

Profitability Analysis

CO-PA

Course Objectives

- Understand the functions in Profitability Analysis.
- Explain Profitability management in SAP.
- Understand CO-PA structures and master data.
- Identify the source of actual values.
- Understand planning.
- Use the CO-PA information system.

Table of contents

Overview

Profitability Management

Master Data

Planning

Actual data flow

Information System

Profitability Analysis at A Grp

- Profitability Analysis will enable A Grp to analyze the profitability of market segments according to the following characteristics:
 - ✓ Products
 - ✓ Customers
 - ✓ Sales Districts (i.e. USA West, USA East, Saudi Arabia etc.)
 - ✓ Others

Flow of actual values in Profitability Anal.

- Actual Postings represent the most important source of information in CO-PA. You can transfer **billing documents** (used in A Grp) from the Sales and Distribution (SD) application component to CO-PA in real time. You can also transfer costs from cost centers, orders and projects (in next phase), as well as i.e. demurrage costs and revenues from direct postings (G/L account postings in FI, orders received in MM, and so on) or assess costs from CO to profitability segments.
- In costing-based CO-PA, you can value incoming **billing documents** to automatically determine anticipated **sales deductions**, costs or even **estimated costs**, such as Estimated Port Charges. You can also reevaluate your data periodically to adjust the initial, real time valuation or add the actual costs of goods manufactured.

Profitability Management

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Aspects of Profitability Management



Responsibility Accounting
(Company oriented)

Revenue	2000
Salaries	468
Materials	230
Profit	



Profitability Analysis
By Market segment
(Market oriented)

Revenue	2000
Discounts	100
COGS	230
Contr. Margin	1440
Advertising	250

Profitability
Segments
External Market

Profit Centers

Ethylene

Pharma

Power

Telecom

Terms used in Profitability Analysis

➤ **Accounting Methods**

- ✓ Period Accounting
- ✓ Cost of Sales Accounting

➤ **Values**

- ✓ Gross Sales
- ✓ Net Sales
- ✓ Variances

➤ **Ratios**

- ✓ Economic Profit
- ✓ Contribution Margin

Methods of Determining Profits

Period accounting method	Cost of Sales method
<ul style="list-style-type: none"> •Revenues •Sales deductions •Changes in stock •Capitalized internal services • Work in process 	<ul style="list-style-type: none"> •Revenues •Sales deductions •Cost of sales (incl. variances for period)
Total activities	Gross result
<ul style="list-style-type: none"> •Total costs: <ul style="list-style-type: none"> Material costs Personnel costs Other costs 	<ul style="list-style-type: none"> •Sales and distribution costs •Administrative costs •Research & Development
Result	Result

Aspects of Profitability Management

- Profitability Analysis (CO-PA) calculates profits according to **cost-of-sales method of accounting**.
- Profit Center Accounting (EC-PCA), on the other hand, supports both **period accounting** and cost-of-sales approach.
- Both of these methods are used at the same time in your organization.

Profitability Analysis by Market Segment

- In Profitability Analysis (CO-PA) you can analyze contribution margin (Sales – Cost of goods sold) according to market segments.
- A market segment can comprise of product and customer, customer and region, customer and country, Sales region and material group

Master Data in CO PA

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Master Data – Currency of Op. Concern



Profitability Accounting (costing based)

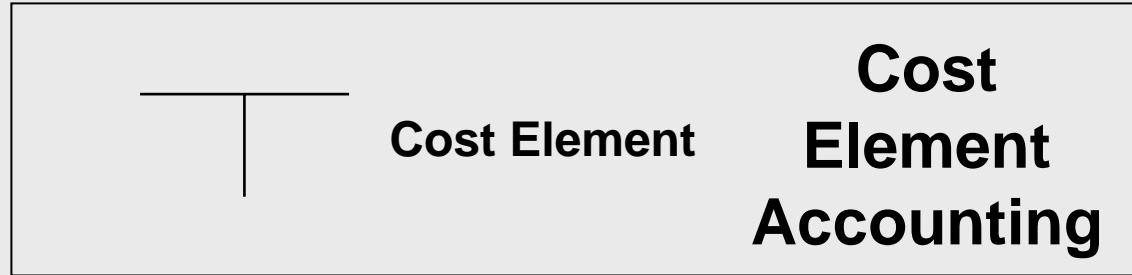
Operating Concern

9100

Currency

B0 = EUR

Master Data in Profitability Analysis

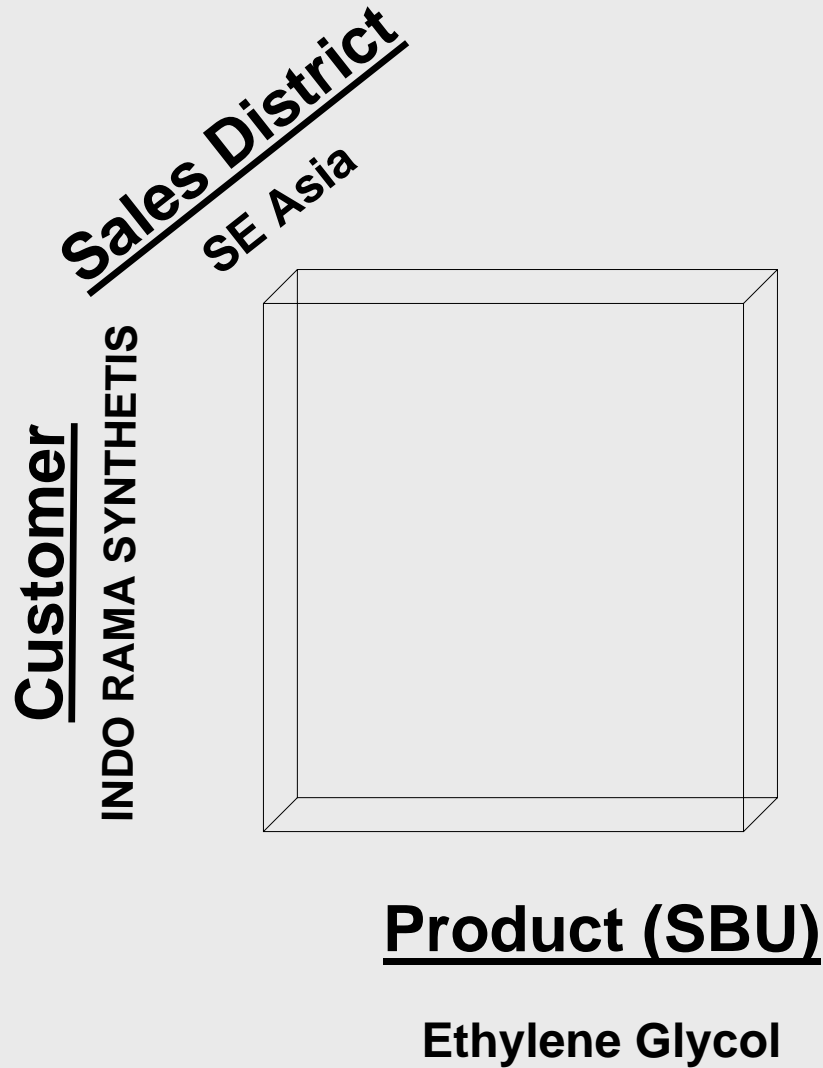


**Profitability
Analysis**

**Profitability
Segment**

**Characteristics
Value Fields**

Profitability Segments

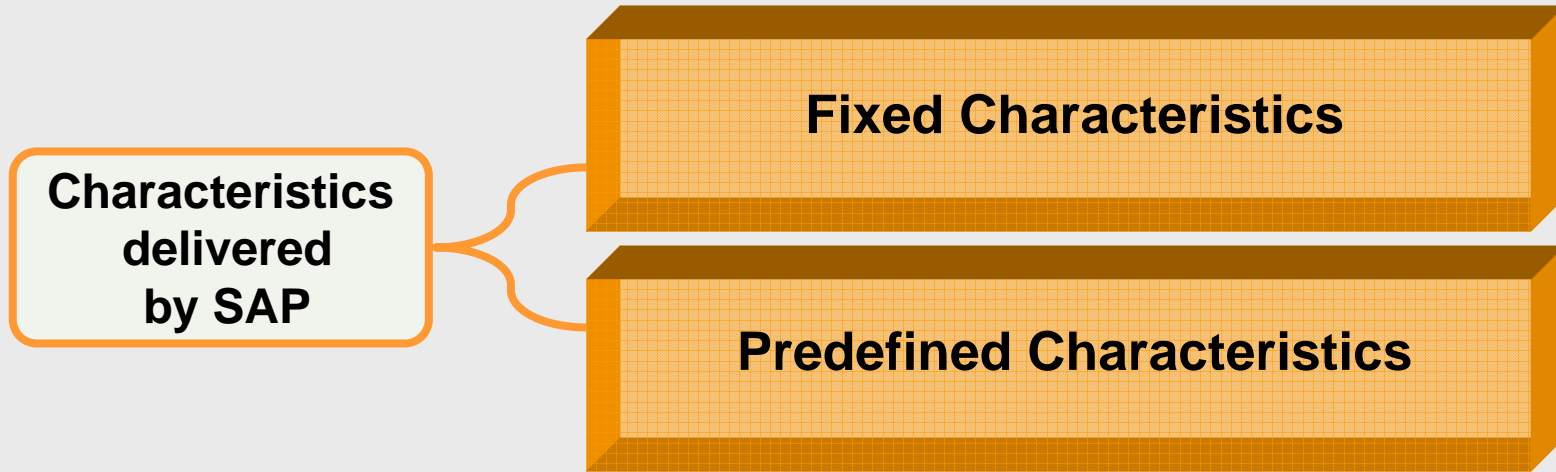


Master Data in Profitability Analysis

Profitability Segment - object within Profitability Analysis to which costs and revenues are assigned. A **profitability segment** corresponds to a market segment.

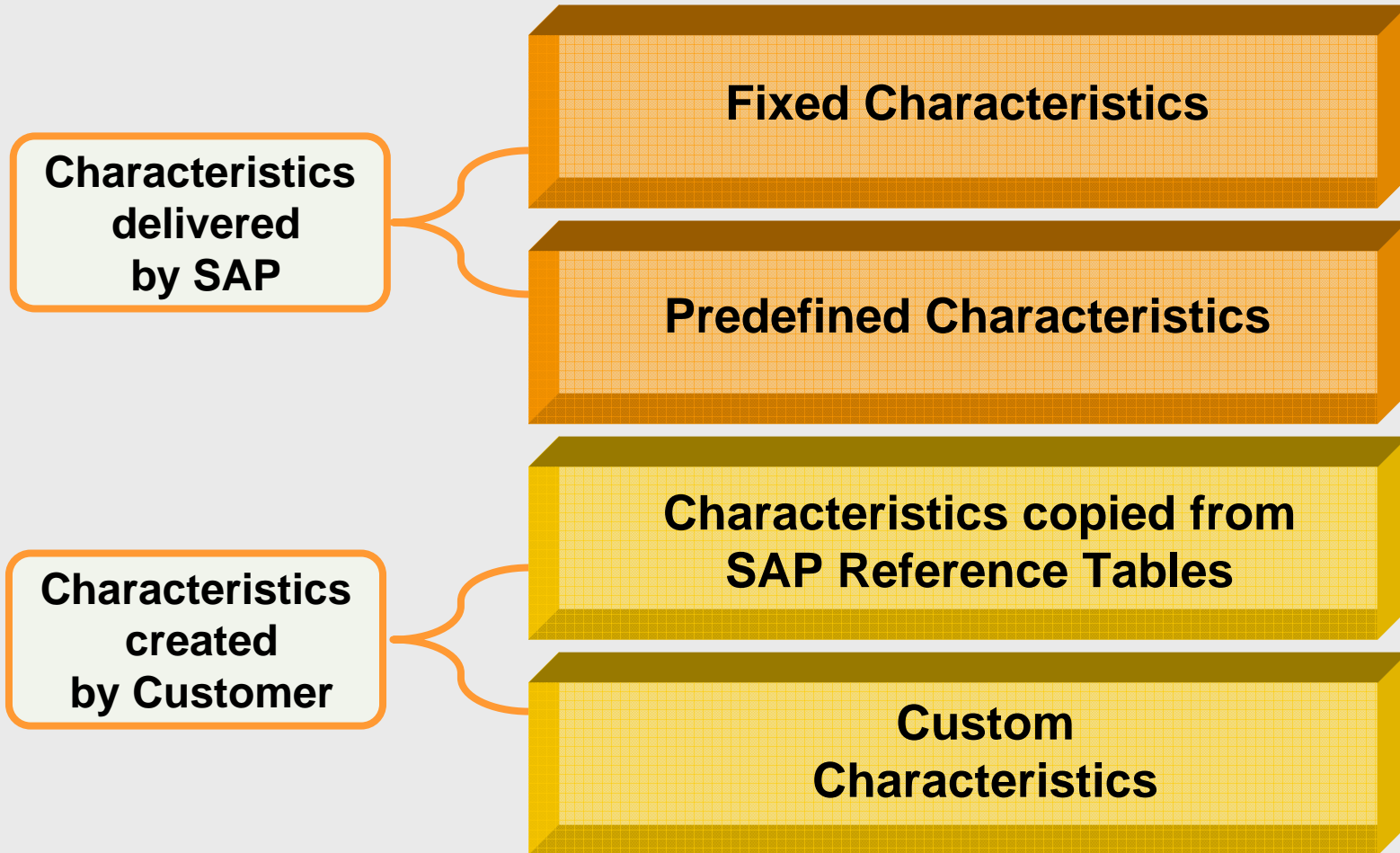
You can calculate the profitability of a profitability segment by setting off its sales revenues against its costs. A profitability segment in an operating concern is defined by a combination of characteristic values. Characteristics can be concepts that already exist in the R/3 System (customer, product, sales organization, and so on).

Categories of Characteristics (1)



- **Characteristics are valid in all clients**
- **Characteristics are available for all Operating Concerns**

Categories of Characteristics (2)



Categories of Value Fields

**Value Fields
delivered
by SAP**

Predefined Value Fields

Value field	Description
ABSMG	Sales quantity
ERLOS	Revenue
VRPRS	Stock value

**Value Fields
created
by Customer**

Custom Value Fields

Value field	Description
VV002	Freight
VV001	Marketing Fee

Segments

The screenshot displays the SAP Drilldown Report interface for 'TEST1: Detail List'. The top menu bar includes 'Report', 'Edit', 'Goto', 'Navigate', 'Extras', 'Settings', 'System', and 'Help'. The title bar shows 'Execute Drilldown Report TEST1: Detail List'. The main content area is divided into several sections:

- Navigation:** A tree view on the left shows 'TEST1' expanded to 'DISTR'. The right side shows 'Current data (15.07.2002 08:27:26)'.
- Characteristics:** A table lists characteristics and their values:

Distr. channel	Division	10	Basic Chemicals
Company Code	Product	64	Butadiene
Country	Customer	10000035	Atlantic Methanol Se
Region			
- Key figures:** A table showing various metrics:

Key figures		
Sales quantity	165.000	
Revenue	24,750.00	
Stock value	8,250.00	
Input Price Variance	0.00	
Freight	0.00	
Marketing Fee	0.00	

The bottom status bar shows 'Next characteristic value (characteristic Customer)' and system information: 'KE32 r07dv00 INS'.

Planning

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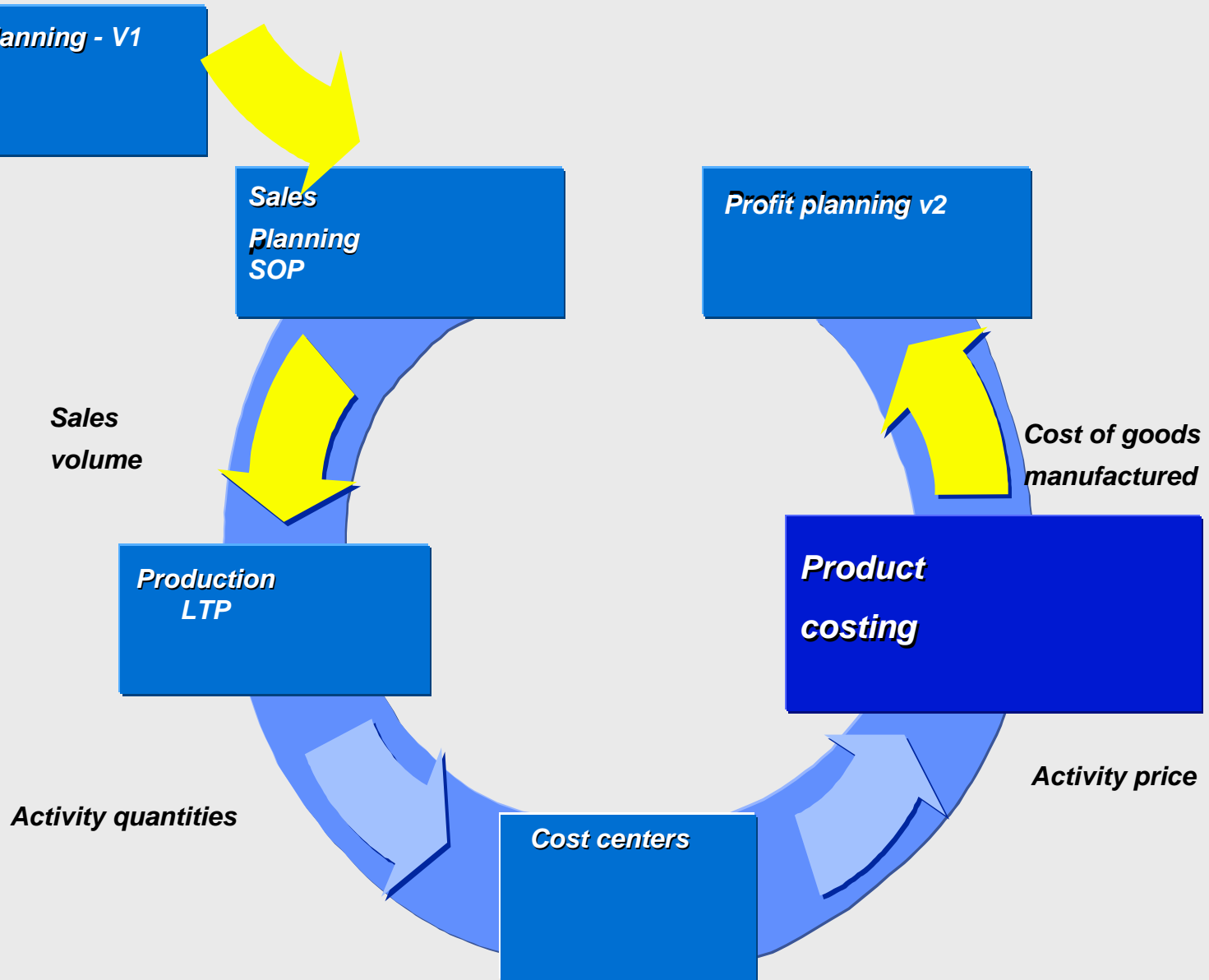
CO-PA Planning Objectives

- Plan Integration
- Plan Versions
- Creation of a sales plan using planning level and planning packages
- Plan Data Transfer

CO-PA Planning Objectives

- **Plan Integration**
- Plan Versions
- Creation of a sales plan using planning level and planning packages
- Plan Data Transfer

Plan Integration



CO-PA Planning Objectives

- Plan Integration
- **Plan Versions**
- Creation of a sales plan using planning level and planning packages
- Plan Data Transfer

Plan Version '0' A Grp

General Version Definition

Version

0

Plan



Actual



Fiscal year dependent parameters in CO-OM

1 Integrated Planning



1. Plan records are posted as line items from respective areas.

Settings for CO-PA

Version Locked



Currency type

B0

1

Exchange Rate

P

2

1. The currency type determines the currency or valuation view in which the amounts are to be displayed or planned.
B0 - Operating Concern Currency
2. Controls the exchange rate type, i.e. Buying rate, selling rate or P – Standard translation for planning.

CO-PA Planning Objectives

- Plan Integration
- Plan Versions
- Creation of a sales plan using planning level and planning packages
- Plan Data Transfer

Overview of Planning Framework

The screenshot displays the SAP Planning Framework: Overview interface. At the top, the SAP logo and navigation menu (Planning, Edit, Goto, System, Help) are visible. Below the title bar, there are buttons for "Navigation off" and "Set personalization profile".

The main interface is divided into several sections:

- Planning levels:** A table with columns "Description" and "Status". It shows a hierarchy starting with "Planning levels", followed by "Z91SP" (A LTD SALES PLAN), and "2006" (Sales plan 2006).
- Planning methods:** A list of methods under "Z91SP", including "Enter planning c", "Display planning", "Copy", "Forecast", "Delete", "Top-down distrib", "Ratios", "Valuation", "Revaluation", "Event", "Period distributic", and "Customer enhar".
- Plan. package:** Fields for "2006" and "Sales plan 2006".
- Selection:** A table with columns "Char.", "Frm", "To", and "More". It lists selection criteria such as "Company Code" (9100), "Customer", "Period/year" (001.2006 to 012.2006), "Product", "Record type" (F), and "Version" (0).

The bottom right corner shows the user ID "KEPM" and the system name "demo INS".

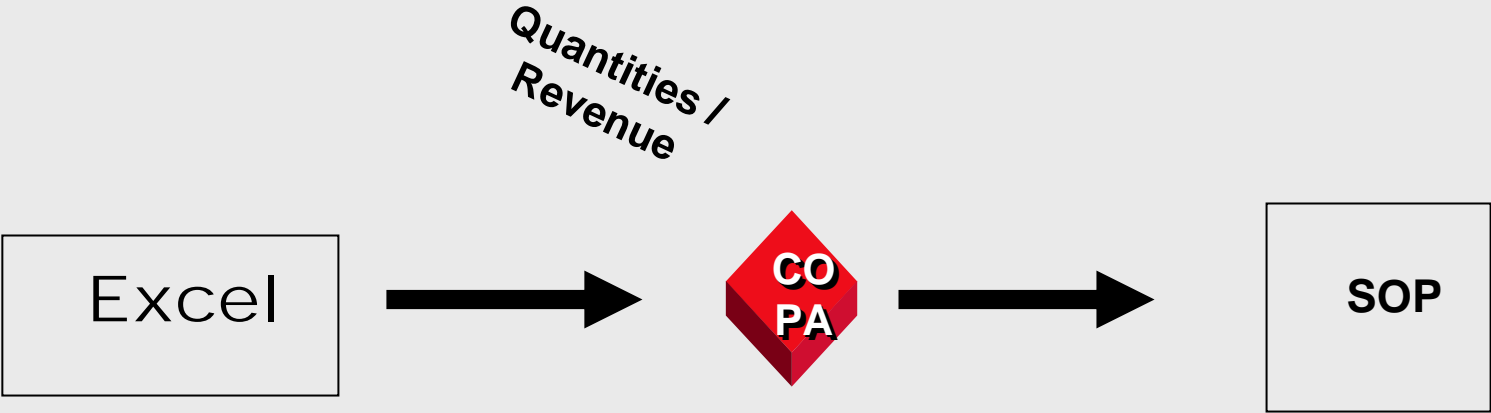
Overview of Planning Framework

- Maintain Planning Level-Package-Set-Personalization
- Copy Sales Plan
- Upload of COPA Plan - Offline Planning
- Manual Profit Planning
- Valuation Planning Method
- Event Planning Method
- Period Distribution Planning Method
- Ratio Planning Method
- Planning Forecast
- Revaluation Planning Method

CO-PA Planning Objectives

- Plan Integration
- Creation of a sales plan using planning level and planning packages
- **Plan Data Transfer**

Plan Data Transfer



Actual data flow

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Actual Values Overview

- Flow of Actuals in Profitability Analysis
 - ✓ Overview
 - ✓ Flow from the Sales and Distribution (SD) Module
 - Flow from Billing Document
 - ✓ Flow from the FI/MM – direct postings
 - General Ledger Posting
 - MM Postings
 - ✓ Flow from the Product Costing
 - Settlement of Production Variances to PA

Actual Values Overview

- Flow of Actuals in Profitability Analysis
 - ✓ **Overview**
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Sources of value fields

Source Transaction



**Value
Field**

Billing Document

**Quantity
Revenues**

**Sales deductions
Cost of Goods Sold**

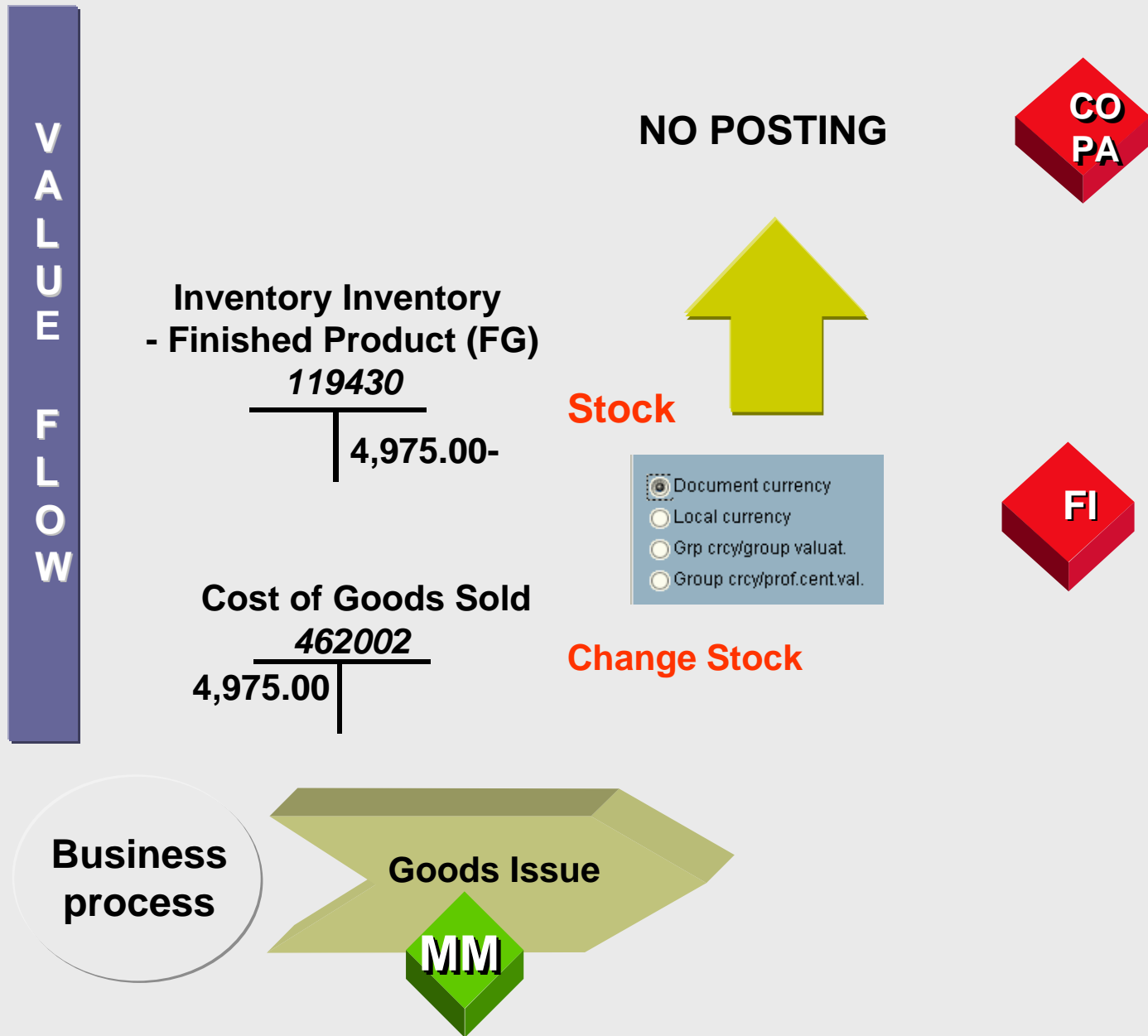
Direct Posting from FI

**Freight costs
Inventory re-valuation**

Actual Values Overview

- Flow of Actual values in Profitability Analysis
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 - MM Postings
 - ✓ Flow from the Product Costing
 - Settlement of Production Variances to PA

Flow from sales and distribution (1)



Flow from sales and distribution (2)

VALUE FLOW



Doc. no.	Ref.doc.no	Rf.itm	Dv	Product	Customer	Sales qty	Revenue	Stock val.
569	90000168	000010	10	64	10000008	100	10,000.00	4,975.00

CTyp	Name	Val. fld	Description
ZR00	Price	ERLOS	Revenue
VPRS	Cost	VRPRS	Stock value



Receivables

10,000

Sales
810000

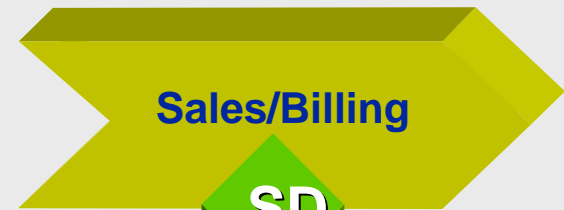
10,000 -

- Document currency
- Local currency
- Grp crcy/group valuat.
- Group crcy/prof.cent.val.

Standard Price	Cost of Goods Sold
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Product Cost Estimate



Actual Values Overview

- Flow of Actuals in Profitability Accounting
 - ✓ Overview
 - ✓ Flow from the Sales and Distribution (SD) Module
 - Flow from Billing Document
 - ✓ Flow from the FI/MM – direct postings
 - General Ledger Posting
 - MM Postings
 - ✓ Flow from the Product Costing
 - Settlement of Production Variances to PA

Flow from FI/MM

VALUE FLOW

PA transfer structures

- Assignment lines
 - Source
 - Value fields

Assignment lines

Assgnmnt	Text
121	Gain / Loss on Inventory Reval



Cost element

From

464021

Source



Quantity/value	Fi...	Value fld
1 Value field	3	VV121

Value fields

VV121 Gain/Loss Inv Revalu

Assignment lines

Assgnmnt	Text
11	Revenue
12	Stock value
13	Ocean Freight
14	Insurance
15	Other Expenses
16	Demurrage
17	Handling & Packaging
18	Representative Fees
19	Parking Charges (Revenue)
21	Discounts
22	Expense Recharges
23	Deductions
24	Rebates
25	Marketing Fee
26	Storage Cost
27	Customs Duties
28	Insp & Srv Fee
29	Land Transport
30	Load On/Off Fee
31	Port Charges
32	Port Extra Chrg
33	Take In WH
34	Take Out WH
35	War Risk Insur.
36	Marketing Fees- Expense
111	Price Difference - Purchasing
112	Price Difference - Goods Issue
113	Price Difference - Transfer PO
121	Gain / Loss on Inventory Reval

Flow from FI/MM

VALUE FLOW



Doc. no.	Ref.doc.no	Rf.itm	Dv	Product	Customer	Est DM&Dtn	Demurge
1169	5000000492	000001	10	64	10000008	0.00	15.00-



Accr. GR/IR
219914
15.00



Default account assignment

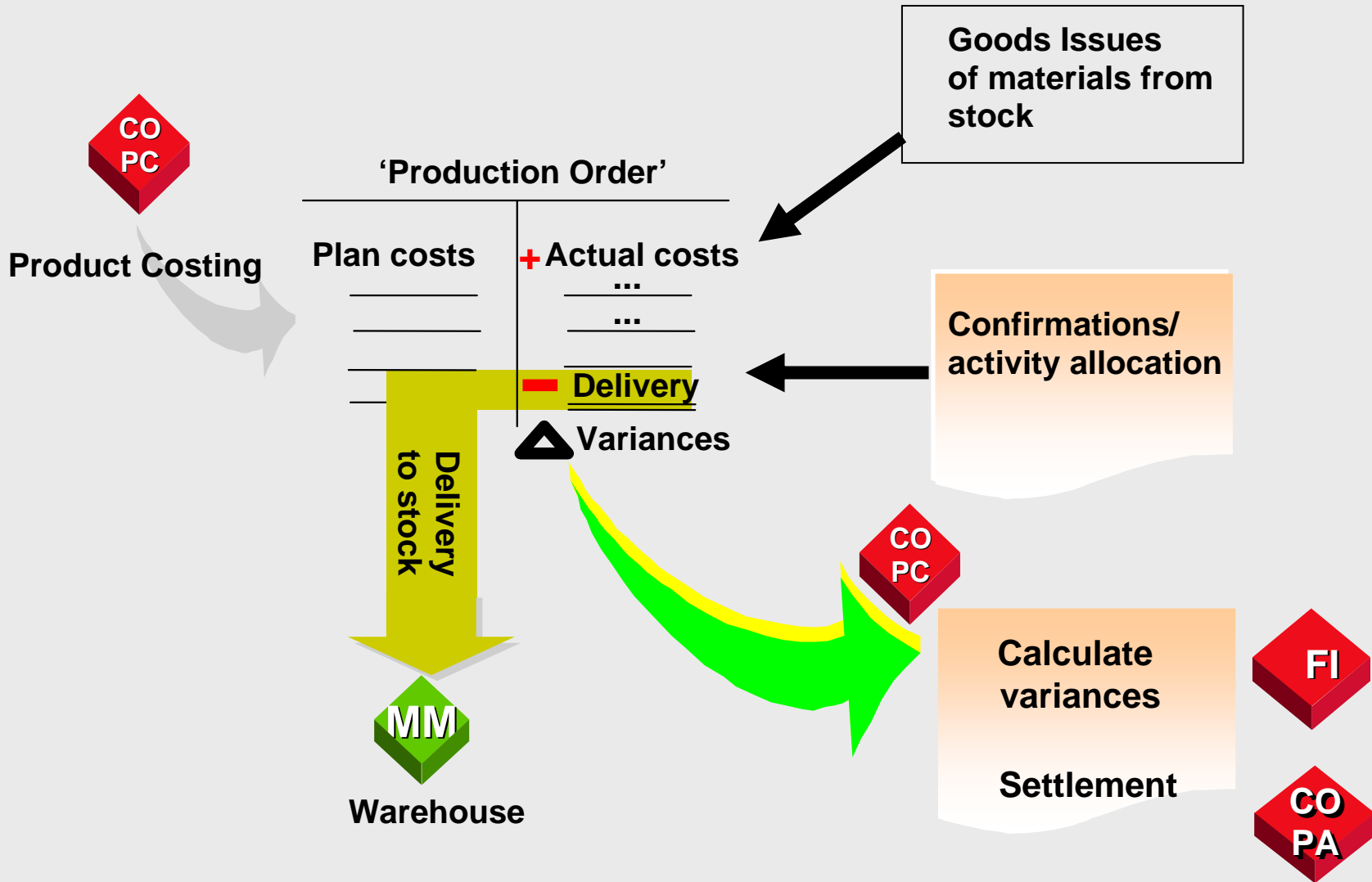
CoCd	Cost elem.	PrfSeg
1200	484013	<input checked="" type="checkbox"/>

Demurrage & Detention
484013
15.00 -

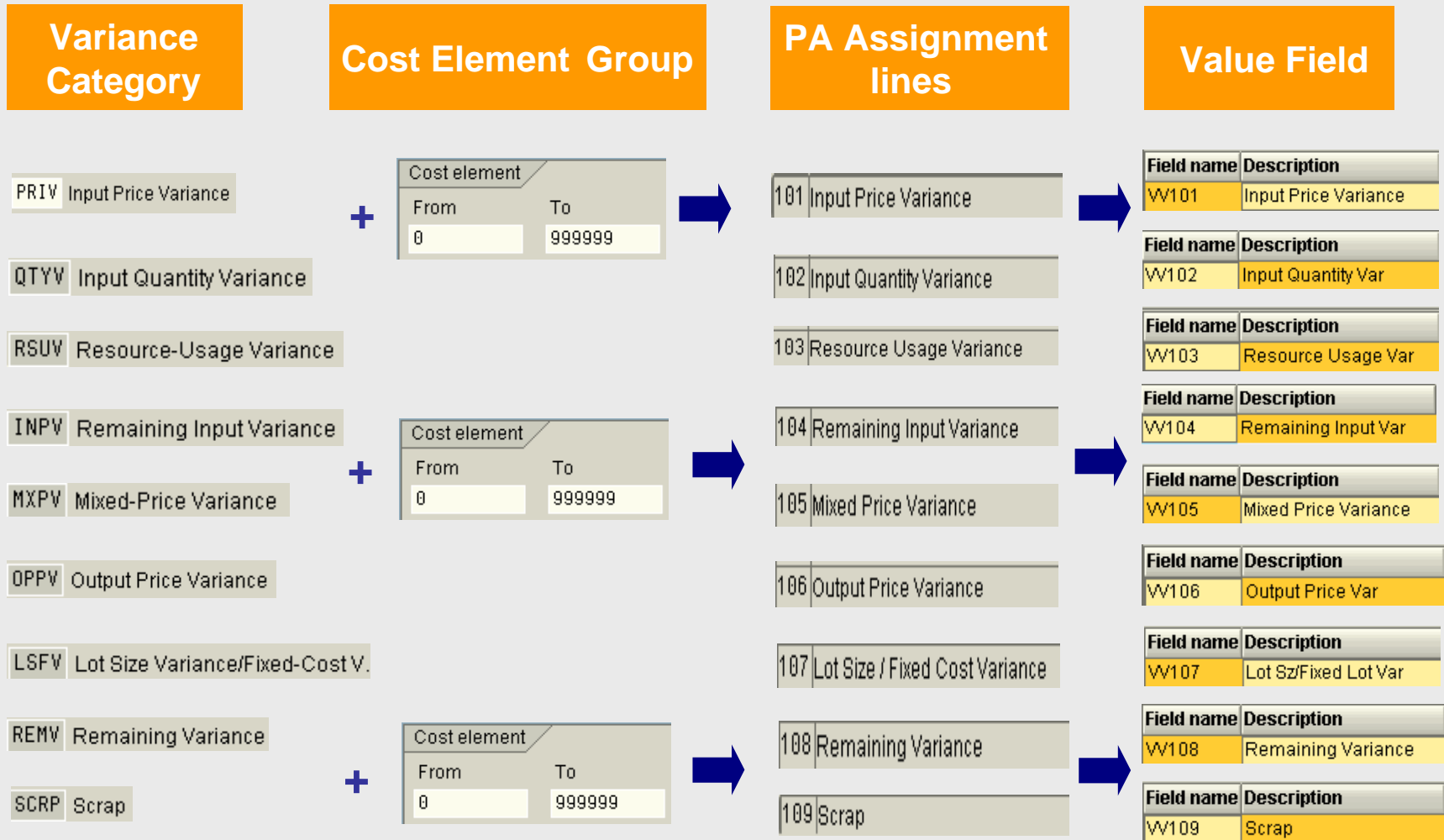
Actual Values Overview

- Flow of Actuals in Profitability Accounting
 - ✓ Overview
 - ✓ Flow from the Sales and Distribution (SD) Module
 - Flow from Billing Document
 - ✓ Flow from the FI/MM – direct postings
 - General Ledger Postings
 - MM Postings
 - ✓ Flow from the Product Costing
 - Settlement of Production Variances to PA

Flow from CO-PC



Flow from CO-PC



Information System

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Report Output

SAP

Report Edit Goto Navigate Extras Settings System Help

Execute Drilldown Report TEST1: Detail List

TEST1 Current data (15.07.2002 08:27:26)

Currency type B0 Operating concern cu

Navigation

- Distr. channel
- Company Code
- Country
- Region
- Division
- Product
- Customer

10 Basic Chemicals
64 Butadiene
10000035 Atlantic Methanol Se

Key figures	
Sales quantity	165.000
Revenue	24.750.00
Stock value	8.250.00
Input Price Variance	0.00
Freight	0.00
Marketing Fee	0.00

Drilldown List

SAP

Report Edit Goto Extras Settings System Help

Execute Profitability Report TEST2

Selection date General data selection

TEST2

Current data (15.07.2002 11:54:50)

Selection date General data selection

Navigation	P.	N.	Text
Grp:Comp			
Country			
Customer			
10000008			EQUISTAR CHEMICA...
Region			
Sales district			
Sales group			
Sales office			
Distr. channel			
Division			
10			Basic Chemicals
Product			
108			LE Polymer matl Trns
Profit center			

Key figures	
Sales quantity	2.000
Revenue	200.00
Stock value	2.000.00
Input Price Variance	0.00
Freight	0.00
Marketing Fee	0.00

Form

Detail List

Sales district		Sales qty	Revenue	Stock val.	In Prc Var	Freight	Mktg. Fee
	Not assigned	2.000	200.00	2.000.00	0.00	0.00	0.00
Total		2.000	200.00	2.000.00	0.00	0.00	0.00

Thank You