Production Planning-Configuration Document



The major configurations that are carried out: -

- 1. Plant Parameter (OPPQ)
- 2. MRP Group Parameter (OPPR)
- 3. Activate MRP (OMDU)
- 4. Order type Parameter (OPJH)
- 5. Order type dependent Parameter (OPL8)
- 6. Production Scheduling Profile (OPKP)
- 7. Scheduling Profile (OPU3)
- 8. Control Key (OP00)
- 9. Availability Check Parameter (OPJK)
- 10. Confirmation Parameter (OPK4)



1	MA	TERIAL REQUIREMENTS PLANNING	4
	1.1	PLANT PARAMETERS	4
	1.1.1	Overall maintenance of Plant parameters	4
	1.2	MRP parameters	
	1.2.1	Overall maintenance of MRP groups	24
	1.3	PLANNING	
	1.3.1		
	1.4	PLANNING FILE ENTRIES	
	1.4.1		
2	DEF	FINE PRODUCTION SCHEDULING PROFILE	
	2.1	PRODUCTION SCHEDULER	
	2.2	OPERATIONS	41
	2.2.1		
3		OP FLOOR CONTROL	42
J	SHO		
	3.1	MASTER DATA	43
	3.1.1	Define Order types	43
	3.1.2	2 Define Order Type Dependent Parameters	46
4	CON	NTROL KEY	57
5	AVA	AILABILITY CHECK PARAMETER (OPJK)	59
6		ZINIE CONICIDMATION DADAMETEDO	62



1 Material Requirements Planning

The main function of material requirements planning is to guarantee *material* availability, that is, it is used to procure or produce the requirement quantities on time both for internal purposes and for sales and distribution. This process involves the monitoring of stocks and, in particular, the automatic creation of procurement proposals for purchasing and production.

1.1 Plant parameters

SAP MRP is run at plant level or at a group of plant level (called as scope of planning), thus the MRP configuration is done at Plant level.

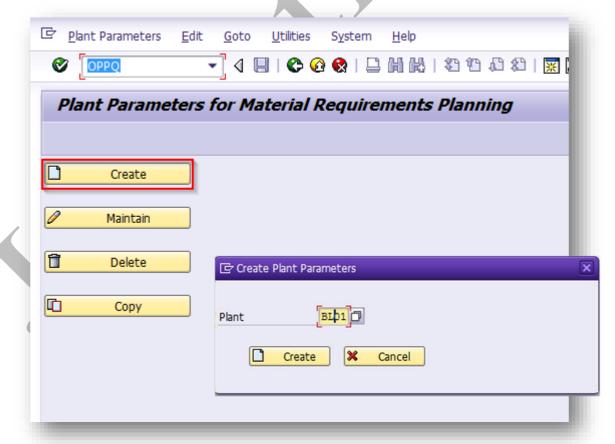
The configuration done for SAP MRP at Plant level would also be true for SAP Consumption Based Planning (SAP CBP) settings.

1.1.1 Overall maintenance of Plant parameters

Transaction Code: OPPQ

Menu Path: Production → Material Requirements Planning → Plant Parameters → Carry out Overall Maintenance of Plant Parameters

Here we can create or maintain all the plant parameters for MRP.



Following are the parameters that need to maintain as a part of SAP MRP Configuration:

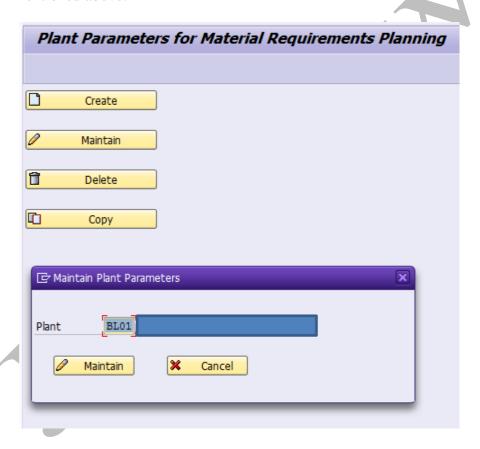
a) Number ranges

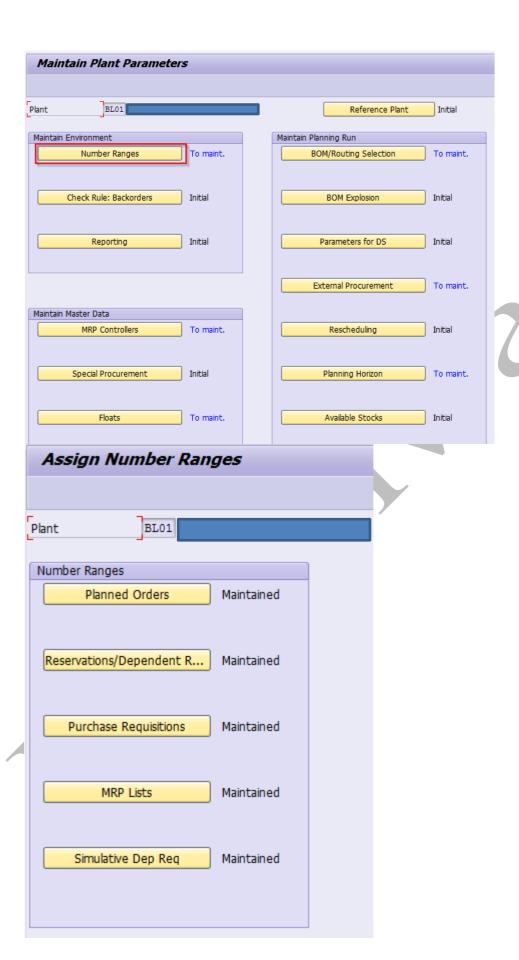
The number rangeIDs are maintained for the following objects:

- ✓ the Planned orders
- ✓ the reservations,
- ✓ the dependent requirements,
- ✓ the simulative dependent requirements,
- ✓ the purchase requisitions,
- ✓ the MRP Lists,

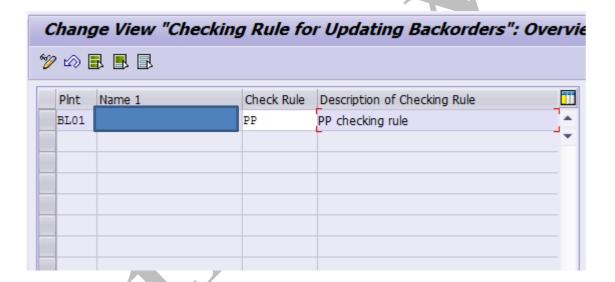
In this section only the number range ID's are maintained. While the actual number range is configured, for the number range ID, using a transaction code OMI2 (for the above mentioned objects created in the planning run). One can also use the transaction code OMI3 for the objects created manually in the front end.

Every number range interval, created using OMI2 and OM13, has an ID, which can be allocated to the objects at plant level, i.e., every plant can have a different number range for the objects mentioned above.





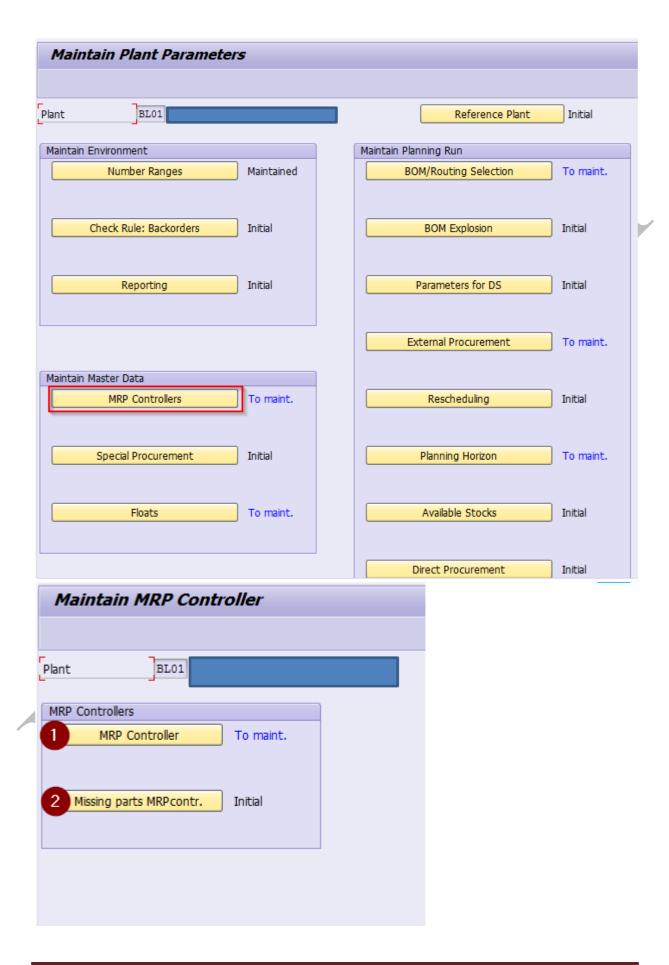
Maintain Plant Parameters			
Plant BL01 BLUEEAGLE PRODUCTION PLAN	T Reference Plant Initial		
Maintain Environment	Maintain Planning Run		
Number Ranges Maintained	BOM/Routing Selection Maintained		
Check Rule: Backorders Initial	BOM Explosion Initial		
Reporting Initial	Parameters for DS Initial		
	External Procurement Maintained		

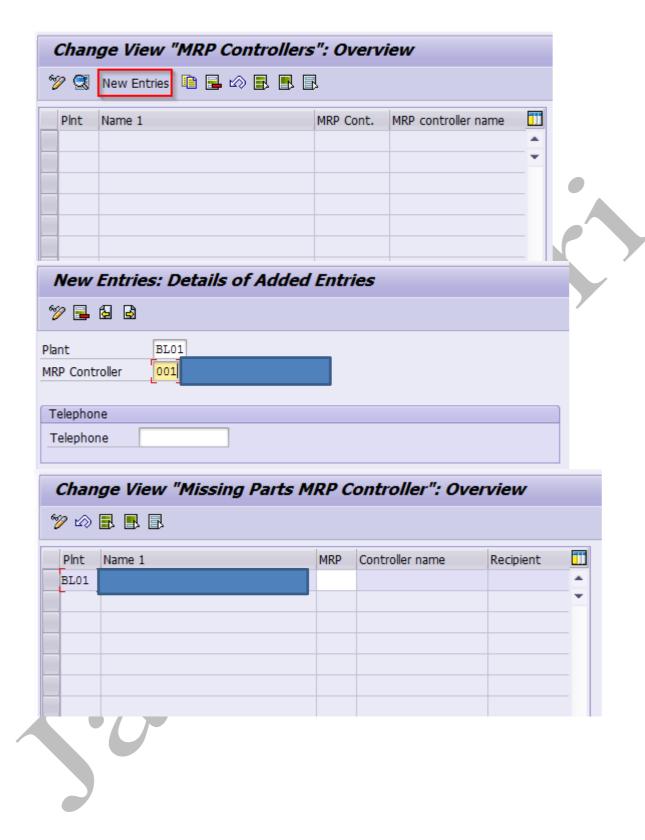


c) MRP Controllers

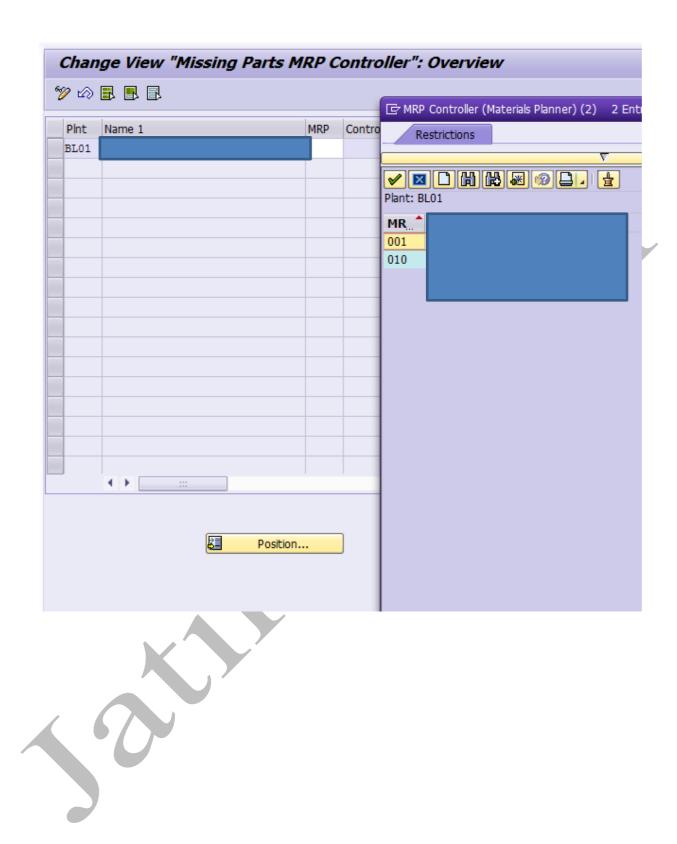
This is a mandatory configuration. Here you can configure the list of MRP controllers for the plant. A MRP Controller is a person or a group of people, which is responsible for planning a material or a given list of materials.

You have to assign the MRP controller to the Material Master MRP 1 View, so as to delegate the responsibility of the planning and evaluation of planning for that material.





lant IRP Controller	010]	
Telephone				
Telephone				
Missing parts mes	sage at goods r	eceipt		
Recipient Name				
Accounting organ	nizational area			
Business Area Profit Center				
Recipient for mail	to MRP control	er		
Recipient type Recipient				
		Ť		
,				
1	VA			



d) Floats

Floats are buffers in the total lead time, that are provided in production/process order or in the planned orders created manually or during an MRP run. The schedule margin key is used in the Material Master MRP 2 View. It is used in MRP as well as in production order.

The floats are defined using the scheduling margin key.

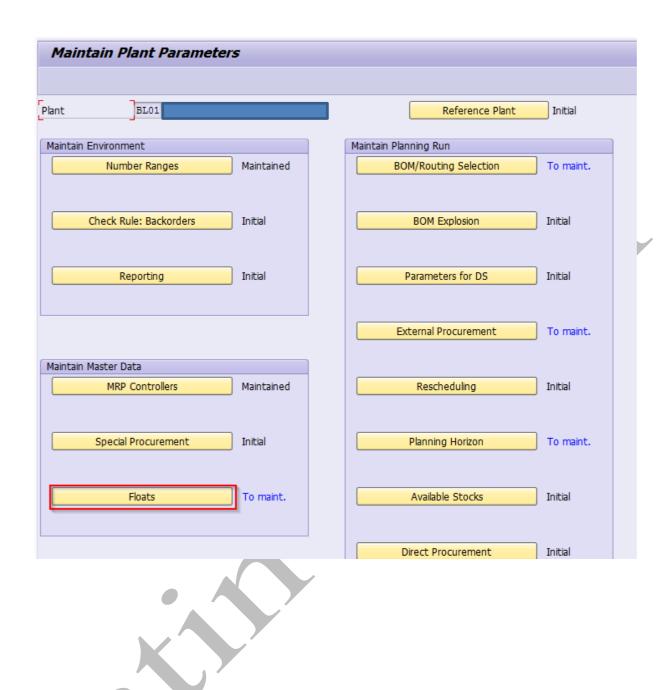
Opening period: Number of working days between the date that the order is created and the planned start date. This time is available for the MRP controller to convert a planned order into a purchase requisition or a production order.

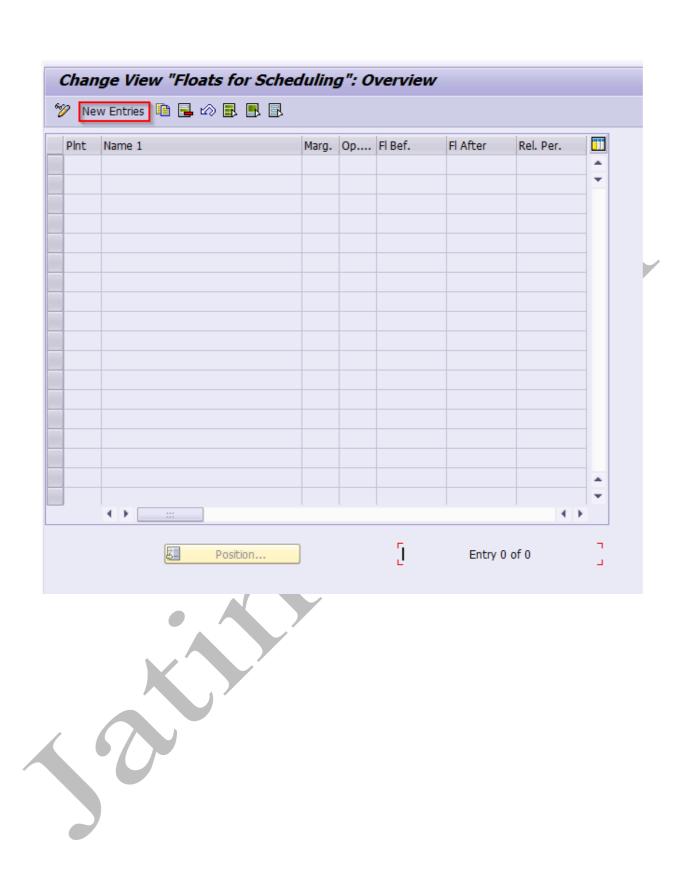
Float after production: Number of working days between the scheduled finish date and the order finish date; used as a float in production scheduling.

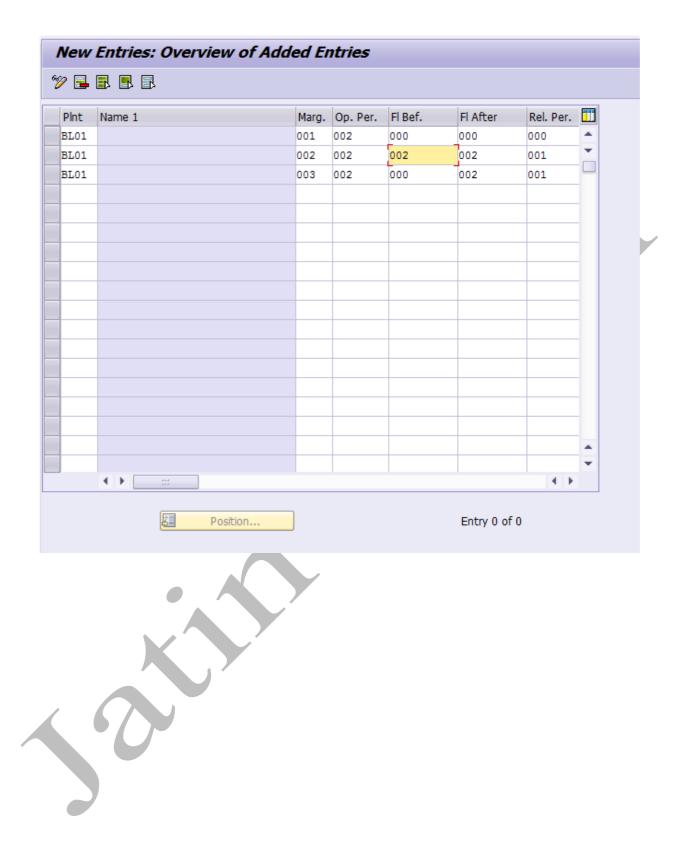
Float before production: Number of working days between the order start date and the scheduled start date; used as a float in production.

Scheduling release period: Number of workdays between the planned start date and the date for releasing the order. If the order release indicator is set, the production order is released by a background program that takes all dates into account.





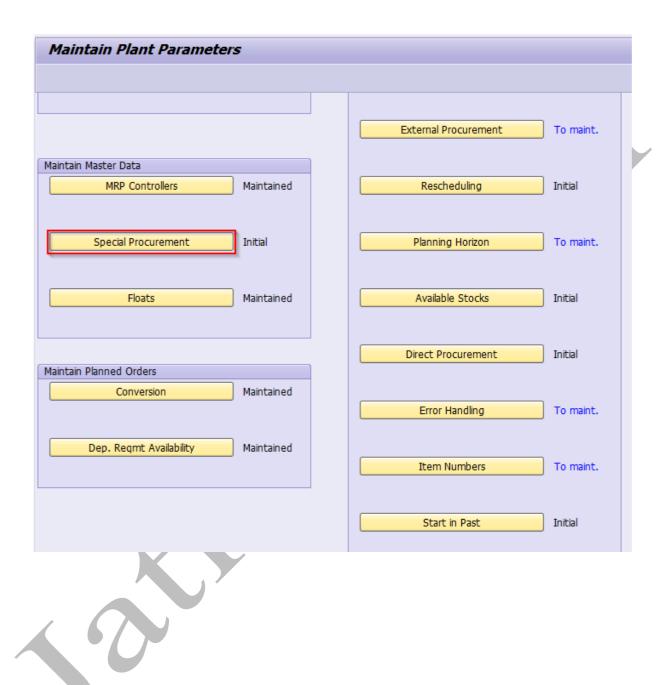


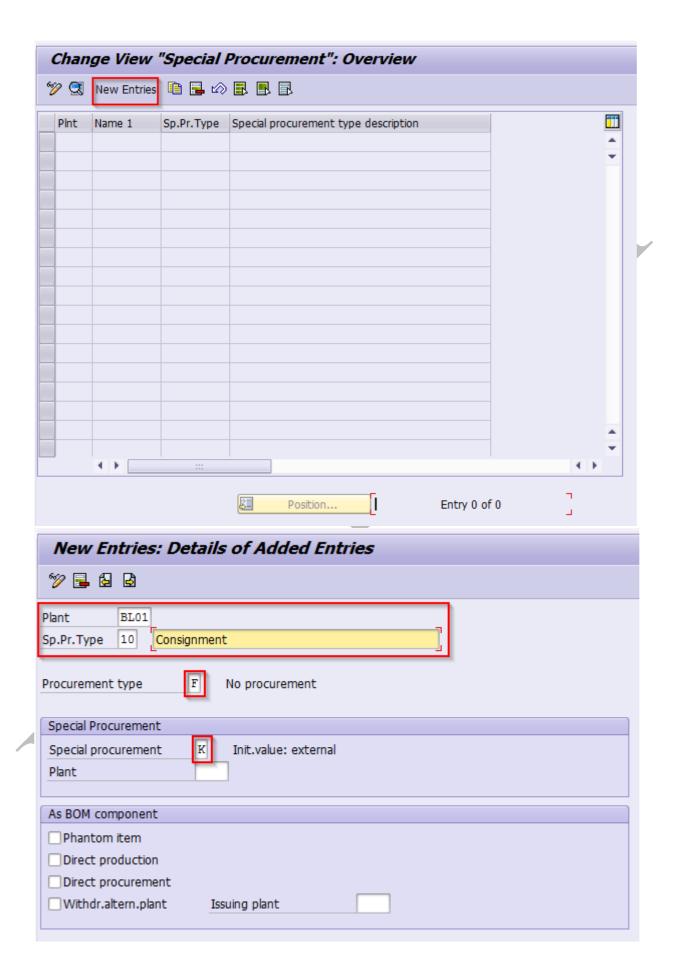


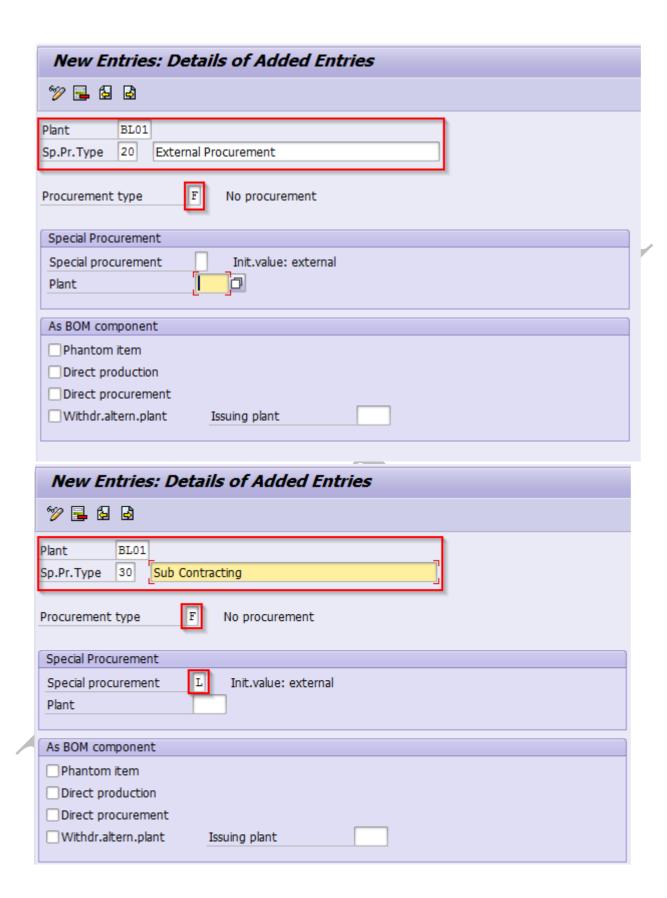
IV) Phantom Item:

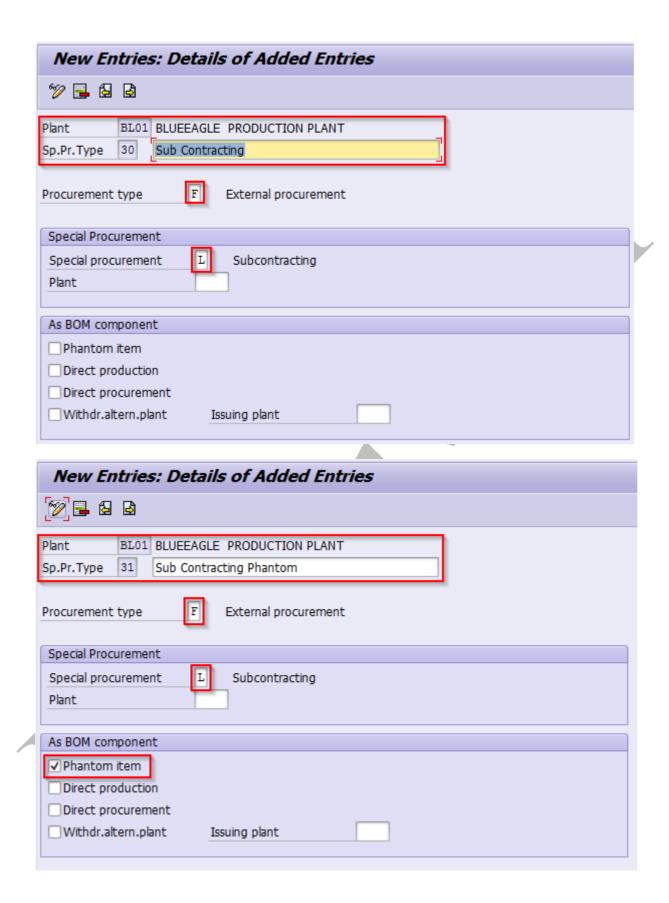
If a material is to be identified as the Phantom material, you have to enter a standard special procurement type – "50" in the material master of the plant where the material is defined a Phantom.

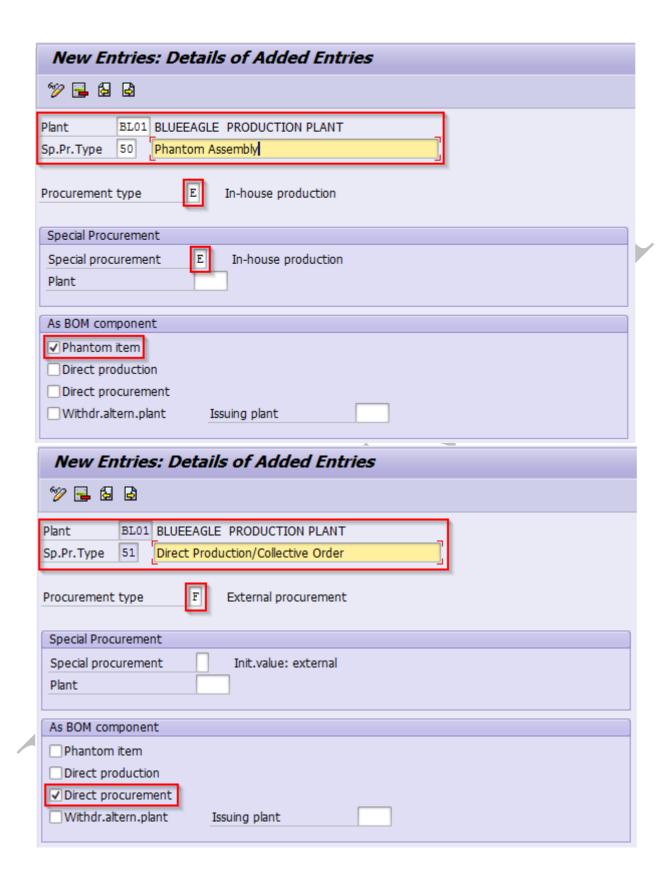
V) Direct production (for Collective order processing)

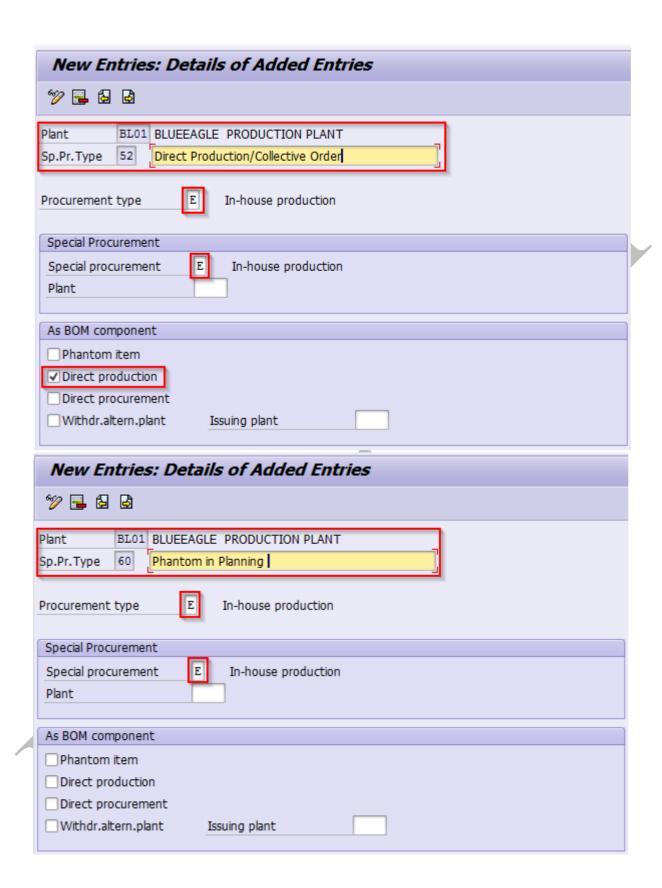








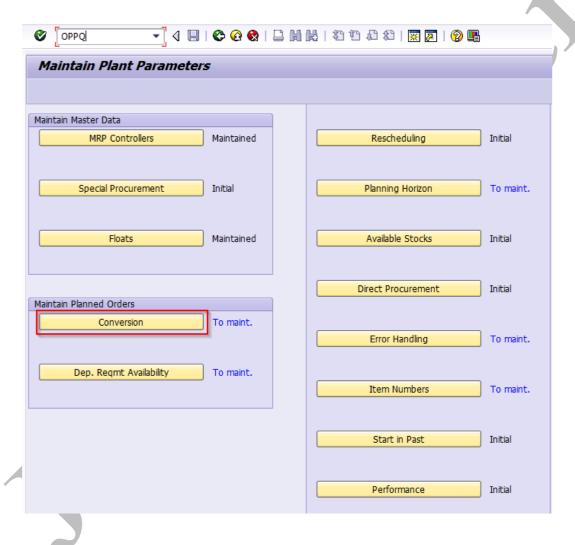


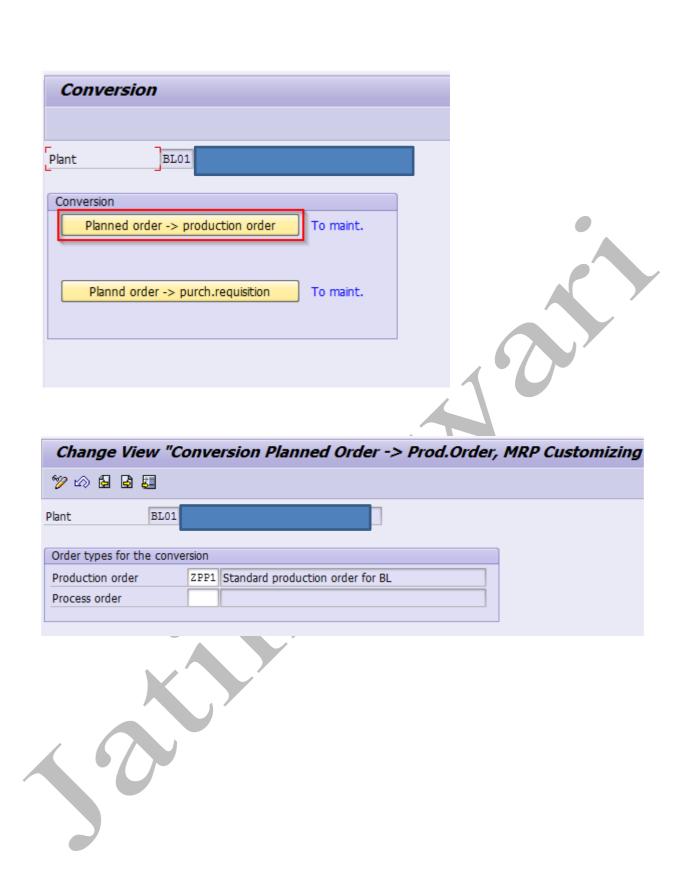


f) Conversion for Planned orders

In this configuration parameter, you can maintain the production order type or the process order type, which the system should use as default during the planned order conversion. Setting defaults in the plant parameters configuration allows the system to fix and select the order type for a plant during the conversion process.

Also for the purchase requisition conversion, you are given an option in the configuration to define the maximum number of planned orders that can be converted in to Purchase requisition.





1.2 MRP parameters

1.2.1 Overall maintenance of MRP groups

Transaction Code: OPPR

The entire configuration that is created as a part of SAP MRP Plant level parameter in the above steps can be also set for an MRP Group. You can group materials using MRP Groups. Each of the MRP Group can have its own MRP Parameter set. You can set the MRP group in the material master MRP 1 View.

MRP Group can be maintained using transaction code OPPR or the transaction path – Logistics > Production > MRP > MRP Groups >

Advantage of working with MRP Groups:

Working with MRP groups can be convenient for a plant or an organization, since by assigning the MRP groups to a set of materials, would allow planner to configure these materials (through MRP Groups) to behave in a certain manner for planning purposes. In other words, all the materials in the group would then have a unique planning method or unique planning features. Thus the organization can device multiple MRP groups with their own planning features and characteristics rather than having one set of planning features set at the plant level. The group could have its own unique:

Strategy group,
Conversion order types,
Planning horizon,
Planning time fence and roll forward periods,
BOM and task list selection ID's,
Direct procurement parameters,
Planned order scheduling parameters,
Start number of days allowed in the past
Availability checking groups,

Strategy Groups

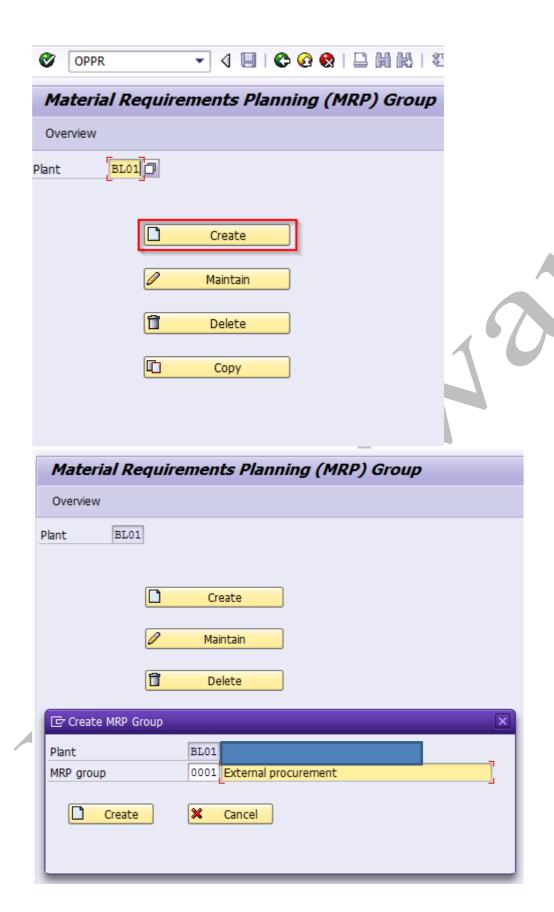
The strategy groups can be set for a given MRP group at a given plant. The strategy group consists of a number of planning strategies assigned in a sequence of priorities. In other words, the strategy groups, groups together the relevant planning strategies of a material. If you don't see the default strategy groups, then we would have to manually maintain the strategy groups on the materials MRP 3 view. Defaulting the strategy groups is a nice idea when the strategy groups would remain the same across all the materials which would be assigned with a given strategy group.

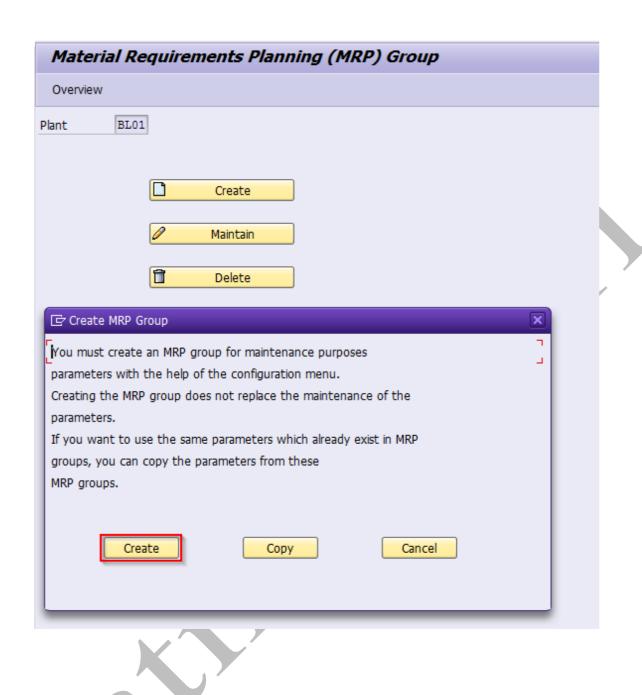
For example:

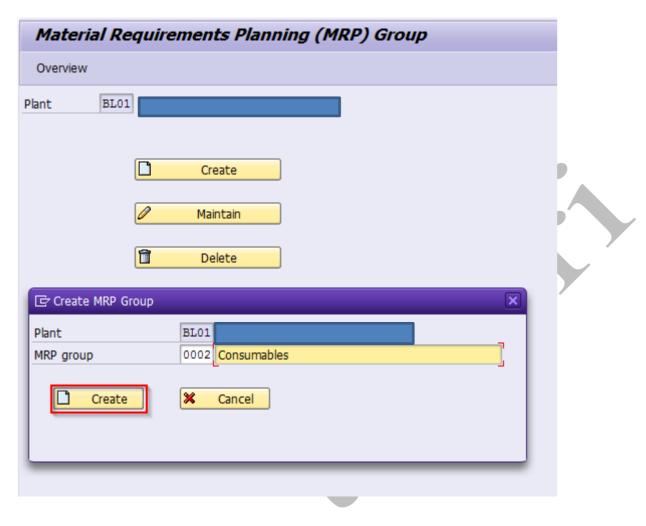
A material can have the priority 1 strategy as Made-to-Stock (planning strategy 10) and then priority 2 planning strategy as Made-to-Order (planning strategy 20). Assigning this "strategy group" for a MRP group in the MRP Group Parameters configuration and then subsequently assigning the MRP Group to the material master would make the material work on a planning strategy 10 and planning strategy 20 in a sequence of priority.

The primary strategy for the material is 10 - Made-to-stock while the secondary strategy is 20 - Made-to-order, which means that every time you plan or produce a material or create a sales order for the material it will always primarily work as a made-to-stock material. Nevertheless, you can also make to material work as a made-to-order material, by changing the requirement type – "KE" of the material in the sales order procurement tab, to suit for made-to-order, which the system would allow since the material's secondary planning strategy is made-to-order.

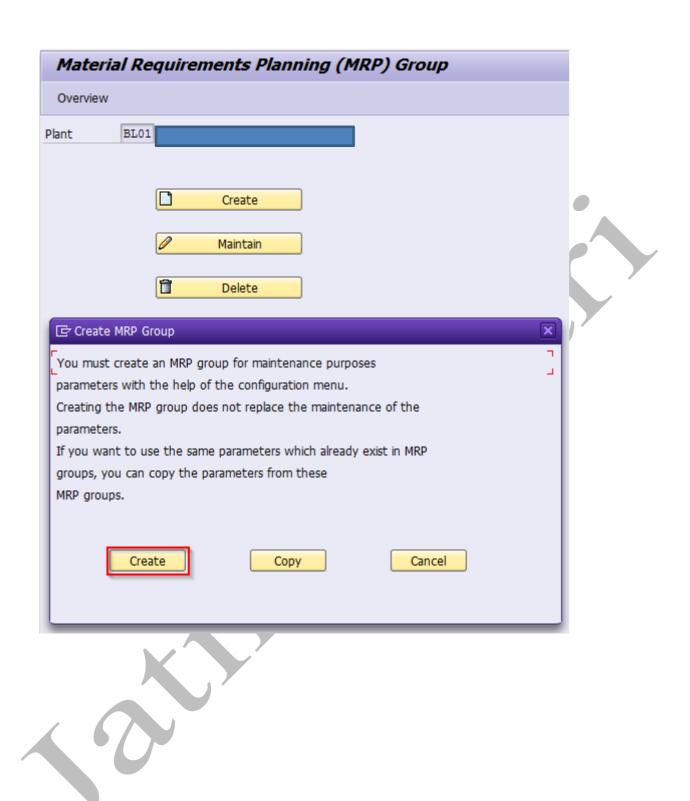


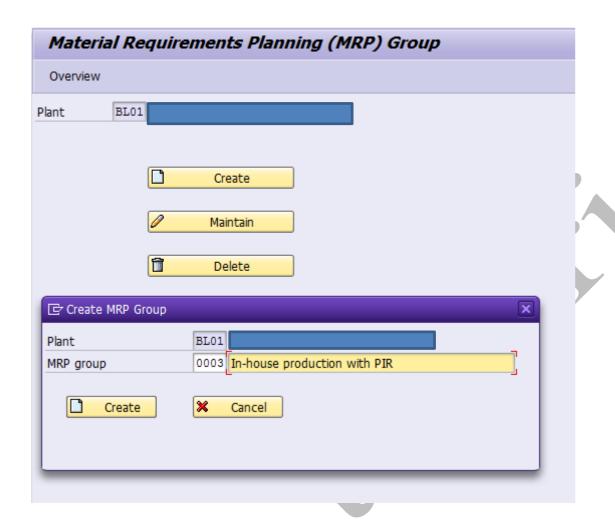






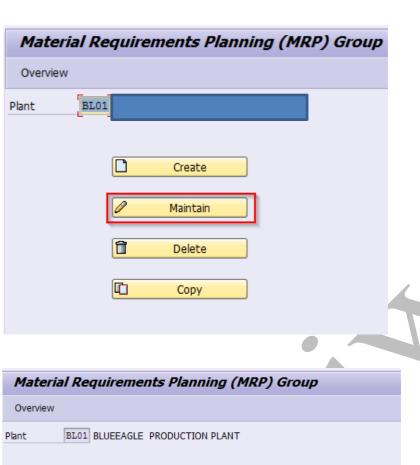


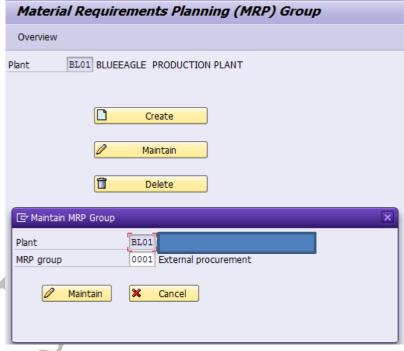


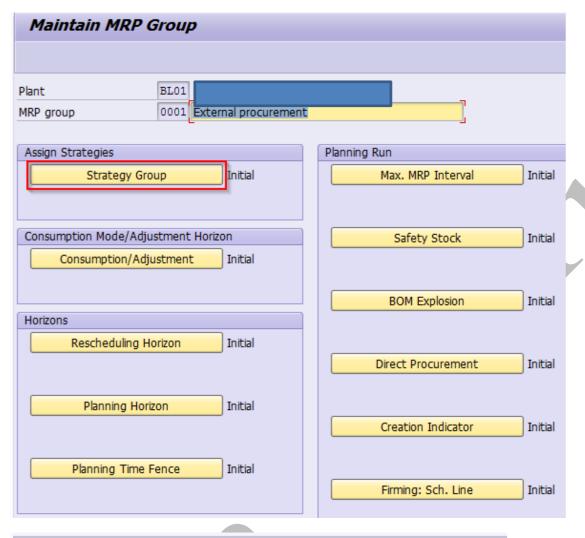


Similarly MRP Group 0004 for in-house production without PIR was created.

To Maintain MRP Group,









Similarly,

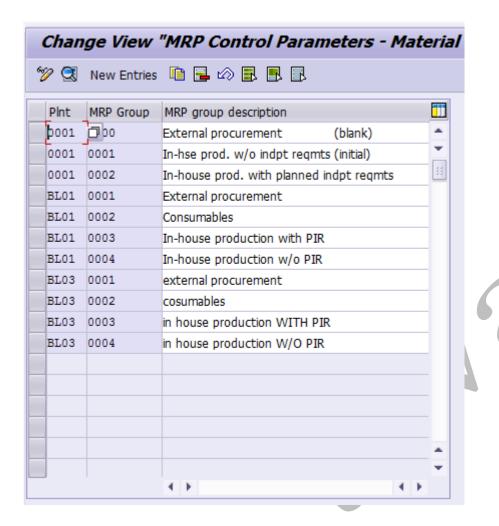
MRP Group Strategy Group

0002 : 10

0003 : 10

0004 : 20

Following MRP groups are defined for Blue Eagle



1.3 Planning

1.3.1 Define Storage location MRP per Plant

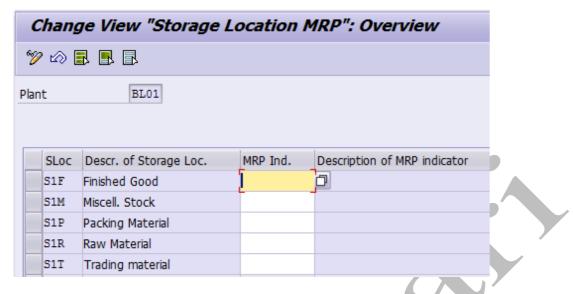
Transaction Code: SPRO

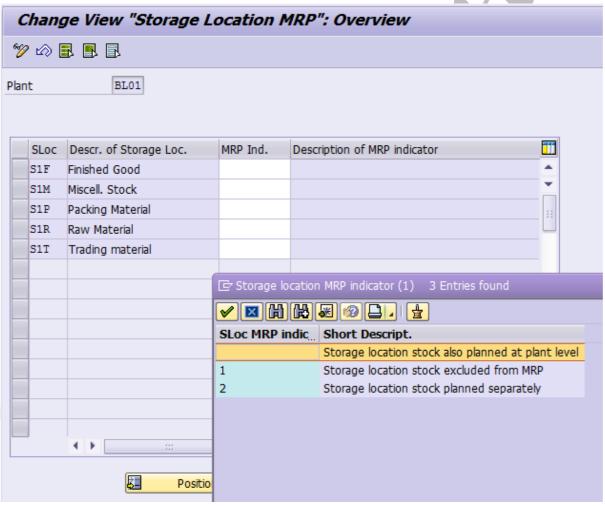
Menu Path: Production \rightarrow Material Requirements Planning \rightarrow Planning \rightarrow Define Storage Location MRP per Plant

Here we can define the default values for storage location MRP. The indicator that one set here is proposed when creating a material master record for the storage locations maintained.

One has the following options for storage location MRP:

- Plan storage location separately
- Exclude storage location from MRP





1.4 Planning File Entries

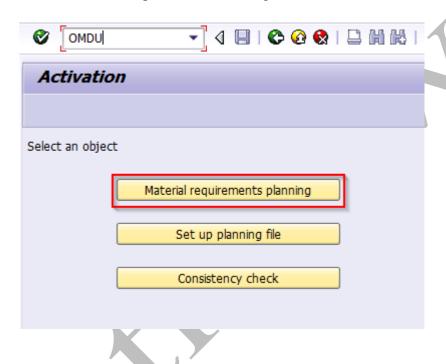
1.4.1 Activate MRP & Set Up Planning File

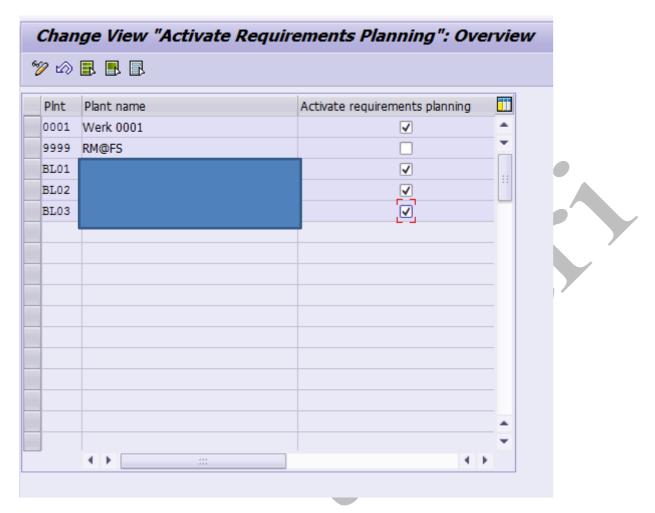
Transaction Code: OMDU

Activating MRP for the plant allows one to use the SAP MRP tool for the plant.

Menu Path: Production \rightarrow Material Requirements Planning \rightarrow Planning File Entries \rightarrow Activate MRP & Set Up Planning File

Activate Material Requirements Planning







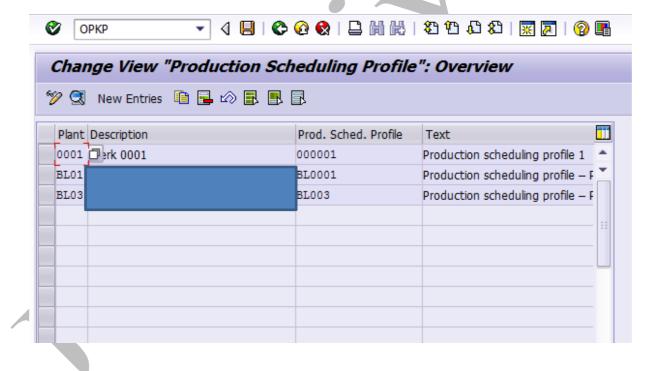
2 Define production scheduling profile

SAP offers Production scheduling profile as a standard profile to configure order controls. Such controls are material specific. The Profile is assigned to an header material for which you are creating an order.

SAP makes it easier for planners to have controls set at material level rather than keepinig them at order level so that you can opt for different set of control for different kinds of producible materials.

Transaction Code: OPKP

Menu Path: Production → Master Data → Define production scheduling profile



Change View "Production School	eduling Profile": Details
🥟 New Entries 🗎 료 🖒 🚨 🗸	
Plant BL01 Prod. Sched. Profile BL0001 Produ	uction scheduling profile — Plant 1
Automatic Actions	
On Creation	On Release
Release	Execute Printing
✓ Document Links - Material	Schedule Order
✓ Document Links - BOM	Document Links - Material
	Document Links - BOM
	Create Control Instructions
Material Availability Check	Goods Receipt
✓ Confirm Available Partial Qty	Automatic Goods Receipt
Capacity Planning	
Leveling	
Overall Profile SAPSFCG013	SFC:Capacity availability check >= 3.0D
Availability Check	
✓ Confirm Capacity	Finite Scheduling

Confirmation			
■ No Update of Yield Surplus		No Update of Yield Deficit	
Adjust Quantities in Order to	Actual Values		
Batch Management			
Automatic Batch Creation in the	Order	1	
Batch Classification			
Extended classification			
✓ Always Batch Split			
Transport			
Complete Transfer Requirement Confirmed Quantity for TR			
WM Request No creation of transfer requirements on order release			
GI via Delivery			
Kit to Stock in EWM			
Order Type			
Make-to-Stock Production	ZPP1 Standard	production order for BL	
Make-to-Order Production	ZPP1 Standard	production order for BL	
Engineer-to-Order Prodn	ZPP1 Standard	production order for BL	
Without Material	ZPP1 Standard	production order for BL	

Configuration Details

Parameters set as above for XXXXX requirement while preparing Order with the production scheduling profile as BL0001 with manual release of order and no auto GR.

This profile used use to specify that certain business transactions are carried out in parallel in a production order / process order (we can, for example, create and release an order at the same time, or release an order and print the shop papers), trigger an automatic goods receipt, specify an overall profile for capacity leveling.

Use:

The production scheduling profile is copied into the order during order creation.

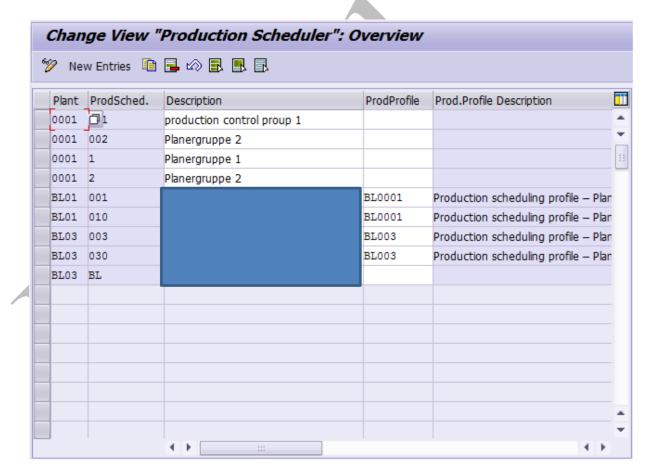
The following controls can be set:

2.1 Production Scheduler

The production scheduler is supposedly the person who manages the order and executes it in the shop floor. A production scheduler can be the shop floor supervisor. In many cases the MRP controller and the Production Scheduler is kept as the same.

Configuration: You can configure Production Schedulers in Transaction code OPJ9

Transaction Code: OPJ9



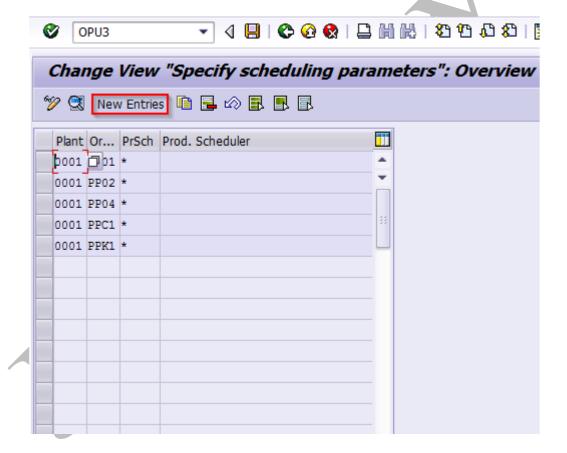
2.2 Operations

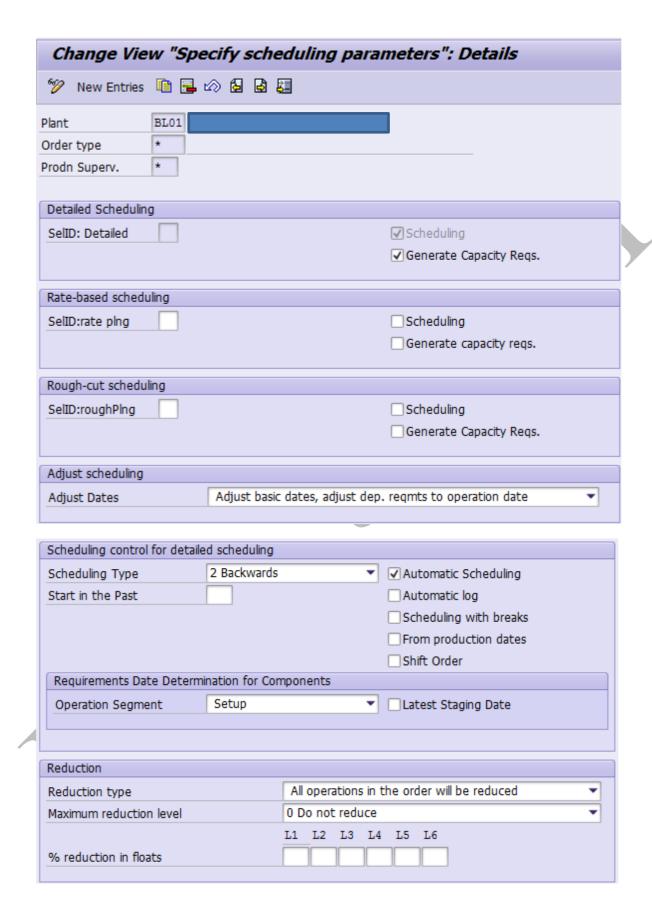
2.2.1 Define Scheduling Parameters for Production Orders

The following Order type Scheduling parameters help in scheduling the order. The scheduling parameters are set for the order type at the plant level for a production scheduler. If you want to use the Order type scheduling parameters across all the schedulers you should put a * (star) in the field while creating the configuration.

Transaction Code: OPU3

Menu Path: Production → Operations → Scheduling → Define Scheduling Parameters for Production Orders





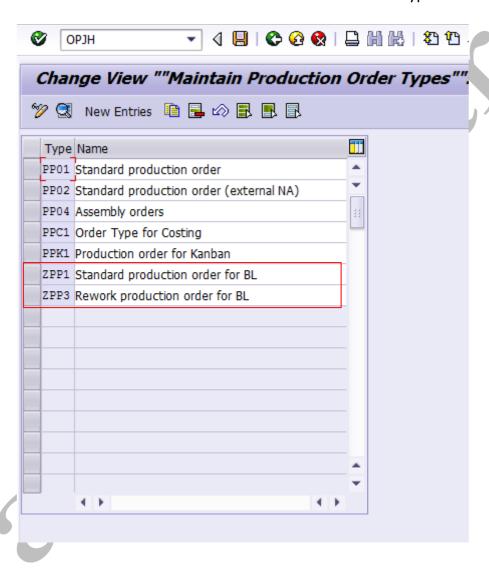
3 Shop Floor Control

3.1 Master Data

3.1.1 Define Order types

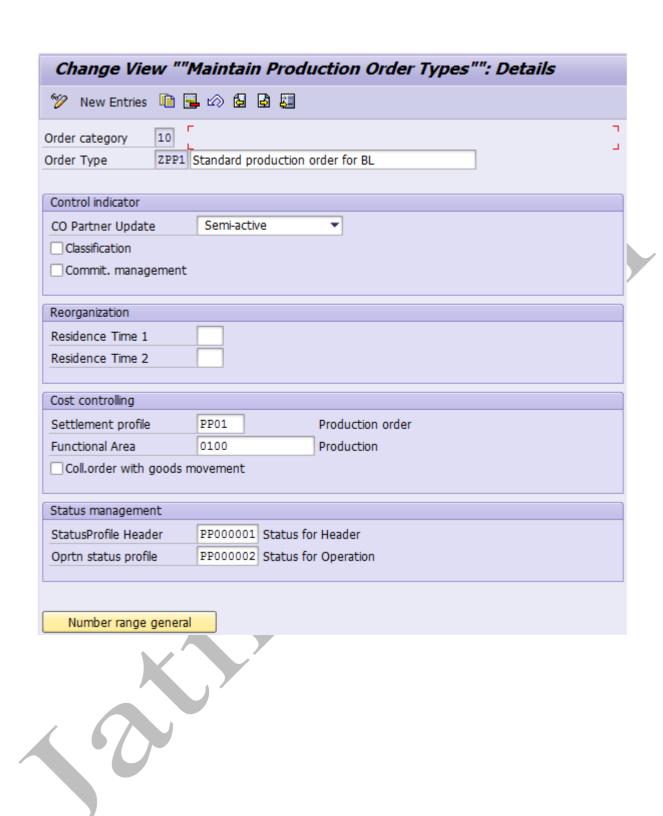
Transaction Code: OPJH

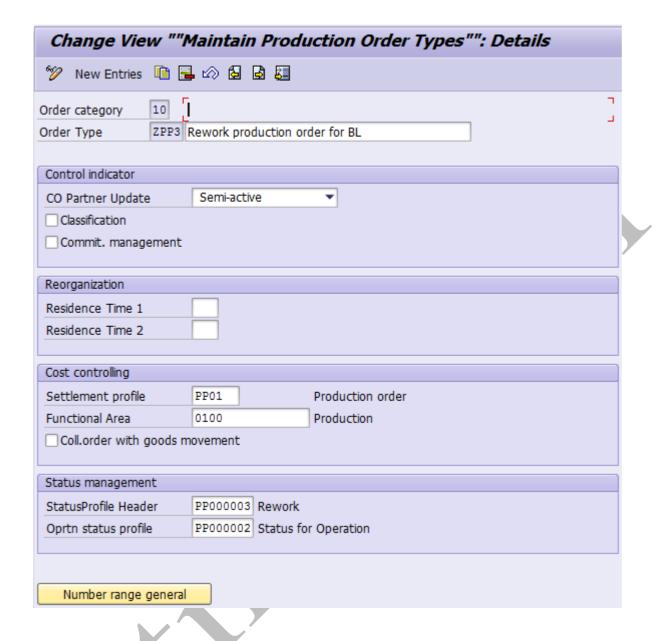
Menu Path: Production \rightarrow Master Data \rightarrow Order \rightarrow Define Order Types



ZPP1 Order type is for Normal production

ZPP3 Order type is for Rework orders





Configuration Details:

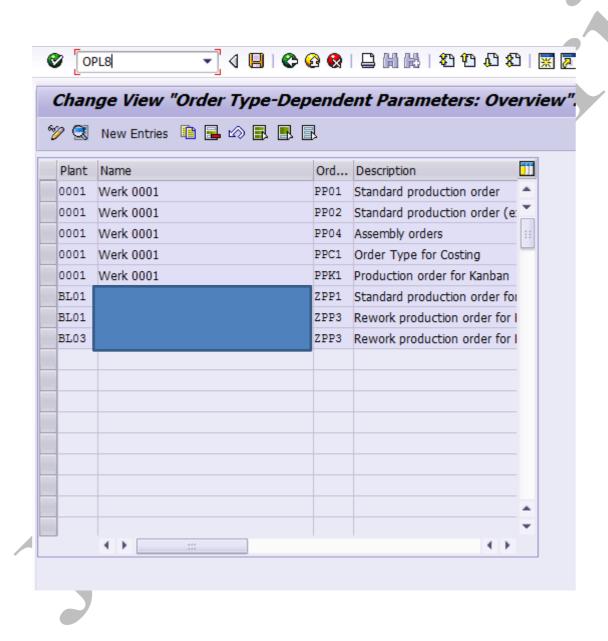
In this step one defines order types. An order type contains control information that need for managing orders. One has to assign every order to an order type.

Status management: An order can go through several processing statuses. Among other things, the status controls which business transactions are allowed in the order.

3.1.2 Define Order Type Dependent Parameters

Transaction Code: OPL8

Menu Path: Production → Master Data → Order → Define Order Type Dependent Parameters



Details Overview: Planning Tab - Order Type: ZPP1



Details Overview: Implementation Tab - Order Type: ZPP1



Implementation tab:

Status change documents

Here, one defines whether one want change documents to be written if a status change occurs. One also define the level at which the change documents are to be written. Status change documents can also be defined independently of each other, at each of these four levels.

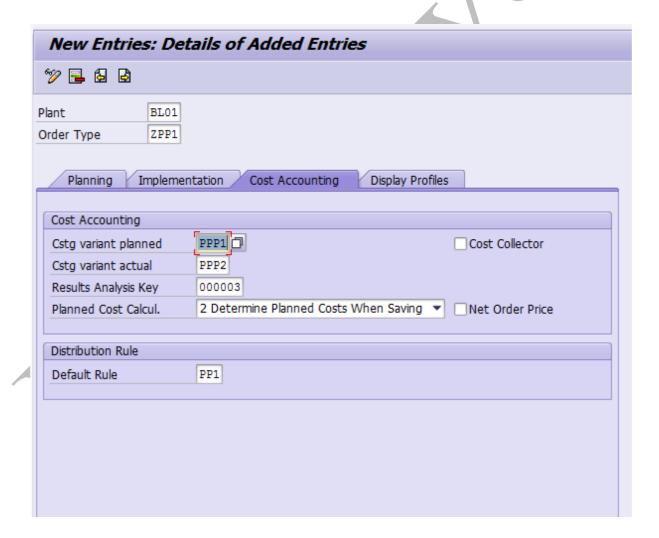
Shop Floor Information System

One can specify, for example, whether order data is to be stored in the Shop Floor Information System. One can carry out reports using this system, for example, for materials, orders and work centers.

Documentation of goods movements

Here, one can specify that goods movements are to be documented with reference to an order. Then one can display goods movements, for example, using the order information system.

Details Overview: Controlling Tab - Order Type: ZPP1

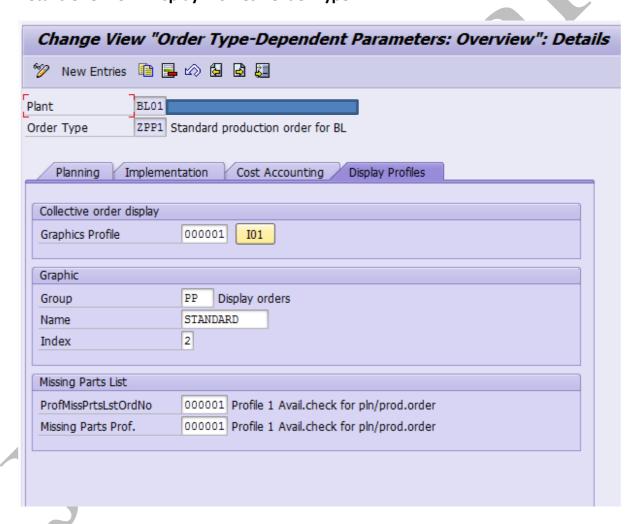


Controlling tab:

Controlling: Here, one defines the parameters relevant to controlling, such as, for example, costing variants for planned and actual costs and a results analysis key.

Distribution rule: Default (distribution) rule defines an automatically generated distribution rule for CO settlement.

Details Overview: Display Profiles - Order Type: ZPP1

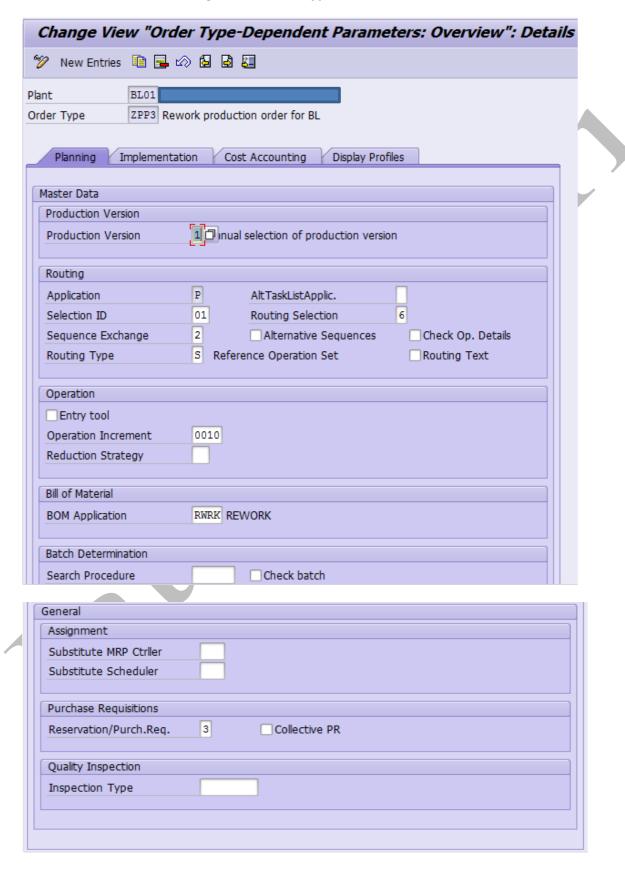


Display Profile tab:

Display profiles Graphic: Here, one defines parameters for displaying graphics of operations and sequences in the order.

Missing parts list: defines how the missing parts list is to be displayed.

Details Overview: Planning Tab - Order Type: ZPP3



Planning tab:

Master data

Here, one defines the data that influences master data selection or order master data maintenance:

The task list application is predefined as 'N'. However, one can also specify an additional task list application.

Routing

The routing selection ID defines, for example, the ranking order for routing selection.

Routing selection defines whether routings are to be selected and if so, how (manually or automatically) and whether reference operation sets can also be selected.

The task list type defines which routing type is permitted for production orders.

Operation

Operation detail check defines whether operation detail screens are to be checked when the operations are transferred to the order.

Routing text defines that the text from the routing header is copied into the order.

BOM application defines how the BOM alternatives are to be automatically selected.

Search procedure defines how batch determination is to take place.

General

Substitute MRP controller/substitute production scheduler are proposed when one create production orders if an MRP controller or production scheduler are not specified in the material master, or if there is no reference to material.

Reservation/Purchase Req. specifies whether certain order objects (operation, components) are relevant to MRP.

Collective purchase requisition, Enables collective purchase requisition per order for externally processed operations or non-stock items.

Inspection type defines how a quality inspection is to be carried out.

Details Overview: Implementation Tab - Order Type: ZPP3



Implementation tab:

Status change documents

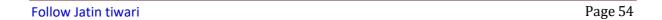
Here, one defines whether one want change documents to be written if a status change occurs. One also define the level at which the change documents are to be written. Status change documents can also be defined independently of each other, at each of these four levels.

Shop Floor Information System

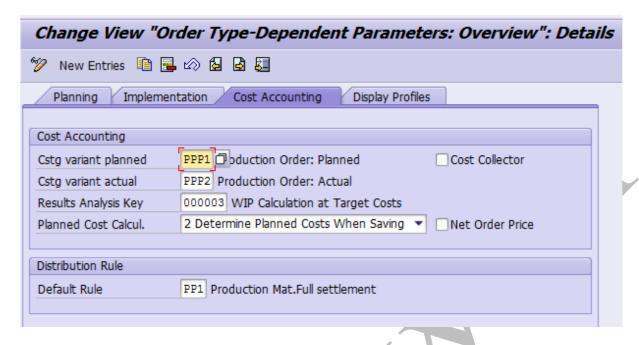
One can specify, for example, whether order data is to be stored in the Shop Floor Information System. One can carry out reports using this system, for example, for materials, orders and work centers.

Documentation of goods movements

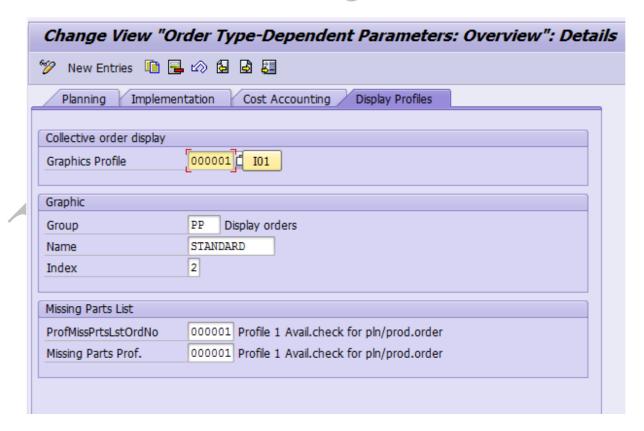
Here, one can specify that goods movements are to be documented with reference to an order. Then one can display goods movements, for example, using the order information system.

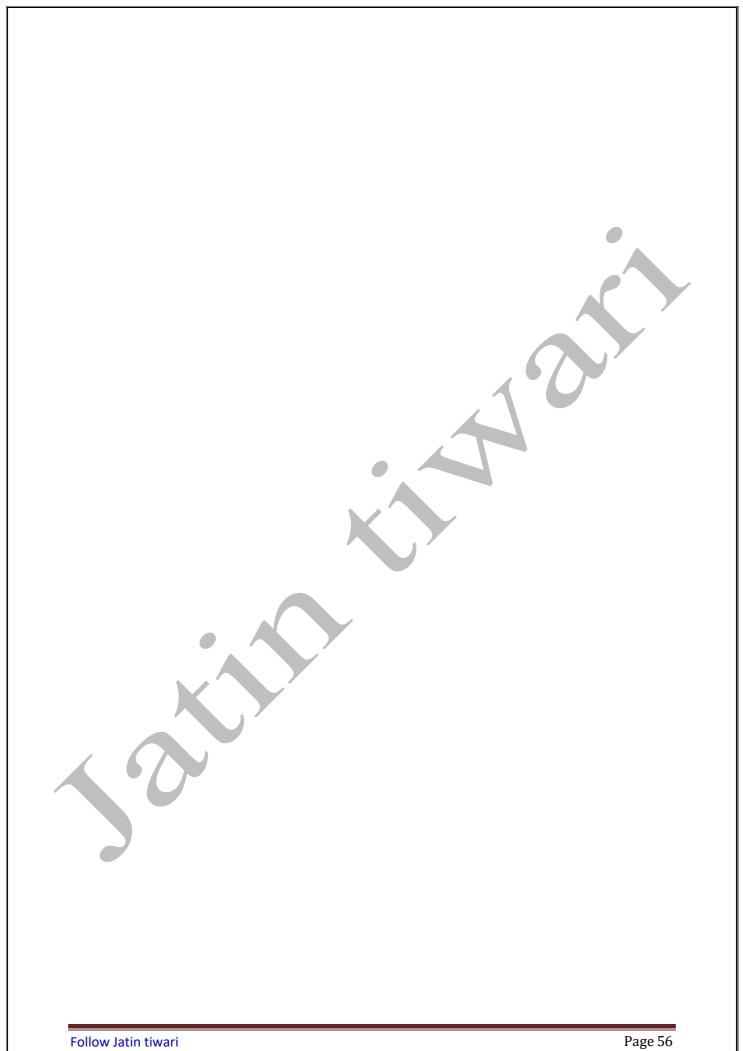


Details Overview: Controlling Tab - Order Type: ZPP3



Details Overview: Display Profiles Tab: ZPP3



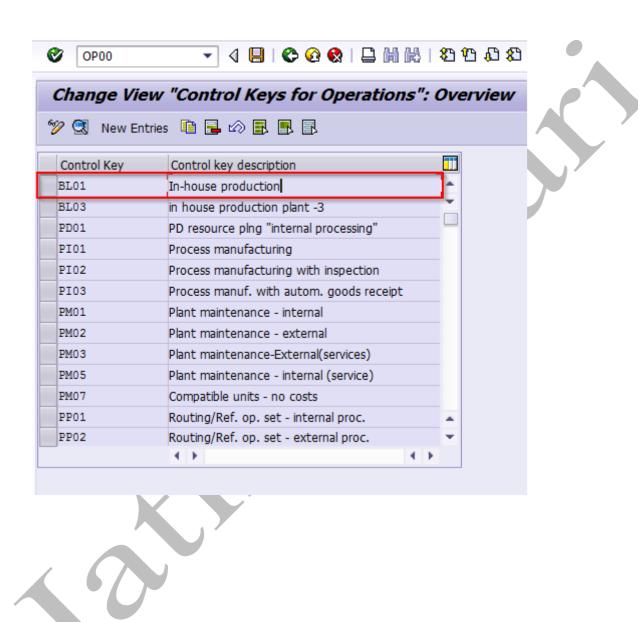


Follow Jatin tiwari

4 Control key

T Code: OP00

Control keys are normally pulled in from the work center, if you have entered a default control key there. Control keys are really important keys in SAP PP.

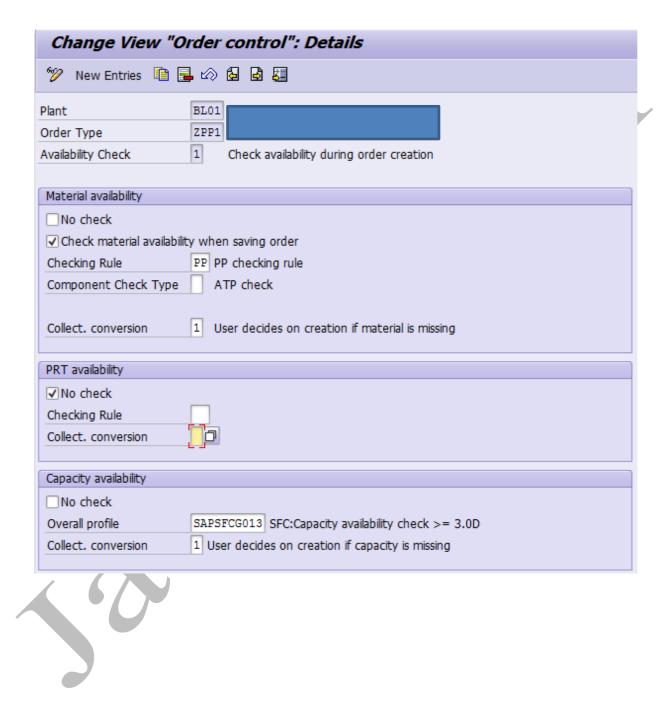


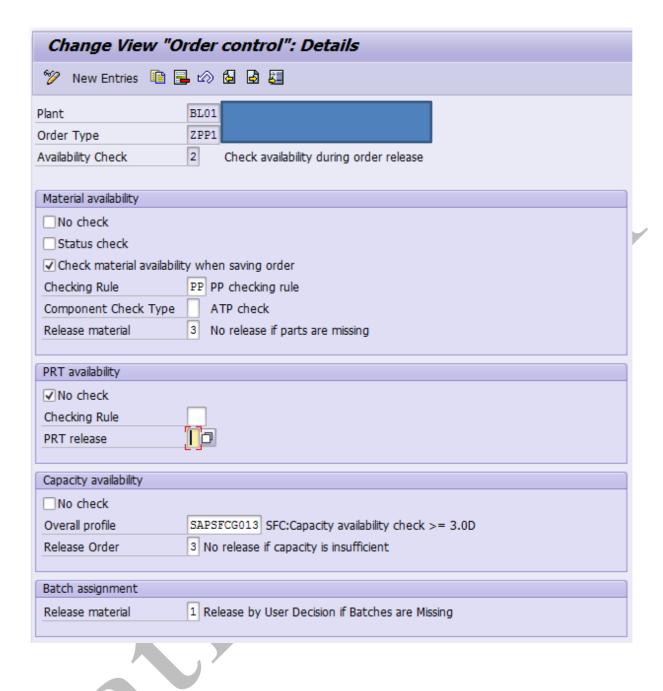




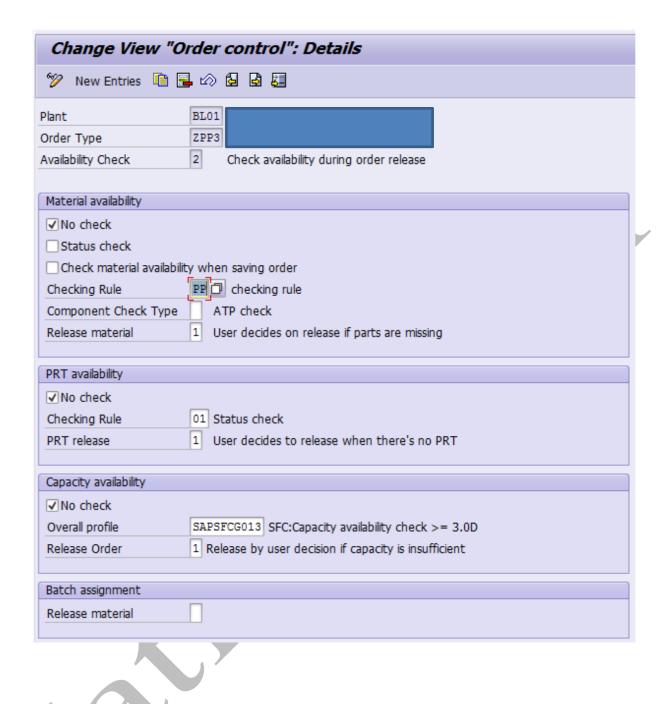
5 Availability Check Parameter (OPJK)

When you configure the Order availability checks at the point of Order creation or Order release the following controls are available:





Change View "Or	rder control": Details
% New Entries	
Plant Order Type Availability Check	ZPP3 Check availability during order creation
Material availability	
No check ✓ Check material availability Checking Rule Component Check Type Collect. conversion	y when saving order PP
PRT availability	
✓ No check Checking Rule Collect. conversion	
Capacity availability	
No check Overall profile Collect. conversion	SAPSFCG013 SFC:Capacity availability check >= 3.0D 1 User decides on creation if capacity is missing



6 Define Confirmation Parameters

Confirmations parameters are to be set for orders types so as to allow confirmations as per the client's requirements.

Confirmations in SAP PP refer to booking the completion of production quantities at each operation (partial completion or final completion). Confirmation is not receiving goods in stock; it is only about declaration production at each operation and in turn booking cost incurred in operational activities (in the background).

The method or manner in which these confirmations would happen is configured here.

Transaction Code: OPK4

Menu Path: Production → Operations → Confirmation → Define Confirmation Parameters

