Data

The following data is displayed in the Customer Revenue Trends report:

- [“Customer Revenue Trends Bar Graph” on page 195](#)
- [“Customer Revenue Trends Table” on page 195](#)

#### Customer Revenue Trends Bar Graph

The following data is displayed in the Customer Revenue Trends Bar Graph

- Year
- Product Group
- Closed Opportunity Line Revenue
- Quarter

#### Customer Revenue Trends Table

The following data is displayed in the Customer Revenue Trends Table

- Year

- Quarters 1 through 4 of the selected year
- Product Group
- Revenue by quarter
- Total revenue for year

### Customer Revenue Trends Links

There are no links to other reports from the Customer Revenue Trends report.

### Reference Effectiveness

Reference Effectiveness is a dial display showing the win rate (in percentage) of opportunities referenced by customers and closed. The Reference Effectiveness dial uses an arrow to represent the percentage of closed opportunities.

There are no links to other reports from the Reference Effectiveness report.

### Competitor Win Rate

Competitor Win Rate is a dial display showing the win rate (in percentage) of opportunities by competitors. The Competitor Win Rate dial uses an arrow to represent the percentage of closed opportunities.

There are no links to other reports from the Competitor Win Rate report.

### Customers at a Glance

The Customers at a Glance report is a table listing customers to whom the user has access and key performance indicators relating to the Customer Organization report.

#### Customers at a Glance Data

The following data is displayed in the Customers at a Glance report:

- **Sales Account:** The customer name
- **Owner:** The name of the primary sales representative
- **Customer Satisfaction (SRs):** The measure of satisfaction by how many service requests (SRs) have been filed by the customer
- **Win Rate:** The win probability of currently open opportunities for the customer
- **Lead Opportunity Conversion:** The percentage of leads converted to opportunities for the customer
- **Days Since Interaction:** The number of days since the last interaction with the customer

## Customers at a Glance Links

There are no links to other reports from the Customers at a Glance report.

## Customer Watch

The Customer Watch report is a table listing customers and their associated opportunities.

### Customer Watch Data

The following data is displayed in the Customer Watch report:

- **Sales Account:** The customer name
- **Open Opportunity Revenue:** The value of open opportunities for the customer
- **Closed Revenue:** The value of closed opportunities for this customer

### Customer Watch Links

There are no links to other reports from the Customer Watch report.

## Campaign Watch

The Campaign Watch report is a table listing summary data of those active campaigns for which the user has access.

### Campaign Watch Data

The following data is displayed in the Campaign Watch report:

- **Campaign:** The campaign name
- **Leads Generated:** The number of leads generated during the campaign
- **Customers Contacted:** The number of customers contacted during the campaign
- **Close Rate:** The percentage of opportunities closed compared to number of leads generated during the campaign
- **Opportunity Revenue:** The value of opportunities for the campaign

### Campaign Watch Links

There are no links to other reports from the Campaign Watch report.

## Leads at a Glance

The Leads at a Glance report is a table listing summary data of leads.

## Leads at a Glance Data

The following data is displayed in the Leads at a Glance report:

- **Lead:** The lead name
- **Customer:** The customer name
- **Lead Age:**
  - A check mark indicates the Lead Age is less than threshold
  - A warning indicates the Lead Age is greater than threshold
- **Time to Accept:**
  - A check mark indicates the Time to Accept is less than threshold
  - A warning indicates the Time to Accept is greater than threshold
- **Prediction Score:**
  - A check mark indicates the Prediction Score is greater than threshold
  - A warning indicates the Prediction Score is less than threshold
- **Activity Count:**
  - A check mark indicates the Activity Count is greater than or equal to threshold
  - A warning indicates the Activity Count is less than threshold
- **Potential Revenue:**
  - A check mark indicates the Potential Revenue is greater than or equal to threshold
  - A warning indicates the Potential Revenue is less than threshold
- **Conversion Time Frame:** The estimated conversion time
  - A check mark indicates the Conversion Time is less than threshold
  - A warning indicates the Activity Count is greater than or equal to threshold

## Leads at a Glance Links

There are no links to other reports from the Leads at a Glance report.

## Lead Watch

The Lead Watch report is a table listing the last interactions with leads.

### Lead Watch Data

The following data is displayed in the Lead Watch report:

- **Lead:** The lead name
- **Alert Icon:** Displays if the lead is expiring within a week or if there has been no interaction with the lead for a period greater than threshold duration
- **Customer:** The customer name

- **Product:** The product name
- **Age:** The number of days since the lead was created
- **Last Interaction:** The date of last interaction with the lead

### Lead Watch Links

There are no links to other reports from the Lead Watch report.

## Team at a Glance Real Time

The Team at a Glance Real Time report is a table listing sales users who report directly to the logged-in user. Also listed are a few key performance indicators. The Team at a Glance Real Time report is similar to the Team at a Glance report except with fewer columns of data.

### Team at a Glance Real Time Data

The following data is displayed in the Team at a Glance Real Time report:

- **Resource:** The sales user. If the resource has direct reports, this displays as a hyperlink.
- **Average Close Time:** Average time taken by resource to close deals
- **Win Rate:** Measures the percentages of opportunities the resource has closed with a status code of Won in the current enterprise time period

### Team at a Glance Real Time Links

There are no links to other reports from the Team at a Glance Real Time report.

## Opportunity Watch Real Time

The Opportunity Watch Real Time report is a table listing the opportunities that meet a watch criteria specified by the user. The Opportunity Watch Real Time report is similar to the Opportunities Watch report except there are no trend indicators.

### Opportunity Watch Real Time Data

The following data is displayed in the Opportunity Watch Real Time report:

- **Opportunity:** The opportunity name
- **Sales Account :** The customer name
- **Value:** The opportunity value
- **Win Probability:** Indicates if the likelihood of closing the sale has changed
- **Days to Close:** The number of days until the expected close date of the opportunity
- **Status:** The current status of the opportunity

## Opportunity Watch Real Time Links

There are no links to other reports from the Opportunity Watch Real Time report.

## Opportunities at a Glance Real Time

The Opportunities at a Glance Real Time a table displaying a quick view of opportunities. The Opportunities at a Glance Real Time report is similar to the Opportunities at a Glance report except there are no trend indicators and Opportunity Coverage is not displayed.

### Opportunities at a Glance Real Time Data

The following data is displayed in the Opportunities at a Glance Real Time report:

- **Opportunity:** The opportunity name
- **Win Probability:** The likelihood of closing the sale (expressed as a percentage)
- **Days Stalled:** The number of days the opportunity has failed to close
- **Value:** The trend of the opportunity value

### Opportunities at a Glance Real Time Links

There are no links to other reports from the Opportunities at a Glance Real Time report.

## Customers at a Glance Real Time

The Customers at a Glance Real Time report is a table listing customers to whom the user has access and key performance indicators relating to the Customer Organization report. The Customers at a Glance Real Time report is similar to the Customers at a Glance report except there are no trend indicators.

### Customers at a Glance Real Time Data

The following data is displayed in the Customers at a Glance Real Time report:

- **Sales Account:** The customer name
- **Owner:** The name of the primary sales representative
- **Customer Satisfaction (SRs):** The measure of satisfaction by how many service requests (SRs) have been filed by the customer
- **Win Rate:** The win probability of currently open opportunities for the customer
- **Lead Opportunity Conversion:** The percentage of leads converted to opportunities for the customer
- **Days Since Interaction:** The number of days since the last interaction with the customer



## Customers at a Glance Real Time Links

There are no links to other reports from the Customers at a Glance Real Time report.

## Forecasted Revenue by Customer

The Forecasted Revenue by Customer Report is a graphical display of forecasted revenue distributed by customer.

### Forecasted Revenue by Customer Data

The following data is displayed in the Forecasted Revenue by Customer Report:

- **Territory ID:** The territory identification code
- **Territory Owner:** The territory owner
- **Sales Forecast:** The forecast period name
- **Sales Forecast Code:** The forecast type code
- **Customer:** The customer name
- **Unadjusted Revenue Forecast:** The unadjusted forecast by customer

### Forecasted Revenue by Customer Links

There are no links to other reports from the Forecasted Revenue by Customer report.

## Forecasted Revenue by Product with Sales Channel Selector

The Forecasted Revenue by Product with Sales Channel Selector Report is a bar graph of forecasted revenue distributed by product across channels.

### Forecasted Revenue by Product with Sales Channel Selector Data

The following data is displayed in the Forecasted Revenue by Product with Sales Channel Selector Report:

- **Territory ID:** The territory identification code
- **Sales Forecast:** The forecast period name
- **Sales Forecast Code:** The forecast type code
- **Product:** The product name
- **Sales Channel:** The sales channel group name
- **Adjusted Revenue Forecast:** The adjusted forecast by product

## Forecasted Revenue by Product with Sales Channel Selector Links

There are no links to other reports from the Forecasted Revenue by Product with Sales Channel Selector Links

## Opportunity Contribution to Forecast

The Opportunity Contribution to Forecast Report is a pie chart displaying which sales opportunities contribute the most amount of revenue in a given forecast.

### Opportunity Contribution to Forecast Data

The following data is displayed in the Opportunity Contribution to Forecast Report:

- **Territory ID:** The territory identification code
- **Sales Forecast:** The forecast period name
- **Sales Forecast Code:** The forecast type code
- **Opportunity:** The opportunity name
- **Item Adjusted Forecast:** The adjusted forecast by opportunity



# Supported Descriptive Flexfields

Oracle Fusion Transactional Business Intelligence supports descriptive flexfields for the dimensions shown below.

**Table 12** Descriptive Flexfields Supported in Transactional Business Intelligence

Product Area	DFF Code	Fact Name
Financials	AP_CHECKS	Dim - AP Disbursement Details
Financials	AP_HOLDS	Dim - AP Hold Details
Financials	AP_INVOICE_DISTRIBUTIONS	Dim - AP Transaction Details
Financials	AP_INVOICE_LINES	Dim - AP Transaction Details
Financials	AP_INVOICES	Dim - AP Transaction Details
Financials	AP_PAYMENT_SCHEDULES	Dim - AP Payment Schedule Details
Financials	AP_TERMS_B	Dim - AP Terms
Financials	AR_ADJUSTMENTS	Dim - AR Adjustment Details
Financials	AR_APPROVAL_ACTION_HISTORY	Dim - AR Adjustment Approval Action History Details
Financials	AR_CASH_RECEIPTS	Dim - AR Standard Receipt Details
Financials	AR_MISC_CASH_DISTRIBUTIONS	Dim - AR Miscellaneous Receipt Details
Financials	AR_PAYMENT_SCHEDULES	Dim - AR Payment Schedule Details
Financials	AR_RATE_ADJUSTMENTS	Dim - AR Receipt Rate Adjustment Details
Financials	AR_RECEIPT_CLASSES	Dim - AR Receipt Method
Financials	AR_RECEIPT_METHODS	Dim - AR Receipt Method
Financials	AR_RECEIVABLE_APPLICATIONS	Dim - AR Standard Receipt Details
Financials	AR_REVENUE_ADJUSTMENTS	Dim - AR Revenue Adjustment Details
Financials	CE_BANK_ACCOUNTS	Dim - CE Bank Accounts
Financials	CE_EXTERNAL_TRANSACTIONS	Dim - CE External Cash Transaction Details
Financials	CE_STATEMENT_HEADERS	Dim - CE Bank Statement Details

Product Area	DFF Code	Fact Name
Financials	CE_STATEMENT_LINES	Dim - CE Bank Statement Details
Financials	FA_ADDITIONS	Dim - Fixed Asset
Financials	FA_ASSET_INVOICES	Dim - Asset Source Lines Details
Financials	FA_BOOK_CONTROLS	Dim - Asset Book
Financials	FA_CALENDAR_TYPES	Dim - Date Fixed Assets Calendar
Financials	FA_CATEGORIES	Dim - Asset Category
Financials	FA_CATEGORY_BOOKS	Dim - Asset Category Book
Financials	FA_FISCAL_YEAR	Dim - Date Fixed Assets Calendar
Financials	FA_LOCATIONS	Dim - Asset Location
Financials	FA_RETIREMENTS	Dim - Asset Retirement Details
Financials	FA_TRANSACTION_HEADERS	Dim - Asset Transaction History Details
Financials	FUN_DIST_LINES	Dim - Intercompany Transaction Distribution Details
Financials	FUN_TRX_BATCHES	Dim - Intercompany Transaction Distribution Details
Financials	FUN_TRX_HEADERS	Dim - Intercompany Transaction Distribution Details
Financials	GL_CODE_COMBINATIONS	Dim - GL Account
Financials	GL_JE_BATCHES	Dim - GL Journal Details
Financials	GL_JE_CATEGORIES	Dim - GL Journal Category
Financials	GL_JE_HEADERS	Dim - GL Journal Details
Financials	GL_JE_LINES	Dim - GL Journal Details
Financials	GL_JE_SOURCES	Dim - GL Journal Source
Financials	GL_LEDGERS	Dim - Ledger
Financials	GL_PERIOD_STATUSES	Fact - Fins - GL Period Statuses
Financials	GL_PERIODS	Dim - Date Fiscal Calendar
Financials	RA_CUST_TRX_LINE_GL_DIST	Dim - AR Transaction Details
Financials	RA_CUST_TRX_LINE_SALESREPS	Dim - AR Transaction Details
Financials	RA_CUST_TRX_TYPES	Dim - AR Transaction Type
Financials	RA_CUSTOMER_TRX	Dim - AR Transaction Details
Financials	RA_CUSTOMER_TRX_LINES	Dim - AR Transaction Details

<b>Product Area</b>	<b>DFF Code</b>	<b>Fact Name</b>
Financials	RA_RULES	Dim - AR Accounting Rule
Financials	RA_TERMS	Dim - AR Payment Terms
Financials	RA_TERMS_LINES	Dim - AR Payment Terms
Financials	XLA_AE_HEADERS	Dim - SLA Journal Details
Financials	XLA_AE_LINES	Dim - SLA Journal Details
Financials	XLE_ETB_INFO_DEV	Dim - Legal Entity
Financials	XLE_LE_ADD_INFO	Dim - Legal Entity
Financials	XLE_LE_INFO_DEV	Dim - Legal Entity
Human Capital Management	HRA_DOC_TYPES_B	Dim - Document Type
Human Capital Management	HRA_EVAL_ITEMS	Dim - Performance Document Section Item
Human Capital Management	HRA_EVAL_RATINGS	Dim - Performance Rating
Human Capital Management	HRA_EVALUATIONS	Dim - Performance Evaluation
Human Capital Management	HRA_SECTION_DEFNS_B	Dim - Performance Document Section
Human Capital Management	HRA_TMPL_DEFNS_B	Dim - Performance Template
Human Capital Management	HRA_TMPL_SECTIONS	Dim - Performance Document
Human Capital Management	HRG_GOAL_PLANS_B	Dim - Performance Goal Plan
Human Capital Management	HRG_GOALS	Dim - Performance Goals
Human Capital Management	HRR_MEETINGS	Dim - Talent Review Meeting
Human Capital Management	HRT_CONTENT_ITEMS_B	Dim - Content Item
Human Capital Management	HRT_PROFILE_ITEMS	Dim - Person Profile Details
Human Capital Management	HRT_RATING_LEVELS_B	Dim - Potential
Human Capital Management	HRT_RATING_MODELS_B	Dim - Rating Model
Human Capital Management	PER_ABSENCE_DFF	Dim - Assignment Absences Details
Human Capital Management	PER_ACT_DFF	Dim - HR Action
Human Capital Management	PER_ACT_REASONS_DFF	Dim - HR Action Reason
Human Capital Management	PER_ADDRESSES_DFF	Dim - Worker Location
Human Capital Management	PER_ALL_PEOPLE_DFF	Dim - Person Details
Human Capital Management	PER_ASG_DFF	Dim - Worker Assignment Details

Product Area	DFF Code	Fact Name
Human Capital Management	PER_ASG_WORK_MEASURES_DFF	Dim - Worker Measure Details
Human Capital Management	PER_CITIZENSHIPS_DFF	Dim - Person Citizenship
Human Capital Management	PER_CONTACT_RELSHIPS_DFF	Dim - Person Contact Relationship
Human Capital Management	PER_CONTRACT_DFF	Dim - Employment Contract Details
Human Capital Management	PER_DRIVERS_LICENSE_TYPES_DFF	Dim - Person Driver License
Human Capital Management	PER_EMAIL_ADDRESSES_DFF	Dim - Person Email Addresses
Human Capital Management	PER_ETHNICITIES_DFF	Dim - Person Ethnicity
Human Capital Management	PER_EVALUATION_CRITERIA_DFF	Dim - Job
Human Capital Management	PER_GRADES_DFF	Dim - HR Grade
Human Capital Management	PER_JOB_FAMILY_DFF	Dim - Job
Human Capital Management	PER_JOBS_DFF	Dim - Job
Human Capital Management	PER_LOCATIONS_DF	Dim - Worker Location
Human Capital Management	PER_NATIONAL_IDENTIFIERS_DFF	Dim - Person National Identifiers
Human Capital Management	PER_ORGANIZATION_UNIT_DFF	Dim - Department
Human Capital Management	PER_PERSON_ADDR_USG_DFF	Dim - Person Address
Human Capital Management	PER_PERSON_DLVRY_METHODS_DFF	Dim - Person Delivery Methods
Human Capital Management	PER_PERSON_LEGISLATIVE_DFF	Dim - Person Legislative Information
Human Capital Management	PER_PERSON_NAME_DFF	Dim - Person Names
Human Capital Management	PER_PERSON_TYPE_USG_DFF	Dim - Person Type
Human Capital Management	PER_PERSONS_DFF	Fact - Person
Human Capital Management	PER_PHONES_DFF	Dim - Person Phones
Human Capital Management	PER_POSITIONS_DFF	Dim - HR Position
Human Capital Management	PER_PPS_DFF	Dim - Work Relationship Details
Human Capital Management	PER_RATE_VALUES_DFF	Fact - Grade Rate
Human Capital Management	PER_RELIGIONS_DFF	Dim - Person Religion
Human Capital Management	PER_VISA_PERMIT_DFF	Dim - Person Work Permit
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Incentive Compensation	CN_MEASURES_DFF	Dim - Performance Measure

<b>Product Area</b>	<b>DFF Code</b>	<b>Fact Name</b>
Incentive Compensation	CN_PARTICIPANT_DETAIL_DFF	Dim - Participant Details
Incentive Compensation	CN_PLAN_COMPONENTS_DFF	Dim - Plan Component
Incentive Compensation	CN_TP_BASETRANS_DFF	Dim - Participant Transaction Details
Procurement	PO_DISTRIBUTIONS	Dim - Purchase Order Details
Procurement	PO_DOCUMENT_TYPES	Dim - Purchase Order Transaction Type
Procurement	PO_HEADERS	Dim - Purchase Order Details
Procurement	PO_LINE_LOCATIONS	Dim - Purchase Order Details
Procurement	PO_LINE_TYPES	Dim - Purchase Line Type
Procurement	PO_LINES	Dim - Purchase Order Details
Procurement	PON_AUCTION_HEADERS	Dim - Sourcing Negotiation Details
Procurement	POR_REQ_DISTRIBUTIONS	Dim - Purchase Requisition Details
Procurement	POR_REQUISITION_HEADERS	Dim - Purchase Requisition Details
Procurement	POR_REQUISITION_LINES	Dim - Purchase Requisition Details
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Procurement	POZ_SUPPLIERS	Dim - Supplier
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Projects	PJF_EXP_CATEGORIES_DESC_FLEX	Dim - Financial Resource
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Product Area	DFF Code	Fact Name
Projects	PJF_PROJECT_CLASS_CODE_DESC_FLEX	Dim - Project
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Projects	PJF_PROJECTS_DESC_FLEX	Dim - Project
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Projects	PJF_WORK_TYPES_DESC_FLEX	Dim - Work Type
Projects	PJO_PLAN_LINES_DFF	Dim - Project Budget Details
Projects	PJO_PLANNING_OPTIONS_DFF	Dim - Project Budget Version
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Supply Chain Management	CST_ANALYSIS_GROUPS_B	Dim - Cost Analysis Group
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Supply Chain Management	CST_COST_ELEMENTS_B	Dim - Cost Element
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<b>Product Area</b>	<b>DFF Code</b>	<b>Fact Name</b>
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