SAP Sales and Operations Planning 3.0 SP02 Model Configuration Guide



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1 About This Guide

SAP Sales and Operations Planning (S&OP) allows you to configure and customize your data model. The S&OP web client includes the SAP sample data model, which you can use to plan how you want to configure tables to support the S&OP processes.

You can use this guide to carry out specific tasks within the application, or you can follow the guide from beginning to end to create an entire model.

> **Note**
>
> Before configuring your data, familiarize yourself with the following:
>
> - Model configuration and activation permissions provided by your administrator
> - Data modeling and table configuration
> - SAP Sales and Operations Planning process
> - SAP Sales and Operations Planning application
> - Your company planning model and business models

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2 Document History

> **Note**
>
> Make sure you have the latest version of this guide from SAP Help Portal at *http://help.sap.com/sop30*

The following table provides an overview of the most important changes.

Version	Date	Description
1.0	05/15/2013	Initial version
2.0	01/14/2014	Version for 3.0.1 release
3.0	02/14/2014	Version for 3.0 SP01 Patch 01
3.0	03/31/2014	Version for 3.0 SP01 Patch 02
3.0	08/01/2014	Version for 3.0 SP02

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3 Glossary

The following table contains definitions of the key terms that are used for this product.

Term	Definition
Attribute	Attributes are characteristics of Master Data Types that can be numeric or non-numeric. For example, an attribute of the CUSTOMER MDT could be the COUNTRY.
Master data type	A discrete category of data such as a product or resource. Master data types are used to segment planning data. For example, a consumer goods company may want to understand sales based on the master data types Product, Customer, and Location. A master data type can have many attributes. For example, the master data type Product might have the attributes Product ID, Product Family, and Product Description.
Key figure	A time-phased multidimensional set of data, that is, a series of numbers over time for different attribute value combinations. Key figures represent forward looking or projected data (such as sales forecast, consensus demand plan) or actual data (such as sales order, shipment history) or constraints (such as capacities). Key figures can be: • Stored Data is stored at base planning level for storage. This type of key figure may be editable (for example, sales forecast quantity) or for display only (for example, actual quantity). • Calculated The value is calculated based on a user-defined formula, for example, Revenue (Qty * Price). Typically, this type of key figure is not stored or editable. • Alert A calculated key figure with user-defined formula that monitors and manages the execution of business plans, for example, TargetRev vs. ConsensusRev > 10%.

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Term	Definition
Planning area	A set of the following configuration elements that together define the structure of your planning process: • Master data types and attributes • Time profile • Key figures and calculations A planning area always contains a baseline dataset and can additionally contain many scenario datasets. They can be understood as different versions of data to carry out what-if analysis. A company can have multiple planning areas to enable planning in different business units or different types of planning. However, it is not possible to plan across planning areas.
Planning level	Planning Levels are a set of attributes that enable users to analyze and plan at different levels. For example, PRODCUST Planning Level is defined as Product-Customer, which allows for data analysis that is tied to both the Product and the Customer, or combinations of both and their attributes. For example, the DEMAND for a product could be a function of a specific customer and a type of product.
Time profile	The time periods in which planning data can be managed (for example, weekly, monthly, and so on) and the hierarchy of the time periods.
Visibility filter	The settings which allow you to manage privileges. For example, you can use a visibility filter to define that a planner can view only Consensus Demand Plan instances related to the planner's business unit.

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4 Model Configuration

SAP's Sales and Operations Planning (S&OP) application includes an out-of-the-box, comprehensive S&OP model. The planning model is a master plan that defines how the information is stored and aggregated in the system.

To get you started, the SAP S&OP solution includes the following sample planning models:

- SAP1
- SAP2
- SAP4

To access these models, navigate to the Configuration user interface and click the Planning Area and Details tab. You can select a model by choosing Display SAP Sample from the Edit Active and Inactive dropdown.

You can use this generic sample planning model as a reference point when you create your own model.

> **Note**
>
> This guide focuses on creating a demand model for Company ABC. The Demand Review Step of the company's S&OP process focuses on arriving at a Consensus Demand Plan from Sales and Marketing inputs, and measures the financial revenue. You can use this guide either to carry out specific tasks within the SAP S&OP application, or you can follow the guide from beginning to end to create a full data model.

4.1 Model Setup Overview

In SAP S&OP, a model is a collection of master data and input data which are organized under specific calculations.

All sales and operations models comprise the following components:

1. Attributes
2. Master Data Types
3. Time profiles
4. Planning areas
5. Planning Levels
6. Key Figures
7. Calculations
8. Scenarios
9. Miscellaneous Components: Snapshots, Global Configurations, Planning Operators, Reason Codes, etc.

SAP Sales and Operations Planning allows you to configure and customize your own planning models to address your unique business requirements. The SAP S&OP web client application also includes features that enable you to configure a model from scratch, and activate it on the Configuration tab. The high-level process for configuring a model is described below.

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4.2 Model Configuration Process

Configuring the SAP Sales and Operations Planning model entails following a specific, sequential process.

1. **Define Model:** Define Master Data Types (and Attributes), Time Profile, and Key Figures.
    - Attributes
    - Master Data Types
    - Time Profiles
    - Planning Areas
2. **Activate Model:** Check the integrity of the defined model and activate it. This generates the underlying database artifacts. Activate the model in the following order:
    - Activate Time Profile
    - Activate Master Data Types
    - Activate Planning Area
3. **Load Data:** Import Time Profile Data, Master Data and Key Figures data into the model.
4. **Use:** Begin using SAP S&OP to enable your company's sales and operations planning business process.

For more information, see *SAP HANA SQL Reference Guide* and *SAP HANA Security Guide*.

4.3 Master Data Types and Attributes

Master Data Types are main categories of information.

For example, CUSTOMER, LOCATION, PRODUCT, and RESOURCE are some of the main data categories within the SAP1 planning model. These Master Data Types (MDT) are "simple" MDT; however, you can also create "compound" MDTs when you combine two or more "simple" MDTs (for example, Customer-Location). In addition, there are also "Reference" MDTs that you create by including a reference to another existing MDT, which means you do not have to maintain the same data twice.

MDTs can have many attributes or supporting data. For example, attributes of the CUSTOMER MDT could be the COUNTRY and the REGION, etc. Attributes are characteristics of MDT that can be numeric or non-numeric. You can load data onto "simple" and "compound" MDT but not "reference" MDT.

You can find out which Master Data Types are used in specific Planning Areas by selecting Master Data Types in the Planning Areas window of the Configuration user interface and selecting Used in Planning Areas.

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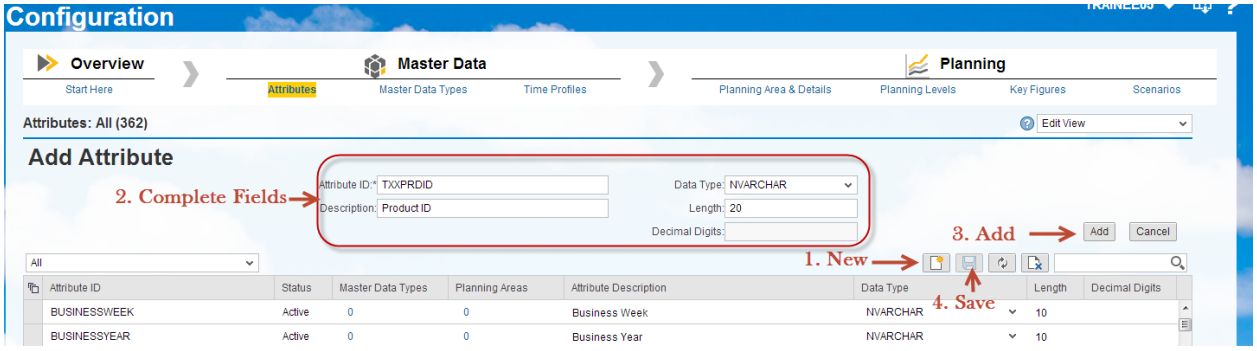
4.3.1 Creating Master Data Attributes

An Attribute definition provides a ID, Description , Date Type, and Length for an attribute.

Context

Follow these steps below to create a new attribute. The steps provide an example of creating the TXXPRDID attribute



Procedure

1. Log onto the SAP Sales and Operations Planning application.
2. Click the Attributes tab.
3. Click the New icon.
4. Enter the following values:
   a) Attribute ID: TXXPRDID
   b) Description: Product ID
   c) Data Type: NVARCHAR
   d) Length: 20
5. Click Add.
6. Click Save.

   If you are using this guide to create a model, follow the steps above to complete the attributes in the table below.

Table 1: Table of Additional Attributes for SAP S&OP Demand Model

Attribute ID	Description	Data Type	Length	Decimal Digits
TXXPRDDESCR	Product Description	NVARCHAR	60	
TXXPRDFAMILY	Product Family	NVARCHAR	20	
TXXCUSTID	Customer ID	NVARCHAR	20	

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Attribute ID	Description	Data Type	Length	Decimal Digits
TXXCUSTDESCR	Customer Desc	NVARCHAR	60	
TXXCUSTREGION	Customer Region	NVARCHAR	20	
TXXUNITPRICE	Unit Price	Decimal	18	6

Based on the selection from the dropdown, you can view the attributes. The selection includes:

- View all attributes
- View only attributes related that are assigned to one or more master data types
- View attributes that are not assigned to any master data types
- View attributes that are assigned to one or more time profiles

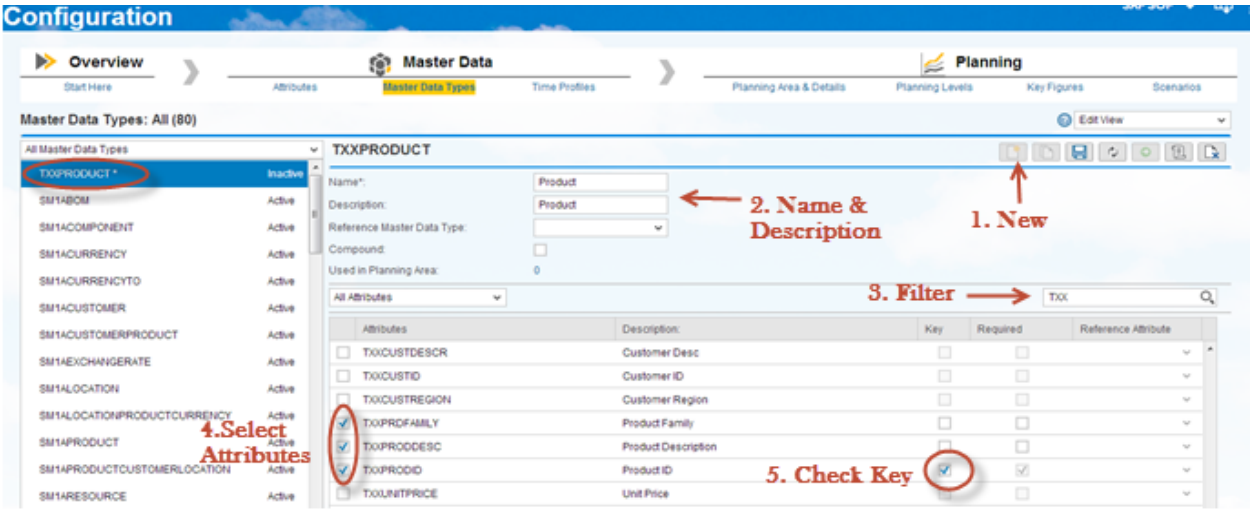
Selections can also be based on a specific master data type or time profile. Once you create the attributes they are displayed in the system, and you can view their associated Master Data Types, Planning Areas, and Time Profiles.

4.3.2 Creating Simple Master Data Types

Once you create your attributes, add the master data types for your model by navigating to the Master Data Types window in the Configuration user interface.

Context

The following steps provide an example of creating a simple Master Data Type: TXXPRODUCT



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Procedure

1. Click the New icon to add a Master Data Type ID: TXXPRODUCT. Click OK
   This closes the dialog and displays the screen where you provide details for the Master Data Type.
2. Enter the following information: Name: Product; Description: Product.
3. Make sure Available Attributes dropdown is selected.
4. Filter for attributes, for example, filter by your prefix 'TXX' to make it easier to find attributes.
5. Select the attributes, for example, TXXPRDID, TXXPRDDESC and TXXPRDFAMILY, to add to the Master Data Type: TXXPRODUCT.
6. Select the Key Attribute by selecting the Key checkbox for TXXPRDID.
7. Save your changes.
8. If you are using this guide to create a model, follow the steps above to complete the Master Data Types in the table below.

Table 2: Table of Additional Master Data Types for S&OP Model

Master Data Type ID	Name	Description	Attributes	Key
TXXCUSTOMER	Customer	Customer	○ TXXCUSTID ○ TXXCUST-DESCR ○ TXXCUSTRE-GION	Yes

4.3.3 Creating Compound Master Data Types

A compound master data type allows you to add two or more master data types and derive from them.

Context

You can select additional attributes other than the ones that are automatically selected from the compounded Master Data Types. Once you select this checkbox, a grid table displays on the right where you can add the master data types to become part of this compound master data type.

A compound Master Data Type also represents a valid combination of Master Data Types. For example, the Compound Master Data Type CUSTOMERPRODUCT, consisting of PRODUCT and CUSTOMER, represents valid combinations of Products and Customers. When a Key Figure, containing the keys Product and Customer ID, is loaded, it checks against this Compound Master Data Type for valid combinations.

Use the following example steps to add a Compound Master Data Type, TXXCUSTOMERPRODUCT, consisting of simple Master Data Types TXXCUSTOMER and TXXPRODUCT.

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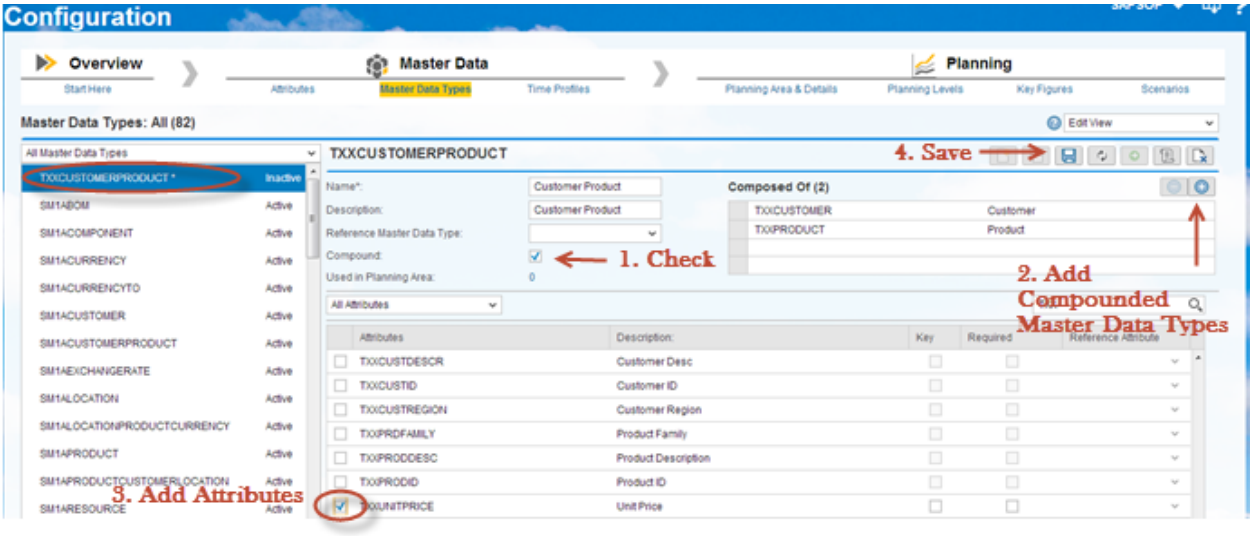

Procedure

1. Click the New icon to add a Master Data Type ID: TXXCUSTOMERPRODUCT.
2. Click OK.
   This closes the dialog and displays the screen where you provide details for the Compound Master Data Type.
3. Enter Name: Customer Product and Description: Customer Product.
4. Check the Compound box.
5. Add the Compounded Master Data Types: TXXCUSTOMER and TXXPRODUCT one at a time by clicking the "Add Master Data Type" button.

   The system will select all the respective key attributes for the Compound Master Data Type, for example, TXXCUSTID and TXXPRDID.
6. Check other attributes to include in the Compound Master Data Type, for example, TXXUNITPRICE.
7. Click Save.

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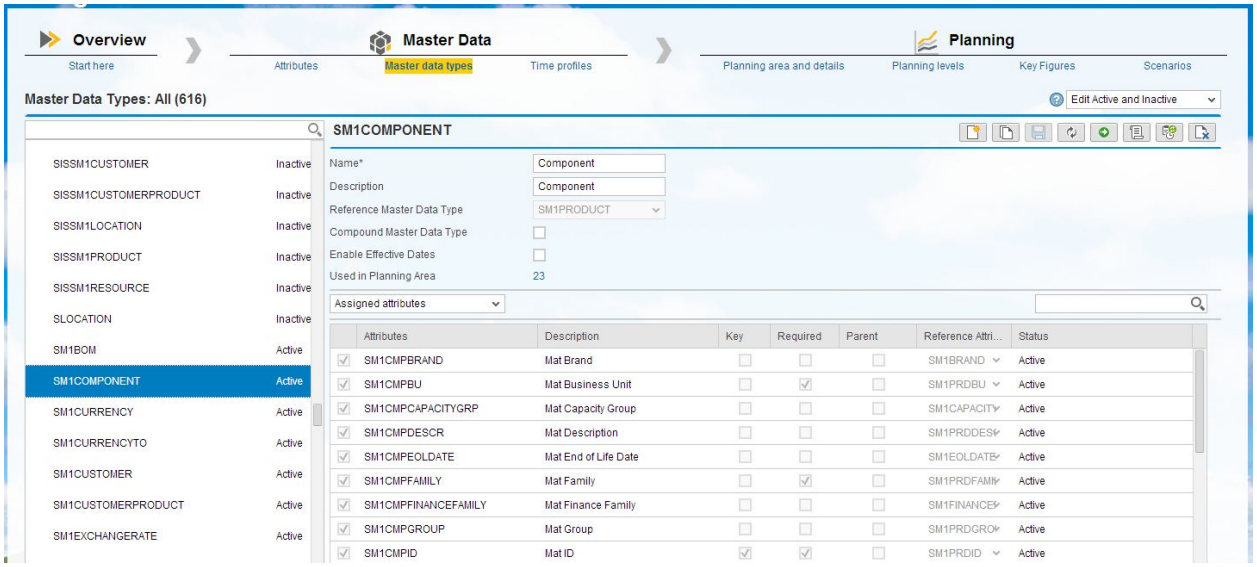
4.3.4 Creating Reference Master Data Types

A Reference Master Data Type is anothe type of Master Data Type in which the Master Data Type references another Master Data Type. For example, Currency To Reference Master Data Type references Currency Master Data Type.

Context

The data is loaded as part of the primary Master Data Type. For example, all currencies can be loaded as part of the Currency Master Data Type; and the same value will be available to the Currency To Reference Master Data Type. You cannot load data into a Reference Master Data Type.

> **Note**
>
> If you are creating a demand model with this guide, then this task is not required.



Procedure

1. In the Master Data window of the Configuration user interface, click New.
2. In the dialog that appears, enter an ID, for example, TXXCURRECYTO.
3. Click OK
4. Enter the Name and Description.
5. From the Reference Master Data Type dropdown, choose the Master Data Type to be referenced, for example, TXXCURRENCY.
6. Select the attributes that need to be assigned to this Master Data Type.

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7. Mark one of the attribute as a key, for example, CURRTOID.
8. Set a Reference Attribute for each of the attributes selected for this Master Data Type. For example, set CURRID as Reference Attribute for CURRTOID.
9. Save the newly created Reference Master Data Type.

4.4 Time Profiles

A time profile is the time component of the master data types.

It defines the various levels of time buckets, each with a unique ID, in which data can be managed. The timeline is an ordered sequence of non-overlapping buckets or "Periods". They must follow a linear order, and overlapping time periods are not allowed. A Time Profile has a unique ID (an integer) which increases with time for each time profile level, and each Period has a defined duration (from start to end time). Examples of different Time Profile Levels are Years, Quarters, Months and Weeks. These are customizable, which provides great flexibility for organizing data.

For added convenience, you can define hierarchies for Time Profiles. To define a Time Profile hierarchy, start by defining the lowest node (for example, Weekly), and then move up to higher ones (for example, monthly, quarter, half year, year).

Follow these guidelines when creating a Time Profile:

- Each Time Profile has a unique ID, and this ID is always an integer (for example, 1, 133, 5001).
- To define a timeline, select a "Planning horizon from" and a "Planning Horizon To".
- For Time Profile Levels, the most granular level has an ID of 1, and then they proceed sequentially to 2, 3, 4, 5, ...
- To create a Time Profile, cut time into different "buckets" or periods.
- To define a hierarchy, start from the lowest node and go up.

After creating a time profile, you need to load a time profile data file with a structure similar to the following example.

Table 3: Example of a Time Profile

PERIODSTART	PERIODEND	PERIODDESCRIP	PARENTPERIOD
2013-01-01 00:00:00.000	2013-01-31 23:59:59.999	Jan 13	3001
2013-01-01 00:00:00.000	2013-01-31 23:59:59.999	Feb 13	3001
2013-01-01 00:00:00.000	2013-01-31 23:59:59.999	Mar 13	3001
2013-01-01 00:00:00.000	2013-01-01 23:59:59.999	Q1 2013	5001
2013-01-01 00:00:00.000	2013-12-31 23:59:59.999	Y 2013	

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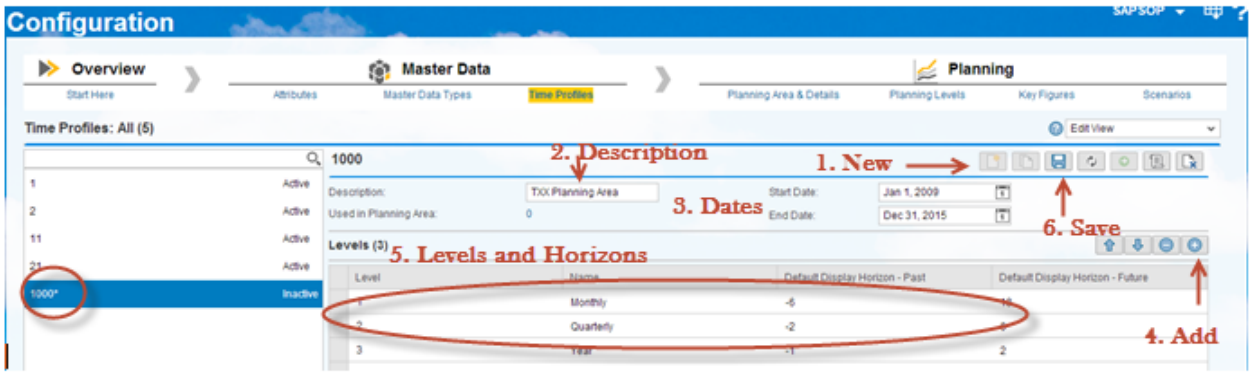
4.4.1 Creating a Time Profile

You can create Time Profiles independently and share them across multiple planning areas.

Context

Create a Time Profile with Start and End Dates and multiple levels, for example, Monthly, Quarterly and Yearly.



Procedure

1. Navigate to the Time Profiles window by clicking the Configuration navigation icon.
2. Click the New icon.
3. Enter a Time Profile ID, for example, 201.
4. Click OK.
5. Enter a Description: TXX Time Profile.
6. Select the Start Date. For example, set this date to the first day of January, four years in the past.
7. Select the End Date For example, set this date to the last day in December, two years in the future.
8. Click Add level to add new levels (Monthly, Quarterly and Yearly) one by one, as shown in the table below.

Table 4: Table of Levels

Level	Name	Default Display Horizon - Past	Default Display Horizon - Future
1	Monthly	-6	18
2	Quarterly	-2	6
3	Annually	-1	2

9. Enter level details and horizon values.
   When creating levels, you can enter data values directly in the table rows. See the screenshot above.
10. Click the Save icon to save your changes.

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> **Note**
>
> When you click the hyperlink Assign Attributes, you can assign any attribute to that level.

4.5 Planning Areas

A Planning Area describes the structure of an S&OP plan and is defined by a set of configuration elements that include Attributes, Master Data Types, Time Profiles, Planning Levels, Key Figures, and Scenarios.

In the S&OP solution you can generate tables to visualize information (Planning Views) and support the S&OP process. These Planning Areas may contain many plan datasets: one baseline dataset and many scenario datasets. This is the same as different versions of data to perform 'what-if' analysis. A company may have multiple planning areas to enable the process of Sales and Operations Planning in different Business Units.

A Planning Area comprises:

1. ID: for example, TXX
2. Description: TXX's planning area
3. Time Profile: time profile ID (160)
    a. Time Profile Storage Level (for example, weekly or monthly)
4. Planning Horizon
5. List of available attributes, and the Master Data Types they come from
    a. CUSTTYPE – CUSTOMER
    b. LOCTYPE – LOCATION
    c. PRDID – PRODUCT
    d. PRDDESC – PRODUCT
    e. MKTSGMNT – CUSTOMERPRODUCT
    f. CMPNTID – COMPONENT
6. Planning Level
7. Key Figures
8. Scenarios

4.5.1 Creating a Planning Area and Details

In this configuration step, create a new planning area by assigning the created Master Data Types/Attributes and Time Profiles, and defining Planning Levels, Key Figures, and Scenarios.

Context

The following steps provide an example of how to create Planning Area TXX.

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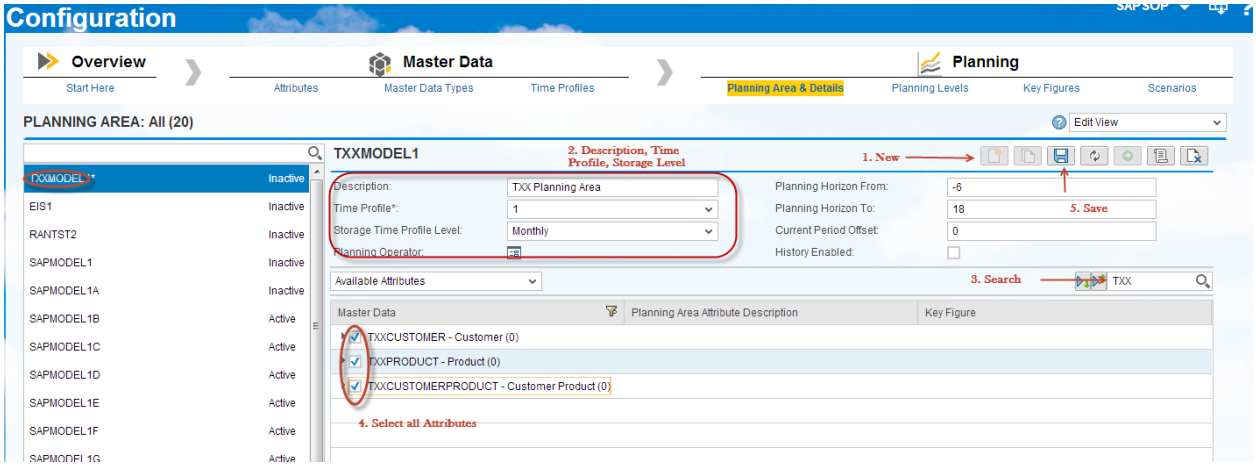

Procedure

1. Navigate to the Planning Area and Details window by clicking the Configuration navigation icon.
2. Click New and enter a Name: TXX.
3. Click OK.
4. Enter the following details:

Field	Enter This Information
Description	TXX Training Model
Time Profile	Choose the time profile you created, for example, 2XX
Storage Time Profile Level	This defaults to Monthly level of Time Profile 2XX
Current Period Offset	0

> **Note**
>
> Current Period Offset allows you to time shift your planning period.For example,-1 means your current period starts from last month.

5. Select the Planning Horizons icon and enter and enter the Planning Horizon From and To values. For example, for Month, enter the following values:

Field	Enter This Information
Planning Horizon From	-6
Planning Horizon To	18

6. Click OK.
7. Select the All Attributes dropdown.
8. Filter for Master Data Type/Attributes. For example, filter by your prefix TXX to make it easier to find Master Data Type/Attributes. See screen shot above.

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9. Check the Master Data types to be assigned to Planning Area TXX.
10. Select TXXCUSTOMER, TXXPRODUCT and TXXCUSTOMERPRODUCT.

    Selecting the Master Data type checkbox selects all attributes that are part of that Master Data Type. You can verify this by expanding Master Data Type TXXCUSTOMER.
11. Click Save.

    An attribute assigned to Planning Area can be associated with only one Master Data Type

    Refer to the following table for detaiedl information about additional fields in the Planning Area window:

Property	Description
Supply Planning Enabled	If supply planning is enabled for this planning area, users can invoke advanced supply planning functions, such as heuristics and optimizers.
Filter Setting	You can choose from the available options: Display, Auto-Open in Explorer, and Do Not Display.
Group By Setting	You can choose from the available options: Display and Do Not Display.

> **Note**
>
> You can assign Planning Operators, for example snapshots, to a Planning Area.

4.6 Planning Levels

Planning Levels are a set of attributes that enable you to analyze and plan at different levels.

For example, PRODCUST Planning Level is defined as Product-Customer and allows for data analysis that is tied to both the Product and also the Customer, or to combinations of both and their attributes. For example, the demand for a product could be a function of a specific customer and the type of product.

Planning levels serve to set boundaries for SAP S&OP to generate usable information tables. The Planning Level can be based on any set of attributes (for example, PRODUCT and CUSTOMER), which provide specific information for different product and customer combinations (for example, Product1-Customer1, Product1-Customer2, Product 2-Customer2, Product2-Customer2 and so on).

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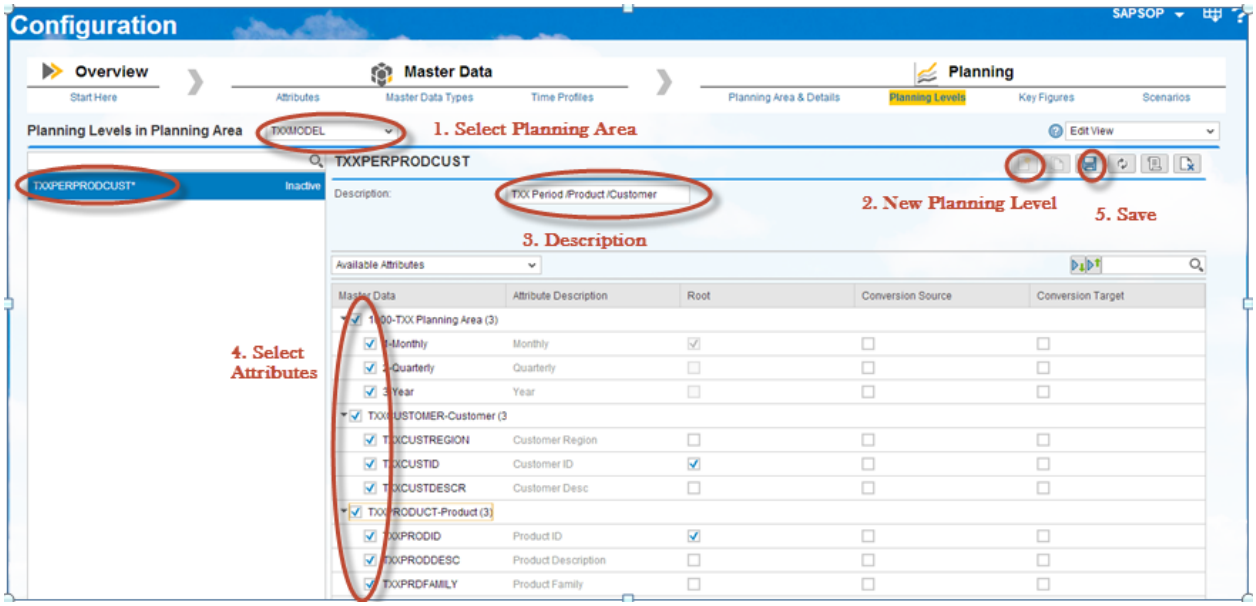
4.6.1 Creating Planning Levels

The following steps show an example of how to create a Planning Level PERPRODCUST, which has PRDID and CUSTID as root attributes along with other attributes of Master Data Types PRODUCT and CUSTOMER.

Context

For the Demand model, all key figures are at base level of Product, Customer and Month. Therefore, you need to define one Base Planning Level, PERPRODCUST.



To create the required Planning Levels for your Planning Area

Procedure

1. Navigate to the Planning Levels window by clicking the Configuration navigation icon and choosing Planning Levels.
2. Make sure that the Planning Area selected is your planning area, for example, TXX.
3. Click New and enter a Name: PERPRODCUST.
4. Click OK.
5. Enter a Description: Period/Product/Customer.
6. Select the Master Data Types and Attributes you want to include in the Planning Level. Check the following Master Data Types:
   - 2XX- TXX Time Profile
   - TXXPRODUCT
   - TXXCUSTOMER

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This selects all Attributes of the Master Data Type to be included in the Planning Level along with the selection of Root Attributes.

7. Validate that the Root Attributes are selected, as in the table below.

Planning Level	Description	Master Data	Root ATTR
TXXPERPRODCUST	TPeriod/Product/ Customer	○ Time Profile ○ TXXPRODUCT ○ TXXCUSTOMER	○ 1-Monthly ○ TXXPRDID ○ TXXCUSTID

8. Click Save.

The Planning Area selection is applied throughout the planning levels, key figures, and scenario windows.

> **Note**
>
> You can refer to SAP delivered models SAP1, SAP2 and SAP4 for various planning levels.For example, planning level PERPRODFAMILYCUSTREGION represents a planning level with the following keys: Monthly, Product Family, and Customer Region. This planning level is the base planning level for the Finance Qty key figure. This means that Finance Qty data is loaded at the granularity level of Date, Product Family, and Customer Group. Product Family is an attribute of Product MDT, and Customer Region is an attribute of Customer Master Data Type. Planning Level PERPRODFAMILYCUSTREGION should not have attributes that have a lower granularity than Product Family, for example, Product ID.

Refer to the following table for detaiedl information about additional fields in the Planning Levels window

Property	Description
Conversion Source	If selected, indicates that this attribute is used as a source unit for conversion purposes.
Conversion Target	If selected, indicates that this attribute is used as a target unit for conversion purposes.

4.7 Key Figures

Key Figures are series of numbers over time, where each number corresponds to a particular time period value.

They are associated with a key, which is a combination of attributes from one or more master data objects. Key Figures are sometimes also called measures, and they contain transactional data. They represent variables that are associated with attributes (Master Data Types), and can be imported into the S&OP system, calculated, and/or manually edited. Examples of Key Figures include Sales Forecast, Marketing Forecast, Consensus Demand Plan, Projected inventory, Capacity Plans or actual data such as Sales Orders and Shipment History.

There are three types of Key Figures:

- Stored Key Figures: Data is stored in this type of key figure at a defined base planning level. All stored Key Figures are editable or imported into the system (for example, Actuals Qty).

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- Calculated Key Figures: Values in this type of key figure are always calculated based on user-defined formulae (for example, 'Revenue = Qty * Price'). This type of key figure is usually not editable. However, to support use cases such as defaulting, a key figure can be both editable and stored.
- Alert Key Figures: These are Key Figures with user-defined criteria that monitor and manage the execution of business plans. They can only have values of 0 or 1, meaning that the alert itself is either ON or OFF. Alerts typically check conditions on other Key Figures, such as TargetRev vs. ConsensusRev > 10%.

Key figure calculations (calculated Key Figures) are done at a defined planning level, which can be different from the level that a user requests to view the key figure. An S&OP planning area typically includes Key Figures of multiple planning levels, which can be linked with calculations that often result in Key Figures at additional planning levels.

After you create your attributes, master data, time profiles, and planning areas and levels, define the Key Figures you want to include in your model. Creating a Key Figure is classified into two parts:

- **Define Attributes as Key Figures:** The model configuration allows you to assign Attributes of a Master Data Type as a Key Figure. For example, Unit Price is an attribute of CUSTOMERPRODUCT, that is, it has a single value for a unique Customer and Product combination. This Attribute can be defined as a Key Figure such that the same Unit Price value can be repeated across all of the planning time periods of the Customer and Product combination.
- **Create New Key Figures:** These are Key Figures other than the Attribute as Key Figures that are defined in the Configuration user interface for a Planning Area.

4.7.1 Creating New Key Figures

To complete the example Demand Model, you need to create new key figures.

Context

To create a new key figure with an ID of SALESFORECASTQTY:

Procedure

1. From the Key Figures window icon the Configuration user interface, click the New icon.
   The Create Key Figures dialog appears.

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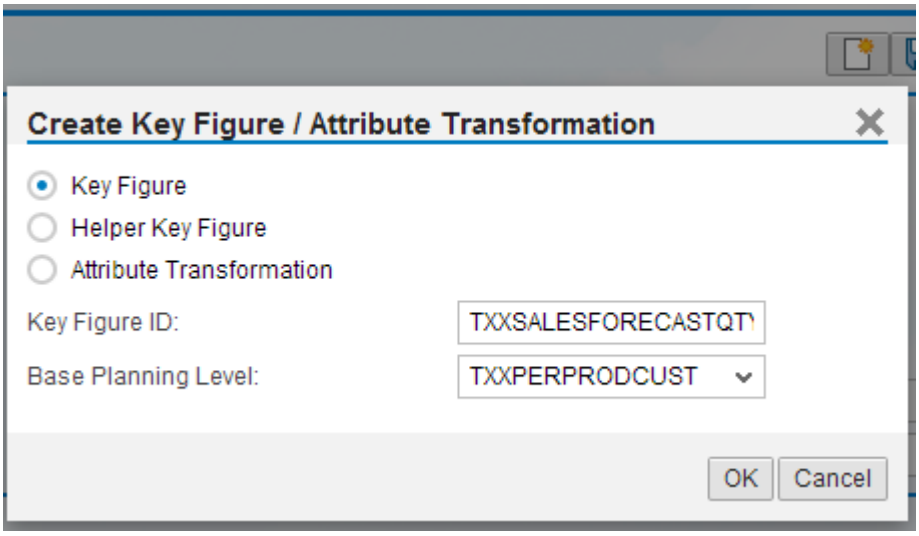

2. Select the Key Figure radio button.
3. Enter a Key Figure ID: SALESFORECASTQTY.
4. Select the desired Base Planning Level from the drop-drown menu (for example, PERPRODCUST).
5. Click OK.
6. Add the properties as shown in the table below:

Key Figure ID	Name & Description	Base Planning Level	Agg Mode	Disaggregation Mode*	Stored	Editable	Calculated
SALESFORECASTQTY	Sales Forecast Qty	PERPRODCUST	Sum	Proportional if the aggregated value is not zero; otherwise, there is equal distribution	Yes	Current and future	No

7. Click Save.
   Upon save, the system creates a REQUEST level calculation by default.

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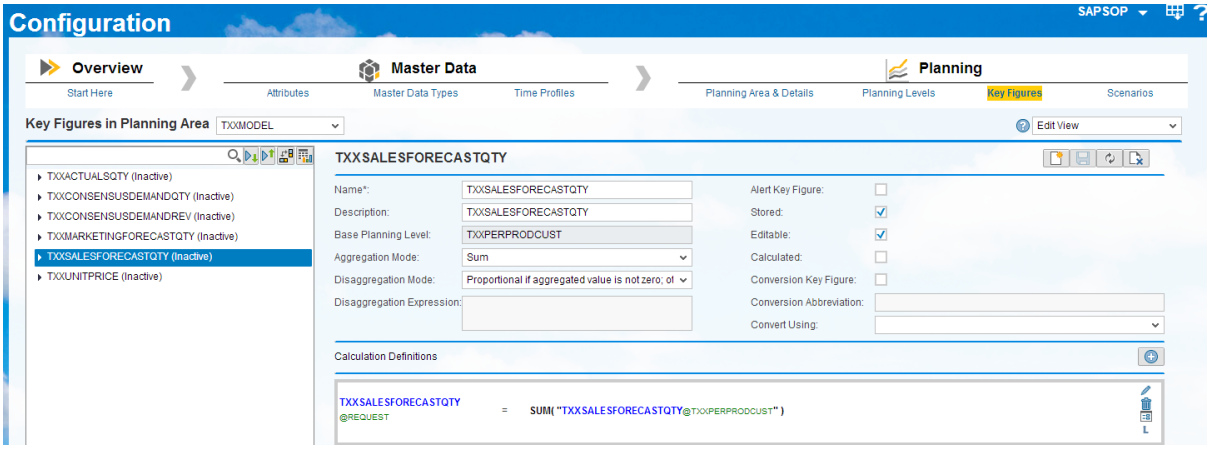

Note

Disaggregation Mode is allowed only for Editable Key Figures. An Editable Key Figure is always marked as a Stored Figure.

Note

SAP S&OP on SAP HANA provides the flexibility of defining Custom Disaggregation expressions. Beyond the disaggregation methods of proportional, even split and copy, you can also choose to disaggregate the values entered for the Key Figure with respect to a mathematical expression that you define with other attributes and Key Figures. You define this expression in the Disaggregation Expression field in the Key Figures window in the Configuration user interface. These are the conditions for such an expression:

- All the key figures in the expression must be stored and have the same base planning level as the key figure for which the expression is defined
- All the attributes are from the base planning level of the Key Figure for which the expression is defined
- Examples of values in Disaggregation Expression: o KEYFIGURE1 o KEYFIGURE1 + KEYFIGURE2 o KEYFIGURE1 + ATTRIBUTE

Refer to the following table for details about additional fields on the Key Figures window:

Property	Description
Aggregation Mode	By default, SUM is selected, but you can select another option from the dropdown. Options are: SUM, MIN, MAX, Avg, and Custom.
Disaggregation Mode	Disaggregation Mode can be selected only when you select Edit Allowed. ○ Copy Value To ○ Equal Distribution ○ Proportional if aggregated value is not zero; otherwise copy value. Typically used for key figures such as CONSENSUSDEMANDPRICE, COSTPERUNIT.

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Property	Description
	○ Proportional if aggregated value is not zero; otherwise equal distribution. Typically used for key figures such as CONSENSUSDEMANDQTY.
Disaggregation Expression	Disaggregation Expression can be selected only when you select Edit Allowed.
Snapshot Key Figure	By default, this is greyed out. However, if the Key figure is created from the Manage Snapshot window, then the Snapshot Key Figure in the Key Figure window is enabled.
Alert Key Figure	Indicates whether the key figure is an alert.
I/O for Supply Planning	Input and/or output key figure for supply planning. If the planning area is enabled for supply planning under Planning Area Definition, this field determines whether the key figure is used as an I/O for supply planning.
Convert Using	Select the key figure that you want to use to convert the current key figure.

4.7.2 Adding Calculations to Key Figures

REQUEST is a built-in planning level that represents the level at which a user looks at the data (in the Excel client or in Analytics).

Context

Typically, you need to aggregate the key figure data from a lower "base planning level" (specific) via an operator like SUM, MIN or MAX to calculate a key figure at REQUEST level. However, it is also possible to define a calculation at REQUEST level directly. All Key Figures that an end user is able to query from the user interface need to have a calculation for REQUEST level, because the system determines how to calculate the key figure starting from this calculation.

In the following example, you will create a calculation for SALESFORECASTQTY. At REQUEST level, the calculation expression aggregates (SUMS) the stored SALESFORECASTQTY.

The system already creates a REQUEST level calculation when a key figure is created. Follow the instructions below to add the above calculation for SALESFORECASTQTY.

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Procedure

1. Click the Add Calculation button.
2. Select the Planning Level for the left side of the calculation. This can be REQUEST or other planning levels. Choose REQUEST.
3. Place the cursor on the expression editor (to the right of the “=” sign) and type your calculation expression. When you enter the “character (double quotes), a dropdown menu appears to help you select the desired Key Figure. For example, enter the following: SUM("SALESFORECASTQTY@PERPRODCUST").
4. Once you have entered the expression, click Validate Calculation and verify that the correct inputs have been selected by the system.
   The system automatically marks the Key Figures @ planning level that are used in the expression as inputs in the ‘Input Key Figures’ dialog box.
5. Define the Input key figures as shown in the table below.

Input Key Figure	Stored
SALESFORECASTQTY@PERPRODCUST	X

6. Click OK.
   If your expression is correct, it will change colors from black to green (planning level) and blue (key figure). This indicates that it is validated. Otherwise, you will get an error message.
7. Once your expressions are correct, save your changes by clicking the Save icon.

   This screen has a page-level Save feature, so you can create multiple records and save all of them together.

   If you are using this guide to create a model, use the steps above to complete the following Key Figures (Marketing Forecast Qty, Actuals Qty, Consensus Demand Rev, and Unit Price).

   - Marketing Forecast Quantity

Key Figure ID	Name & Description	Base Planning Level	Agg Mode	Disaggregation Mode*	Stored	Editable - Current and Future	Calculated
MARKETINGFORECASTQTY	Marketing Forecast Qty	PERPRODCUST	Sum	Proportional if aggregated value is not zero; otherwise, there is equal distribution	Yes	Yes	No

   Calculation: MARKETINGFORECASTQTY@REQUEST = SUM("MARKETINGFORECASTQTY@PERPRODCUST")

Input Key Figures	Stored
MARKETINGFORECASTQTY@PERPRODCUST	X

   - Actuals Quantity

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Key Figure ID	Name & Description	Base Planning Level	Agg Mode	Disaggregation Mode*	Stored	Editable - Current and Future	Calculated
ACTUALSQTY	Actuals Qty	PERPRODCUST	Sum		Yes	No	No

Calculation: ACTUALSQTY@REQUEST = SUM("ACTUALSQTY@PERPRODCUST")

Input Key Figure	Stored
ACTUALSQTY@PERPRODCUST	X

- Consensus Demand Revenue

Key Figure ID	Name & Description	Base Planning Level	Agg Mode	Disaggregation Mode*	Stored	Editable - Current and Future	Calculated
CONSENSUSDEMANDREV	Consensus Demand Rev	PERPRODCUST	Sum		No	No	Yes

This is not a stored key figure but is calculated as Unit Price * Consensus Demand Qty. Since it is not stored, we define both the aggregation calculation and the base calculation.
Calculation 1: CONSENSUSDEMANDREV@REQUEST = SUM("CONSENSUSDEMANDREV@PERPRODCUST")

Input Key Figures	Stored
CONSENSUSDEMANDQTY@PERPRODCUST	

> **Note**
>
> We marked the input as calculation and not stored. Therefore, to complete the calculation chain, we need to define the calculation at base level.

Calculation 2: CONSENSUSDEMANDREV@PERPRODCUST = "UNITPRICE@PERPRODCUST" * "CONSENSUSDEMANDQTY@PERPRODCUST"

Input Key Figures	Stored
UNITPRICE@PERPRODCUST	X
CONSENSUSDEMANDQTY@PERPRODCUST	

> **Note**
>
> Stored is not 'X' for CONSENSUSDEMANDQTY@PERPRODCUST because it is calculated at that level.

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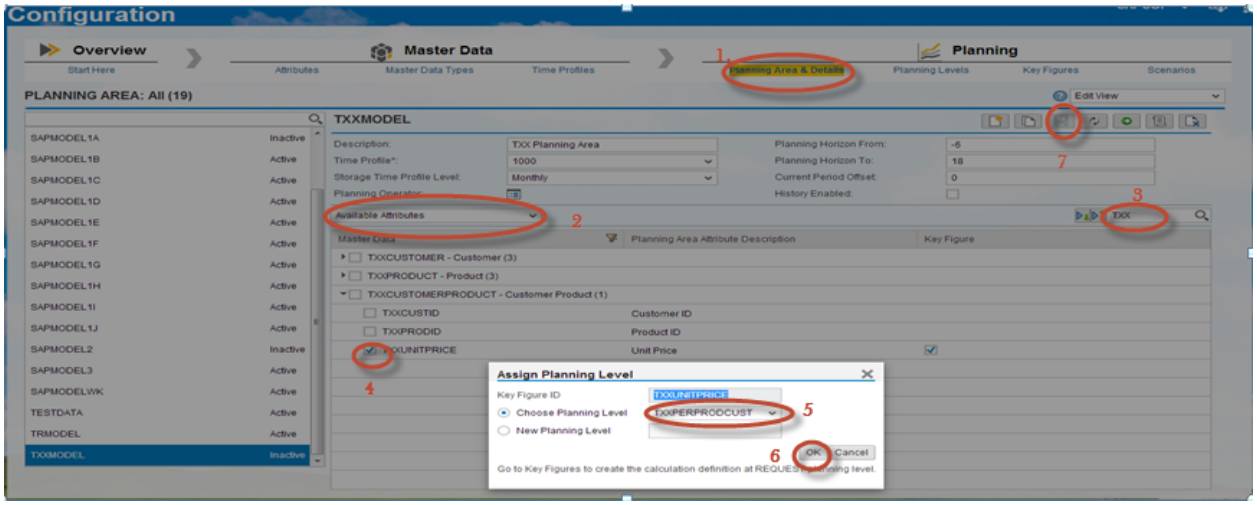
4.7.3 Creating an Attribute as a Key Figure

The following example shows you how to create Unit Price, which is an Attribute as Key Figures.

Context

The steps below show an example of creating Unit Price which is Attribute as Key Figures. Define an Attribute as Key Figure in the Planning Areas & Details page.



Procedure

1. Navigate to “Planning Area & Details” page.
2. Change the table filter selection to Available Attributes.
3. Select the attribute UNITPRICE and select the Key Figure checkbox.
4. In the resulting dialog, choose the Planning Level (PERCUSTPROD).
5. Click OK.
6. Click Save.
7. For this new Attribute as Key Figure, define the Key Figure properties.

   To perform this step, navigate to the Key Figures page of the SAP Sales and Operations Planning Model Configuration UI.
8. Edit the following Key Figure Details and save.

Key Figure ID	Name & Description	Base Plan Level	Agg Mode	Disaggregation Mode* Stored	Editable	Calculated
UNITPRICE	Unit Price	PERPROD-CUST	Sum	Proportional if aggregated	Current and Future	No

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Key Figure ID	Name & Description	Base Plan Level	Agg Mode	Disaggregation Mode* Stored	Editable	Calculated
				value is not zero; otherwise copy value to		

> **Note**
>
> Refer to *Creating REQUEST Level Calculations (Example: Weighted Average)* [page 29] to learn how to define the weighted calculation.

4.7.4 Creating REQUEST Level Calculations (Example: Weighted Average)

A request level calculation, for example Weighted Average for Unit Price, will have inputs also at REQUEST level. That means the inputs are calculated at REQUEST level, and the calculations are performed.

Context

To complete your model, define the Unit Price key figure calculations. This is both stored and editable Key Figure.

Weighted Average Calculation is an example of a calculation at REQUEST level. Unit Price is a weighted average of Revenue and Qty. For example:

Base Level				
Product	**Customer**	**Key Figures**	**Value**	**Calculation**
P1	C1	Unit Price	100	
		Consensus Demand Qty	500	
		Consensus Demanad Rev	50000	
	C2	Unit Price	200	
		Consensus Demand Qty	1000	
		Consensus Demanad Rev	200000	
Aggregation				
	Product	**Key Figures**		
	P1	Consensus Demanad Rev	250000	=50000+200000
		Consensus Demand Qty	1500	=500 + 1000
		Unit Price (Average)	150	=(100+200)/2
		Unit Price (Weighted Average)	167	=250000/1500

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To set up the calculation:

Procedure

1. Change the left side of the calculation to UNITPRICE@REQUEST.
2. Add the following calculation expression to the right side of the calculation:
   IF(ISNULL("CONSENSUSDEMANDQTY@REQUEST") OR "CONSENSUSDEMANDQTY@REQUEST" = 0 , 0, "CONSENSUSDEMANDREV@REQUEST"/"CONSENSUSDEMANDQTY@REQUEST")

   The calculation is checking if CONSENSUSDEMANDQTY is 0 or empty. If true, it assigns value zero, else it calculates the weighted average.
3. Click Validate Calculation. Verify the Input Key Figures as shown in the table below.
4. Click OK.

Input Key Figure	Stored
CONSENSUSDEMANDREV@REQUEST	
CONSENSUSDEMANDQTY@REQUEST	

5. Save the Key Figure calculation.

4.7.5 Defaulting to Another Key Figure

The calculation of Defaulting Key Figure, for example Consensus Demand Qty, is as follows: If the data value is null or empty, then the system defaults to the Sales Forecast Qty.

Context

> **Note**
>
> You can have multiple levels of defaulting. In other words, one Defaulting Key Figure can have as input another Defaulting Key Figure.

To complete your model, define the Consensus Demand Quantity key figure calculations. This is an example of creating a default Key Figure. This is a both stored and calculated Key Figure. We define both the aggregation calculation and the base calculation.

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Create the Key Figure definition and calculations as follows:

Key Figure ID	Name & Description	Base Planning Level	Agg Mode	Disaggregation Mode*	Stored	Editable - Current and Future	Calculated
CONSENSUSDEMANDQTY	Consensus Demand Qty	PERPRODCUST	Sum	Proportional if aggregated value is not zero; otherwise, there is equal distribution	Yes	Yes	Yes

Calculation 1: CONSENSUSDEMANDQTY@REQUEST = SUM("CONSENSUSDEMANDQTY@PERPRODCUST")

Input Key Figure	Stored
CONSENSUSDEMANDQTY@PERPRODCUST	X

> **Note**
>
> We marked the input as calculation and not stored. To complete the calculation chain, we need to define the calculation at base level

Calculation 2: CONSENSUSDEMANDQTY@PERPRODCUST = IF(ISNULL("CONSENSUSDEMANDQTY@PERPRODCUST"), "SALESFORECASTQTY@PERPRODCUST", "CONSENSUSDEMANDQTY@PERPRODCUST")

> **Note**
>
> The calculation defaults to Sales Forecast Qty if stored Consensus Demand Qty is empty.

Input Key Figure	Stored
CONSENSUSDEMANDQTY@PERPRODCUST	X
SALESFORECASTQTY@PERPRODCUST	X

Save the calculation.

4.8 Scenarios

From a business perspective, a scenario is a copy of a plan or set of key figures. Business users using Excel typically copy an Excel file and create a “scenario” by modifying the copied version of the file. This Excel exercise by planners serves as a guide when describing and designing scenarios in a simple way.

S&OP as a process involves potentially hundreds of users across various departments including Sales, Marketing, Finance, Demand Planning, Supply Chain, Capacity Planning, Procurement and Senior Executives. Each of these

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users may need to provide scenario versions of plans. For example, there may be an optimistic demand plan and correlating supply plan.

The following are key scenario concepts:

- **Baseline:** Editing the main plan with the planning views. The baseline is not a scenario.
- **Scenario:** Defining alternative versions of a main plan by editing key figures (KF) and viewing resulting calculations. This excludes version of master data like a new product. A scenario is thought of as a "copy" of the baseline at time "t".
- **Scenario Deletion.** Deleting a scenario, including the scenario name and key figure data.

4.8.1 Creating a Scenario

Create a scenario to make a copy of a plan or set of key figures.

Context

In this example exercise, you will create an upside scenario for the model you created.

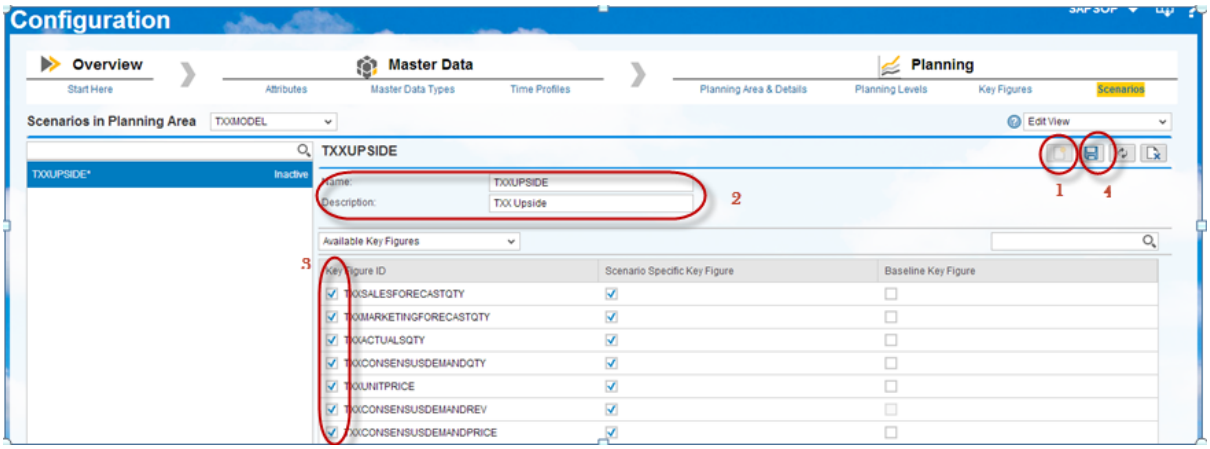
To create a new scenario:

Procedure

1. Navigate to the Scenarios window by clicking the Configuration navigation icon.
2. Verify that your Planning Area is selected.
3. Click New and enter an ID for your new scenario (for example, UPSIDE).
4. Enter a name and description:

Option	Description
Name	Upside
Description	Upside scenario

Refer to the following screenshot:



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5. Select the Scenario Specific Key Figures (in the case of the basic SAP S&OP Model, you can select all).
6. Save your scenario.

4.9 Planning Model Activation

In order to use the data you have set up in the application, you need to activate your model.When you complete model activation, you can then manage your model.

After successfully defining Master Data Types, Time Profiles and Planning Areas, you will activate your model. Upon activation, the database artifacts such as tables, procedures and permissions are created based on the meta-data of the custom model you created.

> **Note**
>
> SAP recommends that you perform model activation in isolation when no other concurrent activations are running.

Once you have activated your model, you can copy your data model and perform active deletion of objects to help manage your model:

4.9.1 Activating Time Profiles

After you define all of the objects for your model, you can activate the data so that it becomes available in the application.

Context

Activate your objects in this order: Time Profiles, Master Data, then Planning Areas.

Procedure

1. Navigate to the Time Profiles window by clicking the Configuration navigation icon.
2. Select your 2XX Time Profile from the list on the left.
3. Click the Activate icon in the toolbar.
4. In the dialog box make sure your time profile is selected, and select Activate.

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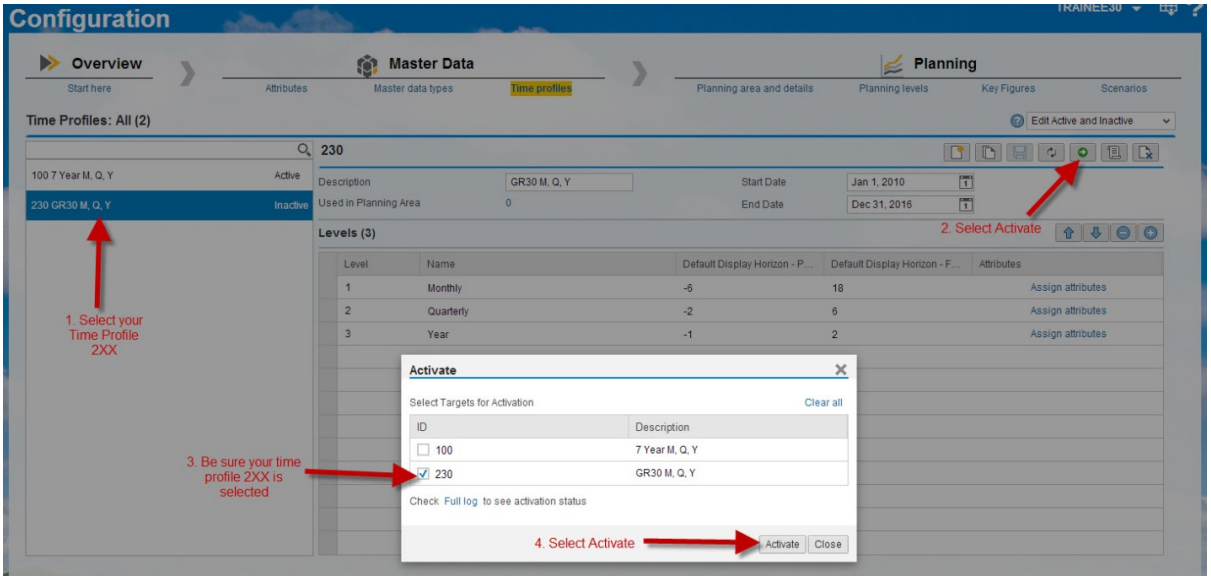

5. View the status in the Log.

4.9.2 Activating Master Data Types

After you define all of the objects for your model, you can activate the data so that it becomes available in the application.

Context

Activate your objects in this order: Time Profiles, Master Data, then Planning Areas.

Procedure

1. Navigate to the Master Data Types window by clicking the Configuration navigation icon.
2. Select the Master Data Types tab.
3. Select one of your master data types and click the Activate icon on the toolbar.
   In the dialog box you can select all 3 of your master data types and then click Activate.

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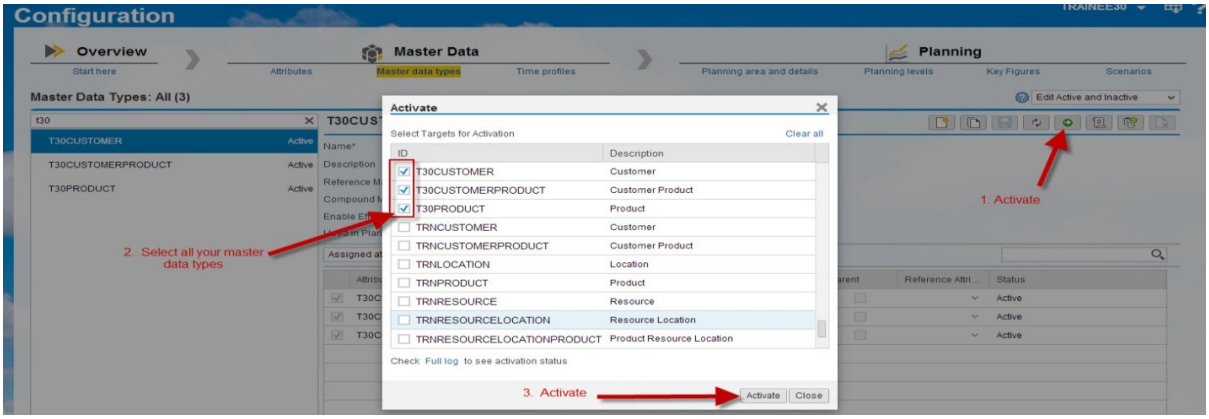


4. View activation status in the Log.

4.9.3 Activating Planning Areas

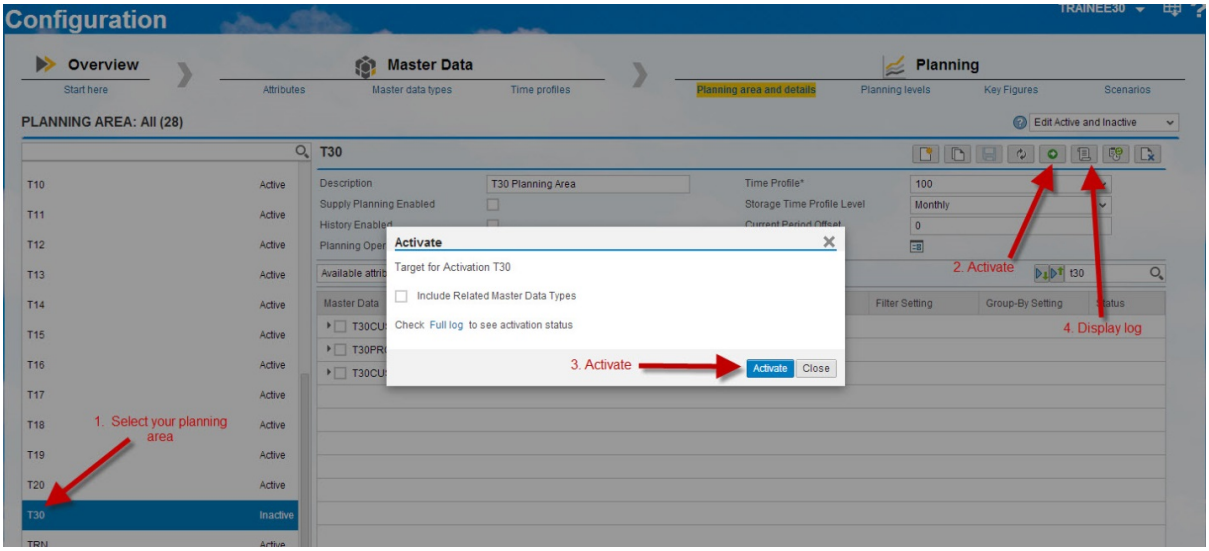
After you define all of the objects for your model, you can activate the data so that it becomes available in the application.

Context

Activate your objects in this order: Time Profiles, Master Data, then Planning Areas.

Procedure

1. Navigate to the Planning Area and Details window by clicking the Configuration navigation icon.
2. Select your planning area.
3. Click the Activate icon in the toolbar.
4. Click Activate in the dialog box.



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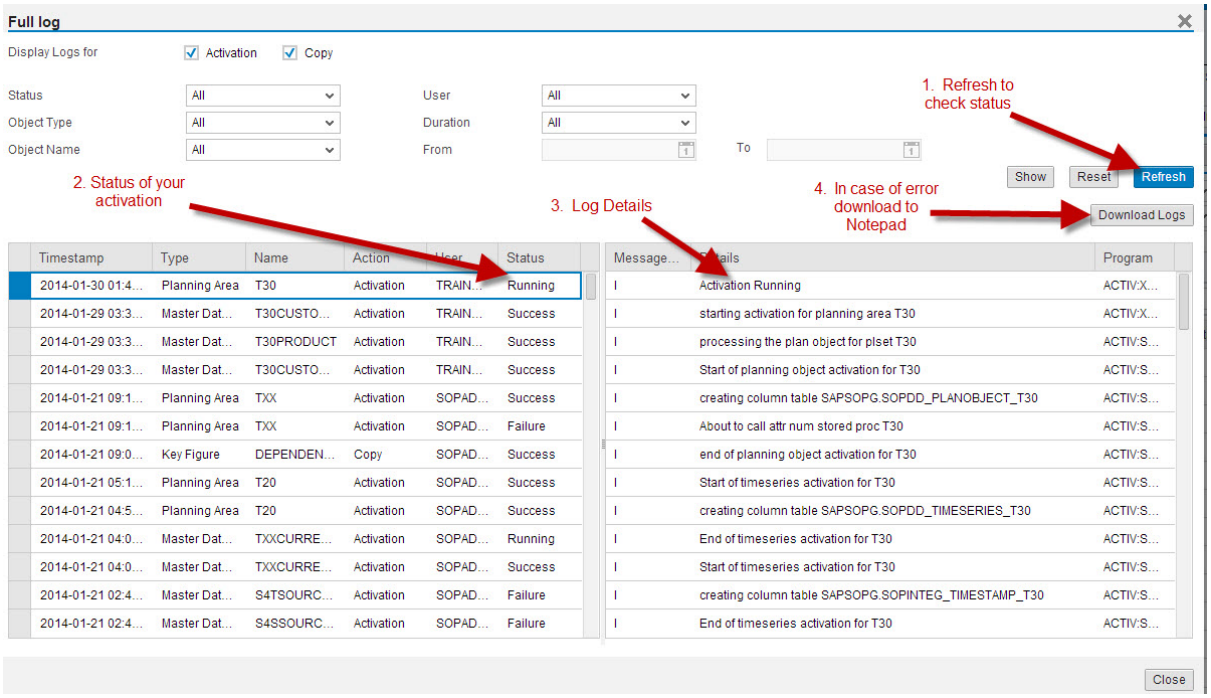
5. View activation status in the Log.
6. View activation errors in the Log.



7. Download the log to Notepad to help troubleshoot any errors in a failed activation.

4.9.4 Active Deletion

SAP Sales Operations and Planning allows you to do an active deletion for Master Data, Planning Levels, Key Figures, and Planning Areas.

4.9.4.1 Deleting an Active Master Data Type

Context

To delete an active master data type:

Procedure

1. Navigate to the Configuration user interface by clicking the Configuration navigation icon.

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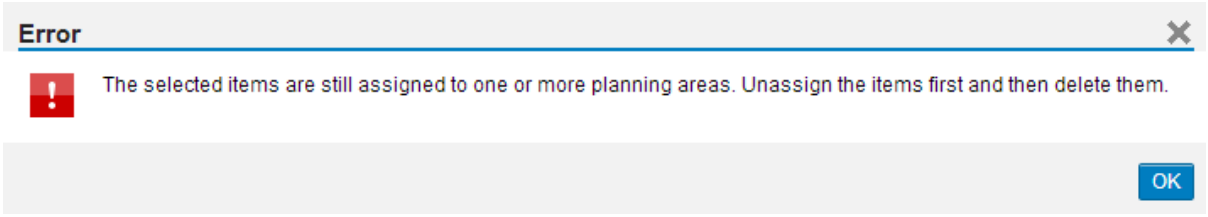
2. Click the Master Data Types tab.
3. Select an active master data type.
4. Click the Active Deletion button.
5. Click the Delete button.
   The Delete dialog appears.
6. Click Yes.
   The status of the master data type changes to Pending for Deletion.
7. Select the Master Data Type you want to delete.
8. Click the Activate button.

   If you receive an error message like the one below, it means you need to perform an active deletion for the master data type to delete it from the planning area and then return here to perform an active deletion of the master data type. Proceed to the next topic to perform active deletion in a planning area.



   After your activation completes, the master data type you deleted no longer appears in the list of master data types.

Related Information

Deleting an Active Planning Area [page 38]

4.9.4.2 Deleting an Active Virtual Master Data Type

Context

To delete an active virtual master data type:

Procedure

1. Navigate to the Configuration user interface by clicking the Configuration navigation icon.

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2. Click the Master Data Types tab.
3. Select an active virtual master data type.
4. Click the Active Deletion button.
5. Click the Delete button.
   The Delete dialog appears.
6. Click Yes.
   The status of the Virtual Master Data Type changes to Pending for Deletion.
7. Click OK.
8. Click the Activate button.
9. Select the Virtual Master Data Type you want to delete and click Activate.
   The Activate dialog appears.
10. Click the Activate button.
    After you activate your master data, the virtual master data type is deleted and does not appear in the Master Data Types list.

4.9.4.3 Deleting an Active Planning Area

Context

To delete an active planning area:

Procedure

1. Navigate to the Configuration user interface by clicking the Configuration navigation icon.
2. Click the Planning Area and Details tab.
3. Choose an Active Planning Area.
4. Click the Active Deletion button.
5. Click the Delete button.
6. Click Yes.
   The status of the Planning Area changes to Pending for Deletion.
7. Click Activate.
8. Click the Activate button in the Activate dialog.
   After you activate the Planning Area, the selected Planning Area is deleted and is not displayed in the Planning Area list.

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4.9.4.4 Deleting Master Data Types from an Active Planning Area

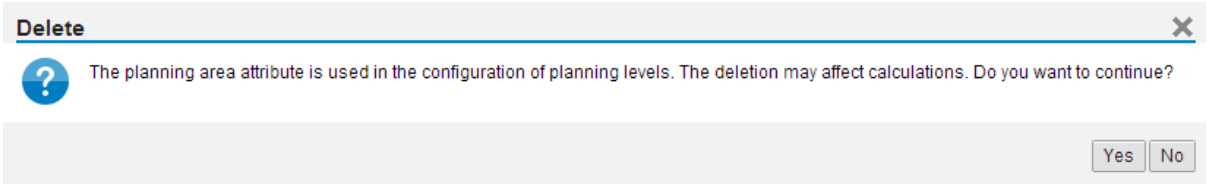
You can use active deletion to delete master data types from an active planning area.

Context

To delete a master data type from an active planning area:

Procedure

1. Navigate to the Configuration user interface by clicking the Configuration navigation icon.
2. Click the Planning Area and Details tab.
3. Choose an active planning area.
4. Click the Active Deletion button.
5. Expand the master data type you want to delete.
   A Mark for Deletion column appears on the right.
6. Select the attributes you want to delete, or select all of the attributes to delete the entire master data type.
   If you receive a message like the one below, then you need to delete the attributes from each active planning level where they are assigned before you can delete it from the planning area.



Related Information

Deleting an Active Planning Level [page 40]

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4.9.4.5 Deleting an Active Planning Level

Context

To delete an active planning level:

Procedure

1. Navigate to the Configuration user interface by clicking the Configuration navigation icon.
2. Click the Planning Level tab.
3. Select an active planning level and click the Active Delete button.
4. Click the Delete button.
5. Click Yes in the Delete dialog.
   The status of the planning level changes to Pending for Deletion.
6. Click the Activate button.
7. Click the Activate button in the Activate dialog.
   After you activate the planning area, the planning level is deleted and does not appear in the Planning Level list.

4.9.4.6 Deleting Attributes from an Active Planning Level

You can delete specific attributes from an active planning level.

Context

To delete attributes from an active planning level:

Procedure

1. Select an active planning level and click the Active Delete button.
2. Expand the master data type for which you would like to delete attributes.
   A column appears on the right where you can mark specific attributes for deletion or mark them all to delete the entire master data type.

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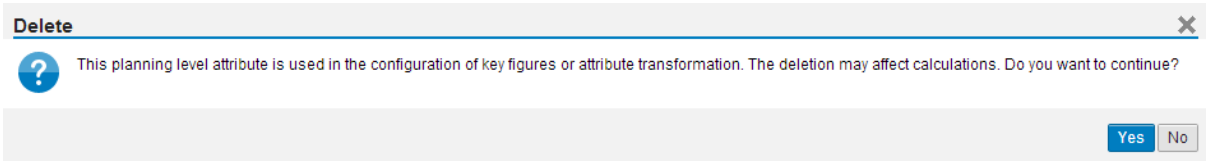
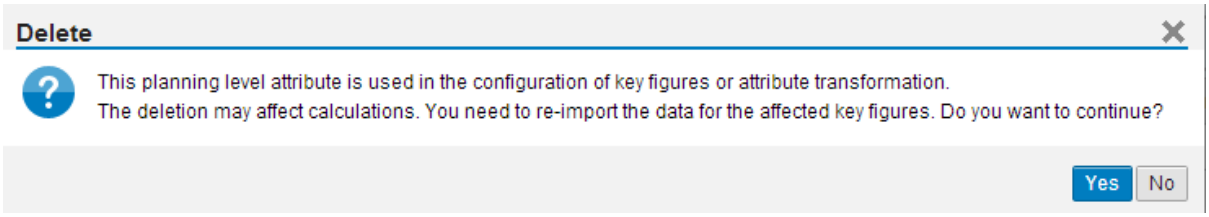
If you receive a message like the one below, you need to remove all key figures from the planning level in order to delete the planning level or attribute.



The following message below displays if you try to delete a required field or a root field in the planning level:



3. To complete your deletion, refer to *Deleting an Active Key Figure* [page 41].

4.9.4.7 Deleting an Active Key Figure

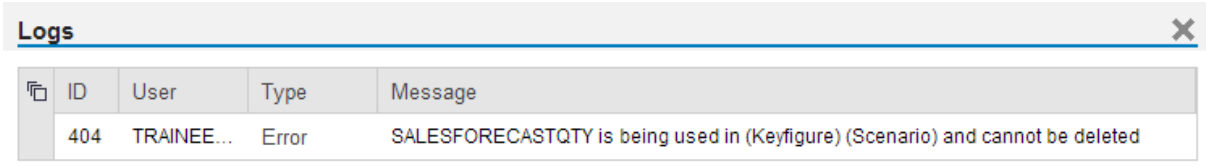
Context

To delete an active key figure:

Procedure

1. Navigate to the Configuration user interface by clicking the Configuration navigation icon.
2. Choose an active Key Figure.
3. Click the Active Deletion button.
4. Click the Delete button.
5. Click Yes.
   The status of the Key Figure changes to Pending for Deletion.
6. Click the Save button.

   If you receive an error log like the one below, then the key figure you are trying to delete is being used in an active scenario.



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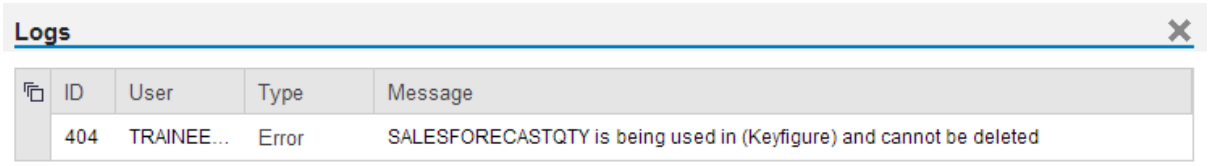
You must first active delete it from the scenario before you can delete it as a key figure. You will not be able to save your changes until you have completed that procedure. Complete the procedure *Deleting an Active Scenario* [page 42] then return to this procedure to delete the key figure.

You may also receive the following error message while saving your deletion settings for the key figure:



In the above error message, the key figure is being used in the calculation of other key figures (as indicated in the Used in Key Figures field) and needs to be deleted from all calculations before you can delete the key figure.

7. Navigate to the Planning Area and Details screen.
8. Click the Activate button.
9. Click the Activate button in the Activate dialog.
   After you activate the Planning Area, the Key Figure is deleted and is not displayed in the Key Figure list

4.9.4.8 Deleting an Active Scenario

Context

To delete an active scenario:

Procedure

1. Navigate to the Configuration user interface by clicking the Configuration navigation icon.
2. Click the Scenarios tab.
3. Select an active scenario.
4. Click the Active Delete button.
5. Click the Delete button.
6. Click Yes in the Delete dialog.
   The status of the scenario changes to Pending for Deletion.
7. Navigate to the Planning Area and Details screen.
8. Click the Activate button.
9. Click the Activate button in the Activate dialog.
   After you activate the planning area, the scenario is deleted and is no longer displayed in the list of Scenarios.

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4.9.4.9 Deleting a Key Figure from an Active Scenario

You can delete a key figure from an active scenario.

Context

To delete a key figure from an active scenario:

Procedure

1. Navigate to the Configuration user interface by clicking the Configuration navigation icon.
2. Click the Scenarios tab.
3. Select an active scenario.
4. Click the Active Delete button.
   A column appears on the right, which allows you to select key figures for deletion. When you select them the status changes to Pending for Deletion.

   > **Note**
   >
   > Activate your planning area to delete the scenario before you make the changes to the key figure, or you will receive an error log.

5. Navigate to the Key Figures tab and select the key figure for.deletion.

   If you activate the objects in the incorrect order, you will receive these messages in the activation log:

   ```
   I - Activation Running
   E - Check that attribute T24CUSTDESCR defined in the planning level attributes also exists in the planning area dimensions
   E - Check that attribute T24CUSTID defined in the planning level attributes also exists in the planning area dimensions
   E - Check that attribute T24CUSTREGION defined in the planning level attributes also exists in the planning area dimensions
   ```

6. Activate the objects in the following order:
   a) Delete key figure from the scenario and activate the planning area.
   b) Delete all key figures from any and all calculations, and delete all key figures which are assigned to any planning level containing the attributes you want to delete.
   c) Activate the planning area.
   d) Delete all planning levels that contain the attributes you want to delete, and activate the planning area.
   e) Delete all attributes of the master data type from the planning area, and activate the planning area.
   f) Delete the master data type and then activate the master data type.

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4.10 Planning Model Copy

SAP Sales and Operations Planning offers you simple and advanced copy options within the Planning Area.

The simple copy allows you to create a new planning area by copying the following data from the source planning area:

- Planning area time profile associated
- Planning area details
- Planning area- attribute association
- Planning levels associated with the planning area
- Planning level –attribute association
- Key figures associated with the planning area
- Scenarios associated with the planning area
- Snapshots associated with the planning area
- Planning operators

Master data types, time profiles and attributes associated with a planning area are not copied as part of a simple copy. The advanced copy feature copies master data object and time profile information. You can use advanced copy to copy both user content and SAP-provided content to your work area.

> **Note**
>
> Attributes are currently copied with the same name as those in the source planning area.

In addition to simple and advanced copy, you can carry out the following tasks with your model:

- Replace master data type prefix
- Append prefix to master data type name
- Remove prefix from master data type name
- Copy source master data type as is

4.10.1 Doing a Simple Copy

Context

To carry out a simple copy:

Procedure

1. Click the Configuration navigation icon.
2. Click Define Planning Area.
3. Click the Copy icon.
   The Copy dialog appears.

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4. Select the Simple Copy radio button.
   This creates a new planning area.

4.10.2 Doing an Advanced Copy

Context

To carry out an advanced copy operation:

Procedure

1. Click the Configuration navigation icon.
2. Click Planning Area.
3. Click the Copy icon.
   The Copy dialog appears.
4. Select the Deep Copy radio button.
   The text fields marked with an * are mandatory.
5. Enter the target planning area.
   This is the new planning area that will be created in your work area. This field accepts a maximum of 10 alphanumeric characters.
6. Enter the target time profile ID.
   This field has a numeric character limit of 9.
7. Enter the source prefix.
   This is the prefix of the master data type that you want to remove or replace with a target prefix. This field that accepts 0-3 alphanumeric characters. This field cannot begin with a numeric character.
8. Enter the target prefix.
   This is the prefix of the target master data type that you want to add to or replace the source prefix string.
9. Click Copy.

4.10.3 Replacing Master Data Type Prefix

Prerequisites

Make sure that the following do not already exist in your data; otherwise, the system will return an error:

- Planning area with the target name

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- Time profile ID
- Target master data types

Context

Use the following example to replace a master data type prefix:

Procedure

1. Click the Configuration navigation icon.
2. Click Define Planning Area.
3. Click the Copy icon.
   The Copy dialog appears.
4. Select the Advanced Copy radio button.
   The text fields marked with an * are mandatory.
5. Enter SAPMODEL1 for the source planning area.
6. Enter ABCMODEL1 for the target planning area.
7. Enter SM1 for the master data types source prefix.
8. Enter ABC for the master data types target prefix.
9. Enter 4000 for the target time profile.
10. Click Copy.

Results

This procedure creates the planning area ABCMODEL1 and the new time profile ID 4000 in your work area. The resulting planning area contains planning object names beginning with “ABC”, which replace “SM1”. The new master data types with prefix ‘SM1’ are replaced in the source master data types with ‘ABC’ and are created in your work area.

The attribute, key figure and planning level names remain the same. This operation appends prefix ‘ABC’ to the existing master data type names if the source prefix does not match with source planning area's master data types.

4.10.4 Appending Prefix to Master Data Type Name

Prerequisites

Make sure that the following do not already exist in your data; otherwise, the system will return an error:

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- Planning area with the target name
- Time profile ID
- Target master data types

Context

Use the following example to append a prefix to a master data type name:

Procedure

1. Click the Configuration navigation icon.
2. Click Define Planning Area.
3. Click the Copy icon.
   The Copy dialog appears.
4. Select the Advanced Copy radio button.
   The text fields marked with an * are mandatory.
5. Enter SAPMODEL1 for the source planning area.
6. Enter ABCMODEL1 for the target planning area.
7. Enter ABC for the master data types target prefix.
8. Enter 4000 for the target time profile.
9. Click Copy.

Results

This procedure creates a planning area ABCMODEL1, which contains planning object names beginning with ABC that are appended to existing master data types. New master data types with the ABC prefix are appended to the source master data types. A new time profile with ID 4000 is also created. Attribute, key figure and planning level names remain the same.

4.10.5 Removing Prefix from Master Data Type Name

Prerequisites

Make sure that the following do not already exist in your data; otherwise, the system will return an error:

- Planning area with the target name
- Time profile ID

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- Target master data types

Context

Use the following example to remove a prefix from a master data type name:

Procedure

1. Click the Configuration navigation icon.
2. Click Define Planning Area.
3. Click the Copy icon.
   The Copy dialog appears.
4. Select the Advanced Copy radio button.
   The text fields marked with an * are mandatory.
5. Enter SAPMODEL1 for the source planning area.
6. Enter ABCMODEL1 for the target planning area.
7. Enter SM1 for the master data types source prefix.
8. Enter 4000 for the target time profile.
9. Click Copy.

Results

This procedure creates a planning area ABCMODEL1. It contains planning object names with the prefix SM1 removed from existing master data types. New master data types with the prefix SM1 removed from source master data types are created in your data. A new time profile with ID 4000 is created. Attribute, key figure and planning level names remain the same.

4.10.6 Copying Source Master Data Type As Is

Prerequisites

Make sure that the following do not already exist in your data; otherwise, the system returns an error: □

- Planning area with the target name
- Time profile ID
- Master data types same as the source

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Context

Use the following example to copy source master data types as is:

Procedure

1. Click the Configuration navigation icon.
2. Click Define Planning Area.
3. Click the Copy icon.
   The Copy dialog appears.
4. Select the Advanced Copy radio button.
   The text fields marked with an * are mandatory.
5. Enter SAPMODEL1 for the source planning area.
6. Enter ABCMODEL1 for the target planning area.
7. Enter 4000 for the target time profile.
8. Click Copy.

Results

This procedure creates the planning area ABCMODEL1, which contains planning object names with the prefix SM1 (the same as the source master data types). A new time profile with ID 4000 and new master data types with prefix SM1 (same as the source master data types) are also created. Attribute, key figure and planning level names remain the same.

4.11 Manage Reason Codes

Reason codes are a set of tags that you can leverage to keep track of the decisions and changes made throughout the S&OP process.

The reason codes are user definable; however, there are several useful reason codes that SAP provides out of the box.

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4.11.1 Creating a Reason Code

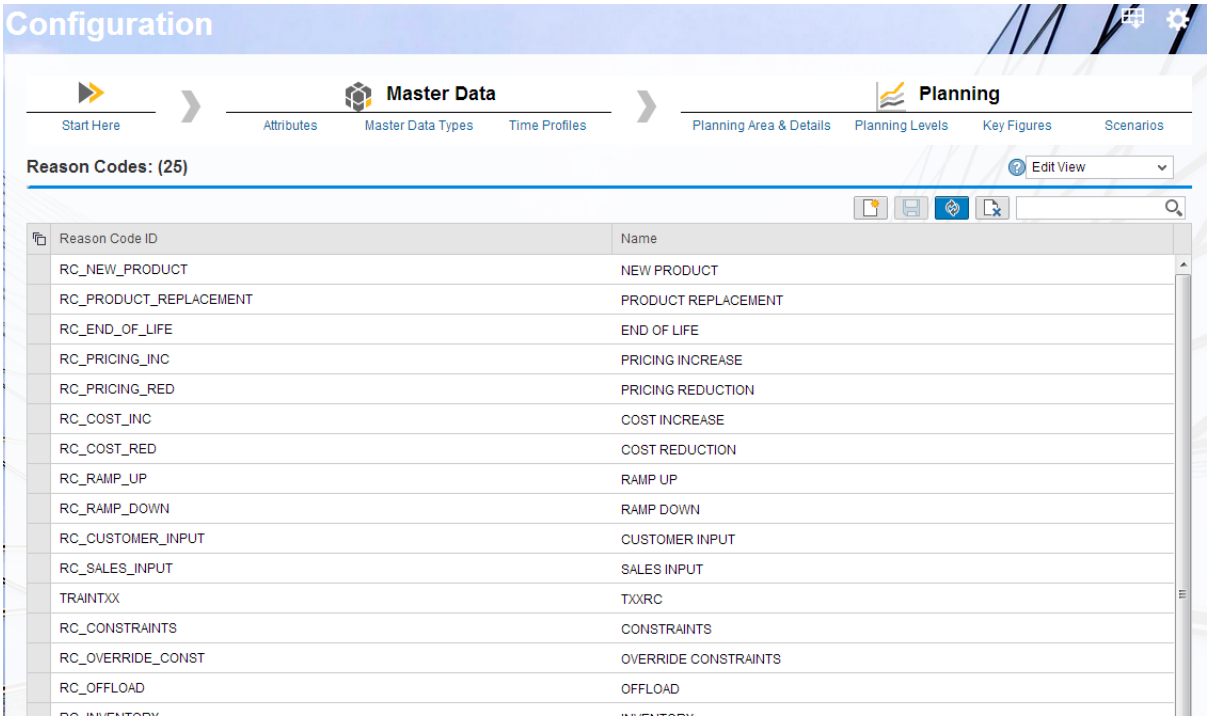
Use reason codes to help you track your decisions and changes throughout the S&OP process.

Context

To create a reason code:

Procedure

1. From the Configuration user interface, select Start Here.
2. Under Miscellaneous Settings select Manage Reason Codes.
   From this screen you can add, edit, or delete any reason code.



3. Click New and enter the ID and a name for the new reason code. For example: ID: TXXRC, Name: TXXREASONCODE.
4. Save your changes.

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4.12 Manage Global Configurations

Global configuration lets you maintain application-level defaults.

SAP recommends you maintain these defaults when you install your system:

- Planning area for integration and home page
- Time profile for integration

4.12.1 Creating a Global Configuration

Create a global configuration to help you manage application-level defaults.

Context

Some of the planning operators are available by default, for example, FORECAST, SCM, and SNAPSHOT and SNAPSHOT REDO. These are non-editable with respect to planning operator type, but you can create additional planning operators.

To create a new global configuration:

Procedure

1. From the Configuration user interface, select Start Here.
2. Under Miscellaneous Settings, select Manage Global Configurations.

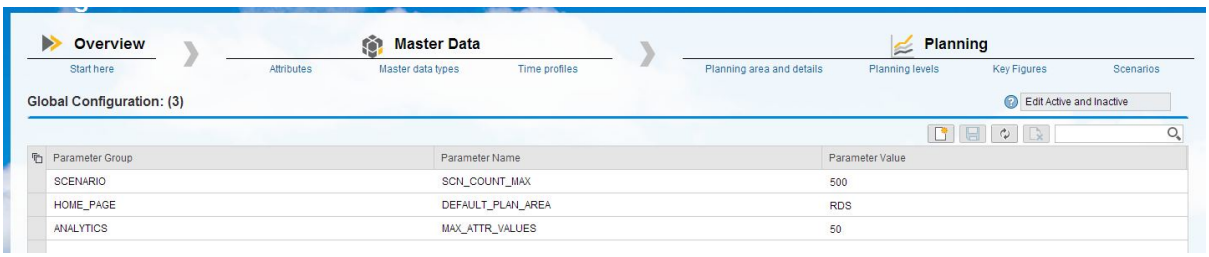
   From this screen you can add, edit, or delete any Global Configuration.
3. To create a new global configuration, click New and select the parameter group, parameter name and value.

   For example:

Parameter Group	HOME_PAGE
Parameter Name	DEFAULT_PLA N_AREA
Value	<anything e.g., 500>

4. Save your changes.

   You can link these planning operators to your planning area from the Planning Area screen in the Configuration user interface.



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Related Information

Global Configuration Parameters [page 52]

4.12.2 Global Configuration Parameters

The following table lists the possible parameters and values for the Global Configuration table.

PARAM_GROUP	PARAM_NAME	PARAM_DEFAULT	Parameter Description
ANALYTICS	CHARTS_PUBLIC	TRUE	All Charts are public by default. If set to False, Charts are private.
ANALYTICS	DASHBOARDS_PUBLIC	TRUE	All Dashboards are public by default. If set to False, Dashboards are private.
ANALYTICS	MAX_ATTR_VALUES	50	Attribute filter values in Chart Explorer (EBC) are limited by default to 50 values. The search function for attribute values returns 50 values.
COLLABORATION	ADMIN_MAIL	User configurable with the administrator's E-mail	The E-mail address of the Jam company administrator. This E-mail is required when Jam collaboration is on for the creation of a user with SAP Jam. This API is not currently used.
COLLABORATION	CLIENT_ID	User configurable	Generated by SAP Jam when registering an Oauth client. Required for obtaining Oauth token and for the back-channel communication between SAP Sales and Operations Planning and SAP Jam.
COLLABORATION	COLLABORATION_ENABLED	False	Flag that enables/disables collaboration in

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PARAM_GROUP	PARAM_NAME	PARAM_DEFAULT	Parameter Description
			SAP Sales and Operations Planning.
COLLABORATION	COMPANY_ID	User configurable	Company ID, required by and used to call the SAP Jam API.
COLLABORATION	IDP	User configurable	The name of the Identity Provider (IDP) registered with SAP Jam. Necessary in order to construct the SAML assertion, necessary for obtaining the Oauth token.
COLLABORATION	RECIPIENT_HOST	User configurable	The base SAP Jam application URL, which is provided by the Jam operations team.
COLLABORATION	JAM_SAML	False	Flag that enables/disables the browser SSO between SAP Sales and Operations Planning and SAP Jam. Currently impacts collaboration only. (Feeds and tasks are using back-channel integration.) If this is set to FALSE, collaboration also uses the back-channel.
COLLABORATION	FEED_DEEP_LINK	NULL	Required for browser SSO between Sap Sales and Operations Planning and the SAP Jam feeds. Currently not used, because browser SSO is not implemented for the feeds.
COLLABORATION	JAM_DEEP_LINK	NULL	Required for the browser SSO between Sap Sales and Operations Planning and SAP Jam collaboration.

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PARAM_GROUP	PARAM_NAME	PARAM_DEFAULT	Parameter Description
FORECAST	FORECAST_ESCAPENULL	1	Adds and initializes the value of the forecast input key figure to a small value when historical data is missing for some periods. Setting this value to 0 will not do this.
HOME_PAGE	DEFAULT_PLAN_AREA	NULL	Indicates the default planning area to view on the SAP Sales and Operations Planning home page. This parameter also represents the default planning area for the user interface of the Sap Sales and Operations Planning add-in for Microsoft Excel.
INTEGRATION	DEFPLANAREA	SOP1	Default planning area for integration
INTEGRATION	LOGGING	DEBUG	Controls whether data integration runs in debug or non-debug mode. By default, data integration runs in non-debug mode. While troubleshooting data integration related issues, run data integration in debug mode where the system will do some extra logging that can be helpful. Typically, data integration runs in non-debug mode, which means there should be no configuration entry maintained for INTEGRATION parameter LOGGING. When you want to run data integration in debug mode, maintain the following entry:

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PARAM_GROUP	PARAM_NAME	PARAM_DEFAULT	Parameter Description
			• ParameterGroup: Integration • Parameter: LOGGING • Parameter Value: Debug This parameter is only used by SAP support while troubleshooting data integration issues. After completing the troubleshooting process, SAP support should remove this configuration setting.
INTEGRATION	STAGCLEANUP	7	Controls the duration after which data import batches will be purged from your system. Your system comes with a default duration of 7 days. You can overwrite the default by creating the following entry in Global Configuration: • ParameterGroup: INTEGRATION • Parameter: STAGCLEANUP • ParameterValue: 3 The parameter value is always a positive integer. After data import batches are purged, they are permanently removed from your system. Afterwards, data import reporting is not available for the purged batches. Production systems typically set this to 2 days. If you are importing very large volumes of

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PARAM_GROUP	PARAM_NAME	PARAM_DEFAULT	Parameter Description
			data every day, then you should not set this duration to more than 1 day, otherwise you will accumulate data in your system. After a data import batch has processed, it has fulfilled its purpose. The only reason you may want to retain that data for 1 or 2 days is purely for data import reporting purposes. This data does not participate in any other system function; it just occupies space. The sooner you purge it, the better it is for your system.
PLAN_VIEW	DOWNLOADLINK	The default URL is that of the Service Marketplace, where you can download Sap Sales and Operations Planning.	Maintains the URL where you can download the SAP Sales and Operations Planning add-in for Microsoft Excel. When you click Download and Install in the popup dialog, it takes you to the link specified in DOWNLOADLINK. If the download link is NOT maintained, then the default URL is that of the SAP Service Marketplace page, where you can download the SAP Sales and Operations Planning application.
PLAN_VIEW	HOME_PAGE	/sap/sop/ui/login.html	This parameter indicates the default path for constructing the SAP Sales and Operations Planning home page URL and is

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PARAM_GROUP	PARAM_NAME	PARAM_DEFAULT	Parameter Description
			used in the Sap Sales and Operations Planning add-in for Microsoft Excel.
PLAN_VIEW	MAX_DIM_MEMBERS	10000	Maximum number of attribute values per attribute that are read for the user interface of the SAP Sales and Operations Planning add-in for Microsoft Excel. If a particular attribute has more than the specified number of values, it is excluded from the SAP Sales and Operations Planning add-in for Microsoft Excel with regard to planning view definition and filtering.
PLAN_VIEW	MAX_RESULT_ROW_SIZE	2000	The global configuration parameter MAX_RESULT_ROW_SIZE and the number of time periods selected in the planning view are used to restrict the maximum number of cells that can be retrieved from the database for a key figure. The default value for the parameter MAX_RESULT_ROW_SIZE is 2000. Maximum number of cells retrieved for each key figure = MAX_RESULT_ROW_SIZE * Number of time periods. The data retrieved for all key figures at chosen planning levels is then plotted in the

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PARAM_GROUP	PARAM_NAME	PARAM_DEFAULT	Parameter Description
			planning view according to the selected layout. If the results are restricted and the last row is incomplete, then the last row will not be displayed in the planning view.
PLAN_VIEW	PV_COUNT_MAX	5	The maximum number of open Microsoft Excel workbooks that contain planning views.
PLCNTRL	SESSION_TIMEOUT	7200	The number of seconds before an Sap Sales and Operations Planning session times out and requires you to log back in.
SCENARIO	SCN_COUNT_MAX	3	The maximum number of scenarios allowed in an SAP Sales and Operations Planning system.
SCENARIO	SCHEDULER_INTERVAL_IN_MINS	1	The number of minutes between start of a scenario copy background job.
TRACE	TRACELEVEL	E	Determines what type of trace is shown in the log files. The priority is as follows: • D—Debug: Show traces with levels Error, Warning, and Debug • W—Warning: Show traces with levels Error and Warning • E—Error: Show only traces with level Error

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4.13 Planning Operators

A planning operator uses an algorithm to compute large amounts of key figure data inside a planning session. You can schedule it to be processed in the background.

SAP delivers forecast, snapshot and supply chain management planning operators.

4.13.1 Creating a Planning Operator

You can create a planning operator to compute large amounts of key figure data within a planning session.

Context

To create a new planning operator:

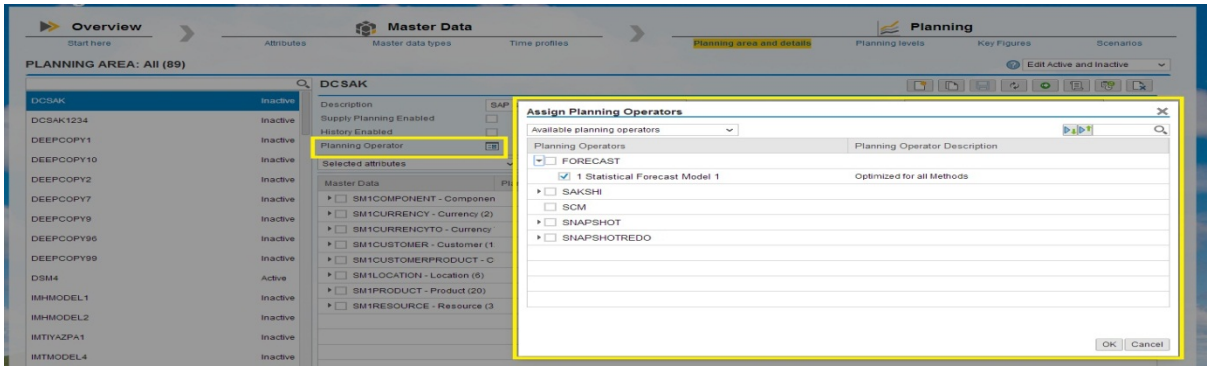
Procedure

1. From the Configuration user interface, select Start Here.
2. Under Miscellaneous Settings, select Manage Planning Operators.

   From this screen you can add, edit, or delete any planning operator types or planning operators associated with a planning operator type.
3. To create a new planning operator type, click New and enter the planning operator type, name, description, schedule procedure and job procedure.

Planning Operator Type	ABCD
Planning Operator Name	Optimization SCM
Provide Description, Job Procedure & Schedule Procedure	< anything>

4. After creating the planning operator type, create the planning operator associated with this Planning Operator Type by entering the following information: planning operator name, description, and any mode (one or more): interactive, batch or filter mode.



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5. Save your changes.

   Refer to the following table for information about fields on the Planning Operator window:

Property	Description
Schedule Procedure	Enter the procedure that is used to execute the background job.
Add Job Procedure	Enter the procedure that is used to add the job to the background job table.
Interactive Mode	To run the planning operator in the current planning session, choose Yes. Otherwise, choose No.
Batch Mode	To run the planning operator in the background, choose Yes. Otherwise, choose No.
Filter Mode	If you want to allow the user to use filters when running or scheduling the planning operator in the SAP S&OP add-in for Microsoft Excel, set the filter mode to Yes. For example, if you set the filter mode to Yes for the planning operator type SNAPSHOT, the user can use a stored filter or create an ad-hoc filter when taking the snapshot from the SAP S&OP add-in for Microsoft Excel. Only the data that satisfies the filter is included in the snapshot.
Parameters	Select the parameter by defining the name and description to associate it with the related parameter.

4.14 Snapshots

You can link these planning operators to your planning area from the Planning Area screen in the Configuration user interface.

Key figures can be stored or calculated, and they must be linked to a planning area. Snapshots let you compare data changes over time. The Redo Snapshot function in the add-in for Microsoft Excel lets you re-take a snapshot in case of errors or incorrect data.

You can create up to 9 time snapshots at periodic intervals, which produces a time elapsed view of your data. You can also configure the snapshot to run periodically in the background. Once you create your snapshot, activate the planning area to make the snapshot available in the system.

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4.14.1 Creating a Snapshot

You can take a snapshot of your key figure data at a specific point in time.

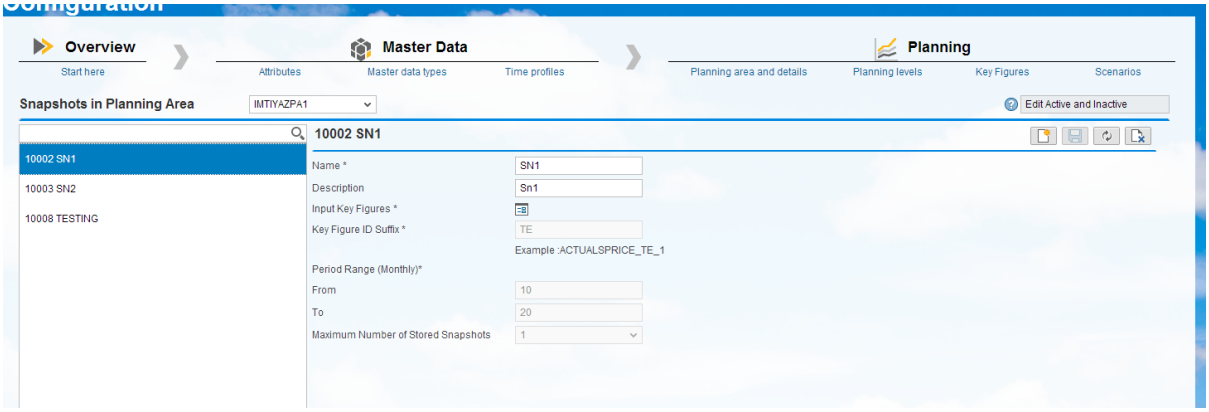
Context

To create a snapshot:

Procedure

1. From the Configuration user interface, select Start Here.
2. Under Miscellaneous Settings, select Manage Snapshot Configuration.

   From this screen you can add, edit, or delete any Snapshot.



3. Click Create and enter the name, description, input key figure, key figure ID, period range (from and to) and maximum number of stored snapshots.

   These snapshots are also created in the relevant Key Figure window. Based on the maximum number of stored snapshots selected, that number of snapshots will be created in the Key Figures window.

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