USER GUIDE | PUBLIC
SAP Financial Consolidation Cube Designer
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SAP Financial Consolidation Cube Designer User Guide

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Content

1 What's New in Cube Designer

Links to information about the new features and documentation changes for Cube Designer.

What's New in version 10.1 Support Package 06

What's new	Link to more information
From Cube Designer, you can now display your personal information.	Displaying your Personal Information [page 13]

What's New in version 10.1 Support Package 05

What's new	Link to more information
For SSAS deployments, you can define eliminations and consolidations with two rollup hierarchies.	Hierarchy Selection [page 51]

What's New in version 10.1 Support Package 02

What's new	Link to more information
SAP HANA Deployments: The modeling views that are now deployed are the following, just like in version 10 Support Package 16: • Analytic views (equivalent to calculation views of cube type in version 10.1) • Attribute views of dimension type (equivalent to calculation views of dimension type in version 10.1)	SAP HANA Deployment [page 103]
Solution lock: When opening a solution, you can now lock it so that only you can modify the solution. Any other user can access the solution in read-only mode.	Introduction to Solutions [page 15]

What's New in version 10.1

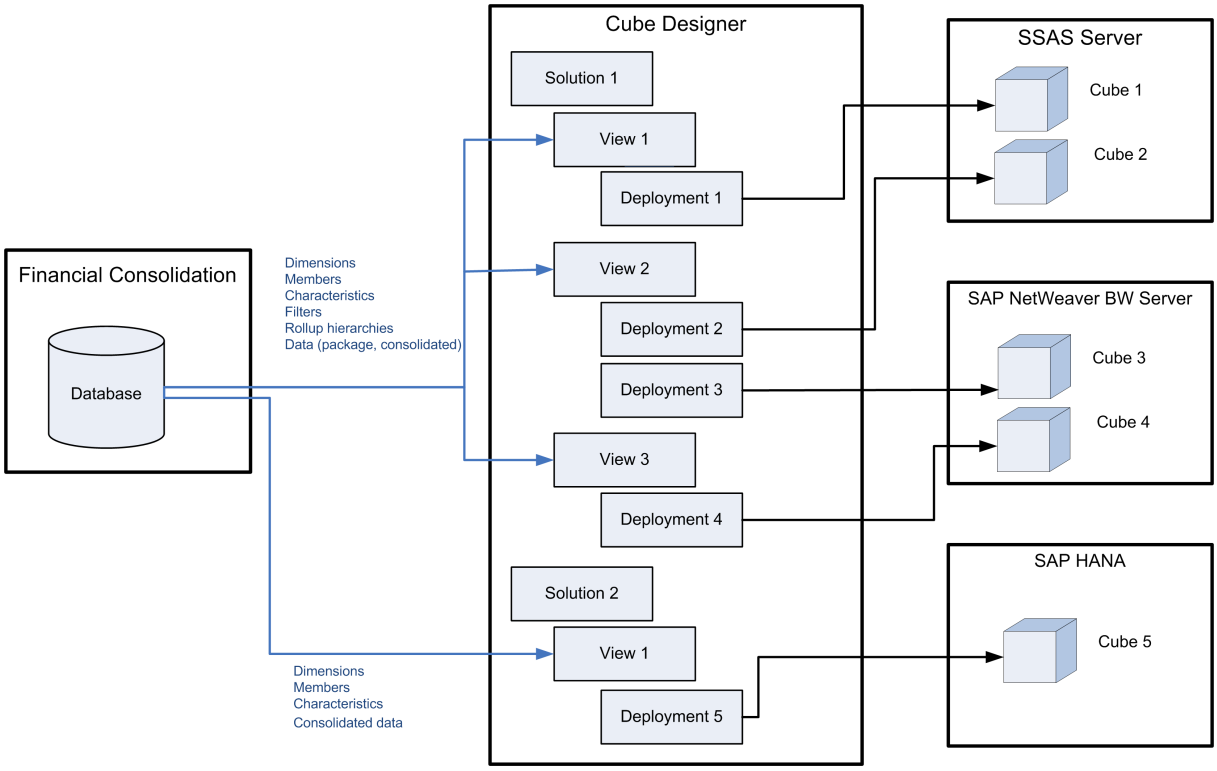
What's new	Link to more information
SAP HANA Deployments: • The modeling views that are now deployed areCalculation views of cube type (equivalent to analytic views in version 10 Support Package 16) • Calculation views of dimension type (equivalent to attribute views in version 10 Support Package 16)	SAP HANA Deployment [page 103]
Since Financial Consolidation 10.0 Support Package 16, it is possible to deploy SAP BW cubes based on SAP HANA, from a Financial Consolidation database hosted on a SAP HANA server. The modeling views that are now deployed are no longer analytic and attribute views but calculation views of two types: To do so, you specify the deployment type in the view. Then, you enter the SAP HANA server and port that hosts the Financial Consolidation database.	• Creating Views [page 22] • Creating an SAP NetWeaver Business Warehouse Deployment [page 89]

2 Getting Started

2.1 General Overview of Cube Designer

SAP Financial Consolidation, Cube Designer is an application which enables authorized users to map the two following types of structured data:

- Data stored in a SAP Financial Consolidation database.
- Data to be stored in OLAP cubes and/or star schemas.



In the above diagram, the steps are as follows:

Phase 1 - Creating a solution

When you create a solution, the SAP Financial Consolidation database security parameters are loaded in the solution.

Phase 2 - Creating a view

When you create a view, the following SAP Financial Consolidation database elements are loaded in the solution: dimensions, members, characteristics and filters.

> **i** Note
>
> When creating a view for SAP HANA deployments, the characteristics and filters are not loaded in the solution.

Phase 3 - Creating a cube deployment or a star schema deployment

- Creating a cube deployment. When you create a cube deployment, you specify on which server you want to create the cube.
- Creating a star schema deployment. When you create a star schema deployment, you specify on which database server you want to create the star schema.

Phase 4 - Generating a cube or a star schema

- Deploying and processing a cube.
  - When you deploy a cube, the following SAP Financial Consolidation database elements are loaded in the cube: dimensions, characteristics and rollup hierarchies.
  - When you process a cube, the SAP Financial Consolidation database members and data are loaded in the cube.

  > **i** Note
  >
  > For SAP HANA deployments, we only talk about deploying and deploying consists in loading dimensions, members and data in the cube.
- Deploying a star schema. When you deploy a star schema, the following tables are created:
  - Dimension tables
  - Characteristic tables
  - Fact table(s) containing data

Users will then be able to view and analyze the data contained in the cubes using retrieval tools.

2.2 Connecting to Cube Designer

Procedure

1. Select *Start* > *Programs* > *SAP BusinessObjects* > *Financial Consolidation* > *Cube Designer*.

   The logon dialog box opens.
2. Perform one of the two actions below:
   - If the single sign-on (SSO) has been activated: the *SAP BusinessObjects Enterprise Credentials* area is already filled in. Select the connection you want to use from the *EPM Connection* drop-down list.

     > **Note**
     >
     > For more information on how to activate the SSO, see the *SAP Financial Consolidation Security Guide*.
   - If the single sign-on (SSO) has not been activated: in the *SAP BusinessObjects Enterprise Credentials* area, enter or select the information you use to connect to the Central Management Console of your SAP BusinessObjects Enterprise platform and select the connection you want to use from the *EPM Connection* drop-down list.

   > **Note**
   >
   > The *Authentication Status* area gives you a clear status on whether the credentials are correct or not.
3. Click the *OK* button.

   Cube designer opens. The name of the connection appears below the window title bar.

2.3 Main Steps

When working with cube designer, you must deal with the following:

- Solutions
- Views
- SSAS cube deployment
- Star schema deployment
- SAP NetWeaver Business Warehouse (SAP NetWeaver BW) cube deployment

Related Information

Introduction to Solutions [page 15]
Introduction to views [page 20]
Introduction to Cube Deployments [page 72]

Introduction to Star Schemas [page 108]

2.4 Cube Designer Functional Rights

To be able to use cube designer, you must have the following rights:

- Design cube right. This right is managed in the Central Management Console for the EPM connection manager.
- Analytics administration right. This right is managed in SAP Financial Consolidation.

To find out more about rights, refer to the SAP Financial Consolidation Security Guide.

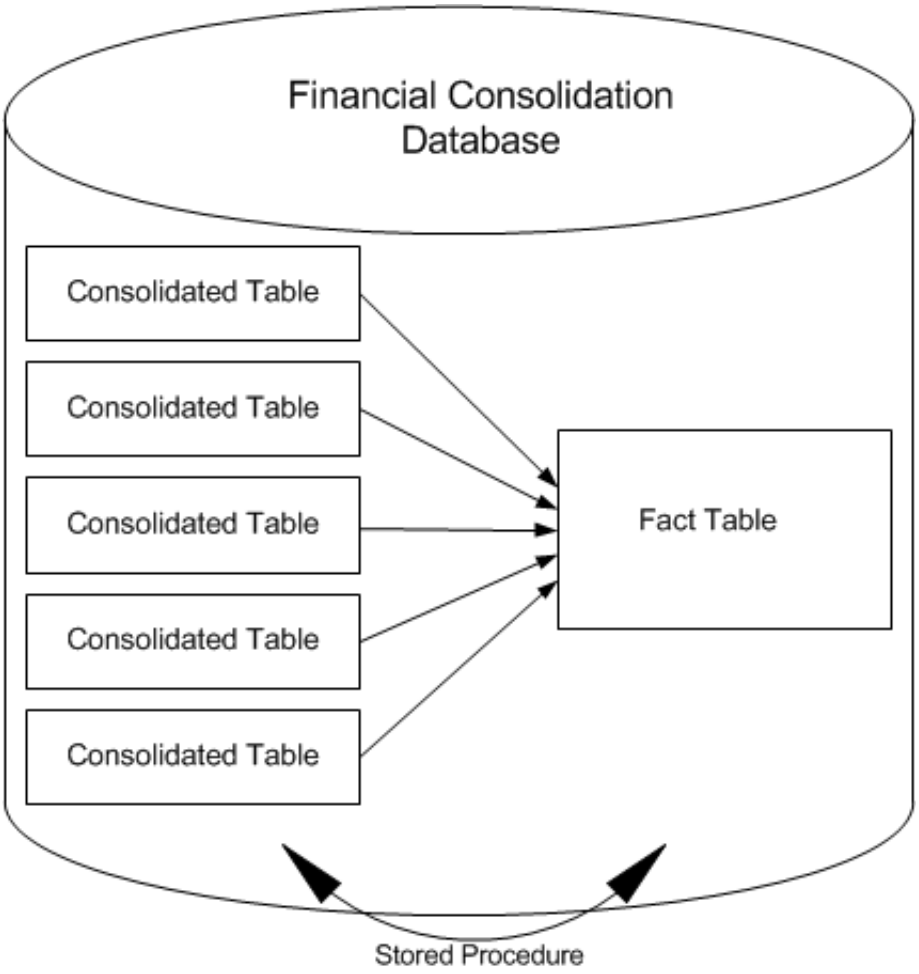
2.5 Overview of Reporting in SAP HANA

Cube designer allows to create SAP HANA modeling views, based on the Financial Consolidation database.

Financial Consolidation data and metadata can then be viewed and analyzed in real-time in the supported retrieval tools.

One Consolidation Table

The consolidated data of the various consolidation tables of Financial Consolidation are integrated into one unique consolidation table, also called a fact table. This way, it is possible to easily retrieve several consolidations in a unique report. To generate or update this fact table, you need to run a stored procedure. To find out more about the stored procedure, see the *SAP Financial Consolidation Administration guide*.



SAP HANA Modeling Views and Security Objects

Performing a SAP HANA deployment using Cube Designer consists of creating the following SAP HANA modeling views:

- An analytic view. The analytic view is defined on the fact table containing Financial Consolidation data along with the created attribute views.
- Attribute views. One attribute view is created per dimension included in the cube designer view.

Also, the following security objects are deployed:

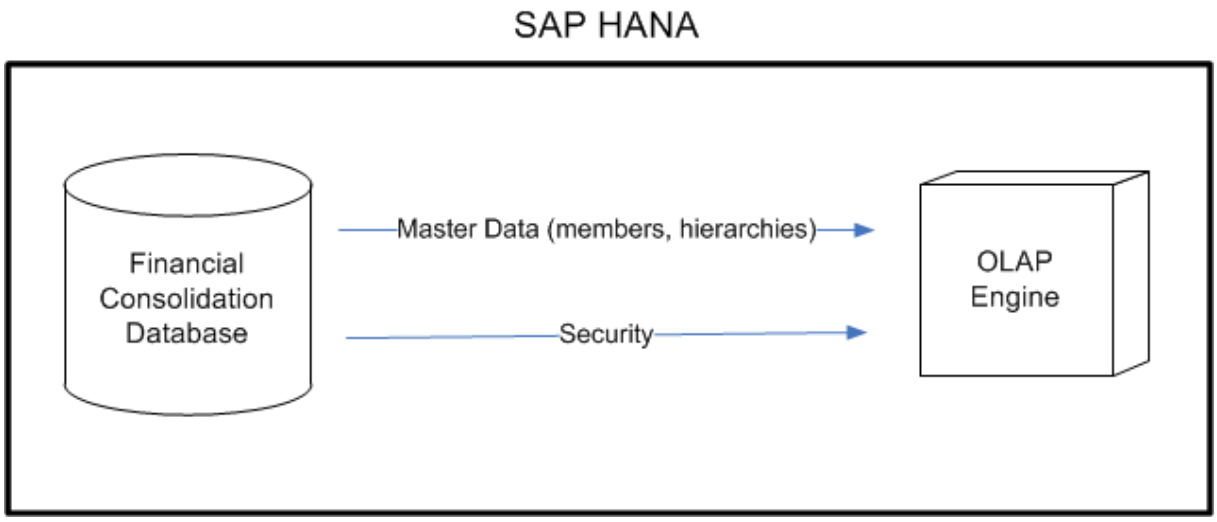
- Roles. A SAP HANA role is created for each Financial Consolidation data access group; and a unique role is created that gives access to all the data and is assigned by default to the SAP HANA user.
- Privileges. A SAP HANA privilege is created for each dimension and each cube that has been deployed.
- Stored procedures. A SAP HANA stored procedure is created for each filter and characteristic defined on a Financial Consolidation data access group.

For more information on SAP HANA deployments, see SAP HANA Deployments [page 103].

Real-Time Update and Automatic Refresh in SAP HANA

Once a first SAP HANA deployment has been performed, thanks to the real-time update mechanism, the following items are automatically updated in the SAP HANA modeling views as soon as they are updated in Financial Consolidation:

- Master data, that is members and hierarchies.
- Security objects, that is roles, privileges and stored procedures.



However, when metadata - that is dimensions and characteristics - is updated in Financial Consolidation and if you want to include them in the cube designer view and consequently in the analytic view, then you need to perform a redeployment so that the modeling views are updated as well.

Data refresh: when consolidated data has been modified in Financial Consolidation, you can update the fact table by executing the dedicated stored procedure. This stored procedure can be triggered manually or you can also create pre-consolidated tasks that can be scheduled periodically. To find out more about the stored procedure, see the *SAP Financial Consolidation Administration guide*

Related Information

SAP HANA Deployments [page 103]

2.6 Displaying your Personal Information

Context

If you want to display your personal information stored within the application (in the SAP Financial Consolidation database), follow the procedure below:

Procedure

Click *Tools* > *Personal information*.

The *Personal Information* dialog box displays all information related to the user you are connected with. It displays information such as the code, the short and long description of the user, and his/her email address.

3 Solutions

3.1 Introduction to Solutions

A solution contains one or more views and a view contains one or more deployments.

A solution is stored in the SAP Financial Consolidation database.

A solution is connected to one SAP Financial Consolidation data source only.

When you open a solution, you can choose to lock it to make sure that only your modifications are taken into account. While you lock the solution, any other user can access the solution in read-only mode.

> **i** Note
>
> - You open a solution without locking it, then enter modifications and want to save your modifications. Meanwhile, another user has opened and locked the solution. In such a case, you cannot save your modifications unless you ask the other user to unlock the solution. Alternatively, you can rename the solution and save your modifications.
> - When a solution is locked, you can still copy it and export it. However, you cannot import it using the same name.

3.2 Creating Solutions

Procedure

1. In cube designer main window, select *File* > *New Solution*.

   The *New Solution* dialog box opens.
2. In the *Name* field, enter the name you want to give the solution.

   > **i** Note
   >
   > For SAP HANA deployments, here is the list of characters you can use for the solution name: *a* to *z* in lower or upper case, *0* to *9*, the characters - (hyphen) and _ (underscore). The space character is not supported.
3. In the *Description* field, enter a brief description explaining the solution. The description is optional.
4. Click the *OK* button.
   The new solution opens.

3.3 Opening Solutions

Procedure

1. In cube designer main window, select *File* > *Open Solution*.

   The *Open Solution* dialog box opens.
2. Select the solution you want to open.
3. a. If the solution is not already locked by another user and you want to lock it, click the checkbox in the *Locked* column. The other users can open the solution in read-only mode.
   b. If the solution is locked by another user, you can open the solution in read-only mode.

   > **i Note**
   >
   > When selecting a solution in the left part of the main cube designer main window, you can view the status of the solution (locked or not) in the upper part of the main window and in the *General* tab. You can also view the name of the user who has locked the solution in the *General* tab.
4. Click the *Open* button.

   The solution opens.

3.4 Renaming Solutions

Procedure

1. In the left part of the main window, right-click on the name of the solution you want to rename, then select *Rename*.
2. Enter the name you want.

3.5 Delete Solutions

You can delete one or several existing solutions.

Before they are deleted, you can save the solutions in external XML files, so that you will be able to re-import them later.

3.5.1 Deleting Solutions

Procedure

1. Select *File* > *Delete Solutions*.
   The *Delete Solutions* dialog box appears.
2. Select the checkbox(es) for the solution(s) you want to delete.

   > → Tip
   >
   > You can select all the solutions at the same time by clicking the *Select all* button.
   >
   > You can save the solution(s) you delete in an XML file by selecting the *Archive deleted solutions to external XML* option. This way, you will be able to re-import the solutions later if needed.
3. Click the *Delete* button.
   A confirmation message appears.
4. Click the *OK* button.

   > ℹ Note
   >
   > If you have selected the *Archive deleted solutions to external XML* option, a dialog box opens where you can choose the filename(s) and location(s) of where you want to save the deleted solution(s).

3.6 Language Selection

There are two types of language:

- Interface language. The interface language is the language used for menus, commands, buttons, etc, that make up the interface.
- Data language. The data language is the language in which all of the translatable text and descriptions appear.

You can change both languages at any time using the *Data Language* drop-down menu located in the upper part of the window and the *Interface Language* drop-down menu available by selecting *Tools* > *Options* > *Display* tab.

3.7 Solution Export and Import

If you want to create a solution based on an existing one, and modify some other information, you can do the following, using the solution import and export functions:

- Export the solution.

- Edit the exported solution and modify it so that you have a new solution.
- Import the new solution.

The import and export files are in .xml format.

> **i** Note
>
> You can also import or export solutions without using cube designer interface.

> **i** Note
>
> You can also execute the Cartesis.InformationDelivery.SolutionExporter.exe or Cartesis.InformationDelivery.SolutionImporter.exe files that are located in the cube designer directory.

Related Information

Solution Export [page 123]
Solution Import [page 124]

3.7.1 Exporting Solutions

Procedure

1. Select *File* > *Export Solution*.
   The *Export Solutions* dialog box opens.
2. In the *Solutions to export* groupbox, select which solutions you want to migrate.

   > → Tip
   >
   > You can use the *Select All* or *Select None* buttons.
3. In the *Export Location* groupbox, select the target folder and enter the name for the XML file.
4. Click on *Export*.

3.7.2 Importing Solutions

Procedure

1. Select *File* > *Import Solution*.
   The *Import Solutions* dialog box opens.
2. In the *Import File* groupbox, select the XML file containing the solutions you want to import.

3. If you want to overwrite solutions with the same name, check the *Overwrite Existing Solutions* box.
4. Click on *Import*.

4 Views

4.1 Introduction to views

You will first create a view for a specific solution.

Once the view is created, and depending on the type of deployment, you will carry out the following operations:

- Choosing the languages.
- Selecting and defining measures.
- Viewing scopes.
- Defining dimensions.

SAP HANA Deployments

For SAP HANA deployments, once the view is created , you will carry out the following operations:

- Choosing one language.
- Defining standard dimensions. Standard dimensions include analysis dimensions.

Related Information

View Creation [page 20]
Language Selection [page 23]
Measure Selection and Definition [page 23]
Scopes [page 29]
Merged Dimension Definition [page 30]
Standard Dimensions [page 38]

4.2 View Creation

Creating a view consists of the following main steps:

- Selecting the type of data from the SAP Financial Consolidation database: Package or Consolidated.

> **!** Restriction
>
> For SAP HANA deployments, Package data is not taken into account. Consolidated data only is taken into account.

- Retrieving the standard dimensions from the SAP Financial Consolidation database.
  The dimensions available depend on the data level you choose.
  - For the package data level, the following dimensions are available: Account, Reporting Unit, Original Reporting Unit, Data Entry Period, Period, Category, Flow, Audit ID, Currency, Share, Partner and custom dimensions which are indicated by a blue cube.
  - For the consolidated data level, all the package dimensions plus the following dimensions are available: Scope, Consolidation currency, Elimination and Variant.

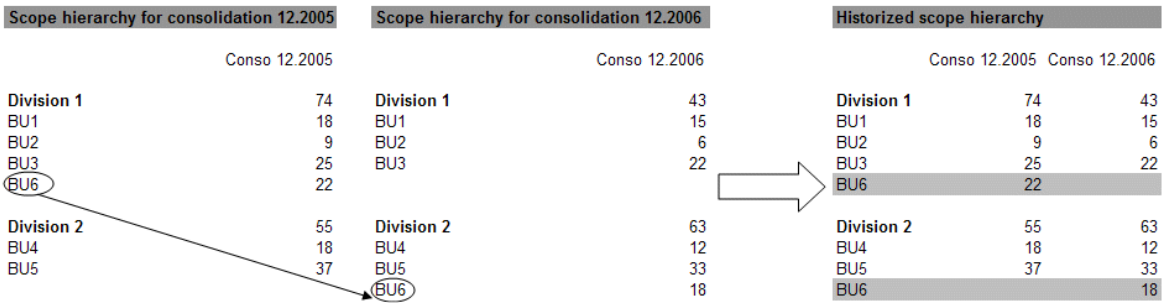
    > **i Note**
    >
    > The Elimination dimension is excluded by default. When you select an origin unit or a reporting unit rollup hierarchy, the Elimination dimension is automatically included in Financial Consolidation Cube Designer because it is required to view eliminations at Divisional Level. To view eliminations at group level only, you do not need the Elimination dimension, you can simply use the different audit IDs. The Elimination dimension has the five following members:
    > - Reported: Consolidated amount without any elimination.
    > - Eliminated at Group Level : Eliminations done at the level of the group.
    > - Consolidated at Group Level: Reported + Eliminated at Group Level.
    > - Eliminated at Divisional Level. Eliminations done according to the reporting unit rollup hierarchies are eliminations by level. This requires an origin unit or a reporting unit rollup hierarchy in the cube in order to work. For each node, an Elimination leaf is automatically created in the rollup hierarchy to display the amounts that have been eliminated at divisional level.
    > - Consolidated at Divisional Level: Reported + Eliminated at Divisional Level.
    > - Consolidated with 2 rollup hierarchies at Divisional level. When you select two rollup hierarchies, this member and the member below are automatically added to the Elimination dimension to display the amounts that are specific to this consolidation based on two rollups.
    > - Eliminated with 2 rollup hierarchies at Divisional level.

> **i Note**
>
> For SAP HANA deployments, the Elimination dimension is not taken into account.

4.2.1 Scope Hierarchies Historization

If you are working with consolidated data, you can historize the scope hierarchies for the Reporting Unit dimension. This way, you will:

- Keep track of changes in scopes.
- Keep consolidated data and not recalculate them in the cube over time.



Reporting unit scope hierarchies - and only these - will be merged into a single hierarchy.

If you choose to historize the scope hierarchies, once you have selected the members for the merged hierarchy, you will be able to choose the order in which the hierarchies will be taken into account.

You should note the following:

- In the *General* tab of the view, the *Using Historized Scopes* option is checked by default and cannot be unchecked.
- The *Historization* tab (included in the *Members* tab) is available for the Consolidations merged dimension and will enable you to choose the order in which the hierarchies will be taken into account.
- In the *Reporting Unit* dimension, the Historized scope hierarchy is selected as a Parent child hierarchy and cannot be modified.
- The *Live Access* tab for the Reporting Unit dimension is disabled.

> **! Restriction**
>
> This feature does not apply to SAP HANA deployments.

4.2.2 Creating Views

Procedure

1. In the main window, right-click on the *Solution* name, then select *Add View*.
   The *New View* dialog box opens.
2. In the *View* groupbox, enter the following information:
   a. In the *Name* field, enter the name you want for the view.

      > **i Note**
      >
      > For SAP HANA deployments, here is the list of characters you can use for the view name: *a* to *z* in lower or upper case, *0* to *9*, the characters - (hyphen) and _ (underscore). The space character is not supported.

   b. In the *Description* field, enter a brief description explaining the view. The description is optional.
3. If the Financial Consolidation database is hosted on a SAP HANA server, the *Deployment Type* area is displayed. Depending on the type of deployment you want to perform afterwards, you can select *SAP HANA* or *SAP BW*.
4. In the *Data Level* groupbox, select one of the following options, depending on what type of data you want:
   - *Package*.
   - *Consolidated*. This option is selected by default.

     > **⚠ Caution**
     >
     > The choice you make here is definitive. Once you have clicked on the *OK* button, you will no longer be able to change the data level.

> **! Restriction**
>
> For SAP HANA deployments, Package data is not taken into account. Consolidation data only is taken into account.

5. Click the *OK* button.
   The view appears below the solution with its dimensions.

4.3 Language Selection

You can choose the data languages you want to make available in the future cube, i.e. the languages in which all of the translatable text and descriptions will appear.

When defining an SSAS cube, you will have to choose the default language from all the languages which have been selected for this view.

> **! Restriction**
>
> One language only is supported for SAP HANA deployments.

Related Information

SSAS Deployment and Cube Information [page 74]

4.3.1 Choosing the languages for the cube

Procedure

1. Select the appropriate view.
2. In the *Languages* groupbox of the *General* tab, select the languages you require.

> **! Restriction**
>
> One language only is supported for SAP HANA deployments.

4.4 Measure Selection and Definition

A measure is an SSAS dimension that you can customize.

The available amounts for the measure dimension depend on the data level selected when creating the view.

- If the Package data level has been selected, the Local amount will be available.
- If the Consolidation data level has been selected, the Local, Converted and Consolidated amounts will be available.

> **! Restriction**
>
> For SAP HANA deployments, Package data is not taken into account. Consolidation data only is taken into account.

4.4.1 Multi- or Single Measure Modes

Depending on how you want the data to be retrieved in the data retrieval tools, you can choose one of the following measure modes:

- multi-measures.

  > **! Restriction**
  >
  > This mode is not supported for SAP NetWeaver Business Warehouse (SAP NetWeaver BW) deployments. If you choose this mode, in the SAP NetWeaver BW deployment part, an issue to resolve will be indicated and you will have to choose the single measure mode in order to deploy the cube.

  > **! Restriction**
  >
  > This mode is not supported for SAP HANA deployments.

- single measure. This is the default mode.

As opposed to the multi-measure mode, the single measure mode enables you to view all detailed and non detailed data on the same measure.

Related Information

Multi-measures Behavior [page 24]
Single Measure Behavior [page 27]

4.4.2 Multi-measures Behavior

Once you have chosen the data amount(s) you want, you can further detail the measures by including dimensional analyses. The dimensional analyses proposed contain the detailed dimensions used in the SAP Financial Consolidation analysis hierarchies for the category selected.

You can select the dimensional analyses you want and you can also create new ones.

> **Note**
>
> If no dimensional analysis appears, this means that no member of the Category dimension has been selected.

Each dimensional analysis you select will be available for selection in the *General* tab of the view.

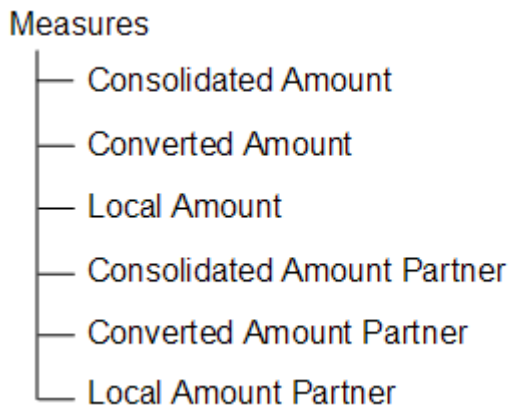
Each dimensional analysis selected will become a measure in the future cube.

The name of a measure will appear as follows in the cube : [type of amount] - [dimensional analysis].

Example

In the Dimensional Analysis tab, the "Partner" dimensional analysis is selected.

In the *General* tab of the view, the available measures are as follows:



Example

The following example will show you how the detailed measures will appear in a cube.

In cube designer, the following elements are selected:

- Data level selected: Consolidation
- Amounts selected for the Measure dimension: Local and Consolidated
- Dimensional analysis selected: Partner/Product and Activity

In the future cube, the Measure dimension will be detailed as follows:

The Consolidation and the Local members are non-detailed amounts.

4.4.2.1 Activating the Multi-measures Mode

Prerequisites

This mode is not supported for SAP NetWeaver Business Warehouse (SAP NetWeaver BW) deployments. If you choose this mode, in the SAP NetWeaver BW deployment part, an issue to resolve will be indicated and you will have to choose the single measure mode in order to deploy the cube.

Procedure

1. Select *Tools* > *Options*.
   The *Options* dialog box opens.
2. In the *General*, tab select the *Multi Measure Group Analysis*.
3. Click *OK*.

4.4.2.2 Selecting a Dimensional Analysis

Procedure

1. Select the view.
2. Select the *Dimensional Analysis* tab.
3. Select the dimensional analysis you want.

4.4.2.3 Creating a Dimensional Analysis

Procedure

1. Select the view.
2. Select the *Dimensional Analysis* tab.
3. Under *Custom Measure Groups*, double-click on *<Double-Click here to add a new Custom Measure Group>*.
   The *Custom Dimensional Analyses* dialog box appears.
4. Enter a name for the analysis.
5. Select all the dimensions you want.

   > → Tip
   >
   > Use the Ctrl keyboard button to select more than one dimension.

6. Click the *OK* button.
   The new analysis appears in the list under *Custom Measure Groups* and is selected by default.

4.4.2.4 Selecting Data Amounts for the Measure Dimension

Procedure

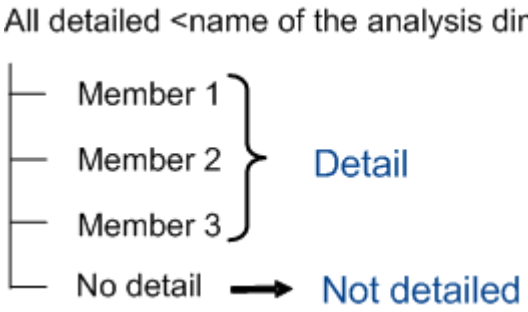
1. Select the view.
2. In the *Measures* groupbox of the *General* tab, select the data amounts you want.

4.4.3 Single Measure Behavior

The dimensional analyses are automatically selected if the analysis dimensions are included in the cube.

> ℹ Note
>
> To include a dimension in the cube, right-click on the dimension in the tree structure part of the window and select *Include*.

As a general rule, the data for a single measure will appear on the detailed hierarchies as follows:



The amount on the node is the result of the sum of the detail: that is, members 1, 2 and 3. The "No detail" amount is not part of the sum.

The default name for the node is: `All detailed <name of the analysis dimension>`. You can rename the node.

> **i Note**
>
> To rename this node, click the *Translation* tab and enter the text you want in each language available. For SAP HANA deployments, the *Translation* tab is not available.

> **⚠ Caution**
>
> It is highly recommended that you set the default member to "No detail". Otherwise, you will always see the analyzed data in the reports.

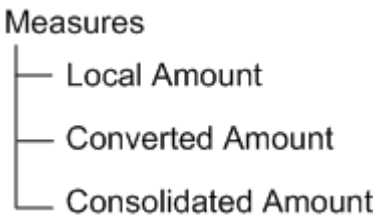
> **! Restriction**
>
> For SAP NetWeaver Business Warehouse deployments, the "All detailed" member includes not only all detailed child members but also the "No detail" member (that is the "NA" member).

> **! Restriction**
>
> For SAP HANA deployments, Local Amount, Converted Amount and Consolidated Amount are automatically selected and cannot be changed.

Example

In the *Dimensional Analysis* tab, the "Partner" dimensional analysis is selected.

In the *General* tab of the view, the available measures are as follows:



Each dimensional analysis will be aggregated in the Local, Converted and Consolidated amounts.

Example

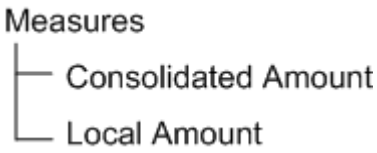
The following example will show you how the detailed measures will appear in a cube.

In cube designer, the following elements are selected:

- Data level selected: Consolidation

- Amounts selected for the Measure dimension: Local and Consolidated
- Dimensional analysis selected: Partner/Product and Activity

In the future cube, the Measure dimension will be detailed as follows:



Related Information

Selecting a Default Member for a Hierarchy [page 63]

4.4.3.1 Selecting the Data Amounts (for the Measure dimension) and a Dimensional Analysis

Context

> **!** Restriction
>
> For SAP HANA deployments, Local Amount, Converted Amount and Consolidated Amount are automatically selected and cannot be changed.

Procedure

1. Select the view.
2. In the *Measures* groupbox of the *General* tab, select the data amounts you want.

4.5 Scopes

If you have chosen to work with consolidated data, the *Scopes* tab appears.

The scopes displayed in the tab are related to the members selected in the Scope dimension.

The tab enables you to view the scope hierarchies.

> **!** Restriction
>
> This feature is not supported for SAP HANA deployments.

Related Information

Hierarchy Selection [page 51]

4.5.1 Viewing a scope hierarchy

Procedure

1. In the tree structure part of the window, select the appropriate view.
2. Select the *Scopes* tab.
3. In the *Scopes* section, select the scope you want to view.

   In the *Scope Hierarchy* section, the hierarchy appears.

> → Tip
>
> You can use the *Show All* button to display all the levels of the hierarchy.

4.6 Merged Dimension Definition

Defining merged dimensions consists of the following steps:

- Merging dimensions
- Changing and translating the name of a merged dimension
- Naming and selecting the members of a merged dimension
- Ordering scope hierarchies

> ! Restriction
>
> For SAP HANA deployments, you cannot merge dimensions.

Related Information

Merged dimensions [page 31]
Name Change and Translation for Merged Dimensions [page 33]
Member Name and Selection for a Merged Dimension [page 34]
Scope Hierarchies Order [page 37]

4.6.1 Merged dimensions

4.6.1.1 Pre-defined Merges

Depending on the data level you have chosen when creating the view, you can merge the following dimension combination: *Conso Definitions*, *Reporting ID* or *Consolidations*.

- For the package data level, the following dimensions are available: the Category and Data Entry Period contained in the Reporting ID.
- For the consolidated data level, all the package dimensions plus the following dimensions are available: Scope, Consolidation currency and Variant contained in Conso Definition; Category, Data Entry Period, Scope, Consolidation currency and Variant contained in Consolidations.

4.6.1.1.1 Merging a Pre-defined Combination of Dimensions

Procedure

1. In the tree structure part of the window, right-click the *Merged Dimensions* node and select one of the following: *Merge 'Conso Definitions'*, *Merge 'Reporting ID'* or *Merge 'Consolidations'*.

   Some of them may not be available. Two reasons are possible:

   - The merge has already been defined and appears in the *Merged Dimensions* node.
   - The merge cannot be performed because of the data level you have already chosen when creating the view.

   > **i** Note
   >
   > By default, none of the members are selected.

2. You will then select the members that will appear in the cube.

   > **→** Tip
   >
   > To rename the newly merged dimension, right-click on it and select *Rename*.

Related Information

Selecting the Members of a Merged Dimension [page 36]

4.6.1.2 Customized Merges

You can merge other dimensions of your choice. You can then rename the resulting merged dimension members.

Merging dimensions can result in a high volume of metadata.

On a large set of members, this behavior can lead to a cumbersome selection process. This is why you can select the members to be merged, therefore producing a smaller set of combinations.

Example: For instance, merging the following dimensions:

- Products : P1, P2
- Geography: France, UK
- Activity: A5, A6

would generate the following combinations: P1 France A5, P1 France A6, P1 UK A5, P1 UK A6, P2 France A5, P2 France A6, P2 UK A5, P2 UK A6.

4.6.1.2.1 Merging the Dimensions of your Choice

Procedure

1. In the tree structure part of the window, right-click the *Merged Dimensions* node and select *Add Custom merge*.

   The *Create New Merge Definition* dialog box appears.

2. In the *Available Dimensions* area, select one of the dimensions you want to merge and click the  button.
3. The dimension you have selected appears in the *Included Dimensions* area.
4. Repeat actions 2 and 3 for each dimension.

   > **i Note**
   >
   > Each time you insert a dimension in the *Included Dimensions* area, the *Estimated Member Count* is updated. It indicates the estimated number of members that will be retrieved in the future cube if you select all members of each dimension.

5. Click the *OK* button.

   The merged dimension appears under the *Merged Dimensions* node. By default, the dimension name is the concatenated names of the dimensions you have merged.

   For example, if you have merged the Account and the Flow dimensions, the merge will be named AccountFlow.

> **i Note**
>
> By default, none of the members are selected.

6. To select the members that will appear in the cube.

> **→ Tip**
>
> To rename the newly merged dimension, right-click on it and select *Rename*.

Related Information

Selecting the Members of a Merged Dimension [page 36]

4.6.2 Name Change and Translation for Merged Dimensions

You can change the name of the dimension as it will appear in the future deployment.

You can also translate the name of the dimension.

4.6.2.1 Changing and Translating the Name of a Merged Dimension

Context

The name of the merged dimension appears - in the data language displayed - in the *Dimension Identity* groupbox of the *General* tab. You can change it.

Procedure

1. Click the *Translation & Member Names* tab.
2. Enter the text for each language.

Results

You can also rename a merged dimension in the current language by right-clicking on it in the left part of the window and selecting *Rename* in the context menu.

4.6.3 Member Name and Selection for a Merged Dimension

While creating the view, you may have chosen merged dimensions. For each merged dimension, you will now:

- Choose how the name of the members should appear in the future deployment (in the *Translation and Member Names* tab).
- Choose the dimension members you want to take into account for each dimension composing the merged dimension (this is a pre-selection), then for the merged dimension itself (in the *Members* tab).

> **i Note**
>
> By default, none of the members are selected.

A member name can appear in four ways:

- Code naming. This is the default naming type of a member. A concatenated name is created by grouping together the codes of the members (from the SAP Financial Consolidation database) contained in the merged dimension.
- Financial Consolidation naming. This is available for selection for the 'Reporting ID' and 'Consolidations' merged dimensions. In this case, the members will appear with the same description as in the SAP Financial Consolidation database (in SAP Financial Consolidation: Category + Data entry period = Category scenario).
- Deployment Names. A concatenated name is created by grouping together the deployment names of the dimensions composing the merged dimension.

> **! Restriction**
>
> For SAP NetWeaver BW deployments, depending on the deployment names that have been selected for each dimension, merged dimension member names cannot exceed 60 characters for SAP NetWeaver BW. In this case, an issue to resolve will occur and you will have to modify the selection of the deployment name for the dimensions composing the merged dimension.

- Manual Naming. In this case, you will enter the name you want for the member in each language available.

> **→ Tip**
>
> You can also copy and paste the cells from cube designer to Microsoft Office Excel or from Microsoft Office Excel to cube designer, using the copy and paste buttons in the *Translation and Member Names* tab.

You can define the default member that will be displayed in the retrieval tool connected to the future cube. This can be done in the *Default Member* field of the *General* tab.

> **! Restriction**
>
> The default member will not be taken into account for an SAP NetWeaver BW deployment.

You can also specify that you do not want the name of the dimension to appear in the retrieval tool by selecting the *Hide dimension name* option. In this case, only the selected hierarchy name will appear.

> **! Restriction**
>
> The *Hide dimension name* function will not be taken into account for an SAP NetWeaver BW deployment.

> **Note**
>
> By default, 5 000 members can be displayed for a merged dimension. You can change this number in the *Merge Member Max Display* field by selecting *Tools* > *Options* > *Display* tab.

You can select the members in the *Selection* tab. You can access this tab by selecting *[View]* > *Merged dimensions* > *[merged dimension]* > *Members* > *Selection*.

The *Selection* tab includes:

- The *Member Display Filter* groupbox.
  The following elements can be used to limit which members are displayed:
  - To display members containing the same text, enter the text in the *Search for members containing* field. Next, open the *Match against column* drop-down menu and select the column in which the entered text should appear. Finally, click the *Apply* button.

    > **→ Tip**
    >
    > If you want the search to be case sensitive, select the *Filtering is case sensitive* option.

  - To display only the members you have selected in the *Elements* groupbox, select the *Display selected members only* option.
  - You can sort a column in ascending or descending order. This can be done by selecting the column name from the *Sort column* drop-down menu.
- The *Members* groupbox. This part displays the members, depending on the filtering applied. This is where you select the members you want to take into account.
- The *Select all members* box. This option enables you to select all the members belonging to the dimension, and not just the members that are displayed in the *Members* groupbox. By default, any member added to the SAP Financial Consolidation structure is retrieved in cube designer. However, these new members are not automatically selected in cube designer, which means that they do not factor into the existing cube definition. To avoid having to manually select these new members, click the *Select all members* option. This way, the members will be added to the cube in the next deployment.

Related Information

Custom Filtering [page 47]

4.6.3.1 Naming the Members of a Merged Dimension

Procedure

1. Select the appropriate merged dimension.
2. Select the *Translation and Member Names* tab.

> → Tip
>
> You can customize the list of members by ordering them: in ascending or descending order, and based on their codes or description language. To do so, use the *Sort on* drop-down list and the *Ascending* or *Descending* buttons.

3. To order the members, Choose how to order the members:
4. Using one of the following buttons, select the naming type you want:
   - *Code naming.*
   - *Financial Consolidation naming.*

     > i Note
     >
     > This is available for selection for the *'Reporting ID'* and *'Consolidations'* merged dimensions.

   - *Deployment Names.*
   - *Manual naming.*
     If you choose this option, enter the names you want for the members in each available language.

> → Tip
>
> You can also copy and paste the cells from cube designer to Microsoft Office Excel or from Microsoft Office Excel to cube designer, using the copy and paste buttons.

The member names appear in the *Members* groupbox of the *Members* tab.

4.6.3.2 Selecting the Members of a Merged Dimension

Procedure

1. Open the node for the appropriate merged dimension.
2. Select one of the dimensions belonging to the merge.
3. Select the *Members* tab.
4. Select the *Selection* tab.

> i Note
>
> By default, none of the members are selected.

5. In the *Members* groupbox, check the boxes corresponding to the members you want to take into account.

> → Tip
>
> Following are some tips for selecting members:
> - To select all the members displayed, click the *Select Visible* button.
> - To deselect all the members displayed, click the *Deselect Visible* button.
> - To select the deselected members and deselect the selected ones, click the *Invert Selection* button.

- To reset the selection to its default setting, click the *Reset* button.
- To select all the members (not just the ones that are displayed but all the members belonging to the dimension, in particular the newly added members in SAP Financial Consolidation), check the *Select all members* box.

  → Tip

  You can use filtering criteria to limit which members are displayed. To find out more about filtering, see above.

6. Repeat action 2 to 5 for each dimension belonging to the merge.
7. In the tree structure part of the window, select the merged dimension.
8. Select the *Members* tab.

   ℹ Note

   If the *Members* area is empty, it means that no member has been selected in any dimension.

   All the members that appear are a result of the members you have selected for each dimension.
9. Select the members you want to be taken into account in the cube.

4.6.3.3 Scope Hierarchies Order

If you chose to historize the scope hierarchies when creating the view, the *Historization* tab is also available next to the *Selection* tab.

The *Historization* tab includes:

- The *Scope Hierarchy Deployment Order* groupbox. This groupbox displays the members selected in the *Members* groupbox of the current tab or of the *Selection* tab. The buttons available will enable you to choose the order in which the hierarchies will be taken into account.
- The *Members* groupbox. This groupbox displays the members of the merged dimension. You can select the members you want to take into account using this groupbox or in the *Selection* tab.

ℹ Note

The consolidations without scope hierarchies are not displayed.

4.6.3.3.1 Ordering Scope Hierarchies for the Consolidations Merged Dimension

Procedure

1. Select the Consolidations merged dimension.
2. Select the *Members* tab.

3. Select the *Historization* tab.
4. If you have not already chosen the members in the *Selection* tab, you can do so in the current tab by checking the ones you want to take into account.
5. Use the different buttons on the right side to order the members as you like.

4.7 Standard Dimensions

Defining standard dimensions consists of the following steps:

- Changing and translating the names of standard dimensions
- Naming the members of standard dimensions
- Defining the start and end date for periods
- Naming the members of the Period and Data Entry Period dimensions
- Selecting the members of standard dimensions
- Selecting hierarchies
- Selecting attributes
- Excluding standard dimensions
- Hiding excluded dimensions
- Synchronizing the database and cube structure

SAP HANA Deployments

For SAP HANA deployments, defining standard dimensions consists of the following steps:

- Changing the names of standard dimensions
- Naming the members of standard dimensions
- Defining the start and end date for periods
- Selecting the members of standard excluded dimensions
- Selecting hierarchies
- Selecting attributes
- Excluding standard dimensions

Related Information

Name Change and Translation for Standard Dimensions [page 40]
Member Name for Standard Dimensions [page 41]
Start and End Date Definition for Periods [page 44]
Member Name for the Period and Data Entry Period Dimensions [page 45]
Member Selection for Standard Dimensions [page 46]
Hierarchy Selection [page 51]

4.7.1 Reporting Category Dimension Creation

The Reporting Category dimension (merges the Data Entry Period dimension and the Category dimension) is not available by default. You can create it.

You will then be able to create its members, choosing one category and one or several data entry periods.

> ! Restriction
>
> This feature is not supported for SAP HANA deployments.

4.7.1.1 Creating the Reporting Category Dimension and its Members

Procedure

1. In the *General* tab of the view, select the *Using Reporting Categories* check box.
   The *Reporting Category* dimension is added to the dimensions' list in the tree structure part of the window.
2. Select the *Reporting Category* dimension.
3. Select the *Members* tab.
4. To create a member for the dimension, click the *Create* button.
   The *Reporting Category* dialog box appears.
5. In the *Code* field, enter a code for the member you are creating.
6. In the *Long Description* field, enter a name for the dimension.
7. Select a category from the *Category* drop-down menu.
8. Select the checkboxes of the data entry periods you want to include.

   > → Tip
   >
   > You can also use the *Filter* field and click on *Update list* to select the data entry periods you want. For example, if you want to select all occurrences of the month of June , you can enter: `*.06`. If you want to select all the data entry periods, you can enter `*.*`. The characters you can use to facilitate your selection are the same as for the *Custom filtering* section.

9. Click on *OK*.

Related Information

Custom Filtering [page 47]

4.7.2 Name Change and Translation for Standard Dimensions

You choose a type of name for all the standard dimensions as they will appear in the future deployment: [code], [short description], [long description], [extra-long description], [code] - [short description], [code] - [long description], [code] - [extra-long description], [short description] - [code], [long description] - [code], [extra-long description] [code], or a custom name.

The name chosen will be applied by default to each dimension.

You can then change the name of each dimension as it will appear in the future deployment.

4.7.2.1 Choosing a Name for all the Standard Dimensions

Procedure

1. In the tree structure part of the window, select *Dimensions*.
2. Select the *General* tab.
3. Select the naming type you want from the *Dimension default format* drop-down menu.

4.7.2.2 Changing the Name of one Standard Dimension

Procedure

1. In the tree structure part of the window, select the appropriate dimension.
2. Select the *General* tab.
3. The *Naming Format* drop-down menu displays *Use default format*, which represents the default name chosen for all the standard dimensions.
4. If you want to change it, select the naming type you want from the *Naming Format* drop-down menu.
5. If you have selected *Custom Name*, the *Display Name* field is activated and you can enter text of your choosing for the current dimension.

> **i** Note
>
> You can also enter text of your choosing in each available language in the *Translation* tab.

> **! Restriction**
>
> You cannot enter texts in the *Translation* tab for SAP HANA deployments.

4.7.3 Member Name for Standard Dimensions

While creating the view, you may have chosen standard dimensions. For each dimension, you will now choose how the name of the members should appear in the future deployment.

You choose a type of name for all the members of all the dimensions as they will appear in the future deployment: [code], [short description], [long description], [extra-long description], [code] - [short description], [code] - [long description], [code] - [extra-long description], [short description] - [code], [long description] - [code], [extra-long description] [code].

The name chosen will be applied by default to each dimension.

You can then add a prefix and/or a suffix to the default name of the members for each dimension and for each language as they will appear in the future cube.

> **! Restriction**
>
> Prefixes and suffixes are not taken into account for a NetWeaver BW deployment.

> **! Restriction**
>
> Prefixes and suffixes are not supported for SAP HANA deployments.

If there are duplicate members, a pop-up message will appear when you deploy the cube, indicating the remaining duplicate members and asking you whether you want to continue or to stop deployment.

You can also define other naming types for all the members of all dimensions. Each standard dimension will inherit the chosen naming type. In addition to that, you can define other naming types for all members of each dimension.

In your data retrieval tool, the user will be able to choose the naming type to be displayed.

> **i Note**
>
> The retrieval tool must be able to read several descriptions to make this functionality effective.

> **! Restriction**
>
> Member name formats deployed in SAP NetWeaver BW cubes.
>
> For a specific standard dimension, if you do not select any custom member name formats (that is if you do not click the *Use custom format* link in the *General* tab), the following formats are deployed by default in SAP NetWeaver BW cubes:
>
> - code is deployed as an SAP NetWeaver BW short description
> - short description is deployed as an SAP NetWeaver BW medium description
> - long description is deployed as an SAP NetWeaver BW long description
>
> If you select three member name formats, the following formats are deployed in SAP NetWeaver BW cubes:

- the first selected in the checkbox list is deployed as an SAP NetWeaver BW short description
- the second selected in the checkbox list is deployed as an SAP NetWeaver BW medium description
- the third selected in the checkbox list is deployed as an SAP NetWeaver BW long description

If you select a fourth format, a message appears in the *Issue To Resolve* tab and you cannot deploy the cube.

In concatenated formats, there are no spaces on either side of the hyphen (for example: "code-short description").

If the member names exceed a certain number of characters, they are truncated when deployed:

- short descriptions are limited to 20 characters
- medium descriptions are limited to 40 characters
- long descriptions are limited to 60 characters

4.7.3.1 Choosing a Name for all the Members of Standard Dimensions

Procedure

1. In the tree structure part of the window, select *Dimensions*.
2. Select the *Member Properties* tab.
3. Select the naming type you want from the *Formats* column.
4. Select the naming type you want to apply by default to all the members, selecting the appropriate option in the *Default format*.

4.7.3.2 Changing the Name and Add a Prefix and/or a Suffix to the Name of all the Members for a Standard Dimension

Procedure

1. In the tree structure part of the window, select the appropriate dimension.
2. Select the *General* tab.
3. In the *Member properties* area, the default format name chosen for all the members of standard dimensions is displayed.
4. If you want to change this name, click the *Use custom format* link.
   The *Member properties* area is enabled.
5. Select the naming type you want.
6. If you want to add a prefix to the member, enter the prefix you want in the *Member Prefix* field.

> **i Note**
>
> To enter the prefix you want for each language, click the *Translation* tab.

7. If you want to add a suffix to the member, enter the suffix you want in the *Member Suffix* field.

> **i Note**
>
> To enter the suffix you want for each language, click the *Translation* tab.

> **! Restriction**
>
> Prefixes and suffixes are not taken into account for an SAP NetWeaver Business Warehouse deployment.

> **! Restriction**
>
> for SAP HANA deployments, prefixes and suffixes are not supported; entering texts in various languages using the *Translation* tab is not supported.

4.7.3.3 Adding Member Names for all the Members of all Standard Dimensions

Procedure

1. In the tree structure part of the window, select the *Dimensions* node.
2. Select the *Member Properties* tab.
3. Select the naming type you want from the *Formats* column.
4. Enter a name of your choosing in the languages available.

> **i Note**
>
> To enter the name you want for each language, click the *Translation* tab.

> **! Restriction**
>
> for SAP HANA deployments, entering texts in various languages using the *Translation* tab is not supported.

4.7.3.4 Add Member Names for all the Members of a Standard Dimension

Procedure

1. In the tree structure part of the window, select the appropriate dimension.
2. Select the *General* tab.

> **i Note**
>
> If you have already added member names for all the members of all standard dimensions, one or several naming types are already checked in the *Formats* column of the *Member properties* area.

3. If you want to change the member names, click the *Use custom format* link.
   The *Member properties* area is enabled.
4. Select the naming types you want.

> **i Note**
>
> To enter the name you want for each language, click the *Translation* tab.

> **! Restriction**
>
> for SAP HANA deployments, entering texts in various languages using the *Translation* tab is not supported.

4.7.4 Start and End Date Definition for Periods

You can define all the periods to make available for selection in the Period and Data Entry Period dimensions by choosing the start and the end year.

> **i Note**
>
> Once you have defined the dates, all the periods between the start and the end dates are available for selection in the *Members* area for the Period and Data Entry Period dimensions.

As far as the fiscal year is concerned, you can also choose the start month. To be consistent, you must choose the same start month that is defined in Financial Consolidation.

> **! Restriction**
>
> for SAP HANA deployments, the fiscal year is not supported. The start and end dates are taken into account for the gregorian hierarchy.

4.7.4.1 Defining the Dates for Periods

Procedure

1. Select *Tools* > *Options*.
2. Select the *Periods* tab.
3. Define the start and end year.
4. Click the *Apply* button.
5. In the *General* tab of the appropriate solution, select the start month (for the fiscal year) from the *Start Month* drop-down menu.

> **i** Note
>
> To be consistent, you must choose the same start month that is defined in Financial Consolidation.

4.7.5 Member Name for the Period and Data Entry Period Dimensions

> **!** Restriction
>
> this section does not apply to SAP HANA deployments. The only format that is applied to the gregorian hierarchy is the following: YY/YY.MM

> **i** Note
>
> The Period dimension is considered as 'Time' type dimension in a cube.

In the *General* tab of the Period and Data Entry Period dimensions, you can choose a format defining how the name of the members should appear in the future deployment. The names can appear differently for each dimension, depending on which dimension you have selected.

You choose a type of name for all the members of the dimension as they will appear in the future deployment, using templates and adding the text you want.

The available templates are the following: [Month], [Mon], [MM], [YYYY] and [YY].

You can combine several templates and add any text, characters or punctuation you want.

> **i** Note
>
> If you have chosen a member prefix or suffix or both, they will be added before and after the text entered in the *Period Format* field.

Example

In the *Period Format* field :

- 'FY' and ' - ' have been entered.
- [YY] and [Month] templates have been dragged and dropped from the *Templates* section.

The defined period format 'FY[YY] - [Month]' will appear as for example: FY06 - January

Example

With the Period 2006.03 in the SAP Financial Consolidation database, the results using all the different formats will be as follows:

- [Month]: March
- [Mon]: Mar
- [MM]: 03
- [YYYY]: 2006
- [YY]: 06

4.7.6 Member Selection for Standard Dimensions

For each dimension, you will now choose the dimension members you want to include in the future deployment.

To make the selection of the members easier:

- Open the *Selection* tab to use filtering criteria to limit which members are displayed.
- Open the *Filters & Characteristics* tab to use the filters or characteristics defined in the SAP Financial Consolidation database.

Members taken into account for SAP HANA deployments

When working on a SAP HANA deployment:

- For included dimensions, all members are taken into account by default and you cannot perform your own member selection.
- For excluded dimensions, you can choose to make your own selection of members. The member selection defines how data is filtered in the analytic view.

> **i** Note
>
> Here are a few examples of member selection for excluded dimensions:
>
> - Exclude the Scope dimension from the view but select its member "Corporate": in a report, you will see data for the Corporate scope.

- Exclude the Audit ID dimension from the view but select all its members: in a report, you will see data for all aggregated audit IDs.
- Exclude the Share dimension from the view but select its NA member: in a report, you will see data not detailed by share.

Related Information

Custom Filtering [page 47]
Standard Dimensions Exclusion [page 66]

4.7.6.1 Custom Filtering

To make the selection of the members easier, you can open the *Selection* tab to use filtering criteria to limit which members are displayed.

You can access this tab by selecting *View* > *Dimensions* > *[dimension]* > *Members* > *Selection*.

The *Member Display Filter* Groupbox

The following elements can be used to limit which members are displayed:

- To display members containing the same text, enter the text in the *Search for members containing* field. Next, open the *Match against column* drop-down menu and select the column in which the entered text should appear. Finally, click the *Apply* button.

> → Tip
>
> If you want the search to be case sensitive, select the *Filtering is case sensitive* option.

- To display only the members you have selected in the *Elements* groupbox, select the *Display selected members only* option.
- You can sort a column in ascending or descending order. This can be done by selecting the column name from the *Sort column* drop-down menu.

The *Members* Groubox

The *Members* groupbox displays the members, depending on the filtering applied. This is where you select the members you want to take into account.

The *Select all members* Groubox

The option *Select all members* enables you to select all the members belonging to the dimension, and not just the ones that are displayed in the *Members* groupbox. By default, any member added to the SAP Financial Consolidation structure is retrieved in cube designer. However, these new members are not automatically selected in cube designer, which means that they do not factor into the existing cube definition. To avoid having to manually select these new members, click the *Select all members* option. This way, the members will be added to the cube in the next deployment.

> **i** Note
>
> for SAP HANA deployments, the *Select all members* option is selected by default and cannot be changed for included dimensions. Note that there is no need to redeploy a SAP HANA deployment when members are added to the SAP Financial Consolidation structure: since the attribute views are based on the Financial Consolidation tables, the attribute views are synchronized with the tables. In other words, when members are added to the tables, they are visible in the views.

The *Select all members* option equals "All values" in Financial Consolidation.

Member Selection for Detailed Dimensions

For a detailed dimension, you can:

- Select the members you want to take into account by selecting all the members or speficic members.
- Include the NA member. To do so, use the *Include NA Member* option. The NA member equals "No value" in Financial Consolidation.

  > **i** Note
  >
  > for SAP HANA deployments, the NA member will be retrieved as follows in the reports: No [dimension name].

- Specify how the “All” member amount will be calculated: the "All" member will take the aggregation of all the detailed amounts, or the "All" member will take only the amount of the NA member, or the "All" member will take the aggregation of all the detailed amounts and the NA member amount. To specify this, use the *'All' member calculation* drop-down menu.

  > **!** Restriction
  >
  > for SAP HANA deployments, the *'All' member calculation* drop-down menu is not available.

Characters you can use in the Search for members containing field

- Literals like abc will match any element name containing at least one occurrence of 'abc'. This is case sensistive.
- * means zero or more, + means one or more. So a+bc will match any string containing a followed by one or more b followed by a c.

- You can group literals using [] so [ae]will match any string containing a single a or e. Hence gr[ae]y will match 'gray' or 'grey' (but not 'graey')
- You can use a hyphen to indicate ranges. E.g. [0-9]will match any number. [0-9]* will match a sequence of zero or more numbers. [A-Za-z] will match any single upper or lower case letter.
- You can connect multiples of these together to form more complex filters. E.g [A-Za-z]+[0-9]+ will match any element name that starts with 1 or more letters and is followed by 1 or more numbers.
- A carat will negate a matched set, so a[^b]matches an a followed by a character other than b. [^0-9] therefore matches any non-numeric character.
- You can do case insensitive matches using /i -- so /iABC will match 'AccountABC', 'AccountAbC' , 'Accountabc', "CompanyABC", "abcDEF", etc.
- ^ means the start of the element name and $ the end of the name. E.g. ^A matches names starting with A, [0-9]$ matches names ending in a number.
- Besides using * and + for repetition you can specify how many occurenes between n and m times using {n,m}. E.g. A[0-9]{1,3} will match elements containing an A followed by between 1 and 3 numbers.
- The vertical bar | means or. So to match any element containing ABC, XYZ or 123 use ABC|XYZ|123.
- A (?) matches any single character. For example, to search for the period 2000.12, you type: 2000?12 in the "search" function.

Example

Following are some examples:

- ABC simply matches elements which contain ABC
- ^ABC matches elements starting with ABC
- ^ABC[0-9]* - Matches element names of the form ABCxxx where xxx is a sequence of numbers
- [A-Za-z_][A-Za-z0-9_]* - Matches element names that start with a letter or underscore followed by zero or more letters, numbers or underscores.

Related Information

SAP Financial Consolidation Filtering [page 49]

4.7.6.2 SAP Financial Consolidation Filtering

To make the selection of the members easier, you can open the *Filters & Characteristics* tab to use the filters or characteristics defined in the SAP Financial Consolidation database.

> **!** Restriction
>
> The *Filters & Characteristics* tab is not available for SAP HANA deployments.

You can access this tab by selecting *View* > *Dimensions* > *[dimension]* > *Members* > *Filters & Characteristics*.

The *Filters & Characteristics* tab includes:

- The *Financial Consolidation Filters & Characteristics* groupbox.
  You can use the following elements to help you select the members:
  - Filter selection. To select filters, click the *By Filter* button. In the *Select Filter* dialog box that appears, select one or more filters and click the *OK* button.
  - Characteristics selection. To select characteristics, click the *By Characteristic* button. In the *Select Characteristic* dialog box that appears, select one characteristic and the elements you want, then click the *OK* button.
  - Once you have selected a filter or a characteristic, the members that are included in the filter or characteristic appear in black in the *Members* groupbox and the *Lock Selection to Filter/Characteristic* option is automatically selected. If you want to select additional members, deselect the option. You will be able to select other members (which are otherwise grayed out).
- The *Members* groupbox. This groupbox displays the members contained in the filter(s) or characteristic(s) selected. This is where you select the members you want to take into account.

4.7.6.3 Selecting Members for a Standard Dimension

Procedure

1. Select the appropriate standard dimension.
2. Select the *Members* tab.
3. Select the *Selection* or the *Filters & Characteristics* tab.

   > **! Restriction**
   >
   > The *Filters & Characteristics* tab is not available for SAP HANA deployments.

4. In the *Members* groupbox, check the boxes corresponding to the members you want to take into account.

   > **→ Tip**
   >
   > Following are some tips for selecting the members:

   - To select all the members displayed, click the *Select Visible* button.
   - To deselect all the members displayed, click the *Deselect Visible* button.
   - To select the deselected members and deselect the selected ones, click the *Invert Selection* button.
   - To reset the selection to its default setting, click the *Reset* button.

     > **→ Tip**
     >
     > You can use filtering criteria to limit which members are displayed. To find out more about filtering, see above.

4.7.7 Hierarchy Selection

Three types of hierarchy are available:

- Default hierarchy. A default hierarchy consists of one node grouping together a simple list of elements. However, OLAP cubes consider this to be a hierarchy.
- Parent Child hierarchy. The SAP Financial Consolidation characteristics that belong to the same reference table as the dimension to which they are assigned are changed into "Parent Child hierarchies".

  > **i Note**
  >
  > The rollup unit and account hierarchies in SAP Financial Consolidation are treated like Parent Child hierarchies.

  > **i Note**
  >
  > When you select a rollup hierarchy, the Elimination dimension is automatically included in the cube. You can select a rollup hierarchy for the following dimensions: Reporting Unit, Original Reporting Unit or Management Unit. See the section below for details about defining consolidations and eliminations with two rollup hierarchies.

  > **i Note**
  >
  > For SAP NetWeaver Business Warehouse (SAP NetWeaver BW) cube deployments only, you can select several Parent Child hierarchies per dimension and per cube with only one Scope Entity hierarchy or Category Scenario Account hierarchy.

  > **⚠ Caution**
  >
  > Some SAP Financial Consolidation characteristics linked to a dimension contain circular references. Therefore, they will not be changed into a Parent Child hierarchy. The deployment will then fail.

- Named level hierarchies. The SAP Financial Consolidation characteristics that do not belong to the same reference table as the dimension to which they are assigned are changed into "Named level hierarchies".

  > **⚠ Caution**
  >
  > **Financial Consolidation characteristics based on the same reference table part of a named-level hierarchy**. SAP Financial Consolidation characteristics based on the same reference table (meaning characteristics that belong to the same reference table as the dimension to which they are assigned) can be part of a named-level hierarchy in cube designer. However, if you select a characteristic based on the same reference table in the *Characteristics* area of the *Hierarchies* tab, note that SAP does not guarantee that it will be supported and therefore, intermediate totals in the hierarchy may be incorrect - in both SSAS cubes and SAP NetWeaver BW cubes.

If you are using an SAP Financial Consolidation database, other hierarchies are available for the Account, Reporting Unit and Origin Unit dimensions.

- For the Reporting Unit or the Origin Unit dimensions, you can select *Scope Entity Hierarchy*. The hierarchies available in the drop-down menu depend on the scopes previously selected. When you select a scope hierarchy, the members of the scope linked to this scope hierarchy will automatically be selected in the *Members* tab.

> **! Restriction**
>
> If you select a scope entity hierarchy in either one of the two dimensions, the selection will not be available for the other dimension.

- For the Account dimension, you can select a *Category Scenario Account Hierarchy*. The hierarchies available in the drop-down menu depend on the members selected in the Category dimension.

> **i Note**
>
> If you chose to historize the scope hierarchies, the Parent child hierarchy cannot be changed for the Reporting Unit dimension.

> **! Restriction**
>
> The options *Scope Entity Hierarchy* and *Category Scenario Account Hierarchy* are not supported for a SAP HANA deployments.

If you do not select a hierarchy or you select the *Include default hierarchy* option, the default hierarchy will be applied in the future cube.

> **i Note**
>
> In order to obtain a simple cube, you should select only one hierarchy per dimension and per cube.

> **i Note**
>
> If you have already selected a hierarchy, you are advised not to select the *Include default hierarchy* option.

You can also specify that you do not want the name of the dimension to appear in the retrieval tool by selecting the *Hide dimension name* option. In this case, only the selected hierarchy name will appear.

> **! Restriction**
>
> The *Hide dimension name* function is not taken into account for SAP NetWeaver BW deployments.

> **! Restriction**
>
> The *Hide dimension name* function is not supported for a SAP HANA deployments.

Defining consolidations and eliminations with two rollup hierarchies

For SSAS deployments, you can define eliminations and consolidations with two rollup hierarchies.

1. You choose the first rollup hierarchy for the dimension Reporting Unit or Original Reporting Unit, by selecting Include (which is not selected by default) in the Scope Entity Hierarchy area, and then selecting the rollup hierarchy from dropdown list.
2. The rollup hierarchy you have selected for the first rollup hierarchy is automatically taken into account as the second hierarchy for the dimension Management Unit and Original Reporting Unit (if not already used as the first hierarchy). The option Include in the Secondary Scope Hierarchy area is selected for both dimensions. You can choose to not include the hierarchy for one of the two dimensions.

When you select a rollup hierarchy, the members of the scope linked to this hierarchy are automatically selected in the Members tab of the dimensions.

Additional Hierarchies for SAP HANA deployments

For each analysis dimension included in the view, the "main hierarchy" is automatically created. This hierarchy is not visible in cube designer but will be visible in the retrieval tools. The "main hierarchy" is composed of the following nodes at the same hierarchical level:

- All [dimension name]: The member "All" takes the aggregation of all the detailed amounts of its child members.
- No [dimension name]: The member "No" is the not-detailed member that is included provided that the option *Include NA Member* is selected.

For the Period and the Data Entry Period dimensions, the calendar hierarchy called "gregorian hierarchy" is automatically created. This hierarchy is not visible in cube designer but will be visible in the retrieval tools. This hierarchy starts in January and ends in December. The hierarchy format is the following: YY/YY.MM.

4.7.7.1 Parent Child hierarchies and Data Members

Data members can be created automatically on the Parent Child hierarchies of the following dimensions:

- Detailed dimensions.
- Reporting Unit dimension.
- Original Reporting Unit dimension.

By default, data members are created automatically by default; however, you can choose not to create them.

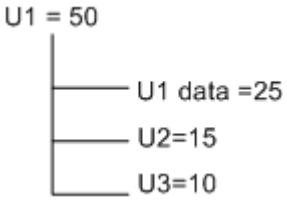
> **!** Restriction
>
> Even if the appropriate option is selected, data members are not included in SAP NetWeaver BW cubes.

> **!** Restriction
>
> Data members are not supported for SAP HANA deployments.

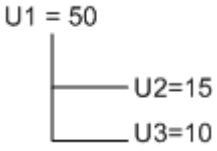
Example

In the example below, the total is the same in both cases. Only the display is different.

The data member for U1 has been automatically created.



The data member for U1 has not been created.



4.7.7.1.1 Choosing Data Members not to be Created

Context

The data members are created automatically by default on the Parent Child hierarchies of some dimensions. You can choose not to create them.

Procedure

1. Select *Tools* > *Options*.
   The *Options* dialog box appears.
2. In the *General* tab, deselect the *Include Data Member* option.
3. Click on *OK*.

Results

> **!** Restriction
>
> Even if the appropriate option is selected, data members are not included in SAP NetWeaver BW cubes.

> **!** Restriction
>
> Data members are not supported for SAP HANA deployments.

4.7.7.2 Aggregation Definition

For all dimensions except for Category, Scope, Variant and Consolidation Currency, two options are available. If you select these options, the parent node will contain the aggregated total of its children amounts.

- The *Enable Named Level Hierarchy Aggregations* option applies to the named level and the default hierarchies.
- The *Enable Parent Child Hierarchy Aggregations* option applies to parent child hierarchies.

> **i** Note
>
> For the Period, Data entry period and Account dimensions, the *Enable Parent Child Hierarchy Aggregations* option does not appear. However, you can activate this option for the Account dimension by setting the following key in the `Cartesis.InformationDelivery.Workbench.exe.config` file: **`<add key="IsAccountDimensionAggregatable" value="true"/>`**.

Concurrently, for aggregatable hierarchies, you can deactivate the calculation at the "All" node level when not relevant. The *Deactivate 'All' node calculation* option applies to all types of hierarchies of the dimension. When the option is selected, the behavior is as follows in your data retrieval tool:

- The 'All' node is neither displayed nor calculated on a default hierarchy.
- The 'All' node is displayed but not calculated on the named level and parent child hierarchies.

> **!** Restriction
>
> For SAP NetWeaver Business Warehouse deployments:
> - The aggregation is always performed on all members (except for the Account dimension), whether the aggregation options have been selected or not.
> - When the aggregation options are selected, on an Account parent child hierarchy, the aggregations are automatically activated also on the named level hierarchy.

> **!** Restriction
>
> For SAP HANA deployments, the options *Enable Named Level Hierarchy Aggregations*, *Enable Parent Child Hierarchy Aggregations* and *Deactivate 'All' node calculation* are not supported. The aggregation is always performed on all selected members.

4.7.7.3 Automatic Aggregations Enabled on the Period and Data Entry Period Dimension Hierarchies

You can choose to apply a different behavior on time aggregation by activating the automatic time aggregation based on SAP Financial Consolidation flow types. To do so, you will choose from the Flow dimension an SAP Financial Consolidation category scenario that will be used as a reference.

The behavior of the flows will be as described in the selected SAP Financial Consolidation category scenario.

The time aggregation will apply to both period and data entry period dimensions, provided that they are not merged. This means that the behavior of the accounts will be driven by the selected flow as shown below:

Financial Consolidation Flow type	Aggregation mode in the cube
Year To Date	Last non empty period
Periodic (Monthly)	Sum
Opening flow	First non empty period
Closing flow	Last non empty period
Movement flows	Last non empty period
Other flows	Last non empty period

> **i** Note
>
> The default aggregation mode is the sum.

> **!** Restriction
>
> This function will not be taken into account for a SAP NetWeaver Business Warehouse (SAP NetWeaver BW) deployment.

> **!** Restriction
>
> For SAP HANA deployments, this feature is not supported.

Example

The examples below describe the three different aggregation modes and therefore, which amounts will be displayed in your data retrieval tool. No amount has been entered in March.

In the table below, the aggregation mode is 'Last non empty period'.

In this example, as no amount has been entered for March, the amount in Quarter 1 is the amount in February, since it is the last amount that has been entered.

January	5
February	2
March	-
Quarter 1	2

In the table below, the aggregation mode is 'Sum'.

In this example, all the entered amounts are added.

January	5
February	2
March	-
Quarter 1	7

In the table below, the aggregation mode is 'First non empty period'.

In this example, the amount in Quarter 1 is the first amount that has been entered, which is the amount in January.

January	5
February	2
March	-
Quarter 1	5

Related Information

Activating Automatic Time Aggregation [page 57]

4.7.7.3.1 Activating Automatic Time Aggregation

Prerequisites

This function will not be taken into account for an SAP NetWeaver Business Warehouse (SAP NetWeaver BW) deployment.

Procedure

1. Select the *Flow* dimension.
2. Select the *General* tab.
3. Select the category scenario you want from the *Defining Category Scenario* drop-down menu.

Results

> **i Note**
>
> If you do not want to apply the automatic time aggregation, select *None* from the drop-down menu.

4.7.7.4 Hierarchy Selection and Definition for the Period and Data Entry Period Dimensions

> **! Restriction**
>
> This section does not apply to SAP HANA deployments

For each dimension, the fiscal hierarchy is automatically included for deployment and its start month is the one you have defined for the solution. To be consistent, you must choose the same start month that is defined in Financial Consolidation.

You can choose to also include the calendar hierarchy, which start month is always January.

> **i Note**
>
> For the fiscal hierarchy, you choose April 2010 as the start month. Here is how the fiscal hierarchy and the calendar hierarchy will be structured.
>
> Fiscal hierarchy:

Year 2010-2011			
	Semester 1		
		Quarter 1	
			April 2010
			May 2010
			June 2010
		Quarter 2	
			July 2010
			August 2010
			September 2010
	Semester 2		
		Quarter 3	
			October 2010
			November 2010
			December 2010
		Quarter 4	
			January 2011
			February 2011
			March 2011

> Calendar hierarchy:

Year 2010			
	Semester 1		

	Quarter 1	
		January 2010
		February 2010
		March 2010
	Quarter 2	
		April 2010
		May 2010
		June 2010
Semester 2		
	Quarter 3	
		July 2010
		August 2010
		September 2010
	Quarter 4	
		October 2010
		November 2010
		December 2010

You can define independent formatting for the fiscal and calendar hierarchies.

You can access the *Hierarchies* tab by selecting *View* > *Dimensions* > *[dimension]* > *Hierarchies*

In the *Hierarchies* tab of the Period or Data Entry Period dimensions, you can perform the following actions:

- Select a default member for the hierarchies, using the *Edit* button next to the *Default Member* field. If only the fiscal hierarchy is included, you can select any member as the default member. If you also include the calendar hierarchy, you can only set a member that is not a node as the default member for both hierarchies. If you select a node as the default member, a message appears, explaining that the calendar hierarchy has been deselected. If you want to include the calendar hierarchy again, you must first perform a clear on the default member.
- Define the format for the fiscal hierarchy. To do so, select the format you want from the *Fiscal Hierarchy Format* drop-down menu. The format you have chosen appears in the *Selected Hierarchies* area.
- Include the calendar hierarchy and define its format. To do so, click the *Include Calendar Hierarchy* option and select the format you want from the drop-down menu. The hierarchy and the format you have chosen appears in the *Selected Hierarchies* area.

  > **i Note**
  >
  > If you choose Code from one of the format drop-down menus, the hierarchy will appear as a list.

- Order the year members by ascending or descending order, using the *Year Descending Order* option. By default, the years are in ascending order and the option is not checked. The members inside the year nodes are unchanged.

> **Note**
>
> If Code is selected for either the *Fiscal Hierarchy Format* or the *Include Calendar Hierarchy* option, the *Year Descending Order* is not activated.

> **Note**
>
> If you select both calendar and fiscal hierarchies, so that the hierarchies are correctly ordered, select Year for both hierarchies.

- Choose to add a year prefix or suffix to the quarters or semesters. You can also choose the format for the year prefix or suffix: YY or YYYY.

  > **Restriction**
  >
  > Prefixes and suffixes will not be taken into account for a SAP NetWeaver Business Warehouse (SAP NetWeaver BW) deployment.

- Define and translate the names of semesters and quarters as they will appear in the reports. You can do so in the *Translation* tab.

  > **Note**
  >
  > The *Half Year Captions* or *Quarter Captions* are not available if semesters or quarters are not part of the hierarchy format you have chosen.

Related Information

Start and End Date Definition for Periods [page 44]

4.7.7.5 General Actions on Hierarchies

After selecting a hierarchy, you can:

- Rename and translate a hierarchy.

  > **Restriction**
  >
  > For SAP NetWeaver Business Warehouse (SAP NetWeaver BW) deployments, the name of a hierarchy must not exceed 60 characters. In this case, an issue to resolve will occur and you will have to modify the name of the hierarchy.

  > **Restriction**
  >
  > For SAP HANA deployments, you cannot translate a hierarchy name.

- Select a default member for a hierarchy. Even if several hierarchies are selected, you can choose a default member from among the members of a single hierarchy.

- If several hierarchies are selected, including a Parent Child hierarchy, the members of the Parent Child hierarchy will be available for selection.
- If several hierarchies are selected, not including a Parent Child hierarchy, the members of the flat list (default hierarchy) will be available for selection.

- Enter a name in each language for the "All" node of a hierarchy.

> **! Restriction**
>
> Not for SAP HANA deployments.

- Sort in each level of a hierarchy:
  - By code. This is the default sort method.

    > **! Restriction**
    >
    > For SAP HANA deployments you can only sort by code.

  - By internal identifier. These are the SAP Financial Consolidation database identifiers.
  - By additional descriptions, selected for dimension members.
  - By attribute. If a characteristic is defined as an attribute, you can sort the hierarchy by attribute (only at the leaf level of the hierarchy).

    > **i Note**
    >
    > When a sort is performed at the leaf level of a hierarchy, the sort will be applied to each level of any hierarchy selected for this dimension.

- Suppress all the leaf members and keep only the nodes of a Named level hierarchy.

> **! Restriction**
>
> Not for SAP HANA deployments.

> **! Restriction**
>
> None of the following functions are taken into account in a SAP NetWeaver BW deployment: selecting a default member for a hierarchy, naming the "All" node in several languages, sorting in each level of a hierarchy and deleting all the leaf members of a Named level hierarchy.

Actions on Hierarchies for SAP HANA deployments

After selecting a hierarchy, you can:

- Rename a hierarchy.
- Sort in each level of a hierarchy:
  - By code. This is the default sort method.
  - By internal identifier. These are the SAP Financial Consolidation database identifiers.
  - By additional descriptions, selected for dimension members.
  - By attribute. If a characteristic is defined as an attribute, you can sort the hierarchy by attribute (only at the leaf level of the hierarchy).

> **i Note**
>
> When a sort is performed at the leaf level of a hierarchy, the sort will be applied to each level of any hierarchy selected for this dimension.

- Suppress all the leaf members and keep only the nodes of a Named level hierarchy.

Related Information

Renaming a Hierarchy [page 62]
Translating a Hierarchy [page 63]
Selecting a Default Member for a Hierarchy [page 63]
Setting a Name for the "All" Node of a Hierarchy [page 64]

4.7.7.5.1 Selecting a Hierarchy

Prerequisites

For SAP NetWeaver Business Warehouse (SAP NetWeaver BW) cube deployments only, you can select several Parent Child hierarchies per dimension and per cube.

Procedure

In the *Characteristics* or *Self-referenced characteristics* groupboxes, select the hierarchy required by checking the boxes. In terms of the Account and Reporting Unit dimensions, check the *Include* option in order to be able to select a hierarchy from the drop-down menu.
The hierarchy appears in the *Selected Hierarchies* groupbox.

4.7.7.5.2 Renaming a Hierarchy

Prerequisites

For SAP NetWevaver Business Warehouse deployments, the name of a hierarchy must not exceed 60 characters. In this case, an issue to resolve will occur and you will have to modify the name of the hierarchy.

Procedure

1. In the *Selected Hierarchies* groupbox, right-click on the appropriate hierarchy and select *Rename*.
   The name of the hierarchy appears highlighted.
2. Enter the new name.

> **i** Note
>
> You can also rename the hierarchy in the *Translation* tab.

4.7.7.5.3 Translating a Hierarchy

Prerequisites

For SAP NetWevaver Business Intelligence deployments, the name of a hierarchy must not exceed 60 characters. In this case, an issue to resolve will occur and you will have to modify the name of the hierarchy.

Procedure

1. Select the *Translation* tab.
2. Enter the translations for each language.

4.7.7.5.4 Selecting a Default Member for a Hierarchy

Prerequisites

The default member will not be taken into account for a SAP NetWeaver Business Warehouse (SAP NetWeaver BW) deployment.

Procedure

1. In the *Hierarchies* tab, click the *Edit* button next to the *Default Member* field.
   The *Choose The Default Member* dialog box appears.
2. Select the member you want to be the default member.
3. Click the *OK* button.
   The default member appears in the *Default Member* field.

Results

> **i** Note
>
> You can then remove the default member by clicking the *Clear* button.

4.7.7.5.5 Setting a Name for the "All" Node of a Hierarchy

Prerequisites

The names of the "All" node will not be taken into account in a SAP NetWeaver Business Warehouse (SAP NetWeaver BW) deployment.

Procedure

1. Select the *Translation* tab.
2. Enter the text you want for each language.
3. Click the *OK* button.

4.7.7.5.6 Sorting Hierarchies

Prerequisites

The *Order by Attribute* option is not available for an SAP NetWeaver Business Warehouse (SAP NetWeaver BW) deployment.

Procedure

1. In the *Selected Hierarchies* groupbox, right-click on the appropriate hierarchy level and select *Order by Attribute*.
   The *Select an ordering attribute* dialog box appears.
2. Select the element on which you want the sort to be performed (code, internal identifier or an attribute).
3. Click the *OK* button.

Related Information

General Actions on Hierarchies [page 60]

4.7.7.5.7 Deleting the Leaf Members and Keep only the Nodes of a Hierarchy

Context

You can delete the leaf members only for a Named level hierarchy.

> **i Note**
>
> This funtion will not be taken into account for an SAP NetWeaver Business Warehouse (SAP NetWeaver BW) deployment.

Procedure

In the *Selected Hierarchies* groupbox, right-click on the top most level of the hierarchy (the name of the hierarchy) and select *Suppress Dimension Member*.
The leaf level is greyed out.

4.7.8 Attribute Selection

For each dimension (except for the Period and Data entry period dimensions), you can select the attributes you want to load in the cube by selecting the following elements:

> **i Note**
>
> For SAP HANA deployments, the attributes are automatically selected when you select characteristics in the *Hierarchies* tab. In addition, you can select further attributes.

- Self-referenced characteristics.

  > **i Note**
  >
  > In an SAP NetWeaver Business Warehouse (SAP NetWeaver BW) deployment, the attributes based on self-referenced characteristics are converted into "Navigation Attributes" in the InfoCube.

- Characteristics.

> **Note**
>
> In an SAP NetWeaver Business Warehouse (SAP NetWeaver BW) deployment, the attributes based on self-referenced characteristics are converted into "Navigation Attributes" in the InfoCube.

- Properties.

> **Restriction**
>
> The attributes based on boolean and text properties will not be taken into account for an SAP NetWeaver BW deployment.

These characteristics and properties are the ones defined for the dimension in SAP Financial Consolidation. They are treated as attributes. The benefits are:

- Ability to perform advanced selections based on attributes and filtering expressions such as is / is not, combined conditions, etc.
- Presentation enhancement such as the ability to create a calculated description of a member + a characteristic.

The attribute name can be customized by the user to fit with OLAP analysis needs.

> **Note**
>
> In some cases, if SAP Financial Consolidation characteristics are selected as hierarchies, they will automatically be considered as attributes.

- The upper part of the screen displays all the self-characteristics, characteristics and properties that are defined in SAP Financial Consolidation for the selected dimension.
- When you select one of them, it appears in the *Translation* tab.
- You can then rename the characteristic or property in the different languages available by clicking in the *Translation* tab and entering the text of your choice.

4.7.9 Standard Dimensions Exclusion

You chose a specific number of dimensions when creating the solution.

However, you can choose not to use specific dimensions. In other words, you can specify that you do not want some dimensions to be included in the future cube. If you exclude a dimension, the name of the dimension and the names of the members will not appear. However, the amount will appear in the cube as follows:

- If you manually select some members, the total amount of the selected members (in the *Members* tab) will be exported.
- If you select the *Select all members* option, the total amount of all the dimension members will be exported.

Once a dimension is excluded, you will then be able to include it again.

> **Note**
>
> Here are a few examples of member selection for excluded dimensions:
>
> - Exclude the Scope dimension from the view but select its member "Corporate": in a report, you will see data for the Corporate scope.

- Exclude the Audit ID dimension from the view but select all its members: in a report, you will see data for all aggregated audit IDs.
- Exclude the Share dimension from the view but select its NA member: in a report, you will see data not detailed by share.

4.7.9.1 Excluding a Standard Dimension

Procedure

1. In the tree structure part of the window, select the appropriate dimension.
2. Select the *General* tab.
3. Check the *Exclude dimension* box.
   In the tree structure part of the window, the excluded dimension appears in italics.

Results

> **i** Note
>
> You can also exclude a dimension by right-clicking on it in the tree structure and by selecting *Exclude*. By default, all the members of the dimension will be aggregated.

> **i** Note
>
> To reinclude an excluded dimension, uncheck the *Exclude dimension* box.

> **i** Note
>
> You can also exclude or include all the standard dimensions by right-clicking on the *Dimensions* node in the tree structure and by selecting *Exclude All Dimensions* or *Include All Dimensions*.

4.7.10 Hide Excluded Dimensions

You can hide or show the excluded dimensions that will not be deployed in the cube.

Hiding excluded dimensions enables you to mask information that is not pertinent.

4.7.10.1 Hiding Excluded Dimensions

Procedure

1. Select *Tools* > *Options* > *Display* tab.
2. Check the *Hide Excluded Dimensions* box.
   In the tree structure part of the window, the excluded dimensions no longer appear.

Results

> **i Note**
>
> To show the excluded dimensions again, uncheck the *Hide Excluded Dimensions* box.

4.7.11 Database and Cube Structure Synchronization

For each standard dimension, you can define synchronizing intervals so that the cube structure is consistent with the SAP Financial Consolidation database. The members of dimensions that have been added, modified or deleted in the SAP Financial Consolidation database tables will be synchronized.

If you do not activate the synchronization, the cube structure will remain in the same state it was in when you defined the dimensions. To refresh the cube structure, you will need to deploy or process the cube again.

> **⚠ Caution**
>
> This synchronization only works if you have selected the members of the dimensions using characteristics.

> **i Note**
>
> If you chose to historize the scope hierarchies when creating the view, the *Live Access* tab is disabled for the Reporting Unit dimension.

> **i Note**
>
> This function is not supported for SAP NetWeaver Business Warehouse (SAP NetWeaver BW) deployments, nor for SAP HANA deployments.

> **i Note**
>
> For SAP HANAdeployments, this synchronization mechanism is not needed. The attribute views are based on the Financial Consolidation tables and are therefore automatically synchronized.

The intervals are as follows:

- *Query Poll Interval*. This option enables you to tell the system when to scan all the SAP Financial Consolidation tables in order to detect modifications. If modifications are detected, the system processes the synchonization. See example 1 below.
- *Silence interval* and *Silence override interval*.
  These intervals will perform a partial update. The complete interval to update the cube will be *Query Poll Interval* + *Silence interval* or *Silence override interval*. See example 2 below.

  > **i Note**
  >
  > If the user does not use the options in the *Advanced* part, the delay interval to update the cube will be by default equal to the *Query Poll Interval* + 1 second.

- *Rebuild interval*. This allows you to specify how often the cube should be completely processed, regardless of whether the structure has been modified or not. See example 3 below.

Example

If you specify the information below, the tables will be scanned every 5 minutes.

Query Poll Interval	5	Minutes

Example

If you specify the information below, when the dimension is modified, the system waits until there are no modifications made in SAP Financial Consolidation database for 10 minutes and then synchronizes the dimension members. If, however, there is no 10 minute break in the modifications, the system will synchronize the dimension members after 20 minutes (*Silence Override Interval* value).

Silence interval	10	Minutes
Silence override interval	20	Minutes

Example

If you specify the information below, the cube will be entirely synchronized with the dimension structure every two hours even if no modifications have been made.

Rebuild interval	2	Hours

4.7.11.1 Enabling the Dimension Member Synchronization

Procedure

1. In the tree structure part of the window, select the appropriate dimension.
2. Select the *Live Access* tab.
3. Check the *Activate live access* box.
4. Define what you want in the *Query Poll Interval* field and drop-down menu.
5. Click the *Advanced* button to define the other elements. This is optional.
6. In the *Cache Settings* groupbox, define the different elements. This is optional.

4.8 View Copy

You can copy and paste a view in a solution.

When you do so, you also automatically copy and paste the view's deployments.

Once you have copied a view, you can rename it.

Related Information

Renaming a View [page 71]

4.8.1 Copying and Pasting a View

Procedure

1. In the tree structure part of the window, right-click on the view you want to copy and select *Copy*.
2. Right-click on the solution you want the view to be copied in and select *Paste*.

4.9 Renaming a View

Procedure

1. In the tree structure part of the window, right-click on the view you want to rename and select *Rename*
   The name of the view appears highlighted.
2. Enter the new name.

5 Cube Deployments

5.1 Introduction to Cube Deployments

You can create three types of deployments:

- SSAS cube deployments
- SAP NetWeaver Business Warehouse (SAP NetWeaver BW) cube deployments
- SAP HANA deployments

Related Information

SSAS Cube Deployments [page 72]
SAP NetWeaver Business Warehouse Cube Deployments [page 88]
SAP HANA Deployments [page 103]

5.2 SSAS Cube Deployments

You will now create an SSAS cube deployment.

Once a deployment has been created, you will carry out the following steps:

- Entering deployment and cube information
- Specify the automatic creation of the universe associated to the cube.
- Synchronizing database and cube data
- Creating calculated members
- Using your own MDX scripts in a deployment
- Creating SSAS named sets based on SAP Financial Consolidation characteristics and filters
- Resolving issues
- Loading external data into a cube
- Deploying and processing a cube
- Updating a deployment
- Copying a deployment
- Renaming a deployment

Related Information

SSAS Deployment and Cube Information [page 74]
Database and Cube Data Synchronization [page 74]
Calculated Members [page 76]
Using your own MDX Scripts in a Deployment [page 79]
SSAS Named Set Creation based on SAP Financial Consolidation Characteristics and Filters [page 80]
SSAS Deployment Issue Resolution [page 81]
External Data Loading into an SSAS Cube [page 82]
SSAS Cube Deployment and Processing [page 84]
SSAS Deployment Update [page 87]
Deployment Copy [page 106]
Renaming a Deployment [page 106]

5.2.1 SSAS Deployment Creation

Creating an SSAS deployment consists of the following main steps:

- Entering a name for the deployment.
- Choosing the SSAS server. This is the server on which SSAS is installed and where the cubes will be stored.

5.2.1.1 Creating an SSAS Deployment

Procedure

1. In the tree structure of the main window, right-click on *Deployments*, then select *Add Deployment*.
   The *New Deployment* dialog box opens.
2. In the *Deployment Name* field, enter the name you want to give to the deployment.
3. In the *Server Type* area, select *SSAS 2005*.
4. From the *Target Server* drop-down menu, select the SSAS server.

   > **i Note**
   >
   > You will be able to select the database in the *Options* tab of the deployment once it is created.

   The *Deployer Service Url* field is filled in by default. The URL comes from the Cartesis.InformationDelivery.Workbench.exe.config file, which is located in the cube designer installation directory. You can change the URL. It will be effective for the current deployment.

   > **i Note**
   >
   > If you change the URL in the file, it will be applied to all deployments.

5. Click the *OK* button.

   The deployment appears below *Deployments*.

5.2.2 SSAS Deployment and Cube Information

Carry out the following steps:

- Choose the SSAS database. You chose the SSAS database server while creating the deployment and it is displayed in the *General* tab.
- Modify the name of the future cube. By default, the cube is given the deployment name.
- Choose the default language for the cube. The available languages are the ones chosen in the view. All the languages chosen in the view will be available in the future cube, but a default language needs to be chosen in the deployment.
- Specify the parent amounts. In the data access group you belong to in SAP Financial Consolidation, you might not be allowed to view all the children of a specific parent. You can choose which children the parent amount should take into account:
  - The parent amount is the sum of all its children, even those which you are not allowed to see. In this case, you will uncheck the *Enable Visual Totals* option.
  - The parent amount is the sum of only the children you are allowed to see. In this case, you will leave the *Enable Visual Totals* option checked, as it is by default.
- Choose a default number format.
  You choose the default number format that will be taken into account for the entire SSAS cube.
  You can choose a predefined format from the Measure Format drop-down menu or you can directly enter the format of your choice in the same menu.

> **i Note**
>
> The format is defined at the deployment level, enabling you to apply different formats to different deployments.

You can define all of the above elements in the *Options* tab of a deployment.

Related Information

Language Selection [page 23]

5.2.3 Database and Cube Data Synchronization

For each deployment, you can define synchronizing intervals so that the cube data will be consistent with the SAP Financial Consolidation database data.

If you do not activate the synchronization, the cube data will remain as it was when you deployed the cube. To refresh the cube data, you will need to process the cube again.

The synchronization applies to all the tables that have been modified. If you only want to synchronize the data related to certain data entry periods, you can select them.

> ⚠ Caution
>
> In this version, the synchronization only applies to the tables that existed when the deployment was done. If a new consolidation table is created in the SAP Financial Consolidation database, you will need to deploy the cube again in order to get the synchronization.

> → Tip
>
> If you want to avoid redeploying the cube, you can create and run your consolidation definitions in SAP Financial Consolidation in advance, even if they are empty. As a consequence, all the consolidations will appear in cube designer and will be synchronized.

The intervals are the following:

- *Query Poll Interval*
- *Silence interval* and *Silence override interval*
- *Rebuild interval*

5.2.3.1 Query Poll Interval

This option enables you to tell the system when to scan all the SAP Financial Consolidation tables in order to detect modifications. If modifications are detected, the system processes the synchonization.

Example

So that the tables are scanned every 5 minutes, specify the following in the *Query Poll Interval* area: 5 Minutes.

5.2.3.2 Silence Interval and Silence Override Interval

These intervals will perform a partial update. The complete interval to update the cube will be *Query Poll Interval* + *Silence Interval* or *Silence Override Interval*.

> i Note
>
> If the user does not use the options in the *Advanced* part, the delay interval to update the cube will be by default equal to the *Query Poll Interval* + 1 second.

Example

When data is modified, the system waits until there are no modifications made for 10 minutes and then synchronizes the data and the cube. If, however, there is no 10 minute break in the modifications, the system will synchronize the data and the cube after 20 minutes.

Silence interval: 10 Minutes.

Silence override interval: 20 Minutes

5.2.3.3 Rebuild Interval

This allows you to specify how often to synchronize the data, regardless of whether the data has been modified or not.

Example

So that the cube is synchronized with the data every two hours even if no modifications have been made, specify the following in the *Rebuild interval* area: 2 Hours.

5.2.3.4 Activating the Data Synchronization

Procedure

1. In the tree structure part of the window, select the appropriate deployment.
2. Select the *Options* tab.
3. In the *Live Access* groupbox, select the *Activate live access* option.
4. To synchronize only the data related to some data entry periods, select the *For selected data Entry Periods* option, then click the button next to this option to select the data entry periods of your choice.
5. In the *Query Poll Interval* field and drop-down menu of the *Cache Settings* groupbox, define what you want.
6. Click the *Advanced* button to define the other elements. This is optional.
7. Define the different elements.

5.2.4 Calculated Members

You can create a member containing an MDX formula for the following dimensions:

- The SSAS Measure dimension

- All the merged dimensions
- All the standard dimensions

> **i Note**
>
> You can also use MDX scripts.

> **i Note**
>
> You can also import members that you have previously exported using the SAP BusinessObjects EPM solutions, add-in for Microsoft Office. In the EPM add-in, these members are called "custom members".

You can choose not to display the calculated members in the retrieval tool, using the *Visible* option. The calculations are performed but the members are not displayed.

You can enter comments to keep track of what issue the calculated members are designed to resolve: content, etc.

You can also translate the names of calculated members in all available languages.

Example

To calculate the percentage of a product towards its parent in the Product hierarchy, we create a new measure called "Percentage of a product towards its parent".

The formula syntax is as follows:

[Measures].[Consolidated AmountSales by product and geographical zone]/

([Product].[Productrollup].currentmember.parent,[Measures].[Consolidated AmountSales by product and geographical zone]) * 100

Comments :

- [Consolidated AmountSales by product and geographical zone] is the measure containing the analyzing data analyzed by the Product dimension.
- [Product].[Productrollup].currentmember.parent,[Measures].[Consolidated AmountSales by product and geographical zone]: this means that we took the amount for the parent of the current member in the Product hierarchy (called [Productrollup]) and for the measure [Consolidated AmountSales by product and geographical zone].

This example applies if you are in multi-measure mode. If you were in single measure mode, the measure would be 'Consolidated Amount'.

Related Information

Using your own MDX Scripts in a Deployment [page 79]

5.2.4.1 Creating Calculated Members

Procedure

1. In the tree structure part of the window, select the appropriate deployment.
2. Select the *Calculated Members* tab.
3. Click the *New* button.
   The *Calculated Member* dialog box appears.
4. The *Visible* option is checked by default. If you do not want the calculated member to appear in the retrieval tool, deselect the option.
5. In the *Name* field, enter the name you want.
6. Select the appropriate option: *Measure*, *Merged Dimension* or *Dimension*.

   > **i Note**
   >
   > The *Custom* option enables you to use your own MDX scripts.

7. If you have selected *Merged Dimension* or *Dimension*, from the *Dimension* drop-down menu, select the dimension for which you want to create the calculated member.
8. If you have selected a standard dimension, select a hierarchy from the *Hierarchy* drop-down menu.

   > **i Note**
   >
   > A calculated member is always linked to a specific hierarchy. For a merged dimension and a Measure dimension, the linked hierarchy is the default hierarchy, which you do not need to select.

   > **i Note**
   >
   > The hierarchies that are available in the drop-down menu are the ones you selected in the *Hierarchies* tab for the chosen dimension.

9. Click the button next to the *Member* field.
10. Select the member you want as the parent of the calculated member.
11. In the *Expression* area, enter or copy the MDX formula you want. Instead of manually entering the members in the formula, you can select the members by clicking the *Insert Member* button.
12. In the *Comment* area, enter the text of your choice.
13. Click the *OK* button.

Related Information

Using your own MDX Scripts in a Deployment [page 79]

5.2.4.2 Importing Calculated Members

Prerequisites

Using the EPM add-in, you have previously created "custom members" and exported them in a file.

Procedure

1. In the tree structure part of the window, select the appropriate deployment.
2. Select the *Calculated Members* tab.
3. Click the *Import* button.
   The *Calculated member import* wizard opens.
4. Select the file containing the members you want to import using the *File name* button and click *Next*.
5. Select the members you want to import and click *Next*.
   A summary describes which members are about to be imported.
6. Click *Finish*.

5.2.4.3 Translating Calculated Members

Procedure

1. In the tree structure part of the window, select the appropriate deployment.
2. Select the *Translation* tab.
3. In the *Calculated Members* area, enter the names in the available languages.

5.2.5 Using your own MDX Scripts in a Deployment

You can now use your own MDX scripts in cube designer. You can therefore link a script to a specific deployment. The script will be deployed along with the cube each time you launch the deployment.

To do so, you must copy your MDX script and copy it in the *Calculated Members* tab in Financial Consolidation Cube Designer. The script is saved as a custom calculated member.

5.2.5.1 Linking your Script to a Deployment

Procedure

1. In your own tool, copy your MDX script.
2. In the tree structure part of the window in cube designer, select the appropriate deployment.
3. Select the *Calculated Members* tab.
4. Click the *New* button.
   The *Calculated Member* dialog box appears.
5. In the *Name* field, enter the name you want.
6. Select the *Custom* option.
7. In the *Expression* area, copy the MDX script.
8. In the *Comment* area, enter the text of your choice.
9. Click the *OK* button.

Results

You can translate the calculated member in the *Translation* tab.

5.2.6 SSAS Named Set Creation based on SAP Financial Consolidation Characteristics and Filters

You can create SSAS Named sets from SAP Financial Consolidation characteristics, filters, or any manual selection.

A Named set is a selection of dimension members that will be used as a flat list to create reports. It is the equivalent of SAP Financial Consolidation filters.

- If creating a named set from characteristics, all dimension members associated to this characteristic value will be added to the cube.
- If creating a named set from filters, the complete filter will be retrieved.
- You can also enter an MDX formula that specifies the named set you want to create.

Provided that your data retrieval tool can retrieve named sets, you will be able to use the named sets in MDX formulas or to select a set of dimension members.

You can translate the names of named sets in all available languages.

5.2.6.1 Creating SSAS Named Sets

Procedure

1. In the tree structure part of the window, select the appropriate deployment.
2. Select the *Named Sets* tab.
3. Click the *New* button.
   The *Create Named Set* dialog box appears.
4. Enter a name for the named set.
5. Select the option corresponding to the source you want to use for the named set: *Use characteristic*, *Use filter*.

   > **i Note**
   >
   > If you select the *Supply MDX* option, click the *Next* button, and simply enter the MDX formula that specifies the named set in the *Free MDX* area.

6. Click the *Next* button.
7. From the *Select dimension* drop-down menu, select the dimension that you want to use for the named set.
8. Click the *Next* button.
9. From the *Select Characteristic* drop-down menu, select the characteristic or filter you want to use as part of the named set.
10. Click the *Next* button.
11. In the *Select Characteristic Member* area, select the members you want to use to populate the named set.
12. Click the *Next* button.
13. Click the *Finish* button.

5.2.6.2 Translating SSAS Named Sets

Procedure

1. In the tree structure part of the window, select the appropriate deployment.
2. Select the *Translation* tab.
3. In the *Named Sets* area, enter the names in the available languages.

5.2.7 SSAS Deployment Issue Resolution

Before deploying and processing a cube, you need to resolve the issues that are listed in the *Issues To Resolve* tab. The tab only appears if there are issues and once you have resolved the issues, the tab no longer appears.

In the tab, you can double-click a row indicating an issue. The location where you must correct the issue is automatically displayed.

5.2.8 External Data Loading into an SSAS Cube

You can load data that are not stored in SAP Financial Consolidation directly into the cube.

> ⚠ Caution
>
> The SAP Financial Consolidation database server and the external table database server must be the same type; Oracle and Oracle or SQL and SQL.

However, the following conditions must be respected:

- The table containing the external data must be defined by the user in cube designer.
- The dimension members must exist in SAP Financial Consolidation database so that the proper security applies.
- The data table must follow a specific format to be compatible.

You can load data into existing SAP Financial Consolidation dimension members but no new dimensions or members can be created.

You must select in the cube designer view, the right dimensions and dimension members (based on the data that you want to import) and measures for both analyzing dimensions and data level (package/ consolidated data). For example, if the measure corresponding to an analysis (for example, by product) is not selected in the cube designer view and if the external table already contains data analyzed by product, the data will not be available in the cube deployed from this view.

> ! Restriction
>
> If the Reporting Category dimension exists in a view, the external table from which you want to load data must be in the SAP Financial Consolidation database.

Related Information

Reporting Category Dimension Creation [page 39]

5.2.8.1 Dimension Members

Only a specific format for data tables is supported by cube designer. This table should contain the identifiers of the SAP Financial Consolidation members for each dimension (one column by dimension in the table).

As opposed to the SAP Financial Consolidation and Carat fact tables, all dimensions must be available in the external tables, especially the Category + Data Entry period dimensions (for package data) + scope, variant and consolidation currency (for consolidated data).

For these missing dimensions, the system requires that their columns are named as follows:

- Category
- Scope

- Variant
- Conscurrency
- DEPeriod

As far as other dimensions are concerned, the names of the colums are the same as in SAP Financial Consolidation fact tables.

5.2.8.2 Amounts

The external table should contain one or several columns dedicated to containing data: one column named 'amount' (for package data), another column named 'convamount' for converted data, another column named 'consamount' for consolidated data. If the SSAS 2005 cube is based on package data (defined in the view from which it has been deployed), only the first column (amount) will be taken into account in the deployment. If the SSAS 2005 cube is based on consolidated data (defined in the view), the columns amount, converted amount and consolidated amount could be taken into account during the deployment step (depending on the measures selected in the view).

5.2.8.3 Server Selection and Server Information Entry

In order to load external data into a cube, you need to select the server and specify some server information. This is the server containing the tables you want to load.

> ⚠ Caution
>
> The SAP Financial Consolidation database server and the external table database server must be the same type; Oracle and Oracle or SQL and SQL.

The *Microsoft Data Link Properties* dialog box enables you to specify the required information. This dialog box contains four tabs: *Provider*, *Connection*, *Advanced* and *All*.

The *Provider* tab enables you to specify if the tables are SQL or Oracle tables.

The *Connection*, *Advanced* and *All* tabs are contextual and depend on the type of provider (SQL or Oracle) selected in the *Provider* tab.

Related Information

Star Schema Deployment Creation [page 108]

5.2.8.4 Loading External Data into a Cube

Procedure

1. In the tree structure part of the window, select the appropriate deployment.
2. Select the *Custom Fact Tables* tab.
3. Click the *New* button.
   The *Custom Fact Table* dialog box appears.
4. Click the  button in the *Data Source* area.
   The *Data Link Properties* dialog box appears, displaying the *Connection* tab.
5. In the *Connection* tab, specify the required information.
6. You must ensure that the *Allow saving password* option is selected.
7. Click on *Test Connection*.
   A message appears, indicating whether the connection is valid or not.
8. If the connection is valid, click on *OK*.
   The *Data Link Properties* dialog box reappears.
9. Click on *OK*.
   The server information is displayed in the *Data Source* area.
10. In the *Table Name* area, enter the table name as it will appear in cube designer.
11. Leave *Default* in the *Measure Group* drop-down menu.
12. Click on *OK*.

5.2.9 SSAS Cube Deployment and Processing

Deploying a cube consists of creating a cube's structure.

Processing a cube consists of loading data in a cube.

When a cube is deployed, it is automatically processed. You can also choose to re-process only an existing cube or only one or several parts of the cube, that is packages or consolidations (depending on the data level of the view), or specific dimensions.

Before deploying a cube, the *Deployment* tab enables you to view all of the information that will be taken into account in the cube. This tab displays:

- All of the dimensions defined in the view.
- All SAP Financial Consolidation packages or consolidations selected (depending on the data level of the view). These are indicated by a yellow cube.

In the *Action* colum:

- If nothing is displayed for a specific dimension or member row, this means that the dimension or member was excluded or had never been included in the view and therefore will not be exported.
- The following information may appear:
  - *Add*: if the corresponding dimension or member was excluded in the last deployment but is now being included.

- *Update*: if the corresponding dimension or member was included in the last deployment and is again being included.
- *Remove*: if the corresponding dimension or member was included in the last deployment but is now being excluded.

> **i Note**
>
> When clicking the *Deployment* tab, an error can occur if the timeout has been reached (if there is a large number of consolidation). To increase the timeout, you can change the WebClientTimeout key value in the Designer Cartesis.InformationDelivery.Workbench.exe.config file.

While deploying and processing a cube, you can follow the steps in the bottom part of the window.

If this part does not appear, select *View > Deployment Log* .

You can perform the following actions on the log:

- Display or hide one or more types of information by clicking the *Errors*, *Warnings* and/or *Messages* buttons.
  - *Errors*: Errors cause the deployment and processing to fail.
  - *Warnings*: Warnings are indicated but do not prevent you from deploying and processing the cube successfully.
  - *Messages*: Messages indicate each step of the deployment and processing (for example, "Starting to build the cube").
- Delete the log by clicking the *Clear List* button.
- Export the log in .csv format, by clicking the *Export List* button.

> **i Note**
>
> If there are duplicated members, a pop-up message will appear while deploying the cube, indicating the remaining duplicated members and asking you whether you want to continue or stop the deployment.

> **⚠ Caution**
>
> Before deploying and processing a cube, you need to resolve any remaining issues. If some issues are unresolved, the *Issues to Resolve* tab appears and the *Deploy* button is not accessible.

You can also deploy or process a cube without using the cube designer interface.

Related Information

Member Name for Standard Dimensions [page 41]
SSAS Deployment Issue Resolution [page 81]
Deploy, Re-Process and Update Actions [page 117]

5.2.9.1 Deploying an SSAS Cube

Procedure

In the *Deployment* tab, click the *Deploy* button.

> **i** Note
>
> The cube will also be processed.

> **i** Note
>
> From the *Deployment* tab, you can see the dates of the latest consolidation executions in the column *Latest database data update* by clicking the button *Source Data Date*. You can therefore compare the deployment date and the consolidation execution date.

> **i** Note
>
> The date of the deployment will appear in the *Last Deployed On* field of the *General* tab.

5.2.9.2 Processing an SSAS Cube

Procedure

In the *Deployment* tab, click the *Re-Process* button.

> **i** Note
>
> The date of the re-process will appear in the *Last Processed On* field of the *General* tab.

5.2.9.3 Processing only Parts of an SSAS Cube

Context

If you do not want to re-process the whole cube, you can choose to re-process some parts of the cube, that is packages or consolidations (depending on the data level of the view), or specific dimensions, that are indicated by a yellow cube in the *Deployment* tab, or dimensions.

Procedure

1. In the *Selected* column of the *Deployment* tab, select the checkboxes of the parts you want to process.
2. Click the *Re-Process Selected* button.

> **i** Note
>
> The date of the re-process will appear in the *Last Processed On* field of the *General* tab.

5.2.10 SSAS Deployment Update

You can update a deployment.

The following items will be updated:

- Calculated members.
- Named sets.
- Live access settings.
- If not up-to-date, the UDF for security component is also updated.

Related Information

Calculated Members [page 76]
SSAS Named Set Creation based on SAP Financial Consolidation Characteristics and Filters [page 80]
Database and Cube Data Synchronization [page 74]

5.2.10.1 Updating an SSAS Deployment

Procedure

In the *Deployment* tab, click the *Update* button.

5.2.11 Remove an SSAS Cube

You can remove a cube from cube designer.

In SSAS management tools, the cube, its dimensions, its corresponding data source and data source view are deleted.

5.2.11.1 Removing an SSAS Cube

Procedure

1. In the *Deployment* tab, click the *Remove Cube* button.
   A confirmation message appears.
2. Click the *Yes* button.

5.2.12 Remove an SSAS Database

You can remove a database from cube designer.

In this case, the database is deleted along with all its cubes.

5.2.12.1 Removing an SSAS Database

Procedure

1. In the *Deployment* tab, click the *Remove Database* button.
   A confirmation message appears.
2. Click the *Yes* button.

5.3 SAP NetWeaver Business Warehouse Cube Deployments

You will now create a SAP NetWeaver Business Warehouse (SAP NetWeaver BW) cube deployment.

Once a deployment has been created, you will carry out the following steps:

- Enter deployment and cube information
- Resolve issues
- Load external data into a cube
- Define the organization of SAP NetWeaver BW dimensions and characteristics
- Deploy and process a cube
- Copy a deployment
- Rename a deployment

SAP BusinessObjects tools that support SAP NetWeaver BW cubes - for example: SAP Business Explorer (SAP BEx) tools, SAP BusinessObjects Interactive Analysis, and SAP BusinessObjects EPM solutions, add-in for Microsoft Office - will be able to analyze the data of these cubes.

! Restriction

- If an SAP NetWeaver BW cube has already been deployed from a cube designer view and BEx reports have been designed on top of this cube, these reports cannot be used again on top of a new SAP NetWeaver BW cube that will be deployed from the same view. This limitation does not exist for the EPM add-in reports.
- In an SAP BEx report, you can analyze the same metadata coming from several SAP NetWeaver BW cubes. However, in this particular case, you cannot browse a cube that has been generated with cube designer for the following reason: the SAP Financial Consolidation codes are not stored in the dimension member keys of the SAP NetWeaver BW cube generated with cube designer.
- SAP NetWeaver BW deployments do not support SAP Financial Consolidation data security.
- Additional descriptions for dimension members are not exported into SAP NetWeaver BW cubes. Only SAP Financial Consolidation code and short descriptions are always exported.

5.3.1 SAP NetWeaver Business Warehouse Deployment Creation

Creating an SAP NetWeaver Business Warehouse (SAP NetWeaver BW) deployment consists of the following main steps:

- Entering a name for the deployment.
- Entering the user name and password to SAP NetWeaver BW.

5.3.1.1 Creating an SAP NetWeaver Business Warehouse Deployment

Prerequisites

Your administrator must provide you with the user name and password to SAP NetWeaver Business Warehouse (SAP NetWeaver BW) that you need to enter when creating the deployment.

Procedure

1. In the tree structure of the main window, right-click on *Deployments*, then select *Add Deployment*. The *New Deployment* dialog box opens.
2. In the *Deployment Name* field, enter the name you want to give to the deployment.
3. In the *Server Type* area, select *NetWeaver BW*.

   i Note

   In the *Server Details* area, the fields *Application Server*, *System Number* and *Client* are filled in by default with information from the *Central Management Console*.

4. In the *User* and *Password* fields, enter the user name and password provided by your administrator.

> **i Note**
>
> The *Deployer Service Url* field is filled in by default. The URL comes from the Cartesis.InformationDelivery.Workbench.exe.config file, which is located in the cube designer installation directory. You can change the URL. It will be effective for the current deployment.

> **i Note**
>
> If you change the URL in the file, it will be applied to all deployments.

5. If the Financial Consolidation database is hosted on a SAP HANA server and provided that you have defined the view with the deployment type SAP BW, the *HANA Server and Port (hosting Financial Consolidation Database)* area is displayed. Enter the name and the port for the SAP HANA server that hosts the Financial Consolidation database.
6. Click *OK*.

5.3.2 SAP NetWeaver Business Warehouse Deployment and Cube Information

Carry out the following steps:

- Choose the SAP NetWeaver Business Warehouse (SAP NetWeaver BW) InfoArea. The SAP NetWeaver BW InfoArea server has automatically been specified while creating the deployment and is displayed in the *General* tab.
- By default, all packages or consolidations (depending on the data level of the view) are deployed in one single InfoCube. However, you can choose to deploy one InfoCube per package or consolidation by deselecting the *Deploy in a single infocube* option.
- Choose the name of the future cube.
- If more than one language is available, select the language you want for the dimension and hierarchy names.

> **i Note**
>
> As a reminder, the languages you want to make available in the future cube have been chosen in the view and appear available in the *Options* tab of the deployment (the languages that have not been selected in the view are greyed out). Only the language you select will be available in the cube for dimension and hierarchy names.

> **i Note**
>
> Member names will appear in the cube in all the languages that have been selected for the view. However, if the language of the retrieval tool you use is not available in the SAP NetWeaver BW cube, internal IDs will appear as names for the members.

You can define all of the above elements in the *Options* tab of a deployment.

Related Information

Language Selection [page 23]
SAP NetWeaver Business Warehouse Cube Deployment and Processing [page 97]

5.3.3 Cube Deployment based on Another Cube for Transport Purposes

If you want to perform a transport, you must first, in Designer, enable the deployment of an SAP NetWeaver BI cube in the target system, based on a cube existing in the source system (for example, in your production system, you want to deploy a cube that is based on a cube that already exists in your test system). This way, the cube uses the technical names of the cube in the source system and the reports based on technical names will continue to work in the target system. Then, in SAP NetWeaver, you can transport the BEx queries and their objects.

Follow these steps:

1. In the source system, deploy a cube.
2. In the target system, create a new deployment.
3. In the *Options* tab of the new deployment, select the option *Deploy cube based on another cube* and enter the server information of the source system. Select the InfoArea, then select the name of the cube you have deployed in the source system and on which you want to base the cube in the target system.
4. Deploy the cube in the target system.
5. In SAP NetWeaver BW, transport the BEx queries and all the objects created by the queries. For more information, refer to the SAP NetWeaver BW guide.

> ⚠ Caution
>
> When you decide to perform the cube deployment based on the source cube, the two systems must be identical.

5.3.4 SAP NetWeaver Business Intelligence Deployment Issue Resolution

Before deploying and processing a cube, you need to resolve the issues that are listed in the *Issues To Resolve* tab. The tab only appears if there are issues and once you have resolved the issues, the tab no longer appears.

In the tab, you can double-click a row indicating an issue. The location where you must correct the issue is automatically displayed.

5.3.5 External Data Loading into an SAP NetWeaver Business Warehouse Cube

You can load data that are not stored in SAP Financial Consolidation directly into the cube.

> ⚠ Caution
>
> The external table from which you want to load data must be in the SAP Financial Consolidation database.

However, the following conditions must be respected:

- The table containing the external data must be defined by the user in cube designer.
- The dimension members must exist in SAP Financial Consolidation database.
- The data table must follow a specific format to be compatible.

You can load data into existing SAP Financial Consolidation dimension members but no new dimensions or members can be created.

You must select in the cube designer view, the right dimensions and dimension members (based on the data that you want to import) and measures for both analyzing dimensions and data level (package/ consolidated data). For example, if the measure corresponding to an analysis (for example, by product) is not selected in the cube designer view and if the external table already contains data analyzed by product, the data will not be available in the cube deployed from this view.

Related Information

Reporting Category Dimension Creation [page 39]

5.3.5.1 Dimension Members

Only a specific format for data tables is supported by cube designer. This table should contain the identifiers of the SAP Financial Consolidation members for each dimension (one column by dimension in the table).

As opposed to the SAP Financial Consolidation and Carat fact tables, all dimensions must be available in the external tables, especially the Category + Data Entry period dimensions (for package data) + scope, variant and consolidation currency (for consolidated data).

For these missing dimensions, the system requires that their columns are named as follows:

- Category
- Scope
- Variant
- Conscurrency
- DEPeriod

As far as other dimensions are concerned, the names of the colums are the same as in SAP Financial Consolidation fact tables.

5.3.5.2 Amounts

The external table should contain one or several columns dedicated to containing data: one column named 'amount' (for package data), another column named 'convamount' for converted data, another column named 'consamount' for consolidated data. If the cube is based on package data (defined in the view from which it has been deployed), only the first column (amount) will be taken into account in the deployment. If the cube is based on consolidated data (defined in the view), the columns amount, converted amount and consolidated amount could be taken into account during the deployment step (depending on the measures selected in the view).

5.3.5.3 Server Selection and Server Information Entry

In order to load external data into a cube, you need to select the server and specify some server information. This is the server containing the tables you want to load.

> ⚠ Caution
>
> The SAP Financial Consolidation database server and the external table database server must be the same type; Oracle and Oracle or SQL and SQL.

The *Microsoft Data Link Properties* dialog box enables you to specify the required information. This dialog box contains four tabs: *Provider*, *Connection*, *Advanced* and *All*.

The *Provider* tab enables you to specify if the tables are SQL or Oracle tables.

The *Connection*, *Advanced* and *All* tabs are contextual and depend on the type of provider (SQL or Oracle) selected in the *Provider* tab.

Related Information

Star Schema Deployment Creation [page 108]

5.3.5.4 Loading External Data into the SAP NetWeaver Business Warehouse Cube

Procedure

1. In the tree structure part of the window, select the appropriate deployment.
2. Select the *Custom Fact Tables* tab.
3. Click the *New* button.
   The *Custom Fact Table* dialog box appears.

4. Click the  button in the *Data Source* area.
   The *Data Link Properties* dialog box appears, displaying the *Connection* tab.
5. In the *Connection* tab, specify the required information.
6. You must ensure that the *Allow saving password* option is selected.
7. Click on *Test Connection*.
   A message appears, indicating whether the connection is valid or not.
8. If the connection is valid, click on *OK*.
   The *Data Link Properties* dialog box reappears.
9. Click on *OK*.
   The server information is displayed in the *Data Source* area.
10. In the *Table Name* area, enter the table name as it will appear in cube designer.
11. Leave *Default* in the *Measure Group* drop-down menu.
12. Click on *OK*.

5.3.6 SAP NetWeaver Business Warehouse Dimensions and Characteristics Organization

All the SAP Financial Consolidation dimensions included in the view are automatically taken into account in the cube deployment. You can add or remove SAP Financial Consolidation dimensions in the future cube by including or excluding them in the view.

- All the SAP Financial Consolidation dimensions are considered as SAP NetWeaver Business Warehouse (SAP NetWeaver BW) characteristics.
- These characteristics are grouped together in what are called SAP NetWeaver BW dimensions to ease the data retrieval in the data retrieval tool you will then use.

In the *InfoCube Dimensions* tab, two organizations of SAP NetWeaver BW characteristics grouped together in SAP NetWeaver BW dimensions are displayed:

- On the left side, the current organization displayed is the one applied to the InfoCube after the latest deployment you have performed. You can modify this presentation at your convenience.
- On the right side, the organization displayed is the one that is the most optimized for volume. You cannot modify this presentation. To apply this organization to the next deployment, use the *Reset* feature.

> **i Note**
>
> We strongly recommend that you apply the optimized organization to the InfoCube to be deployed, especially if the large-volume consolidation tables are used. This organization is designed to enhance the deployment creation and update time.

> **i Note**
>
> If you have not performed any deployment before support package 15, the organizations displayed on both sides are identical.

About the Optimized Organization

- *Merged Dimensions*. This dimension contains all merged characteristics available in the view, including the Reporting Category characteristic.
- *Consolidation Dimensions*. This dimension contains Category, Data Entry Period, Scope, Variant and Consolidation Currency if they are not used in a merged SAP Financial Consolidation dimension, excluded from the view or not available due to the view data source level, meaning package or consolidated data.
- The large-volume dimensions are each defined as a unique characteristic in a dimension that has the same name.

  > **i Note**
  >
  > any time there is one characteristic for one dimension, the dimension is automatically set as a "line item dimension" in BW after performing a deployment. This enhances the deployment time.

- The *Analysis Dimensions* contains as characteristics all the remaining dimensions that have a lower volume.

About the Current Organization

You can perform the following actions:

- Move a characteristic to a lower or upper dimension.
- Create a dimension.
- Rename a dimension.
- Delete a dimension.
- Reset to the optimized organization.

5.3.6.1 Choosing the SAP NetWeaver Business Warehouse Dimensions and Characteristics Organization

Context

You can choose between two organizations to apply to the InfoCube to be deployed.

> **i Note**
>
> We strongly recommend that you apply the optimized organization to the InfoCube to be deployed, especially if the large-volume consolidation tables are used. This organization is designed to enhance the deployment creation and update time.

Procedure

In the *InfoCube Dimensions* tab, do one of the following:

- To apply the current organization displayed on the left side, you do not need to do anything specific. However, you can modify the organization as needed.
- To apply the optimized organization displayed on the right side, click *Reset*. The organization displayed on the right is copied to the left side. You cannot modify this organization.

5.3.6.2 Moving an SAP NetWeaver Business Warehouse Characteristic to a Lower or Upper Dimension

Context

You are using the current organization displayed on the left side of the *InfoCube Dimensions* tab.

Procedure

1. In the *InfoCube Dimensions* tab of the deployment, select the characteristic you want to move.
2. Do one of the following:
   - To move the characteristic to the upper dimension, click the up arrow.
   - To move the characteristic to the lower dimension, click the down arrow.

5.3.6.3 Creating an SAP NetWeaver Business Warehouse Dimension

Context

You are using the current organization displayed on the left side of the *InfoCube Dimensions* tab.

Procedure

1. In the *InfoCube Dimensions* tab of the deployment, click the Folder icon.
   New Dimension appears in the tree structure.
2. Right-click on *New Dimension* and select *Rename.*
   New Dimension is highlighted.

3. Enter a name.

5.3.6.4 Renaming an SAP NetWeaver Business Warehouse Dimension

Context

You are using the current organization displayed on the left side of the *InfoCube Dimensions* tab.

Procedure

1. In the *InfoCube Dimensions* tab of the deployment, right-click on the dimension you want to rename, then select *Rename.*
2. Enter the name you want.

5.3.6.5 Deleting an SAP NetWeaver Business Warehouse Dimension

Context

You are using the current organization displayed on the left side of the *InfoCube Dimensions* tab.

Procedure

1. In the *InfoCube Dimensions* tab of the deployment, select the dimension you want to remove.
2. Click the cross button.
   If characteristics were grouped together in the deleted dimension, they are automatically moved to the lower dimension.

5.3.7 SAP NetWeaver Business Warehouse Cube Deployment and Processing

Deploying a cube consists of creating a cube's structure.

When a cube is deployed, it is automatically processed, that is data are loaded to the cube.

Once you have deployed a cube a first time, each time you will then deploy the same cube, the behavior is as follows:

- If new dimensions, members, or hierarchies are added to the view, only these new dimensions, members or hierarchies are deployed and added to the cube.
- When dimensions are added to the view, if you want data to be consequently updated in the cube, you must then re-process the parts of the cube that use the included dimensions.
- If you have excluded dimensions from the view, when asking for a deploy, a message warns you that all data in the cube will be removed and re-loaded. Note that this operation can take a long time.

By default, all packages or consolidations (depending on the data level of the view) are deployed in one single InfoCube: the *Deploy in a single infocube* option is selected by default in the *Options* tab. The deployment name that will be displayed in the *Deployment* tab, concatenates the name of the InfoArea and the name of the cube that are entered in the *Options* tab.

However, you can choose to deploy one InfoCube per package or consolidation by deselecting the *Deploy in a single infocube* option.

You can re-process some parts of the cube, meaning packages or consolidations (depending on the data level of the view), or specific dimensions (using the *Re-process selected* button).

You can re-deploy a cube. The cube is completely re-created with the same technical names, so that the BEx queries continue to function.

> **i Note**
>
> If you deploy a cube several times, respectively including, excluding and including again a standard dimension or a merged dimension:
>
> - at the second deployment, a message indicates that technical name of the dimension has been changed and you must update the corresponding BEx query.
> - if you do not update the BEx query, at the third deployment, the technical name of the dimension has been changed between the first and the third deployments and no message warns you to update the BEx query.

> **! Restriction**
>
> In an SAP BEx report, you can analyze the same metadata coming from several SAP NetWeaver BW cubes. However, in this particular case, you cannot browse a cube that has been generated with cube designer for the following reason: the SAP Financial Consolidation codes are not stored in the dimension member keys of the SAP NetWeaver BW cube generated with cube designer.

> **i Note**
>
> When a view contains several SAP NetWeaver BW deployments, do not deploy more than one cube if they are to be deployed on the same SAP NetWeaver BW server.

Before deploying a cube, the *Deployment* tab enables you to view all of the information that will be taken into account in the cube. This tab displays:

- All of the dimensions defined in the view.
- All SAP Financial Consolidation packages or consolidations selected (depending on the data level of the view). These are indicated by a yellow cube.

In the *Action* colum:

- If nothing is displayed for a specific dimension or member row, this means that the dimension or member was excluded or had never been included in the view and therefore will not be exported.
- The following information may appear:
  - *Add*: if the corresponding dimension or member was excluded in the last deployment but is now being included.
  - *Update*: if the corresponding dimension or member was included in the last deployment and is again being included.
  - *Remove*: if the corresponding dimension or member was included in the last deployment but is now being excluded.

> **i Note**
>
> When clicking the *Deployment* tab, an error can occur if the timeout has been reached (if there is a large number of consolidation). To increase the timeout, you can change the WebClientTimeout key value in the Designer Cartesis.InformationDelivery.Workbench.exe.config file.

While deploying and processing a cube, you can follow the steps in the bottom part of the window.

If this part does not appear, select *View > Deployment Log*.

You can perform the following actions on the log:

- Display or hide one or more types of information by clicking the *Errors*, *Warnings* or *Messages* buttons.
  - *Errors*: Errors cause the deployment and processing to fail.
  - *Warnings*: Warnings are indicated but do not prevent you from deploying and processing the cube successfully.
  - *Messages*: Messages indicate each step of the deployment and processing (for example, "Starting to build the cube").
- Delete the log by clicking the *Clear List* button.
- Export the log in .csv format, by clicking the *Export List* button.

> **i Note**
>
> If there are duplicated members, a pop-up message will appear while deploying the cube, indicating the remaining duplicated members and asking you whether you want to continue or stop the deployment.

> **⚠ Caution**
>
> Before deploying and processing a cube, you need to resolve any remaining issues. If some issues are unresolved, the *Issues to Resolve* tab appears and the *Deploy* button is not accessible.

You can also deploy or process a cube without using the Financial Consolidation Cube Designer interface.

Related Information

Member Name for Standard Dimensions [page 41]
SSAS Deployment Issue Resolution [page 81]
Deploy, Re-Process and Update Actions [page 117]

5.3.7.1 Deploying an SAP NetWeaver Business Warehouse Cube

Procedure

In the *Deployment* tab, click the *Deploy* button.

> **i** Note
>
> The cube will also be processed.

> **i** Note
>
> From the *Deployment* tab, you can see the dates of the latest consolidation executions in the column *Latest database data update* by clicking the button *Source Data Date*. You can therefore compare the deployment date and the consolidation execution date.

5.3.7.2 Processing only Parts of an SAP NetWeaver Business Warehouse Cube

Context

If you do not want to re-process the whole cube, you can choose to re-process some parts of the cube, meaning packages or consolidations (depending on the data level of the view), or dimensions, that are indicated by a yellow cube in the *Deployment* tab, or dimensions.

> **i** Note
>
> If you have selected the *Deploy in a single infocube* option in the *Options* tab of the deployment, the *Re-Process* button is not available.

Procedure

1. In the *Selected* column of the *Deployment* tab, select the checkboxes of the parts you want to process.
2. Click the *Re-Process Selected* button.

5.3.8 Deploying only Most Detailed Data in an SAP NetWeaver Business Warehouse Cube

Some data are not relevant for SAP NetWeaver BW cubes. If non detailed and detailed data are included in a cube, some amounts appear twice.

So that amounts do not appear twice, you can ask to include only most detailed data in a BW cube, using the *Dimensional Analysis* tab of a BW deployment.

The Financial Consolidation category builder's existing dimensional analysis are read, then:

- If the data are all detailed with the same level of detail, you can select the *Include only most detailed data for account flow/member* option. The most detailed data for each account/flow are included and the other data are not included.
- If the data are detailed with different levels of detail, then, you can additionaly select one or more of the following dimensions: Reporting Unit, Audit ID, Origin Unit. For example, the most detailed data for each account/flow/reporting unit are included and the other data are not included.

Example

By default, all the amounts below are included in the BW cube. For U1, the detailed and the non detailed data both appear: 50+20+30.

Account	Flow	Reporting Unit	Product	Amount
Sales	F99	U1	-	50
Sales	F99	U1	P1	20
Sales	F99	U1	P2	30
Sales	F99	U2	-	25

So that only the most detailed data appear for U1 (20+30), check the *Include only most detailed data for account flow/member* option: the most detailed data for each account/flow are included in the cube, the other amounts are ignored. However, since the data are detailed with different levels of detail, no data is included for U2.

Account	Flow	Reporting Unit	Product	Amount
Sales	F99	U1	-	
Sales	F99	U1	P1	20
Sales	F99	U1	P2	30
Sales	F99	U2	-	

So that data for U2 is also included in the cube, check also the Reporting Unit option. The most detailed amounts are included in the cube for each account/flow/reporting unit.

Account	Flow	Reporting Unit	Product	Amount
Sales	F99	U1	-	

Account	Flow	Reporting Unit	Product	Amount
Sales	F99	U1	P1	20
Sales	F99	U1	P2	30
Sales	F99	U2	-	25

5.3.9 Initialize a NetWeaver Business Warehouse Deployment

Once a cube has already been deployed, you can initialize the cube. The cube is deleted and completely re-created. To do so, click *Initialize*.

> **i** Note
>
> If an SAP NetWeaver Business Warehouse (SAP NetWeaver BW) cube has already been deployed from a cube designer view and BEx reports have been designed on top of this cube, these reports cannot be used again on top of a new SAP NetWeaver BW cube that will be initialized from the same view. This limitation does not exist for reports created with the EPM add-in for Microsoft Office.

5.3.10 Remove an SAP NetWeaver Business Warehouse Cube

You can remove a cube from cube designer.

In SAP NetWeaver Business Warehouse (SAP NetWeaver BW), all the cube elements are deleted.

5.3.10.1 Removing an SAP NetWeaver Business Warehouse Cube

Procedure

1. In the *Deployment* tab, click *Remove Cube.*
   A confirmation message appears.
2. Click *Yes*.

5.3.11 Remove an SAP NetWeaver Business Warehouse InfoArea

You can remove an InfoArea from cube designer.

In this case, the InfoArea is deleted along with all its cubes.

5.3.11.1 Removing an InfoArea

Procedure

1. In the *Deployment* tab, click *Remove InfoArea*.
   A confirmation message appears.
2. Click *Yes*.

5.4 SAP HANA Deployments

You will now create a SAP HANA deployment.

Once a deployment has been created, you will carry out the following steps:

- Deploy the analytic view.
- Copy a deployment.
- Rename a deployment.

SAP BusinessObjects tools that support SAP HANA analytic views will be able to analyze the data of these views.

SAP HANA Transport - Not Supported

You cannot use the SAP HANA transport feature for the modeling views created by cube designer, because cube designer creates additional objects that simply cannot be transported.

As a workaround, you can export the solutions and import them in another system. For more information on how to export and import solutions, see Solution Export and Import [page 17].

5.4.1 SAP HANA Deployment

Performing a SAP HANA deployment consists of creating the following SAP HANA modeling views:

- An analytic view. The analytic view is defined on the fact table containing Financial Consolidation data along with the created attribute views.
- Attribute views. One attribute view is created per dimension included in the cube designer view.

Also, the following security objects are deployed:

- Roles. A SAP HANA role is created for each Financial Consolidation data access group.
- Privileges. A SAP HANA privilege is created for each category that is selected for a Financial Consolidation data access group.

- Stored procedures. A SAP HANA stored procedure is created for each filter defined on a Financial Consolidation data access group.

When performing a deployment, the security settings specified in Financial Consolidation are applied to the HANA modeling views and objects created. The security updates (a data access group modification for example) are automatically taken into account in the HANA modeling views and objects.

> **i Note**
>
> A SAP HANA deployment can only be performed to the same SAP HANA instance as Financial Consolidation.

Before deploying SAP HANA modeling views, the *Deployment* tab enables you to view all of the information that will be taken into account in the modeling views. This tab displays all of the dimensions defined in the designer view. You can then click *Deploy* to launch the deployment.

> **i Note**
>
> When clicking the *Deployment* tab, an error can occur if the timeout has been reached (if there is a large number of consolidation). To increase the timeout, you can change the WebClientTimeout key value in the Designer Cartesis.InformationDelivery.Workbench.exe.config file.

Deploying Modeling Views only (not Security Objects)

Once you have performed a first deployment, which includes the deployment of both SAP HANA modeling views and security objects, you then do not need to re-deploy the security objects as the security updates performed in Financial Consolidation are automatically taken into account in SAP HANA. Also, as deploying security objects can take quite some time, you can choose to deploy only the SAP HANA modeling views and not the security objects.

For example, you can choose to deploy only the modeling views in the following cases:

- You are still working on the modeling phase and you do not need to apply the security to the data.
- You have already performed a first deployment (including the deployment of both modeling views and security objects) and you have added a new hierarchy.

To launch the deployment of modeling views only, click *Deploy modeling views only*.

Redeployment

Once you have performed a SAP HANA deployment a first time, each time you will then deploy the same deployment, the SAP HANA modeling views are updated with the new or removed dimensions and hierarchies.

You can re-deploy SAP HANA modeling views as much as needed.

Redeploying is necessary when changes have been made in the cube designer view (adding or excluding a dimension for example) so that the changes are updated in the SAP HANA modeling views.

> **Note**
>
> You do not need to perform a re-deploy when security objects have been updated in Financial Consolidation because they are automatically updated in SAP HANA.

Errors, Warnings and Deployment Log

Both errors and warnings do not generally stop the SAP HANA deployment process. For example, if a dimension cannot be created, the creation step is skipped and the process goes on, creating the next dimensions. However, if there is an intangible error, that is a SAP HANA error that stops the process, all the SAP HANA objects that have previously been generated are kept.

While deploying SAP HANA modeling views and objects, you can follow the steps in the bottom part of the window.

If this part does not appear, select *View* > *Deployment Log*.

You can perform the following actions on the log:

- Display or hide one or more types of information by clicking the *Errors*, *Warnings* or *Messages* buttons.
  - *Errors*: Errors cause the deployment and processing to fail.
  - *Warnings*: Warnings are indicated but do not prevent you from deploying the SAP HANA modeling views successfully.
  - *Messages*
- Delete the log by clicking the *Clear List* button. : Messages indicate each step of the deployment and processing (for example, "Starting to build...").
- Export the log in .csv format, by clicking the *Export List* button.

5.4.2 Creating a SAP HANA Deployment

Procedure

1. In the tree structure of the main window, right-click on *Deployments*, then select *Add Deployment*. The *New Deployment* dialog box opens.
2. In the *Deployment Name* field, enter the name you want to give to the deployment. This name is also given to the resulting SAP HANA analytic view.

   > **Note**
   >
   > The following areas are already filled in: *Server TypeFinancial Consolidation Schema Name*, , *HANA Content Technical User* and *HANA Content URL*.

3. Click *OK*.

5.4.3 Remove the Modeling Views from SAP HANA

When a solution, a view or a deployment is removed from cube designer, the SAP HANA analytic view is not removed and the security objects are updated.

You can remove them by clicking *Remove modeling views* in the *Deployment* tab.

5.5 Deployment Copy

You can copy and paste a deployment in a view.

Once you have copied a deployment, you can rename it.

Related Information

Renaming a Deployment [page 106]

5.5.1 Copying and Pasting a Deployment

Procedure

1. In the tree structure part of the window, right-click on the deployment you want to copy and select *Copy*.
2. Right-click on the *Deployments* node and select *Paste*.

5.6 Renaming a Deployment

Procedure

1. In the tree structure part of the window, right-click on the deployment you want to rename and select *Rename*.
   The name of the deployment appears highlighted.
2. Enter the new name.

5.7 Deployments Audit

You can now display the list of all the deployments performed in all cube designer solutions linked to the current SAP Financial Consolidation data source. From this list, you can delete deployments' information from the SAP Financial Consolidation database tables that are not used anymore. The following information is available:

- The name of the deployment.
- The time at which the deployment was last saved (date and hour).

5.7.1 Auditing Deployments

Procedure

1. Select *File* > *Deployment Audit*.
   The *Deployment Audit* dialog box appears.
2. To display all the list of deployments, click the *Get Deployments* button.
3. Select the checkboxes of the deployments you want to delete.
4. Click the *Delete Selected Deployments* button.

6 Star Schema Deployments

6.1 Introduction to Star Schemas

You can generate either an SQL or an Oracle star schema.

A star schema contains three types of tables:

- Fact tables. These are tables that contain data.
- Dimension tables. One table is created for each dimension.
- Characteristic tables. One table is created for each "standard" characteristic. Only characterictics that have been selected in the view are taken into account.
  However, characteristic tables are not created for characteristics that are linked to a dimension in the same reference table. For each of these characteristics, a column is created in the dimension table.

Tables can contain unicode characters. However, we recommend that you use ANSI characters and no accented characters for the table names.

Besides, a star schema:

- Does not support hierarchies.
- Does not support SAP Financial Consolidation data security.
- Supports SAP Financial Consolidation comments (as opposed to OLAP cubes).

6.2 Star Schema Deployment Creation

Creating a star schema deployment consists of the following main steps:

- Entering a name for the deployment.
- Selecting the server and specifying the server information. This is the server on which the star schema will be generated.

The *Microsoft Data Link Properties* dialog box enables you to specify the required information. This dialog box contains four tabs: *Provider*, *Connection*, *Advanced* and *All*.

The *Provider* tab enables you to specify if you want to generate an SQL or Oracle star schema.

The *Connection*, *Advanced* and *All* tabs are contextual and depend on the type of provider (SQL or Oracle) selected in the *Provider* tab.

6.2.1 Creating a Star Schema Deployment

Procedure

1. In the tree structure pane of the main window, right-click on *Deployments* and select *Add Deployment*.
   The *New Deployment* dialog box opens.
2. In the *Server Type* groupbox, select the *Star Schema* option.
   The *Data Link Properties* dialog box will appear, displaying the *Connection* tab.
3. In the *Connection* tab, specify the required information. For more information regarding SQL or Oracle providers, please refer to the paragraphs describing the tab.
4. You must ensure that the *Allow saving password* option is selected.
5. Click on *Test Connection*.
   A message appears, indicating whether the connection is valid or not. To find out more about this button, please refer to the paragraphs above describing the tab.
6. If the connection is valid, click on *OK*.
   The *Data Link Properties* dialog box reappears.
7. Click on *OK*.
   The *New deployment* dialog box reappears. A default star schema deployment name is displayed in the *Deployment Name* field and the server information is displayed in the *Server Details* groupbox.

   > **i** Note
   >
   > If you want to modify server information, click on *Change*. The *Data Link Properties* dialog box will appear.

8. Enter the name you want to give the star schema deployment.
9. Click on *OK*.
   The deployment appears below *Deployments* in the tree structure pane. If you click on it, the deployment will appear in the right pane of the window, displaying three tabs: *General*, *Star Schema Options* and *Deployment*. In the *General* tab, you can view the server connection information and modify it using the *Change Connection* button.

6.2.2 Provider Tab

This tab enables you to specify the OLE DB provider you want to use.

This tab lists all OLE DB providers detected on your computer.

A provider is selected by default, depending on your SAP Financial Consolidation database:

- If your SAP Financial Consolidation database is SQL, then Microsoft OLE DB Provider for SQL Server is selected by default.
- If your SAP Financial Consolidation database is Oracle, then Microsoft OLE DB Provider for Oracle is selected by default.

We highly recommend that you use the default provider.

When you click on *Next*, the *Connection* tab for the selected OLE DB provider will appear.

6.2.3 Connection Tab

This tab enables you to enter information specific to the provider selected in the *Provider* tab. The content of the tab depends on whether an SQL or Oracle provider was selected.

6.2.4 SQL

This *Connection* tab is provider-specific and displays only the connection properties required by the OLE DB provider for Microsoft SQL Server.

If you want to generate an SQL star schema, specify the following information in the *Connection* tab:

1. The SQL Server name. You can either select a server name from the drop-down menu, or type the path of the server hosting the database you want to access.
   Use the Refresh button to refresh the drop-down menu.
2. The information to connect to the server specified above. You can either use your Windows NT authentication information or the server authentication information.
   - *Use Windows NT Integrated security*. Select this option to specify that the provider will request a secure (or trusted) connection to an SQL Server running on Microsoft Windows NT. When selected, SQL Server uses integrated login security to establish connections using this data source, regardless of the current login security mode at the server level. Any login ID or password entered will be ignored. The SQL Server system administrator must have associated your Microsoft Windows network ID with an SQL Server login ID.
   - *Use a specific user name and password*. Select this option to enter a user name and password to connect to the data source.
   - *User name*. Enter the user ID used for authentication when you log on to the data source.
   - *Password*. Enter the password used for authentication when you log on to the data source.
   - *Blank password*. This option enables the specified provider to return a blank password in the connection string.
   - *Allow saving password*. This option enables the password to be saved with the connection string. This option must be selected.
3. The database. You can either select a database from the drop-down menu listing all of the databases stored on the server specified above, or type the name of the database you want to access.
   - *Test Connection*. Click on this button to test your connection to the specified data source. If the connection fails, ensure that the settings are correct. For example, you should recheck all spelling and case sensitivity.

6.2.5 Oracle

This *Connection* tab is provider-specific and displays only the connection properties required by the Microsoft OLE DB provider for Oracle.

If you want to generate an Oracle star schema, specify the following information in the *Connection* tab:

1. Server name. Enter the Oracle net service name, also known as the TNS alias.

2. The information to connect to the server specified above.
    - *User name*. Enter the user ID used for authentication when you log on to the data source.
    - *Password*. Enter the password used for authentication when you log on to the data source.
    - *Blank password*. This option enables the specified provider to return a blank password in the connection string.
    - *Allow saving password*. This option enables the password to be saved with the connection string. This option must be selected.
    - *Test Connection*. Click on this button to test your connection to the specified data source. If the connection fails, ensure that the settings are correct. For example, you should recheck all spelling and case sensitivity.

6.2.6 Advanced and All tabs

These two tabs display the information specified in the *Provider* and *Connection* tabs.

You should not use these tabs other than for viewing the specified properties.

6.3 Prefix Name for Tables

You can enter a prefix that will be added to each table name.

Adding a prefix is strongly recommended to avoid overwriting tables if you create several star schemas within the same database.

The default prefix is the name of the deployment.

6.4 Several Fact Table Definition (Partitions)

When deploying a star schema, only one fact table is created by default. The fact table contains all of the data.

You can create several tables based on specific Data entry periods. These tables are known as "partitions". A partition corresponds to one table created for the data related to one or more Data entry periods. This means that one partition can contain one or more Data entry periods.

You can drag and drop Data entry periods into the right pane of the window.

> **i Note**
>
> You can drag and drop all Data entry periods except for one that must remain in the Default column. The table for this Data entry period is then considered the "default table".

You can decide how you want to name the fact tables you are creating. You can define:

- A base name. This is the main name common to all of the fact tables. Each new partition is assigned the base name and incremented, e.g. "Partition2".
- A suffix to be added to all fact table names.

The fact tables will be named using the following syntax:

[Prefix (applied to all tables)]_[Partition name]_ [Suffix]

The default fact table will be named using the following syntax:

[Prefix (applied to all tables)]_Default_ [Suffix]

> **i** Note
>
> Fact table names are limited to 30 characters.

"co" (for "consolidation") or "pk" (for "package") are automatically added just before the suffix.

6.4.1 Creating Partitions

Procedure

1. In the *Partition Base Name* field, enter the name common to all of the partitions.
2. Drag and drop Data entry periods corresponding to the partitions you want to create from the *Default* column into the right pane.
   One column is created for each partition and assigned the base name entered in the *Partition Base Name* field followed by an incremental number.

   > **i** Note
   >
   > You can add one or more Data entry periods to one partition.
3. If you do not want a specific partition to be named using the base name, right-click on the partition header and select *Rename Partition*.
4. Enter the name you want in the field that appears and press the *Enter* key.

6.4.2 Removing partitions

Procedure

1. To remove all of the partitions, click on *Remove Fact Table Partitions*.
2. To remove a specific partition, drag and drop it into the *Default* column.

6.5 Star Schema Issue Resolution

Before deploying a star schema, you need to resolve the issues that are listed in the *Issues To Resolve* tab. The tab only appears if there are issues and once you have resolved the issues, the tab no longer appears.

In the tab, you can double-click a row indicating an issue. The location where you must correct the issue is automatically displayed.

6.6 Star Schema Deployment

Deploying a star schema consists of creating the star schema structure and data by generating all required tables.

Before deploying a star schema, the *Deployment* tab enables you to view all of the information that will be taken into account in the star schema tables. This tab displays:

- All of the dimensions defined in the view.
- All SAP Financial Consolidation consolidations or packages selected (depending on the data level of the view).

In the *Actions* column:

- If nothing is displayed for a specific dimension or member row, this means that the dimension or member was excluded or had never been included in the view and therefore will not be exported.
- The following information may appear:
  - *Add*: if the corresponding dimension or member was excluded in the last deployment but is now being included.
  - *Update*: if the corresponding dimension or member was included in the last deployment and is again being included.
  - *Remove*: if the corresponding dimension or member was included in the last deployment but is now being excluded.

While deploying a star schema, you can monitor the process using the log displayed in the bottom pane of the window.

If this pane is not displayed, select *View* > *Deployment Log*.

You can perform the following actions in the log:

- Display or hide one or more types of information by clicking on the *Errors*, *Warnings* and/or *Messages* buttons.
  - *Errors*: Errors cause the deployment to fail.
  - *Warnings*: Warnings are displayed but do not prevent you from deploying the star schema successfully.
  - *Messages*: Messages indicate each step of the deployment.
- Delete the log by clicking on *Clear List*.
- Export the log in .csv format by clicking on *Export List*.

> **Note**
>
> Before deploying a star schema, you need to resolve existing issues. If some issues remain unresolved, the *Issues to Resolve* tab will remain and the *Deploy* button will not be accessible.

You can also deploy a star schema without using cube designer interface.

Related Information

Deploy, Re-Process and Update Actions [page 117]

6.6.1 Deploying a Star Schema

Procedure

In the *Deployment* tab, click on *Deploy*.

> **Note**
>
> The date of the deployment will appear in the *Last Deployed On* field of the *General* tab.

6.7 Using iAnalysis Reports

If you previously used iAnalysis reports, you can still continue to do so with cube designer.

You should ensure that the star schema tables have the same name and structure as the iAnalysis star schema tables using the iAnalysisStarSchemaTableNames parameter.

The iAnalysisStarSchemaTableNames parameter is specified in the Cartesis.InformationDelivery.Workbench.exe.config file stored in the cube designer installation folder. Its default value is "iAnalysisStarSchemaTableNames" value="false". To be able to use your iAnalysis reports, you should replace "false" with "true".

> **Note**
>
> If you are a former iAnalysis user, please also refer to the Aggregating members when excluding a dimension section.

Related Information

Member Aggregation when Excluding a Dimension [page 115]

6.8 Member Aggregation when Excluding a Dimension

If you exclude a specific dimension in a view, the dimension will not be exported to star schema tables. This may lead to one member being displayed several times with detailed amounts. If you want the amounts to be aggregated for each member, you should specify the "StarSchemaAggregation" parameter.

The "StarSchemaAggregation" parameter is specified in the Cartesis.InformationDelivery.Workbench.exe.config file stored in the cube designer installation folder. Its default value is "StarSchemaAggregation" value="false".

> **i Note**
>
> For former iAnalysis users, it is recommended that you leave the value of "StarSchemaAggregation" as "false" if you set the "iAnalysisStarSchemaTableNames" value to "true" (see paragraph above).

The following example illustrates this:

Assuming that you have a SAP Financial Consolidation database with two dimensions and a fact table:

Accounts	Units
A1	U1
A2	U2
A3	U3
	U4

Accounts	Units	Amounts
A1	U1	10
A2	U1	5
A3	U1	20
A1	U2	6
A2	U2	7

You generate a star schema from the database above and also *exclude* the Account dimension. Depending on the value of the "StarSchemaAggregation" parameter, there can be 2 outcomes:

- If the "StarSchemaAggregation" parameter is set to "false", the star schema fact table will look like this:

Units	Amounts
U1	10
U1	5
U1	20
U2	6
U2	7

- If the "StarSchemaAggregation" parameter is set to "true", the star schema fact table will look like this:

Units	Amounts
U1	35
U2	13

Rows with identical dimension definitions will be aggregated.

> **i Note**
>
> If rows are aggregated, then any existing SAP Financial Consolidation cell comments will disappear, as they cannot be aggregated.

7 Batches

7.1 Introduction to Batches

Three exe files enable you to perform the following actions without using the cube designer interface:

- Deploy an SSAS cube, an SAP NetWeaver Business Warehouse (SAP NetWeaver BW) cube or a star schema; process an SSAS cube or an SAP NetWeaver BW cube; update an SSAS cube (AnalyticsBatch).
- Export solutions (Export).
- Import solutions (Import).

The three files (*AnalyticsBatch*, *Export* and *Import*) are installed along with cube designer in the installation directory. Therefore, the command lines must be entered from the installation directory.

> ⚠ Caution
>
> You must not move the files from the installation directory.

In the paragraphs below, you will be provided with the correct syntax for entering the MS-DOS command lines.

> i Note
>
> The command lines contain attributes in order that this command line was more robust and besides, it allows to type the different parameters in any wished order.

7.2 Deploy, Re-Process and Update Actions

The `AnalyticsBatch.exe` file enables you to:

- Deploy an SSAS cube or an SAP NetWeaver Business Warehouse (SAP NetWeaver BW) cube.
- Re-process speficic parts of an SSAS cube or an SAP NetWeaver Business Warehouse (SAP NetWeaver BW) cube.
- Update a cube (for SSAS only).
- Initialize a cube (for SAP NetWeaver BW only).
- Deploy a star schema.

You must modify the default Deployer URL in the `AnalyticsBatch.config` file just like you must do it in the `Cartesis.InformationDelivery.Workbench.exe.config` file, which is located in the cube designer installation directory. To find out more about how to proceed, please refer to the SAP Financial Consolidation Administration guide.

To run the AnalyticsBatch™ in command line mode, use the following syntax:

```
ANALYTICSBATCH "/DS:AnalyticsConnectionName"
          "/S:
```

```
            solution_name" "/V:view_name"
            "/D:deployment_name" ["/U:user_login" "/P
            user_password" "/A authentication_type "]
            "/T:task_type"
```

where:

- /DS : Name of the connection
- /S : Name of the solution
- /V: Name of the view
- /D: Name of the deployment
- /U, /P and /A : SAP Financial Consolidation user name, password and authentication type. They are also the one used to connect to cube designer.
- /T:<task_type> is **d** for deployment, **i** for initializing an SAP NetWeaver BW cube, p for re-processing, **r** for re-processing selected parts of a cube, **f** for updating SSAS cube calculations/named sets.

Example: You can enter the following in the MS-DOS window

```
ANALYTICSBATCH "/DS:Finance" "/S:Solution1" "/V:View1"
          "/D:Deployment1" "/U:ADMIN" "/P:123456" "/A:Enterprise" "/T:d"
```

Example: Re-process parts of a cube

You can use /T:R to re-process specific parts of the cube. You must enter the cube parts (using their Deployment Name) between two ' characters and separate the parts with the - character.

```
 /T:R:'A - 2001.12 - VALUECORP - IFRS - EUR', 'A - 2001.12 - VALUECORP - IFRS -
USD'
```

Related Information

AnalyticsBatch Messages [page 118]
Deployer Messages [page 121]
Help [page 123]

7.2.1 AnalyticsBatch Messages

- Information message
- Error messages

Related Information

AnalyticsBatch Information Messages [page 119]
AnalyticsBatch Error Messages [page 119]

7.2.1.1 AnalyticsBatch Information Messages

The information message that comes from the *AnalyticsBatch* when the deployment or processing is completed successfully is written to the MS-DOS window and the event log:

```
Deployment completed: The command has been executed successfully
```

7.2.1.2 AnalyticsBatch Error Messages

> ### Syntax
>
> Error messages that come from the *AnalyticsBatch* are prefixed by “Invalid command : ” (apart from the last one for solution save) and they are written to the MS-DOS window and the event log.

Description	Reason	Timing	Example
Invalid Argument	The user has entered an invalid parameter (e.g. /DataSource: instead of /DS:)	Occurs in Command Line Designer, during parameter validation that is executed first.	Invalid command : Invalid '/DS' parameter not recognised
Missing Arguments	The user has entered less parameters than the ones required.	Occurs in Command Line Designer, during parameter validation that is executed first.	Invalid command : missing setting(s) : "/S", "/T"
Cannot find DataSource in broker machine	Invalid datasource name passed via /DS argument.	Occurs in Command Line Designer, after parameter validation and before solution retrieval from 'id_solutions70' table.	Invalid command: Cannot find 'MagiskESParis' datasource in 'CUKLPTSPY' broker machine
Cannot find solution	Command line parameter for deployment (/S) is used to get the solution from the 'id_solutions70' table in the SAP Financial Consolidation database.	Command line parameter for deployment (/S) is used to get the solution from the 'id_solutions70' table in the SAP Financial Consolidation database.	Invalid command : Cannot find 'Solution1' solution

Description	Reason	Timing	Example
Solution retrieval failed	After getting the solution data from the 'id_solutions70' table, cube designer rebuilds the object model from the XML encoding and then use this to re-initialise the Solution object. This process of solution retrieval consists of XML handling and SAP Financial Consolidation authentication and authorisation. If an error occurs during the XML handling, an "unknown failure" error is produced.	Occurs in Command Line Designer, after solution retrieval from 'id_solutions70' table and before command line task execution .	Invalid command : Retrieval of 'Solution1' solution failed : Impossible to connect to the Database : the Data Source cannot be retrieved.
Solution retrieval failed	If an error occurs during BusinessObjects Enterprise logon and rights check, a relevant error is produced.		• Invalid command : Retrieval of 'DefaultSolution' solution failed : Could not open the solution: SAP Financial Consolidation user ID or password incorrect. • Invalid command : Retrieval of 'Solution1' solution failed : The current user is not allowed to use cube designer.
Solution retrieval failed	No answer from the SAP Financial Consolidation server.		• Invalid command : Retrieval of 'Solution1' solution failed : the SAP Financial Consolidation Application Server has not been initialized • Invalid command : Retrieval of 'Solution1' solution failed : Impossible to connect to the Database: the Data Source has not been initialized.
Cannot find view	The value for the command line parameter for view (/V:xxx) is used to get the view info from the solution.	Occurs in Command Line Designer, after building the solution from XML and logging into SAP Financial Consolidation and before calling the web deployment service method.	Cannot find 'ConsView' view

Description	Reason	Timing	Example
Cannot find deployment	The value for the command line parameter for deployment (/D:xxx) is used to get the deployment info from the solution.	Occurs in Command Line Designer, after building the solution from XML and logging into SAP Financial Consolidation and before calling the web deployment service method.	Invalid command : Cannot find 'Cub1' deployment
Process Star Schema not available	The value for the command line parameter for processing (/T:p) cannot be used with star schema deployments (only SSAS cube ones).	Occurs in Command Line Designer, after building the solution from XML and logging into SAP Financial Consolidation and before calling the web deployment service method.	Invalid command : The deployment selected is a star schema. Process function is not yet available for star schema
Task execution failed	SSAS server or Deployer URL not valid	Occurs before calling the web service method.	Invalid command : Execution of command line task failed
Saving solution failure	Error during solution save.	Last task before the command line execution ends.	Saving solution failure : Object reference not set to an instance of an object.
Update formula function for Star Schema not available	The command line parameter for updating formula (/t:f) cannot be used with star schema nor SAP NetWeaver BW deployments (only SSAS cube ones).	Occurs in Command Line Designer, after building the solution from XML and logging into SAP Financial Consolidation and before calling the web deployment service method.	Invalid command : The deployment selected is a star schema. Update formula function is not yet available for star schema.

7.2.2 Deployer Messages

- Information message
- Error messages

Related Information

Cube Deployer Information Message [page 121]
Cube Deployer error messages [page 122]

7.2.2.1 Cube Deployer Information Message

Information messages that come from the Cube Deployer™ web service (the errors, warning and messages that are displayed in the Deployment Log of cube designer when in GUI mode) are stored in the technical log under

the Deployer.Deployment category only if you add the categorySources section with the following text of the web.config file:

```
<add switchValue="All" name="Deployer.Deployment">
<listeners>
<add name="FlatFile TraceListener" />
</listeners>
</add>
```

To find out more about the technical log, please refer to the SAP Financial Consolidation Administration guide.

7.2.2.2 Cube Deployer error messages

> Syntax
>
> Error messages that come from the Cube Deployer™ web service are prefixed by “Deployment failure : ” or “Processing failure : ”. They are written to the MS-DOS window, the event log and the technical log (apart from the first one) as specified in web.config under the Deployer.Deployment category (no need to add anything to the categorySources section since errors are always recorded).
>
> In the MS-DOS window, these are:

Description	Reason	Timing	Example
Deployment Service not found	The processing/deployment task cannot be executed because the web service is not running and cannot be started.	Occurs when trying to call the web service method for the task.	Processing failure : Deployment service not found
Operation failure	Error during Deployer web service operation.	Occurs during the execution of the Deployer web service operation.	Deployment failure : Processing of dimension 'Period' failed. Data not copied into Star Schema table 'Star1_Period'. Incorrect syntax near the keyword 'INTO'. Cannot deploy star schema for deployment 'DefaultStarSchemaDeployment' with 'Star1' table prefix

7.2.3 Help

When the user enters **AnalyticsBatch /H**, the following syntax is displayed on the MS-DOS window, telling you what you should enter to perform a deployment:

```
C:\Program Files\SAP BusinessObjects\Financial Consolidation\Cube
Designer>AnalyticsBatch "/H
AnalyticsBatch - Performs Cube Designer deployments of star schema and SSAS and
BW cubes.
Syntax:
 ANALYTICSBATCH "/DS:datasourcename" "/S:solution_name" "/V:view_name" "/
D:deployment_name"
"/A:authentication_type" "/U: user_loggin" "/P _user_password" "/T:task_type"
where:
 <TaskType> is d for deployment, i for initializing an SAP NetWeaver BW cube, p
for re-processing,
r for re-processing selected parts of a cube, and f for updating SSAS cube
calculations/name sets .
```

7.3 Solution Export

The export exe file enables you to export solutions into an XML file.

The path for the different xml files must be specified into the command line.

You can omit /P since SAP Financial Consolidation allows blank passwords.

Example: Command line for this program

```
EXPORT /DS:dataSourceName
```

```
[ /U:username /P:password /A:authentication ]
```

```
/F:XML File name
        solution #1 [solution #2] ... [solution #N]
```

Example: Path for the xml files

`solutions.xml`, `c:\directory\solutions.xml` and `../xml/solutions.xml`

7.3.1 Confirmation Message

The confirmation message appears as follows:

```
C:\Program Files\SAP BusinessObjects\Financial Consolidation\Cube Designer>export
/DS:Magisk /U:ADMIN /P:123456 /A:Windows /F:testtwo.xml "ID Solution" Basic
Solution export started for 2 solutions.
Opening solution 'ID Solution' (1 of 2).
Exporting solution 'ID Solution'.
Opening solution 'Basic' (2 of 2).
Exporting solution 'Basic'.
```

7.3.2 Error Messages

Wrong data source:

```
C:\Program Files\SAP BusinessObjects\Financial Consolidation\Cube Designer\
EXPORT"/DS:WRONG" "/U:ADMIN" "/P:" "/A:Windows" "/F:Batch_Export.xml" "VAL-PYBO"
"VAL-PYBO1" "VAL-IDEV"
Invalid command : Cannot find 'WRONG' datasource in 'st-srv10' broker machine
C:\Program Files\SAP BusinessObjects\Financial Consolidation\Cube Designer>pause
Press any key to continue . . .
```

Wrong User and/or Password:

```
C:\Program Files\SAP BusinessObjects\Financial Consolidation\Cube Designer\
>EXPORT "/DS:LV_SQL2005_ES" "/U:WRONG" "/P:" "/A:Windows" "/F:Batch_Export.xml"
"VAL-PYBO" "VAL-PYBO1" "VAL-IDEV"
Solution export started for 3 solutions.
Opening solution 'VAL-PYBO' (1 of 3).
Could not open the solution: BusinessObjects Enterprise user id or password
incorrect.
Opening solution 'VAL-PYBO1' (2 of 3).
Could not open the solution: BusinessObjects Enterprise user id or password
incorrect.
Opening solution 'VAL-IDEV' (3 of 3).
Could not open the solution: BusinessObjects Enterprise user id or password
incorrect.
C:\Program Files\SAP BusinessObjects\Financial Consolidation\Cube Designer>pause
Press any key to continue . . .
```

For other messages such as 'invalid path' and 'unrecognized parameter', please refer to the Batch deployment error messages section.

7.4 Solution Import

The import exe file enables you to import solutions from an XML file into cube designer.

A `/OVERWRITE` flag has been added that causes imported solutions to overwrite solutions with the same name. If this flag is omitted the solutions will be renamed as SOLUTION_1, SOLUTION_2, etc. just like the GUI versions.

The path for the different xml files must be specified into the command line.

You can omit `/P` since SAP Financial Consolidation allows blank passwords.

Example: Command line for this program

```
C:\Program Files\SAP BusinessObjects\Financial Consolidation\Cube Designer>import
```

IMPORT - Imports solutions from an external XML file.

```
IMPORT "/DS:datasourcename" ["/U:user_loggin" "/P:user_password" "/
A:authentication_type"] "/F:xml_solution_import_file_path_and_name" [/OVERWRITE]
```

Example: Path for the xml files

`solutions.xml`, `c:\directory\solutions.xml` and `../xml/solutions.xml`

7.4.1 Confirmation Message

Examples of a typical confirmation message

Example

```
C:\Program Files\SAP BusinessObjects\Financial Consolidation\Cube
Designer>import /DS:Magisk /U:ADMIN /P:123456 /A:Windows
/F:testone.xml
Started import of solutions in file testone.xml.
Found 1 solutions.
Importing solution 'ID Solution' (1 of 1).
Import ok, saving solution as 'ID Solution_3'.
The solution 'ID Solution_3' was successfully saved to the data source 'Magisk'.
```

Example

```
C:\Program Files\SAP BusinessObjects\Financial Consolidation\Cube
Designer>import /DS:Magisk /U:ADMIN /P:123456 /A:Windows
/F:testtwo.xml /OVERWRITE
Started import of solutions in file testtwo.xml.
Found 2 solutions.
Importing solution 'ID Solution' (1 of 2).
Import ok, saving solution as 'ID Solution'.
```

```
The solution 'ID Solution' was successfully saved to the data source 'Magisk'.
Importing solution 'Basic' (2 of 2).
Import ok, saving solution as 'Basic'.
The solution 'Basic' was successfully saved to the data source 'Magisk'.
```

7.4.2 Error Messages

Wrong data source:

```
C:\Program Files\SAP BusinessObjects\Financial Consolidation\Cube
Designer>IMPORT "/DS:WRONG" "/U:ADMIN" "/P: "/A:Windows" /F:Batch_Export.xml"
"VAL-PYBO" "VAL-PYBO1" "VAL-IDEV"
Invalid command : Cannot find 'WRONG' datasource in 'st-srv10' broker machine
C:\Program Files\SAP BusinessObjects\Financial Consolidation\Cube Designer>pause
Press any key to continue . . .
```

Wrong user and/or password:

```
C:\Program Files\SAP BusinessObjects\Financial Consolidation\Cube
Designer>IMPORT "/DS:LV_SQL2005_ES" "/U:WRONG" "/P:" "/A:Windows" "/
F:Batch_Export.xml" "/OVERWRITE"
Started import of solutions in file Batch_Export.xml.
Found 2 solutions.
Importing solution 'VAL-PYBO1' (1 of 2).
Import failed [Reason='Error connecting to magnitude
(MagnitudeCredentialsFailed)'].
C:\Program Files\SAP BusinessObjects\Financial Consolidation\Cube Designer>pause
Press any key to continue . . .
```

Wrong file path:

```
C:\Program Files\SAP BusinessObjects\Financial Consolidation\Cube
Designer>IMPORT "/DS:LV_SQL2005_ES" "/U:ADMIN" "/P:" "/A:Windows" "/F:WRONG.xml"
"/OVERWRITE"
Started import of solutions in file WRONG.xml.
Import failed [Reason='Expected to find WRONG.xml'].
C:\Program Files\SAP BusinessObjects\Financial Consolidation\Cube Designer>pause
Press any key to continue . . .
```

8 About the Application

You can consult information about the application by selecting *Help* > *About SAP Financial Consolidation, cube designer*. The screen that opens states the SAP Financial Consolidation, cube designer version and copyright.

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