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

**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.

**Standard**

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.
## Moving average price – Stock Coverage

<table>
<thead>
<tr>
<th>Stock</th>
<th>GR/IR Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>100</td>
</tr>
<tr>
<td>2.</td>
<td>200</td>
</tr>
<tr>
<td>3.</td>
<td>100</td>
</tr>
<tr>
<td>4.</td>
<td>300</td>
</tr>
</tbody>
</table>

**Stock**

<table>
<thead>
<tr>
<th>Qty</th>
<th>Stk. Val</th>
<th>V price</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>100</td>
<td>1.00</td>
</tr>
<tr>
<td>200</td>
<td>300</td>
<td>1.50</td>
</tr>
<tr>
<td>200</td>
<td>400</td>
<td>2.00</td>
</tr>
<tr>
<td>50</td>
<td>100</td>
<td>2.00</td>
</tr>
</tbody>
</table>

**Consumption**

If the invoice receipt is for 100 units, the stock coverage is 200 units: all differences goes on stock.
### Moving average price: Stock shortage

<table>
<thead>
<tr>
<th>Stock</th>
<th>Stock Value</th>
<th>V Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>100</td>
<td>1.00</td>
</tr>
<tr>
<td>200</td>
<td>300</td>
<td>1.50</td>
</tr>
<tr>
<td>50</td>
<td>75</td>
<td>1.50</td>
</tr>
<tr>
<td>50</td>
<td>125</td>
<td>2.50</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Stock</th>
<th>GR/IR account</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>200</td>
</tr>
<tr>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>50</td>
<td>50</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Price difference</th>
<th>Consumption</th>
<th>Vendor</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>225</td>
<td>300</td>
</tr>
</tbody>
</table>

1. Begin. inventory: 100 PC at 1.00
2. Goods receipt: 100 PC at 2.00
3. Goods issue: 150 PC at 1.50
4. Invoice receipt: 100 PC at 3.00
Characteristics of Price Control V

Moving average price

Advantages:
- The stock value is adjusted each time goods are received
- Real-time price fluctuations 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 (real-time price for goods receipt known)
- False entries with severe consequences (compounded errors)
- Danger of incorrect valuations with delayed invoice receipt
### Posting Example: Standard Price

<table>
<thead>
<tr>
<th>Event</th>
<th>Stock</th>
<th>Stock Value</th>
<th>Standard Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening stock: 100 at 4.00</td>
<td>100</td>
<td>400</td>
<td>4.00</td>
</tr>
<tr>
<td>Goods receipt: 100 at 5</td>
<td>200</td>
<td>400</td>
<td>4.00</td>
</tr>
<tr>
<td>Invoice receipt: 100 at 4.50</td>
<td>200</td>
<td>400</td>
<td>4.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stock</th>
<th>GR/IR account</th>
<th>Vendor</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>500</td>
<td>500</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Price difference</th>
<th>Vendor</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>50</td>
</tr>
</tbody>
</table>
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)

√ 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:**

<table>
<thead>
<tr>
<th>Material</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finished Goods</td>
<td>Standard w/ ML</td>
</tr>
<tr>
<td>Intermediates</td>
<td>Standard w/ ML</td>
</tr>
<tr>
<td>Raw Material</td>
<td>Moving Average Actual</td>
</tr>
<tr>
<td>Packaging</td>
<td>Moving Average Actual</td>
</tr>
</tbody>
</table>
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

Mfg. Cost Center
- Utilities
- Salaries
- Supplies
- Maintenance
- Depreciation
- Training
  - Direct
  - Conversion
- Insur. & Taxes
- Laboratory/QC
- Waste Treatment
- Shops & Stores
- General Services
  - Indirect
- Conversion
- Total Product Cost

Process Order
- BOM
  - Raw Mat'l 1
  - Raw Mat'l 2
  - Pkg Mat'l

Routing
- (Activity Types)
  - Mach. Hrs.
  - or
  - Lbs.
  - Produced
  - Lab tests
  - Setup Hrs.

Product Unit Cost

<table>
<thead>
<tr>
<th>(Cost Component View)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of Goods Mfg.</td>
</tr>
<tr>
<td>Raw Mat'l 1 Costs</td>
</tr>
<tr>
<td>Raw Mat'l 2 Costs</td>
</tr>
<tr>
<td>Pkg. Mat'l Costs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Routing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mach. Hr. Costs</td>
</tr>
<tr>
<td>Lab Tests Costs</td>
</tr>
<tr>
<td>Mach. Setup Costs</td>
</tr>
</tbody>
</table>

| Fixed & Variable Cost |

Costs to Produce
- Product testing costs
- Change Over costs
  - (setup costs)
- Fixed & Variable Cost

Sales & Mktg. View
- P A
  - (Profitability Analysis)
  - (SAP Value Fields)
  - Cost of Goods Sold
  - Raw Mat'l 1 & 2 Costs
  - Pkg. Mat'l Costs

Three Views Available:
1. Cost Component
2. Cost Element
3. Cost Itemization
Product Costing At A Grp

Product Cost Planning

- Quantity structure in PP created
- Activity type planning completed
- Overhead cost planning completed
- Plan prices of raw materials were entered

Adjust costing master data/parameters

Execute costing run

Standard Cost Calculated

Review for Approval

OK

Not OK

Mark Standard Cost Estimate

Automatic Release of Standard Price

Standard price has been released
Product Costing At A Grp

Product Cost Allocation - Simultaneous Costing

- Cost estimate has been released
- Manufacturing order has been released
- Cost object has been created
- Simultaneous Costing
- Product cost are allocated
Product Costing At A Grp

Period End Closing Product Costing

- Product cost are allocated
- Revaluation activity types at actual prices
- Calculation of WIP
- Periodic Variance calculation
- Settle cost object
- PE Product Costing has been done
Product Costing At A Grp

Material Ledger/Actual Costing

- MM Goods Movements Recorded
- Material Price Determination
- Allocation of Follow up Costs to Finished/Semi Finished Products
- Price Update in Actual Costing
- Revaluate Stock
- Provisional Posting
- GL Postings
- Material Master Updates
- GL Postings & Reversal
- Material Master Updates
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.

**Types:**

**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)

Create Cost estimate with quantity structure

Mark cost estimate with quantity structure

Release cost estimate with quantity structure
The purpose of **cost rollup** is to include the cost of goods manufactured of all the materials in a **multilevel production structure** 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

- Strategy for transfer of the existing cost estimates
- Determination of:
  - Bills of Material
  - Routing
- Defaulted dates for costing
- Determination of:
  - prices update in material master
- Valuation control for:
  - materials
  - internal activities
  - external activities
  - subcontracting
  - overheads via costing sheet
- Costing Sheet
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

<table>
<thead>
<tr>
<th>Section</th>
<th>Subsections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material master data</td>
<td>Accounting views, Costing views, MRP views</td>
</tr>
<tr>
<td>BOM - Bill of Material</td>
<td>BOM type &amp; identification, BOM header, Material data</td>
</tr>
<tr>
<td>Routing - tasks list</td>
<td>Routing type &amp; identification, Routing header, Operation data</td>
</tr>
<tr>
<td>Master Recipe</td>
<td>Recipe header, Operations, Materials list</td>
</tr>
<tr>
<td>Work Centers / Resources</td>
<td>Basic data, Costing</td>
</tr>
<tr>
<td>Production Version</td>
<td>Validity Period, Production line</td>
</tr>
</tbody>
</table>
Material Master Data:

- Material Master Data is an object in SAP that consists of all relevant data for raw materials, semi-finished and finished products divided into views.

- Important Views relevant for product costing:
  - Accounting
  - Costing
  - MRP
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

Product <FERT or HALB>

Mixed Product Cost Estimate

<table>
<thead>
<tr>
<th>Period</th>
<th>Lot size</th>
<th>BU</th>
<th>MR</th>
<th>Mixing ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>BF PVersion:VT1</td>
<td>1</td>
<td>T0</td>
<td>✓</td>
<td>30.000</td>
</tr>
<tr>
<td>BF PVersion:VT2</td>
<td>1</td>
<td>T0</td>
<td>✓</td>
<td>30.000</td>
</tr>
<tr>
<td>BF PVersion:VT3</td>
<td>1</td>
<td>T0</td>
<td>✓</td>
<td>40.000</td>
</tr>
</tbody>
</table>
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).
Cost center: Machine

Planned costs:
- 430000 (salaries) 44,000
- 440000 (misc.) 10,000
- 473120 (telephone) 30,000

Plan activity qty: 100 h

Planned costs: 84,000

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

1PDH01
100 h

1

Calculated Price: 840
Costing Structure

1. Assign CC 9103004 to Splitting Structure Z9 Steam service
2. Perform cost splitting

Primary costs planning on all Cost Centers.

Prices for 1UTSTF are calculated.

Activity Types Used:
1UTSTF Steam - fixed
Cost Component Structure

Primary cost elements
- Raw Materials

Cost Centers
- Utilities
- Personnel Exp.
- Depreciation

Structure of primary costs

Product Cost Planning

Z9
A Grp-Primary
- Raw Materials
  - Utilities
  - Personnel Exp.
  - Depreciation
  
  Structure of primary costs

Internal Activity Allocation
Product Costing: Overview

Standard Cost Estimate (once a year)

Create Cost estimate with quantity structure

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

Existing Std

Material Master Data

Standard Price

Future | Current | Previous
--- | --- | ---
10 | 10 | Previous

Marking Standard Cost Estimate

Future | Current | Previous
--- | --- | ---
15 | 10 | Previous

Releasing Standard Cost Estimate

Future | Current | Previous
--- | --- | ---
15 | 10 | Previous

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

Costing Run Creation
- Company Code
- Costing variant
- Dates

Selection of all materials

OR

Partial selection of materials

BOM explosion

Execute costing run

Marking and releasing costing run results (price update)
Product Costing: Overview

- Prepare Cost Object
- Production Costs
- Receive Finished Stocks
- Month End Closing

- Create cost object
- Preliminary costing
- Post Materials Costs
- Debit Secondary cost
- Credit Production Output
- WIP Calculation
- Variance Calculation
- Settlement
Cost Object Controlling: Overview

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.
**Cost Object Controlling: Overview**

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

  \[
  \text{Actual costs} = \text{Work in process}
  \]

  \[
  \text{Actual costs} - \text{Goods receipts} = \text{Work in process}
  \]

  \[
  \text{Actual costs} - \text{Goods receipts} = \text{Variances}
  \]

- **Periodic settlement (by Period)**

  \[
  \text{Actual costs} - \text{Goods receipts} = \text{Work in process} + \text{Variances}
  \]

  \[
  \text{Actual costs} - \text{Goods receipts} = \text{Work in process} + \text{Variances}
  \]

  \[
  \text{Actual costs} - \text{Goods receipts} = \text{Work in process} + \text{Variances}
  \]

  \[
  \text{Period 1} \quad \text{Period 2} \quad \text{Period 3}
  \]
<table>
<thead>
<tr>
<th>Functions</th>
<th>Product Cost by Order</th>
<th>Product Cost by Period</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of settlement rule</strong></td>
<td>FULL</td>
<td>PERIODIC</td>
</tr>
<tr>
<td>Work-in-Process</td>
<td>WIP calculated on base of actual costs</td>
<td>WIP calculated on base of target costs</td>
</tr>
<tr>
<td>Variances</td>
<td>Variance = Actual Costs - Goods Receipts</td>
<td>Variance = Actual Costs - Goods Receipts - WIP</td>
</tr>
<tr>
<td>Settlement</td>
<td>Should be periodically</td>
<td>Must be periodically</td>
</tr>
<tr>
<td>Hierarchy of Cost Objects</td>
<td>Impossible</td>
<td>Possible</td>
</tr>
</tbody>
</table>
Cost Object Controlling: Overview

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
- Create Product Cost Collector
  - Preliminary costing
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

- **Product <FERT or HALB >**
  - Routing
    - Group
    - Group counter
  - Bill of Material
    - Usage
    - Alternative
  - Production Version
    - ID,
    - Production line,
    - Validity period.

- Product Cost Collector
Objects in Cost Object Controlling

Product
<FERT or HALB>

Master Recipe

Product Cost Collector

Production Version

PROCESS ORDER 1

Operation List/Routing

PROCESS ORDER 2

Materials List/BOM

Operation 10

Phase A

Operation 20

Resource Requirements

Material X

Material Y
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

<table>
<thead>
<tr>
<th>Item</th>
<th>Plan</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caustic Soda</td>
<td>1.500</td>
<td></td>
</tr>
<tr>
<td>Ethylene</td>
<td>2.000</td>
<td></td>
</tr>
<tr>
<td>EDC</td>
<td>0.500</td>
<td></td>
</tr>
<tr>
<td>Materials</td>
<td>4.000</td>
<td></td>
</tr>
<tr>
<td>Internal activities</td>
<td>2.500</td>
<td></td>
</tr>
<tr>
<td>Overheads</td>
<td>1.500</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8.000</td>
<td></td>
</tr>
</tbody>
</table>
Simultaneous costing – actual costs

Product Cost Collector

<table>
<thead>
<tr>
<th>Item</th>
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<tr>
<td>Internal activities</td>
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<td>2.800</td>
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<tr>
<td>Overheads</td>
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<td></td>
</tr>
<tr>
<td>Total</td>
<td>8.000</td>
<td>7.400</td>
</tr>
</tbody>
</table>
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.
Actual costs

◆ Production Order

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

STATUS- CREATED
STATUS - RELEASED
This status allows for actual postings
Actual costs

◆ Production Order

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

Raw Materials
Consumed

400000

1.100,-

Inventory

400000 + 1.100

100 * 11 = 1.100,-
quantity * price = cost

119400

1.100,-

Order
Actual costs

◆ Production Order

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

Cost Center / Activity

943201 - 7.500,-

400000 + 1.100
943201 + 7.500

150 * 50 = 7.500
quantity * price = cost
Actual costs

◆ Production Order

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

<table>
<thead>
<tr>
<th>Order</th>
<th>400000 + 1.100</th>
<th>943201 + 7.500</th>
<th>462001 - 5.000</th>
</tr>
</thead>
<tbody>
<tr>
<td>FI</td>
<td>Production Output 462001</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.000,-</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Finished Products 119430</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.000,-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

100 * 50 = 5.000,-
quantity * price = value of the goods receipts from order
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

WIP Calculation

Variance Calculation

Settlement
Period and year-end closing

- Production Order

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

Order

\[
\begin{align*}
400000 &+ 1.100 \\
943201 &+ 7.500 \\
\hline
462001 &- 5.000,-
\end{align*}
\]

WIP Report:

Work-in-Process
8.600 - 5.000 = 3.600
## Period and year-end closing

### Production Order

**Step 6 – Settlement of - Period-end closing**

**Status – RESULTS ANALYSIS CARRIED OUT**

<table>
<thead>
<tr>
<th>Work In Progress (WIP)</th>
<th>Order</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>462201</strong></td>
<td><strong>462001</strong> - 5.000,-</td>
</tr>
<tr>
<td>3.600</td>
<td>400000 + 1.100</td>
</tr>
<tr>
<td>119460</td>
<td>943201 + 7.500</td>
</tr>
</tbody>
</table>

WIP is being updated on the order as statistical value for information purposes.
Period and year-end closing

**Production Order – new period**

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

<table>
<thead>
<tr>
<th>Order</th>
<th>400000</th>
<th>+ 1.100</th>
<th>462001</th>
<th>- 5.000,-</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>943201</td>
<td>+ 7.500</td>
<td>462001</td>
<td>- 7.000,-</td>
</tr>
<tr>
<td></td>
<td>400000</td>
<td>+ 5.000,-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As a result of the actual postings in the new period there is a new balance on the order.
# Period and year-end closing

**Production Order – period 2**

**Step 7 – Work-in-Process Calculation (variant 1)**

- Period-end closing
- Status – PARTIALLY DELIVERED

<table>
<thead>
<tr>
<th>Order</th>
<th>Status</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>400000</td>
<td>+ 1.100</td>
<td>462001 - 5.000,=</td>
</tr>
<tr>
<td>943201</td>
<td>+ 7.500</td>
<td>462001 - 7.000,=</td>
</tr>
<tr>
<td>400000</td>
<td>+ 5.000</td>
<td></td>
</tr>
</tbody>
</table>

**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
Period and year-end closing

- Production Order – Period 2
  
  Step 11 – Settlement (variant 1)
  - Period-end closing
  Status – RESULTS ANALYSIS CARRIED

As WIP is reported as cumulative value.
Period and year-end closing

**Production Order – period 2**

**Step 12 – Calculation of Variances and Settlement (variant 2)**
- Period-end closing
  Status – TECHNICALLY COMPLETED

<table>
<thead>
<tr>
<th>Price Difference - Production Difference</th>
<th>Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>464018</td>
<td>400000 + 1.100</td>
</tr>
<tr>
<td></td>
<td>943201 + 7.500</td>
</tr>
<tr>
<td></td>
<td>462001 - 5.000</td>
</tr>
<tr>
<td></td>
<td>462001 - 7.000</td>
</tr>
<tr>
<td></td>
<td>400000 + 5.000</td>
</tr>
</tbody>
</table>

As a result of a posting the balance of the order was posted to production difference account and cumulated WIP was reversed.

<table>
<thead>
<tr>
<th>FI</th>
<th>Order</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>462001 - 5.000</td>
</tr>
<tr>
<td></td>
<td>462001 - 7.000</td>
</tr>
<tr>
<td></td>
<td>400000 + 5.000</td>
</tr>
</tbody>
</table>

Negative variance: Actuals > Plan.
Period and year-end closing

Variance Category:
- PRIY Input Price Variance
- QTYV Input Quantity Variance
- RSUV Resource-Usage Variance
- INPV Remaining Input Variance
- MXPV Mixed-Price Variance
- OPPV Output Price Variance
- LSFV Lot Size Variance/Fixed-Cost V.
- REMV Remaining Variance
- SCRIP Scrap

Cost Element Group:
- Cost element: From 0 To 999999

PA Assignment lines:
- 161 Input Price Variance
- 102 Input Quantity Variance
- 103 Resource Usage Variance
- 104 Remaining Input Variance
- 105 Mixed Price Variance
- 106 Output Price Variance
- 107 Lot Size / Fixed Cost Variance
- 108 Remaining Variance
- 109 Scrap

Value Field:
- Field name | Description
  - W101 | Input Price Variance
  - W102 | Input Quantity Var
  - W103 | Resource Usage Var
  - W104 | Remaining Input Var
  - W105 | Mixed Price Variance
  - W106 | Output Price Var
  - W107 | Lot Sz/Fixed Lot Var
  - W108 | Remaining Variance
  - W109 | Scrap
Periodic Costs

Product Cost Collector

<table>
<thead>
<tr>
<th>Item</th>
<th>Plan</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caustic Soda</td>
<td>1.500</td>
<td>1.800</td>
</tr>
<tr>
<td>Ethylene</td>
<td>2.000</td>
<td>2.200</td>
</tr>
<tr>
<td>EDC</td>
<td>0.500</td>
<td>0.600</td>
</tr>
<tr>
<td>Materials</td>
<td>4,000</td>
<td>4,600</td>
</tr>
<tr>
<td>Internal activities</td>
<td>2.500</td>
<td>2.800</td>
</tr>
<tr>
<td>Overheads</td>
<td>1.500</td>
<td>1.600</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>8,000</td>
<td>9,000</td>
</tr>
</tbody>
</table>
Period and year-end closing

Period-end closing

- Periodic costs
  - Process costs
  - Revaluation
  - Overheads

- Calculations and analysis
  - Work-in-Process
  - Scrap Variances

- Postings FI/CO
  - Settlement
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
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.
The “multi-level” settlement functionality adds the most value because it passes the lower level variance in a production process 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:** 205 - Bike Frame
**Plant:** 0010 - US Plant 0010

#### Material Data

**Valuation type:**

<table>
<thead>
<tr>
<th>Period/year</th>
<th>Period status</th>
<th>Price determined single-level</th>
</tr>
</thead>
</table>

**Currency/valuation:** Company code currency = USD

#### Additional Data

<table>
<thead>
<tr>
<th>Standard price</th>
<th>150.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Periodic unit price</td>
<td>150.00</td>
</tr>
</tbody>
</table>

**Current data**

<table>
<thead>
<tr>
<th>Current stock</th>
<th>Current stock value</th>
<th>Inv. value (stat.)</th>
<th>Future val. price</th>
<th>Future val. price frm</th>
</tr>
</thead>
<tbody>
<tr>
<td>145</td>
<td>21,750.00</td>
<td>21,750.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

**Price unit:** 1
**Price control:** 1
**Price determination:** Single/multi-level
**Base unit of measure:** EA

**Revaluation amount:** 0.00
**Price diff issues:** 0.00

#### Inventory Movement

<table>
<thead>
<tr>
<th>Category</th>
<th>Quantity</th>
<th>PrelimVal</th>
<th>Price diff</th>
<th>Excl. diff</th>
<th>Price</th>
<th>C..</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning inventory</td>
<td>145 EA</td>
<td>21,750.00</td>
<td>0.00</td>
<td>0.00</td>
<td>150.00 USD</td>
<td></td>
</tr>
<tr>
<td>Receipts</td>
<td>0 EA</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00 USD</td>
<td></td>
</tr>
<tr>
<td>Procurement</td>
<td>085 EA</td>
<td>12,750.00</td>
<td>0.00</td>
<td>0.00</td>
<td>150.00 USD</td>
<td></td>
</tr>
<tr>
<td>Purchase order</td>
<td>185 EA</td>
<td>27,750.00</td>
<td>775.30</td>
<td>0.00</td>
<td>145.79 USD</td>
<td></td>
</tr>
<tr>
<td>Other receipts/consumption</td>
<td>0 EA</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00 USD</td>
<td></td>
</tr>
<tr>
<td>Cumulative inventory</td>
<td>145 EA</td>
<td>21,750.00</td>
<td>0.00</td>
<td>0.00</td>
<td>150.00 USD</td>
<td></td>
</tr>
<tr>
<td>Consumption</td>
<td>0 EA</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00 USD</td>
<td></td>
</tr>
<tr>
<td>Ending inventory</td>
<td>145 EA</td>
<td>21,750.00</td>
<td>0.00</td>
<td>0.00</td>
<td>150.00 USD</td>
<td></td>
</tr>
</tbody>
</table>
Material Ledger Overview

Material Ledger
MATERIAL STOCK

Parallel Currencies
Translation at historic rates (up to three)

Parallel Valuations
(Transfer Prices)
- Group
- Legal
- Profit Center

Actual Costing
Revaluation of stock at actual prices or accrual of variances.
ML Overview – Parallel Currencies

Material Ledger
(Valuation Area / Plant)
- 10 Local currency
- 30 Group currency

Financial Accounting
(Company Code)
- 10 Local currency
- 30 Group currency

Controlling
(Controlling Area)
- 10 Local currency
- 30 Group currency
Material Ledger
Valuation Area (Plant) 9100
Price control

Moving average price
\((V \text{ Price})\)
- Changed after every receipt
- Recommended for raw and externally procured materials.

Standard Price
\((S \text{ Price})\)
- Stable for long period
- Recommended for finished and semi-finished products.

Material Master
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 take 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 benchmark
- Estimations of the standard prices with cost component split
- Recommended for all materials types

❌ Price differences cannot be subsequently adjusted to the ending inventories or the consumed products (very important in the Cost of Goods Sold accounting)
Price determination control

1. Price control
2. Transaction based
   - Standard price
3. Single-/ multilevel price determination
   - Standard price
   - Periodic price
   - Cannot be activated manually
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**

\[ (V \text{ Price} / 2 \text{ Activity-related}) \]

**Standard Price**

\[ (S \text{ Price} / 3 \text{ Single-/multi-level}) \]

Material ledger is activated
Material Master - Parallel Currencies

Company Code: 5200
Valuation Area / Plant: 5200

Legal valuation
USD

Group valuation
SAR

Profit center valuation
SAR
Material Master - Transparency

Material Master

Material Price Analysis

Material: 64  Butadiene
Plant: 5280
Valuation type
Sales order stock/project stock
Perio/Periodyear: 0 2002
Currency: Company code currency
View: Price determination structure

Prices and inventory values

<table>
<thead>
<tr>
<th>Category</th>
<th>Quantity</th>
<th>Unit</th>
<th>PrelimVal</th>
<th>Price diff</th>
<th>ExRt diff</th>
<th>Price</th>
<th>Currency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning inventory</td>
<td>30,004,065 TO</td>
<td>1,492,146,464.70</td>
<td>0.00</td>
<td>0.00</td>
<td>49.73</td>
<td>USD</td>
<td></td>
</tr>
<tr>
<td>Period opening</td>
<td>30,004,065 TO</td>
<td>1,492,146,464.70</td>
<td>0.00</td>
<td>0.00</td>
<td>49.73</td>
<td>USD</td>
<td></td>
</tr>
<tr>
<td>Receipts</td>
<td>0 TO</td>
<td>0.30</td>
<td>0.00</td>
<td>0.00</td>
<td>49.73</td>
<td>USD</td>
<td></td>
</tr>
<tr>
<td>Cumulative Inventory</td>
<td>30,004,065 TO</td>
<td>1,492,146,464.70</td>
<td>0.00</td>
<td>0.00</td>
<td>49.73</td>
<td>USD</td>
<td></td>
</tr>
<tr>
<td>Consumption</td>
<td>0 TO</td>
<td>0.30</td>
<td>0.00</td>
<td>0.00</td>
<td>49.73</td>
<td>USD</td>
<td></td>
</tr>
<tr>
<td>Ending inventory</td>
<td>30,004,065 TO</td>
<td>1,492,146,464.70</td>
<td>0.00</td>
<td>0.00</td>
<td>49.73</td>
<td>USD</td>
<td></td>
</tr>
</tbody>
</table>
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

- **PRD**
  - Cost (price) differences
- **PRF**
- **PRA**
- **PRU**
  - Cost (price) differences
- **PRY**
  - Material ledger fr.low.level price diff.
- **PRV**
  - Material ledger fr.low.level price diff.
- **UMB**
  - Gain/loss from revaluation
- **LKW**
  - Accruals and defer.acct(mat.ledger)

**FI**
- GL (PL) 464017 Price Diff -Purchasing
- GL (PL) 464018 Production Variance
- GL (PL) 464019 Price Diff - Good Issue
- GL (PL) 464020 Price Diff - Transfer Postings
- GL (PL) 464021 Gains/Loss on Inventory Revaluation
- GL (BS) 119610 ML Provisions

**PA**
- Revenue
- COGS
  - Input price variance
  - Input quantity variance
  - Resource-usage variance
  - Remaining input variance
  - Mixed-price variance
  - Output price variance
  - Lot size-/fixed-cost variance
  - Remaining variance
  - Scrap
  - Price Diff - Purchasing
  - Price Diff - Good Issue
  - Price Diff - Transfer Postings
  - Gains/Loss on Inventory Revaluation

**Revenue**
- COGS

**Production Variances**
- Adjustment to COGS from capitalising Variances
- Adjustment to COGS from Inventory Revaluation

**Gross margin**
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
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
  - Single-level price determination
  - 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
    - Price differences
  - Updating single-level variances
  - 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
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 be valued 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 **revalue** 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
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

Stock value: 185.5 EUR
(700 PC * 26.50/100)

**Material stock (119400):**

<table>
<thead>
<tr>
<th></th>
<th>250</th>
<th>325</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td></td>
<td>10.5</td>
<td>10.5</td>
</tr>
</tbody>
</table>

**GR/IR allocation:**

<table>
<thead>
<tr>
<th></th>
<th>260</th>
<th>260</th>
</tr>
</thead>
</table>

**Vendor:** 280

**Price difference (464017):**

<table>
<thead>
<tr>
<th></th>
<th>10</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL</td>
<td>10.5</td>
<td>10.5</td>
</tr>
</tbody>
</table>

**Material consumption (400002):**

<table>
<thead>
<tr>
<th></th>
<th>VB</th>
<th>325</th>
</tr>
</thead>
</table>

**ML accrual (119610):**

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
</table>

**Locked**
**Period End Overview – Closing Entry (2)**

Material: ACT-LCD##

**Status:** Closing entry performed

**Price control:** S

**S price:** 25.00 EUR / 100 units

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning inventory (BI)</td>
<td>1000 PC</td>
<td>250 EUR</td>
</tr>
<tr>
<td>Goods receipt/purchase order</td>
<td>1000 PC</td>
<td>260 EUR</td>
</tr>
<tr>
<td>Invoice receipt</td>
<td>1000 PC</td>
<td>280 EUR</td>
</tr>
<tr>
<td>Consumption</td>
<td>1300 PC</td>
<td>325 EUR</td>
</tr>
<tr>
<td>Ending inventory</td>
<td>700 PC</td>
<td></td>
</tr>
</tbody>
</table>

**Stock value:**

175 EUR

**Material stock (119400):**

- 250
- 325

**GR/IR allocation:**

- 260
- 260

**Vendor:**

- 280

**Price difference (464017):**

- 10
- CL

**Material consumption (400002):**

- 325
- 10.5

**ML accrual (119610):**

- CL
- 10.5

**Locked**

**Without Revaluation**
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.
Information System Overview

Materials to be costed

Product Cost Planning Reports

Summarized Analysis

Object List

Object Comparisons

Detailed Reports
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
The Report can be used to
The Report can be used to...
The Report can be used to
The Report can be used to
Information System Overview
Information System Overview

Material Ledger Reports

Object List

Detailed Reports

Displaying Documents
Information System Overview

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Information System Overview

SAP Easy Access

- Product Cost Planning
- Cost Object Controlling
- Actual Costing/Material Ledger
  - Material Ledger
  - Periodic Material Valuation
  - Actual Costing
- Information System
  - Object List
    - B_PS9_10000062 - Prices and Inventory Values
    - B_AUR_07013180 - Materials by Period Status
    - DKMSTOPPRICEDIF - Materials with Largest Moving Price Difference
    - DKMSTOPSTOCKVAL - Materials with Highest Inventory Value
  - Detailed Reports
    - DKM3 - Material Price Analysis
    - B_AUR_07013181 - Material Prices and Inventory Values Over Several Periods
    - MLCONTPO - Cost Components for Price
    - B_AUR_07013182 - Transaction History for Material
  - More Reports
    - DKM6 - Material Ledger Document
    - DKMFCD - Price Change Document
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
- Standard ALV Functions
Thank You