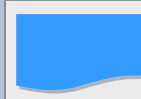


Overhead Cost Controlling



Internal
Order



Cost Center



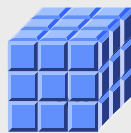
Process

Product Cost Controlling



Cost
Object
CO

Profitability Analysis

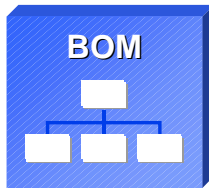


Profitability
Segment

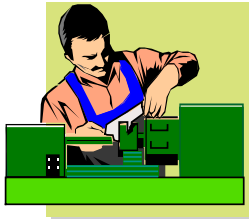
Profit Center Accounting



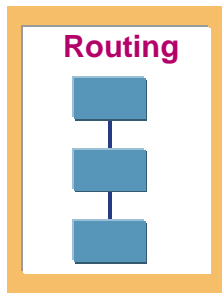
Profit
Center



The Bill of Material is a complete, formally structured list of the components that make up a product or assembly.



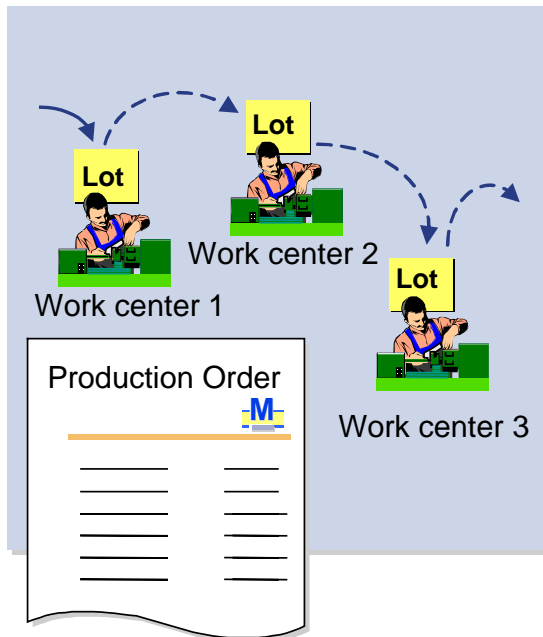
A work center is a physical location at which an operation is carried out. Each work center is assigned to a cost center.



A routing describes a sequence of processing steps and determines the activity quantities used from cost center accounting.

© SAP AG 1999

- A Bill Of Material (BOM) is a complete, formally structured list of the components that make up a product or assembly. The list contains the material number of each component, together with the quantity and unit of measure. The components are known as BOM items. A BOM can include materials that have their own BOMs.
- The work center is the physical location at which an operation is carried out. When the master record for a work center is created in PP, it is linked to a cost center, and also the various activity types produced by the cost center. This link allows access to the activity type unit prices, which are used in valuing labor (or machine time) supplied by the cost centers in a production process.
- The Routing lists the specific steps required to manufacture a product. These “steps” are called operations. The routing specifies the following for each operation:
 - the work center which carries out the operation
 - the default values used for calculating dates, capacities and production costs
 - whether the costs of an operation are taken into account for costing
 - the material components needed to carry out an operation

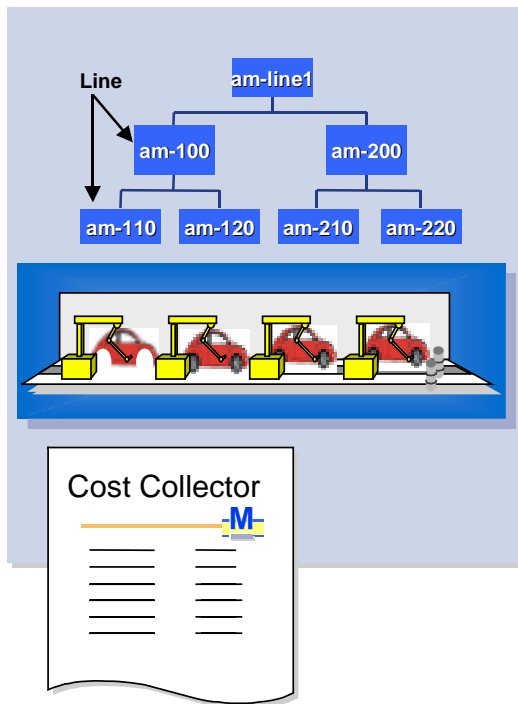


When to Use?

- **Very flexible production environment**
- **High set-up costs**
- **Full cost tracing needed**
- **Controlling by individual production lots needed**
- **Example:
Order related production**

© SAP AG 1999

- Order-related production is lot-based production to stock. Cost Object Controlling in order-related production provides information about a production order whose costs are settled to stock. Cost Object Controlling in order-related production can be used with or without the Production Planning module.
- For each production order, you can
 - Calculate planned and actual costs
 - Pass on actual costs to other objects in the R/3 System
 - Analyze planned and actual costs
- The functions for order-related production allow you to do the following:
 - Find out which costs were incurred for production orders that have not yet been settled, and pass on the work in process for each order to Financial Accounting and Profit Center Accounting at the end of each period.
 - Find out which production variances occurred for each order and pass these values on to FI, Profitability Analysis, and Profit Center Accounting as costs for the period.
 - Find out which costs were incurred for scrap and pass these values on to FI, Profitability Analysis, and Profit Center Accounting as costs for the period.
 - Total the costs for all production orders with specific selection criteria and display the results in a summarized form.

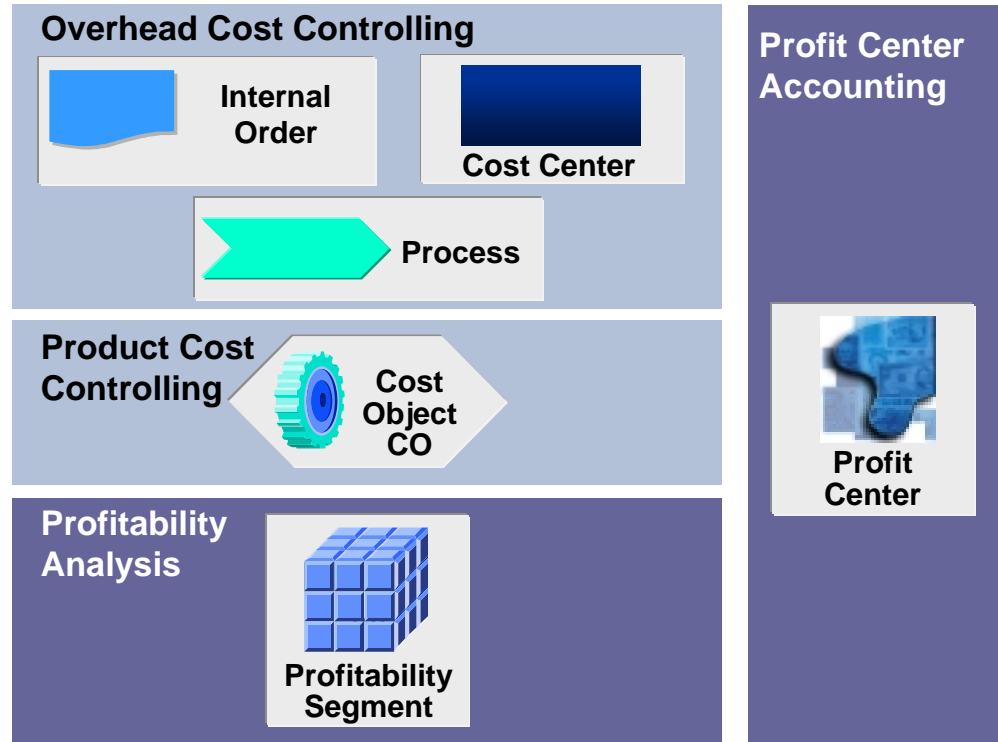


When to Use ?

- High volume production
- Stable and continuous production
- No individual lot oriented controlling needed
- Collecting costs on product cost collectors
- Example: Repetitive production

© SAP AG 1999

- Repetitive manufacturing refers to production planning and control using run schedule headers that deliver the semifinished and finished products to stock.
- The planned requirements for repetitive manufacturing are normally generated automatically by material requirements planning (MRP), although they can also be created manually. Production planning and control uses the planned orders for capacity planning and scheduling.
- In contrast to order-related production, the planned orders are not converted into run schedule headers using the lot size. Instead, the planned requirements are defined on run schedule headers. Run schedule headers are not based on lots, but exist over a period of time defined by the user. Under some circumstances this period can be the entire life cycle of the product.



© SAP AG 1999

<u>Costing-Based</u>	
Value Fields	
Revenues	1,000,000
Sales deductions	100,000

Net revenues	900,000
Var. material costs	400,000
Var. production costs	190,000
Prod. variances	10,000

Contribution margin 1	300,000
Material overhead	50,000
Production overhead	50,000

Contribution margin 2	200,000
Research & develop.	10,000
Marketing	50,000
Sales and administration	40,000

Contribution margin 3	100,000

<u>Account-Based</u>	
Cost and Revenue Elements	
800000 Revenues	1,000,000
808000 Sales deductions	100,000

Net revenues	900,000
893000 Cost of sales	690,000
231000 Price differences	10,000

Result	100,000

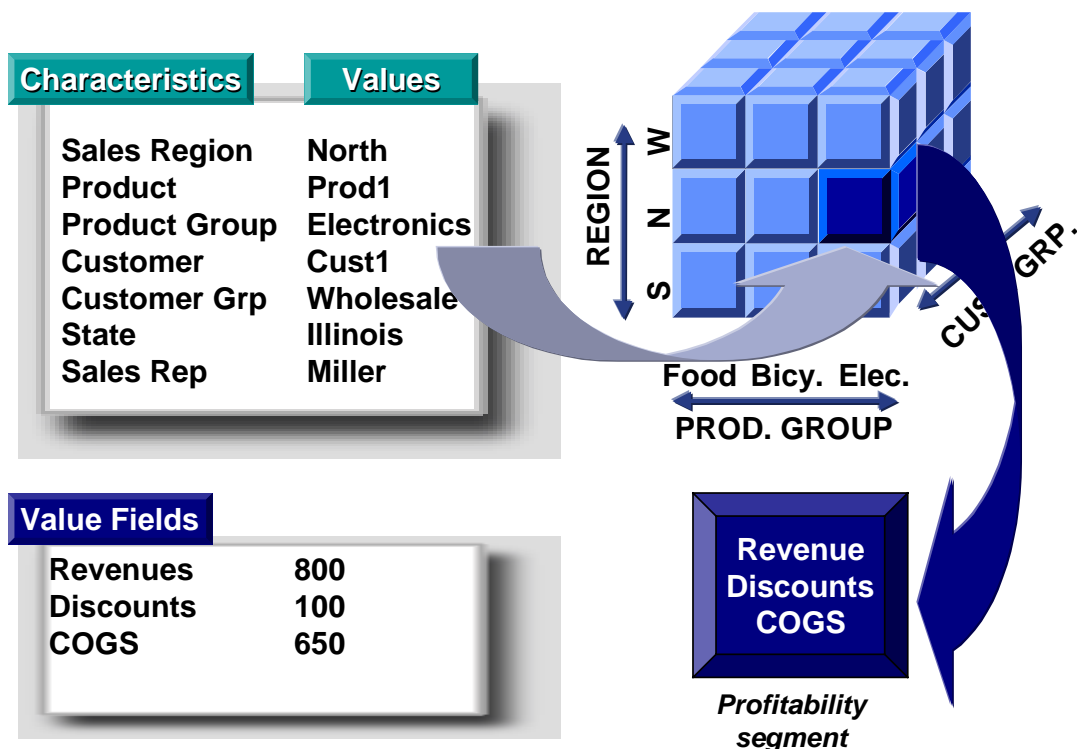
© SAP AG 1999

■ Costing-based Profitability Analysis:

- Reports display values by 'value fields' (flexibly defined performance figures).
- Can be posted with estimated values, for example 'anticipated sales commissions'.
- Indirectly reconciles with Financial Accounting.
- Uses transaction data tables specific to CO-PA.
- Revenues and cost of sales are recognized simultaneously, when the billing document is created.

■ Account-based Profitability Analysis:

- Reports display values by cost elements (CO revenue and cost accounts).
- Cannot be posted with estimated values.
- Reconciles directly with Financial Accounting at the account level.
- Shares data tables with other CO applications such as Cost Center Accounting.
- Revenues are posted to PA and FI simultaneously, when the billing document is created, whereas cost of sales is updated at the time of goods issue.



© SAP AG 1999

■ Characteristics

- Answers the question: "What do I want to report on?"
- Examples: Divisions, Regions, Products, Customers

■ Characteristic Values

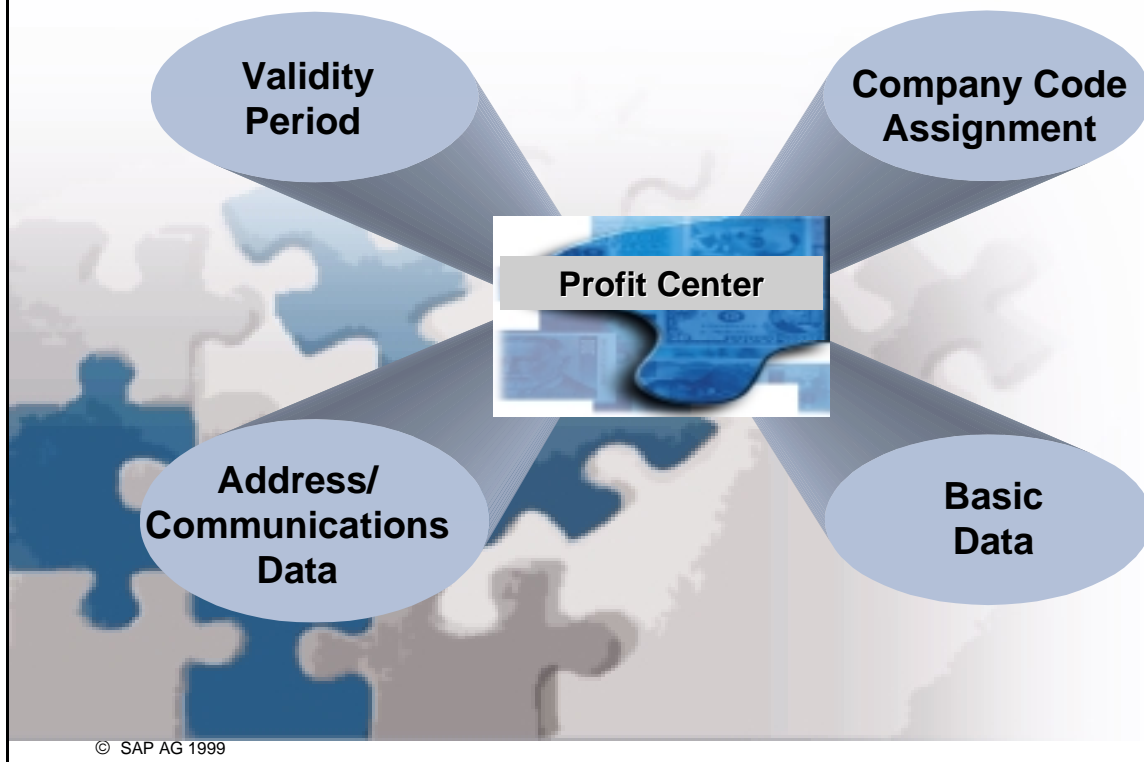
- Answers the question: "What values can I have for these characteristics?"
- Examples: Southern Region; Northern Region, Western Region

■ Profitability Segments

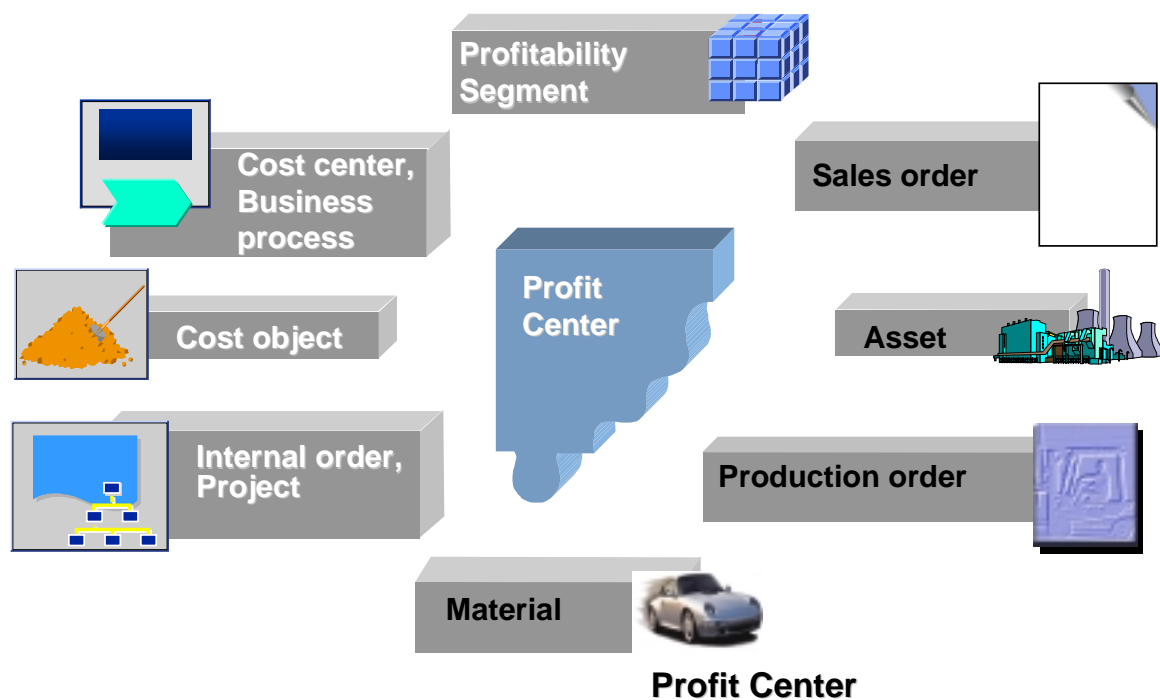
- Answers the question: "What is the specific segment of my sales market I wish to examine?"
- Example: Sales of product Prod1 to customer Cust1 in the Northern Region by sales rep Miller

■ Value Fields

- Answers the question: "What performance measures do I want to track and analyze?"
- Examples: Gross Sales, Surcharges, Discounts, Cost-of-Sales, Gross Margin



- A profit center is assigned to a controlling area. When creating a profit center, you enter the name of the profit center and the **period of validity**. Profit center master data is time-based; therefore, you can create different data for different periods of time. You can copy the master data information from an existing profit center.
- In the Basic data tab page (screen) you maintain the profit center name and description, the person responsible, the department, and the *Profit center group*. The Profit center group defines the location of the profit center in the standard hierarchy.
- By selecting the lock indicator in the Indicators tab page, you can lock the profit center against any postings.
- By default, a profit center is assigned to all company codes assigned to the controlling area. You can deselect certain company codes for a profit center by choosing *Company codes*. This setting is used by functions in Consolidation (EC-CS). If the profit center is not assigned to a company code, the system displays an error message whenever a posting is made to that profit center.
- You can enter more information about the profit center in the Address and Communication tab pages.



© SAP AG 1999

- When you implement Profit Center Accounting, you **assign each object** which incurs costs or revenues in your system to a specific profit center. These assignments also make it possible to display selected balance sheet items.
- The system automatically posts the data to Profit Center Accounting when it is posted to the original object. Both actual and plan data from the assigned objects in Profit Center Accounting are updated in this way.
- Cost centers, business processes, internal orders, projects, production orders, and cost objects have a profit center assignment field in their master records.
- A project, such as the construction of a crane, usually involves several profit centers (design of the motor, construction of the frame, and so on). Consequently, the various operational structures -- WBS element, network header and network -- are assigned separately to profit centers.
- Generally, revenue postings are transferred to Profit Center Accounting by determining the profit center assignment from the master record of the material in the sales order item in SD. The subsequent cost of goods sold posting is made to the same profit center when the delivery note is created.
- Profitability segments do not have master records. A profitability segment is a combination of characteristics, such as a customer, product, plant, distribution channel, and so on. One of these characteristics is always the profit center. The profit center can be derived automatically from the material/plant or other characteristics, or you can enter it manually.
- Assets are assigned to profit centers indirectly via the cost center stored in the asset master record.