# SAP BPC

SAP BPC Classic Overview

# Course Objective

What to expect from this training:

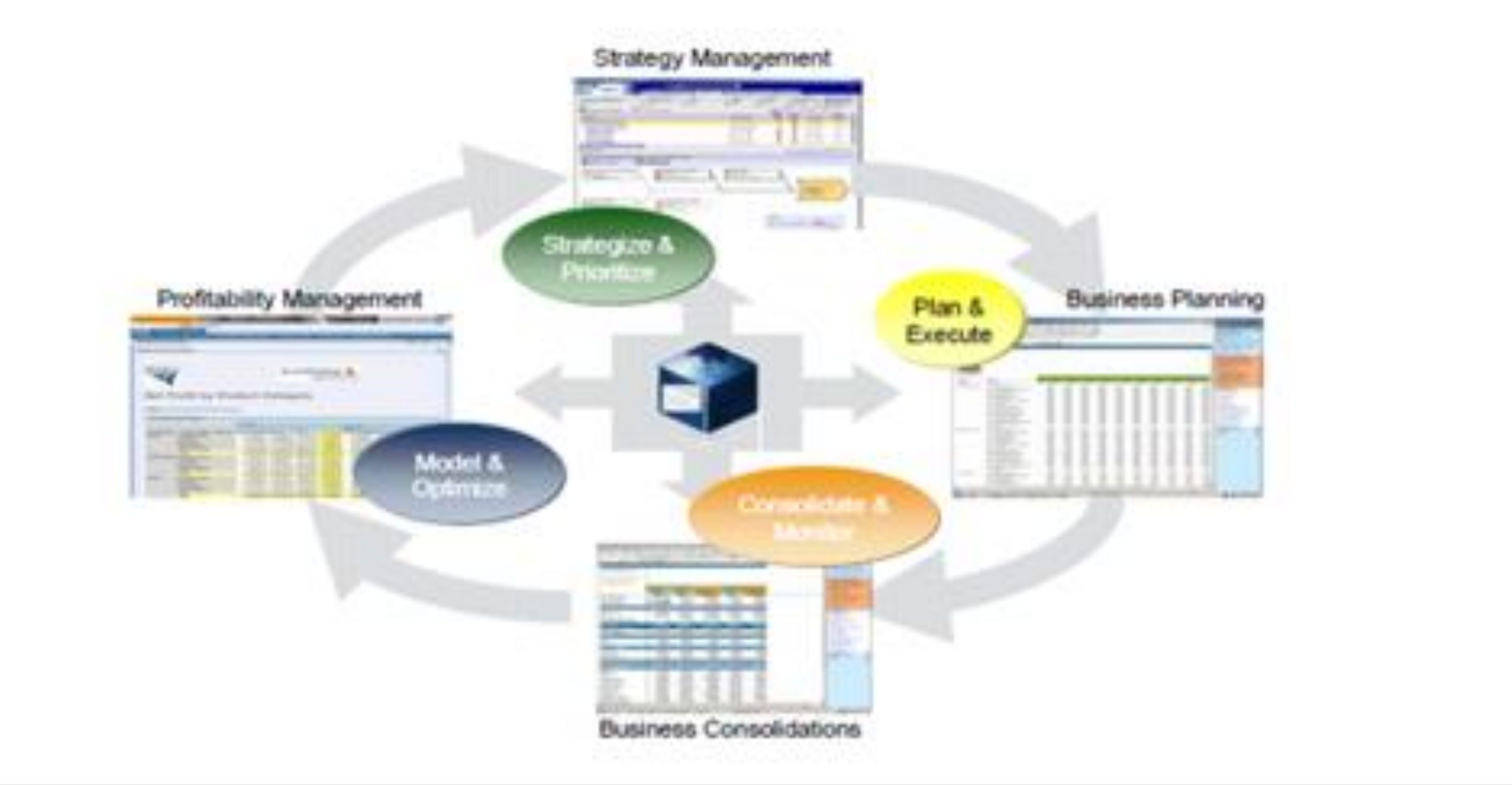
- EPM and its related products, BPC Architecture, creating and configuring Models using security profiles

# BPC Classic

1. EPM introduction
2. BPC Architecture
3. Environment
4. Dimension
5. Model
6. BPF
7. BPC Security

# EPM?

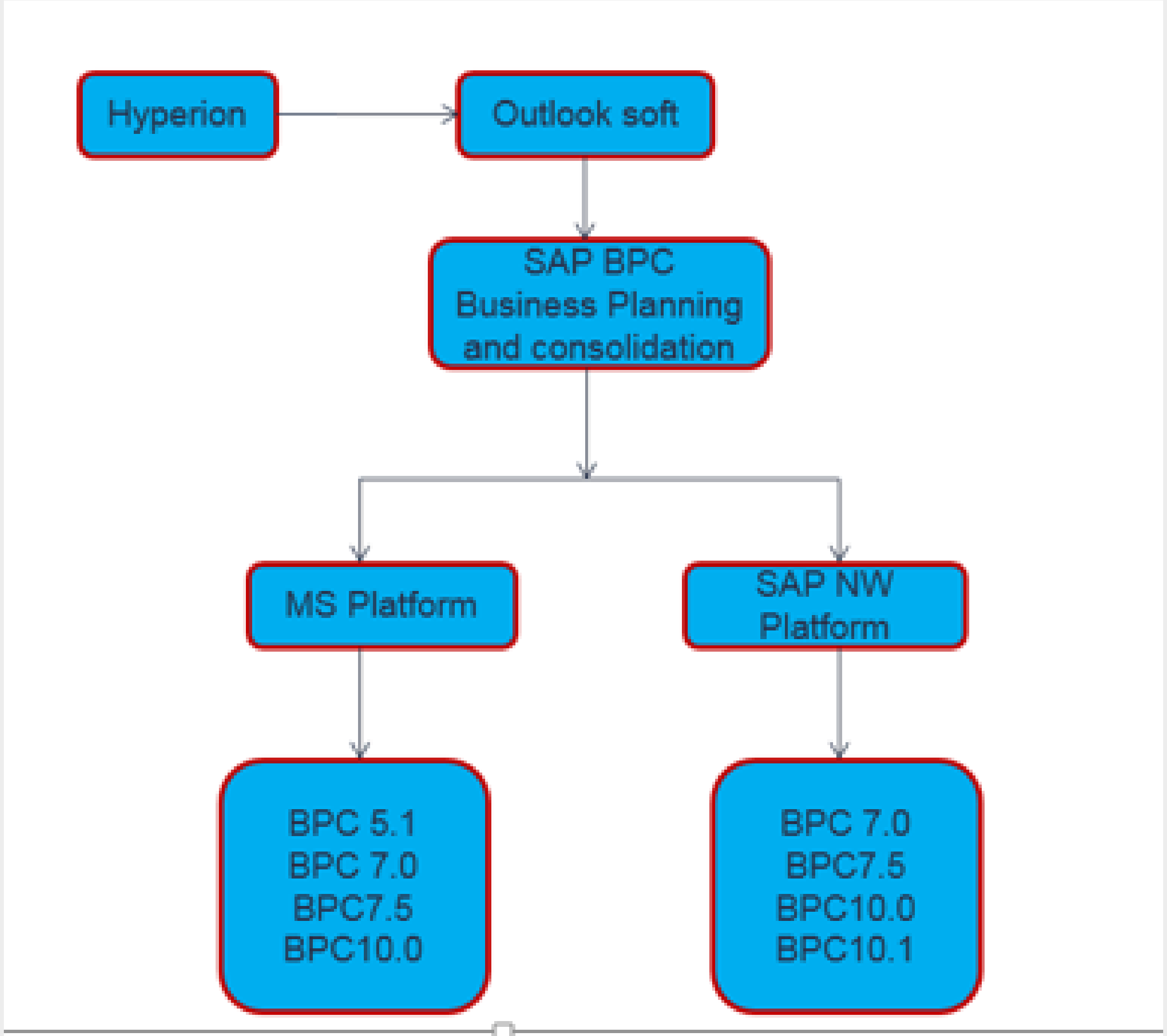
EPM: Enterprise performance management is a part of Business process management which ensures all the operations are in a closed-loop across different aspects of the enterprise.



# SAP EPM - Products

- Business Planning and Consolidation
- Financial Consolidation
- Inter company
- Strategy Management
- Financial Information Management
- Disclosure Management
- Profitability and Cost Management
- Notes Management
- Spend Performance Management
- Supply Chain Performance Management
- Sustainability Performance Management

# BPC Product Roadmap



# SAP BW vs BPC Terminology

| SAP BI Net Weaver | SAP BPC |
|---|---|
| Info Area | Environment |
| Info cube/ Multi Provider | Model |
| Characteristic Info objects:<br>Ex: 0Customer, 0Vendor,0Employee,0Calday, 0FiscPeriod | Dimensions<br>Notes : There is formal limitation of having up to 20 dimensions in an application. More than 20 dimensions are allowed but only with significant performance hits which always depend on the situation. |
| Characteristic Values:<br>Ex: Customer C100,C101<br>Employee E100,E101<br>Cal day 20120712,20120713 | Member |
| Attributes<br>Ex: 0Customer has its dependant IOs like<br>0ACCNT_GRP<br>0COUNTRY<br>0BPARTNER | Properties |
| Key Figure Info Object | Measure/ Signed Data/ Amount<br>Notes<br>1) We can use only one key figure info object in any BPC application<br>2) Measures are time related views of transaction data such as Period, Quarter to date and Year to date. |

# Model Dependency-Relationship

- Planning Application---- Depends on ---- Rate Application
- Consolidation Application---- Depends on ---- Ownership Application
- Generic Application-------- Generic Non Reporting
- (Reporting-HR/ Maintenance Planning) ----- (Head count Etc. )

Reporting Application:-

- Planning
- Consolidation
- Generic

Non-Reporting Application (Supporting Models for Reporting Application –Normally Reporting will be performed)

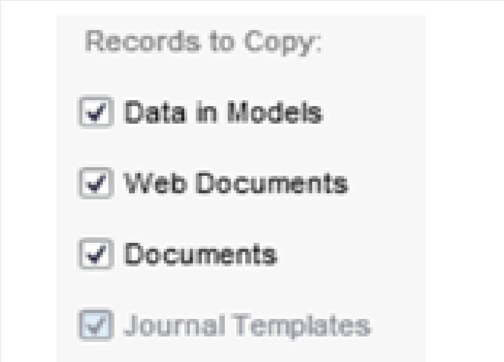
- Rate
- Ownership
- Generic

Note:-Mandatory Fields are C/E/A/T

# BPC Environment

# Creating a New Environment:

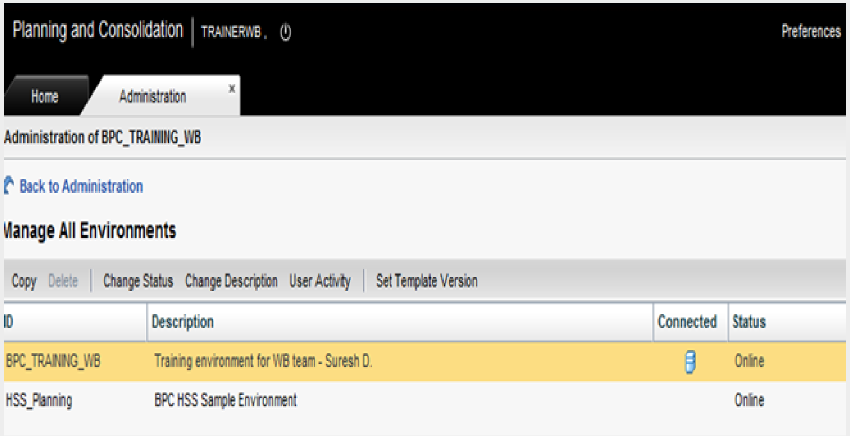
- When you create a new Environment, you must choose which parts of the source Environment you would like to copy to your target Environment.
- This action pane displays the records used in the existing Environment you specified in the previous step. Using the check boxes, select all the records that you want to copy to the new Environment. These include:
  - ❑ Data in Models
  - ❑ Web Documents
  - ❑ Documents
  - ❑ Journal Template

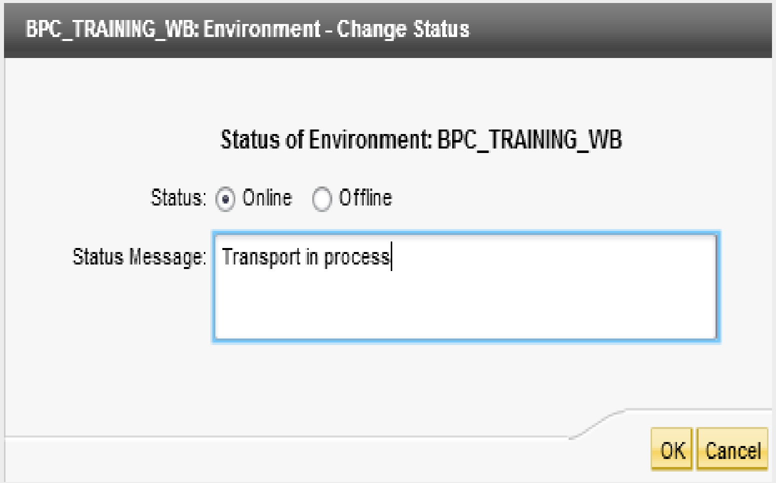



- When an Environment is copied, Data in Models Web Documents, Documents, Journal Template can be copied from the Source Environment.
- The copy process is scheduled as a background job.
- If an error occurs during the copy process, a rollback will take place which clears all created objects up to that point.

# Setting Environment Status:

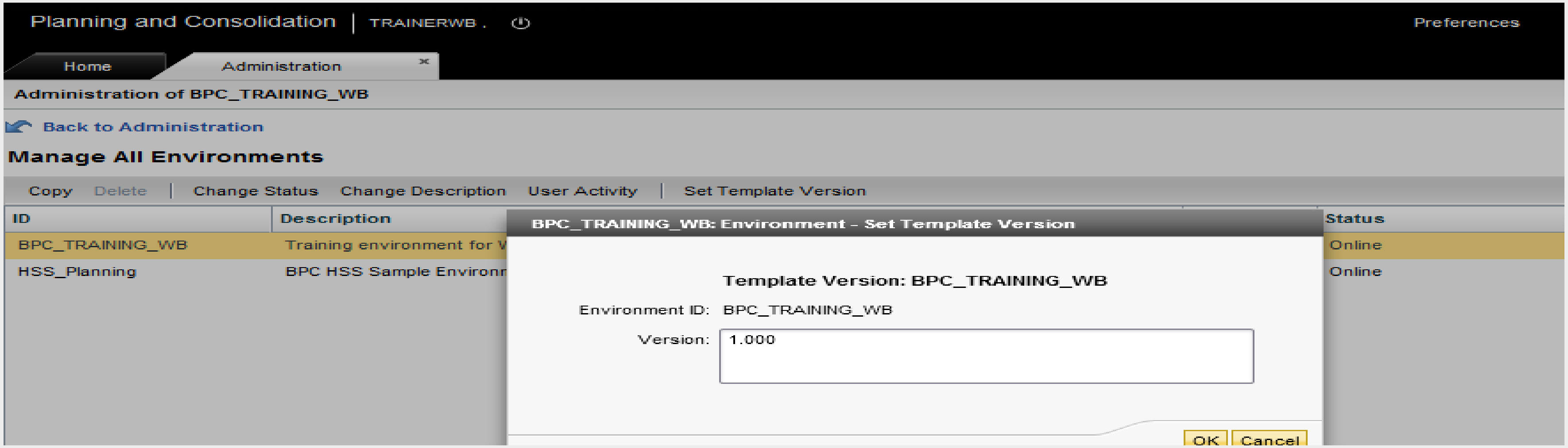
- You can check or change the status of an Environment. The available statuses are “Available” and “Unavailable.” Some administration tasks automatically set the Environment to unavailable. You can also make it unavailable manually.
- In the message box, enter informative text that will be displayed when users try to logon.
- The Environment status can be set to either “Available” or “Unavailable”.
- A custom message can be created that will inform users that the Environment is unavailable.
- It is recommended to include the date and time in the message which will indicate to the users when they can log back on.



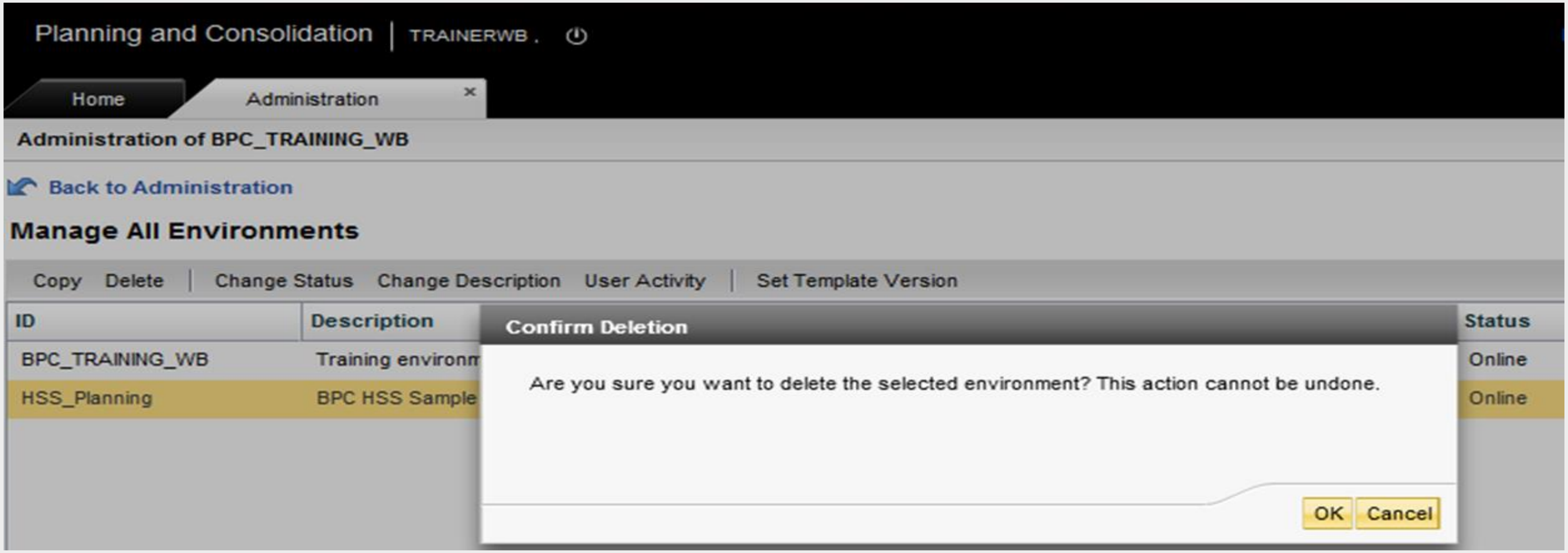
# Set Template Version:

- If you have made changes to any of the dynamic templates for reports or schedules, you can force an update of template files by changing the template version. Therefore, clients that log on to the environment receive the new templates. Updating the template version number will force an update of the template files to the clients.
- You can set template versions by choosing Manage All Environments, selecting an environment, then choosing “Set Template Version”. Increment template versions by 1.



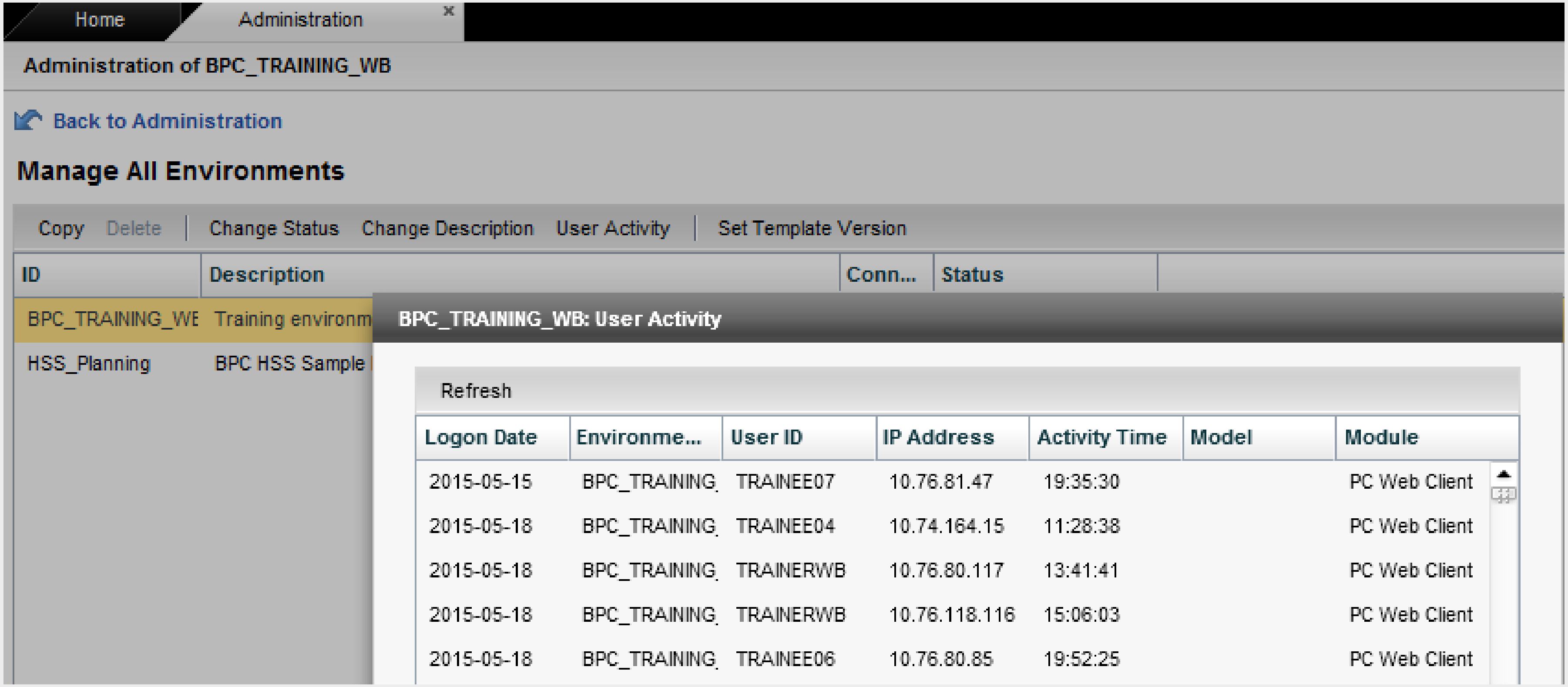
# Delete Environments:

- Deletion of Environments is available through the Admin Console.
- You should be extremely careful, as once an Environment is deleted, it is not coming back.
- This slide describes how to delete an Environment.
- The delete is permanent and cannot be reversed.



# User Activity

- User Activity is the replacement to “Who is online”.
- This means, it will log end user as well as Administrator behavior.



# Terminology: Dimensions

- Dimensions consist of members.
- If the members of the dimension are arranged in a hierarchical order, the relationship between members is described with terms such as Parent, Child, and Sibling.

Flat dimension

Dimension Members

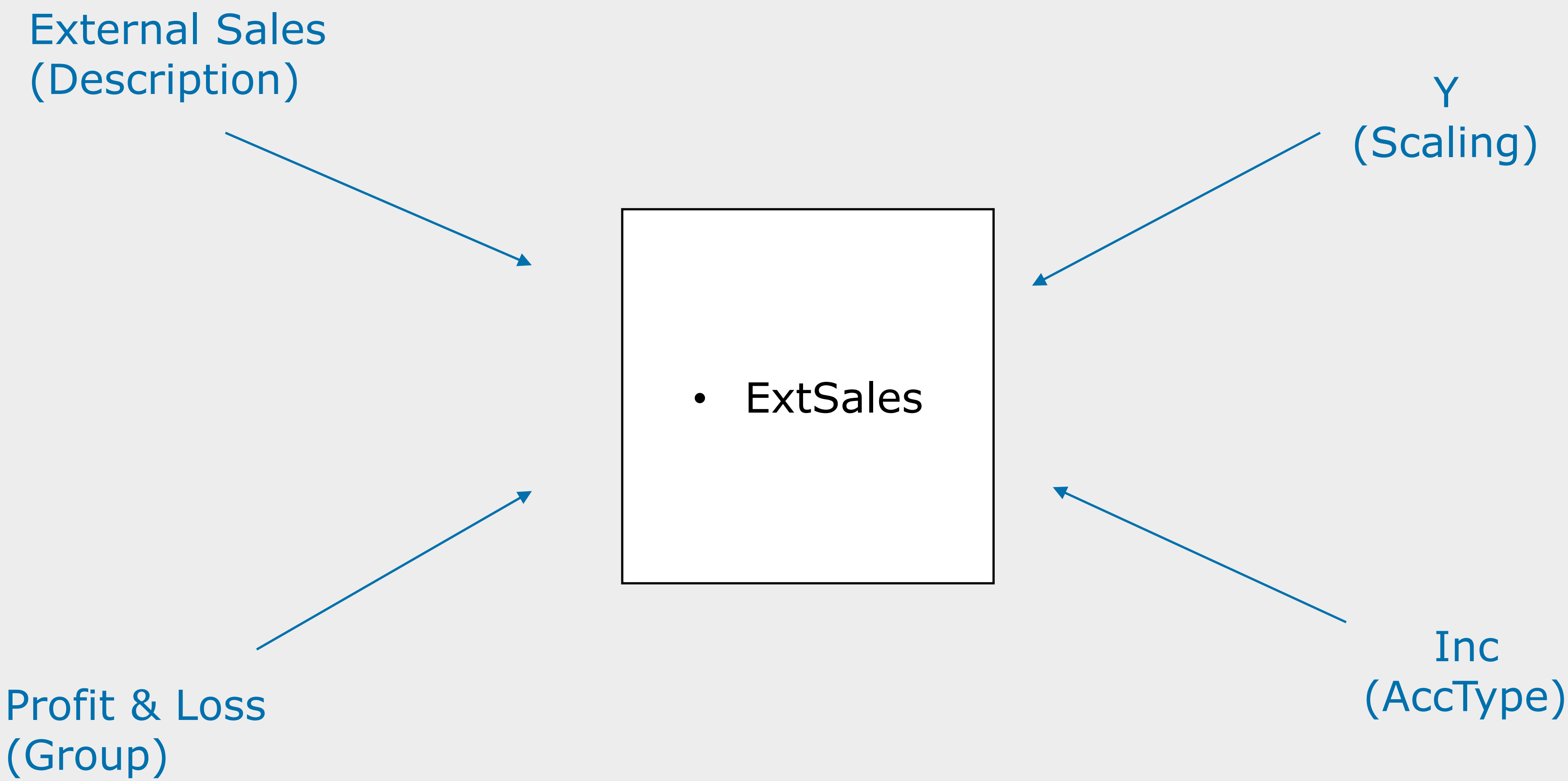
| Category |
| --- |
| Actual |
| Budget |
| Forecast |

Hierarchical Dimension

Dimension members

| Account |
| --- |
| Netincome |
| Pretaxincome |
| Taxes |

# Terminology: Properties



# Dimension Types(1)

- Dimension Types define a specific role the dimension plays in an SAP Business Planning and Consolidation Model.

- Required in every Model:

  ---A = Account type dimension

  ---C = Category type dimension

  ---E = Entity type dimension

  ---T = Time type dimension

- Required in each Environment:

  --- R = Currency type dimension

  ---Needed to validate currencies entered in the Entity dimension.

  ---Does not have to be part of any Models within the set.

# Dimension Types(2)

- Required for Intercompany Eliminations:

  I = Intercompany

  G = Group

  S = Sub table

  D = Audit Trail

- You can also create additional dimensions as needed:

  Un = User Defined dimension type. For each user defined dimension you create, the number (n) will be incremented. For example, U1, U2, U3, etc.

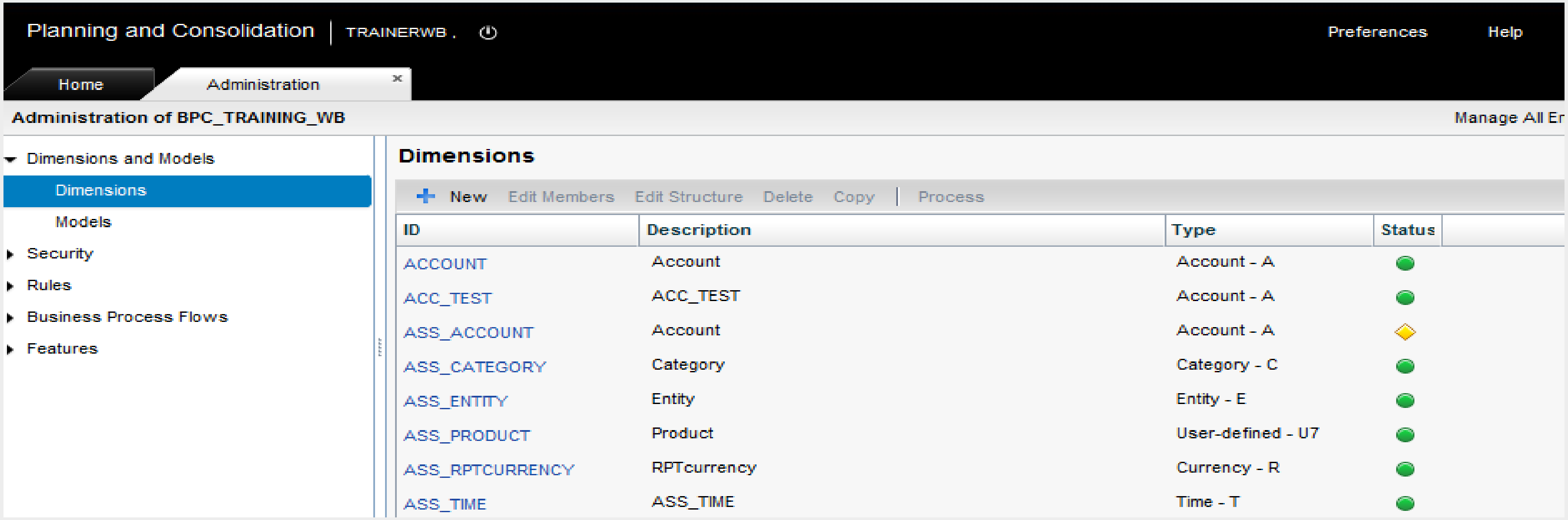
# Creating Dimensions:

- Dimensions are added at the Environment level in the dimension library folder.

---These dimensions becomes shared dimensions that are available for use in any Model in the Environment.

- Click on the Dimension Library in the Web Admin. This opens the available tasks.
- Select “New” to build a new dimension.

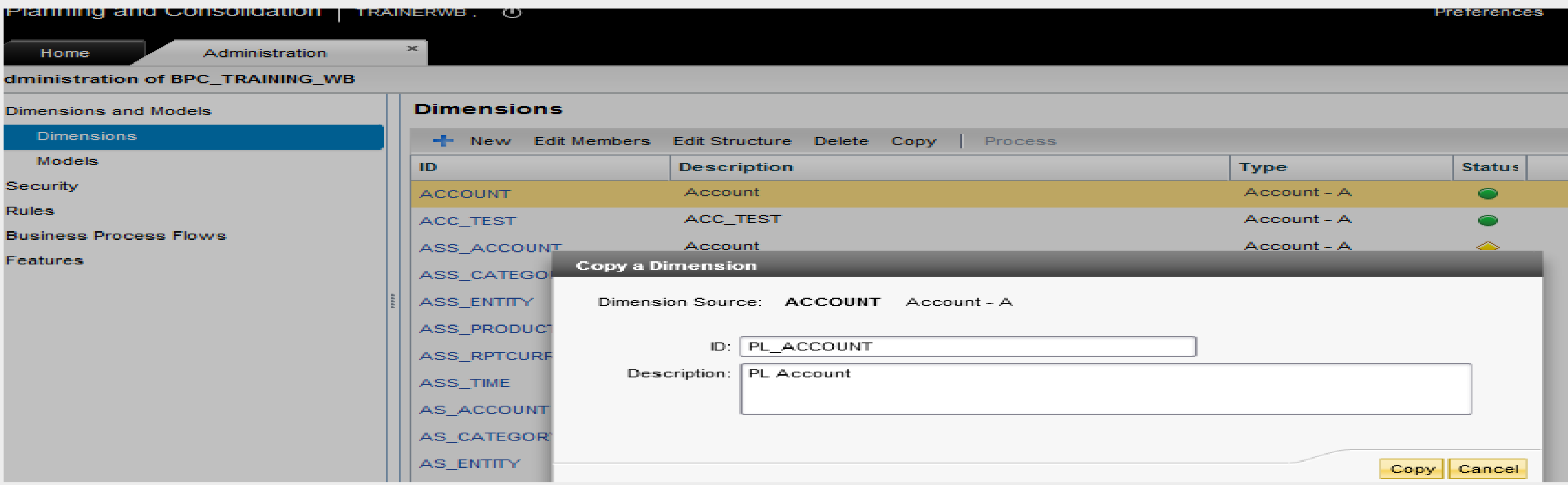
Note: A dimension that is used in an Model cannot be deleted.



# Creating Dimensions (1 of 3)

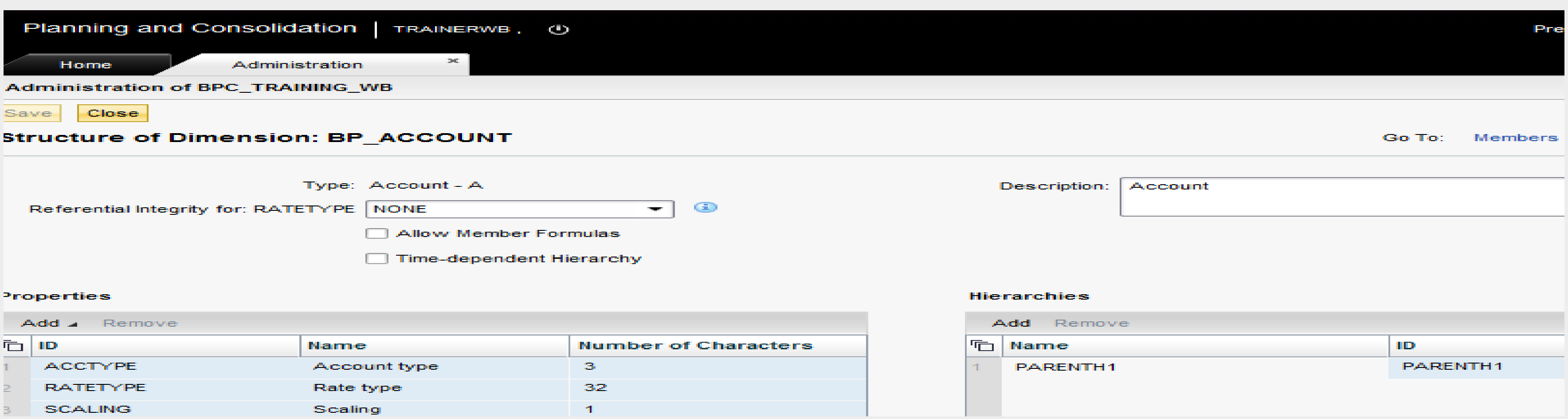
➤To create a new dimension:

- Click "Add a new dimension".
- Specify the dimension name and add a dimension description.
- Choose the Dimension Type.
- Specify the reference dimension (if applicable).
- Flag whether you would like to enable Time Dependent Hierarchies.
- Specify your dimension properties (i.e. BI Attributes) on the Properties screen.



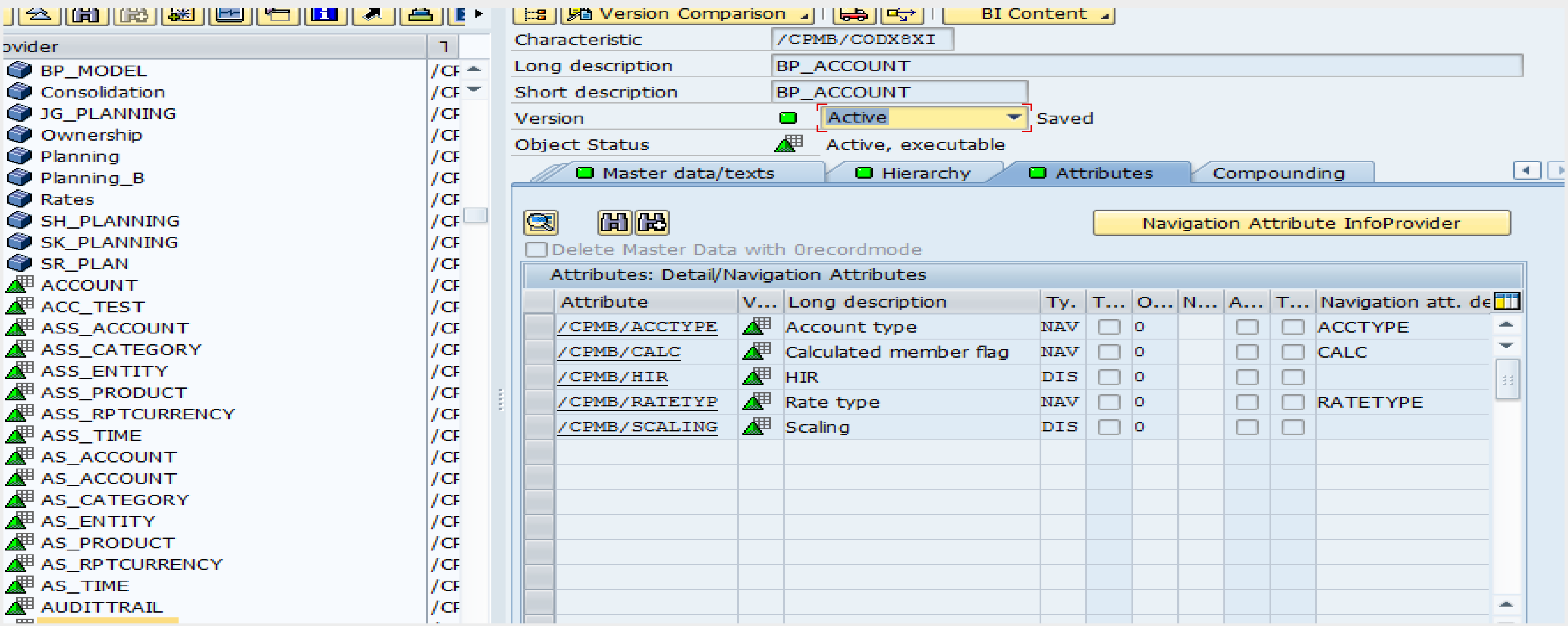
# Creating Dimensions (2 of 3)

- You can then add your properties here.
- If you flagged your dimension as time dependent, you can define which property is stored as time dependent within your SAP NetWeaver BI system. Time dependency stores a validity date for master data. You should model a property called “INACTIVE” to flag a property as inactive or to end date the property. For time dependent hierarchies, you should create a node called “INACTIVE” and move members to this node to end date them.
- Click “Add a New Dimension” in the Action Pane when you are finished adding properties.



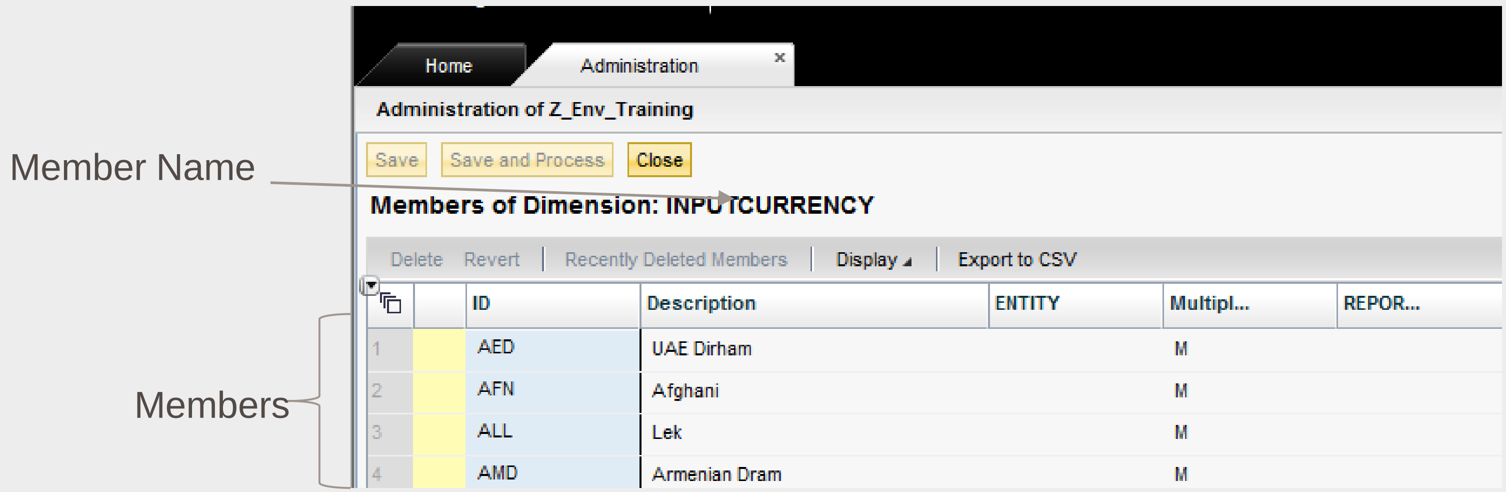
# Creating Dimensions (3 of 3)

- The dimension and properties you create can be seen within the SAP NetWeaver BI Data Warehousing Workbench (transaction RSA1 or RSD1).
- All technical names are generated based on a naming convention in SAP Business Planning and Consolidation.



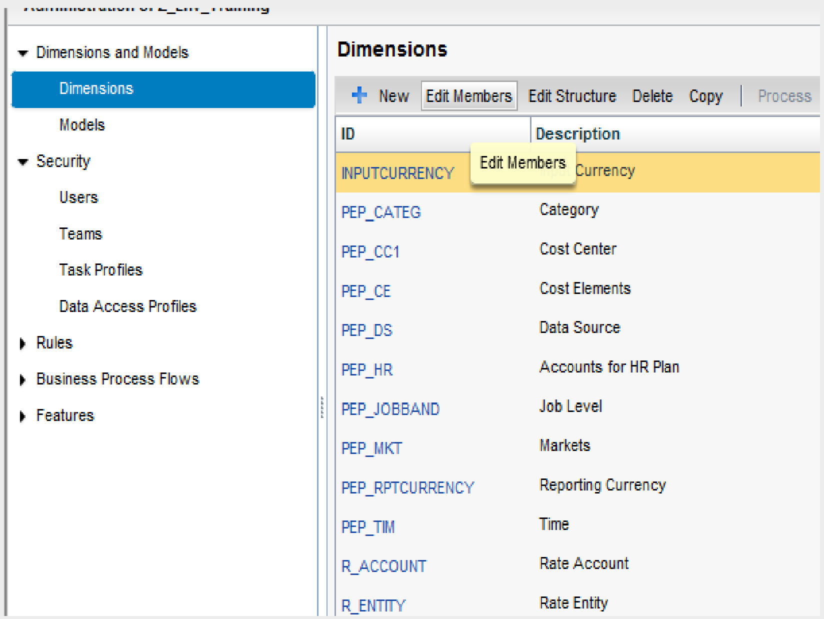
# Member Sheets:

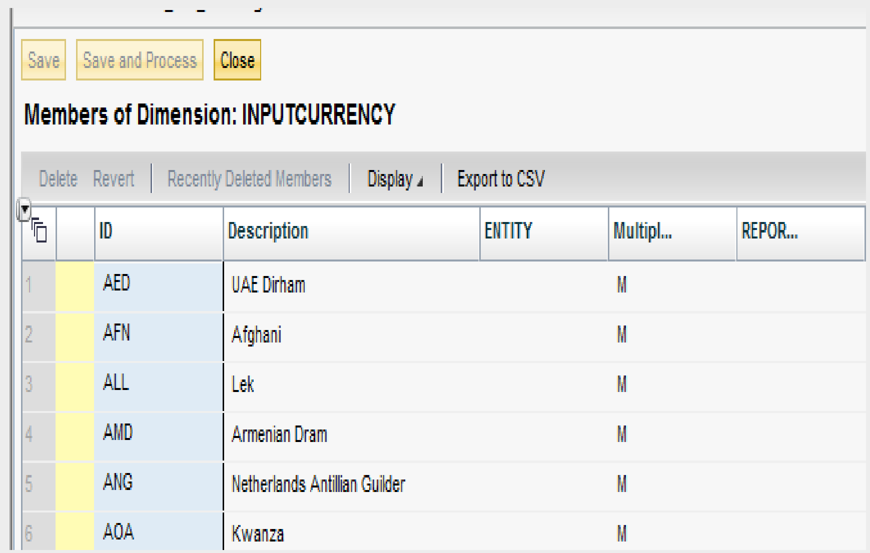
- Member Sheets are where the members of each dimension (and the member properties) in your Model are maintained.
- Member Sheets are displayed in Web admin as below.
- When you create a new dimension, a Member Sheet is automatically created, with column headings for every property that has been defined using “Manage dimension property”.



# Maintaining Dimension Members (1)

- If you select a dimension and click on Edit Member.



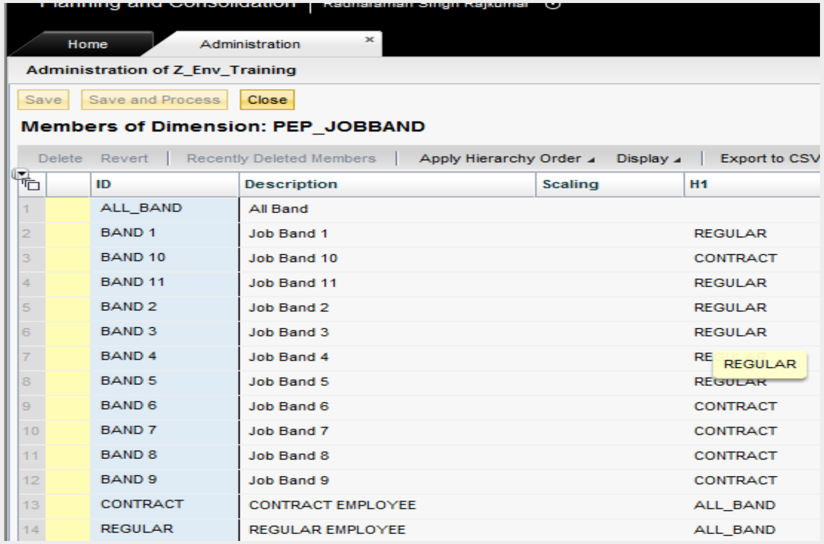



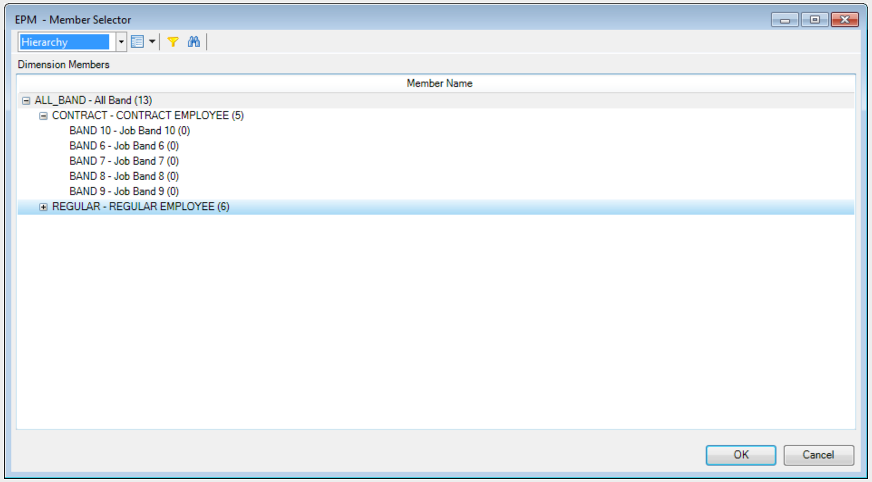
# Creating Hierarchies:

- Hierarchies can be defined for any/all dimensions, but are not required.
- This property does not appear in the property list in “Maintain dimension property”.
- To define a hierarchy: add the PARENTHn property as a column directly in a dimension member sheet via “Maintain dimension elements”.
- You can have more than one hierarchy within the same dimension, for example:

---The PEP_JOBBAND BAND1 reports to the parent REGULAR defined in the PARENTH1 column.

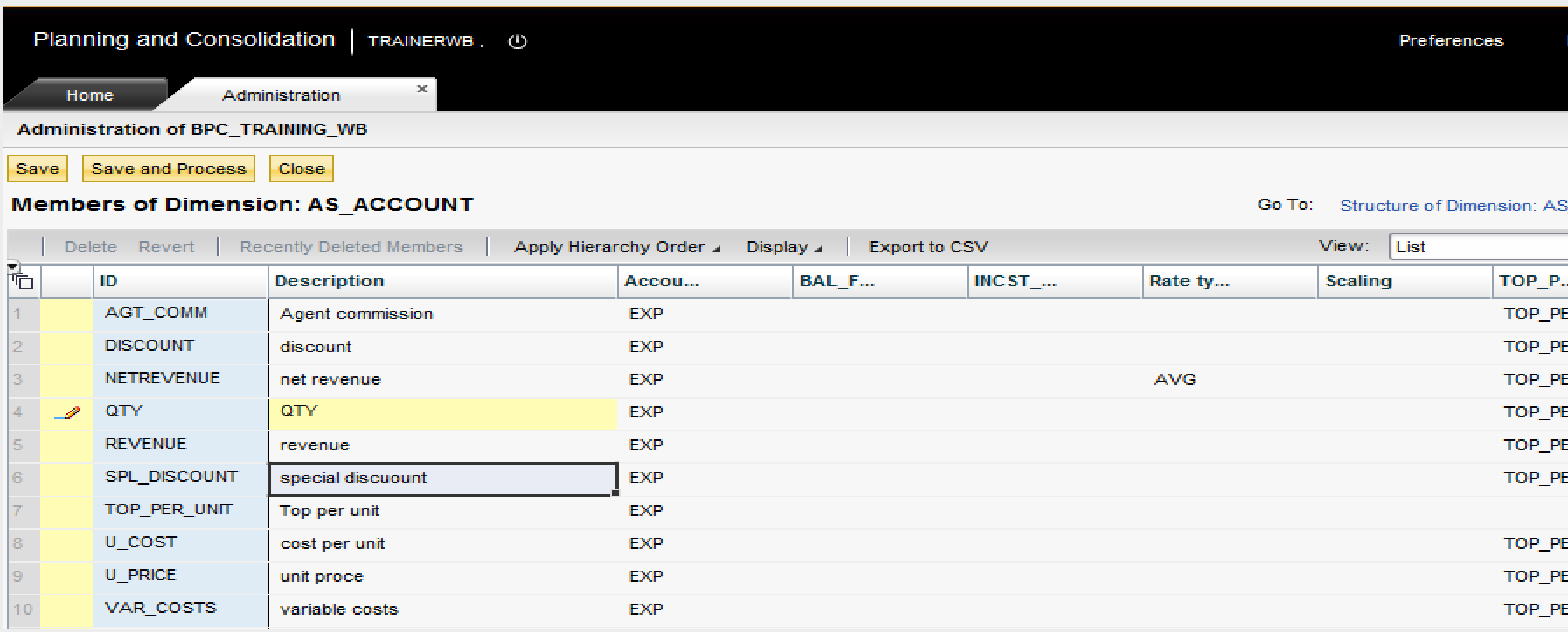
---The PEP_JOBBAND BAND10 reports to the parent CONTRACT defined in the PARENTH1 column.



# Processing Dimensions:

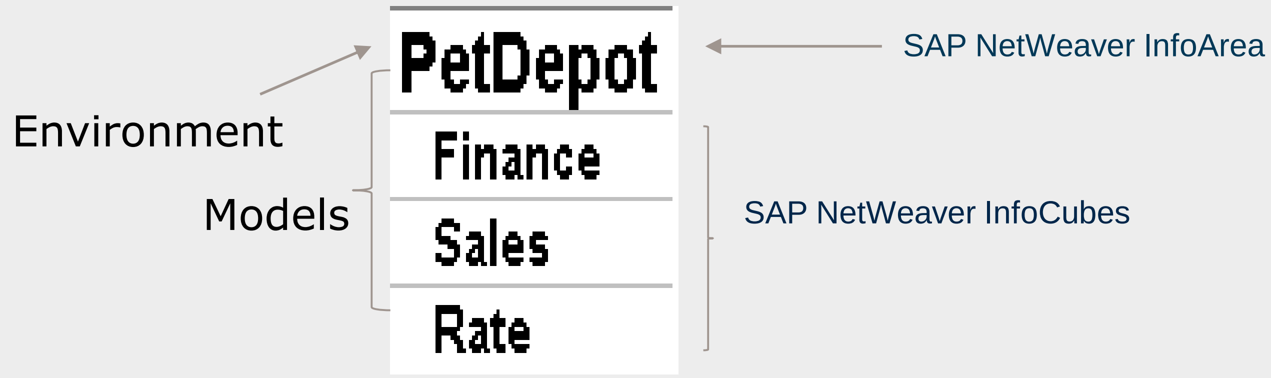
- When you process a dimension, you can choose to process Just “Save” or “Save and Process”.
- This means that when you process a dimension, the values to save back to the master data of the SAP NetWeaver BI InfoObject are taken from the web sheet you currently have open on your client machine.



# Models:

- An Model is a functional unit used for a particular purpose
- Examples: Finance Model or Sales Model

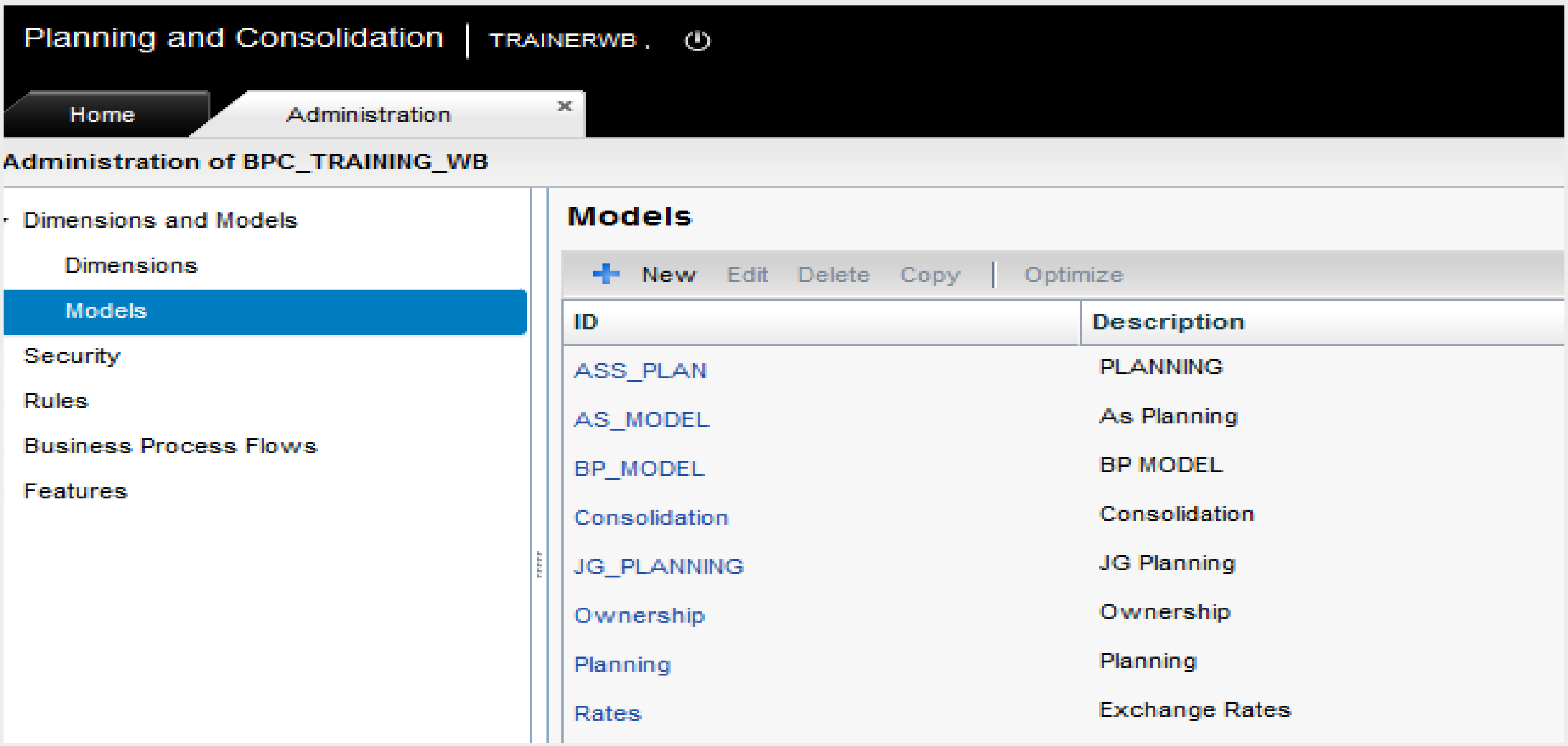
- In SAP NetWeaver BI, an Model is approximately equivalent to a cube.




- Models may share dimensions with other Models within the same Environment, or have dimensions that are unique.

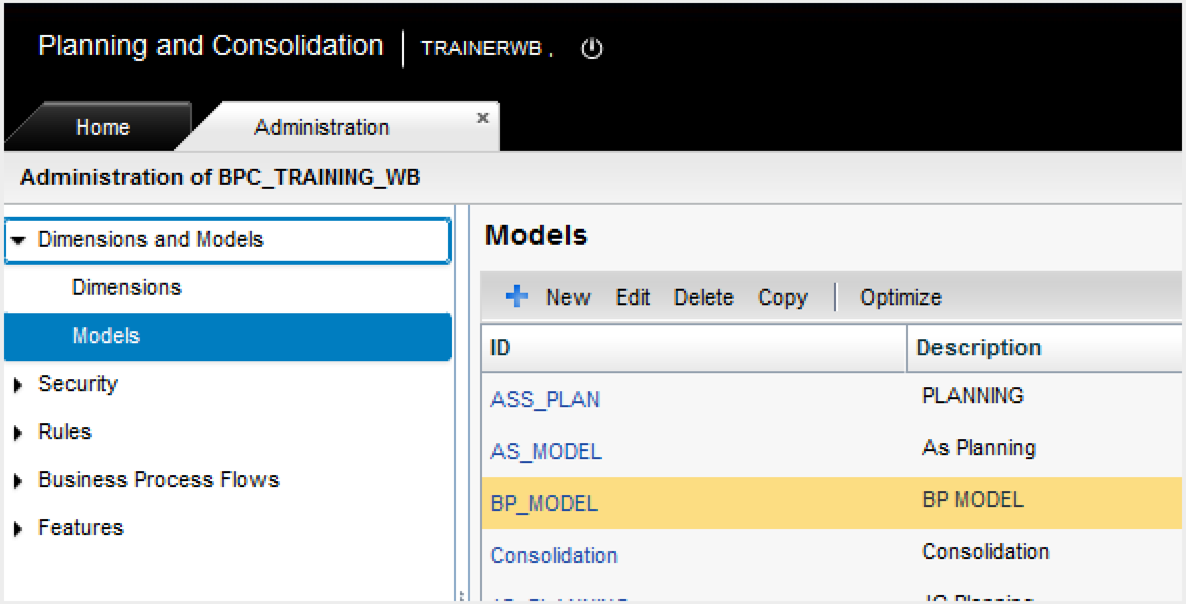
# Web Admin – Models

- The Admin user is able to add, copy, delete and modify an Model.



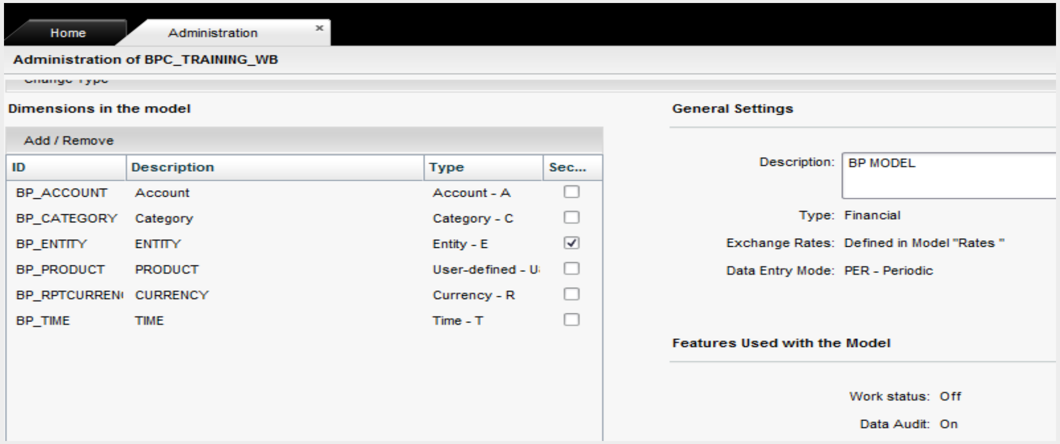
# Web Admin – Model Options

- If you select an individual Model level on the left, the Action Tab will display tasks relevant for that Model: Edit, Delete or Optimize.



# Modifying an Model:

- During modifying an Model, it is possible to add/remove dimensions.




- Dimensions can’t be added if they would violate the standard rules (i.e. required types, duplicates, etc.)
- Dimensions can’t be removed if there are dependent settings on them, like Work Status.
- Each Model should have at least four dimensions; Account, Category, Entity and Time.

# Model Optimization

- Optimize will run a number of technical steps on the SAP NetWeaver BI InfoCube in an attempt to improve performance. There is no rule of thumb for how often to run optimizations, but as data volumes grow over time, it is recommended to run optimize periodically.
- There are two different types of optimize available:
- **Light Optimization**: Closes the open request, compresses without Zero-Elimination and indexes the cube, and updates database statistics for the BW InfoCube.
- **Full Optimization**: Will perform the same operations as Light Optimization, but will also check the NetWeaver BW data model. If the data model can be improved, Full Optimization will do so, and this could take a long time to run (for cubes with large data volumes).

# Model Types:

**REPORTING**

- **Financial**: performs management consolidation functions, such as currency conversions, intercompany eliminations, etc.
    - - Must reference a Rate-type Model.
- **Consolidation**: performs legal consolidations. Similar to Financial Models, but with legal consolidation rules instead of management.
    - - Must reference an Ownership-type Model and a Rate-type Model.
- **Standard:** has no special requirements (other than to include the four minimally required dimensions – customized)

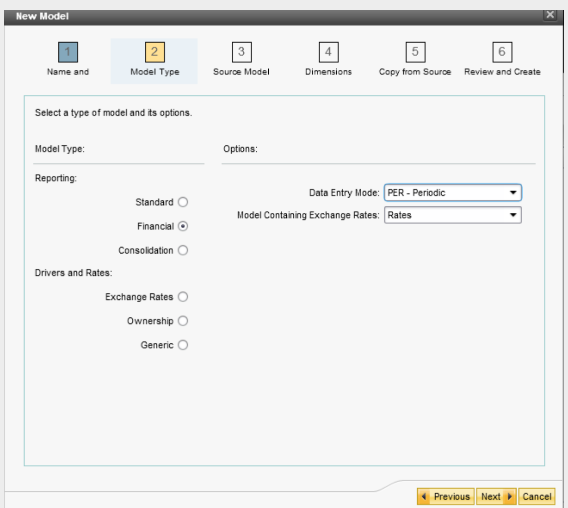
**Driver and Rates**

- **Rate**: stores exchange rates that support currency conversions for reporting Models.
    - Must include a Currency-type dimension to store the exchange rates by currency.
- **Ownership**: Stores information such as the consolidation methods, ownership percentages, and group rollup information used for legal consolidation.
- **Generic**: has no special requirements (other than to include the four minimally required dimension -customized).

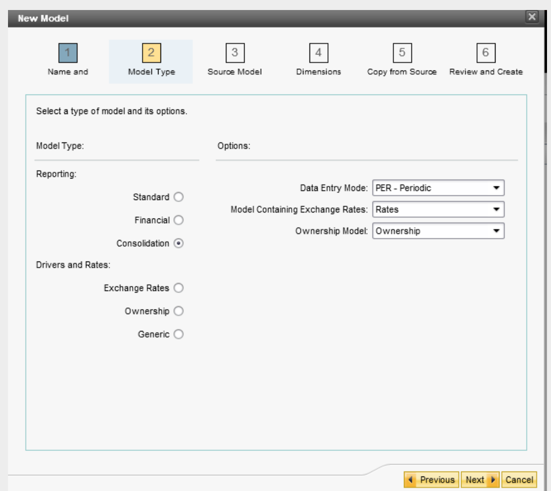
# Referencing Models & Business Rules:

- When you create an Model, you will be asked to select the necessary reference Models.
- The drop down lists will automatically populate with the available choices for the reference Model.
- When applicable, you can also choose the business rules that you want to apply to the Model.

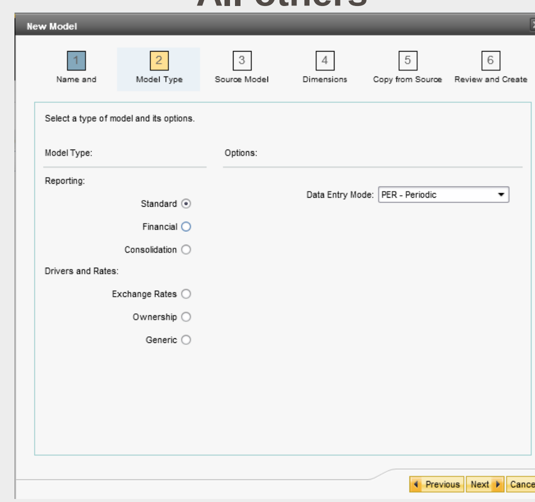
**Financial**




**Consolidation**

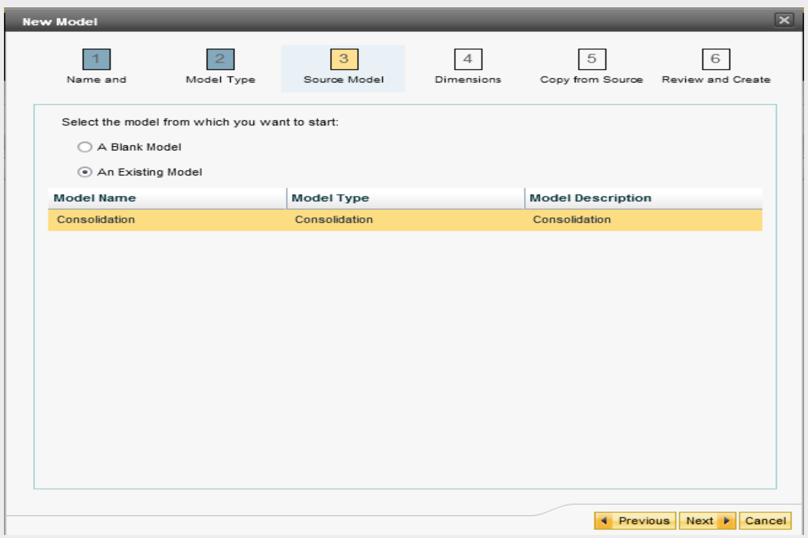


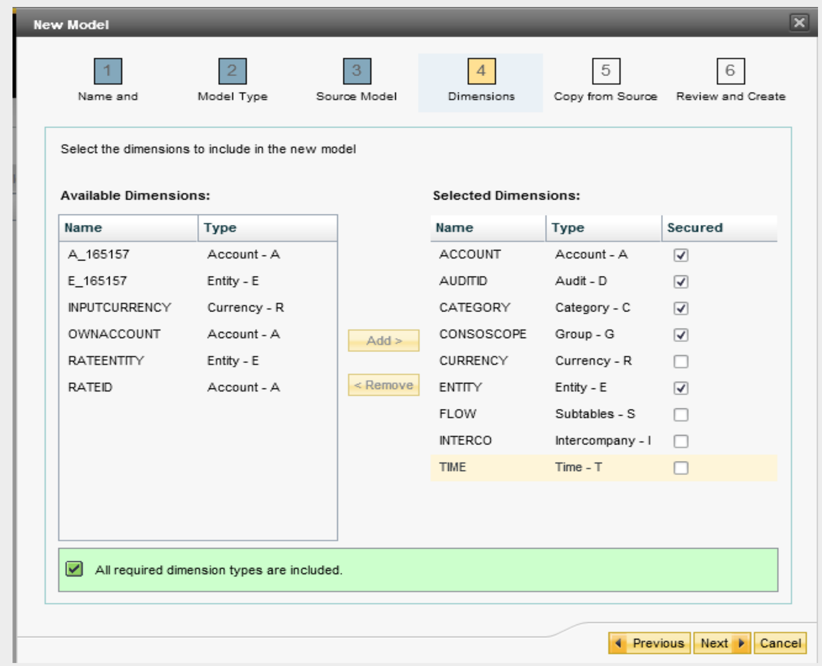

**All others**



# Assigning Dimensions to Models:

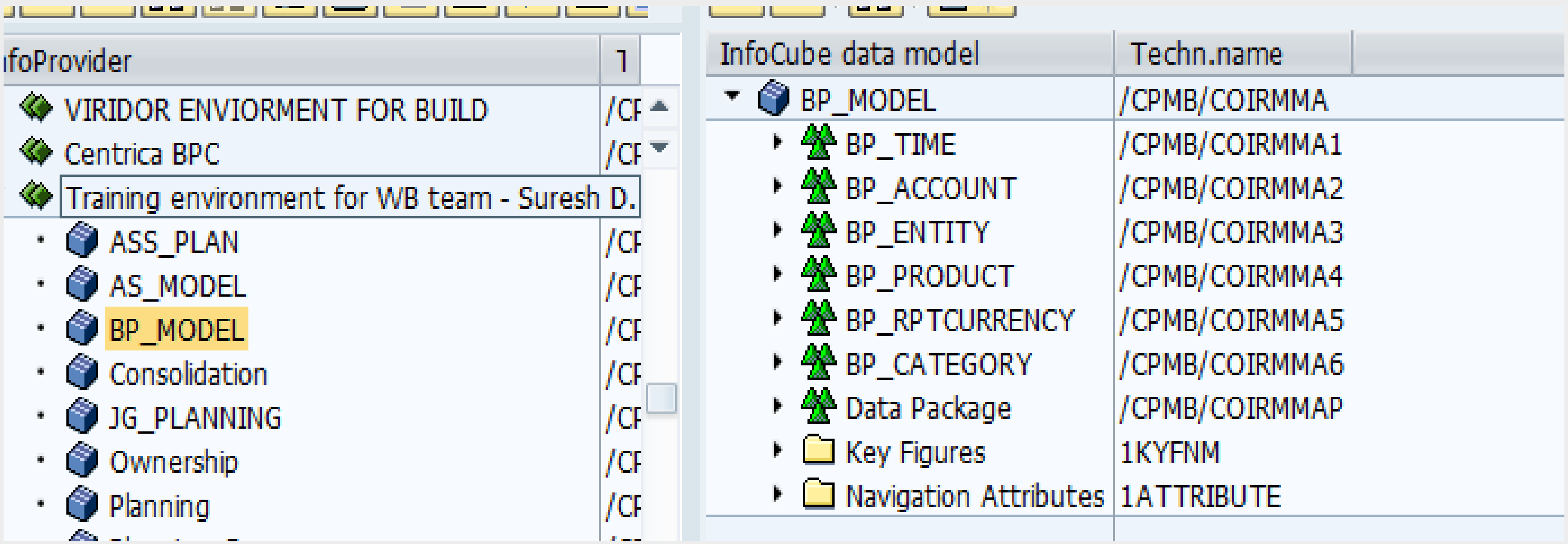
- When you creating an Model, you can choose whether to copy the same dimensions as per the source Model you selected as a template, or whether you want to change the dimensions.
- You will then be presented with the below screen allowing you to add or remove dimensions. You can also flag a dimension as "Secured", which means security can be controlled through Member Access Profiles.



# Back-end Info Providers:

- InfoProvider definitions for an SAP Business Planning and Consolidation Model can be seen in SAP NetWeaver using transaction RSA1.




- Transaction RSDCUBE provides more information about the cubes.

# Secure Flag:

- For any given dimension assigned to the Model, you can secure the dimension by selecting the dimension and the clicking on the Secured Check box.
- For secured dimensions assigned to the Model, you must grant read/write/denied access to the dimension by using Data access profiles (details will be discussed in the Security section).
- Now Read/Write access is controlled entirely in the Data Access Profiles.

# Introduction to Business Process Flow:

- Business Process flow is method of defining a business process within the context of SAP BPC.

- A BPF guides end –user with predefined process:
  - Data controls
  - Sequential process steps
  - Process tracking and communication

- BPF is focused on the collection and verification of data required to complete a business process successfully.

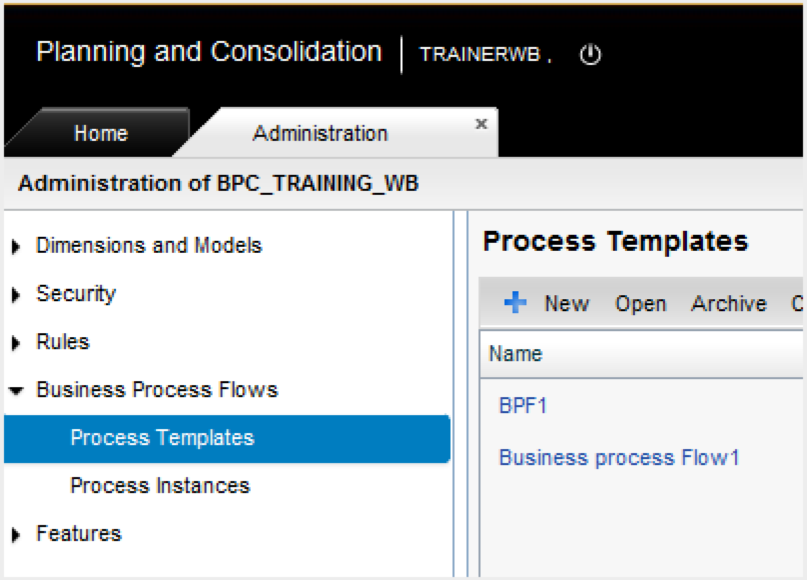
# Key benefits of Business Process Flows:

- Helps with coordination
- **Web based user Interface**
- Status and Tracking
- **Guided Navigation**
- Email Notifications
- **Steps can be reopened**
- Steps can be reviewed by higher authorities
- **Workstatus Integration**

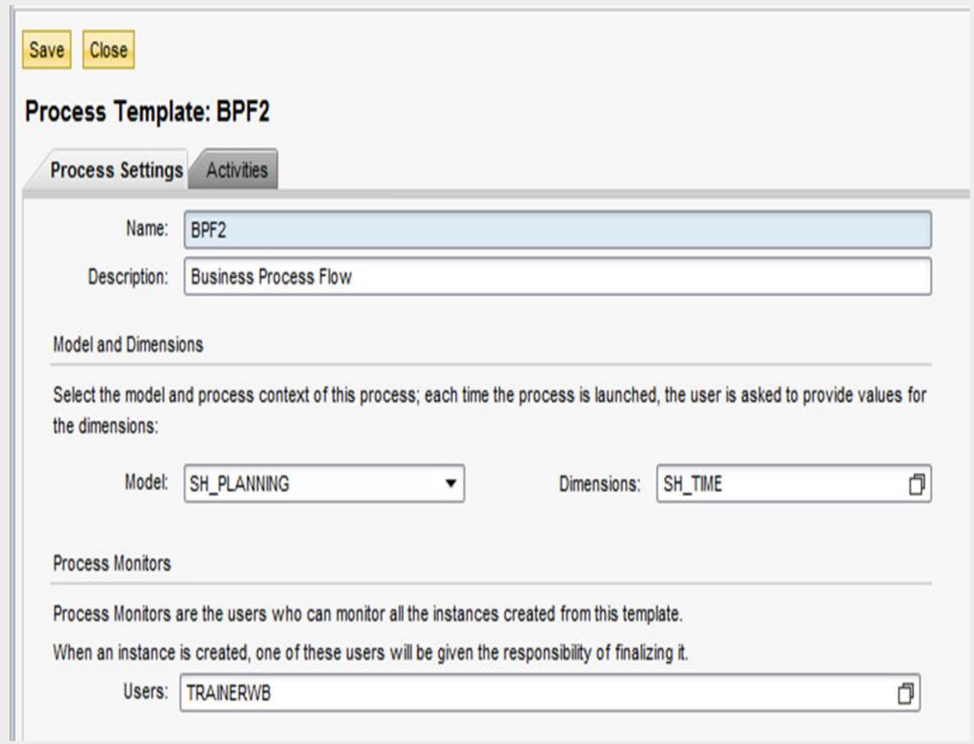
# Functions:

- There are two major functions in BPF:
  - BPF Template - A process template is the specification of a single enterprise-wide business process, containing tasks that can span across the various modules of Planning and Consolidation.
  - BPF Instance - is an iteration of a process template that is in active use.

# BPF Template:



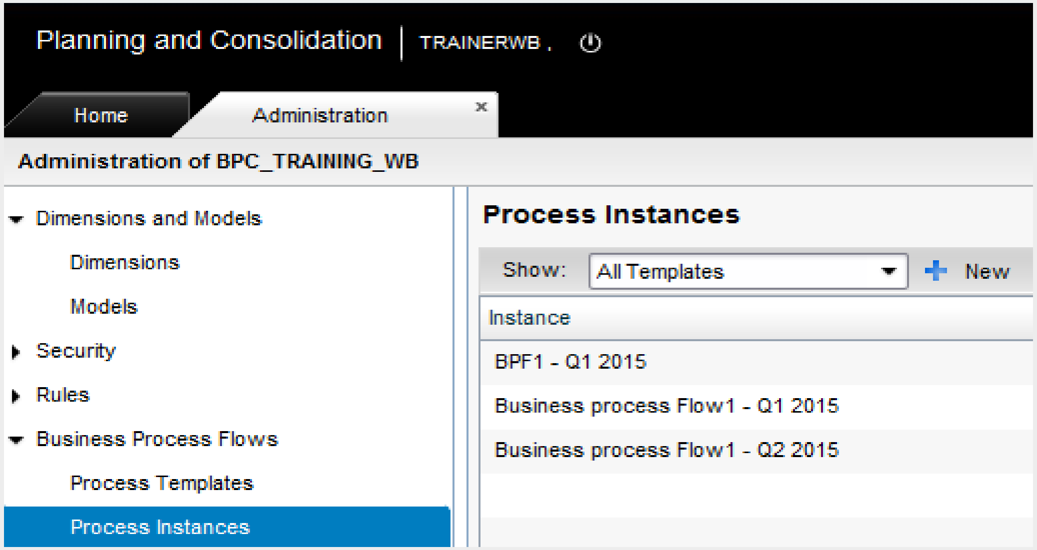

- To create a new BPF Template ( BPF2)
- Select Process Templates ☐ click New
- Enter the Process Information in the Process Settings Tab.

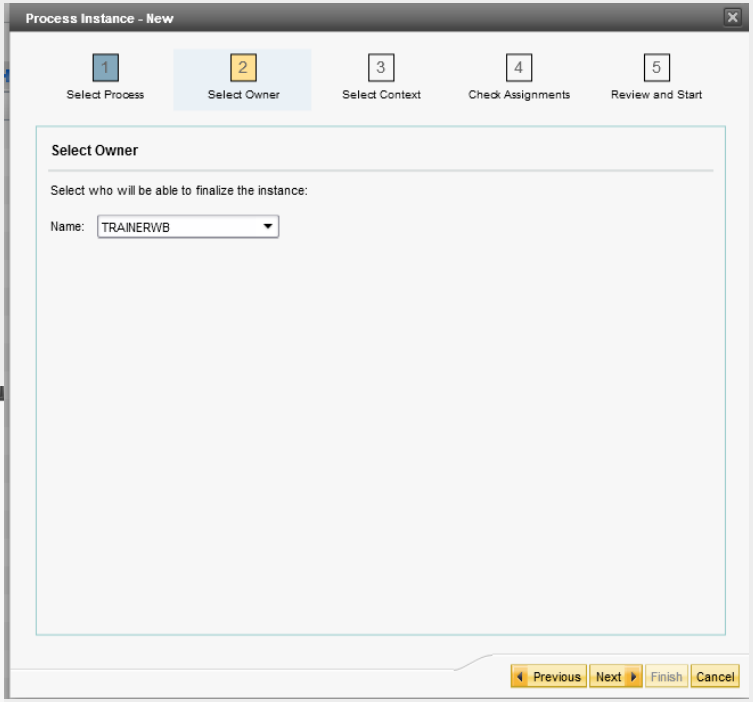


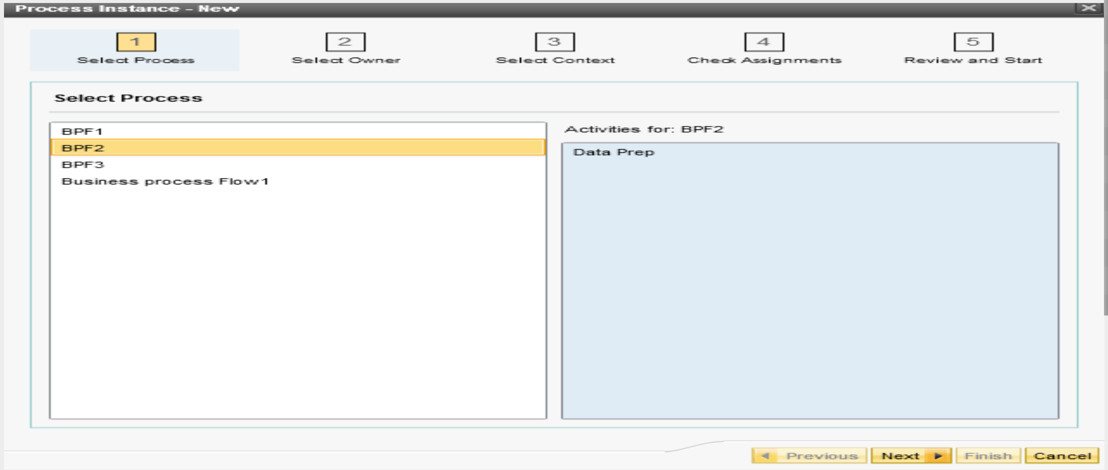
# BPF Instance:

- BPF Instance - is an iteration of a process template that is in active use.
- Steps involved in creating a new Process Instance are:
  - Click New
  - Select a Process
  - Select Owner
  - Select the Context
  - Check Assignments
  - Review and Start

# Steps to create Process Instance:

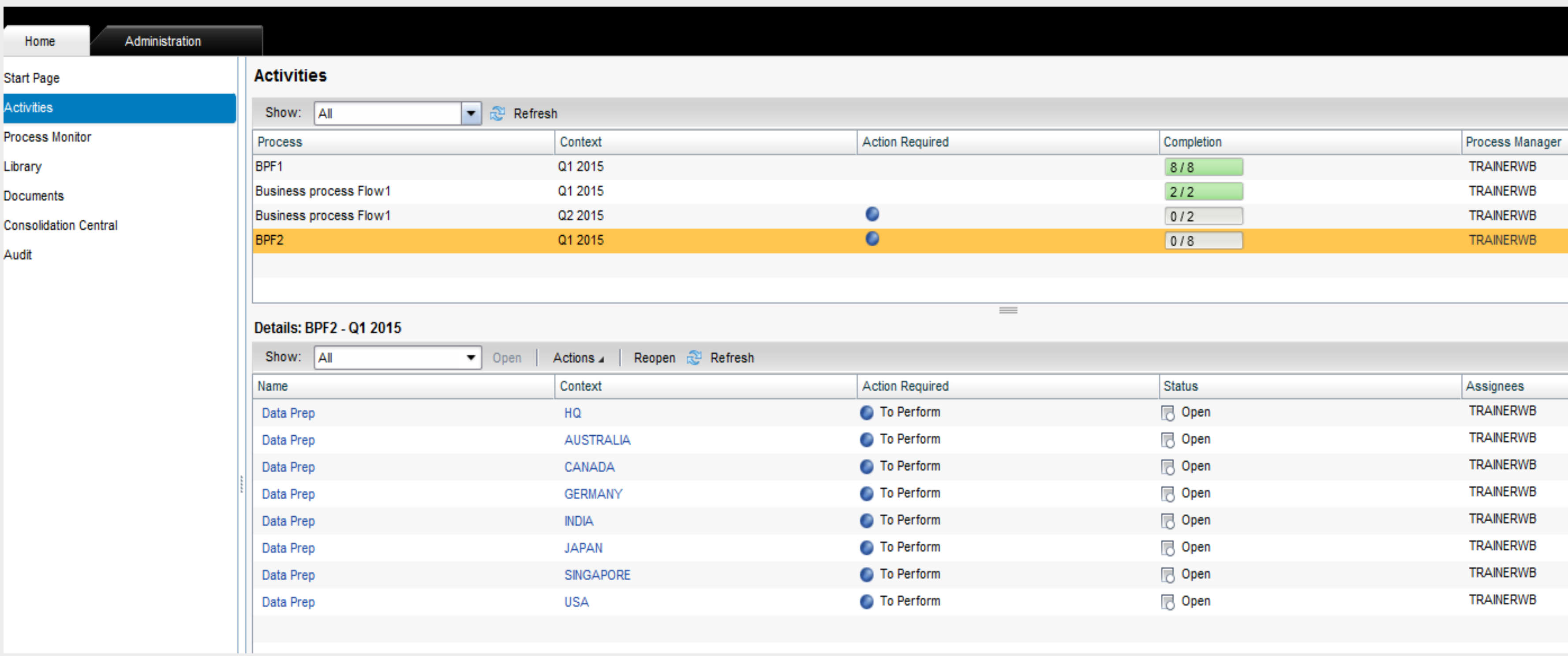


# Executing a BPF:

- In Home Page go to Activities→ Select the activity
- In  Details Section click on the activity → Activity work space will open to perform the actions. Have to open each Data prep activity HQ/AUSTRALIA/CANADA etc. in sequence and can complete the steps



# SAP BPC - Security

Security in SAP BPC system is defined using two components – Authentication and Authorization. Authentication defines who can access system and data, while Authorisation tells the level of access for each authenticated user.

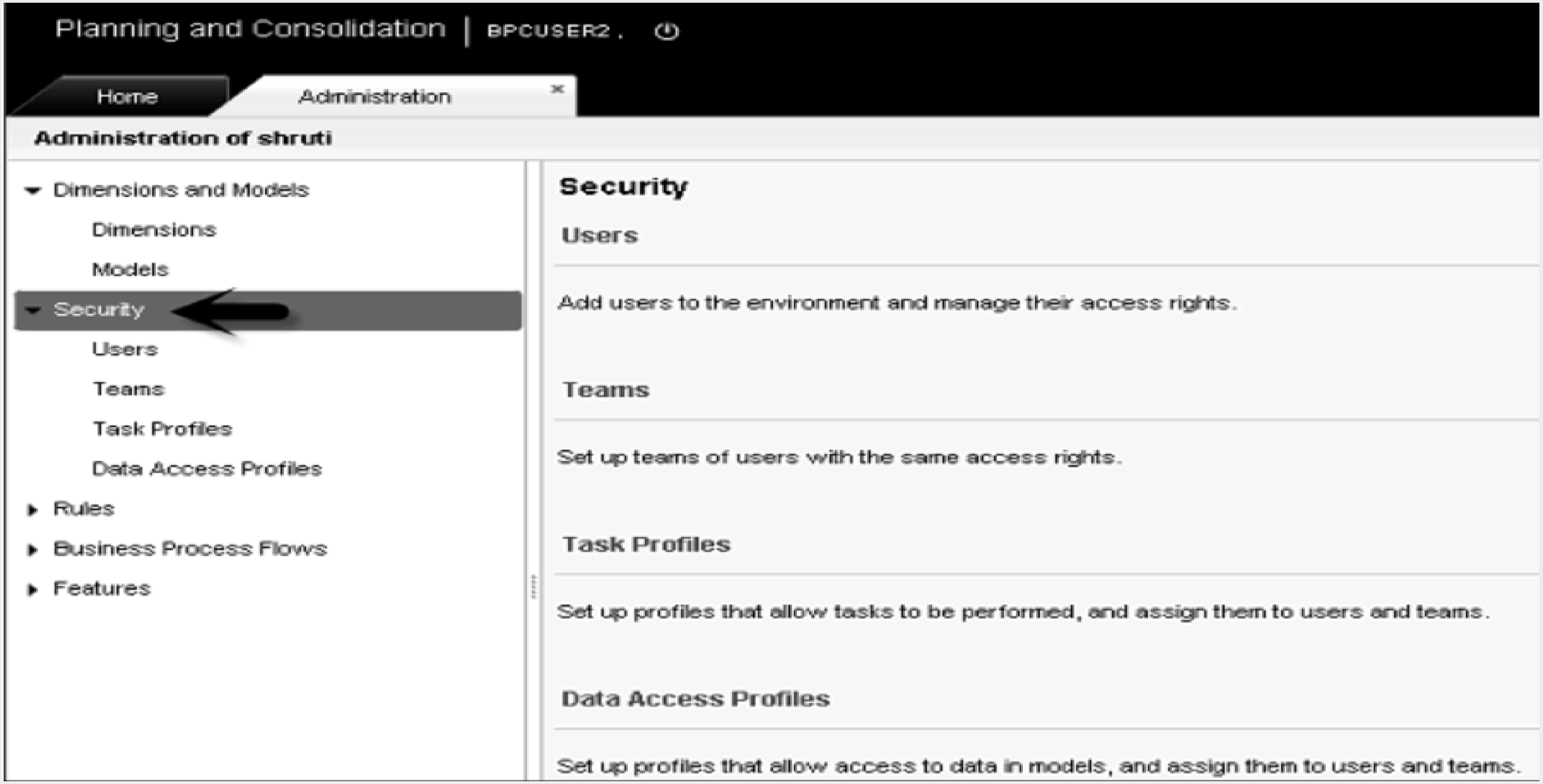
SAP BPC security is based on access profiles and task profiles. When you don’t assign task profiles to users or teams, no access to BPC tasks will be provided. Thus you have to assign access to members of a secured dimension.

BPC Security provides the following key functions –

- ❑ Add Users
- ❑ Add Teams
- ❑ Add Task Profiles
- ❑ Add Member access profiles

# SAP BPC – Security

To manage the above function, logic to BPC administration and go to security



# SAP BPC – Security

There are four tabs under Security –

**Users** – This is used to add users to the environment and manage access rights.

**Teams**- You can add users with the same access rights to the same team.

**Task Profiles** – This is used to set up profiles that allow tasks to be performed and assign them to users and teams.

**Data Access Profiles** – This is used to set up profiles that allow access to data in models and assign them to users and teams.

To Add/Edit/Delete any of the objects under Security, select the object as shown in the following screenshot

Capgemini
CONSULTING.TECHNOLOGY.OUTSOURCING

People matter, results count.

## About Capgemini

With more than 140,000 people in 40 countries, Capgemini is one of the world's foremost providers of consulting, technology and outsourcing services. The Group reported 2014 global revenues of EUR 10.5 billion.

Together with its clients, Capgemini creates and delivers business and technology solutions that fit their needs and drive the results they want. A deeply multicultural organization, Capgemini has developed its own way of working, the Collaborative Business Experience™, and draws on Rightshore®, its worldwide delivery model.

Learn more about us at www.capgemini.com

*Rightshore® is a trademark belonging to Capgemini*

**www.capgemini.com**