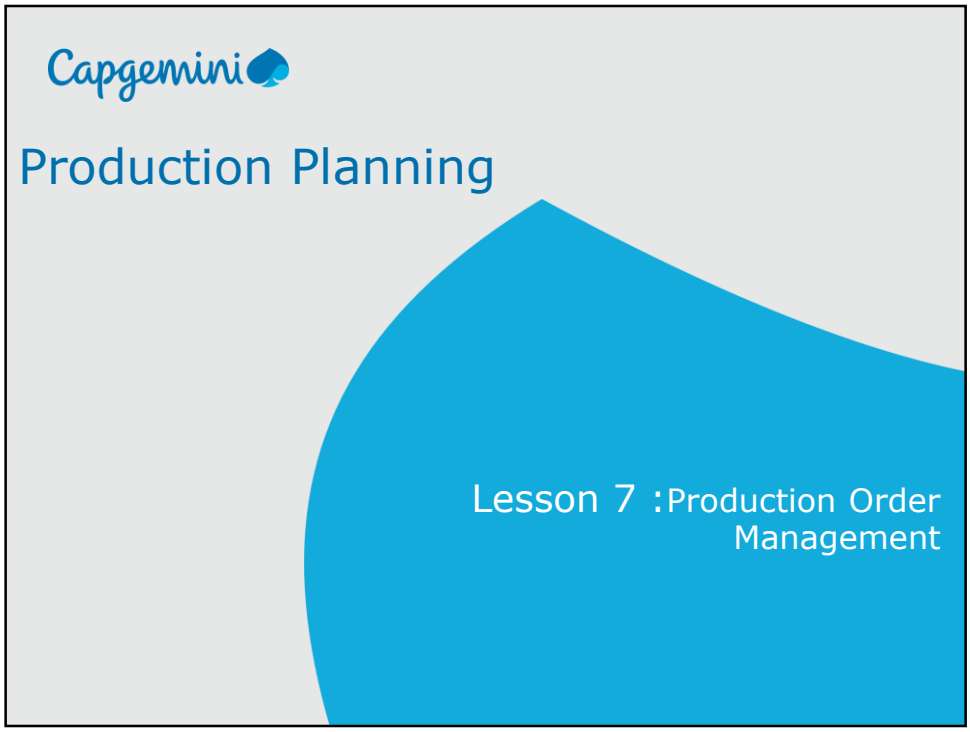

Capgemini
Production Planning
Lesson 7 :Production Order Management

Lesson Objectives

Objectives -On successful completion of this training module, you should have:

Production Order Management

Use of Production Order management

Production Order in the PP process flow

Training Agenda

What is production Order Management

What is Use of Production Order management

Position of production Order in the PP process flow

Production Order Cycle

Production Order Creation

Goods Movements with respect to Production Order

Training Agenda

Goods issue to Production Order

Goods Receipts for Production Orders

Master Data/Material Master/Bill of material/Routing

MB1A- Withdrawals for the order

CO11N- Production Order Confirmation

COGI-Error Handling

KKS2- Variance Calculation

Training Agenda

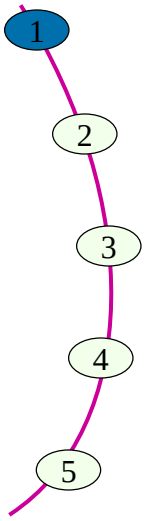
KO88-Cost settlement

Cost Analysis

MD04- Stock/Requirement list

Configuration Tips and Transactional code tables

Production Order Management



Introduction

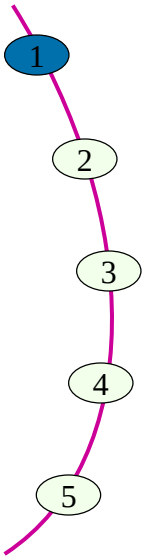
TellMe

ShowMe

LetMe

HelpMe

Production Order Management



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Purpose

"A production order specifies which material is to be produced, at what time and how much work is required, where it is to be produced, which operations are required to do this. It also defines how the order costs are to be settled. "

Use

You can use the production order to specify:

- What is to be produced
- When production is to take place
- Which capacity is to process the order
- How much production costs

"Production orders are used to control production within a company and also to control cost accounting"

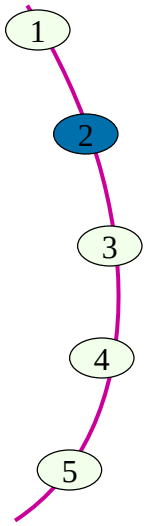
Challenges

- Creating lists for controlling purposes
  - planned data control
    - actual scrap > planned scrap
    - actual start/finish time > planned start/finish time
- Creating lists as a basis for operative decisions
  - critical order control
    - selecting orders in delay
    - selecting orders with missing parts status
- Creating lists to perform business transactions

missing parts control

  - check availability

Production Order Management



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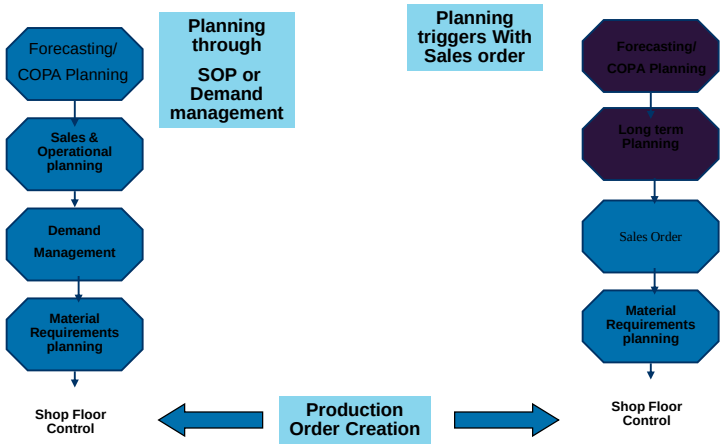
Position of production Order in the PP process flow

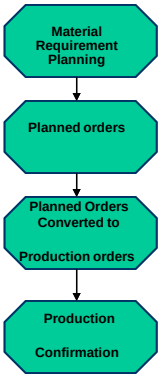
Make to stock

Make to order

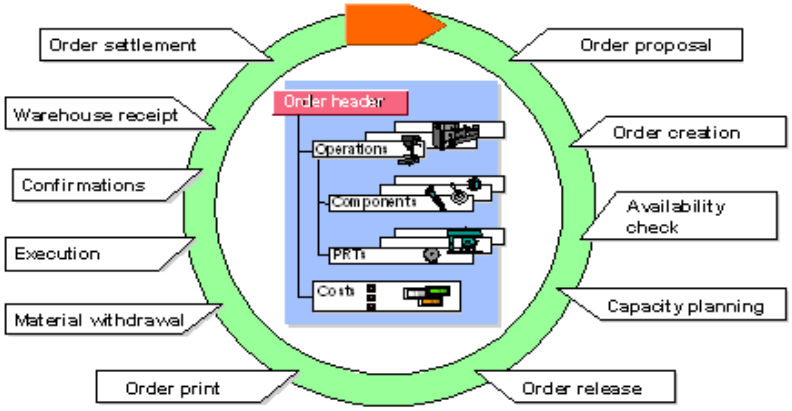


Position of production Order in the PP process flow

Process Flow:



Production Order Cycle



Production Order Creation

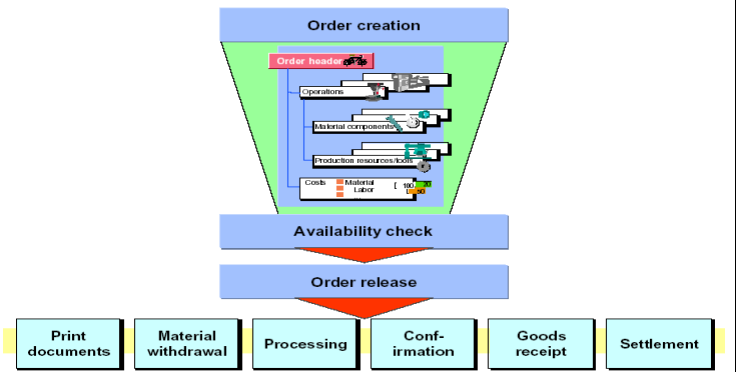
- Planned orders generated in the MRP run can be converted individually or collectively to production orders.
- You can convert a planned order to a production order individually, for example, using the stock / requirements list or the MRP list.
- You can convert planned orders to production orders collectively, for example, based on MRP controller, MRP list or sales order
- The entire planned data like planned target times, activities database, master data, planned costs are available in production order

Production Order Creation

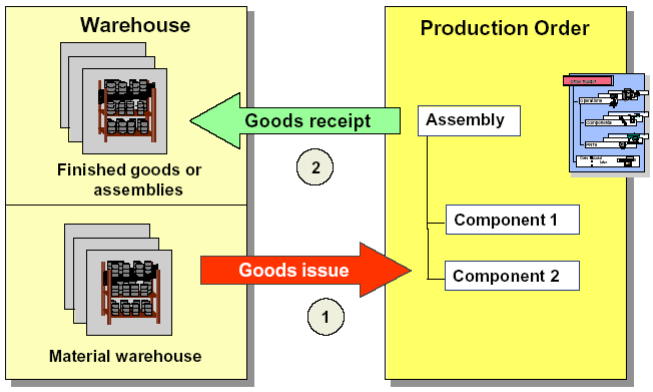
- The production order copies the following data from the routing:
  - Operations
  - Data on external processing
  - Work centers
  - Standard Values
  - Activity types
  - Bill of material assignments
  - Assignments of production resources/tools
- Availability for the components and capacity is checked
- When a planned order is converted to a production order, the dependent requirements of the components are converted to reservations

Production Order Release

- Order release enables stock movements, printing of shop paperwork, confirmations



Goods Movements with respect to Production Order



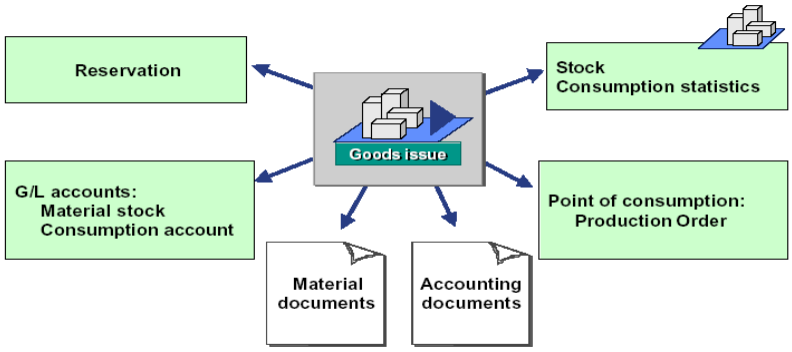
Goods Movements with respect to Production Order

- 261- Back flushing/Component Withdrawal from plant storage location
- 101- Goods Receipt of Finished goods into storage location.

Goods Movements with respect to Planned Order (Repetitive mfg)

- 261- Back flushing/Component Withdrawal from plant storage location
- 131- Goods Receipt of Finished goods into storage location.

Goods issue to Production Order

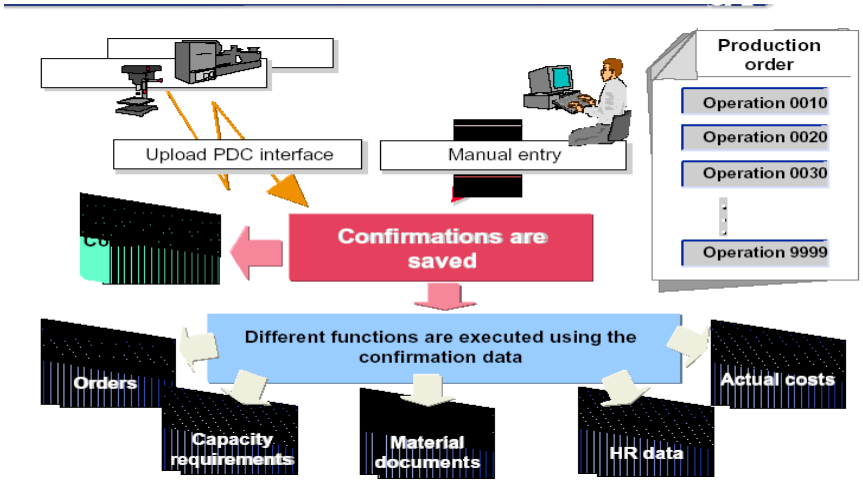


Goods issue to Production Order

With respect to reservation and production order

After the goods issue the reservation is closed

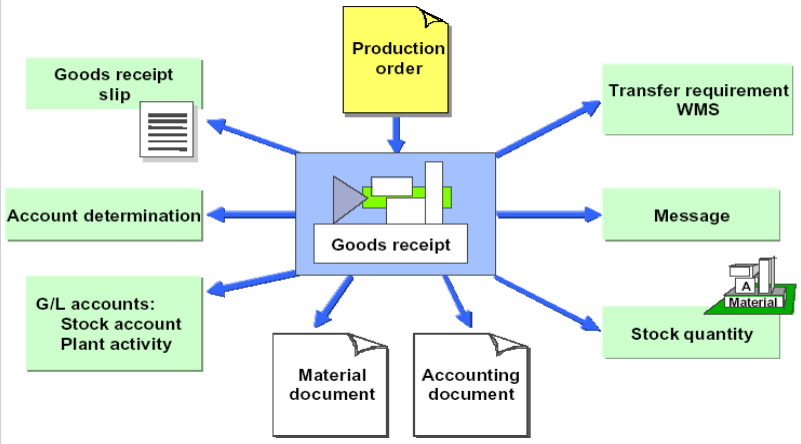
Production Order Confirmation



Production Order Confirmation

- Report Quantity that was produced as yield, scrap and the quantity to be Reworked
- Actual work done or activity performed
- Which work center was used for the operation
- Who carried out the operation
- If back flushing and auto goods receipts are allowed the goods issue and goods receipts are performed automatically on confirmation
- Due to all the above inputs the system calculates the actual costs incurred for the production order

Goods Receipts for Production Orders



Goods Receipts for Production Orders

Process of taking Finished material into company’s own stock

Control key of an operation decides whether or not automatic goods receipts of finished material is allowed on confirmation

Automatic goods receipt can only be posted for the final operation of the order

Production Order Settlement

- Settlement of an order means ending a production order from a logistical viewpoint.
- The actual costs incurred for the order are settled to one or more accounts
- If the costs for the production order are settled to a material account, the order is credited each time material is delivered to stock. The material stock account is debited accordingly.
- If the costs for the production order are settled to another receiver (for example to a sales order), the order is credited automatically at the time of settlement. The cost-objects are debited accordingly

Production Order Settlement

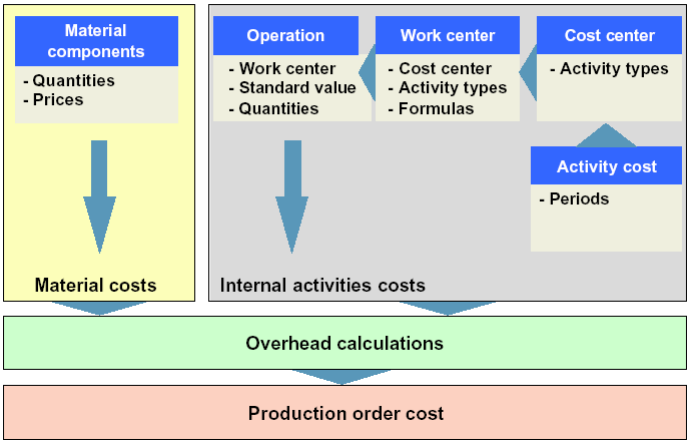
Configuration for Settlement

- Settlement Profile.
- Settlement Structure
- Settlement Rule

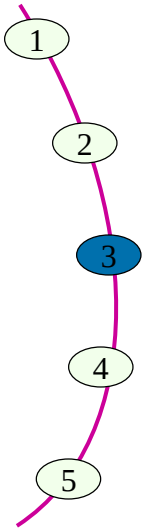
System automatically assigns a default settlement rule to the production order when the order is created.

The distribution rule consists of a cost receiver, a settlement share and a settlement type

Production Orders: Costs



Production Order Management



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Environment

The module in which production order runs is SAP R3

under Production Planning Module.

Configuration

- Production order type
- Order type dependent parameters
- BOM and Routing Selection
- Confirmation parameters
- Settlement profile and rule
- Availability check

Master Data

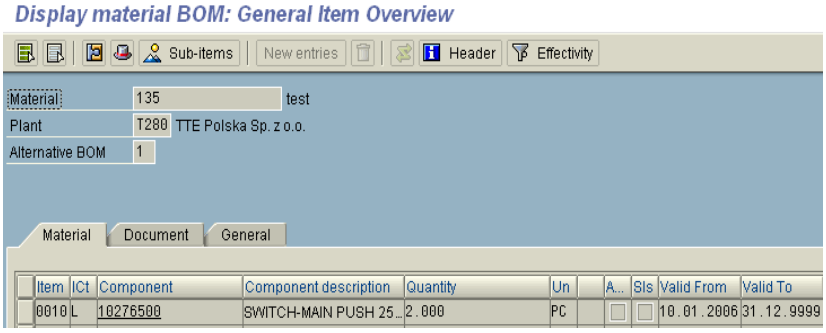
- Material Master (MRP Views, Work Scheduling View)
- Bill of Material (Components)
- Routing (Operations)

Material Master

- Material master contains all the basic data, Sales data, Purchasing data, Planning data and Finance & Accounting related data.
- MRP 1, MRP 2, MRP 3, MRP 4 & Work Scheduling views are very important since these decide the behavior of the material in planning

Bill of Material

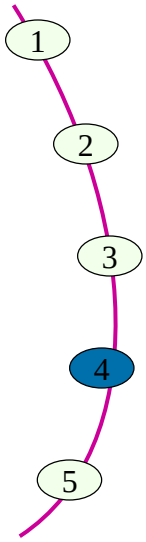
- A bill of material decides what are the raw materials or semi-finished components are required to manufacture a finish product



Routing

- Routing contains information about the operations being performed on the work centers / resources to produce a material
- Time required to manufacture the Finished Product
- Components to be consumed during operation
- Which work center will be used

Production Order Management



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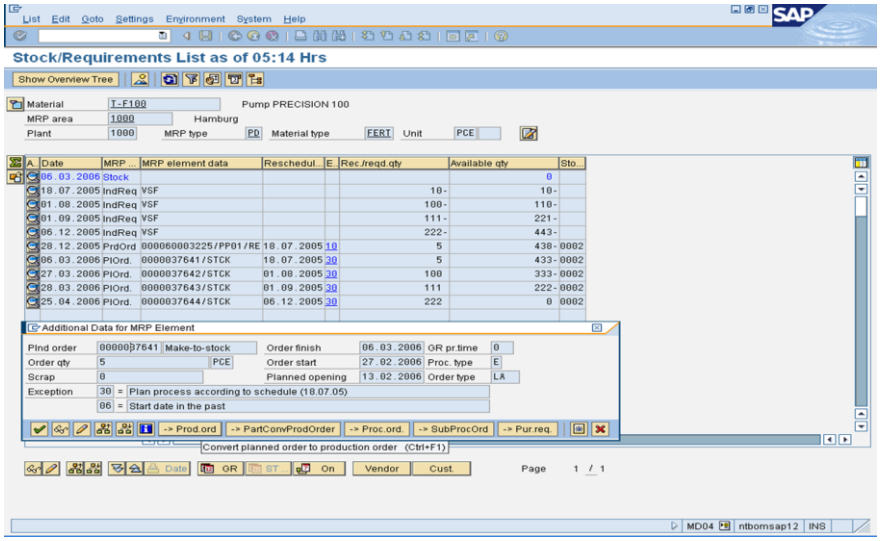
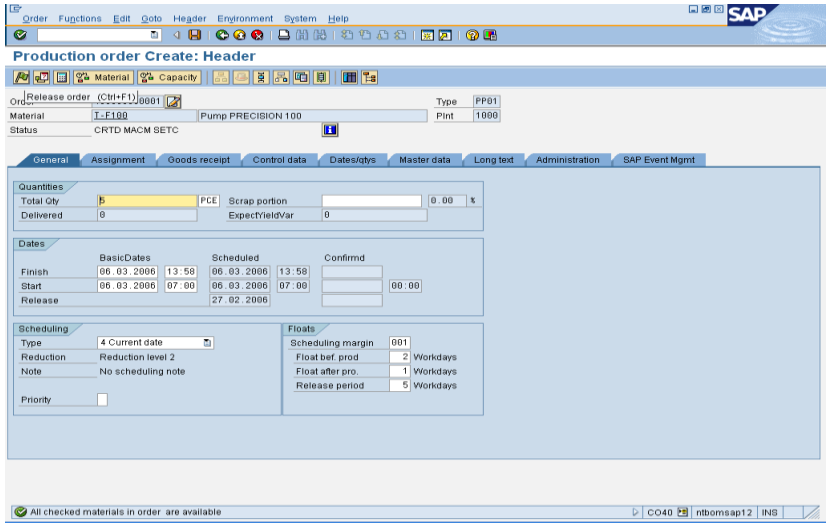
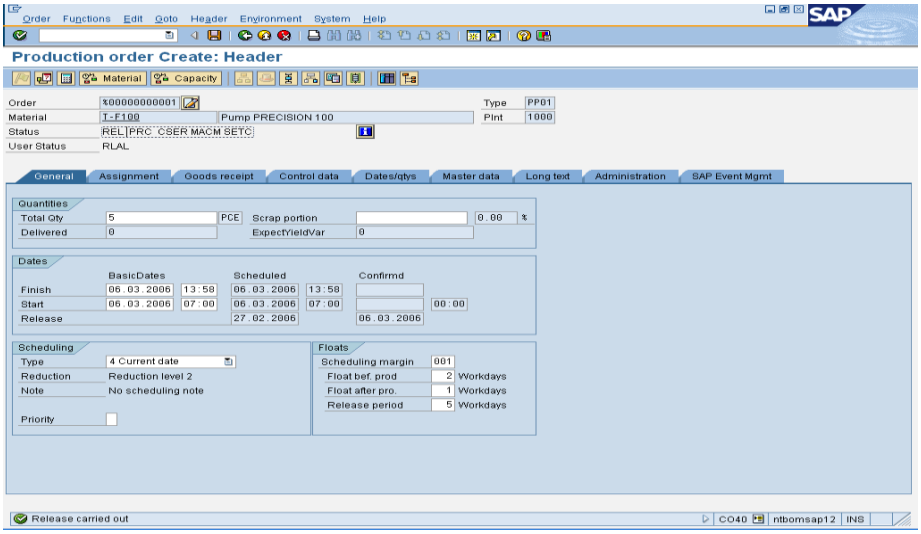
MD04 – Stock / Requirement list



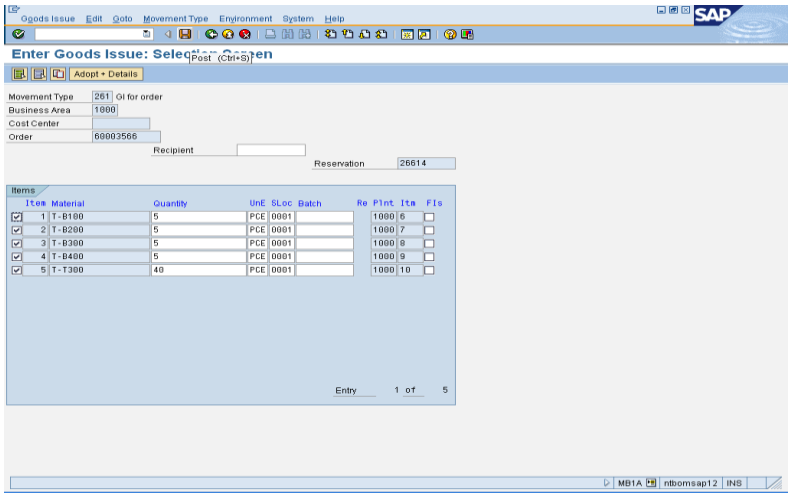
Production Order Creation



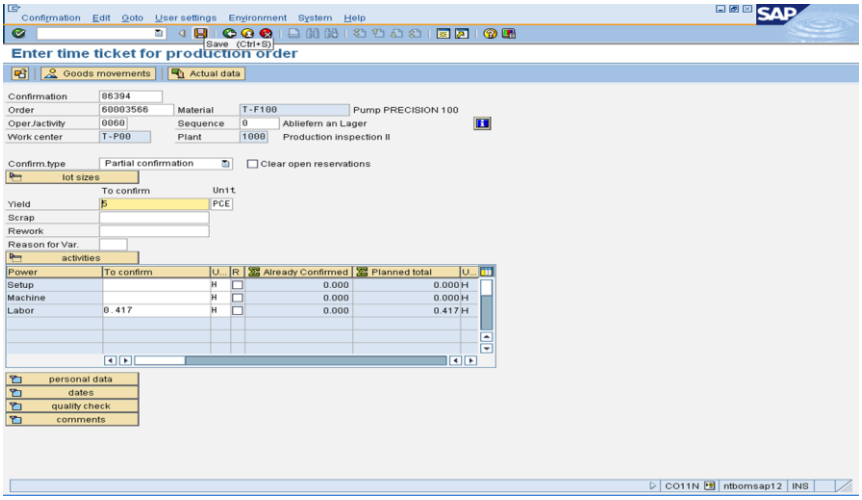
Production Order Release



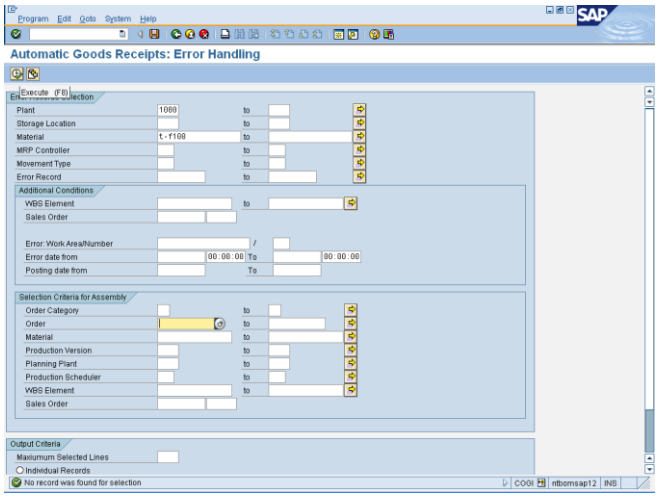
MB1A- Withdrawals for the order



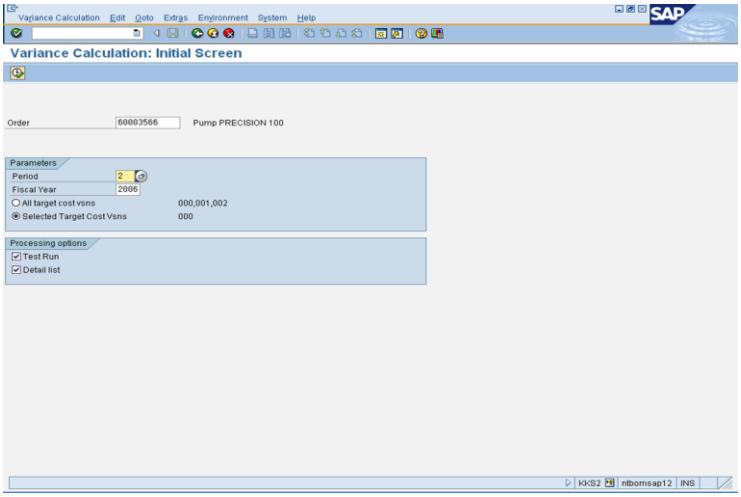
CO11n- Production Order Confirmation



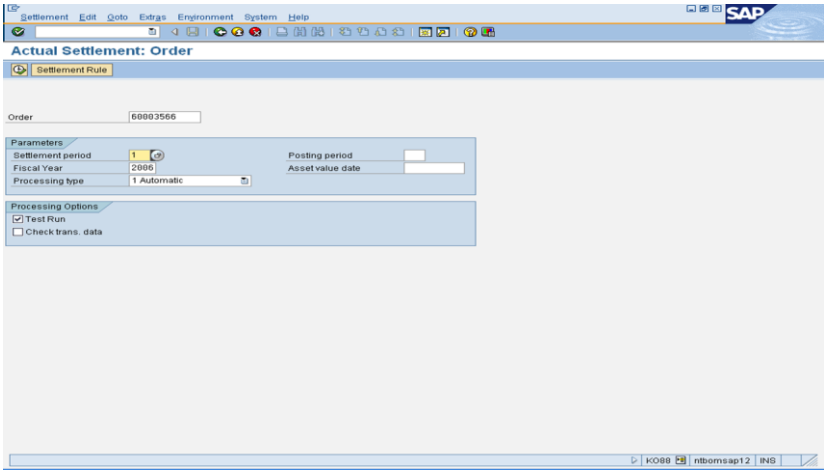
COGI- Error Handling



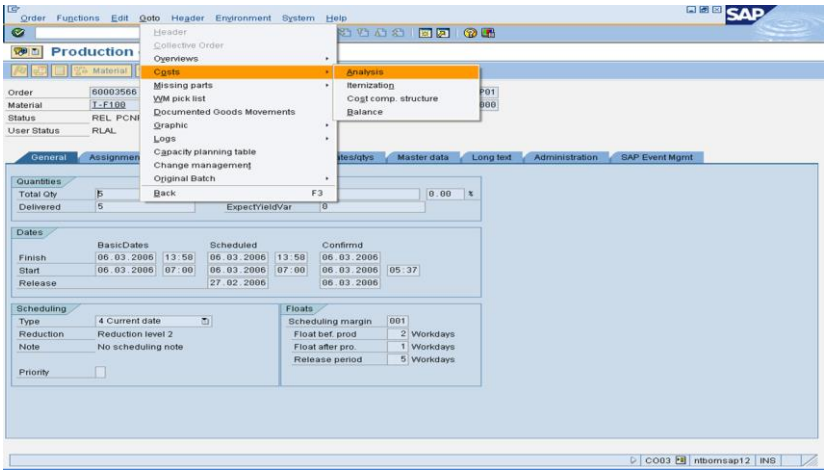
KKS2- Variance Calculation



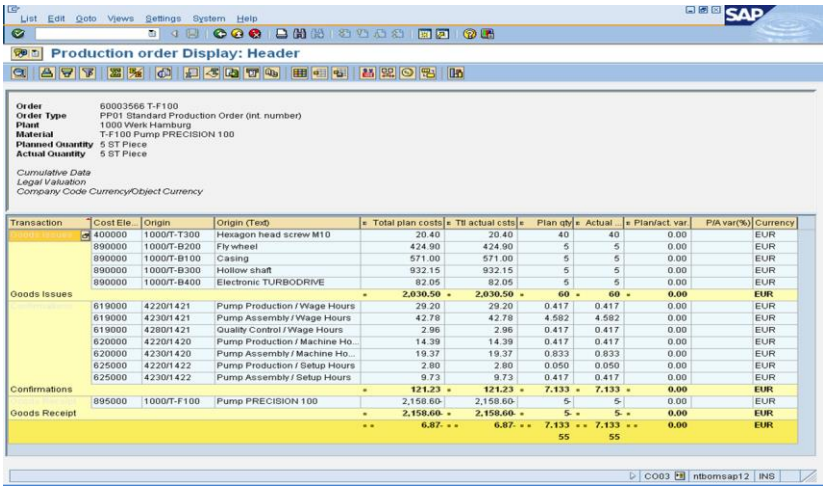
KO88- Cost settlement



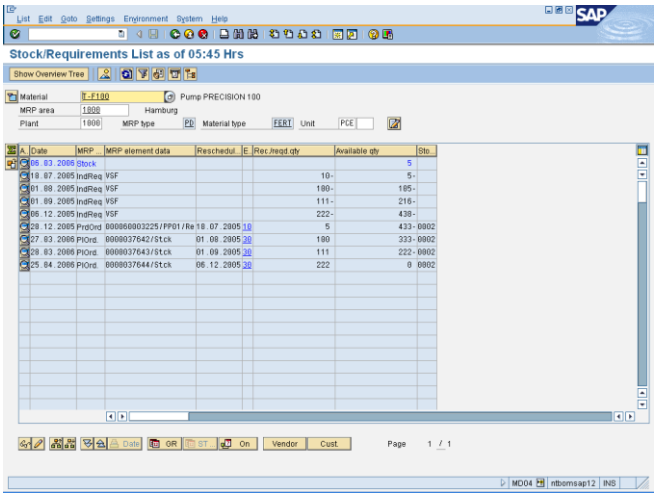
Cost Analysis - Example



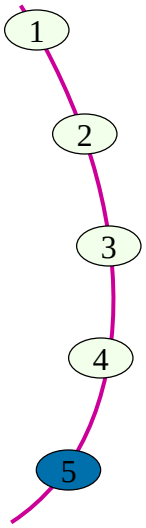
Cost Analysis - Example



MD04 – Stock / Requirement list



Production Order Management



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Tips and Tricks

Additional Info

CONFIGURATION TIPS

TRANSACTION CODES

Tables

Configuration Tips

1. The Bills of Materials in relation to the Shop Floor Production Order.
2. Define the Production Order Types
3. How to configure the Production Order User Status?
4. Where-is the Production Order Type used?
5. Define the Production Order Type-dependent Parameters

Configuration Tips

1. Define Checking Control
2. Define Confirmation Parameters
3. Define Scheduling Parameters for Production Orders
4. Define Number Range
5. Define selection profiles for the Order Information System
6. Where-is the Selection Profile used?
7. Define the Production Operations Control key

Configuration Tips

1. Where-is the Control key used?
2. Define formula parameters for Work Center
3. Where-is the Work Center Formula Used?
4. Define the Production Scheduling Profile
5. Define Production Scheduler
6. Where-is the Production Scheduling Profile and Production Scheduler Used?

Configuration Tips

1. Define User Exits Selection
2. Select Routing Automatically
3. Where do you define the Usage and Status?
4. Define Default Values If No Routing Exists
5. Define Priorities for BOM Usages
6. Define Applications for BOM Explode

Configuration Tips

1. Define Alternative Determination for Production
2. Define Checking Group
3. Define Checking Rule
4. Define Scope of Check
5. Specify Scheduling Type
6. Define Standard Value Keys

Configuration Tips

1. Where-is the Standard Value Key used?
2. Define Scheduling Margin Key
3. Define Capacity Categories
4. Where-is Capacity Categories used?
5. Define Single Screen Entry for Time Ticket Confirmations

Configuration Tips

1. Maintain Language-Dependent Texts
2. Define Reasons for Variances for Production Scrap
3. Where-is the Production Reason Code used?
4. Define Print Control for Shop Floor Papers

HelpMe

MD04

Converting the Planned Order into a Production Order .

MB1A

Withdrawing the Material for the Production Order

CO11N

Confirming the Production Order

KO88

Checking the Production Order Settlement

Tables

Production Planning Tables

MAST	Material BOM
STKO	BOM Header
STPO	BOM Positions (detail)
MAPL	Assignment fo Task Lists to Materials
PLKO	Routing Group Header
PLSO	Routing Group Sequence
PLPO	Routing Group Operations
AFKO	Production Order Header
AFPO	Production Order Position (details)

Add instructor notes here.

Summary

A production order specifies which material is to be produced, at what time and how much work is required, where it is to be produced, which operations are required to do this. It also defines how the order costs are to be settled The function of Demand Management is to determine requirement quantities and delivery dates for finished products assemblies.

Planned orders generated in the MRP run can be converted individually or collectively to production orders.

You can convert a planned order to a production order individually, for example, using the stock / requirements list or the MRP list.

If back flushing and auto goods receipts are allowed the goods issue and goods receipts are performed automatically on confirmation

Settlement of an order means ending a production order from a logistical viewpoint

Add the notes here.

Add instructor notes here.

Review Questions

1.The actual costs incurred for the order are settled to one or more accounts

Check whether the statement is true or false

a. True

b. False

2. A production order specifies which material is to be produced

Check whether the statement is true or false

a. True

b. False

3. Mov. Type 261- Back flushing/Component Withdrawal from plant storage location

a.True

b.False

Add the notes here.