Product Costing & Material Ledger

Product Costing Overview

- Acquire an overall perspective of Product Cost Planning within R/3.
- Observe a product life cycle from the perspective of Product Cost Planning.
- Acquire an overall perspective of product cost object controlling within R/3.
- Understand the period oriented product cost controlling.
- Obtain an understanding of the functions in the material ledger.
- Analysis of product costs.

Material Ledger Overview

- Obtain an understanding of the actual costing function in the material ledger.
- Know how to revaluate inventories of semi finished products, and finished products with calculated actual costs or accrue variances.
- Analysis of actual product costs.

Why utilize Product Costing?

- •Product Costing is the backbone of a strong standard cost system. This is the process by which production activities are recorded at standard values and variances from actual costs are isolated.
- •For planning purposes, the corporation wants a preliminary target of what they think it will cost to produce X units of a product.
- •To set attainable standards by which efficiencies within the production operations can be measured.
- •To provide feedback to management on the actual performance of the production process in relation to those targets. Identified variances may indicate inefficiencies that have to be investigated. Corrective action may have to be taken.

Costing Methodology

Material Master Price Control

Moving average price (V- Price)

- Adjusted with every receipt
- If at all, only to be used for raw materials and materials procured externally

Standard Price (S-Price)

- Constant
- Recommended for all material types

Costing Methodology

Moving Average Actual

Price that changes in consequence of usage and entry of invoices. Calculated by dividing the value of material by the quantity in stock. Automatically recalculated based on activity.



Constant price without considering usage or invoices. Material stock valued at the same price over an extended period. Price variances are posted to price difference accounts; not affecting the standard price.

The method of valuing inventory of a material is determined when extending/creating the material master.

Moving average price - Stock Coverage

	<u>Qty</u>	<u>Stk. Val</u>	<u>V price</u>
1.Begin. inventory: 100 PC at 1.00	100	100	1.00
2. Goods receipt: 100 PC at 2.00	200	300	1.50
3. Invoice receipt: 100 PC at 3.00	200	400	2.00
4. Goods issue: 150 PC at 2.00	50	100	2.00

	Sto	ock			GR/IR	Accoun	t
1. 2.	100 200	300 4.	If the invoice receipt is	3.	200	200	2.
3	100 Consumption	mption	for 100 units, the stock coverage is 200 units: tion all differences goes on stock		Vendor		
4.	300					300	3.

Moving average price: Stock shortage

	Stock	Stock Value	V Price
1. Begin. inventory:	100	100	1.00
2. Goods receipt: 100 PC at 2.00	200	300	1.50
3. Goods issue: 150 PC at 1.50	50	75	1.50
4. Invoice receipt: 100 PC at 3.00	50	125	2.50

A delayed invoice receipt results in price difference due to stock shortage

Stock			GR/IR account				
1. 2.	100 200	3.	225		4.	200	200 2.
4.	50						

	Price difference			Consumption			Vendor		
4.	50		3.	225			300 4.		

Characteristics of Price Control V

Moving average price

Advantages:

The stock value is adjust

The stock value is adjusted each time goods are received

Real-time price fluctations are posted to stock

Price difference postings only take place in exceptional cases

Disadvantages:

- Price fluctuations cannot be adjusted to the finished products of higher levels (S price)
- Only recommended for raw materials or goods procured externally (realtime price for goods receipt known)
- X False entries with severe consequences (compounded errors)
- Danger of incorrect valuations with delayed invoice receipt

Posting Example: Standard Price

			Stock	Stock Value	Standard Price
2	 Opening stock: Goods receipt: 100 at 5 Invoice receipt: 100 at 4.50 		100 200 200	400 400 400	4.00 4.00 4.00
	Stock 1 400 2 400		_	GR/IR 3 500	account 500 ²
Price difference 2 100 50 3			Ve	ndor 450 3	

Characteristics of Price Control S

Standard Price

Advantages:

All stock postings take place at the standard price

Prices remain constant throughout at least one period

✓ Price fluctuations do not debit/credit the cost objects (e.g. orders)

V Calculation of the standard prices with cost component splits

Recommended for all material types

Disadvantages:

Price differences cannot be subsequently adjusted to the ending inventories or the consumed products (sales, production withdrawals)

Costing Methodology

Valuation Method by Material:

Finished Goods Standard w/ ML

Intermediates Standard w/ ML

Raw Material Moving Average Actual

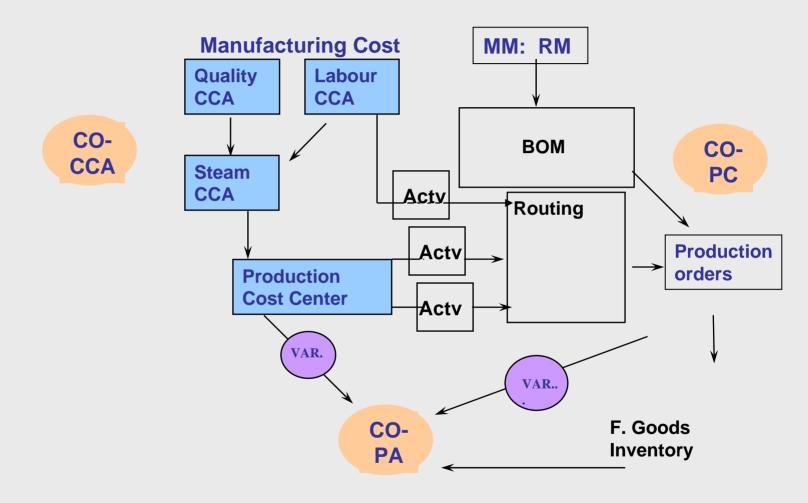
Packaging Moving Average Actual

Valuation Area

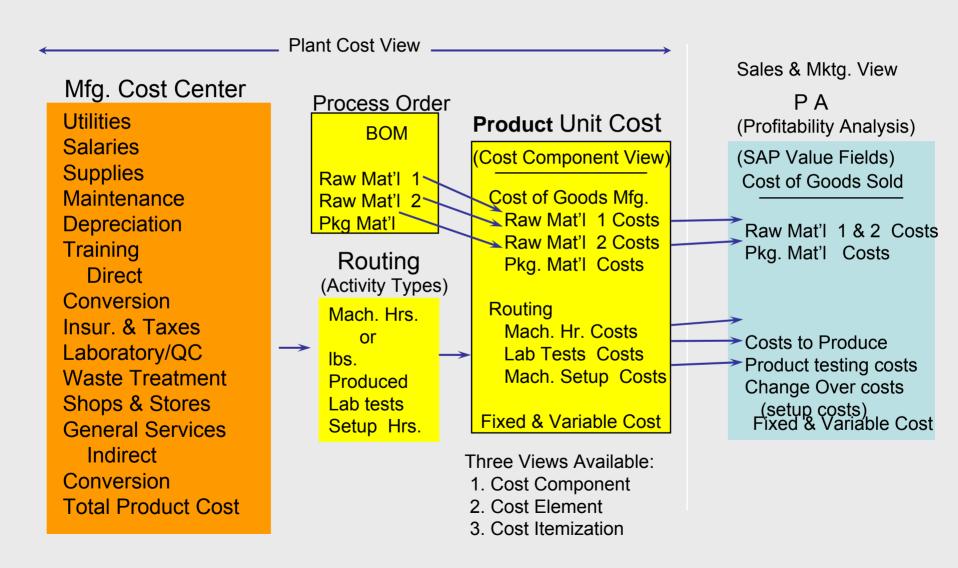
Organizational unit dividing up a company for the purpose of valuating stocks in a standardized and consistent manner.

- Level at which material value is managed.
- The valuation area may is defined:
 - by plant

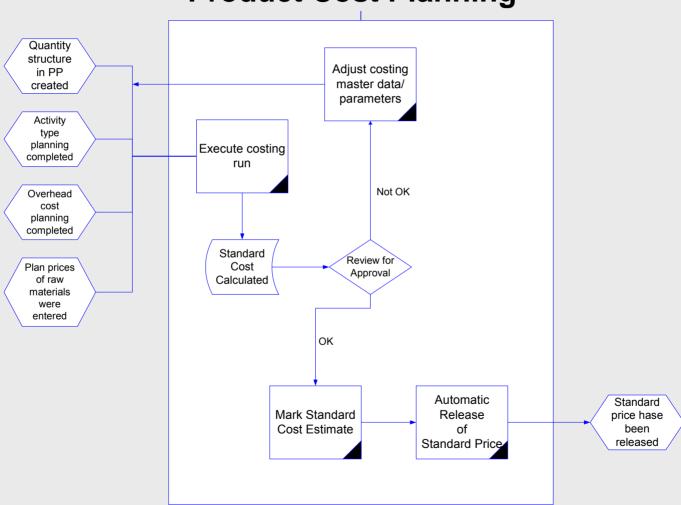
Product Cost Flow



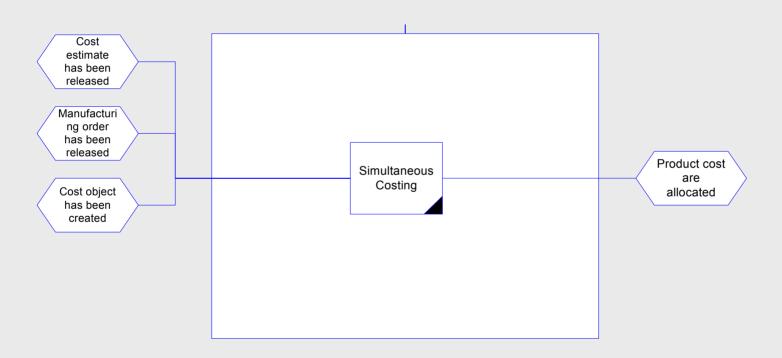
Product Cost Flow



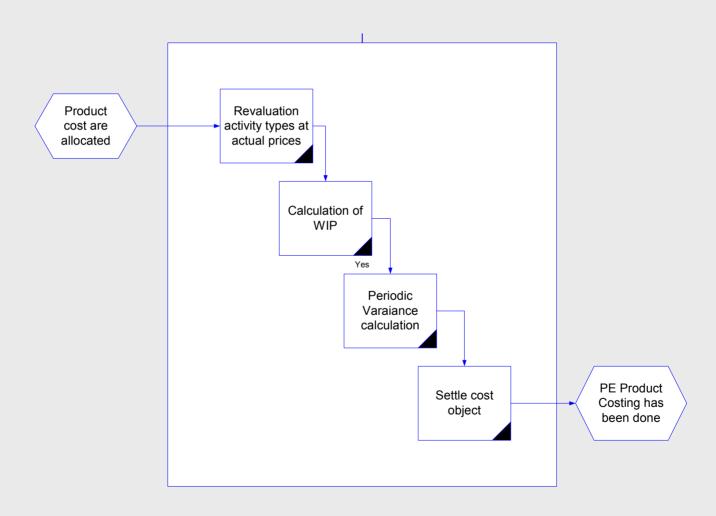
Product Cost Planning



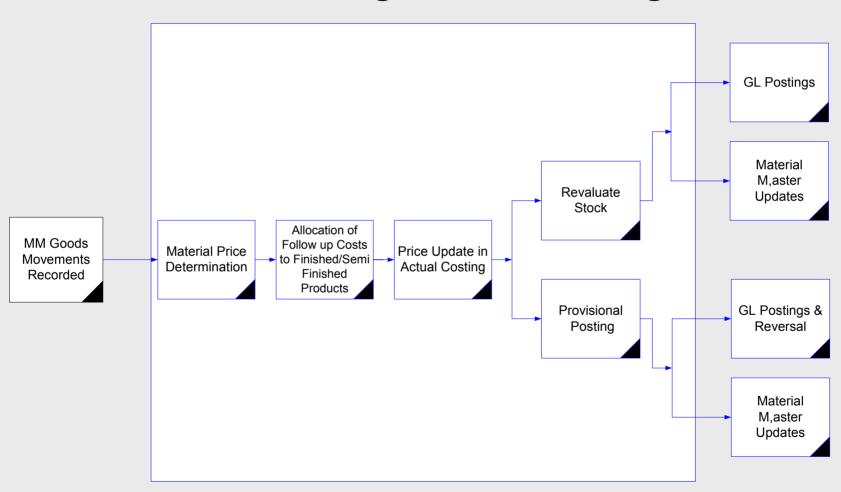
Product Cost Allocation - Simultaneous Costing



Period End Closing Product Costing



Material Ledger/Actual Costing



Product Cost Planning: Overview

Functions of Product Cost Planning:

- Product Cost Planning with reference to cost object
 - ☑ Product cost planning with quantity structure with structures provided by PP (Production Planning) module
- Determination of the cost of goods manufactured
- Product Cost Planning supplies information for other modules:
 - ✓ Update of prices in a material master
 - ☑ Update of the cost of good sold with the detailed structure of cost component (grouped cost elements)
 - ☑ Standard (material) cost estimate as the base for calculation of production variances

What is a Product Cost Estimate?

A tool for planning costs and establishing prices for materials. It is used to calculate the cost of goods sold for each product unit.



Cost Estimate With Quantity Structure

Utilizes a Bill of Material (BOM) and routing, I.e. Master Recipe for costing purposes. Integrated with Production Planning (PP).

Cost Estimate WITHOUT Quantity Structure

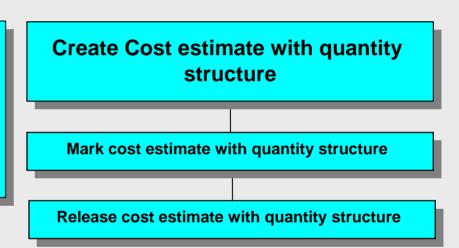
Utilizes a material master data and activity types entered manually into cost estimate.

Additive

You use additive costing to enable you to manually add costs that cannot be calculated by the system to a material cost estimate.

Product Costing: Overview

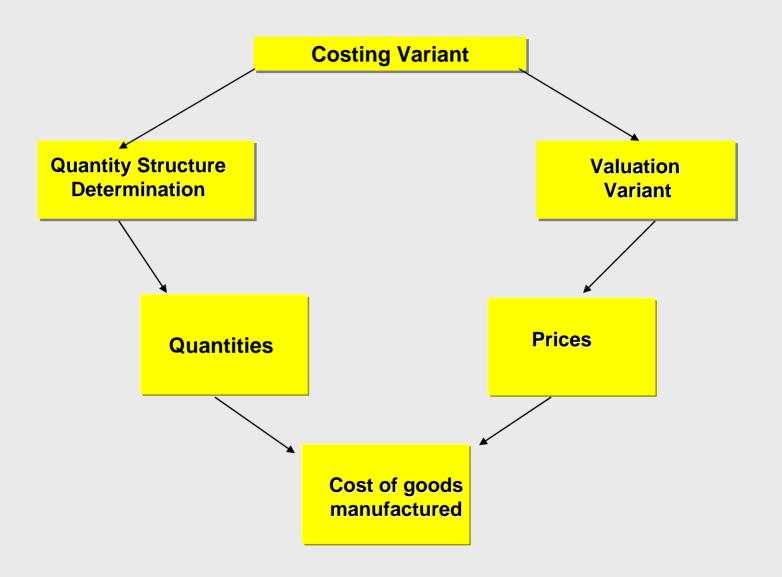
Standard Cost Estimate (once a year)



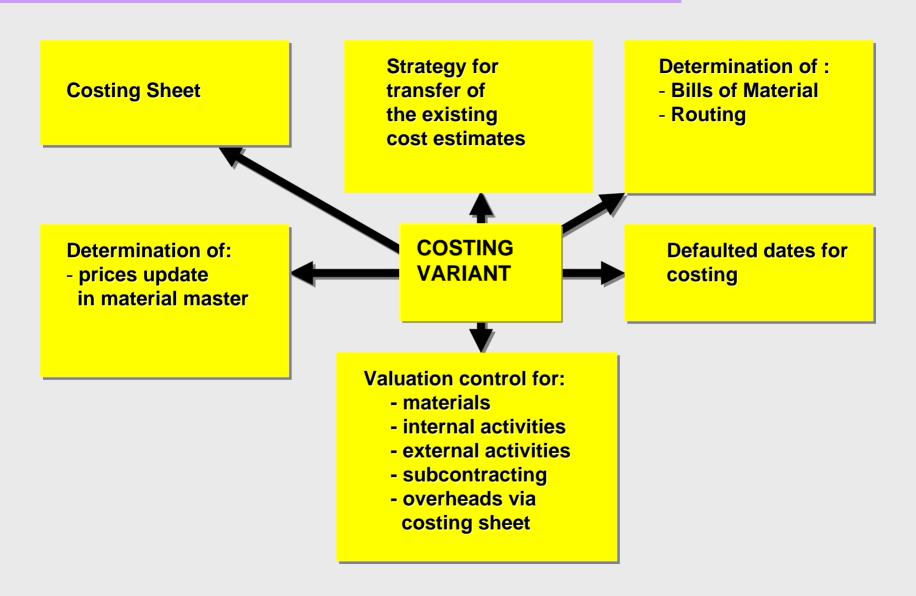
Concept of Cost Roll Up

The purpose of <u>cost rollup</u> is to include the cost of goods manufactured of all the materials in a <u>multilevel production</u> <u>structure</u> within the costs of the material located at the top of the structure. The costs are rolled up automatically using the costing levels.

Costing Variant



Costing Variant



Quantity Structure for Product Cost Planning

Quantity Structure of Product Cost Planning:-

- Material Master
- Bill of Material
- Work Center/ Resources
- Routings
- Master Recipe
- Production Version
- Procurement Alternative/ Mixing Ratios

Quantity Structure for Product Cost Planning

- Material master data
 - Accounting views
 - Costing views
 - ✓ MRP views
- BOM Bill of Material
 - ☑ BOM type & identification
 - BOM header
 - Material data
- Routing tasks list
 - ☑ Routing type & identification
 - Routing header
 - Operation data

- Master Recipe
 - Recipe header
 - Operations
 - ✓ Materials list
- Work Centers / Resources
 - ☑ Basic data
 - Costing

- Production Version
 - ☑ Validity Period
 - Production line

Quantity Structure: Material Master Data

Material Master Data:

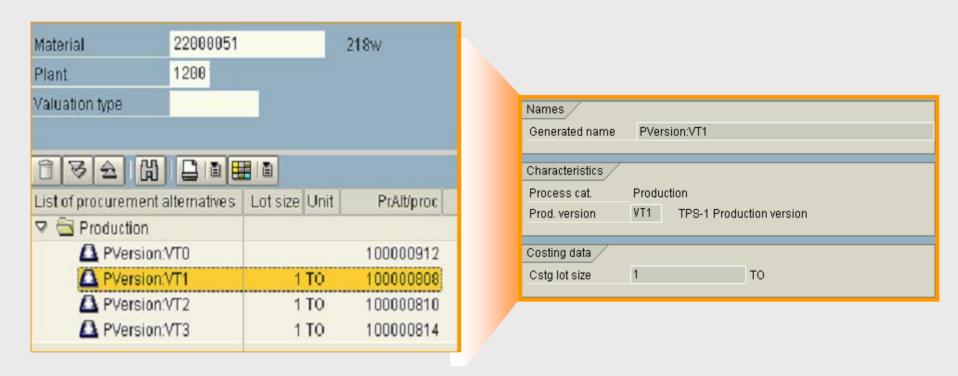
- Material Master Data is an object in SAP that consists all relevant data for raw materials, semi-finished and finished products divided into views.
- Important Views relevant for product costing:
 - Accounting
 - Costing
 - **☑** MRP

Quantity Structure: Production Version

- ☑ Production versions combine a specific BOM alternative with a specific routing/recipe
- ☑ For one material, you can have several Production versions for various validity periods and lot size ranges
- ✓ Production version facilitate different situations
 - Production using different resources
 - Production using different procedures

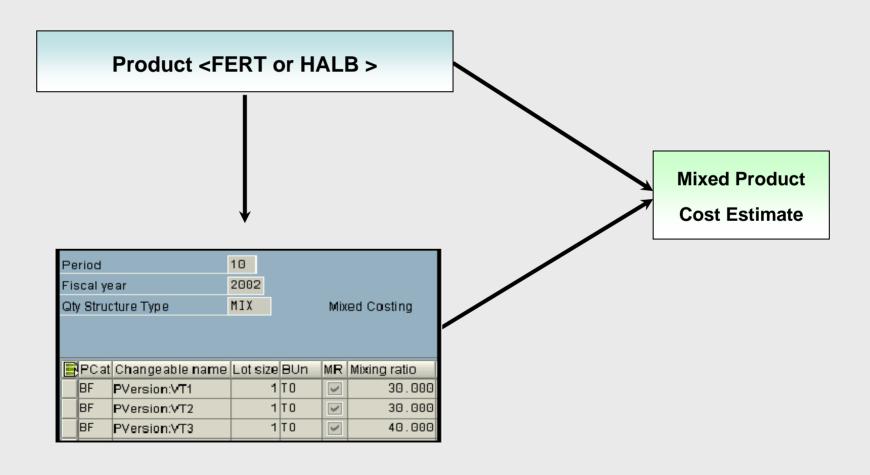
Quantity Structure: Procurement Alternatives

Quantity structure determination for mixed cost estimate.



Quantity Structure: Mixing Ratios

- Quantity structure determination for mixed cost estimate
- Validity period for mixing structure



Costing Structure

Costing Structure for Product Cost Planning:-

Material Master

Cost Centers

Activity Types

Cost Elements

Cost Component Structure

Costing Structure for Product Cost Planning

- Material master data
 - Accounting views
 - Costing views
- Cost Centers
 - Validity period
 - Category
 - Functional area
- Activity Types
 - Validity period
 - Activity unit
 - Allocation cost element

- Cost Elements
 - Validity period
 - Category

Costing Structure

Activity types define the type of activity that can be provided by a cost center (work activity, production hours, and so on).

Activity Price Calculation



Planned costs:

430000 (salaries) 44,000

440000 (miscl.) 10,000

473120 (telephone) 30,000

Planned costs: 84,000

Plan activity qty: 100 h

2

Calculated Price: 840

1

Activity Price Calculation
Apportionment of cost center costs
to activity types according to
particular criteria

1PDH01

100 h

Costing Structure

Planning Cost Splitting Product 9103000 1. Assign CC 9103004 to Splitting **Cost Estimate Utilities (Common)** Structure Z9 Steam service 2. Perform cost splitting 9103000 **Product** 91000045 - TEG Activity on Activity of Routing Steam service 9103004 1UTSTF Steam - fixed 1UTSTV Steam - var. 943954 UT: Steam fix **Product** 91000060 - LLDPE **Activity Types Used:** 1UTSTF Steam - fixed **Planned Price Calculation**

Primary costs planning on all Cost Centers.

Prices for 1UTSTF are calculated.

Cost Component Structure



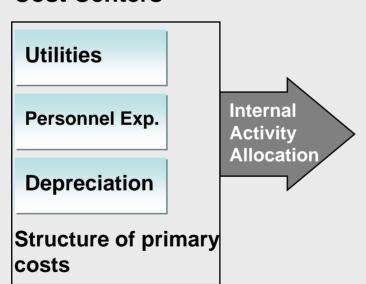


Product Cost Planning

Primary cost elements



Cost Centers



Z9 A Grp-Primary

Raw Materials

Utilities

Personnel Exp.

Depreciation

Structure of primary costs

Product Costing: Overview

Standard Cost Estimate (once a year)

Mark cost estimate with quantity
structure

Release cost estimate with quantity
structure

Price update

Standard price

- ✓ Only one validated standard price per product per period,
- ✓ The price represents most desired (or most likely) costs
- ✓ Only one price per product over the year (recommended)
- Determined during costing runs for Z9P1 costing variants standard cost estimate is populated in appropriate valuation views
- ✓ Includes variable and fix cost elements
- ✓ Base for variances calculation; which is then posted to FI and CO-PA
- Used for stock valuation of finished goods and semi-finished products
- ✓ Stored in material master data (accounting view) in Legal, Group and Profit Center valuation views after releasing the cost estimate

Price update

Future price

- ✓ Future standard price
- ✓ Stored in material master data (accounting & costing view) in Legal, Group and Profit Center valuation views after marking the cost estimate.

Previous price

- ✓ Replaced standard price by current one due to releasing the cost estimate
- ✓ Stored in material master data (accounting & costing view).

Price update

Analysis of Costing Results

Material Master Data

Standard Price

Future

Current Previous

10

Existing Std

Marking Standard Cost Estimate

Releasing Standard Cost Estimate

Future 15

Current Previous

10

Future

15

Current Previous

10

Stock Revaluation

Costing run

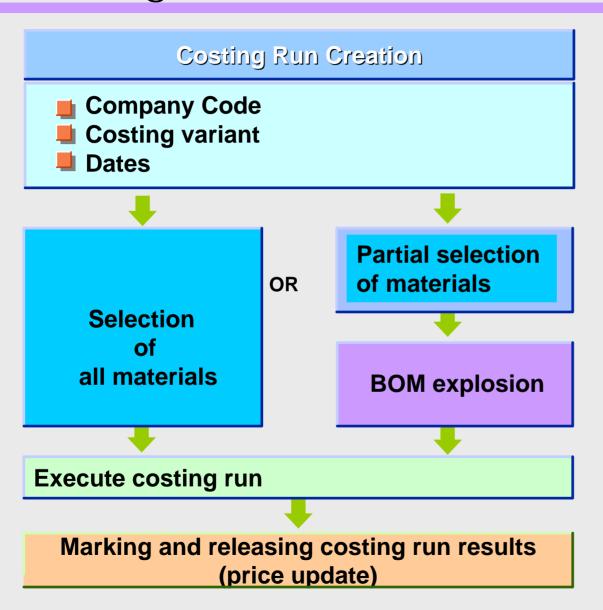
Costing run

- ✓ You can use the costing run to process mass data. It enables you to cost, mark, and release more than one material at the same time.
- ✓ Every processing step involved in costing with quantity structure is performed by the costing run, from the same screen.

Costing run consists of:

- ✓ General data (organizational units, selection criteria)
- ✓ Selected materials
- ✓ Exploded BOMs
- ✓ Costing run results
- ✓ Price update results

Costing run



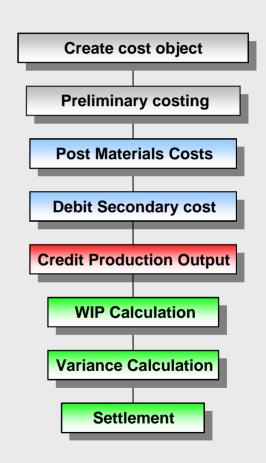
Product Costing: Overview

Prepare Cost Object

Production Costs

Receive Finished Stocks

Month End Closing



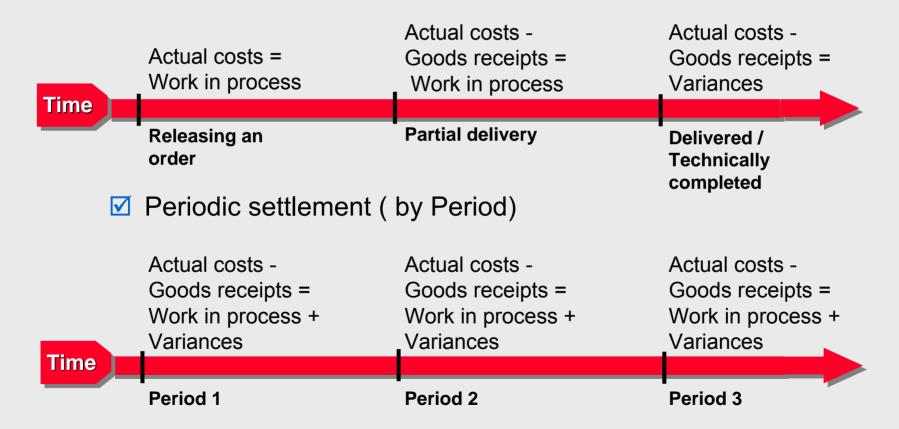
Functions of Cost Object Controlling:

- Supporting make-or-buy decisions
- Determining price floors
- Performing complex cost analysis
- Determining inventory values

Cost Object Controlling Scenarios:

- Product Cost by Period
 - ☑ Product Cost by Period is used for recurring periodic cost control of products that are manufactured in the same way over a longer period of time.
- Product Cost by Order
 - ☑ Product Cost by Order is mainly used to control the costs of individual production lots.

- Product Cost by Order or by Period
 - ✓ Full settlement (by Order)



Functions	Product Cost by Order	Product Cost by Period
Type of settlement rule	FULL	PERIODIC
Work-in-Process	WIP calculated on base of actual costs	WIP calculated on base of target costs
Variances	Variance = Actual Costs - Goods Receipts	Variance = Actual Costs - Goods Receipts - WIP
Settlement	Should be periodically	Must be periodically
Hierarchy of Cost Objects	Impossible	Possible

Functions of Product Costs by Period:

- Create product cost collectors.
- Create a preliminary cost estimate for product cost collectors.
- Calculate and analyze target costs and actual costs for product cost collectors.
- Calculate or update the work-in-process inventory and the finished goods inventory.
- Calculate and analyze variances for each period.
- Transfer data to: Financial Accounting, Profitability Analysis, Profit Center Accounting and Material Ledger.

Product Costing: Overview

Prepare Cost Object

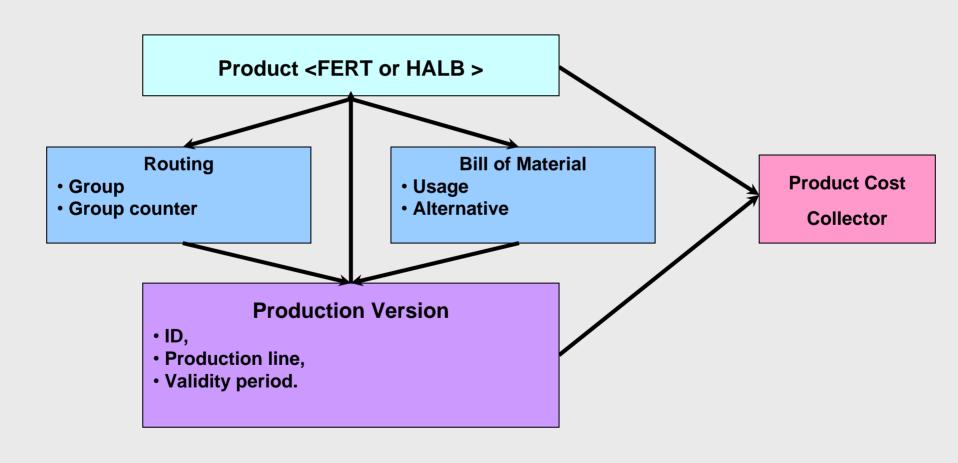


Objects in Cost Object Controlling

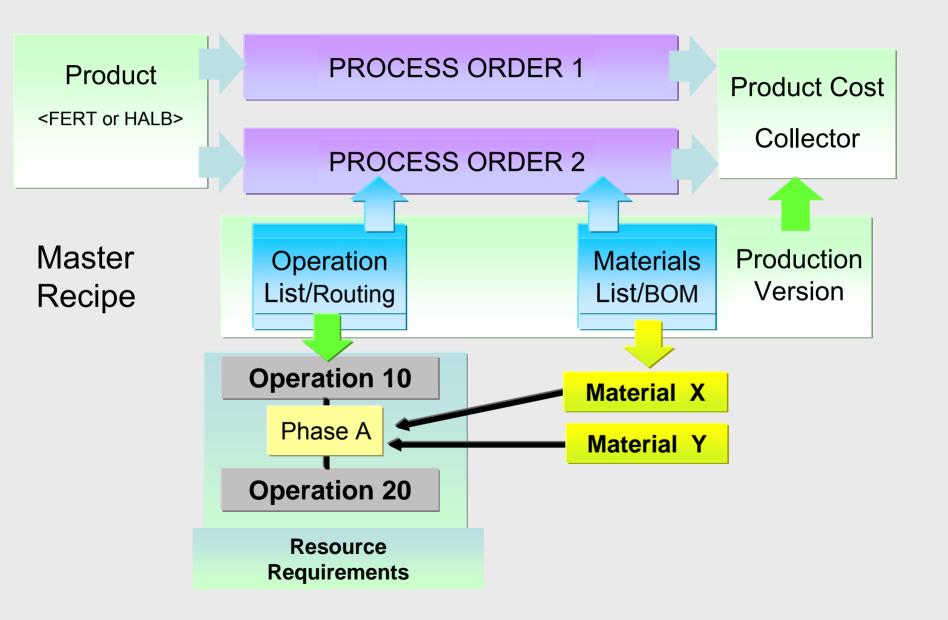
- Product cost collectors in the following production environments:
 - ✓ In order-related production (that is, when you are using production orders) when you want to analyze the costs by period rather than by lot
 - ✓ In process manufacturing (that is, when you are using process orders) when you want to analyze the costs by period rather than by lot
 - ✓ In repetitive manufacturing you always use product cost collectors as the cost objects.

Objects in Cost Object Controlling

✓ Product Cost Collector



Objects in Cost Object Controlling



Preliminary costing

- Costing variant PREM preliminary costing:
 - Created during product cost collector creation
 - ✓ Created per each production version
 - ✓ Provides split and balanced information of cost items, quantities and prices that are planned to occur during production of a product
 - ✓ Variable costs coming from BOM and routing
 - Result used mainly for actual activities postings
 - May be used for further analysis up to cost management requirements
 - May be changed all the time in the way of changing (updating) Product Cost Collector; i.e. different quantity structures allowed over the period
 - Changes in BOMs take effect immediately, i.e. cost estimate update not required
 - Changes in routings take effect after cost estimate update

Preliminary costing



Simultaneous costing - actual costs



Confirmation Types & Functions - Process Orders

Confirmation types

- Individual order confirmation
- Collective confirmation
- Milestone confirmation

Confirmation functions

- Output goods receipt
- Backflush components
- Backflush utilities
- Reduce capacity requirements
- Determine actual costs

Final Confirmation & Technical Completion

- Final Confirmation is made when every operation in the order has been completed
- Technical confirmation is the order is prematurely terminated. Technical confirmation prevents further activities being posted to the order.
- Both the above confirmation can be settled.

Failed Transactions and Corrections

- Incorrect or missing data for components and activities prevents processing of the back flush transaction
- These errors must be corrected before postings can be made for materials and activities
- When the errors have been eliminated, the theoretical yield and consumption may be adjusted and the results recorded

Production Order

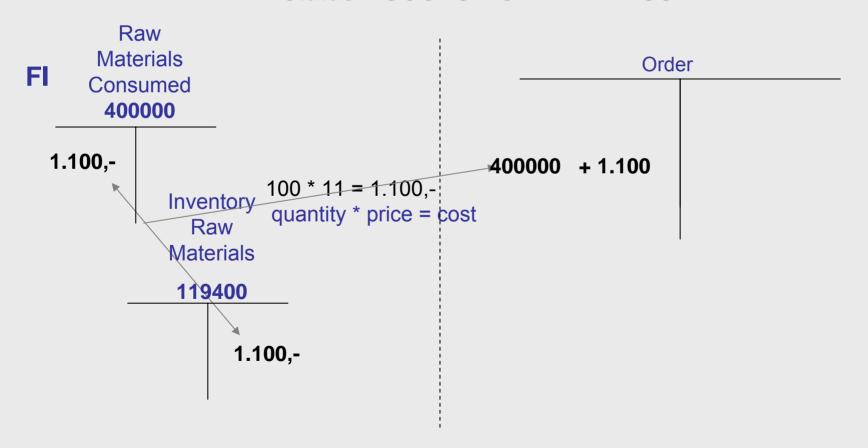
Step 1 – Created and release
- Maintenance of Master Data
Status - RELEASED

STATUS- CREATED

STATUS - RELEASED
This status allows for actual postings

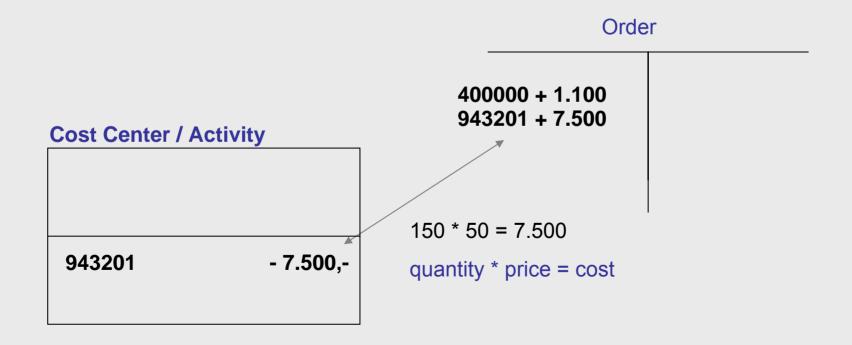
Production Order

Step 2 – Goods Issue to Order
- Actual Postings
Status – GOODS MOVEMENT POSTED



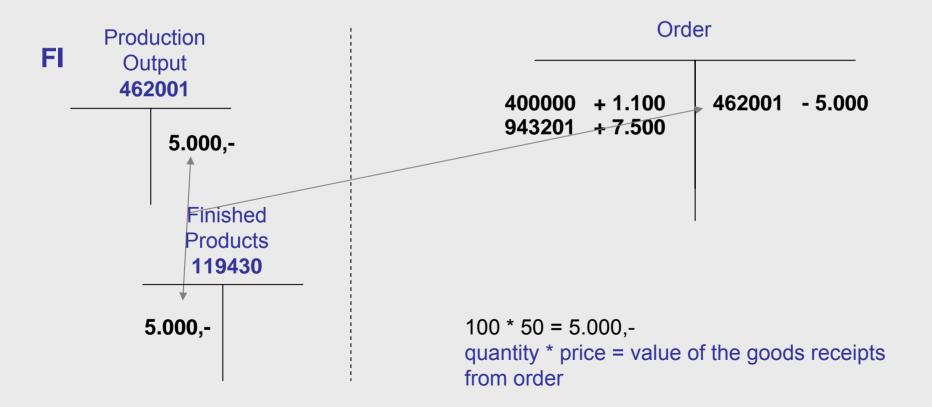
Production Order

Step 3 – Direct activity allocation - Actual Postings Status - RELEASED



Production Order

Step 4 – Goods Receipt from Order into Warehouse - Actual Postings Status – PARTIALLY DELIVERED

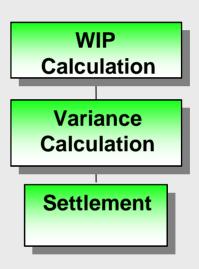


Actual costs - Summary

The results from the output receipts, plus material & resource consumptions, update the stock records and provide valuation of production according to standard cost approach.

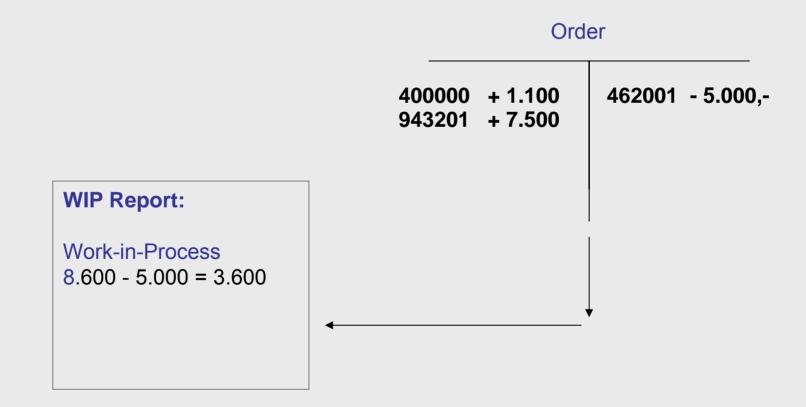
Product Costing: Overview

Month End Closing



Production Order

Step 5 – Work-in-Process Calculation
- Period-end closing
Status – RESULTS ANALYSIS CARRIED OUT



Production Order

Step 6 – Settlement of - Period-end closing Status – RESULTS ANALYSIS CARRIED OUT



Production Order – new period

Step 9 – Repetition of the steps from 3 to 7
- Actual Postings
Status – PARTIALLY DELIVERED

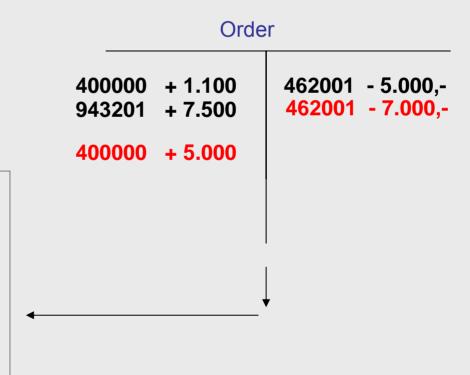
Order

```
400000 + 1.100
943201 + 7.500
400000 + 5.000,-
```

As a result of the actual postings in the new period there is a new balance on the order.

Production Order – period 2

Step 7 – Work-in-Process Calculation (variant 1)
- Period-end closing
Status – PARTIALLY DELIVERED



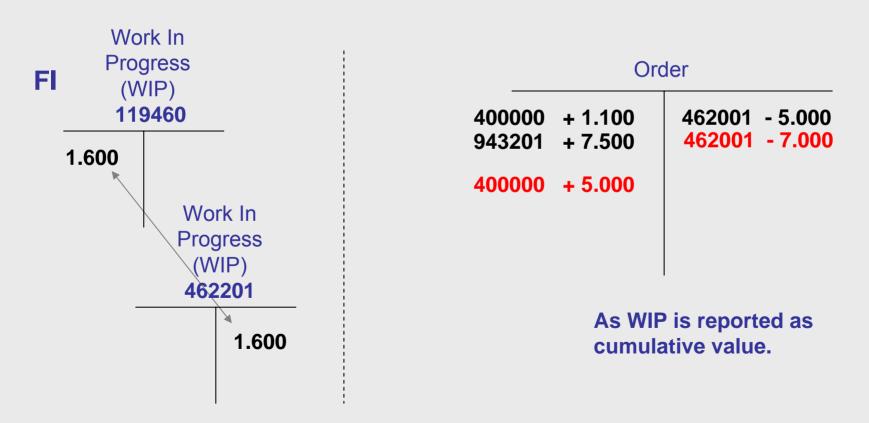
WIP Report (cumulated):

Work-in-Process 13.600 - 12.000 = 1.600

Work-in-Process in previous period 8.600 - 5.000 = 3.600 Cumulative: 2.000

Production Order – Period 2

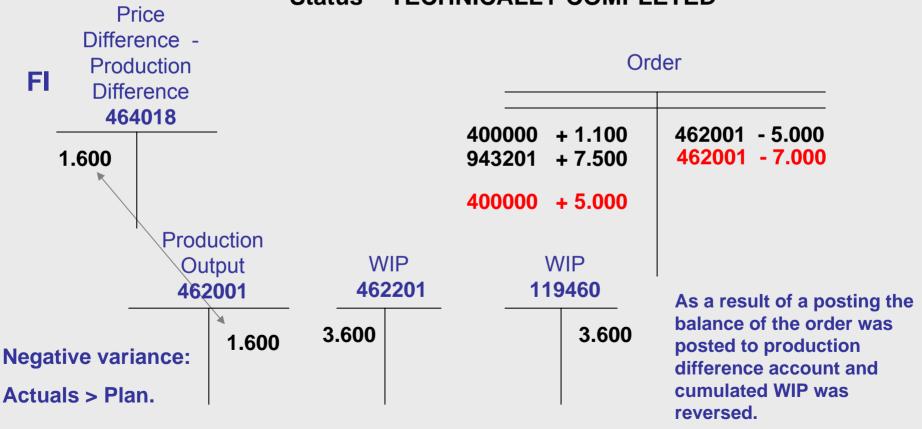
Step 11 – Settlement (variant 1)
- Period-end closing
Status – RESULTS ANALYSIS CARRIED

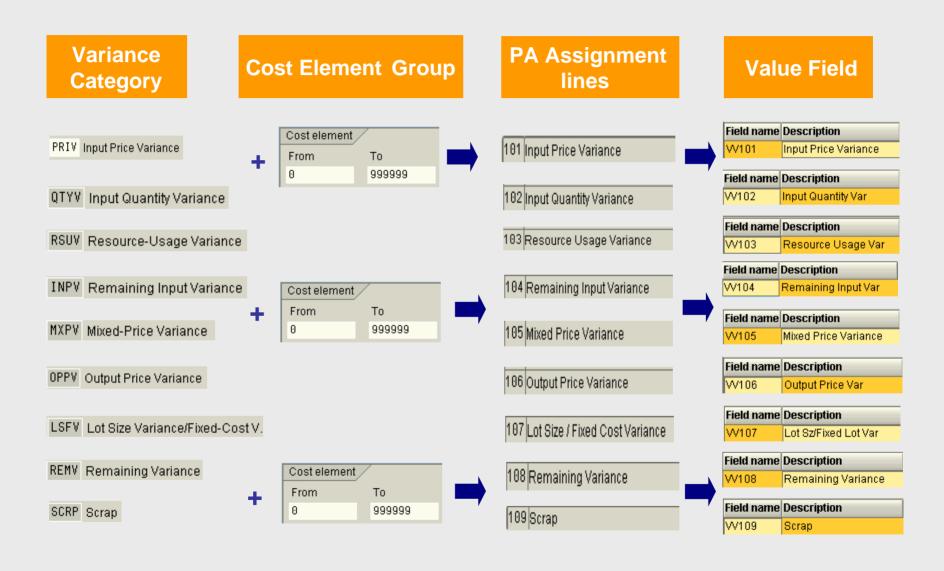


Production Order – period 2

Step 12 – Calculation of Variances and Settlement (variant 2)

- Period-end closing Status - TECHNICALLY COMPLETED





Period and year-end closing

Periodic Costs

Revaluation

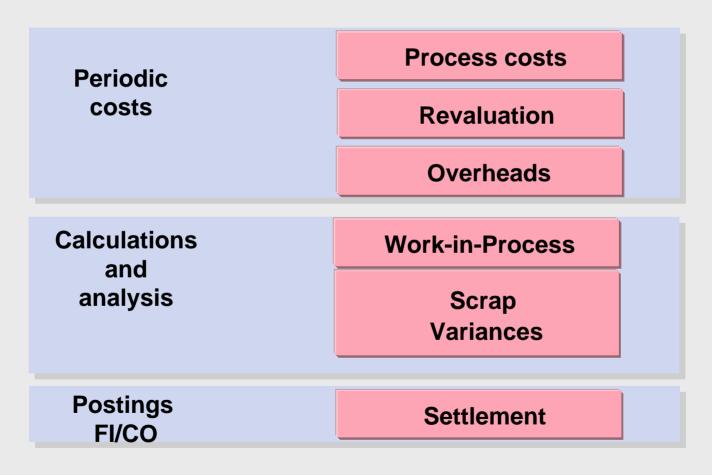
%

Overheads



Period and year-end closing

Period-end closing



Material Ledger: Overview

Functions of Material Ledger:

- Cost accounting using actual prices
- Storing values of stock in three different valuations (legal valuation, valuation for reporting purposes, and profit center valuation) in multiple currencies.

Material Ledger: Overview

Functions of Material Ledger:

- Cost accounting using actual prices
- Storing values of stock in three different valuations
 (legal valuation, group valuation for reporting purposes,
 and profit center valuation) in multiple currencies.

What is the Material Ledger/Actual Cost Concept?

The Material Ledger(ML) is a tool within the CO Module that collects all transactional data for materials whose master data is stored in the material master. It acts as a subledger for selected materials that captures all goods movements, invoice values, transfers and price changes. On the basis of this data, the material ledger calculates and maintains the actual cost for these materials. This actual cost can then be utilized to valuate the material stock accounts.

Objectives of the Material Ledger

1. Actual Costing.

During the period, valuation of all goods movements is done with the preliminary valuation price which is normally the standard price. All variances from the preliminary valuation are maintained in the ML. At period end, revaluation of ending inventory can be performed with the determined actual price. This is not mandatory. Actual prices can be calculated for statistical purposes only.

2. Parallel currencies and/or valuations of material stocks.

All goods movements in the ledger can be maintained in 3 currencies. The values are translated into other currencies using the historical exchange rates. Prerequisite for usage of transfer pricing functionality.

Benefits of the Material Ledger

► Variances of Finished Goods

Variances from external procurement (purchase orders) as well as from production activities are rolled up from raw and semi-finished materials to the finished goods level.

► To provide support for procurement related decisions.

Detailed reporting for procurement processes and sources possible. Make vs.. Buy, Vendor A vs.. Vendor B. Price History.

- ► Combines the benefits of Moving Average and Standard Price

 Stable prices used for controlling purposes (standard) and actual prices used for valuation purposes (average).
- ► Easy to use display and error finding by consolidating the views.

Allows quick access to detailed views of material master, standard costs and documents

Benefits of the Material Ledger

- ► Relatively simple configuration and set up
- ► True Cost of Sales Accounting
 - Purchasing and production variances for unsold stocks are inventoried.
- ► Contribution Margin with Actual Costs of Sales
 - By utilizing multi-level settlement, actual values for your cost component split can be attained. This can be transferred to PA

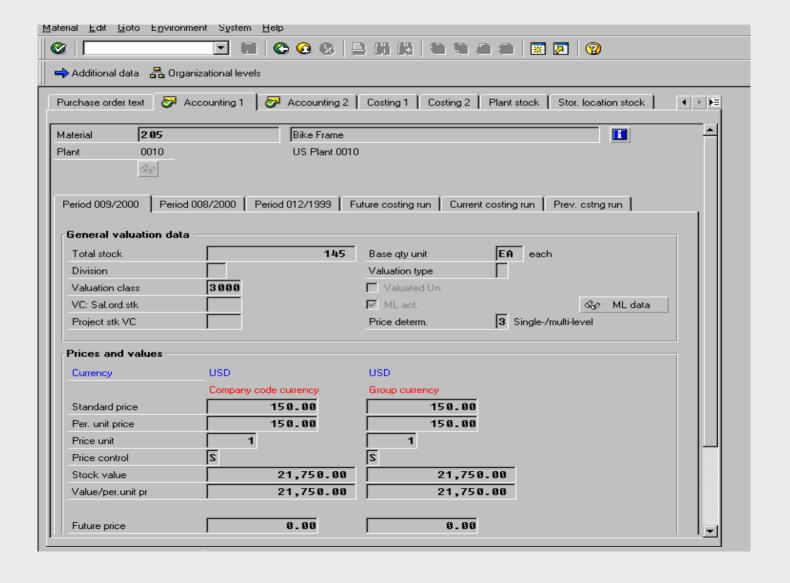
Single Level Settlement

➤ The term single level always refers to one material and its procurement process; which means that all values and quantities that arise during a procurement for said material are stored single- level

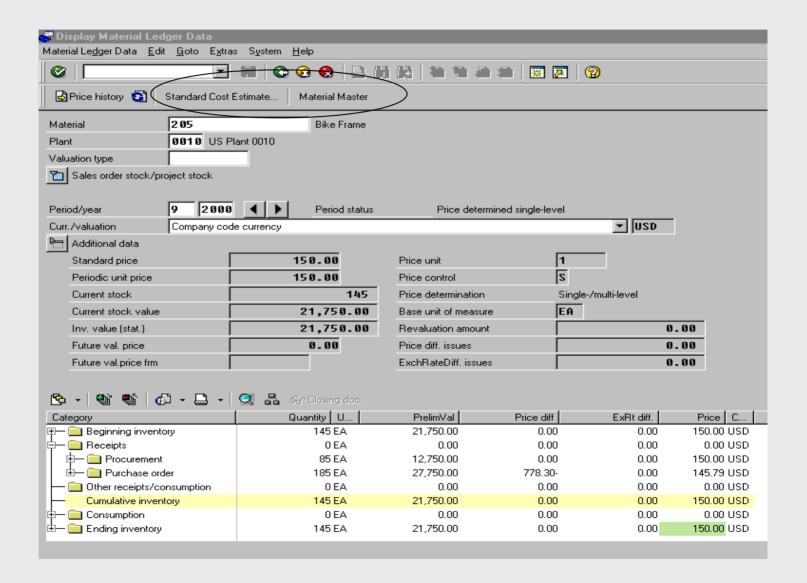
Multi - Level Settlement

- The "multi-level" settlement functionality adds the most value because it passes the lower level variance in a production processes up to the final finished product.
- All the manufacturing variances can be included in the total cost to manufacture the finished products

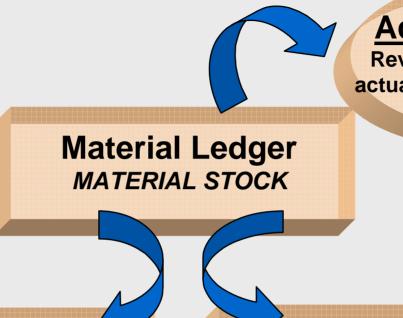
The ML updates the Material Master



The Integrated Material Ledger Display



Material Ledger Overview



Actual Costing

Revaluation of stock at actual prices or accrual of variances.

Parallel Currencies

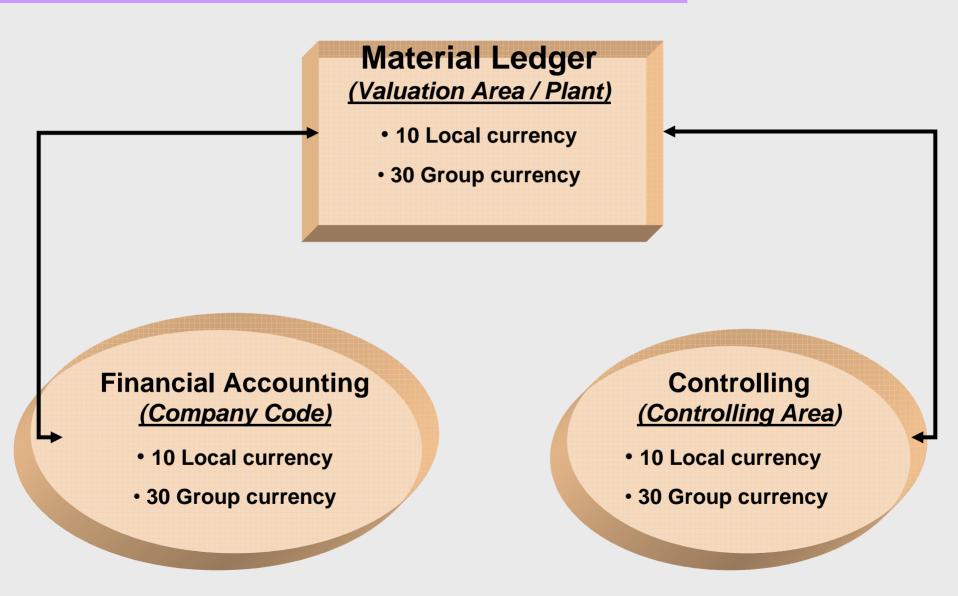
Translation at historic rates (up to three)

Parallel Valuations

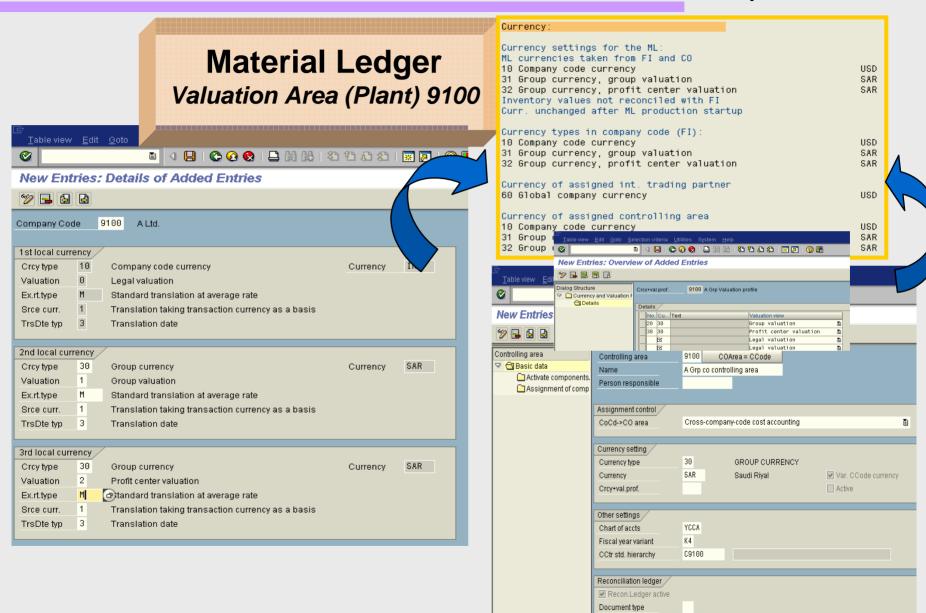
(Transfer Prices)

- Group
- Legal
- Profit Center

ML Overview - Parallel Currencies



ML Overview - Parallel Curr. in A Grp (1)



Price control

Material Master

Moving average price (V Price)

- Changed after every receipt
- Recommended for raw and externally procured materials.

Price Control
Standard Price
(S Price)

Stable for long period

 Recommended for finished and semi-finished products.

Price control

Moving average price

- The stock value is adjusted each time are received
- Real-time price fluctuations are posted to stock
- Price difference postings only takes place in exceptional cases
- Price fluctuations can not be adjusted to the finished products of higher levels (in case S price)
- Only recommended for raw materials or goods procured externally (real-time price for goods receipt known)
- False entries with severe consequences (compounded errors)
- Danger of incorrect valuations with delayed invoice receipt

Price control



- ✓ All stock postings takes place with the standard price
- Price remains constant by at least one period
- Price fluctuations do not debit / credit the cost object
- Consistent controlling with the standard price as a bench mark
- Estimations of the standard prices with cost component split
- Recommended for all materials types
- Price differences can not be subsequently adjusted to the ending inventories or the consumed products (very important in the Cost of Goods Sold accounting)

Price determination control



Actual Values Overview

- Setting 2 of transaction-based price determination functions in the same way as the system without the material ledger, but has the added advantage of allowing you to carry standard prices and moving prices in multiple currencies or valuations. This option is possible for materials with the price control S or V.
- With single-/multilevel material price determination (indicator 3 in the material master), a standard price is used for preliminary valuation, and a periodic unit price is calculated for material valuation of the closed period. This option is only possible for materials with the price control indicator S, and is only recommended when you want to use actual costing in combination with multiple currencies or valuations.
- With single-multilevel material price determination, the periodic unit price is updated for informational purposes and can be used for material valuation of the closed period.

Material Master - Price control

Moving average price (V Price / 2 Activity-related)

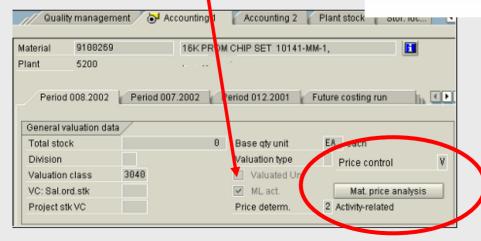
Material Master

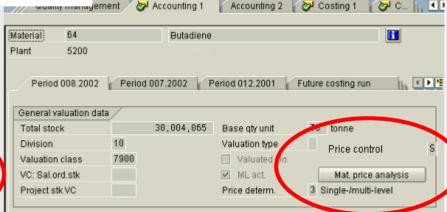
Standard Price (S Price / 3 Single-/multilevel)

Material ledger is activated

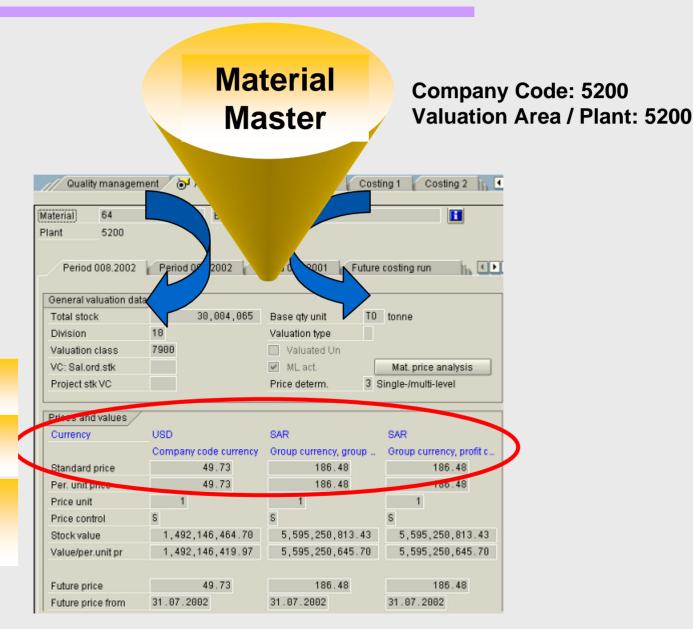
Price Control

Determination





Material Master - Parallel Currencies

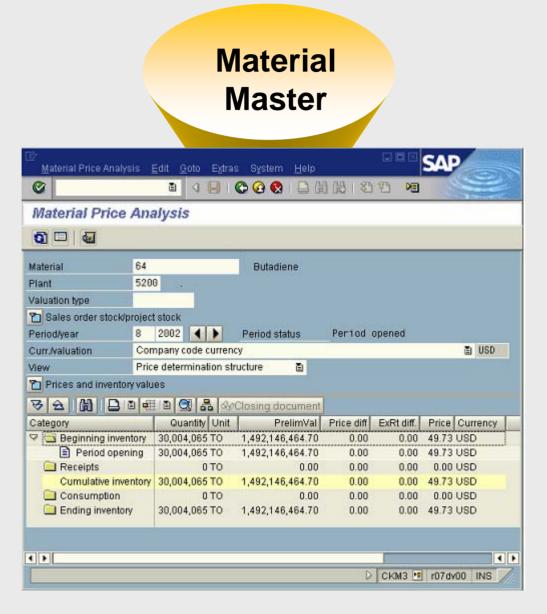


Legal valuation USD

Group valuation SAR

Profit center valuation SAR

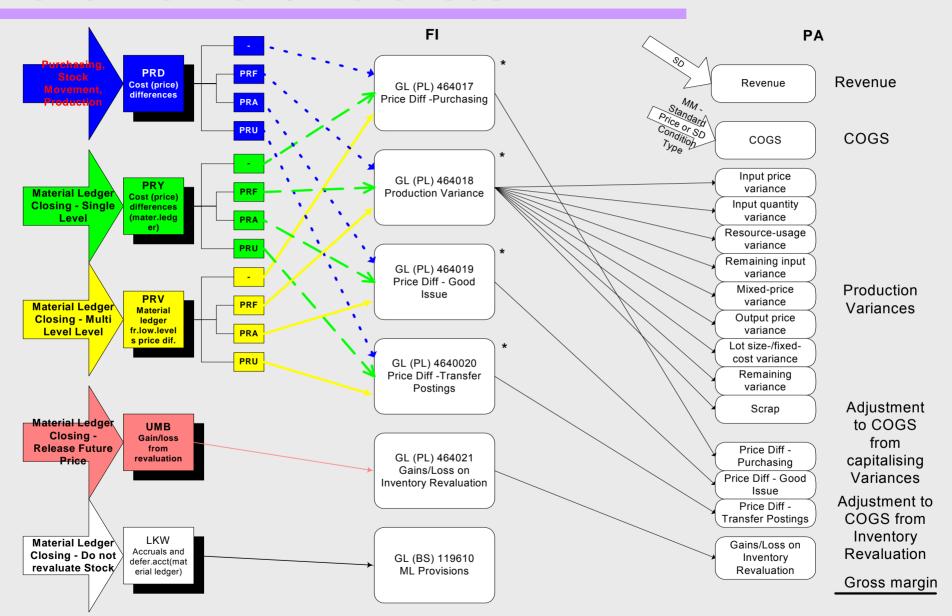
Material Master - Transparency



Actual Values Overview

- Actual data -> Actual Costing
 - Overview
 - ✓ Preliminary valuation price
 - ✓ Actual Costing
 - Price differences
 - ✓ Updating single-level variances
 - ✓ Single-level price determination
 - Multilevel price determination

Overview of differences



Actual Values Overview

- Actual data -> Actual Costing
 - Overview
 - ✓ Preliminary valuation price
 - ✓ Actual Costing
 - Price differences
 - ✓ Updating single-level variances
 - ✓ Single-level price determination
 - Multilevel price determination

Preliminary valuation price

- When Actual costing is used all materials are valuated with a preliminary periodic unit price. This price remains constant within a period.
- This price can be the result of a standard cost estimate, a manual price or an actual price calculated in the previous period.
- The advantage of this price is (as with the standard price) that standard costs can be calculated independently without price fluctuations hindering the controlling of the production processes.

Actual Values Overview

- Actual data -> Actual Costing
 - Overview
 - ✓ Preliminary valuation price
 - ✓ Actual Costing
 - Price differences
 - ✓ Updating single-level variances
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 - Multilevel price determination

Actual Costing

Price differences arise through

- ✓ Stock transfers (standard price in another plant)
- External procurement (purchase order or invoice value)
- ✓ Internal production (order settlement)

Actual Values Overview

- Actual data -> Actual Costing
 - Overview
 - ✓ Preliminary valuation price
 - ✓ Actual Costing
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 - ✓ Single-level price determination
 - Multilevel price determination

Updating Single Level Variances

- During a period, variances are incurred for this preliminary valuation price (or standard price).
- These variances are posted from the material ledger to a **price difference account** and updated for each material. **Single-level variances** are the variances incurred for a material during its direct procurement.
- For raw materials, these are, as a rule, variances from price fluctuations in the case of external procurement from vendors.
- For semi-finished and finished products, the single-level variances include internal cost fluctuations from production that are calculated during order settlement.
- Single-level variances do not include price differences from materials from lower levels of production. For example, price variances incurred during the procurement of raw materials are not included in order settlement, because the raw materials were assigned to the order at preliminary valuation.

Actual Values Overview

- Actual data -> Actual Costing
 - Overview
 - ✓ Preliminary valuation price
 - ✓ Actual Costing
 - Price differences
 - ✓ Updating single-level variances
 - ✓ Single-level price determination
 - Multilevel price determination

Single level Price determination

- ➤ At the end of the period, you can use the functions for single-level price determination to assign the variances for each material. In this way, cumulated price differences can be proportionally assigned to the ending inventory and material consumption of the period at the end of the period.
- ➤ The stock can valuated with the actual price of this period, the periodic unit price. The price differences assigned to consumption first remain on the price difference account.
- When you settle an order, the system allocates the price differences incurred during a production process to the respective materials.

Actual Values Overview

- Actual data -> Actual Costing
 - Overview
 - ✓ Preliminary valuation price
 - ✓ Actual Costing
 - Price differences
 - ✓ Updating single-level variances
 - ✓ Single-level price determination
 - ✓ Multilevel price determination

Multilevel Price Determination

- Multilevel material price determination can also calculate the variances that have flowed into higher levels of the production process using a multilevel actual quantity structure.
- Thanks to the quantity structure, a type of actual bill of material, the system knows what materials were used for the production of which goods. The prices of the finished products can then be calculated.
- As a result, price differences, for example, of raw materials can be rolled up to semi-finished goods and, in a next step, to the finished goods.
- The period-end closing process for multilevel material price determination enables you to recognize the actual prices for each material (raw materials, semi-finished products and finished products) at the end of the period. These actual prices contain the prices incurred for the actual quantity produced or procured for each period.
- If you wish, you can use these actual prices to revaluate your products or raw materials.
- These procedures make it possible for you to use an **actual cost system** in addition to your standard cost system, because the values of your standard cost system (cost centers, orders) cannot be readjusted during a subsequent allocation.

Period End Overview

Actual Costing – Period End Closing Procedure

- Collecting price differences
 - On price difference accounts or in material ledger within categories
- ✓ Period closing program
 - Open new period in MM (transaction MMPV)
- Determining prices
 - Single-level, later multilevel
 - V price is calculated
- Making closing entry
 - Must be made for each period
 - Posting to prior period is no longer possible
 - · Reversal if required
- With revaluation
 - Price differences are proportionally posted to the remaining stock -> Price indicator 'V'
- ✓ Without revaluation
 - Price differences are proportionally posted to the accruals account -> Price indicator 'S'
- Marking future price

Period End Overview - Closing Entry (1)



Stock value:

185.5 EUR

Locked

Material: ACT-LCD##

Status: Closing entry performed Price control: V (only old periods) V price: 26.50 EUR / 100 units

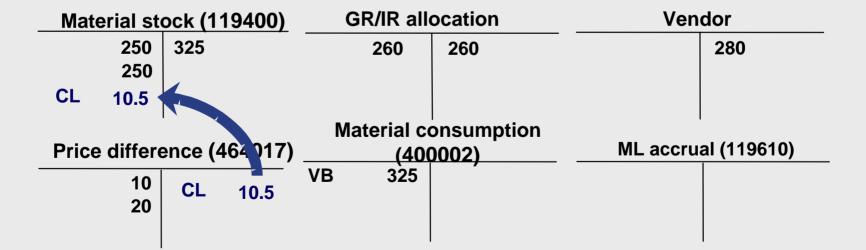
Beginning inventory (BI): 1000 PC / 250 EUR

Goods receipt/purchase order : 1000 PC / 260 EUR

Invoice receipt: 1000 PC / 280 EUR

Consumption: 1300 PC / 325 EUR

Ending inventory: 700 PC (700 PC * 26.50/100)



Period End Overview - Closing Entry (2)

Without Revaluation

Locked

Material: ACT-LCD##

Status: Closing entry performed

Price control: S

20

S price: 25.00 EUR / 100 units

Beginning inventory (BI): 1000 PC / 250 EUR Goods receipt/purchase order. 1000 PC / 260 EUR

Invoice receipt: 1000 PC / 280 EUR

Consumption: 1300 PC / 325 EUR

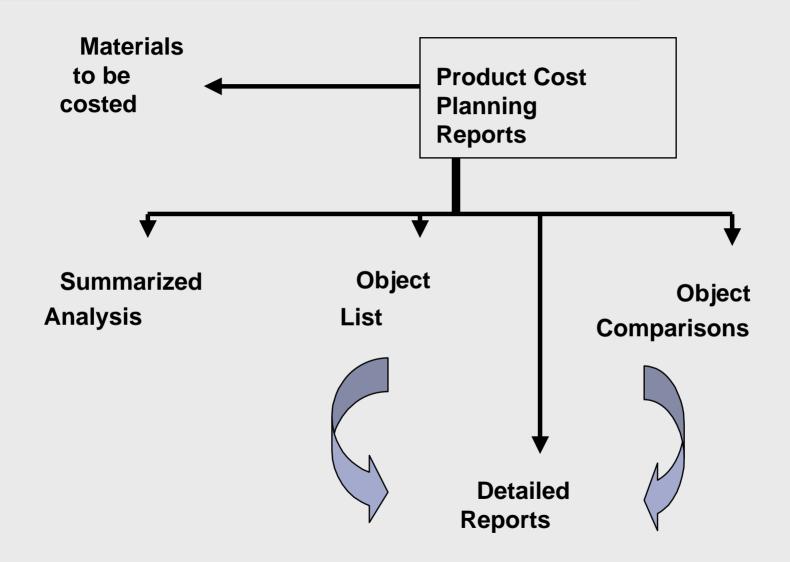
Ending inventory: 700 PC

Stock value: 175 EUR

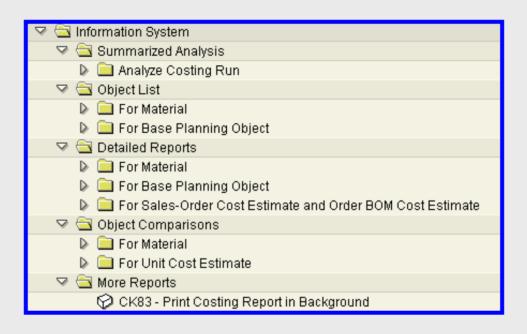
GR/IR allocation Vendor Material stock (119400) 250 325 260 280 260 250 **Material consumption** Price difference (464017) **ML accrual (119610)** (400002) CL 10.5 CL 10.5 10 325

Period End Overview - Periodic unit price

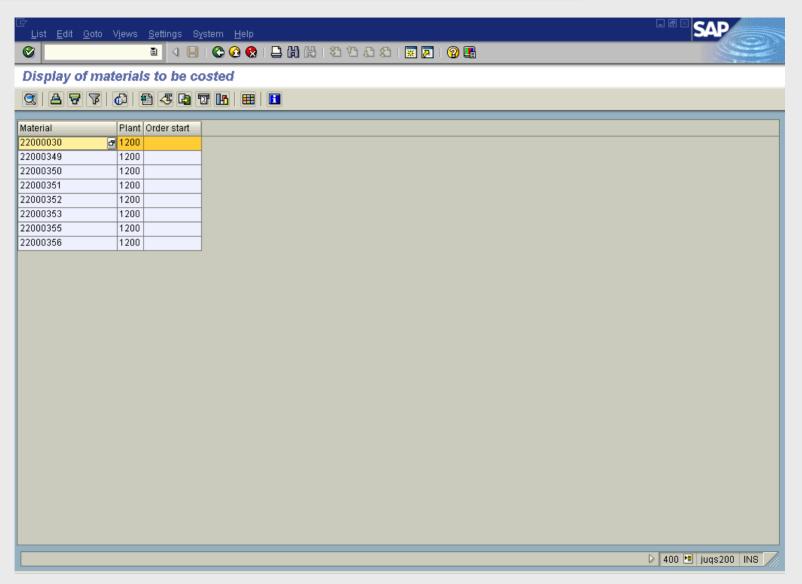
- The periodic unit price is calculated after the end of a period. It mirrors the actual costs of a material for the closed period.
- The system uses the cumulative inventory (the beginning inventory plus all goods receipts) and the cumulative difference (all differences between the standard price and the price entered for all goods receipts and the beginning inventory) to calculate the periodic unit price.
- Material price determination must be allowed for every individual period (through the menu option Organizational Measures or directly in a costing run).
- The single-level material price determination includes deviating amounts due to price differences, exchange-rate differences and revaluation differences that have been incurred for the (single-level) procurement of a material in this period.
- After the period has been closed, the **cumulative differences** are allocated to the **cumulative inventory** for the closed period. From this, the system calculates the weighted average price that can be used for valuation of the ending inventory. With single-level price determination, the **valuation in the current period** remains unchanged.

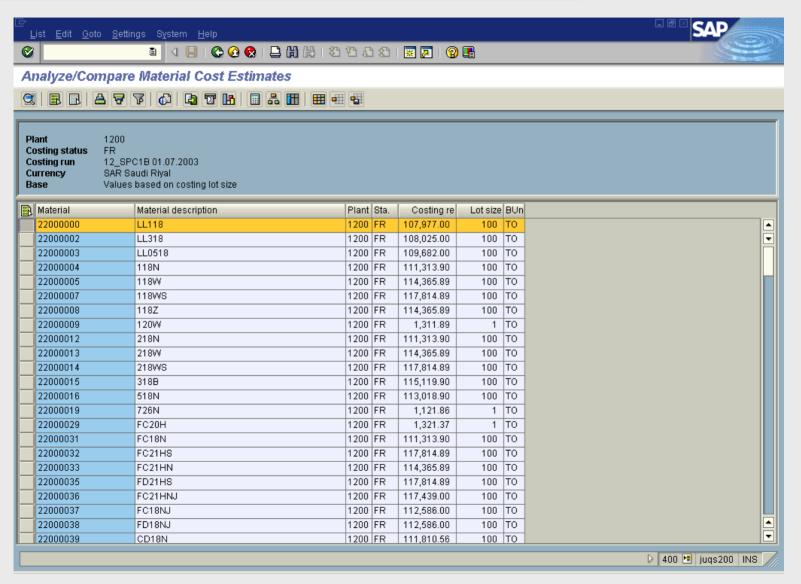


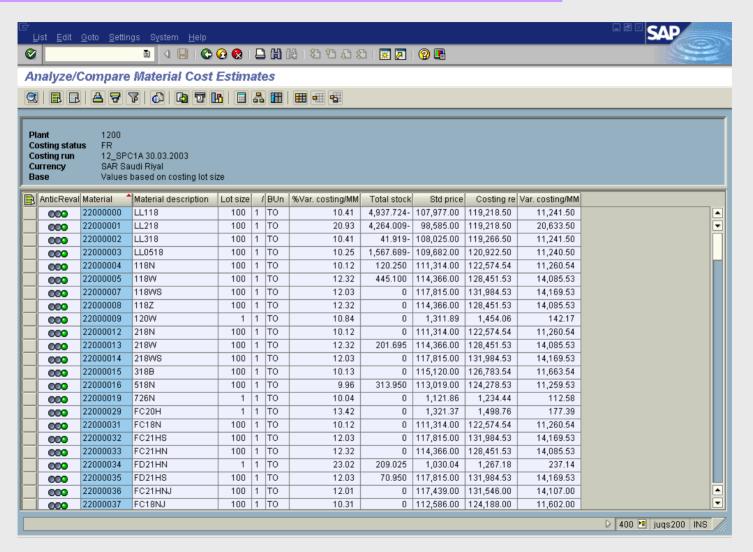
Report Selection



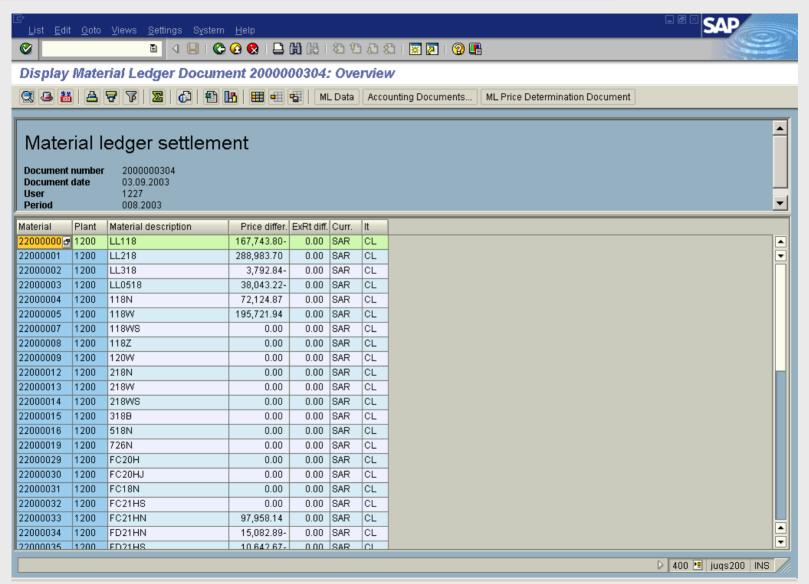
- ✓ The Report Tree can be used to select Reports in the Information System. The Report Tree is the central collection point and hierarchical outline of all Reports in an application component.
- ✓ The standard Report Tree supplied by SAP should not be changed. A personalized Report tree can be created to which standard Reports as well as one's own creations can be assigned.

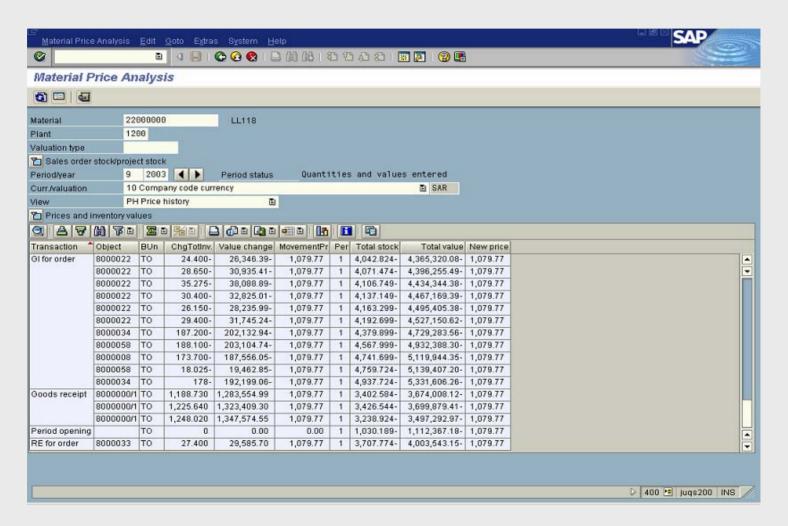


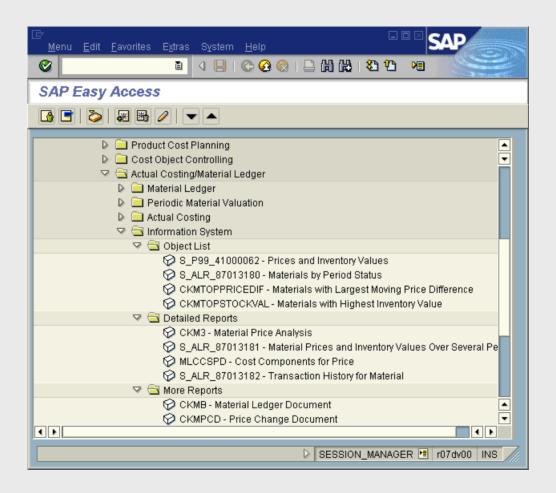


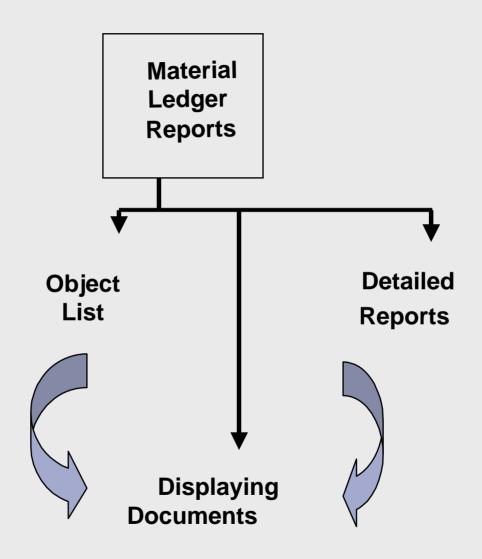


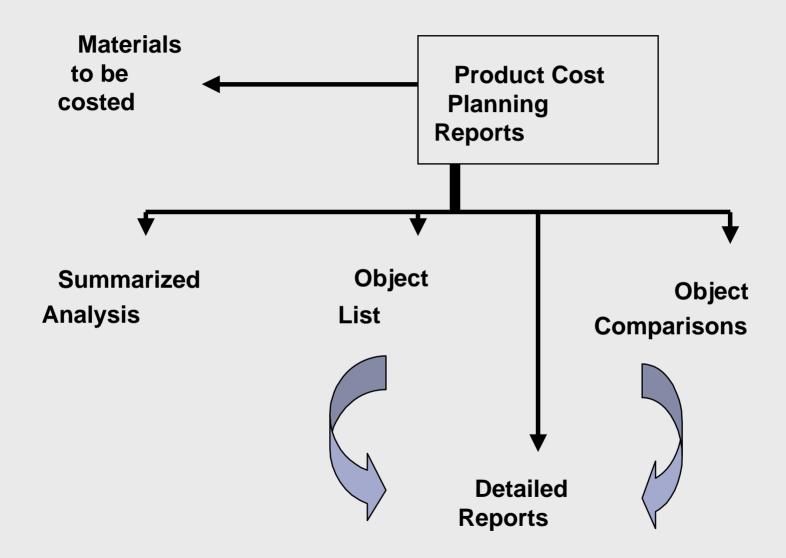
The Report can be used to



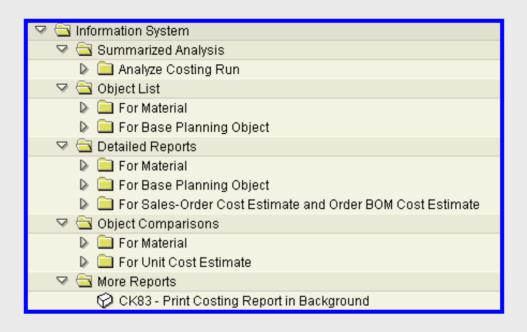




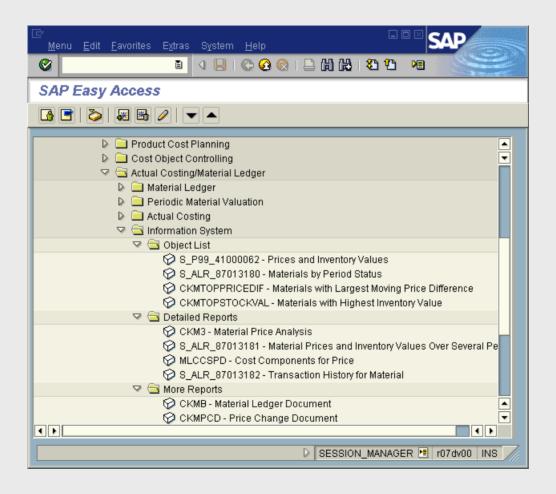




Report Selection



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Report Output Types

Graphical report-output

- ✓ Variable output areas
- **☑** HTML-header
- ✓ Navigation by drag and drop and context menu

Object List (ALV)

- ✓ Various leads columns

