

Applies to:

Industries which have implemented “SAP SCM-Demand planning” (Release version from 4.1...).
For more information, visit the [Supply Chain Management homepage](#).

Summary

This article reveals the total process of APO - DP BOM, This process can be useful for the Industries which have implemented the APO DP

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Table of Contents

Introduction	3
Definition	3
Purpose	3
Objective	3
DP BOM Process.....	4
Create PPM by using Tcode: /sapapo/sc003	4
Create Master Planning Object Structure for DP BOM.....	11
Create planning area for DP BOM.....	15
View of Interactive Demand Planning Sheet	18
Related Content.....	20
Disclaimer and Liability Notice.....	21

Introduction

We can forecast dependent requirements in Demand Planning by using DP BOM. It determines the component parts of finished products through the production process model (PPM).

This can be useful if material components represent practical constraints on the forecast at finished product level; that is, the available quantity of components is fixed but they can be used in different finished products. This situation arises in the chemical industry. The planner can immediately see the impact of the product forecast on the fixed component level.

Definition

Source of supply for purchasing a product produced in- house production.

Purpose

The main purpose in the materials management organization is to provide the **"right parts in the right quantities at the right time."** But where do those material requirements come from? Whether or not demand is predictable, whether the materials are for production or maintenance, the requirements are usually generated from a bill of material (BOM). Without a complete and accurate BOM, decisions regarding material planning and replenishment are often made in a vacuum, resulting in excess inventory, stockouts, expediting charges and expensive downtime

Objective

The objective of this article is to explain the Demand Planning Bill of materials by using PPM.

DP BOM Process

Create PPM by using Tcode: /sapapo/sc003

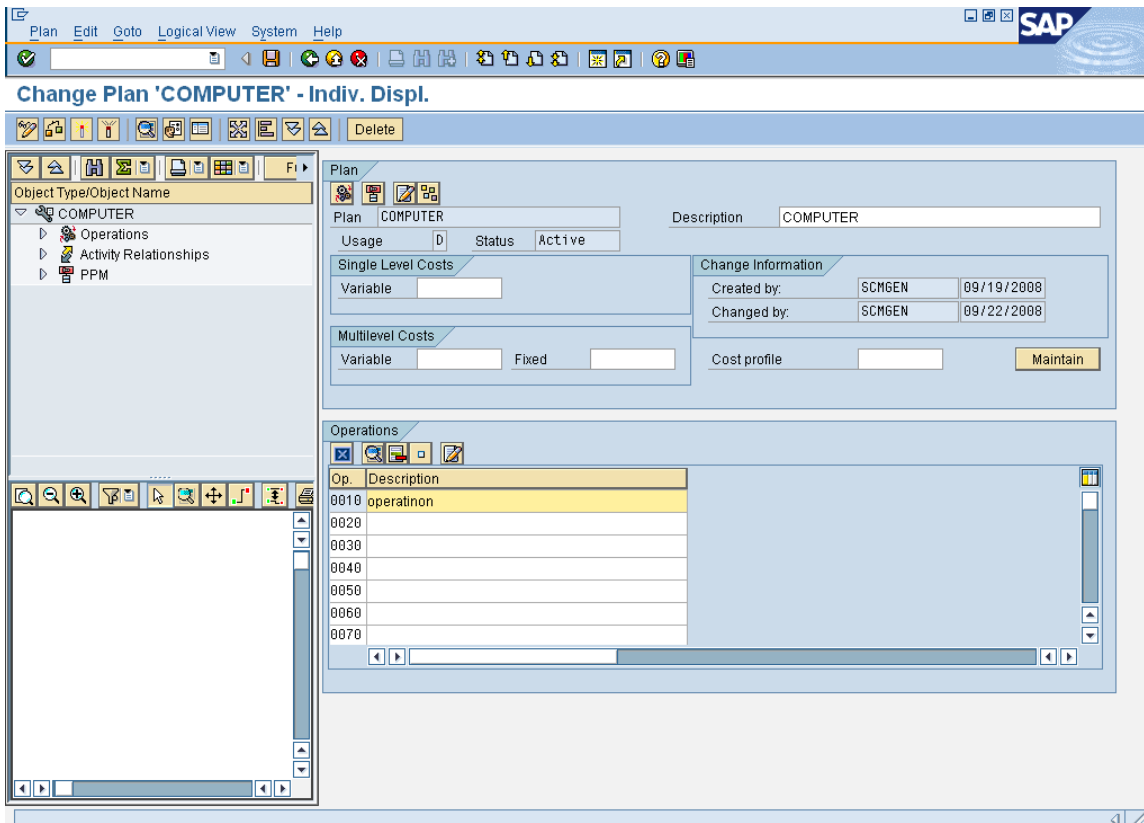
The screenshot shows the 'Choose Plan' dialog box in SAP APO. The 'Plan' field is set to 'COMPUTER'. The 'Use of a Plan' dropdown is set to 'D'. The table on the right shows four entries:

Use of a Plan	Short Descript.
S	PPM for Supply Network Planning (SNP)
P	PPM for Production Planning and Detailed Scheduling (PP/DS)
T	Template PPM
D	BOM for Demand Planning (DP)

The 'D' entry is selected. The status bar at the bottom indicates '4 Entries found'.

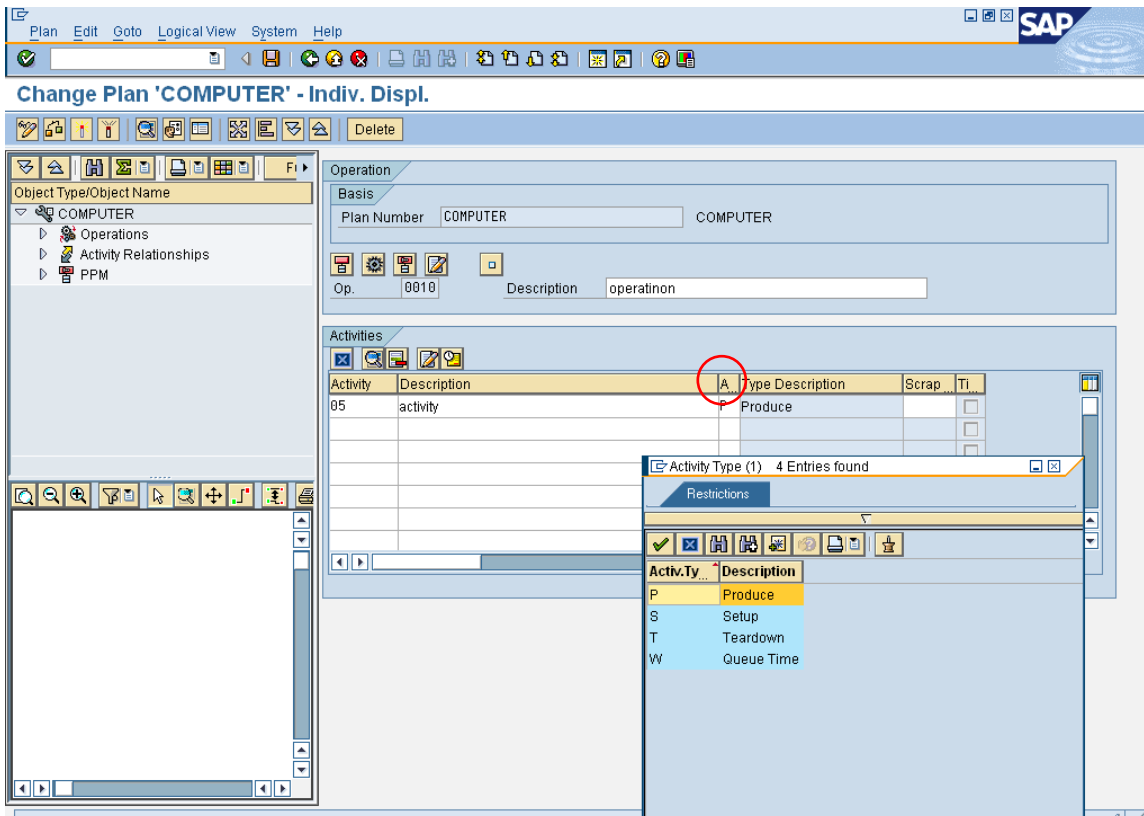
Give the description of plan and operation

Double click on operation (0010) activity screen will appear



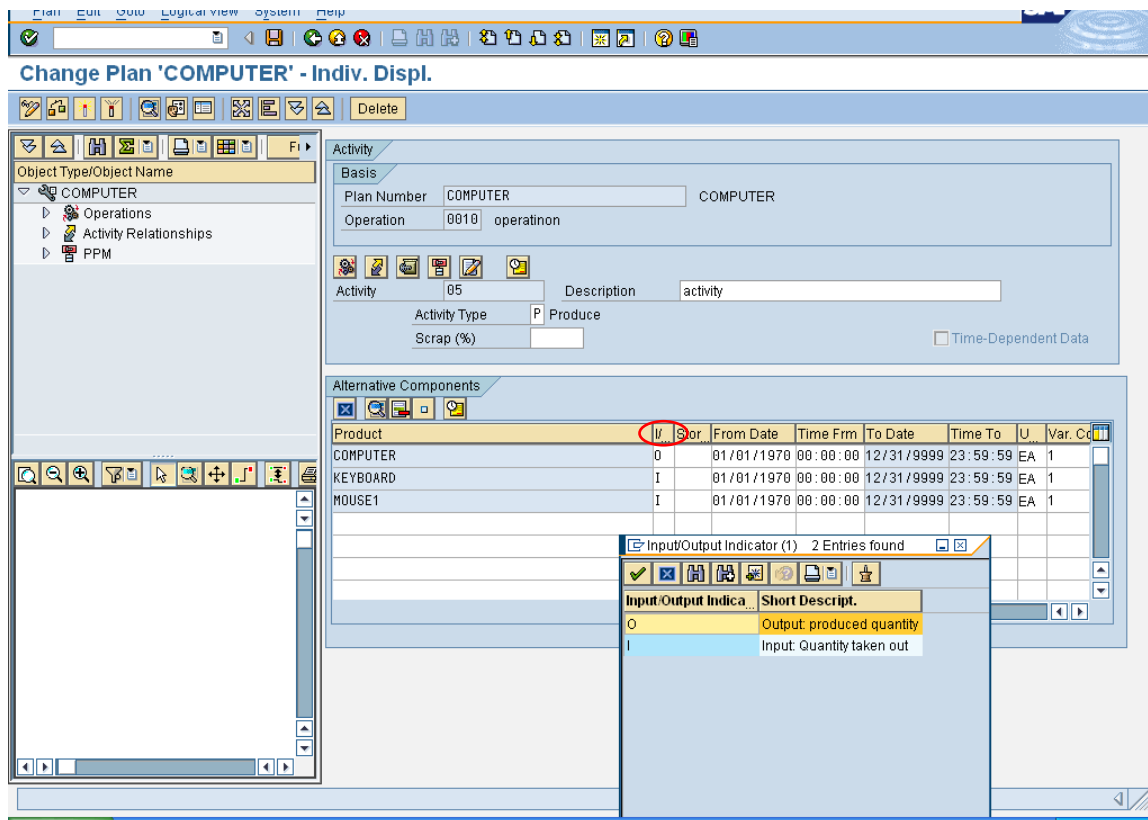
Next activity screen appear here

Give the activity no and description and activity type.

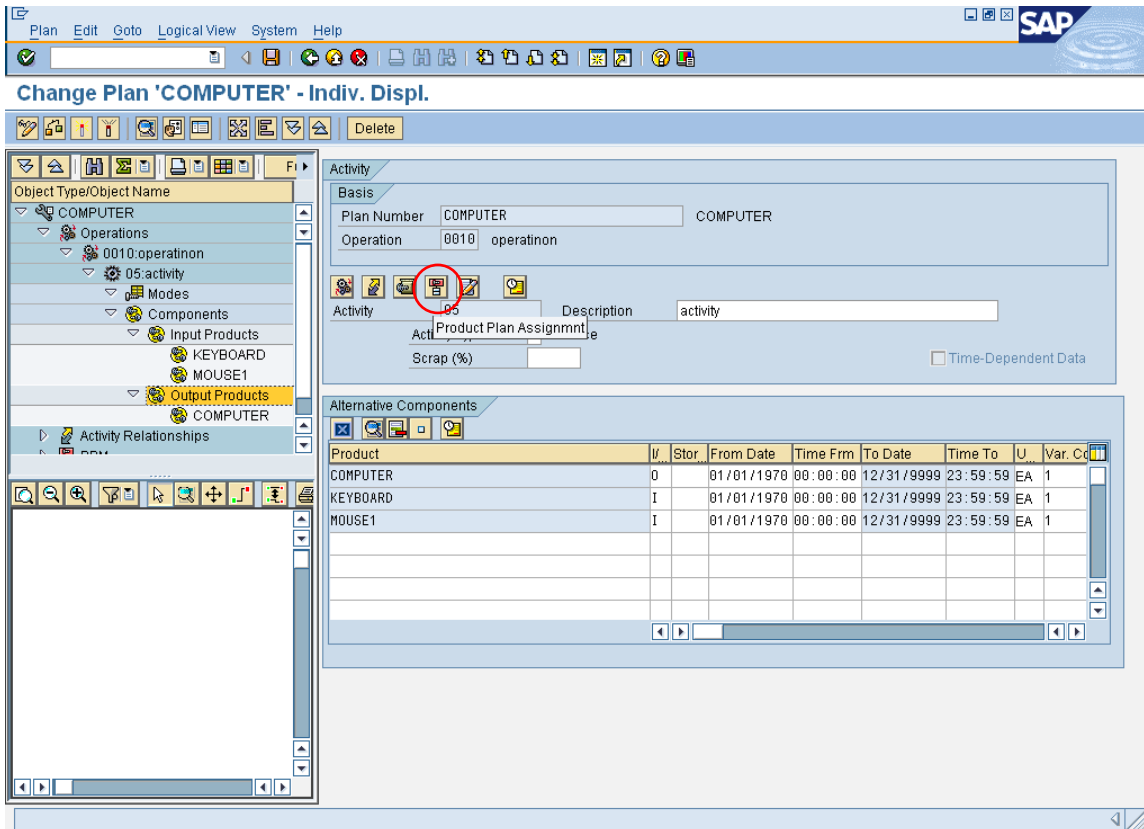


Double click on activity (05)

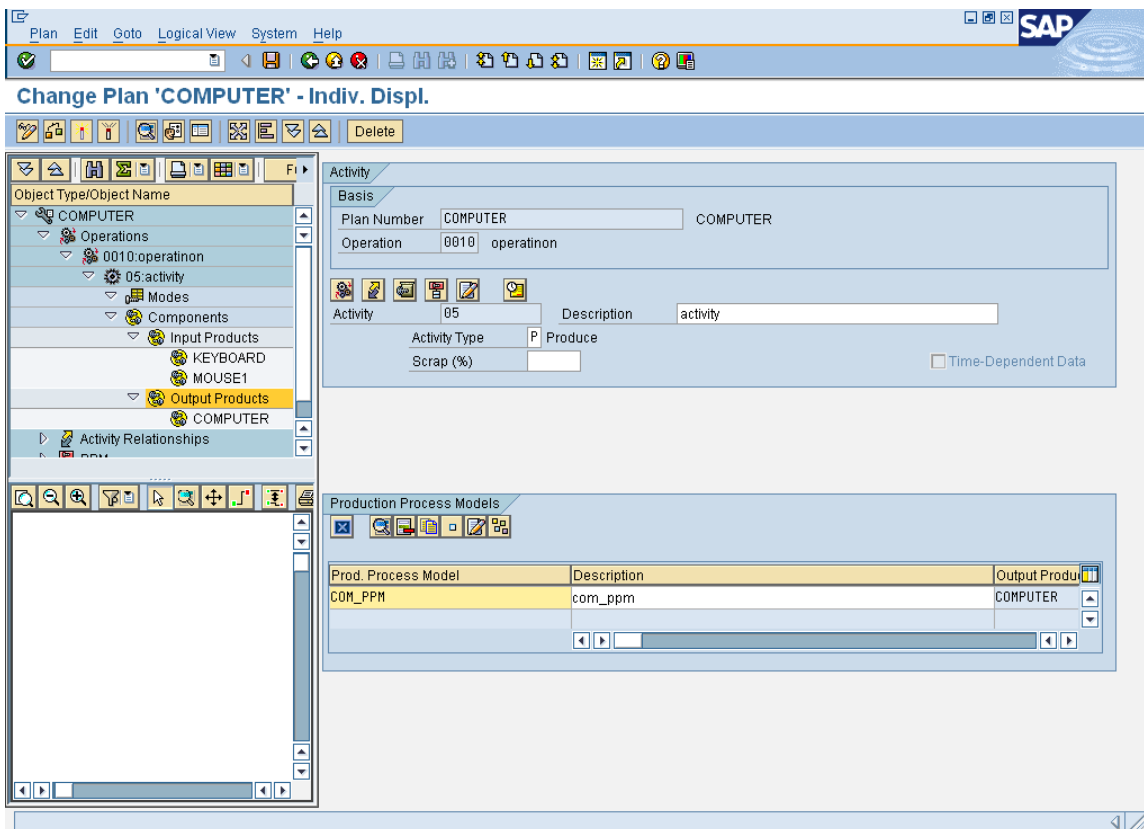
Alternative components will appear their give the finished product indicator (o) and components product indicator (I) and variables of each product and press enter.



Choose Product Plan Assignment icon.



Give product process model (PPM) name and description and scroll the tab right side give Maximum lot size and minimum lot size.



Plan Edit Goto Logical View System Help SAP

Change Plan 'COMPUTER' - Indiv. Displ.

Activity

Basis

Plan Number: COMPUTER COMPUTER

Operation: 0010 operation

Activity: 05 Description: activity

Activity Type: P Produce

Scrap (%): Time-Dependent Data

Production Process Models

Prod. Process Model	Di	Buc	Perio	Minimum Lot Size	Maximum Lot Size
COM_PPM	<input type="checkbox"/>		0.500	1.000	2.000

Save and activate the PPM

Plan Edit Goto Logical View System Help SAP

Change Plan 'COMPUTER' - Indiv. Displ.

Activity

Basis

Plan Number: COMPUTER COMPUTER

Operation: 0010 operation

Activity: 05 Description: activity

Activity Type: P Produce

Scrap (%): Time-Dependent Data

Production Process Models

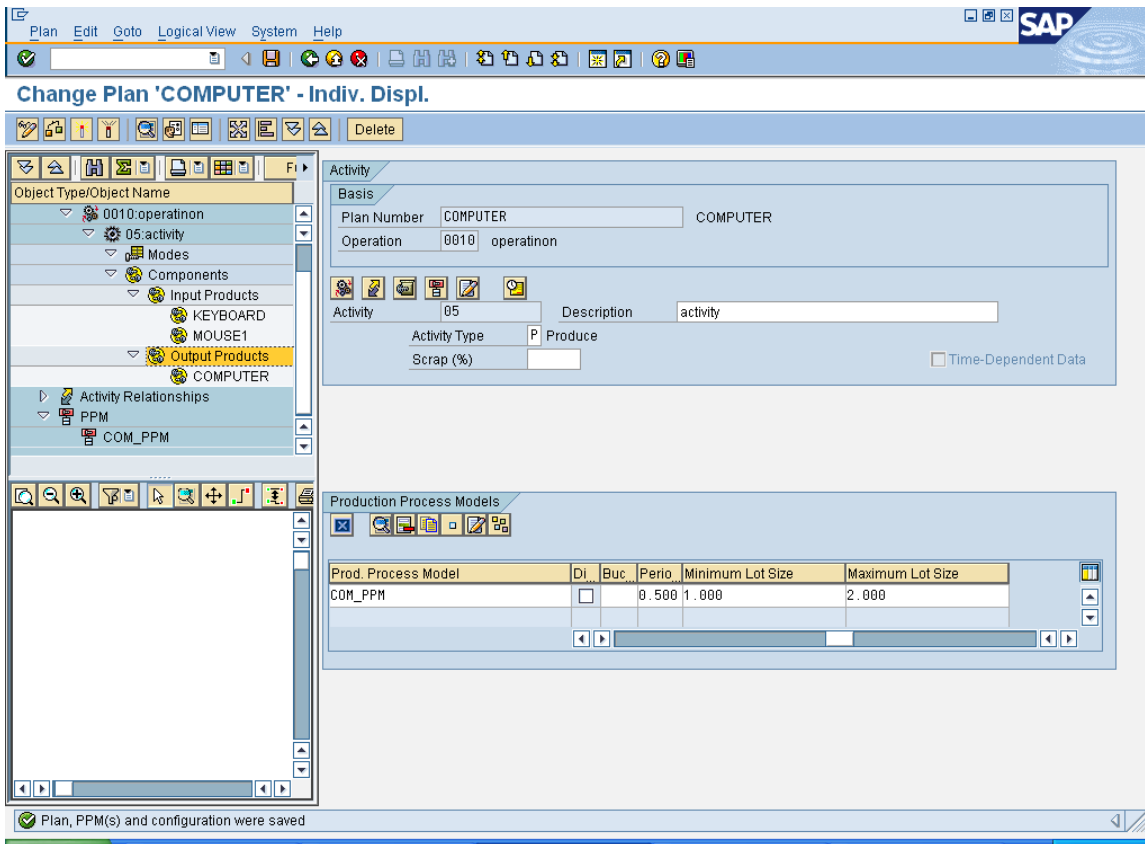
Prod. Process Model	Di	Buc	Perio	Minimum Lot Size	Maximum Lot Size
COM_PPM	<input type="checkbox"/>		0.500	1.000	2.000

Activate?

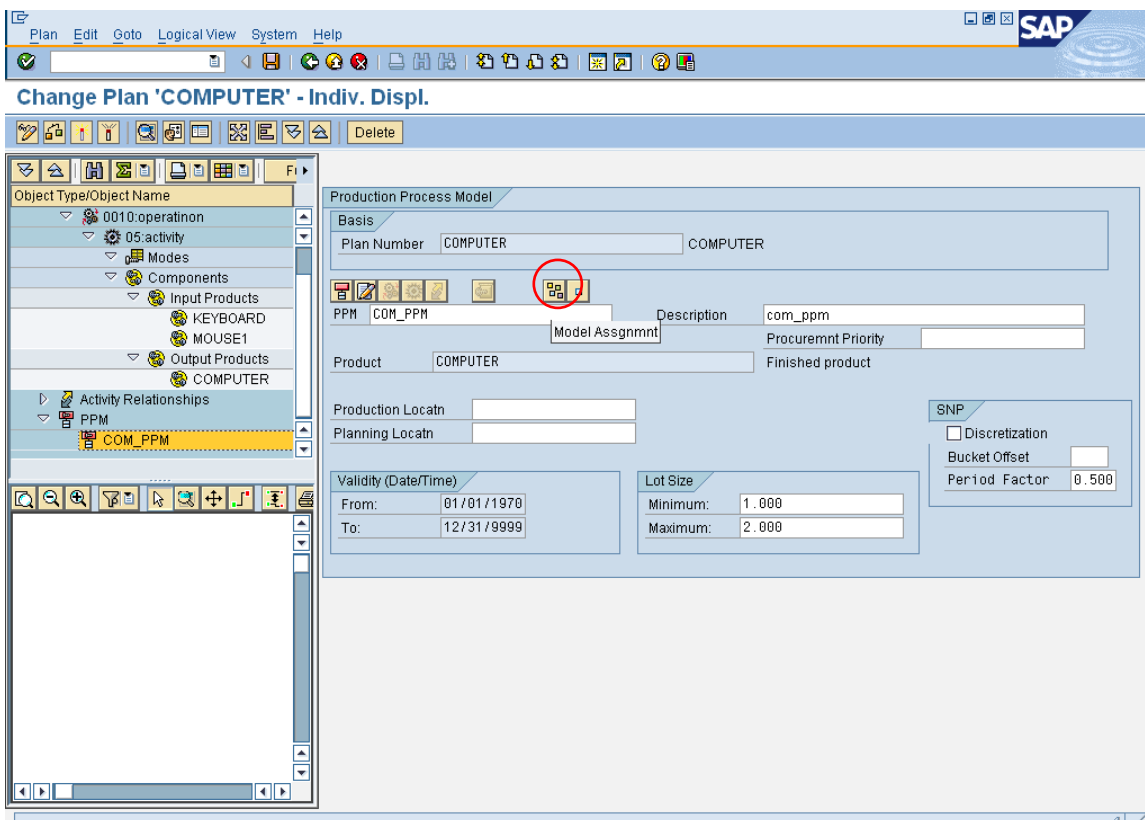
Activate the PPM?

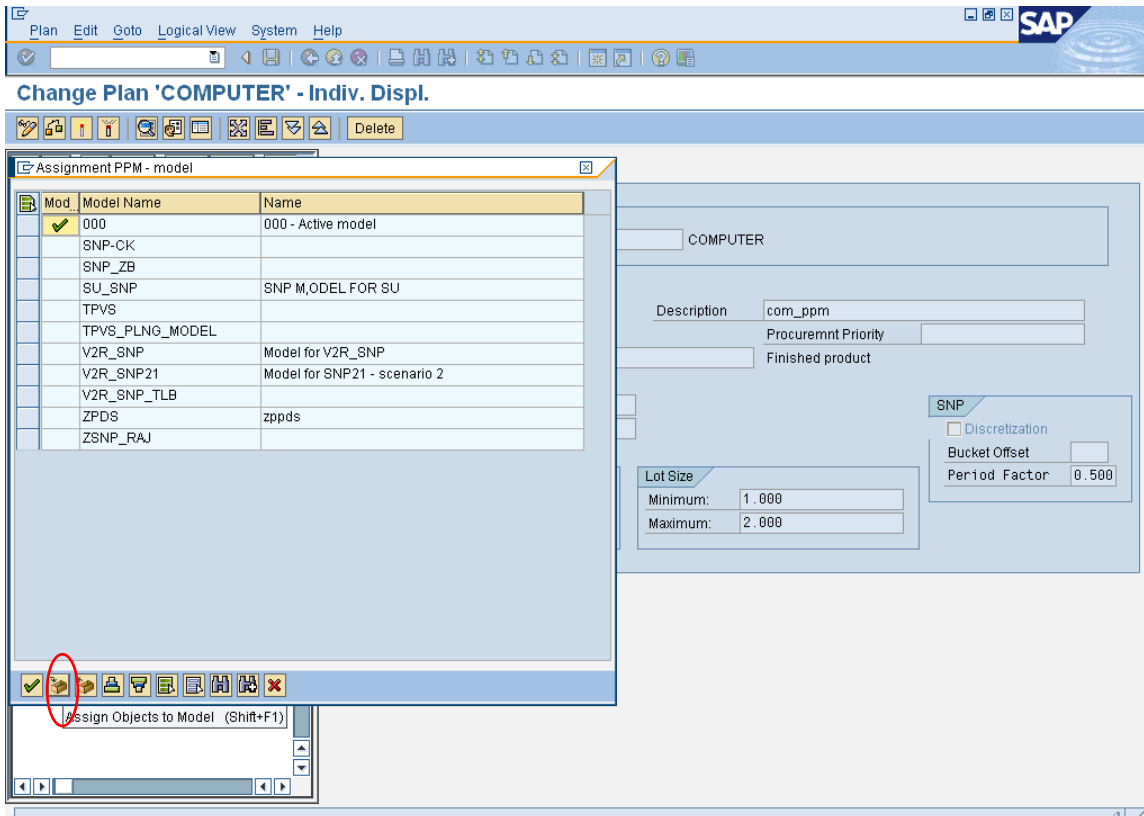
Y No

Double click on ppm

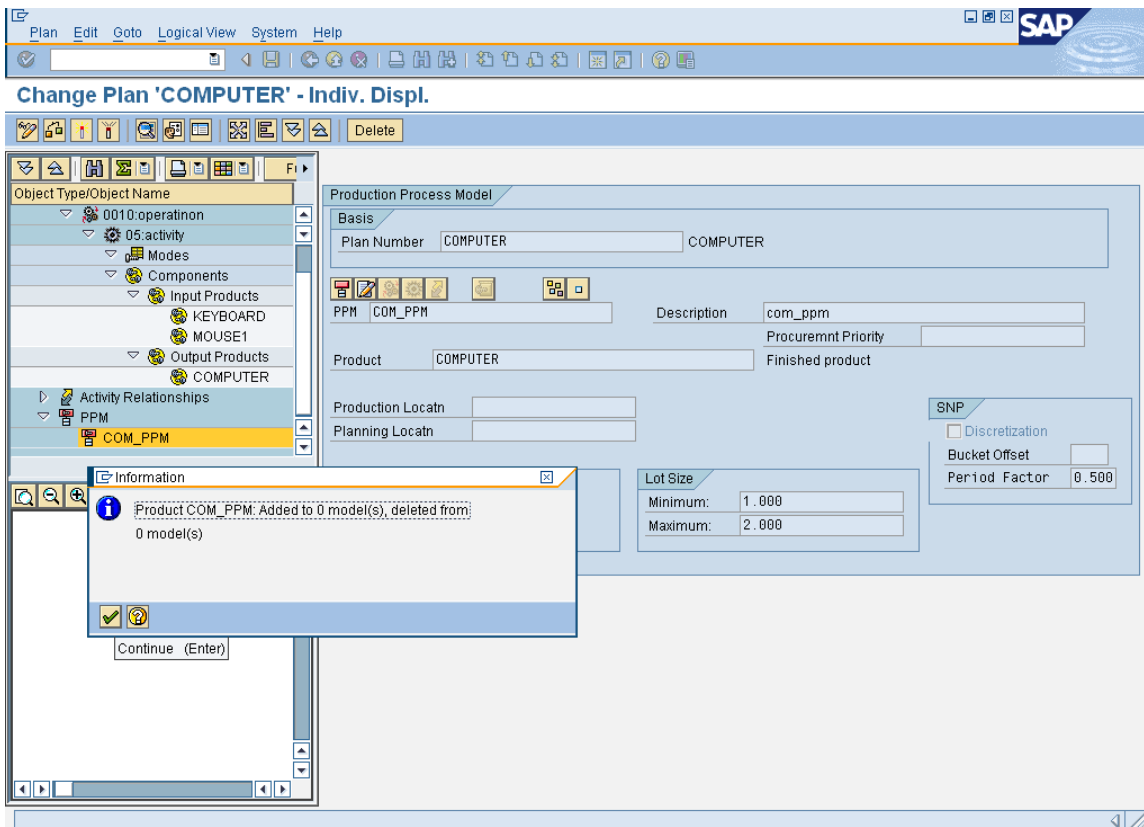


Choose model assignment icon





Assign the model to 000 by choosing assign objects to model icon and continue



Create Master Planning Object Structure for DP BOM.

Goto S&DP Administration (/sapapo/msdp_admin) to create MPOS

Choose relevant for DP BOM check box,

And transfer "9ALOCNO" copyfrom to pos,

Save and activate.

The screenshot shows the SAP S&DP Administration interface for configuring a Master Planning Object Structure (MPOS). The 'Master Ping Object Struct.' is set to 'COM_MPOE' and the 'Text' is 'COM_MPOS'. The 'Relevant for DP BOM' checkbox is checked and circled in red. The 'Copy Fr' table lists various characteristics, and the '9ALOCNO' characteristic is being transferred to the 'Planning Obj. Struct.' table.

Char.	Short Description
9ABOMID	BOM Char. Comb. II1
9ABOMIO	BOM Prod. Type (I/O)1
9ALOCNO	APO Location 1
9AMATNR	APO Product 1
9APPMNAME	APO PPM/PDS Nam1

Char.	Short Description
0ABCINDIC	ABC indicator
0ABCPRC_TYP	Process type
0ABCPROCESS	Business Process
0ABC_CLASS	ABC class
0ACCNT_GRP	Account group
0ACCNT_GRPV	Vendor Account Group
0ACN_BRAND	ACNielsen: Brand
0ACN_CASEPK	PC in Packing Unit
0ACN_CATGRY	ACNielsen: Category
0ACN_DEAL	Activity Indicator
0ACN_EANUPC	ACNielsen: EAN/UPC
0ACN_FLAVOR	Flavor
0ACN_FORM	FORM routine
0ACN_MANFAC	Manufacturer

Choose create single characteristic combination

And give required location and product.

Create the same for remaining products and locations

Program Edit Goto System Help

Master Planning Object Structure COM_MPOS

Maintain Characteristic Combinations

Create Single Characteristic Combination

Create Characteristic Combinations

Add BOM Information

Generate DP PPMs...

Delete Characteristic Combinations

Delete Characteristic Combinations

Delete from a Combination List

Overview of Characteristic Combinations

Display Characteristic Combinations

Log

Manage Log

Program Edit Goto System Help

BOM Char. Comb. ID

BOM Prod. Type (WO)

APO Location 1000

APO Product computer

APO PPM/PDS Name

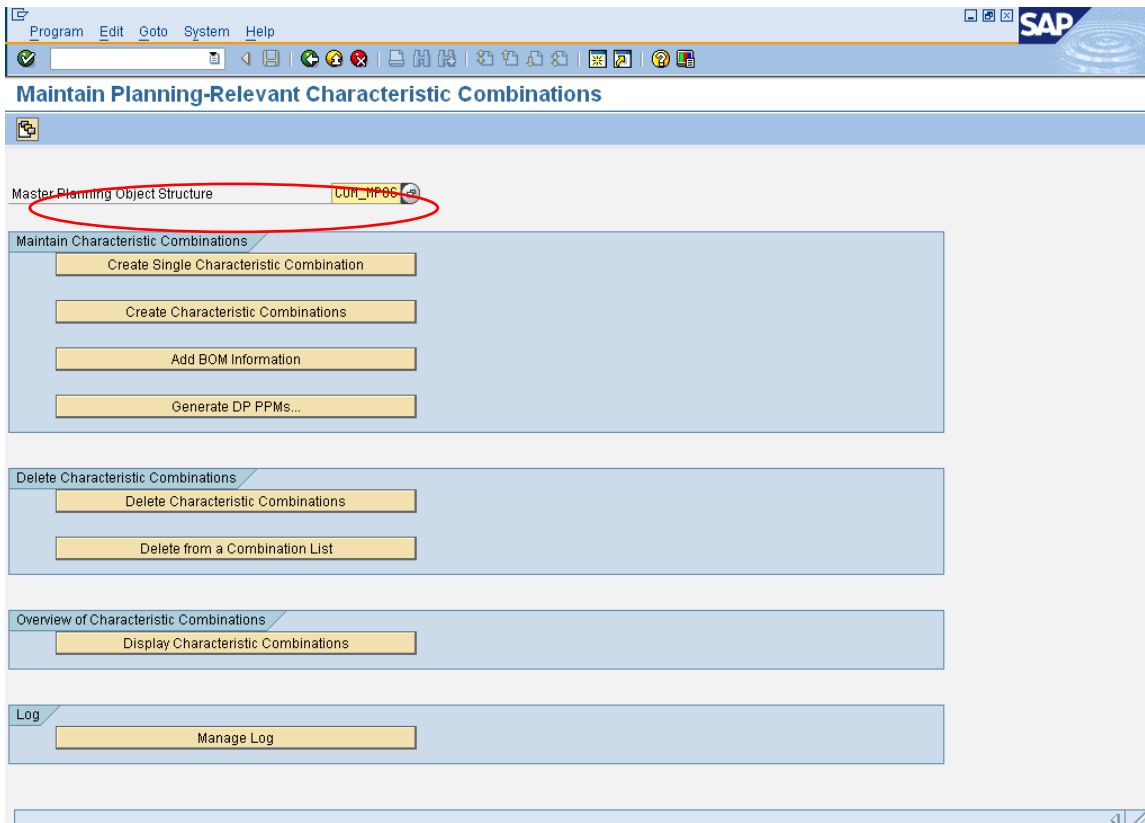
Results Log

Check Characteristic Value

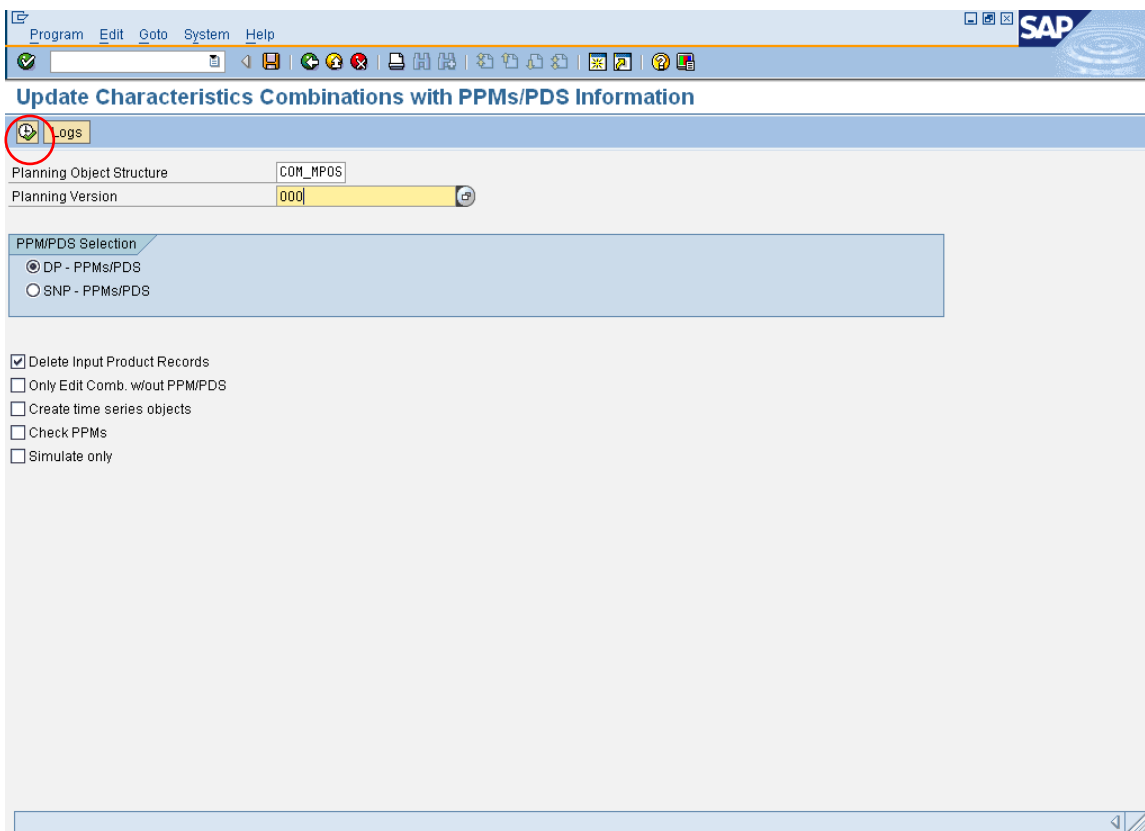
Check SCM Master Data

Check BW Master Data

Check whether cvcs are created or not, if cvcs created choose the add bom information



Give version 000 and execute



Go back and choose display characteristics value combinations

And confirm 9APPMNAME and 9ABOMOI added or not for all cvcs

Display Existing Characteristic Combinations

3 Data records selected for Planning Obj. Struct.: COM_MPOS

9ABOMIO	9ALOCNO	9AMATNR	9APPMNAME
I	1000	KEYBOARD	COM_PPM
I	1000	MOUSE1	COM_PPM
O	1000	COMPUTER	COM_PPM

Create planning area for DP BOM.

Choose the below key figures

1. Independent demand
2. Dependent demand
3. And history

Planning Area Edit Goto Extras System Help

Change Planning Area

Planning Area: COM_PA
 Status: ■
 Master Ping Object Structure: COM_MPOE

Info Key Figs **Key Figure Aggregtn** Locking Logic

Details

Planning Area		Copy Fr	
Reference	Short Description	Reference	Short Description
DEPDM	DEPENDENT DEMAND	0ACQ_VALUE	Acquisition value
HISTORY	HISTORY	0ALP_AMOUNT	Amount
INDEDM	INDEPENDENT DEMAND	0ALTITUDE	Geographical Height
		0AMOUNT	Amount
		0AMOUNTFX	Fixed amount
		0AMOUNTVR	Variable amount
		0ANSALARY	Annual Salary
		0APO_BUFFTI	Resource:Buffer Time
		0APO_CAPAB	Bucket Res. Capacity
		0APO_INDRES	Capac. Split Quant.
		0APO_LOCPRI	Priority Location
		0APO_MNOLP	Maximum Overlap
		0APO_MNREPL	Min. Repl. Quantity
		0APO_MNSTOR	Min. Stock Level

And choose details tab give semantic values

Independent demand 401

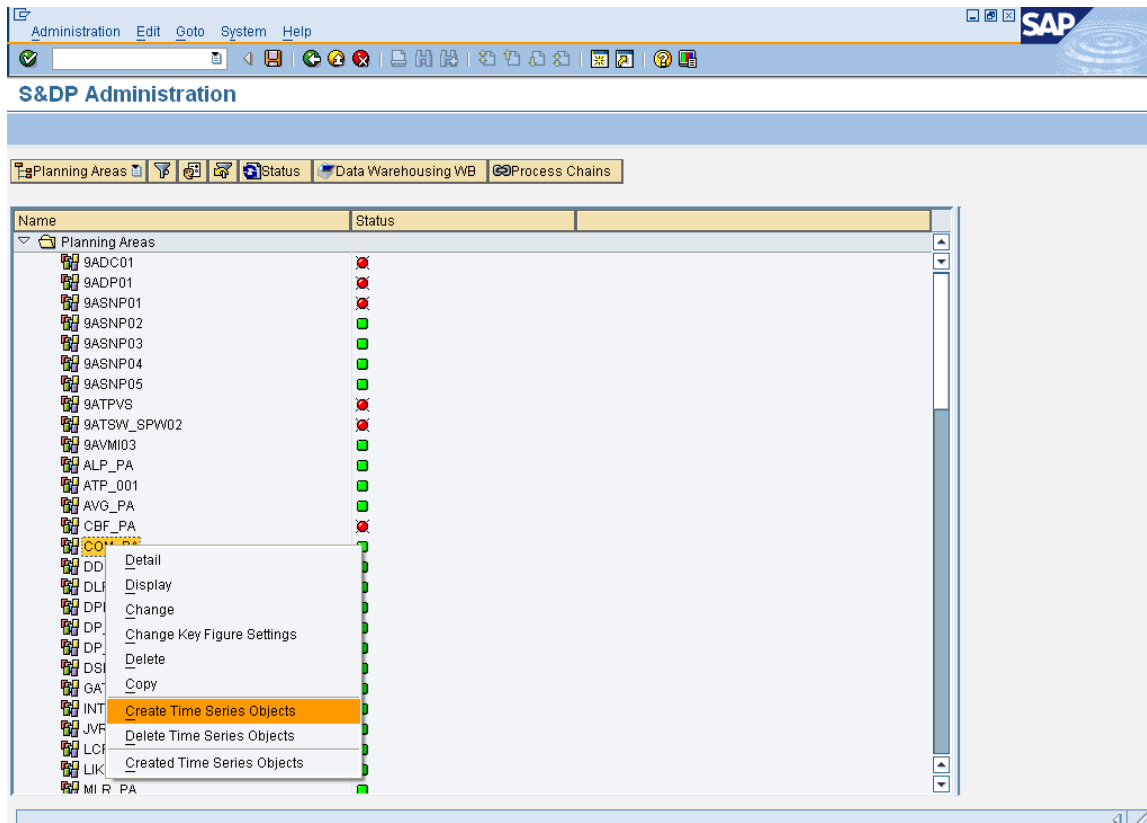
Dependent demand 501

History 001

The screenshot shows the 'Change Planning Area' dialog box in SAP APO. The 'Key Fig. Selection' table is as follows:

Key Fig.	Description	Semantic	InfoCube	Ver.	Key Figure Fun.	Aggr.	SNP	CatGrp	Category	Ty.
DEPDM	DEPENDENT DEMAND	501					D			Single
HISTORY	HISTORY	001								Single
INDEDM	INDEPENDENT DEMAND	401					D			Single

Come back save and activate the planning area by creating time series objects.



Here maintain all SBP, TBP, maintain forecast profiles (MC96B), and planning books,

While creating master profiles always assign the forecast key figure is Independent demand only

While creating the DV's for planning book create 2 grids

1st grid for Independent demand and history keyfigures

2nd grid for dependent demand.

View of Interactive Demand Planning Sheet

Planning Book: [Live] COM_PB / COM_DV

Selected Objects

- APO PPM/PDS Name
- APO Product
- Bill of Material (BOM) Product
- Promotion

DEPEND...	Unit	M 09/2008	M 10/2008	M 11/2008	M 12/2008	M 01/2009	M 02/2009	M 03/2009	M 04/2009
DEPEND...		415	457	499	541	582	624	666	
HISTORY									

By choosing dependent display icon can generate the forecast at product levels and component levels, bomlevels, and so on.....

Planning Book: [Live] COM_PB / COM_DV

Selected Objects

DEPEND...	Unit	M 09/2008	M 10/2008	M 11/2008	M 12/2008	M 01/2009	M 02/2009	M 03/2009	M 04/2009
DEPEND...		830	914	998	1,081	1,165	1,249	1,332	
HISTORY									

Related Content.

http://help.sap.com/saphelp_scm41/helpdata/en/e8/d47139f5a04c61e1000000a114084/frameset.htm

<http://sapplanning.wordpress.com/2008/01/05/bom/>

<https://www.sdn.sap.com/irj/scn/thread?messageID=4833200>.

For more information, visit the [Supply Chain Management homepage](#).

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