Oracle® Data Relationship Management Suite

Oracle® Data Relationship Management
Oracle® Data Relationship Management Read Only Access
Oracle® Data Relationship Steward
Oracle® Data Relationship Governance
Oracle® Data Relationship Management Analytics
Oracle® Data Relationship Management for Oracle Hyperion Enterprise Planning Suite
Oracle® Data Relationship Management for Oracle Hyperion Financial Close Suite

Enterprise Performance Management Integration Guide

Release 11.1.2.4.340
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Using Data Relationship Management with Planning and Oracle Planning and Budgeting Cloud

In This Chapter

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Oracle Hyperion Planning can export and import dimensions, nodes and properties from Oracle Data Relationship Management using a .CSV file format. This can be done with both Planning and Oracle Planning and Budgeting Cloud.

The supported dimensions:

- Account
- Entity
- Currency
- Generic
- Attribute
- Smart Lists

Dimensions can be imported into or created in Data Relationship Management where users can then edit the properties and maintain the dimensions. This information can then be exported out of Data Relationship Management into Planning or Oracle Planning and Budgeting Cloud.

Additional Documentation

The following documentation will be helpful in understanding the integration of Data Relationship Management with Planning and Oracle Planning and Budgeting Cloud.

- Oracle Data Relationship Management Installation Guide
- Oracle Data Relationship Management Administrator's Guide
- Oracle Data Relationship Management User's Guide
Configuring the Planning and Oracle Planning and Budgeting Cloud Systems

Data Relationship Management integrates with Planning and Oracle Planning and Budgeting Cloud using dimension files which can be exported from one system and imported into another system using standard interfaces. No additional configuration is required on the Planning or Oracle Planning and Budgeting Cloud to integrate with Data Relationship Management.

Configuring Planning Metadata in Data Relationship Management

Subtopics
- Locating and Loading the Application Template
- Defining Planning Applications
- Defining and Configuring Planning Dimensions
- Dimension to Hierarchy Organization
- Configuring Planning Dimension Types
- Enabling Node Types
- Configuring Planning Export Profiles
- Optional Configurations

Locating and Loading the Application Template

A Planning application template is installed as part of the Data Relationship Management installation. You use the template to configure the Data Relationship Management metadata to enable integration with Planning or Oracle Planning and Budgeting Cloud.

To locate the Planning application template:

1. On the computer where Data Relationship Management is installed, navigate to `C:\Oracle\Middleware\EPMSystem11R1\products\DataRelationshipManagement\server\app-templates`.

   Note: This is the default installation directory for application templates.
Locate the application template file named `planning-app-template.xml`.

You use the Data Relationship Management Migration Utility to load the application template. See the *Oracle Data Relationship Management Administrator’s Guide* topic “Loading Metadata” for details on how to use the Migration Utility to load the application template.

The application template includes Data Relationship Management metadata objects for Planning.

All metadata is required for the integration to function as designed.

### Defining Planning Applications

Data Relationship Management hierarchies, nodes, and properties can be loaded into a Planning application. A Data Relationship Management version can manage property values for only one application. The Planning application template includes a version-level Application property to identify the name of the application that is supported by the version.

For more information, see *Supporting Multiple Planning Applications*.

Edit the list of values for the version-level application property for the application name to be supported.

1. In Data Relationship Management, from **Versions** select **Properties**.
2. From **Category**, select **Planning**, and then select the Application property for the Planning application from the category in the property grid.
3. From **Property**, select **Edit List Values**. Click **Add**.

To associate a Planning application with a version:

1. In Data Relationship Management, from **Versions** select **Properties**.
2. From **Category**, select **Planning**, and then select the Application property for the Planning application from the category in the property grid.
3. Click the **Value** cell for the property and select a value.

### Defining and Configuring Planning Dimensions

Data Relationship Management hierarchies, nodes, and properties are organized into dimensions for import into Planning. The Planning application template includes a hierarchy level Dimension property. This property is used to relate and organize hierarchies by the Planning dimensions. Each hierarchy in a version can only be assigned to one dimension in the Planning application.

The Dimension property refers to hierarchy groups that are defined in the Data Relationship Management application. These properties can be populated for a hierarchy in two ways:

- Select a hierarchy group as the value for the property in the property grid.
Assign the hierarchy to the hierarchy group using the Assign to Group menu item from the Hierarchies menu.

The list of selectable hierarchy groups for a Dimension property can be restricted to a specific subset by enabling a list of values for the property definition.

To define and configure Planning dimensions:

1. In Data Relationship Management, select a version and then select a hierarchy.
2. From Category, select Planning, and then select the Dimension property for Planning.
3. From Property, select Edit List Values.
4. Click Add to define dimensions to be managed in Data Relationship Management.
5. Select a Dimension property from Group By on the hierarchies toolbar.
6. Select a hierarchy in the version.
7. Assign the hierarchy to a hierarchy group using the Assign to Group menu or dragging the hierarchy.

When new dimensions are added and you do not want to use the Generic or Attribute Dimension specifications but instead use more business-related terms like Product and Ledger Code then those additional dimension types must be added as Hierarchy Groups and added to the allowed values for the Dimension property. In addition, the Dimension Type lookup property must be edited to add the lookup from the specific business dimension to the base planning dimension type (Product to Generic or Ledger Code to Attribute).

**Dimension to Hierarchy Organization**

Dimensions may map to hierarchies in Data Relationship Management on a one to one or many to one basis. A common example of one to one is the currency dimension. A common example of many to one is the entity dimension where the Top Nodes of the entity dimension are separate views of the entity by different business needs, for example Legal, Managerial, and Geographic. Splitting these branches into individual hierarchies in Data Relationship Management reduces shared nodes, is more aligned to business usage, and allows for better validations (such as all leaf nodes in Managerial must be in Legal).

The Planning integration supports both of these models. The imports are initially setup for the one to one model but can be modified by using the nodes to ignore functionality to split the incoming dimension into multiple hierarchies. The exports use hierarchy groups and in doing so support both the one to one model as well as the one to many model without changes.

**Splitting the Dimension into Multiple Hierarchies in Data Relationship Management**

To split the Planning dimension into multiple hierarchies the following changes to the import profile need to be made.
1. The Dimension Name needs to be added to the “Skip Nodes during Import” Section of the Filter portion of the Import Profile. For example add “Entity” to the “Skip Nodes During Import” Node list to split the entity dimension.

2. If the Dimension has members at level 2 that have no children then the “Create Base Orphan Hierarchy” option on the Style portion of the import profile needs to be selected. The following information needs to be added:
   - Name: Hierarchy Name to contain the single dimension nodes; for example Entity-Misc
   - Description: Hierarchy Name to contain the singleton dimension nodes; for example Entity Miscellaneous Branches
   - Top Node Name: Name of the top node for the hierarchy; for example Entity-Misc
   - Top Node Description: Description of the top node for the hierarchy; for example Entity Miscellaneous Branches

## Configuring Planning Dimension Types

Planning dimensions defined in Data Relationship Management must have a dimension type specified in order to be imported into Planning. The Planning application template includes a hierarchy-level Dimension Type property to handle this configuration. The description of each Dimension Type property identifies the types that are supported.

In conjunction with the Dimension Type property, there is also a Dimension property that is the Hierarchy Group Property.

- To configure a dimension type for Planning dimensions that have been defined:
  1. From the Planning property category, select the Dimension Type property for Planning.
  2. From Property, select Edit Lookup Values and then click Add and enter the dimension name in the Key cell and the dimension type in the Value cell.

The predefined dimension types lookups supported in the Planning application template are:
   - Account--Account
   - Entity--Entity
   - Currency--Currency
   - Smart List--Smart List
   - Attribute--Attribute
   - Generic--Generic

As discussed in Defining and Configuring Planning Dimensions, when new dimensions are added and you do not want to use the Generic or Attribute Dimension specifications but instead use more business-related terms like Product and Ledger Code then those must be added to the Dimension Type lookup property (Product to Generic or Ledger Code to Attribute).
Enabling Node Types

Data Relationship Management node types are automatically enabled for hierarchies that are imported from Planning or Oracle Planning and Budgeting Cloud. New hierarchies that are created directly in Data Relationship Management will not have node types enabled without some additional configuration. Perform one of the following actions to enable node types for new hierarchies to be exported to Planning or Oracle Planning and Budgeting Cloud:

- Assign HP.MemberType as the default value of the Hierarchy Node Type property definition in the Core namespace. This configuration will enable node types for all hierarchies using the Member Type property in the HP namespace. This task can be performed only by an application administrator.
- Select the Member Type property from the HP namespace for the value of the Hierarchy Node Type property in the System category for each new hierarchy created.

Configuring Planning Export Profiles

Export profiles are included in the application template to output dimensions to Planning. The export profiles are:

- Planning Account
- Planning Attribute
- Planning Currency
- Planning Entity
- Planning Generic
- Planning SmartList

These export profiles use the Dimension and Dimension Type properties configured for versions in Data Relationship Management to determine which hierarchies, nodes, and properties should be exported to Planning. The exports are configured to use the Membership properties managed for hierarchy nodes to filter the export results to only nodes that are marked as Parent Members or Base Members.

You can add a filter to an export profile, add additional columns, and make other custom modifications to the export profiles loaded from the Planning application template. You will need to modify these exports to support optional configurations for multiple aliases, different Plan Types, Weeks Distribution, Attribute Dimensions, and other Planning-specific capabilities.

Two key points when modifying the export profile are:

- Ensure that the properties needed for Planning are present in the columns section of the export.
- Ensure that the header record matches the columns in the export and specifies the correct label for the outline load utility for that column.
It is best practice to make a copy of the predefined export profiles and use the copy to modify/customize so that you have easy access back to the original if needed. If the original is lost or deleted it can be reloaded from the application template.

**Optional Configurations**

For information on optional configurations, see:

- Multiple Aliases
- Multiple UDAs
- Attribute Dimensions
- Generic and Custom Dimensions
- Supporting Multiple Planning Applications
- Plan Types

**Multiple Aliases**

The Planning application template is configured with a single Alias property for each type. In some cases, multiple aliases may be necessary to maintain dimension member descriptions in different languages.

To support multiple aliases:

1. Create a new custom global node Alias property for each additional description to be supported.
2. Do one of the following:
   - Create a new custom MemberAliasLength validation for each additional custom Alias property.
   - Modify the existing MemberAliasLength validation to check the additional alias as well as the default alias.

   **Note:** Include OR logic to check the additional Alias properties.

3. Assign the custom Alias properties and MemberAliasLength validations to the node types for the Planning node types.
4. Assign any new custom MemberAliasLength validations to versions and hierarchies where required.
5. Modify Planning type exports for dimensions where custom Aliases are required.
   a. Add new custom Alias properties to the columns of the export.
   b. Add the labels for the new Alias properties to the header record of the export.
   c. Assign new custom Alias validations.
Multiple UDAs

Multiple UDAs for a node in Data Relationship Management are supported by entering them in a comma-delimited format in the appropriate UDA property.

Attribute Dimensions

Planning offers the ability to use custom Attribute dimensions. The Attribute dimension type is supported by the Planning application template, however, some additional configuration is necessary in order to account for the user-defined aspects for supporting them.

To configure Attribute dimensions in Data Relationship Management:

1. Create a new custom global node property for each Attribute dimension that will manage the association of a base dimension member to a custom attribute dimension member.

2. Create a new custom version property of data type ListGroup to use for association of base dimension members to members of the Attribute dimension. This property will identify the valid hierarchies from which an attribute member can be selected. Go to the Version and set up the list of allowed hierarchies for the attribute dimension.

3. Create a new custom formula validation for each Attribute dimension to enforce dimension associations between it and base dimension members that use the Attribute dimension. Compare the selected values in the custom version ListGroup property for the Attribute dimension to the value of the Core.References property for the Attribute dimension member being referenced.

For example, the Global node attribute property is Custom.Attribute and the version-level attribute hierarchies property is Custom.AttributeHiers. Invalid attribute member validation formula:

```
Or(IsBlank(PropValue(Custom.Attribute)),GreaterThanOrEqual(ArrayCount(Intersection(NodePropValue(PropValue(Custom.Attribute)),Custom.AttributeHiers,NodePropValue(PropValue(Custom.Attribute),Core.References ),[comma],[comma]),1))
```

4. Assign the custom global node Attribute properties and validations to the appropriate node types for the dimensions to be supported.

5. Assign any new custom Attribute validations to versions and hierarchies where required.

6. Modify Planning exports for the attribute dimension and for the base dimension mapped to it.
   
a. Create the export profile for the new attribute dimension. Copy the predefined attribute dimension for a start and customize as needed for the Planning configuration (Aliases, Plan Types and so on).

   b. Assign new custom Attribute validations to the base dimension export.

   c. Add custom Attribute properties as exports columns to the base dimension export and update the export header to match.

7. Add the new Attribute Dimensions to the Attribute Hierarchy Group and set the Hierarchy Dimension Property to Attribute.
For more information on customizing the new attribute dimensions, see Defining and Configuring Planning Dimensions and Configuring Planning Dimension Types.

**Generic and Custom Dimensions**

Planning supports additional Generic dimensions. Many clients use them for dimensions like Product. The Planning application template supports the Generic Dimensions.

- To configure a new generic dimensions in Data Relationship Management:
  1. Create the new hierarchies for the Generic dimension.
  2. Create the export profile for the new generic dimension. Copy the predefined generic dimension for a start and customize as needed for the planning configuration (Aliases, Plan Types, and so on).
  3. Add the new Generic hierarchies to the Generic Hierarchy Group and set the Hierarchy Dimension Property to Generic.

For more information on customizing the new attribute dimensions, see Defining and Configuring Planning Dimensions and Configuring Planning Dimension Types.

**Supporting Multiple Planning Applications**

**Supporting Production and Testing Instances of Planning**

There are no additional configuration steps required in Data Relationship Management to support testing and production Planning applications. The same exports can be used to generate the outline load utility files that can be loaded into a test application and then later a production application.

**Supporting Multiple Different Planning Applications**

There are two methods that can be used to support multiple different Planning applications.

1. **Separate Data Relationship Management Versions**
   - Each Planning instance has its dimensional data in a different version
   - Additional properties are not required.
   - Hierarchies cannot be shared across versions so each would be independent of the other.
   - Exports may need to be made specific to each Planning instance if there are differences in Planning configurations that require a different column set (Plan Types, Aliases, Weeks Distribution setup, Attribute & Generic Dimensions).

2. **Custom Data Relationship Management Properties and Exports**
   - Each additional instance of a Planning application requires separate custom Dimension and Dimension Type properties if the application instances have different dimensions.
Each additional instance of an application requires separate custom Membership, Member, and Parent properties if different dimension members are required for each application instance.

Each additional instance of an application requires separate Planning properties if these need to be different by the application instance (For example UDA, Data Storage and so on).

Each additional instance of an application requires separate custom Planning Dimension exports if there are differences in Planning configurations that require a different column set (Plan Types, Aliases, Weeks Distribution setup, Attribute, and Generic Dimensions) or if there are different Planning properties being used.

Plan Types

Initial Predefined Plan Types
The Planning application integration is designed with the initial three default Plan Types defined in the properties and in the export and import profiles:

- Plan1
- Plan2
- Plan3

Additional Predefined Plan Types
The following additional Plan Types are predefined for ease of use and have the properties needed to support them but are not included in the default import and export profiles:

- Capex
- Hcp
- Project
- Workforce

Plan Type Properties
For each Plan Type (Plan1, Plan2, Plan3, Capex, Hcp, Project, and Workforce) the following properties are defined:

- Aggregation – Plan Specific Aggregation
  Local Node Defined String Property with Allowed Values (Default: Add)
- Aggregation Code – Plan Specific Aggregation Code
  Local Node Lookup String Property using Aggregation as the lookup
- Data Storage – Plan Specific Data Storage
Local Node Formula Derived String Property, Overridable—Returns the non plan-specific Data Storage (HP.DataStorage) unless overridden.

- Formula – Plan Specific Formula

Global Node Formula Derived Formatted Memo Property, Overridable—Returns the non plan specific formula (HP.Formula) unless overridden.

- Valid For Plan – Indicates if the member is valid for the plan.

Local Node Defined Boolean Property (Default: TRUE)

**Enabling Additional Predefined Plan Types**

The additional plan types for Capex, Hcp, and Workforce can be enabled by adding the properties to the import and export profiles. For the import profiles the properties for the plan type need to be added to the appropriate location in the columns of the relationship section of the import. For the export profiles the properties need to be added to the export columns and the export header must be modified to add the labels needed for the Outline Load Utility.

**Adding New Plan Types**

When a new plan type is to be added to the Planning system it must also be configured in Data Relationship Management. Custom properties need to be added for the new plan type and can be modeled after the properties for the predefined plan types:

- Aggregation – Plan Specific Aggregation
- Aggregation Code – Plan Specific Aggregation Code
- Data Storage – Plan Specific Data Storage
- Formula – Plan Specific Formula
- Valid For Plan – Indicates if the member is valid for the plan.

In addition, the import and export profiles must be modified to add the new properties to the column sections as discussed in **Enabling Additional Predefined Plan Types**. New plan types must be added to the HP.SourcePlanType list of allowed values.

**Plan Types Differing by Dimension**

Some dimensions can be set up in Planning to only be in specific plan types. The import and export profiles must be modified to either add the plan types to the appropriate import and export profiles or to remove them from the appropriate import and export profiles to match the Planning system.

**Weekly Distribution Setup**

The Planning application template provides the support for the Weeks Distribution functionality. If the Weeks Distribution capability of Planning is being used, then you need to perform the following set up on the Data Relationship Management application:
Set the HP.WeeksDistributionApp property to the appropriate value for the Planning application.

Set the HP.WeeksDistribution property to True on the nodes that will use the Weeks Distribution.

Include the HP.WeeksDistribution property in columns for the appropriate dimension exports and modify the header record for the export to include the label for the column as required by the outline load utility.

**Note:** The export header record label can always be “Use 445” even if other weekly distributions are being used.

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**Initializing Data Relationship Management with Planning Dimensions**

Subtopics

- Exporting Dimension Members from Planning
- Exporting Dimension Members from Oracle Planning and Budgeting Cloud
- Importing Planning Dimensions into Data Relationship Management

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**Exporting Dimension Members from Planning**

To populate Data Relationship Management from an existing Planning application the dimensions can be exported using the Web interface or the Outline Load Utility formatted dimension file (one per dimension) so that they can be imported into Data Relationship Management.

See “Loading Data and Metadata” in the *Oracle Hyperion Planning Administrator’s Guide* for more information on using the Outline Load Utility for Planning.

See Importing Planning Dimensions into Data Relationship Management for details on the import process into Data Relationship Management.

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**Planning Outline Load Utility Command Line**

To process the outline load utility dimension files into Data Relationship Management:

- Create the Outline Load Utility files for each dimension from the Planning application.
- Deliver the dimension files to a location that can be accessed by Data Relationship Management.
- Run the import profiles in Data Relationship Management for each dimension.

To export the dimensions using the Outline Load Utility command line, run the OutlineLoad command for each dimension with the following options:
Specify the dimension by one of the following:

- `/D:loadDimensionName` – Dimension to Process
- `/DU:userDefinedLoadDimensionName` – User Defined Dimension to Process
- `/DA:attributeLoadDimensionName:baseDimensionName` – Attribute/Base Dimension to Process
- `/DAT:attributeLoadDimensionName:baseDimensionName` – Text Attribute/Base Dimension to Process
- `/DAN:attributeLoadDimensionName:baseDimensionName` – Numeric Attribute/Base Dimension to Process
- `/DAB:attributeLoadDimensionName:baseDimensionName` – Boolean Attribute/Base Dimension to Process
- `/DAD:attributeLoadDimensionName:baseDimensionName` – Date Attribute/Base Dimension to Process
- `/DS:HSP_SMARTLISTS` – Smart Lists Dimension to Process

- `/E:outputFileName` – Output Filename

- `/8` – Use UTF8 File (Default)

For example: `OutlineLoad -f:D:\Files\PswdFile.txt /A:Forecast /U:admin /M /D:Entity /E:D:\Files\Extracts\EntityMbrs.txt /L:D:\Logs\EntityMbrs.log /X:D:\Logs\EntityMbrs_Excptns.log`

### Exporting Dimension Members from Oracle Planning and Budgeting Cloud

To populate Data Relationship Management from an existing Oracle Planning and Budgeting Cloud application the dimensions can be exported using the Web interface or the EPM Automate Utility which provides the ability to remotely perform the export tasks.

For more information, see Using the EPM Automate Utility in “Using Oracle Planning and Budgeting Cloud Service” and “Importing and Exporting into a Planning Application” in “Administering Planning for Oracle Planning and Budgeting Cloud Service”.

See Exporting Metadata in “Administering Oracle Planning and Budgeting Cloud Service Using the Simplified Interface”.

**Note:** Oracle Planning and Budgeting Cloud jobs must be configured for each of the tasks that are to be performed with the EPM Automate Utility. For the Data Relationship Management integration this includes any metadata import and export tasks that are to be run with EPM Automate. See Scheduling Jobs in “Administering Oracle Planning and Budgeting Cloud Service Using the Simplified Interface”.
To export metadata from Oracle Planning and Budgeting Cloud using EPM Automate:

1. **Login to Oracle Planning and Budgeting Cloud.**
   Syntax: `epmautomate login username password url identitydomain`

2. **Execute the Oracle Planning and Budgeting Cloud export metadata job (can include one or more dimensions).**
   Syntax: `epmautomate exportmetadata jobname filename`

3. **Download the metadata file. It will be in a zipped format.**
   Syntax: `epmautomate downloadfile filename`

4. **Log out of Oracle Planning and Budgeting Cloud.**
   Syntax: `epmautomate logout`

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### Importing Planning Dimensions into Data Relationship Management

After Data Relationship Management has been configured to match the Planning systems (Aliases, Plan Types, Weeks Distribution, Attribute Dimensions, and Generic/Custom Dimensions) then the data from the Planning systems can be imported into Data Relationship Management. This is designed to allow initial population of the Data Relationship Management hierarchies from existing Planning applications. It is not intended to be used as an ongoing process.

**Note:** You do not need to do the import if the dimensions already exist or will be created in Data Relationship Management.

The imports are setup to do the following:

- Process files in UTF-8 encoding
- Assign hierarchy-level validations
- Set the dimension property
- Define the sort order property based on the record order
- Determine leafs at the end of the import process
- Warn on shared nodes (not error)

After running the imports the dimensions will be in separate versions. The Blender functionality can be used to combine the dimensions into a single version.

To import Planning dimensions into Data Relationship Management:

1. **Unzip the files to a location accessible to Data Relationship Management for import.**

2. **You can use the Data Relationship Management Web Client or Batch Client to import Planning dimensions and blend them.**
a. Run the Data Relationship Management import for each Dimension file.
b. Run a Data Relationship Management Blender to combine the dimensions into the production version.

Managing Planning Dimension Members in Data Relationship Management

Subtopics
- Managing Planning Dimension Membership
- Managing Planning Dimension Member Properties
- Validating Planning Dimension Members and Properties
- Exporting Dimension Members from Data Relationship Management
- Importing Dimension Members into Planning
- Importing Dimension Members into Oracle Planning and Budgeting Cloud

Planning dimension members are managed in Data Relationship Management using nodes, hierarchies, and properties. Each node represents a single dimension member. Nodes may be organized into hierarchies which can be used in one or more Planning dimensions. The Planning application template for Data Relationship Management includes node-level dimension member properties for Planning and membership properties used to mark hierarchy nodes as dimension members. Nodes are validated as dimension members for Planning using validations from the Planning application template. After all validations have successfully run, this information can be imported into Planning using Dimension exports that create files that can be processed by Planning Outline Load Utility. In addition, the Planning application template provides import profiles for importing the dimension from Planning into Data Relationship Management.

Managing Planning Dimension Membership

Membership properties are used to flag nodes in Data Relationship Management that should be managed and exported as Planning dimension members. The membership property can be used to include only a subset of nodes in a Data Relationship Management hierarchy as members of a Planning dimension.

For hierarchies to be included in a Planning dimension, the top-level node or nodes must be updated to define the Planning membership (HP.Membership). By default, this resolves to Not Applicable. All nodes that have a membership of Not Applicable are filtered from the exports that produce the outline load utility files to feed the Planning systems.

The Membership property has the following allowed values:
- Not Applicable
- Dimension
- Parent Member
Base Member

For hierarchies that have a top node that is the same as the dimension, the top node membership property should be set to Dimension. For hierarchies where the top node or nodes are dimension members, set the membership to Parent Member.

In addition, if the Sort Order is desired then the Hierarchy Sort Order Property for the Hierarchy needs to be configured to point to the Sort Order property.

It is best practice to make a copy of the predefined import profiles and use the copy to modify so that you have easy access back to the original if needed. If the original is lost or deleted, it can be reloaded from the application template.

To assign Planning dimension membership:

1. Open a hierarchy that has been assigned to a Planning dimension.
2. Select a node in the hierarchy, and from Category, select Planning.
3. Select the Planning Membership property.
4. Do one of the following:
   - To mark the node and its descendants as members of the Planning dimension, set the Membership property value to Parent Member.
   - To mark a node with children as a bottom-level member of the Planning dimension, set the Membership property value to Base Member.

   **Note:** Setting node membership to Base Member causes the nodes below it to become Not Applicable. This allows you to filter out the bottom section of a branch from a Planning application.

See Automatic Membership to Planning Dimensions.

**Automatic Membership to Planning Dimensions**

If you want all imported or newly created hierarchies to automatically have membership to a Planning dimension, then the following formula for HP.Membership can be used.

\[
\text{If}(\text{Equals}(\text{String}, \text{PropValue}(\text{HP.Dimension}),\text{),Not Applicable, If}(\text{Equals}(\text{Integer}, \text{PropValue}(\text{Core.Level}), 1), \text{If}(\text{Equals}(\text{String}, \text{PropValue}(\text{HP.Dimension}), \text{PropValue}(\text{Core.PrimaryName_MDM}), \text{Dimension, Parent Member}), \text{If}(\text{Or}(\text{Equals}(\text{String}, \text{PropValue}(\text{HP.ParentMembership}), \text{Dimension}), \text{Equals}(\text{String}, \text{PropValue}(\text{HP.ParentMembership}), \text{Parent Member})), \text{If}(\text{PropValue}(\text{Core.Leaf}), \text{Base Member, Parent Member}), \text{Not Applicable}))})
\]
Managing Planning Dimension Member Properties

Nodes in hierarchies that are associated with a Planning dimension have dimension member properties. These properties correspond to the same dimension member properties available in Planning that are used by the outline load utility for importing and exporting dimension metadata from Planning.

Dimension member property values should be defined appropriately for each node that is included in a hierarchy associated with a Planning dimension using a hierarchy-level Dimension property and marked as a member of the dimension using a node-level Membership property.

See the "Dimension Properties" section in the Loading Data and Metadata chapter of the Oracle Hyperion Planning Administrator’s Guide for more information on the use of these properties in Planning. See the Planning application template report for a complete list of properties available in Data Relationship Management for Planning dimension members.

Validating Planning Dimension Members and Properties

Data Relationship Management hierarchy nodes can be validated as Planning dimension members before being exported to Planning. These validations can be run for a version, hierarchy, or node.

The validations loaded from the Planning application template must be assigned to versions, hierarchies, or nodes in order to run as real-time validations. If the hierarchies are imported using the imports provided in the application template then the hierarchy-level validations will be assigned. These validations are assigned to the exports from the Planning application template to run as batch validations prior to being exported to Planning.

Refer to the Planning application template report for a complete list of validations available in Data Relationship Management for Planning dimension members.

Exporting Dimension Members from Data Relationship Management

Use these steps to export dimension files from Data Relationship Management and import the metadata into the Oracle Planning and Budgeting Cloud.

Note:  Oracle Planning and Budgeting Cloud jobs must be configured for each of the tasks that are to be performed with the EPM Automate Utility. For the Data Relationship Management integration this includes any metadata import and export tasks that are to be run with EPM Automate. See Scheduling Jobs in “Administering Oracle Planning and Budgeting Cloud Service Using the Simplified Interface”.

To export Planning dimensions from Data Relationship Management, use the Data Relationship Management Batch Client to export dimension files in .CSV format.
Importing Dimension Members into Planning

Hierarchies, nodes, and properties managed in Data Relationship Management are loaded as dimension members using the Web interface or the Outline Load Utility in Planning. Outline Load Utility files are created with Data Relationship Management export profiles (one per dimension) and a version or version variable.

See “Loading Data and Metadata” in the Oracle Hyperion Planning Administrator’s Guide for more information on using the Outline Load Utility for Planning.

To process the Outline Load Utility dimension files into Planning:

- Deliver the files to a location where the Planning application can process them.
- Run the outline load utility on the Planning application to process the dimension files. See Planning Outline Load Utility Command Line.

Planning Outline Load Utility Command Line

To import the dimensions using the Outline Load Utility command line, run the OutlineLoad command for each dimension with the following options:

- [/M] - Headers
- Specify the dimension by one of the following:
  - [/D:loadDimensionName]–Dimension to Process
  - [/DU:userDefinedLoadDimensionName]–User Defined Dimension to Process
  - [/DA:attributeLoadDimensionName:baseDimensionName]–Attribute/Base Dimension to Process
  - [/DAT:attributeLoadDimensionName:baseDimensionName]–Text Attribute/Base Dimension to Process
  - [/DAN:attributeLoadDimensionName:baseDimensionName]–Numeric Attribute/Base Dimension to Process
  - [/DAB:attributeLoadDimensionName:baseDimensionName]–Boolean Attribute/Base Dimension to Process
  - [/DAD:attributeLoadDimensionName:baseDimensionName]–Date Attribute/Base Dimension to Process
  - [/DS:HSP_SMARTLISTS]–Smart Lists Dimension to Process
- [/E:outputFileName]–Output Filename
- [/8]–Use UTF8 File (Default)

For example: OutlineLoad -f:D:\Files\PwdFile.txt /A:Forecast /U:admin /M /D:Entity /E:D:\Files\Extracts\EntityMbrs.txt /L:D:\Logs\EntityMbrs.log /X:D:\Logs\EntityMbrs_Excptns.log
**Importing Dimension Members into Oracle Planning and Budgeting Cloud**

Hierarchies, nodes, and properties managed in Data Relationship Management are loaded as dimension members using the Web interface or the EPM Automate Utility in which provides the ability to remotely perform the import tasks.

➢ To import dimensions into Oracle Planning and Budgeting Cloud using EPM Automate:

1. Upload the dimension files created by the Data Relationship Management export to Oracle Planning and Budgeting Cloud.
   
   Syntax: `epmautomate uploadfile filename`

2. Execute the import metadata job.
   
   Syntax: `epmautomate Importmetadata jobname filename`

For more information, see **Using the EPM Automate Utility** in “Using Oracle Planning and Budgeting Cloud Service” and “Importing and Exporting into a Planning Application” in “Administering Planning for Oracle Planning and Budgeting Cloud Service”.

See **Loading the Import File** in “Administering Oracle Planning and Budgeting Cloud Service Using the Simplified Interface”.

Using Data Relationship Management with Performance Management Architect

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Oracle Hyperion EPM Architect can be used to import hierarchies, nodes, and properties from Data Relationship Management into dimensions used by EPM System applications. These dimensions can then be shared with and deployed to the following EPM application types:

- Oracle Hyperion Financial Management
- Planning
- Oracle Essbase

Users create new dimension members, edit their properties, and maintain hierarchies in Data Relationship Management. This information can be synchronized to Performance Management Architect on a scheduled or on-demand basis using an import process performed by a dimension editor or EPM application administrator.

For more information about Performance Management Architect, see the Oracle Hyperion Enterprise Performance Management Architect Administrator’s Guide.

Additional Documentation

The following documentation will be helpful for setting up and understanding the integration of Data Relationship Management and Performance Management Architect.

- Oracle Enterprise Performance Management System Installation and Configuration Guide
- Oracle Data Relationship Management Installation Guide
- Oracle Data Relationship Management Administrator’s Guide
- Oracle Data Relationship Management User’s Guide
- Oracle Hyperion Enterprise Performance Management Architect Administrator’s Guide
Configuring the Performance Management Architect System Environment

Subtopics

- Installing and Configuring Foundation Services
- Deploying and Configuring the Data Relationship Management Web Service
- Setting Up the Keystore for Message Protection
- Configuring Performance Management Architect for Integration with Data Relationship Management
- Registering Data Relationship Management Applications with Shared Services EPM Registry

Installing and Configuring Foundation Services

You must install and configure Oracle Hyperion Foundation Services for Data Relationship Management. See the Oracle Enterprise Performance Management System Installation and Configuration Guide.

Deploying and Configuring the Data Relationship Management Web Service

Performance Management Architect uses the Data Relationship Management Web service to export dimension members, properties, and relationships for import into the Shared Library or an individual EPM application. This Web service must be deployed and configured to enable this integration.

See “Deploying and Configuring the Data Relationship Management Web Service API” in the Oracle Data Relationship Management Installation Guide.

Setting Up the Keystore for Message Protection

The Performance Management Architect import from Data Relationship Management uses a message protection security policy for the Web service oriented integration. A keystore must be configured to enable message protection.

See “Setting Up the Keystore for Message Protection” in Oracle Enterprise Performance Management System Installation and Configuration Guide.
Configuring Performance Management Architect for Integration with Data Relationship Management

To configure a certificate for access to the Data Relationship Management Web service from Performance Management Architect:

1. If the .cer file from the Data Relationship Management Web services machine does not yet exist, create it on the Data Relationship Management Web services machine using the following command:
   
   ```
   keytool -export -alias orakey -file C:\myCertificate.cer -keystore default-keystore.jks
   ```
   
   The following parameters are specific to how you have configured the keystore for the Data Relationship Management Web service in a particular environment:
   
   * `-alias orakey` (orakey is user defined)
   * `-keystore default-keystore.jks` (the full path to this file may be required)
   
   See the following section in the Oracle Web Services Manager documentation for information about configuring a keystore: http://docs.oracle.com/cd/E12839_01/web.1111/b32511/configuring.htm#BABHIBHA.

2. Get the certificate (.cer file) from the server on which Data Relationship Management Web services are deployed.

3. On the machine on which Performance Management Architect Dimension Server is installed, open Microsoft Management Console (MMC). Select File, then Add/Remove Snap-in, then Console Root, then Add, then Certificates, then Add, and then Computer Account. Select Local Computer and then click Finish.

4. Expand Certificates (Local Computer).

5. Right click Personal folder, then select All Tasks, and then Import.

6. Click Next, browse to the .cer file, click Next, and then click Finish.

7. Expand the Personal folder and click Certificates to see the imported certificate. Copy the value in the Issued To column in the MMC Console.

8. In a text editor, edit the `EPMA_ServerEngine.exe.config` file, located in `EPM_ORACLE_HOME/products/Foundation/BPMA/AppServer/DimensionServer/ServerEngine/bin`.

9. Search for the `findValue` attribute in the file and paste the Issued To value from the certificate as the value for the `findValue` attribute.

10. Save the `EPMA_ServerEngine.exe.config` file. The Performance Management Architect Dimension Server must be restarted in order for this change to take effect.
Registering Data Relationship Management Applications with Shared Services EPM Registry

Each Data Relationship Management application from which you want to export metadata to Performance Management Architect must be registered with the Oracle Hyperion Shared Services EPM registry. See “Configuring EPM Registry Settings” in the Oracle Data Relationship Management Installation Guide.

Creating a User

Create a user that will be registered and used by the Data Relationship Management-Performance Management Architect integration process.

Note: Assign this user the Application Administrator role to run the Performance Management Architect system exports and the Data Manager role to allow export of all Data Relationship Management versions, hierarchies, nodes, and properties.

See the Oracle Data Relationship Management Administrator’s Guide for information on creating users and assigning user roles.

Configuring EPM Architect Metadata in Data Relationship Management

Subtopics

- Locating and Loading the Application Template
- Defining EPM Applications
- Defining and Configuring EPM Dimensions
- Enabling Node Types
- Configuring Performance Management Architect Export Profiles
- Optional Configurations

You must configure versions, hierarchies, and nodes in Data Relationship Management so that they can be exported to Performance Management Architect. The required configuration steps are listed below with detailed instructions following:

1. Set up version-level properties by configuring the Application property. See Defining EPM Applications.
2. Set up hierarchy-level properties by configuring the Dimension and Dimension Type properties. See Defining and Configuring EPM Dimensions.
3. Set up node-level properties by configuring the Membership and Member properties. See Managing EPM Dimension Membership.
Locating and Loading the Application Template

A Performance Management Architect application template is installed as part of the Data Relationship Management installation. You use the template to configure the Data Relationship Management metadata to enable integration with Performance Management Architect.

To locate the Performance Management Architect application template:

1. On the computer where Data Relationship Management is installed, navigate to `C:\Oracle\Middleware\EPMSystem11R1\products\DataRelationshipManagement\server\app-templates`.

   **Note:** This is the default installation directory for application templates.

2. Locate the application template file named `epma-app-template.xml`.

You use the Data Relationship Management Migration Utility to load the application template. See the Oracle Data Relationship Management Administrator’s Guide topic “Loading Metadata” for details on how to use the Migration Utility to load the application template.

The Performance Management Architect application template includes Data Relationship Management metadata objects for Financial Management, Planning, and Essbase application types. You can choose to load metadata objects for only a subset of these application types if necessary.

**Note:** The EPMA namespace properties must always be loaded.

Defining EPM Applications

Data Relationship Management hierarchies, nodes, and properties can be loaded into the Performance Management Architect shared library or a specific EPM application. A Data Relationship Management version can only manage property values for one application of each application type in the EPM Architect template. The EPM Architect application template includes a version-level Application property for each application type to identify the name of the application that is supported by the version.

See “Supporting Multiple EPM Application Instances of the Same Type” on page 42 for more information.

Edit the list of values for the version-level application property in each namespace for the application names to be supported.

To define EPM applications which will import dimensions from Data Relationship Management:

1. Select a version.
2. From the Properties tab, select EPM Architect as the category.
3. Right-click an Application property (for example, HP Application) and select Edit List Values.
4 Click Add, create an entry, and then click OK.
5 Select the new entry for the value and click Save.

**Defining and Configuring EPM Dimensions**

Data Relationship Management hierarchies, nodes, and properties are organized into dimensions for import into Performance Management Architect. This information can be loaded as shared dimensions in the Shared Library or as local dimensions in an individual EPM application. The Performance Management Architect application template includes a hierarchy-level Dimension property for the Shared Library and each EPM application type. These properties are used to relate and organize hierarchies by EPM dimension. Each hierarchy in a version can only be assigned to one dimension in the Shared Library or for a specific application type. A hierarchy may be associated to different dimensions for different application types.

The Dimension properties refer to hierarchy groups that are defined in the Data Relationship Management application. These properties can be populated for a hierarchy in two ways:
- Select a hierarchy group as the value for the property in the property grid.
- Assign the hierarchy to the hierarchy group using the Assign to Group menu item from the Hierarchies menu.

The list of selectable hierarchy groups for a Dimension property can be restricted to a specific subset by enabling a list of values for the property definition.

EPM dimensions defined in Data Relationship Management must also have a dimension type specified in order to be imported into Performance Management Architect. The Performance Management Architect application template includes hierarchy-level Dimension Type properties to handle this configuration. The description of each Dimension Type property identifies the types that are supported.

To define and configure EPM dimensions in Data Relationship Management:

1 Select a version.
2 On the Hierarchies tab, from Group By select an appropriate grouping (for example, HP Dimension), and then select a hierarchy.
3 From the Properties tab, select EPM Architect as the category.
4 From Value, set the Dimension property (for example, HP Dimension) to one of the hierarchy groups.

**Note:** The corresponding Dimension Type property is not populated until you add lookup values in the next step.

5 Right click the corresponding Dimension Type property (for example, HP Dimension Type) and select Edit List Values.
6 Add a lookup key and a result value and click OK. The value assigned to the Dimension Type is the result value.
Note: If the value that has been assigned to HP Dimension (the hierarchy group name) does not exist as a lookup key, then nothing will be assigned to the HP Dimension Type property and no hierarchies will be available for export.

Configuring EPM Dimension Associations

Dimensions of certain dimension types for specific application types in Performance Management Architect require dimension associations to be defined. The dimension association ensures that the value of a property for a base dimension member refers to a valid member of another associated dimension. Refer to the Dimension Associations section of the Oracle Hyperion Enterprise Performance Management Architect Administrator's Guide for more information on dimension associations and dimension types that require them.

The Performance Management Architect application template includes a version-level property, node-level property, and node-level validation to configure a EPM dimension association. The properties are located in the category for each EPM application type.

The version-level properties are used to define the list of hierarchies for each associated dimension that should be checked. The node-level properties are used to define the member of the associated dimension related to the base dimension member. The validations are used to verify that the node referenced in the node-level property is located in the hierarchies referenced in the version-level property.

To configure hierarchies for validating EPM dimension associations:

1. From Versions, select Properties.
2. From Category, select a category for a specific EPM application type.
3. Select a property for a specific dimension in the application that uses dimension associations.
4. From Property, select Edit List Values.
5. Click Add and enter the name of a hierarchy that should be checked for dimension association validation purposes.

To select hierarchies for dimension association validation for a specific version:

1. From Versions, select Properties.
2. From Category, select a category for a specific application type.
3. Select a property for a specific dimension in the application that uses dimension associations.
4. Select one or more hierarchies from the list for the property.

Enabling Node Types

Hierarchies imported into or created directly in Data Relationship Management must have node types separately enabled in order to be managed for Performance Management Architect applications. Perform one of the following actions to enable node types for new hierarchies to be exported to Performance Management Architect:
Assign EPMA.MemberType as the default value of the Hierarchy Node Type property definition in the Core namespace. This configuration will enable node types for all hierarchies using the Member Type property in the EPMA namespace. This task can be performed only by an application administrator.

Select the Node Type property from the EPMA namespace for the value of the Hierarchy Node Type property in the System category for each new hierarchy created.

Configuring Performance Management Architect Export Profiles

Export profiles are included in the application template to output dimensions to Performance Management Architect. The export profiles are:

- EPM Architect Shared Library
- Essbase ASO Application
- Essbase BSO Application
- Hyperion Financial Management Application
- Hyperion Planning Application

These export profiles use the Dimension and Dimension Type properties configured for versions in Data Relationship Management to determine which hierarchies, nodes, and properties should be exported to Performance Management Architect. The exports are configured to use the Membership properties managed for hierarchy nodes to filter the export results to only nodes that are marked as Parent Members or Base Members.

You can add a filter to an export profile, add additional columns, and make other custom modifications to the export profiles loaded from the Performance Management Architect application template. See "Creating EPM Architect Exports" in the Oracle Data Relationship Management User’s Guide for more information on this export type.

Optional Configurations

For information on optional configurations, see:

- Multiple Aliases
- Multiple UDAs
- Attribute Dimensions
- Extended Dimensionality for Financial Management
- Supporting Multiple EPM Application Instances of the Same Type
- Supporting Multiple Performance Management Architect Instances
Multiple Aliases

The Performance Management Architect application template is configured with a single Alias property for each application type. In some cases, multiple aliases may be necessary to maintain dimension member descriptions in different languages.

To support multiple aliases:

1. Create a new custom global node Alias property for each additional description to be supported for each application type where required.

   **Note:** The new custom Alias property may be used for one or more application types.

2. Perform an action:
   - Create a new custom MemberAliasLength validation for each additional custom Alias property.
   - Modify the MemberAliasLength validation for the application types that will use the additional Alias property.

   **Note:** Include OR logic to check the additional Alias properties.

3. Assign the custom Alias properties and MemberAliasLength validations to the node types for the application types to be supported.

4. Assign any new custom MemberAliasLength validations to versions/hierarchies where required.

5. Modify Performance Management Architect type exports for application types where custom Aliases are required.
   - Assign new custom Alias validations.
   - Add custom Alias properties as Array columns and map them to custom Key Labels.

   **Note:** The custom Key Labels correspond to members of a particular Alias dimension in Performance Management Architect that is associated to a base dimension being updated by Data Relationship Management.

6. Map the new Data Relationship Management export columns to Performance Management Architect alias properties in import profiles.

   **Note:** The Alias dimension, its members, and any dimension associations must be created separately in Performance Management Architect before Data Relationship Management export columns can be mapped to Alias properties and keys in the import profile.

Multiple UDAs

The Performance Management Architect application template is configured with a single UDA property for each of the Planning and Essbase application types. In some cases, separate UDA properties may be necessary to appropriately manage various combinations of valid UDA values.
To support multiple UDA properties:

1. Create a new custom global node UDA property for each additional set of UDA values to be supported for each application type where required.
2. Assign the custom UDA properties to the appropriate node types for the application types to be supported.
3. Modify Performance Management Architect exports for application types where custom UDA properties are required.
4. Add custom UDA properties as Array columns and map them to custom Key Labels.

**Note:** The custom Key Labels correspond to members of a particular UDA dimension in Performance Management Architect that is associated to a base dimension being updated by Data Relationship Management.

5. Map the new Data Relationship Management export columns to Performance Management Architect attribute dimension properties in import profiles.

**Note:** The UDA dimension, its members, and any dimension associations must be created separately in Performance Management Architect before Data Relationship Management export columns can be mapped to UDA properties and keys in the import profile.

### Attribute Dimensions

The Planning and Essbase application types offer the ability to use custom Attribute dimensions. The Attribute dimension type is supported by the Performance Management Architect application template, however, some additional configuration is necessary in order to account for the user-defined aspects for supporting them.

To configure Attribute dimensions in Data Relationship Management:

1. Create a new custom global node property for each Attribute dimension that will manage the association of a base dimension member to a custom attribute dimension member.
2. Create a new custom version property of data type ListGroup to use for association of base dimension members to members of the Attribute dimension. This property will identify the valid hierarchies from which an attribute member can be selected. To specify hierarchies associated with the new Attribute dimension, see “Configuring EPM Dimension Associations” on page 37.
3. Create a new custom formula validation for each Attribute dimension to enforce dimension associations between it and base dimension members that use the Attribute dimension. Compare the selected values in the custom version ListGroup property for the Attribute dimension to the value of the Core.References property for the Attribute dimension member being referenced.

For example, the Global node attribute property is Custom.Attribute and the version-level attribute hierarchies property is Custom.AttributeHiers. Invalid attribute member validation formula:

\[
\text{Or(IsBlank(PropValue(Custom.Attribute)), GreaterThanOrEqual(ArrayCount(Intersection(NodePropValue(PropValue(Custom.Attribute))), Custom.AttributeHiers)), Custom.AttributeHiers))}
\]
4 Assign the custom global node Attribute properties and validations to the appropriate node types for the application types to be supported.

5 Assign any new custom Attribute validations to versions and hierarchies where required.

6 Modify Performance Management Architect exports for application types where custom Attributes are required.
   a. Assign new custom Attribute validations.
   b. Add custom Attribute properties as exports columns and map them to custom Output Labels.

7 Map the new Data Relationship Management export columns to Performance Management Architect attribute dimension properties in import profiles.

   Note: The Attribute dimension properties must be created separately in Performance Management Architect before they can be mapped in the import profile.

**Extended Dimensionality for Financial Management**

Starting with the 11.1.2.2 release, Financial Management supports more than four custom dimensions for a single application. The Performance Management Architect application template is pre-configured to support only the standard four custom dimensions offered in previous releases of the Financial Management product. Additional configuration is necessary in order to support more than four custom dimensions.

- To support more than four custom dimensions:
  1 Create a new custom global node CustomTopMember property for each Custom dimension that will manage the association of an Account dimension member to a Custom dimension top member.
  2 Create a new custom global node EnableCustomAggr property for each Custom dimension.
  3 Create a new custom version property for each Custom dimension that will identify the valid hierarchies from which a Custom dimension top member (node) can be selected.
  4 Create a new custom validation for each Custom dimension to verify that the value of the global node CustomTopMember property refers to a valid member (node) in the Custom dimension.
  5 Assign these properties and validations to the Account and Consolidation Account node types loaded from the Performance Management Architect application template.
  6 Assign any new custom validations to hierarchies where required.
  7 Modify the Performance Management Architect Shared Library and Financial Management exports where additional Custom dimensions are required.
     a. Assign new custom Top Member validations.
     b. Add CustomTopMember and EnableCustomAggr properties as exports columns and map them to custom Output Labels.
Note: The Output Label for CustomTopMember and EnableCustomAggr properties for custom dimensions should conform to the following format:

CustomTopMember<DimensionAlias>
EnableCustomAggr<DimensionAlias>

For example, if Custom Dimension Alias is Product, then the output labels used for the export columns are CustomTopMemberProduct and EnableCustomAggrProduct.
These output labels will be auto-mapped in the import profile to the Performance Management Architect properties created for these custom dimensions.

Supporting Multiple EPM Application Instances of the Same Type

Multiple application instances of the same application type can be supported using three different approaches:

1. Export to Performance Management Architect Shared Library as Shared dimensions. Differences between the application instances can be managed directly in Performance Management Architect.

2. Separate Data Relationship Management versions
   - Each Performance Management Architect application instance would import dimensions from different versions.
   - Hierarchies can be associated with the same or different EPM dimensions.
   - EPM dimension members and property values of common dimensions can be different.

3. Custom Data Relationship Management properties and exports
   - Each additional instance of an application type will require separate custom Dimension and Dimension Type properties if the application instances have different dimensions.
   - Each additional instance of an application type will require separate custom Membership, Member, and Parent properties if different dimension members are required for each application instance.
   - Each additional instance of an application type will require a separate custom Performance Management Architect export if different dimensions, members, or properties are required for each application instance.
     a. Copy the Performance Management Architect export for the application type.
     b. Change the query filter to evaluate the custom Membership property.
     c. Change the Member and Parent Key parameters to use the custom Member and Parent properties.

Supporting Multiple Performance Management Architect Instances

Some customers want to test any updates coming from Data Relationship Management in a test EPM environment before loading the changes into their production EPM environment. This
can be accomplished by registering a Data Relationship Management application with multiple Shared Services instances.

**Note:** The CSS Bridge for a Data Relationship Management application can be configured with only one Shared Services instance at a time and can use only one instance for authenticating users from different Performance Management Architect instances.

To register a Data Relationship Management application with multiple Shared Services instances:

1. In the Data Relationship Management Console, stop the application if it is started.
2. On the **CSS** tab of **Host Machines**, specify a different Shared Services instance used by Performance Management Architect in another environment, and then click **Save Configuration**.
3. Start the Data Relationship Management application.
4. On the **EPM Registry** tab, register the application by specifying the following information and then click **Register**.
   - Data Relationship Management Web service URL
   - Data Relationship Management API adapter URL
   - Data Relationship Management user credentials used for the integration
5. Stop the Data Relationship Management application.
6. On the **CSS** tab of **Host Machines**, modify the host name to match the Oracle Hyperion Shared Services instance used for authenticating users for running Performance Management Architect exports and then click **Save Configuration**.
7. Start the Data Relationship Management application.

### Managing EPM Dimension Members in Data Relationship Management

**Subtopics**

- Managing EPM Dimension Membership
- Managing EPM Dimension Member Properties
- Validating EPM Dimension Members and Properties
- Importing Dimension Members into Performance Management Architect

EPM dimension members are managed in Data Relationship Management using nodes, hierarchies, and properties. Each node represents a single dimension member. Nodes may be organized into hierarchies which can be used in one or more EPM dimensions. The Performance Management Architect application template for Data Relationship Management includes node-level dimension member properties for each EPM application type and membership properties used to mark hierarchy nodes as dimension members. Nodes are validated as dimension members for each EPM application type using validations from the Performance Management
Architect application template. After all validations have successfully run, this information can be imported into Performance Management Architect using a dimension import profile.

Managing EPM Dimension Membership

Membership properties are used to flag nodes in Data Relationship Management that should be managed and exported as EPM dimension members. A Membership property is available for the Shared Library (for shared dimensions) and each EPM application type (for local dimensions). These properties can be used to include only a subset of nodes in a Data Relationship Management hierarchy as members of an EPM dimension.

To assign EPM dimension membership:

1. Open a hierarchy that has been assigned to an EPM dimension.
2. Select a node in the hierarchy.
3. From Category, select EPM Architect.
4. Select a Membership property for the EPM Architect Shared Library or a specific EPM application type.
5. Do one of the following:
   - To mark the node and its descendants as members of the EPM dimension, set the Membership property value to Parent Member.
   - To mark a node with children as a bottom-level member of an EPM dimension, set the Membership property value to Base Member.

Managing EPM Dimension Member Properties

Nodes in hierarchies that are associated with an EPM dimension have dimension member properties for each EPM application type. These properties correspond to the same dimension member properties available in Performance Management Architect. The properties are organized into the following property categories:
For shared dimension members, properties for all EPM application types are available. For local dimension members, only the category and properties for the specific EPM application type are available.

Dimension member property values should be defined appropriately for each node that is included in a hierarchy associated with an EPM dimension using a hierarchy-level Dimension property and marked as a member of the dimension using a node-level Membership property.

See the "Product-Specific Properties" section of the Oracle Hyperion Enterprise Performance Management Architect Administrator’s Guide for more information on the use of these properties in Performance Management Architect. See the Performance Management Architect application template report for a complete list of properties available in Data Relationship Management for EPM dimension members.

Validating EPM Dimension Members and Properties

Data Relationship Management hierarchy nodes can be validated as EPM dimension members before being exported to Performance Management Architect. These validations can be run for a version, hierarchy, or node. Validations for all EPM application types are run for shared dimension members. Only validations for a specific application type are run for members of a local dimension.

The validations loaded from the EPM Architect application template must be assigned to versions, hierarchies, or nodes in order to run as real-time validations. These validations are assigned to the exports from the EPM Architect application template to run as batch validations prior to being exported to Performance Management Architect.

Refer to the EPM Architect application template for a complete list of validations available in Data Relationship Management for EPM dimension members.

Importing Dimension Members into Performance Management Architect

Hierarchies, nodes, and properties managed in Data Relationship Management are loaded as dimension members using a import profile in Performance Management Architect. An import profile is configured with a Data Relationship Management export profile and a version or version variable. When the import profile is executed, Performance Management Architect runs the Data Relationship Management export for the specified version and imports the export results into the Shared Library or target EPM application.

The following tasks must be completed in Performance Management Architect. See the Oracle Hyperion Enterprise Performance Management Architect Administrator’s Guide.

1. Create the Performance Management Architect import profile.
2. Run the profile in Performance Management Architect to import dimension members from Data Relationship Management.

**Automating Performance Management Architect Imports from Data Relationship Management**

Performance Management Architect imports from an Data Relationship Management application can be automatically executed using the Performance Management Architect Batch Client. For more information, see the “Execute Import” section of the *Oracle Hyperion Enterprise Performance Management Architect Batch Client User’s Guide.*
Data Relationship Management may be used to manage financial master data entities which include chart of account values and hierarchies used for general ledgers in ERP systems such as E-Business Suite (EBS), Peoplesoft (PS), and Fusion Financials (FS). Data Relationship Management is also used to manage dimension members and hierarchies for EPM applications such as Financial Management, Planning, and Essbase, which often source transactional data from these same ERP systems. Oracle Hyperion Financial Data Quality Management, Enterprise Edition is used to load transactional data from these ERP systems to Oracle EPM applications.

In some cases, the dimensionality and granularity of the target EPM application does not match the source system and mappings must be defined between the source and target in order to appropriately transfer and load the transactional data from the ERP system to the EPM application. FDMEE provides the ability to natively manage mappings between source ERP segment values and target EPM dimension members explicitly or using rules (range, wildcard, script). When Data Relationship Management is used as a master for dimension members of the EPM applications, Data Relationship Management may also be used to manage mappings of ERP segment values to those dimension members and synchronize those changes to FDMEE for use by transactional data loading processes.

The main advantage of maintaining explicit mappings in Data Relationship Management is to be able to validate integrity and record auditing information for each mapping at the time of making the change. This is not easily accomplished with rule-based mappings in FDMEE. You can use ancestor relationships from Data Relationship Management hierarchies to map multiple values at the same time or you can use queries/compares with multi-select to map multiple values at the same time.
For each FDMEE location, the user gets to decide whether to use explicit mappings or rule based mappings. If rule-based mappings are preferable, then use FDMEE for those mappings. If you want to use Data Relationship Management to manage the mappings along with the GL segment values and/or EPM dimension members being managed in Data Relationship Management, then you would use explicit mappings in Data Relationship Management and load those mappings into FDMEE.

**Integration**

The 11.1.2.4.340 release of Data Relationship Management provides an integration with the 11.1.2.4.200 release of FDMEE.

The integration with FDMEE provides the following capabilities:

- Import chart of accounts values and hierarchies from source ERP systems to Data Relationship Management
- Map ERP source values to EPM target dimension members within Data Relationship Management
- Export ERP source to EPM target member mappings from Data Relationship Management to FDMEE

**Prerequisites**

The FDMEE application template references property definitions in the Performance Management Architect and Planning application templates. One of these templates must be loaded into Data Relationship Management before the FDMEE template is loaded.

In addition to the Performance Management Architect and Planning application templates, this integration requires valid Performance Management Architect or Planning target system dimensions to be set up for the mapping to be able to be done and exported back to FDMEE.

There are two main use cases:

- Existing Performance Management Architect or Planning system dimensions to be mapped to
- Creation of new Performance Management Architect or Planning dimensions from the FDMEE source system imports to be mapped to

Additional work will be required to use this application template for custom Data Relationship Management implementations that are not using the Performance Management Architect or Planning templates. Details on using this application template with a custom Data Relationship Management implementation are detailed in the “Configuring the FDMEE Template for Custom Data Relationship Management Implementations” section.
Additional Documentation

The following documentation will be helpful in understanding the integration of Data Relationship Management with FDMEE.

- Oracle Data Relationship Management Installation Guide
- Oracle Data Relationship Management Administrator’s Guide
- Oracle Data Relationship Management User’s Guide

Configuring the FDMEE System Environment

Subtopics

- Installing and Configuring Foundation Services
- Deploying and Configuring the Data Relationship Management Web Service

For information on configuring the FDMEE environment, see “Integrating Data Relationship Management with FDMEE” in Oracle Hyperion Financial Data Quality Management, Enterprise Edition Administrator’s Guide.

Installing and Configuring Foundation Services

You must install and configure Oracle Hyperion Foundation Services for Data Relationship Management. See the Oracle Enterprise Performance Management System Installation and Configuration Guide.

Deploying and Configuring the Data Relationship Management Web Service

FDMEE uses the Data Relationship Management Web service to export dimension members, properties, and relationships for import into the Shared Library or an individual EPM application. This Web service must be deployed and configured to enable this integration.

See “Deploying and Configuring the Data Relationship Management Web Service API” in the Oracle Data Relationship Management Installation Guide.
Configuring FDMEE Metadata in Data Relationship Management

Subtopics

- FDMEE Application Template
- Performance Management Architect and Planning Application Template Metadata
- Locating and Loading the Application Template
- Configuring the External Connections to the FDMEE Database
- Reconnecting Imports and Exports to the FDMEE Database
- Configuring Domains
- Configuring Blend After Import
- Extending Imports to Use Additional Custom Top Member and Aggregation
- Adding Mapping Validations

FDME Application Template

The FDMEE Application template provides the following metadata for Data Relationship Management that supports the FDMEE Integration.

Property Definitions {Full Qualified Name (Label)}

- EPMA.MemberType (Member Type)
- FDMEE.Description_Brazilian_Portuguese (Description Brazilian Portuguese)
- FDMEE.Description_French (Description French)
- FDMEE.Description_German (Description German)
- FDMEE.Description_Japanese (Description Japanese)
- FDMEE.Description_Korean (Description Korean)
- FDMEE.Description_Latin_American_Spanish (Description Latin American Spanish)
- FDMEE.Description_Portuguese (Description Portuguese)
- FDMEE.Description_Spanish (Description Spanish)
- FDMEE.Description_Traditional_Chinese (Description_Traditional_Chinese)
- FDMEE.Dimension (Dimension)
- FDMEE.EPM_App (EPM App)
- FDMEE.EPM_Location_Keys (EPM Location Keys)
- FDMEE.EPM_Location_Names (EPM Location Names)
- FDMEE.ERP_Acct_Entity (ERP Acct Entity)
- FDMEE.ERP_Segment (ERP Segment)
- FDMEE.ERP_Src_Name (ERP Src Name)
- FDMEE.Hierarchy_Dimension (Hierarchy Dimension)
- FDMEE.Hierarchy_Domain_Qualifier (Hierarchy Domain Qualifier)
- FDMEE.Hierarchy_ID (Hierarchy ID)
- FDMEE.Hierarchy_Table_Name (Hierarchy Table Name)
- FDMEE.Load_ID (Load ID)
- FDMEE.Member_Table_Name (Member Table Name)
- FDMEE.Node_Domain_Qualifier (Node Domain Qualifier)
- FDMEE.Node_Type (Node Type)
- FDMEE.SRCKEY_Name (SRCKEY Name)
- FDMEE.Version_EPM_Location_Keys (Version EPM Location Keys)
- FDMEE.Version_EPM_Location_Names (Version EPM Location Names)
- FDMEE.Version_Eff_Date (Version Eff Date)

**Property Category**

FDME

**Node Type**

FDME ERP—Node type for imported ERP nodes with FDME properties

**Import**

- FDME Import—Generic import with no target application values
- FDME HFM Import—Import with HFM target values
- FDME Planning Import—Import with Planning target values
- FDME Essbase(ASO) Import—Import with Essbase ASO target values
- FDME Essbase(BSO) Import—Import with Essbase BSO target values

**Export**

- FDME HFM Map Export—Mapping export using HFM names and dimension types
- FDME Planning Map Export—Mapping export using Planning names and dimension types
- FDME Planning Map Export—Mapping export using Essbase names and dimension types

**Blender**

FDME Blend—Blender to merge imported FDME dimensions into an existing version
**Version Variable**

FDMEE\_MAP\_VERSION—Version variable used by the exports to FDMEE

**External Connection**

- FDMEE Import DB—External Connection for imports
- FDMEE Export DB—External Connection for exports

**System Preferences**

InvDescr—System preference for invalid description characters

**Performance Management Architect and Planning Application Template Metadata**

The following property definitions are used from the Performance Management Architect and Planning application templates.

**Performance Management Architect Template Only**

<table>
<thead>
<tr>
<th>Property Definition</th>
<th>Property Definition</th>
<th>Property Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPMA.Dimension (Dimension Name)</td>
<td>Essbase.Aso.DataStorage (Data Storage (ASO))</td>
<td>HFM.AccountType (Account Type)</td>
</tr>
<tr>
<td>EPMA.MemberName (EPMA Member)</td>
<td>Essbase.Bso.DataStorage (Data Storage (BSO))</td>
<td>HFM.Custom1TopMember (Custom 1 Top Member)</td>
</tr>
<tr>
<td>EPMA.MemberType (Member Type)</td>
<td>Essbase.Dimension (Essbase Dimension Name)</td>
<td>HFM.Custom2TopMember (Custom 2 Top Member)</td>
</tr>
<tr>
<td>EPMA.Membership (EPMA Membership)</td>
<td>Essbase.MemberName (Essbase Member)</td>
<td>HFM.Custom3TopMember (Custom 3 Top Member)</td>
</tr>
<tr>
<td>EPMA.ParentMembership (EPMA Parent Membership)</td>
<td>Essbase.Membership (Essbase Parent Membership)</td>
<td>HFM.Custom4TopMember (Custom 4 Top Member)</td>
</tr>
<tr>
<td>EPMA.ParentName (EPMA Parent)</td>
<td>Essbase.ParentMembership (Essbase Parent Membership)</td>
<td>HFM.DefCurrency (Default Currency)</td>
</tr>
<tr>
<td>EPMA.SharedDimension (Shared Dimension)</td>
<td>Essbase.ParentName (Essbase Parent)</td>
<td>HFM.Dimension (HFM Dimension Name)</td>
</tr>
<tr>
<td></td>
<td>Essbase.TimeBalance (Time Balance)</td>
<td>HFM.EnableCustom1Agg (Enable Custom 1 Aggregation)</td>
</tr>
<tr>
<td></td>
<td>Essbase.VarianceReporting (Variance Reporting)</td>
<td>HFM.EnableCustom2Agg (Enable Custom 2 Aggregation)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HFM.EnableCustom3Agg (Enable Custom 3 Aggregation)</td>
</tr>
<tr>
<td>Property Definition</td>
<td>Property Definition</td>
<td>Property Definition</td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>HFM.EnableCustom4Agg</td>
<td>Is Consolidated</td>
<td></td>
</tr>
<tr>
<td>HFM.IsICP</td>
<td>HFM.MemberName</td>
<td></td>
</tr>
<tr>
<td>HFM.MemberName</td>
<td>HFM.Membership</td>
<td></td>
</tr>
<tr>
<td>HFM.Membership</td>
<td>HFM.ParentMembership</td>
<td></td>
</tr>
<tr>
<td>HFM.ParentName</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Performance Management Architect and Planning Templates

<table>
<thead>
<tr>
<th>Property Definition</th>
<th>Property Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP.AccountType</td>
<td>HP.Wrk.ValidForPlan</td>
</tr>
<tr>
<td>HP.Capex.ValidForPlan</td>
<td>HP.VarianceReporting</td>
</tr>
<tr>
<td>HP.DataStorage</td>
<td>HP.TimeBalance</td>
</tr>
<tr>
<td>HP.Dimension</td>
<td>HP.MemberName</td>
</tr>
<tr>
<td>HP.DimensionType</td>
<td>HP.MemberType</td>
</tr>
<tr>
<td>HP.MemberName</td>
<td>HP.Membership</td>
</tr>
<tr>
<td>HP.MemberType</td>
<td>HP.ParentMembership</td>
</tr>
<tr>
<td>HP.TimeBalance</td>
<td></td>
</tr>
</tbody>
</table>

### Locating and Loading the Application Template

The FDMEE application template is installed as part of the Data Relationship Management installation. You use the template to configure the Data Relationship Management metadata to enable integration with FDMEE.

1. **On the computer where Data Relationship Management is installed, navigate to** C:\Oracle\Middleware\EPMSystem11R1\products\DataRelationshipManagement\server\app-templates.

   **Note:** This is the default installation directory for application templates.
Locate the application template file named fdmee-app-template.xml.

You use the Data Relationship Management Migration Utility to load the application template. See the Oracle Data Relationship Management Administrator’s Guide topic “Loading Metadata” for details on how to use the Migration Utility to load the application template.

The FDMEE application template includes Data Relationship Management metadata objects for FDMEE and references to property definitions in the Performance Management Architect and Planning application templates. During the template load process, you can select all metadata objects from the template or select only objects specific to a particular EPM application type. For example, if using the FDMEE template with the Planning template, select property definitions, imports, and exports specific to Planning.

The property category, node type, and blender included in the FDMEE template reference properties of multiple application types. In situations where you are using the FDMEE template with a single EPM application type, the template load process will identify missing dependencies to properties of other application types. Select the "Ignore Dependencies" option in the Migration Utility to load these metadata objects without these references.

Possible Conflicts to Review Before Loading the Application Template

This application template contains a modification to the EPMA.MemberType formula that adds the FDMEE ERP Node Type for ERP nodes from FDMEE. If you have modified the original formula for the EPMA.MemberType property in the Performance Management Architect or Planning templates, then your changes will be overridden unless you deselect this property during the migration utility load process. The View Differences function of the Data Relationship Management Migration Utility can be used to compare the difference of this property before loading. If the formula has been customized, then it is recommended that you not load the value from the FDMEE application template. The formula will need to be manually updated to include the logic for the FDMEE ERP node types.

This application template contains two system preferences (InvName and InvDescr). Before loading the application template, review the values for these preferences against the values currently set in your system. This can be done manually or with the View Differences function of the Data Relationship Management Migration Utility. You do not have to migrate these preferences especially if your configuration is more conservative for business reasons. The import is set up to not enforce invalid node name characters so that the FDMEE nodes can be imported even if they have invalid characters in them.

Supported Languages

The FDMEE application template includes support for 10 languages for node descriptions loaded into Data Relationship Management during a FDMEE metadata load process. Supported languages are:

- Brazilian Portuguese
- English
- French
Configuring the External Connections to the FDMEE Database

The external connections must be properly configured before viewing, running, or editing the import and export defined in the application template.

The tables FDMEE writes to are:
- AIF_HS_DRM_LOADS—Version import section
- AIF_HS_DRM_LOAD_HIERARCHIES—Hierarchy import section
- AIF_HS_DRM_MEMBER_V—Node import section
- AIF_HS_DRM_HIERARCHY_V—Relationship import section

The table that Data Relationship Management exports the member mappings to is TDATAMAP_STG.

**Note:** The FDMEE database must be in place and set up before performing this task.

After loading the application template, follow these procedures to configure the external connections:
- **FDMEE Import Database**
- **FDMEE Export Database**

**FDMEE Import Database**

- To configure the FDMEE import database:
  1. Login to the Data Relationship Management system with an account that has the administrator role.
  2. On the Home page, select Administer.
  3. Expand **External Connections** and double click the **FDMEE Export DB** connection.
  4. Define the Connection String, User ID and Password to connect to the FDMEE database.
  5. Click **Test Connection** to verify that a connection is made with the credential entered.
  6. Select the **Include Views** checkbox.
Fill in the Filter (Schema and Object) with the schema for the FDMEE database and AIF_HS_DRM* and then click Retrieve Objects.

Remove the initial FDMEE_INTEGRATION.AIF_HS_DRM* tables (4) by clicking Remove All.

Highlight the four tables that start with AIF_HS_DRM* in the Available objects and then click Select to move them to the Selected column.

Click Save to save the changes to the external connection.

FDMEE Export Database

To configure the FDMEE export database:

1. Login to the Data Relationship Management system with an account that has the administrator role.
2. On the Home page, select Administer.
3. Expand External Connections and double click the FDMEE Export DB connection.
4. Define the Connection String, User ID and Password to connect to the FDMEE database.
5. Click Test Connection to verify that a connection is made with the credential entered.
6. Fill in the Filter (Schema and Object) with the schema for the FDMEE database and TDATAMAP_STG and then click Retrieve Objects.
7. Remove the initial FDMEE_INTEGRATION.TDATAMAP_STG by clicking Remove All.
8. Highlight TDATAMAP_STG in the Available objects and then click Select to move it to the Selected column.
9. Click Save to save the changes to the external connection.

Reconnecting Imports and Exports to the FDMEE Database

After configuring the external connections, the exports and imports must be reconnected to the FDMEE database tables (this is due to the schema change made in the external connection).

Note: The Data Relationship Management user needs to have the Application Administrator role.

To reset exports:

1. On the Data Relationship Management Home page, click Export.
2. Perform steps 3-8 for each of these exports:
   - FDMEE Essbase Map Export
   - FDMEE HFM Map Export
   - FDMEE Planning Map Export
3. Open the export by double clicking it.
4 Set a version and top node. These can be changed later, but are required to save the changes.

5 Click on the Target tab.

6 Set the Database Table drop down to the TDATAMAP_STG table.

7 Verify that all of the warnings in the Database Column Options are gone.

8 Click Save.

➤ To reset imports:

1 On the Data Relationship Management Home page, click Import.

2 Perform steps 3-8 for each of these imports:
   - FDMEE Essbase(ASO) Import
   - FDMEE Essbase(BSO) Import
   - FDMEE HFM Import
   - FDMEE Planning Import
   - FDMEE Import

3 Open the import by double clicking it.

4 Set the Version Source Object to the AIF_HS_DRM_LOADS table.

5 Set the Hierarchy Source Object to the AIF_HS_DRM_LOAD_HIERARCHIES table.

6 Set the Node Source Object to the AIF_HS_DRM_MEMBER_V view.

7 Set the Relationship Source Object to the AIF_HS_DRM_HIERARCHY_V view.

8 Click Save.

### Configuring Domains

Domains are optional for the integration. They are needed when the dimensions from the source systems contain nodes of different types with the same name. An example would be both an account 1234 and a product 1234. Domains can make these nodes independent of each other with the use of the domain qualifier.

The FDMEE integration passes in a Data Relationship Management domain qualifier in the staging tables used by the imports. This information can be used by the import and blender Data Relationship Management processes to use Data Relationship Management domains. The Data Relationship Management domain value to be used is specified in FDMEE.

The imports and blender in the FDMEE application template are preconfigured to work with domains.

**Note:** After import the nodes are not put into the domains. This can be done manually or as part of a blend process.
Creating Domains in Data Relationship Management

Create a Data Relationship Management domain for each value to be passed in from FDMEE.

Note: The Data Relationship Management user needs to have the Application Administrator role.

To create a domain:

1. On the Data Relationship Management Home page, click Administer.
2. From New, select Domain.
3. Enter a name and description for the domain.
4. Enter a Qualifier and Delimiter as needed to prevent conflicts between dimensions.
5. Determine if there should be a suffix or prefix. Prefix is the default and most used form.
6. Click Save.

Manually Setting Domains for Imported Nodes

The nodes can be added to the appropriate domains after import.

Note: The Data Relationship Management user needs to have the Application Administrator role.

To add nodes to domains after import:

1. On the Data Relationship Management Home page, click Browse and then click the version to work with.
2. Click the Property button to display Version Properties.
3. Set up the Version Property in the System Category “Domains in Use” with the domains to be used.
4. Click Save.
5. Right click the version and select Domain Membership.
6. Set the Override Property to the FDMEE.Node Domain Qualifier.
7. Click OK.

Using the Blender to Set Domains for Imported Nodes

When blending the nodes from the import version to the production version, the blender is set up to put the nodes into the domains for the target version.
Note: If domains are set up to prevent conflicts of names, then the domains need to be configured in the version where the mapping is done as well as the versions to which the source system nodes were imported. Failure to do so will result in the suffix or prefix not being removed in the export that provides the mappings to FDMEE and will cause a mapping failure.

Configuring Blend After Import

The imports used by FDMEE can be set up to perform a blend operation after a successful import. This allows the imported data to be moved automatically to a master version so that the mappings can be performed in Data Relationship Management.

Note: The Data Relationship Management user needs to have the Application Administrator role.

To modify the import profile:

1. On the Data Relationship Management Home page, click Import.
2. Open the desired FDMEE import profile.
3. Click on the Target tab.
4. Select Blend After Import.
5. Set the Blender Profile to be used (FDMEE Blend).
6. Click Edit Parameters.
7. Add a Parameter with a Key of BLEND_TARGET and set its value to the version to be used. You can use the FDMEE_MAP_VERSION variable.
8. Click OK.
9. Click Save.

Extending Imports to Use Additional Custom Top Member and Aggregation

The FDMEE staging tables for importing data to Data Relationship Management contain columns for 20 Custom Top Members and 20 Enable Custom Aggregation properties. The application template only provides properties for the first four.

The additional columns can be used by creating custom properties to hold the contents from the import. Create the properties with the same characteristics as the HFM.Custom1TopMember and HFM.EnableCustom1Agg properties and add them to the Node section of the FDMEE HFM import profile and map them to the appropriate column in the AIF_HS_DRM_MEMBER_V table.
Adding Mapping Validations

There are no predefined validations in this application template. This is due to the fact that the names for the EPM hierarchies are not fixed and the mapping validations are based on those hierarchy names.

Complete Mapping Check

This validation is intended to verify that all bottom (leaf) ERP nodes are mapped to an EPM hierarchy. The logic to fail the validation should be Core.Leaf = True AND Core.References does not contain EPM Hierarchy.

This can be done in multiple ways:

- Formula or script-based validation
- Query and a query-based validation
- Derived property and a property-based validation

Below is an example of a formula that could be used in a validation:

\[
\text{IF} \left( \text{AND} \left( \text{PropValue}(\text{core.leaf}), \text{Equals}(\text{integer}, \text{ArrayIndex}(\text{EPMHIERNAME}, \text{PropValue}(\text{Core.References}), [\text{comma}]), 0) \right) \right), \text{True}, \text{False} \)
\]

Where EPMHIERNAME is the actual EPM hierarchy name.

Configuring the FDMEE Template for Custom Data Relationship Management Implementations

Subtopics

- Imports
- Exports

The FDMEE application template is designed to work with the Performance Management Architect and Planning application templates.

Custom Data Relationship Management implementations supporting Oracle Essbase, Oracle Hyperion Financial Management, and Planning which do not use these application templates will have to modify the metadata from the FDMEE application template to use it for integration with FDMEE.

The changes that need to be made are in two main areas: Imports and Exports.

Imports

For imports, the FDMEE system can send in default target application information for the nodes from the source application. If this portion of the integration is to be used, then the following
imports must be modified to connect the database table to the appropriate custom Data Relationship Management property. If this functionality is not needed then the application-specific imports can be deleted (or not loaded) and only the FDMEE Import used.

FDMEE sends application-specific values in the Performance Management Architect format. For example the Data Storage Value will be “NeverShare” instead of “Never Share” and “ShareData” instead of “Shared.” This means that if the Custom Data Relationship Management implementation is set up using the Outline Utility values instead of the Performance Management Architect values then there will be a need to transform those values. This can be done by creating a lookup and using it to transform the values during import or to add a view onto the staging view that does the transformations.

**FDMEE Essbase(ASO) Import**

Map the following columns to the appropriate custom properties.

<table>
<thead>
<tr>
<th>Import Section</th>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Node</td>
<td>TIMEBALANCE</td>
<td>Essbase Time Balance</td>
</tr>
<tr>
<td>Node</td>
<td>VARIANCEREPORING</td>
<td>Essbase Variance Reporting</td>
</tr>
<tr>
<td>Relation</td>
<td>DATASTORAGE</td>
<td>Essbase ASO Data Storage</td>
</tr>
</tbody>
</table>

**FDMEE Essbase(ASO) Import**

Map the following columns to the appropriate custom properties.

<table>
<thead>
<tr>
<th>Import Section</th>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Node</td>
<td>TIMEBALANCE</td>
<td>Essbase Time Balance</td>
</tr>
<tr>
<td>Node</td>
<td>VARIANCEREPORING</td>
<td>Essbase Variance Reporting</td>
</tr>
<tr>
<td>Relation</td>
<td>DATASTORAGE</td>
<td>Essbase BSO Data Storage</td>
</tr>
</tbody>
</table>

**FDMEE HFM Import**

Map the following columns to the appropriate custom properties.

<table>
<thead>
<tr>
<th>Import Section</th>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Node</td>
<td>CONSOLIDATIONACCOUNTTYPE</td>
<td>Essbase Time Balance</td>
</tr>
<tr>
<td>Node</td>
<td>ISICP</td>
<td>Essbase Variance Reporting</td>
</tr>
<tr>
<td>Node</td>
<td>ISCONSOLIDATED</td>
<td>Essbase BSO Data Storage</td>
</tr>
<tr>
<td>Node</td>
<td>CUSTOM1TOPMEMBER</td>
<td>HFM Custom 1 Top Member</td>
</tr>
</tbody>
</table>
### Import Section

<table>
<thead>
<tr>
<th>Node</th>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Node</td>
<td>CUSTOM2TOPMEMBER</td>
<td>HFM Custom 2 Top Member</td>
</tr>
<tr>
<td>Node</td>
<td>CUSTOM3TOPMEMBER</td>
<td>HFM Custom 3 Top Member</td>
</tr>
<tr>
<td>Node</td>
<td>CUSTOM4TOPMEMBER</td>
<td>HFM Custom 4 Top Member</td>
</tr>
<tr>
<td>Node</td>
<td>ENABLECUSTOM1AGGR</td>
<td>HFM Enable Custom 1 Aggregation</td>
</tr>
<tr>
<td>Node</td>
<td>ENABLECUSTOM2AGGR</td>
<td>HFM Enable Custom 2 Aggregation</td>
</tr>
<tr>
<td>Node</td>
<td>ENABLECUSTOM3AGGR</td>
<td>HFM Enable Custom 3 Aggregation</td>
</tr>
<tr>
<td>Node</td>
<td>ENABLECUSTOM4AGGR</td>
<td>HFM Enable Custom 4 Aggregation</td>
</tr>
</tbody>
</table>

### FDMEE Planning Import

Map the following columns to the appropriate custom properties.

<table>
<thead>
<tr>
<th>Import Section</th>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Node</td>
<td>ACCOUNTTYPE</td>
<td>Planning Account Type</td>
</tr>
<tr>
<td>Node</td>
<td>TIMEBALANCE</td>
<td>Planning Time Balance</td>
</tr>
<tr>
<td>Node</td>
<td>VARIANCEREPORTING</td>
<td>Planning Variance Reporting</td>
</tr>
<tr>
<td>Relation</td>
<td>MEMBERVALIDFORPLAN1</td>
<td>Planning Member Valid for Plan 1</td>
</tr>
<tr>
<td>Relation</td>
<td>MEMBERVALIDFORPLAN2</td>
<td>Planning Member Valid for Plan 2</td>
</tr>
<tr>
<td>Relation</td>
<td>MEMBERVALIDFORPLAN3</td>
<td>Planning Member Valid for Plan 3</td>
</tr>
<tr>
<td>Relation</td>
<td>MEMBERVALIDFORCAPEX</td>
<td>Planning Member Valid for Capex</td>
</tr>
<tr>
<td>Relation</td>
<td>MEMBERVALIDFORWORKFORCE</td>
<td>Planning Member Valid for Work Force</td>
</tr>
<tr>
<td>Relation</td>
<td>DATA STORAGE</td>
<td>Planning Data Storage</td>
</tr>
<tr>
<td>Relation</td>
<td>SOURCEPLANTYPE</td>
<td>Planning Source Plan Type</td>
</tr>
</tbody>
</table>

### Exports

For each export there are two columns that will need to be mapped to the custom properties for the target dimension:

- Column: TARGKEY – The name of the node being mapped to in the target dimension.
- Column: TARGETDIMENSIONNAME – The dimension name of the target dimension.

The property used to get the Target Key Name cannot just use a formula of ParentProp(). This is because you may map at a rollup point from the ERP dimension. The logic for this property
should continue up and return the first node name found that is a true target dimension node. For example:

![Diagram showing HFM1, HFM2, ERP1, ERP2, and ERP3]

**Loading GL Values and Hierarchies into Data Relationship Management**

**Subtopics**

- Importing Members from FDMEE
- Blending ERP Members to EPM Versions

**Importing Members from FDMEE**

The import process is run using a FDMEE metadata rule and will populate the staging tables and execute the Data Relationship Management import to create the version within Data Relationship Management.


**Blending ERP Members to EPM Versions**

The blend profile FDMEE Blend is set up to blend the versions imported from FDMEE into existing Data Relationship Management versions. The blend can be run manually within Data Relationship Management or it can be run at the end of a FDMEE metadata rule that imports the data into Data Relationship Management. This can be done by configuring the Blend after Import functionality on the import profiles used for the FDMEE import process.

**Note:** The Data Relationship Management user needs to have the Application Administrator role.

To use the ERP members to EPM version:

1. **On the Data Relationship Management Home page, click Import.**
2. **Open the import profile by double clicking on it.**
3. **Click on the Target tab.**
4. **Select the Blend After Import checkbox.**
5. **Select the appropriate blender (FDMEE Blend is the one supplied by the template) from the blender profile drop down list.**
The Default parameters in the supplied FDMEE Imports set the BLEND_TARGET parameter to be the FDMEE_MAP_VERSION variable. If this is not the desired target of the blend then this parameter needs to be changed to point to the appropriate version or version variable. It is recommended that you use a version variable so that the import profiles do not have to be modified as the target version changes.

To set the Parameter BLEND_TARGET do the following:

a. Click the Parameters button (Edit Parameters).
b. Click on Edit button for the BLEND_TARGET row.
c. Set the Value to the appropriate version variable or version.
d. Click the Save button in the BLEND_TARGET row.
e. Click OK on the Parameter Edit dialog box.

Click the Save button to save the changes to the import profile

Mapping ERP to EPM Members in Data Relationship Management

Subtopics

- Setting the FDMEE_MAP_VERSION Variable
- Performance Management Architect and Planning Dimensions Used for Mappings
- Mapping ERP to EPM Members in Data Relationship Management
- Exporting Mappings to FDMEE

Setting the FDMEE_MAP_VERSION Variable

The Version Variable FDMEE_MAP_VERSION is used by FDMEE when running exports to extract mapping data from Data Relationship Management.

Before the FDMEE system runs the mapping exports this variable needs to be assigned to the version that contains the mappings.

Note: The Data Relationship Management user needs to have the Application Administrator role.

To set the FDMEE_MAP_VERSION variable:

1. On the Data Relationship Management Home page, select a version.
2. Right click on the version and select Set Variables and then FDMEE_MAP_VERSION.
Performance Management Architect and Planning Dimensions Used for Mappings

The imports from FDMEE do not configure hierarchies in Data Relationship Management to be immediately used for managing mappings for a target EPM application. Data Relationship Management hierarchies must be separately configured for EPM dimensions using properties included in the Performance Management Architect or Planning application templates for Data Relationship Management.

For more information see Defining and Configuring EPM Dimensions and Defining and Configuring Planning Dimensions.

**Note:** Hierarchies should not be configured with a shared dimension for Performance Management Architect when used to manage member mappings for FDMEE. Hierarchies used to manage mappings for FDMEE should be configured as local dimensions only (using the Essbase/HFM/HP Dimension properties) to ensure the mappings can be appropriately validated against the target application by FDMEE.

At a minimum, the following properties need to be properly configured and populated for the FDMEE mapping export process to function correctly.

- **Dimension**
  - ESSBASE.Dimension
  - HFM.Dimension
  - HP.Dimension

- **Membership**
  - ESSBASE.Membership
  - HFM.Membership
  - HP.Membership

- **MemberName**
  - ESSBASE.MemberName
  - HFM.MemberName
  - HP.MemberName

**Dimension (HFM, ESSBASE, HP)**

Configure the following hierarchy level properties to add the appropriate values to the allowed values:

- HFM.Dimension
- HP.Dimension
- ESSBASE.Dimension
This property must be set to the appropriate value for the target Performance Management Architect or Planning hierarchies.

**Membership**

The top nodes of the Performance Management Architect and Planning hierarchies should have this property set to “Parent Member”. Bottom nodes of the Performance Management Architect and Planning dimensions will derive to “Member Node” by default. In the locations where mapped nodes are beneath the actual bottom nodes of the Performance Management Architect and Planning dimension nodes, the bottom Performance Management Architect and Planning dimension nodes will need to be set to “Base Member.”

**MemberName**

This property returns the name of the node if the node is either a “Parent Member” or “Base Member” if it is at the top of the hierarchy it returns a blank otherwise it rolls up the ancestor chain and returns the first node name that is either a “Parent Member” or “Base Member.” For this to work with the mapping exports the appropriate Membership properties have to be set.

**Mapping ERP to EPM Members in Data Relationship Management**

Data Relationship Management hierarchies are used to manage explicit member mappings from GL segment values of an ERP source system to dimension members of an EPM target application. Data Relationship Management hierarchy relationships can be used to manage one-to-one or many-to-one mappings between segment values and dimension members.

After the ERP hierarchies have been blended into the version that contains the EPM hierarchies, the nodes can be mapped by placing the ERP nodes under the EPM node to be mapped to. The ERP node can be either a bottom (leaf) node or a structure (limb) node. If a structure (limb) node is used then it will be equivalent to mapping all of the bottom (leaf) nodes under it. The mappings sent to FDMEE will not include the ERP structure (limb) nodes.

There are multiple utilities that can be used in Data Relationship Management to assist with the mappings:

- Query
- Compare
- Action Script

Data Relationship Management queries can be used to identify ERP nodes that are not mapped to an EPM hierarchy by using either the Core.Links or Core.References statistical properties to see if it contains the EPM hierarchy. The results of the query can then be copied onto the clipboard. After the unmapped nodes are on the clipboard, they can be mapped to the EPM hierarchies by opening the appropriate EPM hierarchy and copying the ERP nodes from the clipboard onto the EPM hierarchy.
Compares can be used to compare the ERP nodes in both the ERP and EPM hierarchies to identify unmapped nodes. The nodes can then be mapped by drag and drop, via the clipboard, or by a manual insert.

In addition to using the Query and Compare features interactively in Data Relationship Management, the results can be exported to a spreadsheet. The mappings can be entered into the spreadsheet to generate an action script to perform the insert actions for the mappings.

**Note:** To map an ERP node to the EPM node, the bottom node of the EPM hierarchy will need to be changed from a leaf node to a limb node and its appropriate membership property set to Base Member.

Following is an example HFM EPMA hierarchy with mapped nodes under the base membership nodes.

In this example, ent_28, ent_YAMAGATA 7 ent_01 are bottom level source system nodes mapped under bottom level target system nodes. Note that the target system nodes (Singapore Admin and Singapore Production) are no longer leaf nodes and have the Membership property set to “Base Member.”

Ent_Canada is an example of mapping a limb node from the source hierarchy to base member in the target hierarchy. As before the base member in the target is now a leaf node with the membership set to “Base Member.”

**Bottom Level Mapping Only**

It may be desirable to enforce that mapped nodes are mapped to a bottom level EPM node. This can be done by checking if the node type (EPMA.MemberType) is FDMEE ERP and if the Parent is either a node with an FDMEE ERP node type or, if not, that it is a Base member of the EPM hierarchy (HFM.Membership, Essbase.Membership, HP.Membership, EPMA.Membership).
Exporting Mappings to FDMEE

The export process is run from FDMEE using the Import Mappings from Data Relationship Management option and will execute the Data Relationship Management export to populate the staging tables for FDMEE to process. The Version Variable FDMEE_MAP_VERSION must be set to point to the appropriate version where mappings for Oracle Hyperion Financial Data Quality Management, Enterprise Edition are being managed.

The Planning template uses the Planning portion of the Performance Management Architect template. The two templates can be used in the same Data Relationship Management application, however there are some differences that you need to be aware of:

- The Planning template contains updates to fix known issues in the Performance Management Architect template.
- The Planning template has enhancements to support more functionality.
  - Support for the Data Relationship Management shared nodes feature
  - Support for scenarios where the top node = hierarchy = dimension
- The Planning template contains additional properties, imports, hierarchy groups, and compares.
- The Planning template predefines some of the lists and lookups for Dimension and Dimension Type.

Because of these differences, in new or existing Data Relationship Management applications the Planning template must be applied after the Performance Management Architect template.

**Existing Performance Management Architect Integration**

If an existing Performance Management Architect integration is in place then you should do the following to understand the impact and properly update any production systems:

- Use the Migration Utility to compare the Planning application template to your production system and review all of the differences.
- Use the Migration Utility to compare the Performance Management Architect application template to production to understand all changes and customization done to the original Performance Management Architect application template for your production system.
Create a test system from production to apply the new Planning application template and perform any required customization based on the reviews of the differences found.

Test the updated Oracle Data Relationship Management system to ensure that it works as expected for the existing production uses.

Use the Migration Utility to extract the changes in the metadata on the test system to be applied into the production system going forward.

Object Changes in Planning Template

The following objects have changed in the Planning application template from the original Oracle Hyperion EPM Architect application template:

Table 1  Planning Application Template Changes

<table>
<thead>
<tr>
<th>Property</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning (property category)</td>
<td>Oracle Hyperion Planning properties</td>
</tr>
<tr>
<td>HP.ParentName</td>
<td>Added logic to support the new Dimension membership</td>
</tr>
<tr>
<td>HP.Alias</td>
<td>Changed logic to support the shared nodes feature</td>
</tr>
<tr>
<td>HP.Dimension</td>
<td>List of Planning Dimension Types predefined</td>
</tr>
<tr>
<td>HP.DimensionType</td>
<td>Lookups for Dimension predefined</td>
</tr>
<tr>
<td>HP.MemberName</td>
<td>Changed logic to support the new Dimension membership and the shared nodes feature</td>
</tr>
<tr>
<td>HP.Membership</td>
<td>Changed logic to support the new Dimension membership</td>
</tr>
<tr>
<td>HP.ReportCurrency</td>
<td>Changed incorrect Data Type and updated Description</td>
</tr>
<tr>
<td>HP.TimeBalance</td>
<td>Fixed incorrect Default Value</td>
</tr>
<tr>
<td>HP.VarianceReporting</td>
<td>Fixed incorrect Default Value</td>
</tr>
</tbody>
</table>