

# **Management Accounting TFIN 22\_1 Summary**

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## Unit 1 – Profitability Management

### *Lesson 1 – Overview of Profitability Management*

- CO-PA is a market-oriented Profitability Analysis module and, for this reason, has the corresponding analytics functions. The objects considered in CO-PA, which represent market segments, also support this market-oriented view.
- The Module, EC-PCA, conversely, is designed for internal or company-oriented Profitability Analysis. Its purpose is to determine an internal operating profit for the various corporate units. The reports in the module, EC-PCA, are capable of additionally displaying selected balance sheet items, as opposed to the CO-PA module, which displays only costs and revenues.
- The period accounting approach distinguishes between individual cost and revenue elements, such as material costs. The total costs for the period are compared with the total operating output for the period. The output of products manufactured within the period but not yet sold, stock increases, is added to the sales revenues. The costs of the products produced in past periods but sold in this period, stock decreases, are taken away. Together with additional capitalized internal activities and other revenues, this yields the total operating output for the period.
- Profitability Reporting can be executed at various levels of detail.
  - In a Distribution business environment, the detailed product cost information is not required so a full absorption approach may be sufficient to analyze profitability.
  - In a standard, manufacturing, costing environment, the breakdown into fixed and variable standards may be important when analyzing profitability.
  - To reflect the periodic actual cost, fixed and variable standard cost plus variance may be added to analyze contribution margins.
  - Some companies prefer to analyze their contribution margin based on a periodic actual cost, which can be captured in the Material Ledger.
- In the cost-of-sales accounting approach, there is no differentiation according to cost elements. Here, the sales revenues are compared with the manufacturing costs for the products sold, known as cost of sale. The manufacturing costs may include material and personnel costs, which were incurred in previous periods. The costs that cannot be directly assigned to the sale, such as sales and administration costs are displayed separately. The cost-of-sales procedure, for this reason, also indicates the whereabouts in the company costs incurred.
- The two accounting methods used for generating profitability statements are
  - The cost-of-sales method - With this method, the emphasis is on matching the revenues for goods or services provided, or both, such as the value that a company gains as a result of sales against the related expenses for the items for which the value is lost when products are transferred out of the company. As a result, this accounting method displays the profit and loss information in a way optimized for conducting margin analyses, and as such it is optimal for the sales, marketing, and product management areas.
  - The period accounting method - With this method, the emphasis is on summarizing the activity and situational change over a period of time for a given organizational unit. As a result, this accounting method presents the revenues and primary expenses that have been incurred during a given period of time and the changes in stock value levels, work-in-process, and capitalized activities. As such, it is optimal for the production and profit center areas.

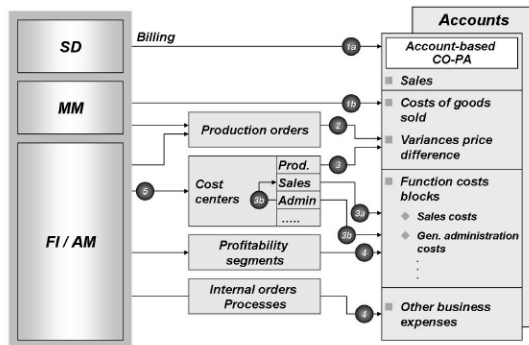
Applying either method to a given set of business transactions under a given set of laws yields the same bottom-line result, profit, in concept. The difference is in how the overall profit and loss picture is presented.

- CO-PA allows you to analyze the profitability of specific market segments, structured according to products, customers, and summarizations of these and other characteristics as well as organizational units, such as company codes or business areas.
- You can use EC-PCA to analyze internal profit and loss for profit centers. This allows you to evaluate the different areas or units within your company. You can structure the profit centers of your company according to region, such as branch offices and plants, or functions, such as production and sales, or products, such as product ranges and divisions.

## ***Lesson 2 – Profitability Analysis and Profit Center Accounting***

- The business purpose of Profitability Analysis is to provide profitability-oriented performance information on the market segments or sales channels of a company to support corporate planning and decision-making.
- The definitions of both market segments and performance figures are freely definable.
- The definition of a market is configured in the system through the selection of characteristics that are to be the subjects of analyses. Market segments are normally some combination of information regarding customers, products, and the selling organization.
- Performance figures may either be profit and loss account balances or freely defined value fields. Performance figures are normally measurements of quantities, revenues, discounts, surcharges, product costs, margins, and period costs.
- A profit center represents an organizational subunit that operates independently on the market and bears responsibility for its own costs and revenues.
- You organize your organization into profit centers by assigning the master data of each profit-relevant object, such as materials, cost center, order, project, sales order, asset, cost object, and profitability segment, to a profit center.
- You can also regard a profit center as an investment center. In addition to the flows of goods and services, you can transfer the selected balance sheet line items. This allows you to calculate key figures, such as profit on sales, return on investment, and cash flow.
- This sales-oriented approach in CO-PA means that no contribution to the success of the organization is made until a sales transaction has been completed.
- The purpose of costing-based profitability analysis is not to ensure that Profitability Analysis is reconciled with Financial Accounting. If this is required, account-based profitability analysis can be run in parallel with costing-based profitability analysis. Because account-based profitability analysis displays cost and revenue elements and the values are posted at exactly the same time as in Financial Accounting, comparison and reconciliation is much easier.

#### Flows of Actual Values






Process	Posting CO-PA
1a) Billing:	Revenues
1b) Goods issue:	Cost of sales
2) Production variances from the production orders:	Accumulated as a price difference
3) Variances from the Cost Centers	Assessments, Activity Allocation
3a) Surplus/shortage on the Cost Centers according to functional areas	Cost Center overheads
4) Sales costs via the segment levels	Direct account assignment in CO-PA
5) Account assignment to CO objects	Allocation to CO-PA




- Profit Center Accounting, EC-PCA, is a statistical accounting component. This means that it takes the transaction data posted in other components and represents it from a profit-center-oriented point of view. The postings in EC-PCA are statistical postings because the profit center is not itself an account assignment object in Management Accounting.

### Lesson 3 – Objects and Aspects in Profitability Management

- The operating concern is the key organizational unit in the Profitability Analysis. It defines the extent of the marketing and sales information that can be reported in combination by this component. One or more controlling areas are assigned to an operating concern when organizational structures are defined. In most cases, corporations have only a single operating concern, which is recommended for the sake of simplicity and convenience if all controlling areas and company codes share the same fiscal calendar.
- The controlling area is an organizational unit delimiting the independent cost accounting operations of the organization, such as cost center accounting, profit center accounting, and order accounting.
- The company code is an independent accounting unit within a client. The legal requirements of a balance sheet or a profit and loss statement are fulfilled on the company code level. Plants are assigned to company codes when organizational structures are defined.
- The plant represents a production facility. It is the primary organizational unit in operations and manufacturing.
- In costing-based CO-PA, all amounts are stored in an operating concern currency, which is specified in operating concern attributes.
- Account-based CO-PA stores all transactions in three currencies, transaction currency, local currency, and controlling area currency.
- Profit Center Accounting can store transactions in the transaction currency, local currency, and a special profit center accounting currency.
- In order to be able to post parallel in Profit Center Valuation, however, the Material Ledger also has to be set as active
- The individuals responsible for the group need to obtain a group result through the company results of the legally independent units. The same company results should also allow profit center managers to arrive at a profit center result. This means they should be able to carry out profitability analysis using transfer prices.
- Sales can be transferred between profit centers in the profitability analysis as internal revenues. When you customize CO-PA, you decide whether you want to store the profit center valuation there.

- You can also transfer the result of the Actual Costing - Material Ledger (ML) to CO-PA. To do so, arrange the elements of the ML cost component structure to the value fields you have planned in your operating concern.
- The planned data are based on planned sales quantities and revenues, evaluated using planned prices and a standard cost estimate. The target data are based on the actual sales quantities and the actual revenues, evaluated using a standard cost estimate, generally a standard price calculation. The term target data comes from a calculation of target costs based on actual quantities and actual revenues using planned prices. The actual data, in turn, result from calculating the actual quantities and the actual revenues, using the result of an actual calculation from the Material Ledger.

Comparison	CO-PA accrued	CO-PA account-based	EC-PCA profit center
Aims of profitability accounting	Market profitability	Market profitability	Enterprise controlling
Procedure 	Cost of sales accounting	Cost of Sales accounting	Period accounting and cost of sales using functional areas
Objects to be analyzed 	Profitability segments	Operating segments	Profit center or Profit center groups
Performance figures 	Profit-related key figures	Profit-related key figures	Profit-related and financial key figures

Comparison	CO-PA accrued	CO-PA account-based	EC-PCA profit center
Currency translation 	Operating concern company code currency	Transaction CompCode/CO area currency	Transaction CompCode/Pft Ctr. currency
Organizational aspects 	Operating concern	Controlling area	Controlling area
Reconciliation with FI 	Posted and Estimated values	Posted values	Posted values

## Unit 2 – New General Ledger Accounting

### ***Lesson 1 – New General Ledger Accounting – Basic Information***

- New General Ledger Accounting in SAP ERP Financials enables you to post Profit Center Accounting as an additional account assignment.
- The new general ledger in SAP ERP offers the following benefits over the conventional General Ledger:
  - The new general ledger uses an extended data structure as standard. You can also add customer fields to the totals table in the General Ledger, for inclusion in financial statements.
  - By splitting documents in real time (=> online split), you can prepare financial statements for entities such as segments and profit centers.
  - Reconciliation between CO and FI can be carried out in real time “real-time integration between CO and FI” making time-consuming reconciliation activities a thing of the past
  - The New GL offers the option of managing multiple ledgers with the GL. This is possible option for mapping Parallel Financial reporting in the SAP System.
- Overview of the totals tables in the conventional components:
  - Classic FI: Table GLT0
  - COS ledger: Table GLFUNCT
  - Reconciliation ledger: Table COFIT
  - EC-PCA / classic Profit Center Accounting: Table GLPCT
- When you use the period accounting approach, the system breaks down the operating results by revenue and cost element. This makes it possible to recognize which factors of production cause the costs that are incurred. The total costs for the period can then be compared to the total revenues earned during the same period.
- The more sales-oriented cost-of-sales approach compares the costs to the corresponding quantity structure of the revenues. Revenues are only compared to the costs incurred for the quantity of goods or services sold.
- To calculate profits according to the cost-of-sales approach, you need to use the derived functional area characteristic.
- You can use period accounting and/or cost-of-sales accounting in Profit Center Accounting. If you want to use cost-of-sales accounting, you have to activate the COS accounting scenario and configure the corresponding settings.
- Following are example of different postings:
  - Sales revenues from SD (1)
  - Cost of goods sold from MM goods issue (2)
  - Production variances from the settlement of the production order (3)
  - All debits and credits of all the production cost centers (over absorption/under absorption) (3a)
  - All postings to cost centers affecting the functional areas Sales, Administration and Research & Development (3b)
  - Adjustment postings resulting from real-time integration back to new G/L in the case of secondary, cross-functional area postings (3c)
  - Postings to profitability segments (4)
  - Other expenses (5)

## Lesson 2 – Global Settings in the New General Ledger for Profit Centers

- The new general ledger is always active in new installations (SAP ERP). The activation switch is set for each client. The activation causes system-wide changes that affect the application and Customizing paths.
- More entities are updated in the totals table of the new general ledger (=> FAGLFLEXT) than possible in the classic totals table (=> GLT0). The new standard fields include profit center, segment, functional area, and cost center. In addition to the SAP fields that are already present; these can be new, customer-specific fields

### What is a scenario definition:

A scenario defines which fields are updated in the ledgers (in the general ledger view) during a posting (from other application components).

#### Scenarios provided by SAP:

- **Cost center update (FIN\_CCA)**
  - Update of Sender Cost Center and Receiver Cost Center fields
- **Preparation for consolidation (FIN\_CONS)**
  - Update of Consolidation Transaction Type and Trading Partner fields
- **Business area (FIN\_GSBER)**
  - Update of Sender Cost Center and Receiver Business Area fields
- **Profit center update (FIN\_PCA)**
  - Update of Profit Center and Partner PC fields
- **Segmentation (FIN\_SEGM)**
  - Update of Segment, Partner Segment, and PC fields
- **Cost-of-sales accounting (FIN\_UKV)**
  - Update of Sender Cost Center and Receiver Functional Area fields

Ledgers:
Leading ledger (01)
Non-leading ledger (N1)
Non-leading ledger (N2)
...

A financial accounting document always has two views in new general ledger accounting:

The entry view and the general ledger view

Besides the leading ledger, you may also see the document in other, non-leading ledgers in the general ledger view.

### Definition:

**Entry view:** View of how a document appears to the document creator and therefore **how** it is shown in the **subledgers** (AP/AR/AA).

**General ledger view:** View of **how** a document appears (only) in the **general ledger**.

- If you do not assign any scenarios, none of the entities will be inherited to the general ledger.
- Subsequent changes of scenario assignments to a ledger in General Ledger Accounting can result in serious inconsistencies in document processing. Deleting scenario assignments can also result in inconsistencies. An appropriate warning message appears when you try to make these changes in Customizing.
- However, scenario assignment cannot manage a "zero balance setting" for any given entity.
- In more detail, using a profit center (=> PC) as an example: It would not (yet) be possible to create complete profit center financial statements, because the profit center has not (yet) been enriched in other posting lines. To do this, you also have to configure and activate document splitting.
- Segments can be used to fulfill the requirements of international accounting regulations (=> IAS/IFRS 8/ US-GAAP) after you use segment reporting.

In Customizing, you must first specify the (FI-) characteristics for which you want document splitting to be carried out.

#### Standard splitting characteristics:

- Business area
  - Profit center
  - Segment
- Note:** User-defined characteristics can also be used for allocation

#### Splitting Characteristics for General Ledger

Field	Zero Bal.	Required	...
PROCTR Profit Center	<input type="checkbox"/>	<input type="checkbox"/>	...
SEGMENT Segment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	...

- Document splitting is initially activated in customizing **across all clients**
- In a further step (in the dialog structure) you can activate/deactivate splitting in **each company code** in the same transaction

Activating Document Splitting

☒ Document Splitting

Rules: 0000000012 Splitting: Like 0000000002 ....

Detail control

☒ Inheritance

☐ Default Account Assignment Constant

- **Inheritance** means that when you create a customer invoice from a revenue line, for example, the (unique) characteristics are projected (=> inherited) to the customer and tax lines in the general ledger view.
- The **default account assignment** can be used to replace all account assignments that could not be derived from the posting with a constant "value".

- The system uses the assigned scenarios to propose useful document splitting characteristics. If you decide to use more splitting characteristics, make sure that they are contained in at least one ledger.
- Set the Zero Balance indicator, if you want to create a balance sheet for the characteristic. This ensures that the balance of these entities is set to 0 in each posting, which makes an "entity balance sheet" possible.
- The required field indicator has two meanings:



- Firstly, it extends the field status for accounts whose characteristics are not ready for input during document entry, or for accounts that cannot be controlled using field status. Example: The vendor line should always contain a profit center or segment.
- Secondly, it checks whether a business transaction variant that is equivalent to a business-process is used (and thus, a splitting rule can be found).
- The standard splitting procedure delivered by SAP is splitting procedure 0000000012. If you activate document splitting, there is no reason why you should not activate inheritance as well.
- Activating the inheritance when document splitting is active allows you to post documents without having to make any other changes in Customizing. Inheritance is carried out online at the document line level.
- Briefly, a splitting process is the total of all the splitting rules of all business transactions. The splitting process defines the way in which a document split should be carried out. Specifically, this means that each splitting procedure contains a definition that describes how the individual item categories are to be treated in the individual business transactions; for example, whether or not the system should copy the account assignment of a customer item from the revenue item in a customer invoice.
- The business transaction is a general subgroup of actual business processes, which is delivered by SAP and to which extensive item categories are assigned. The business transaction variant is a specific version of the business transaction provided by SAP, and is a (technical) representation of a real business process for document splitting.
- An item category is a (technical) representation of the posted document lines. It describes the items that can be found within a document (a business transaction). They are derived from the balance types of the G/L accounts, among others. In other words, the item category is the semantic description used for document splitting.
- The individual splitting rules define which item categories can/should be split (=> item categories to be edited), and at the same time, determines the basis on which the split can take place (=> base item categories).

#### Simulate document (G/L view) – Expert mode:

Co.	Beli./Item	AP/Co. Account	GL account name	Account	Cost	Profit Ctr.
0000	1 1000001 131	100000	AP-domestic	9,900.00 EUR	1000	
0000	3 1000001 140	100000	Purchased services	9,900.00 EUR	1000	
0000	4 1000001 140	100000	Input tax	900.00 EUR	1000	
0000	1 1000002 131	100000	AP-domestic	1,100.00 EUR	1000	
0000	2 1000002 140	100000	Advertising purchase	1,100.00 EUR	1000	
0000	4 1000002 140	100000	Input tax	100.00 EUR	1000	
				9,900.00 EUR	1402	

Expert mode provides information about all important parameters relating to the document split (such as *splitting processes, business transactions*, and so on) and describes how the split amounts are determined.

Example: How does the system calculate the amount of the liabilities (=> AP domestic) for profit center 1000 (=> EUR 9,900?) [See next slide](#)

**Konfiguration der Belegaufteilung**

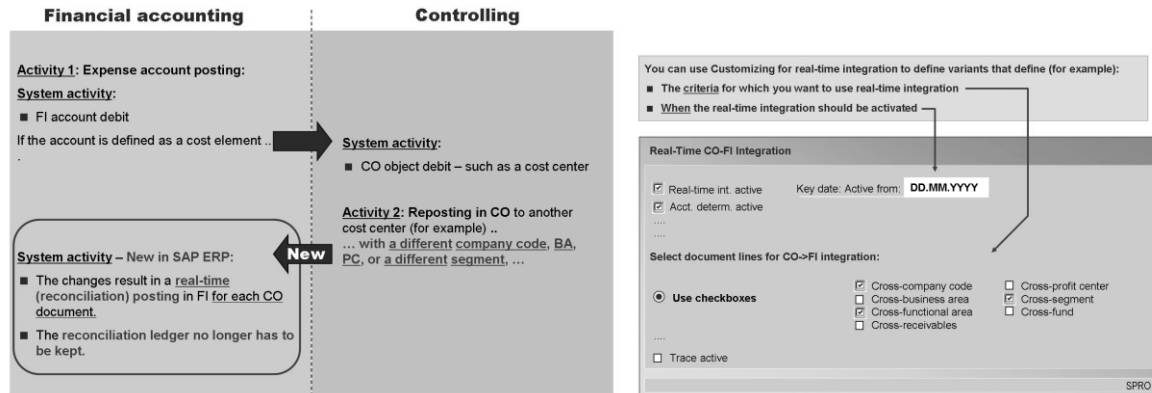
Parameter	Wert
Referenzvorgang	0000
Aufteilungsvorgang	0000000012
Geschäftsvorfall	0000
Geschäftsvorfallvariante	0000
Abt. über Belegart	0000
Buchungstypen der relevanten Position	0000
0000 Nach Belegartmethode	

**Beleganzeige**

Belegart/Position	Nachbelegart	Pos./Bucht.	Haupte.	Post./Op.	Beleg.	Wrt.	Post.
0000000001	Aufteilung gemäß Basiszeile	Basiszeile 0000000004	1.31	100000	0000	9,900.00	EUR 1000
0000000002	Aufteilung gemäß Basiszeile	Basiszeile 0000000005	1.31	100000	0000	1,100.00	EUR 1402
0000000003	Basiszeile		2.40	070000	2000	1,000.00	EUR 1402
0000000004	Basiszeile		4.40	070000	2000	9,900.00	EUR 1000
0000000005	Aufteilung gemäß Basiszeile	Basiszeile 0000000004	4.40	100000	0000	900.00	EUR 1402

EUR 9,900 = Base line 0....04 / Expense line (=> EUR 9,000) +  
Base line 0....05 / Tax from base line 0....04 (=> EUR 900)

- SAP has had real-time integration from financial accounting (=> FI) to management accounting (=> CO) for a long time. The other way around, from CO to FI was previously not possible in real time. The reconciliation ledger that was to be maintained in the cost element invoice is always used to reconcile CO with financial accounting.



- The key date activation date determines the time (or date of the CO document posting) after which the reconciliation between CO and FI using the real-time integration can be executed. You can also generate FI documents for CO documents that were entered before activation of the new general ledger. You must define an account determination to be able to transfer secondary cost elements from CO into FI.

## Unit 3 – Profit Center Master Data in New General Ledger Accounting

### *Lesson 1 – Profit Center Master Data*

- Profit Center Accounting supports a division of the enterprise into areas of responsibility for profits. You can divide your enterprise according to the following aspects: Mixed forms of these structures are also possible.
  - Geographical structure of profit centers (locations, regions, and so on)
  - Product-related structure of profit centers (divisions, product lines, and so on)
  - Functional structure of profit centers (production, sales, research, and so on)
  - Business Unit Profit Center Planning
- You create the profit center master data accordingly to define this organizational structure. For evaluations at a higher level of aggregation, you can combine profit center groups. The standard hierarchy is a special profit center group. In addition to this, you can define alternative groups, which you can use in reporting, planning, and allocation.
- The standard hierarchy is a tree structure that contains all the profit centers in a controlling area. When you create a profit center, you have to assign it to a hierarchy area (hierarchy node) in the standard hierarchy. This ensures that all profit centers in the controlling area end at the same node.
- A profit center is defined at controlling area level. When creating a profit center, you enter the name of the profit center and the period of validity. Profit center master data is time-dependent, which means that you can create different data for different periods. You can copy master data information from an existing profit center.
- By selecting the lock indicator, you can lock the profit center against postings for the specified time interval. If an account assignment object is assigned to a locked profit center and you attempt to post to it, the system will display an error message and does not post the data.
- By default, a profit center is assigned to all the company codes within the controlling area. You can exclude certain company codes for a profit center by not selecting them. If you attempt to post data to profit centers in company codes that are not assigned to the profit center in question, the system will not carry out such postings.
- The dummy profit center is the primary default value for postings to an account assignment object in an accounting area if no other profit center is assigned. You can find out which objects are not assigned to profit centers by analyzing the postings assigned to the dummy profit center. You can also assess or distribute data from the dummy profit center to the desired profit centers.
- In the new general ledger - in contrast to classic Profit Center Accounting - you do not have to define or use a dummy profit center. Postings to account assignment objects that do not have assigned profit centers are simply made without profit centers - that is, the profit center field remains blank in the corresponding document items. Postings without profit centers can be assessed or distributed to the desired profit centers (similar to postings to a dummy profit center).
- If you define a dummy profit center, make sure you do not use it as a default profit center by mistake. Define separate profit centers for this case instead. If you use document splitting, using the dummy profit center may have the following effect: Payables can be allocated to the dummy profit center as a result of document splitting if no profit centers are assigned to the account assignments of the corresponding expense lines. You cannot repost the payables manually in this case.
- A special Customizing transaction is available to create the dummy profit center. This procedure is almost the same as that for creating normal profit centers – the only differences being:

- You do not specify a validity period. The dummy profit center is automatically valid for the maximum validity period.
  - You cannot copy the dummy profit center from an existing profit center.
  - A flag identifying the profit center as the dummy profit center is set automatically (in the indicator folder).
- Default profit centers are profit centers that do not reflect an organizational area of responsibility, but instead are used to collect costs, revenues, and postings to balance sheet accounts within a posting period. At the end of the period, you can assess or distribute the posted data. Clearing profit centers are often referred to as default profit centers.
- In contrast to the dummy profit center, however, default profit centers can be derived specifically based on other information.
- The default profit center is derived under the following circumstances:
  - If no profit center is specified in the posting
  - If a profit center cannot be derived from the cost element, for example, using the cost center, the order, or the like
- Derivation takes place when the posting is made. You should only define default profit centers for accounts for which document splitting is not active.
- If you use a default value, you should at least carry out the test phase of an implementation project without a default value, to ensure you detect potential errors in document splitting.
- Collective processing is particularly useful when you need to adapt existing data to a change in circumstances, for example, if certain master data fields (such as the department, person responsible) or company code assignments have to be changed.
- Profit Center Accounting is based on the chart of accounts that is assigned to Financial Accounting. These accounts include:
  - Stock accounts: The system uses these accounts to display the liability and equity sides of the balance sheet. These accounts are not used in controlling. For example, there are no material stocks for cost centers in the standard system.
  - P&L accounts: The system uses these accounts to generate the profit and loss statement. If you want to use these P&L accounts in controlling as well, you create primary cost elements in controlling, for example, for material consumption by cost objects or cost centers.
  - Secondary cost elements: These costs are generated through allocations within controlling (allocation of machine hourly rates in production or assessment of overhead costs). While these costs are not offset by external consumption in the profit and loss statement from a business perspective, they can be transferred using real-time CO→FI integration to the new general ledger and therefore to Profit Center Accounting.
- The U.S. GAAP and IFRS accounting principles require segment reporting.
- You can enter a segment in the master record of a profit center. The segment characteristic is only derived together with the profit center characteristic.
- If no segment is entered manually during posting (only possible in Financial Accounting transactions), the segment is determined from the master record of the profit center. In turn, this profit center can have a manual account assignment or can be derived itself.
- The document splitting procedure is a prerequisite, and is also useful for creating financial statements and profit and loss statements for the segment dimension at any time. To enable this, you have to allow zero balances for the segment characteristic.
- There is no dummy segment posting, unlike the profit center logic - if the profit center has no segments, then no segment assignment takes place. Deriving the segment from the profit center is the standard method. You can also use a BADI called FAGL\_DERIVE\_SEGMENT to derive the segment.

- Officially, SAP only authorizes the use of segments if profit centers are used at the same time. The automatic derivation of segments is only possible with profit centers. Many business transactions, particularly in logistics, do not have an option for entering the segment manually. Moreover, several standard interfaces do not support the segment. For these reasons, the use of segments is only approved if you also use profit centers. If it is not possible to derive the segment characteristic from a profit center master record, you have to find a different way of assigning the segment accounts
- Statistical key figures are values or quantities (for example, number of phone calls, sq. m. area, number of employees) that give further details on the setup, the consumption or performance output of cost centers, internal orders, processes or profit centers.
- You can post statistical key figures both in the plan and in the actual.
- You can use statistical key figures both as an allocation base for periodic distributions or assessments and to create key figures (ratios such as personnel costs per employee).
- You can define statistical key figures as either fixed values or totals (transaction code KK01), which means they are also available in the new general ledger.
  - The fixed value is carried over from the period in which it is posted to all subsequent periods of the same fiscal year. You only have to enter a new posting when the value changes. Fixed values are defined when key figures remain constant over a significant period of time (such as the number of employees in a cost center).
  - The totals value is not transferred to the following period but must be entered for each individual period and is preferable for statistical key figures whose values fluctuate in individual periods (such as power consumption in kWh).
- Statistical key figures can be transferred from the Logistics Information System by linking a key figure from LIS (such as order receipts) to a statistical key figure (such as in Cost Center Accounting)
- Profit center groups are alternative hierarchies to the standard hierarchy. You can use them in reporting, distribution and assessment, or various planning functions. In contrast to the standard hierarchy, these profit center groups do not have to contain all the profit centers in the controlling area. On the contrary, profit center groups let you select only certain profit centers and structure them hierarchically to allow you more flexibility

## ***Lesson 2 – Profit Center Assignment***

- You assign profit centers to all account assignment objects to which costs and revenues have been posted (internal Order, Project, cost Object, cost center, business process, PA Segment, Sales Order, Assets, production order, material). These assignments also determine the transfer of balance sheet items to the individual profit centers.
- As a result of the assignment logic, the profit center is normally not posted to explicitly. Instead, data is derived from primary account assignment objects (cost centers, internal orders).
- You assign Overhead Cost Controlling objects (cost centers, internal orders, and projects, business processes) to profit centers to observe the value flow between Financial Accounting and Overhead Cost Controlling from a profit center point of view.
- When you assign a controlling object to a profit center, the system makes sure that the controlling area is the same for the object and the profit center. Cost centers and business processes are assigned to a profit center in the Master Record Basic Data screen. The validity period of the profit center must completely contain the dates of the cost center or business process.

- Additionally, the assignment of a cost center or internal order to a profit center also implicitly assigns all assets assigned to this cost center or internal order to the profit center as well.
- Cost objects are used in Product Cost Accounting to collect and store costs that cannot be assigned to objects at a lower level (orders, projects, or cost centers). However, in certain circumstances, you may need to assign a cost object to a profit center.
- Unlike other assignment objects, 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. The profit center is always one of the characteristics.
- Projects are generally used to carry out complex, long-term tasks. This makes it possible for several profit centers to be involved in a single project, for example, constructing a ship.
- Profit centers are therefore assigned to the various data-bearing structures in the project rather than to the project definition itself. These structures are:
  - Work breakdown structure element (WBS element)
  - Network header
  - Network operation
  - In the project definition or the project profile, you can enter a profit center that is to be used as the default for the individual WBS elements. You can overwrite this value in the individual structures.
  - If a WBS element is not assigned to a profit center, the system posts to the dummy profit center. If a network header is not assigned to a profit center, the profit center is derived from the corresponding WBS element.
  - If a network activity is not assigned to a profit center, the profit center is derived from the corresponding WBS element, provided that the activity is linked to a WBS element. Otherwise the profit center is taken from the network header.
- The assignment of the material masters to profit centers is the basis for the assignment of sales and production orders. Furthermore, it forms the foundation for internal goods movement transactions and for the transfer of material stocks to Profit Center Accounting.
- Materials are always assigned to a profit center at plant level. The plant is assigned to a company code, which is in turn assigned to a controlling area. This controlling area must be the same as the controlling area to which the profit center belongs.
- A production order contains an assignment to a profit center in the order master record. For PP production orders or process orders, you can find the Profit Center field under Header Assignment. For CO production orders, it is located on the initial screen.
- All the primary and secondary costs posted to the production order are passed on to the assigned profit center, along with the credit posted when the production order is delivered or settled. This assignment is also used for transferring work in process to Profit Center Accounting.
- Production orders are carried out in a plant. Each plant is assigned to a company code, which in turn belongs to a controlling area. This controlling area and the controlling area of the profit center must be the same.
- In the sales order, the profit center from the material master for the item to be sold is proposed by default.
- If you wish to structure your company from a sales-oriented rather than a production-oriented view, you can also determine a profit center from the available fields in the sales order header or item with the help of substitution rules. If the system finds a valid substitution for a sales order, it uses this instead of the default found using the assignment on the material master record.
- The assignment monitor provides you with an overview of all the assignments you have made to profit centers and supports you when you make or change assignments.

## Unit 4 – Actual Posting in Profit Center Accounting in New General Ledger Accounting

### *Lesson 1 – Profit Center Update*

- A profit center is a management-oriented organizational unit for which you can calculate separate profits for the period. Dividing a company into profit centers enables you to delegate entrepreneurial responsibility to these decentralized organizational units, as well as steer and control them. You could say that a profit center is a company within a company.
- The profit center differs from a cost center in that cost centers merely represent the units in which capacity costs arise, whereas the person in charge of the profit center is responsible for its balance of costs and revenues.
- Using profit accounting in the new general ledger has the following benefits:
  - You can use document splitting. Document splitting lets you identify payables and receivables according to their origin at profit center level and - if desired - create financial statements at the profit center level.
  - No reconciliation is needed between the general ledger and profit center accounting.
- If you want to identify receivables and payables according to origin at profit center level, you have to use document splitting. If you want to use the segment reporting scenario with the segment characteristic, you also have to activate the profit center update scenario.
- Normally when you make manual G/L account postings in the general ledger, you can specify the profit center or partner profit center. For primary cost elements, the profit center or partner profit center is derived automatically from the cost-relevant account assignment. You cannot enter the profit center manually for receivables, payables, or automatically generated line items.
- If an allocation in Controlling results in a change of characteristics that are relevant for the general ledger (such as profit center or functional area), this leads to a shift between the affected items in the P&L statement. Therefore, the system has to forward this information to Financial Accounting. Real-time integration enables the immediate transfer of all Controlling documents to Financial Accounting, together with the detail information required for the general ledger. As a result, Financial Accounting and Controlling are always reconciled.
- If you already use the classic Profit Center Accounting live and plan to migrate from classic to the new general ledger, you should carefully investigate ahead of time whether it makes more sense to continue using the classic Profit Center Accounting or use the new, integrated profit center accounting instead. The following questions should help you make your decision:
  - Is your profit center accounting closer to FI or CO? If your Financial Accounting department is already responsible for profit center accounting, then integrating profit center accounting with the new general ledger will probably be very advantageous.
  - What are your company's report requirements for profit centers? If you also report key figures at the profit center level, you should check whether the document splitting functions in the new general ledger would be beneficial - for example, improving the quality of your data by enabling splitting to profit centers based on origin.
  - Do you need segment reporting in future? If so, do you want to use the new segment entity for this?
  - In which form do you use secondary cost elements in Controlling? Does your company need flexible reporting of secondary cost elements for profit centers or profit center groups?

- Do you run regular reconciliations between classic Profit Center Accounting and the new general ledger? If so, how much effort is required? Integration of profit center accounting with the new general ledger eliminates the need for reconciliation.

## ***Lesson 2 – Integration with Assets Accounting***

- The segment and profit center cannot be defined directly in the asset master record. The system normally derives these two objects from a cost center or an order – information that is saved in the asset master data.
- Document splitting also works for acquisition postings with multiple assets (and different account assignments). The asset reconciliation accounts (=> stock adjustment and value adjustment accounts) are already classified internally as asset item categories.
- The new FI drilldown reports let you create financial statements for a segment or profit center immediately (=> transaction code FGI0). Therefore, you no longer have to transfer assets to Profit Center Accounting (transaction code 1KEI) to generate the profit center financial statements, in contrast to classic profit center accounting.
- Depreciation area 01 records book depreciation. Even if the depreciation expense account is not defined as a cost element (that is, these values are only posted in FI), the system still demands depreciation run as the account assignment type for area 01. Otherwise there is no way to derive the asset master record, the profit center, and (possibly) the segment from the CO object in the book depreciation document. Only the amount that is posted to an account that is defined as a (primary) cost element is transferred to Controlling “but both depreciation amounts appear in the leading ledger.
- As soon as you activate document splitting, the depreciation documents also have to meet the document splitting criteria, which means the corresponding accounts must be defined as item categories. However, the FI-AA component already performs the split at segment level for depreciation documents.
- Depreciation area XX must have account assignment type "Depreciation Run" if that area XX is the area you want to use to post the cost-accounting values (depreciation / interest) to Controlling.

## ***Lesson 3 – Data flow from Material Management***

- The profit center to which the data should be posted depends on which materials and which CO objects is involved.
- In the case of a purchase order to warehouse, the profit center is taken from the material master per purchase order item. The profit center that is determined is forwarded to the goods receipt for purchase order.
- To achieve a zero balance setting, the system creates various clearing lines as a result of document splitting. These clearing lines generally also contain the partner objects of the accounting characteristics. When an FI document that originated in Materials Management is split, the partner information is also included in the expense and material stocks line.
- When a goods receipt posting is made, the profit center is always determined indirectly via the preceding document (PO).
- If the amount on the invoice is different from the standard price of the material purchased, price differences arise when you post the invoice receipt. These price differences are assigned to the profit center of the material purchased, provided that it is a non-assigned purchase order.



- If your price difference account is defined as a cost element, the amount is posted to the profit center of the corresponding CO object.

## ***Lesson 4 – Data flow from Cost Object Controlling***

- Account determination takes place when the documents are transferred from CO the new general ledger within the real-time integration framework. In contrast, in classic Profit Center Accounting, the secondary cost element is updated directly in the Account field. As a result, you can display both secondary cost elements and P&L/balance sheet accounts in the Account field in a Report Painter report or drilldown report in classic Profit Center Accounting. The new general ledger makes it possible to create a report exclusively using cost elements, as well as display the cost element as additional information in a report.
- The profit center of the sender account assignment object is credited and the corresponding profit center of the receiver account assignment object is specified as the partner profit center.
- In addition, the receiver's profit center is charged and the sender's profit center is recorded as the partner profit center.
- All secondary allocations between CO objects are mapped to the assigned profit centers through real-time integration (for example, utilization of cost center activities for a production order)
- In case of withdrawal of a material from the warehouse for a production order, the profit center of the production order is determined based on the materials produced.

## ***Lesson 5 – Transfer from Sales and Distribution***

- The assignment of a profit center for a sales order is passed from the sales order to the delivery note and then on to the billing document. The change in stock is posted to the profit center upon goods issue.
- If account-based Profitability Analysis is active in your system, the G/L account for changes in stock must be defined as a cost element. If account-based CO-PA is not active, you must define this account as a profit and loss account.
- The profit center is assigned at the item level of the sales order.

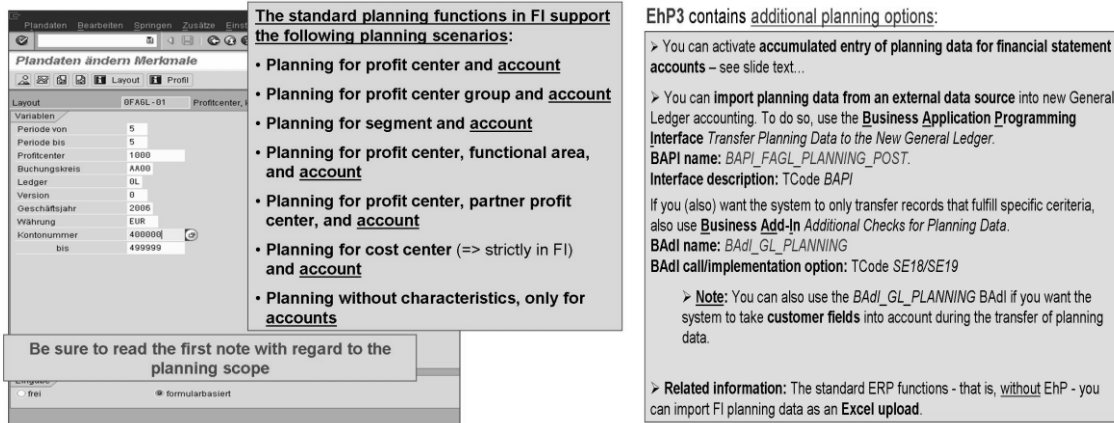
## ***Lesson 6 – Allocation in Profit Center Accounting***

- To transfer the data from over Overhead Cost Controlling (CO-IM) that was recorded based on the statistical key figures. A transfer can be needed for the following reasons:
  - The dataset in CO-OM is an opening balance. You want to rebuild the dataset in general ledger accounting.
  - You have created a new ledger in general ledger accounting and want to rebuild the statistical key figures in general ledger accounting as a result.
- You can transfer both actual and planning data for each controlling area, fiscal year, and object type (such as cost center).

- SAP recommends transferring the values for the statistical key figures from Controlling first and then adjusting them in Financial Accounting. You can enter plan values for statistical key figures directly in Financial Accounting
- You can use statistical key figures as the allocation base in the new general ledger.
- Allocation (assessment and distribution) of overhead costs is usually performed at period closing. Allocation is normally performed directly at cost center level; the postings are transferred to the profit centers in the new general ledger through real-time integration.
- If postings were made to the dummy or default profit centers, you allocate them to the production profit centers as assessments during the period-end closing. The system uses an assessment account to consolidate the individual accounts in the sender profit center for assessment. This means the head of the receiver profit center now only sees the assessment account, and no longer the individual accounts that were posted to the default profit center.
- In many cases, you have to allocate certain balance sheet items (raw materials, real estate, and so on), which you initially posted to a single profit center, to several receiver profit centers. SAP recommends using distribution, as it allocates specifically to the cost element. This means a material stock account remains with the receiver.
- Assessing or distributing data in Profit Center Accounting only makes sense after you have completed all the period closing activities in all the feeder applications
- Distribution and assessment work the same way as in Overhead Management, but affect PCA postings only.
- The (actual) allocations from the different components in the SAP system with active new general ledger are integrated with Financial Accounting as described below:
  - Actual allocations in Overhead Cost Controlling: Changes also updated in new G/L if real-time CO → FI integration is active
  - Actual allocations from classic Profit Center Accounting: No update in FI a strict EC-PCA document is generated.
  - Actual allocations in the new general ledger: No integration with other components a strict FI document is generated

## Unit 5 – Profit Center Planning in New General Ledger Accounting

### Lesson 1 – Planning Configuration and Manual Planning



The screenshot displays the SAP Fiori 'Planstellen ändern Merkmale' (Change Planning Characteristics) interface. The left pane shows a list of characteristics with values: Variablen (5), Periode von (5), Periode bis (5), Profitcenter (1000), Buchungskreis (AA00), Ledger (0L), Version (0), Geschäftsjahr (2009), Währung (EUR), and Kontonummer (400000 bis 499999). The right pane, titled 'The standard planning functions in FI support the following planning scenarios:', lists seven scenarios: Planning for profit center and account, Planning for profit center group and account, Planning for segment and account, Planning for profit center, functional area, and account, Planning for profit center, partner profit center, and account, Planning for cost center (=> strictly in FI) and account, and Planning without characteristics, only for accounts. Below this list, a note states: 'Be sure to read the first note with regard to the planning scope'. To the right of the screenshot, a text box titled 'EhP3 contains additional planning options:' lists three options: activating accumulated entry of planning data for financial statement accounts, importing planning data from an external data source into new General Ledger accounting, and a note about using the BADL\_GL\_PLANNING BAdI for customer fields. It also includes related information about standard ERP functions and Excel upload.

The standard planning functions in FI support the following planning scenarios:

- Planning for profit center and account
- Planning for profit center group and account
- Planning for segment and account
- Planning for profit center, functional area, and account
- Planning for profit center, partner profit center, and account
- Planning for cost center (=> strictly in FI) and account
- Planning without characteristics, only for accounts

Be sure to read the first note with regard to the planning scope

EhP3 contains additional planning options:

- > You can activate **accumulated entry of planning data for financial statement accounts** – see slide text...
- > You can **import planning data from an external data source** into new General Ledger accounting. To do so, use the **Business Application Programming Interface Transfer Planning Data to the New General Ledger**.  
BAPI name: BAPI\_FAGL\_PLANNING\_POST.  
Interface description: TCode BAPI
- If you (also) want the system to only transfer records that fulfill specific criteria, also use **Business Add-In Additional Checks for Planning Data**.  
BAdI name: BAdI\_GL\_PLANNING  
BAdI call/implementation option: TCode SE18/SE19
- > **Note:** You can also use the BAdI\_GL\_PLANNING BAdI if you want the system to take **customer fields** into account during the transfer of planning data.
- > **Related information:** The standard ERP functions - that is, without EhP - you can import FI planning data as an **Excel upload**.

- (Direct) planning in FI is always saved together with an account. This means it is easy to plan "primary processes". However, it is not possible to plan "secondary processes" (such as activities) directly from FI. This is only possible through integrated planning with Overhead Cost Controlling
- If you activate cumulative plan data entry for balance sheet accounts, in contrast, the planned balance sheet values are displayed for balance sheet accounts (and only for balance sheet accounts) instead of the balance sheet change values.
- If (and only if) cumulative plan data entry is active for balance sheet accounts, a balance carry forward is possible for planning data in FI:

### Lesson 2 – Integrated Planning

- Integrated planning from CO-OM to the new general ledger only works if the plan versions in FI and CO have the same names.
- It is also possible to transfer plan data from the CO-PA component (Profitability Analysis) to the new general ledger however, this is not performed online, but instead using a (periodic) program run.
- Further you need scenario assignments to write plan data to the new G/L as well. If you do not assign the scenarios, only the account and the plan amount are saved, without any other characteristics (=> specifically, without a profit center).
- Another planning option (in the standard system): You can also write plan line items in the new general ledger. This means plan values (for an account) are not only saved in summary table FAGLFLEXT; a plan line item (with plan document number) is also saved for each plan movement in table FAGLFLEXP. It was not possible to write plan line items in planning in classic General Ledger Accounting.

After activating the *New General Ledger Accounting* business function  
(=> **FIN\_GL\_CI\_1**) you see this option in Customizing: \*



**Preparation:**

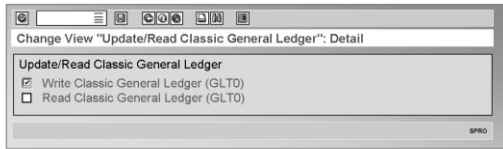
➤ The secondary cost elements that are used in CO when executing secondary planning processes (such as *CO plan assessment*, *CO plan activity allocation*, ...) must have corresponding **reconciliation accounts** in FI. If you have not defined them yet for the corresponding actual processes, you have to do so.

➤ These reconciliation accounts are assigned to the CO planning activities in **account determination for real-time integration** (=> TCode **OK17**).

- The activation of integrated planning for secondary cost elements is valid system-wide.
- Once you activate integrated planning for secondary cost elements, secondary plan transactions are also available for selection in account determination for real-time CO → FI integration.
- If the assignment of reconciliation accounts to CO transactions is too general for your purposes, you can use substitution rules to define a more detailed assignment (for example, assignment of reconciliation account for each secondary cost element (and not only for each CO transaction)).
- You can transfer plan data from the following Controlling (CO) components for planning in the new general ledger:
  - Overhead Cost Controlling (CO-OM): Primary and secondary cost elements
  - Profitability Analysis (CO-PA): Primary cost elements Planning for primary and secondary cost elements is saved directly in the new general ledger. As a result, you no longer have to plan in Profit Center Accounting (EC-PCA) or in the special ledgers (FI-SL).

## Unit 6 – Information System

### Lesson 1 – Overview



When you activate the new General Ledger Accounting, the classic General Ledger is **not** deactivated automatically.

In the standard system, however, the reports/programs (only) read the tables for new General Ledger Accounting: The *Read Classic General Ledger* flag is not set, nor should it be.

The *Read Classic General Ledger* is only needed in **exceptional cases**, if at all – for example, for users (= auditors) who only have to analyze classic data from table *GLT0*.

**Caution:** These user IDs must not be used, for example, to make postings in the new General Ledger.

You can use an **FI drilldown report** to call the **financial statements**: This report is available on the SAP Easy Access screen, directly **above** *RFBILA00: General Ledger Reports (New) → Financial Statement / Cash Flow → General → Actual/Actual Comparisons → Financial Statement: Actual/Actual Comparison*

**Advantages of drilldown reporting compared to *RFBILA00*:**

- Drilldown reporting is much **more flexible** than the existing ABAP program (=> also see the next slides).
- **Selections** by standard characteristics (such as *Profit center*, *Business area*, *Functional area*, and *Segment* – and even *Company code*, *Account number*, and *partner objects*, ...) are visible immediately in the entry screen:



The flexibility in drilldown reporting enables you to **navigate using a wide range of characteristics**.

The following characteristics are selected by default in drilldown reporting for financial statements:

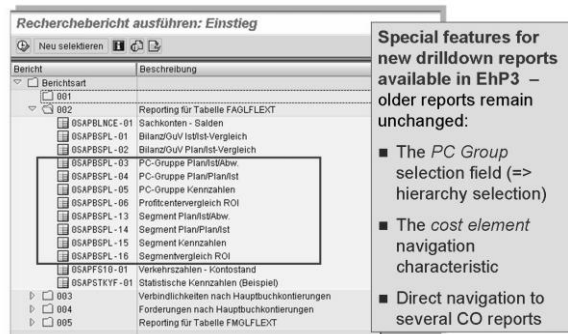
- => *Profit center*
- => *Account number*
- => *Segment*
- => *Functional area*

You can also select other characteristics – such as *Business area*, *Cost center*, or *customer fields* ...

#### Result/impact:

You can **navigate** through drilldown reporting to turn financial statements for a company code, **for example**, into **segment financial statements** (=> keyword: **segment reporting**) or **profit center financial statements**...

=> You can navigate in both conventional and graphical drilldown reporting.



**Special features for new drilldown reports available in EhP3 – older reports remain unchanged:**

- The *PC Group* selection field (=> hierarchy selection)
- The *cost element* navigation characteristic
- Direct navigation to several CO reports

- The drilldown reports are so flexible that they allow you to drill down to individual Financial Accounting documents: Use the report/report interface in the results screen. Then choose Line Items. Double-click one of the displayed document numbers to retrieve the corresponding FI document.
- Transaction FGI0 lists the defined program variants that you can execute. But drilldown reporting is not a new feature in SAP ERP. To get an overview of the FI drilldown reports that you can use with the classic general ledger, start transaction FS10.
- To use the origin object characteristic, you first have to extend the summary table FAGLFLEXT with the (standard) field type of the origin object (EC-PCA => field name ZZHOART) and then assign the field to (at least) one ledger.

You now want to find out, in addition to the general sender objects and/or source objects (of the costs), to which actual SAP objects (=> specific cost centers / orders / projects) the expenses are posted, for example.

	Plan 1 EUR	Ist 1 EUR	Abweichung 1 EUR
Gesamtkostenauftrag	0,00	6.000,00	6.000,00
Kostenstelle	0,00	20.000,00	20.000,00
PPSP-Element	0,00	2.000,00	2.000,00
Ergebnis	0,00	28.000,00	28.000,00

Continued in next diagram ...

... depending on the line/object where you call the RRI (=> report-report interface), different (target/receiver) reports (from [overhead cost] controlling) appear – In the example shown, the RRI is called from the overhead order (=> EUR 6,000 for account 417000):

Beschreibung	Typ	Empfängerbericht
Auftrag 100299	RW	6006
Auftrag 100319	RW	6006
Auftrag 100299	RW	6006
Auftrag 100319	RW	6006

Result: You can see that the expenses in the amount of EUR 6,000 were assigned to two internal orders (=> orders 100299 and 100319). You can also call these orders individually.

- The portrayed receiver reports are the linked standard reports for overhead orders. To call these receiver reports for the overhead order object (and for the other standard CO objects available) from the RRI, you have to load/activate them.

## Lesson 2 – Reporting with Drilldown Reporting

- Drilldown reporting allows you to analyze your data according to different characteristics and key figures.
  - Characteristics are non-numeric fields. They represent the criteria according to which you can select data records. Examples of characteristics include controlling area, fiscal year, and profit center. Characteristic values are the instances of these characteristics, such as fiscal year 2008, 2009, and so on.
  - Key figures are numerical fields that you can analyze in your reports. Examples of key figures are expenses and revenues or balance sheet balances in a certain currency.
- You can analyze a number of key figures for a single combination of characteristic values as well as single key figures for a number of combinations of characteristic values. A combination of characteristic values is generally referred to as an “object” (example: profit center X, revenue/cost element 400000 in period 6).
- Drilldown reporting lets you use the same graphical user interface as the Report Painter for defining the basic structure of your reports. You can then apply this structure, or form, to any number of drilldown reports.
- Your application contains a number of key figures that may be relevant for analysis purposes. Key figures include not only stored values and quantities, but also values that are calculated from them, based on formulas which you can define. Examples of key figures:
  - Value: Expenses, sales, sales deductions
  - Calculation: Sales per employee, return on investment, cash flow
- The functions of drilldown reporting are divided into three levels so that you can give each user only those functions that he or she requires.
  - Level 1 contains the basic functions of drilldown reporting, plus it lets you send reports by SAPmail. This level is designed for users who do not require the full functionality of drilldown reporting.
  - Level 2 contains the rest of the drilldown functions, plus it lets you display graphics and download reports to Microsoft Excel.

- All functions offers you all the functions in drilldown reporting, including the print setup function and the functions for saving report data and defining exceptions. This level is designed for users who need to print and modify reports in addition to all the interactive drilldown functions.
- You can define the desired level for each user by entering the parameter RLV (0 = All functions, 1 = Level 1, 2 = Level 2) in his or her user parameters. The individual function levels are subjected to an authorization check.
- You can configure many settings from within the displayed report, to display and print out data. You can use these settings to change the currency, characteristics displayed, totals row, sort functions (such as 'Sort Columns'), layout (for example, cumulated display on/off), and various print settings.
- Currency: You can use this function to translate the currency displayed for the selected currency column(s) to a different currency. The currency translation key is used to automatically find the exchange rate. You define the currency translation keys in Customizing.
- You can create custom layouts for report forms. These layouts are often used for official reports and are especially suited for printing.
- Drilldown reports are based on forms, which are separate objects that can be used for a number of reports. There are different types of forms, which differ in terms of what elements are defined in their structures.
- Variables allow you more flexibility to define your forms and reports. Variables are report or form parameters that you do not want to specify until you define or execute a report. You can use different methods for replacing variables. Depending on how often you want to use them, you can define your variables globally or locally.
- If you want to create a variable that you only need in one particular form or report, you can create a local variable. Local variables are only known within the relevant form or report. If you define a local variable in a form, it is also valid for every report that uses the form.
- In contrast, if you define a variable in the report definition, it is only valid for that one report. If you use a variable frequently, you can define it globally. This makes it possible to use global variables in all your forms and reports. Global variables are maintained in Customizing. If you then want to use global variables in a form or in a report, these are displayed for selection in the input help.
- You can use characteristics, key figures, and forms to define a report. The result when you display the report is a number of lists and graphics that you can display and analyze interactively.
- A form determines the content and the formal structure of a report list. A form is a semi finished report, which you complete by specifying characteristics and key figures when you define the individual report. You can specify characteristics both in the form and in the report. Key figures, however, can only be contained in either the form or the report.
- Drilldown reporting in Profit Center Accounting provides easy-to-use functions for navigating through the dataset.
- There are three types of forms:
  - One axis without key figure. - In a form with one axis and without the key figure, you define either the rows or the columns using characteristics. When you press Basic list, the system displays a blank list with columns.
  - One axis with key figure. - In a form with one axis and with the key figure, you define either the rows or the columns using characteristics and key figures. When you choose Basic list, the system displays a blank list with rows.
  - Two axes with key figure - In a form with two axes and with the key figure, you define both the rows and the columns using characteristics and key figures. When you press Basic list, the system displays a blank list with both rows and columns. You can decide whether the key

figures should appear in the rows or the columns, depending on what you want to report.  
Characteristics can be displayed in both the rows and the columns.

- To create a form, enter a name and the required type of form.



## Unit 7 – Structures

### Lesson 1 – Overview

- The operating concern is the key organizational unit within CO-PA. It defines the extent of the marketing and sales information that can be reported in combination by this component.
- The controlling area is an organizational unit delimiting the independent cost accounting operations of the organization, such as cost center accounting, profit center accounting, and order accounting. Company codes are assigned to controlling areas when organizational structures are defined.
- The company code is an independent accounting unit within a client. The legal requirements of a balance sheet or a profit and loss statement are fulfilled on the company code level. Plants are assigned to company codes when organizational structures are defined.
- The plant represents a production center. It is the primary organizational unit in operations and manufacturing.
- Certain characteristics that are known as the fixed characteristics are automatically included in all operating concerns. There are also certain technical fields, such as posting period, which are also automatically contained in the data structures.
- Notice that in account-based profitability analysis, the cost element is a fixed characteristic. The job of the user is to define any characteristics required but not already available as fixed characteristics.
- Value fields are created based on information requirements. They differ from one company to the next and only play a role in costing-based Profitability Analysis. Value fields normally represent a group of cost or revenue elements. The various accounts for discounts can be grouped into one value field. Value fields are defined as either a quantity field or an amount field.
- It is important to note that the data structures are valid across all the clients of a system.
- Characteristics
  - Answer the question: What do I want to report on?
  - Examples: Divisions, Regions, Products, Customers.
- Characteristic Values
  - Answer the question: What values can I have for these characteristics?
  - Examples: Region South; Region North.
- Profitability Segments
  - Answer the question: What is the technical definition of my sales channel?
  - Examples: Combination of Region North, Product Prod1, Sales Rep Miller.
- Value Fields
  - Answer the question: What performance measures do I want to track and analyze?
  - Examples: Gross Sales, Surcharges, Discounts, Cost-of-Sales.
- Characteristics are the analytic dimensions of the Profitability Analysis. They define what items or objects the user can evaluate. Several characteristics, such as sales organization, customer, and product, are predefined automatically for every operating concern. These are known as fixed characteristics.
- In addition to the fixed characteristics, up to 50 non-fixed non fixed characteristics can be added to an operating concern.
- These non-fixed characteristics must be added to the field catalog before they can be used to define a new operating concern. The characteristics in the field catalog can be accessed in any client.
- The field catalog originally contains some suggested characteristics which might be used in a new operating concern definition. There are two ways to add other characteristics to the field catalog:

- Choose an existing field from certain SAP tables, which must be five characters long or less.
  - Create a characteristic independently, which should begin with WW and be four to five characters total.
- Behind every characteristic, there is potentially a check table with the valid characteristic values for CO-PA. In this way, the data that flows into CO-PA are checked. When manually creating a new characteristic in the field catalog, you can decide whether the system should generate a check table for this.
- Characteristics can be categorized according to how and when they are defined:
  - Characteristics transferred from SAP tables: You can use characteristics that already exist in other applications when you define your operating concerns. For example, you can copy the fields from the tables for the customer master records, material master records, and sales documents. You can also copy the partner roles defined in the structure, PAPARTNER, in the Sales and Distribution, SD, application as characteristics in Profitability Analysis.
  - Newly defined characteristics: You can create ones that are only required in Profitability Analysis. To derive the values for these characteristics, you need to define your own derivation strategy.
  - Predefined characteristics: In addition to the fixed characteristics, a number of other predefined characteristics are available in the field catalog and can be added to your operating concern, if required. These include the customer group, customer district, and country characteristics.
  - Fixed characteristics: A number of fundamental characteristics are automatically predefined in every operating concern. These include the product number, company code, billing type, business area, and sales order characteristics.
- Meaning of Value Field:
  - In costing-based Profitability Analysis, value fields store the base quantities and amounts for reporting. Value fields can either be highly summarized, such as representing a summary of cost element balances, or highly detailed, such as representing just one part of a single cost element balance.
  - The sales-related key figures (e.g. revenue types, discounts, surcharges) are normally presented in a very detailed way. By comparison, items based on periodic costs (for example, period cost types) are aggregated. Unlike characteristics, there are no fixed value fields for a new operating concern.
- Value Field Maintenance in the Field Catalog
  - All value fields must exist in the field catalog before they can be used to define a new operating concern. The value fields in the field catalog can be accessed in any client. The field catalog originally contains some suggested value fields, which might be used in a new operating concern. Value fields can also be defined independently. These should begin with VV..., and should be four to five characters in total.
  - You do not need to create the value fields for calculated items, such as net sales and contribution margin. These items are normally calculated from the base values stored in the value fields during the report execution progress. This minimizes the necessary data storage requirements.
- Fixed Basic Key Figures (Account-Based CO-PA only)
  - In account-based Profitability Analysis, all values are updated to accounts. Each amount is stored in up to three different currencies under fixed basic key figures, which are accessed in reporting.

- You can use value fields with the aggregation rules, AVG (average) and LAS (last) in CO-PA drill-down reports. These value fields are defined when you define the data structures for Profitability Analysis
- You define the structure of your operating concern when you set up your system. This is done by selecting the characteristics you want to use in the data structures of the operating concern.
- In costing-based Profitability Analysis, you also need to select the value fields you want to use.
- The structure of an operating concern is valid in all clients.
- The attributes are client-specific parameters of an operating concern. They have different effects, depending on the type of Profitability Analysis you are working in.
- Currency types
  - Operating concern currency- In costing-based Profitability Analysis, the actual data is always updated in the operating concern currency. You can change the operating concern currency as long as no data has been posted in the operating concern.
  - Company code currency- In addition to the operating concern currency, you have the option of storing all data in the currency of the relevant company code. This makes sense if your organization operates internationally and is concerned with exchange rates that change daily. It allows you to avoid differences due to different exchange rates and enables you to reconcile your CO-PA data directly with FI.
  - Profit center valuation In addition to storing data in these two currencies using the legal company code, valuation view, you can also store data in both of these currencies valued from the viewpoint of individual profit centers.
- Fiscal year variant
  - The fiscal year variant determines the number of posting periods for each fiscal year. Because each controlling area assigned to the operating concern, and each company code assigned to each of the controlling areas, can have its own fiscal year variant, the variant you choose for the operating concern must agree with that for the other areas.

## ***Lesson 2 – Data Structure***

- Several steps are involved in defining an operating concern. First, the characteristics and value fields are defined as independent of any operating concern. Operating concerns are then created on the basis of these characteristics and value fields.
- To define data structures, copy the required characteristics and value fields to the operating concern and save them.
- After you have defined the attributes and data structures of an operating concern, you must activate them and generate the operating environment.
- This process generates all the tables, programs, and technical objects required to support the operating concern you have defined.
- After you generate the operating concern and before you activate Profitability Analysis for data entry, add the valid characteristic values to the check tables generated for the new characteristics.
- You must reactivate the environment after you change the data structures of an operating concern. For example, reactivate the environment after you add a new characteristic or a value field.
- The regeneration process does not affect any existing transaction data.
- The regeneration process will not affect any characteristic values that have already been entered in check tables for user-defined characteristics.

- Costing-based CO-PA stores its transaction data in its own data tables, which are created when activating and generating the operating concern. This means that its data will never affect the execution speed of a report in another CO application.
- Account-based CO-PA stores its transaction data in the transaction data tables for Overhead Cost Management. This means that its data will affect the execution speed of reports for other CO applications that share the same transaction data tables.
- The definitions of profitability segments for both CO-PA sub modules are stored in the same table, CE4XXXX, where XXXX = operating concern. The system always accesses this segment definition table when posting the transaction data for costing-based or account-based CO-PA.
- The CE3... and CE4... tables work effectively together to store the summarized transaction information, both actual and plan, for costing-based Profitability Analysis.
- The CO-PA drill-down reporting tool accesses the data in the CE3... and CE4... tables. Line item data and the information from the CE1... and CE2... tables can be accessed through line item display features.
- The data of CO-PA is divided into characteristics and value fields.
- The characteristics are stored in the data division of the table, CE4xxxx.
- The key of the CE4xxxx basically consists of the profitability segment number that is used as a join field for the table, CE3xxxx.
- The key of the table, CE3xxxx, consists of the profitability segment number and the posting-period and some other technical fields that are not listed. The value fields are specified in the data division.
- You first have to name an operating concern and then define its attributes. There are various currency options and the period type, "Weeks". This period type stores data in weeks and posting periods, which increases data volumes drastically. The setting is only possible in costing-based Profitability Analysis.
- After the attributes are defined, you can define the data structures for the operating concern. To do this, select the required value fields and characteristics for the profitability segment. Then, you must save these, activate them and generate the data structures. During the generation process, the system creates the tables, CE1XXXX, through CE8XXXX and check tables. The tables from CE1 through CE4 are of particular significance for the market segments. It is important to mention that the data in costing-based profitability analysis is stored in separate Tables, and the data for account-based profitability analysis is stored in the same tables as the other CO modules.
- CE4 contains only the characteristic values and profit segment numbers.
- CE3 is the table access by drill-down analytics. It contains the profit segment number, certain technical characteristics, and the values for value fields.
- CE1 contains all characteristics and value fields as well as technical characteristics.
- For reasons of performance, SAP recommend that the number of profitability segments be kept as low as possible so that the quantity of the totals records required in the profitability segment also remains low.
- Certain fixed characteristics are generally not used at object level. However, this can be changed if required.
- SAP recommends that data be summarized on a higher level, something other than the customer or product level, for account-based CO-PA to minimize the number of summary records. This is because its transaction data is stored in the tables that are shared with other Management Accounting applications.
- Operating concern templates offer the following advantages:

- They enable you to gain an insight into Profitability Analysis as a demonstration, without your having to perform extensive Customizing. This means that you can use the templates as a basis for quickly calling up reports.
- The operating concern templates simplify the Customizing in the profitability analysis. If necessary, you can adjust your Customizing settings for an operating concern template as required, copy these and then use the copied and adjusted operating concern productively.
- This is where you can gain an initial overview of Profitability Analysis without the need to have any specialist knowledge and without the need to have made.

## Unit 8 – Master Data

### ***Lesson 1 – Introduction to Characteristics Derivation & Valuations***

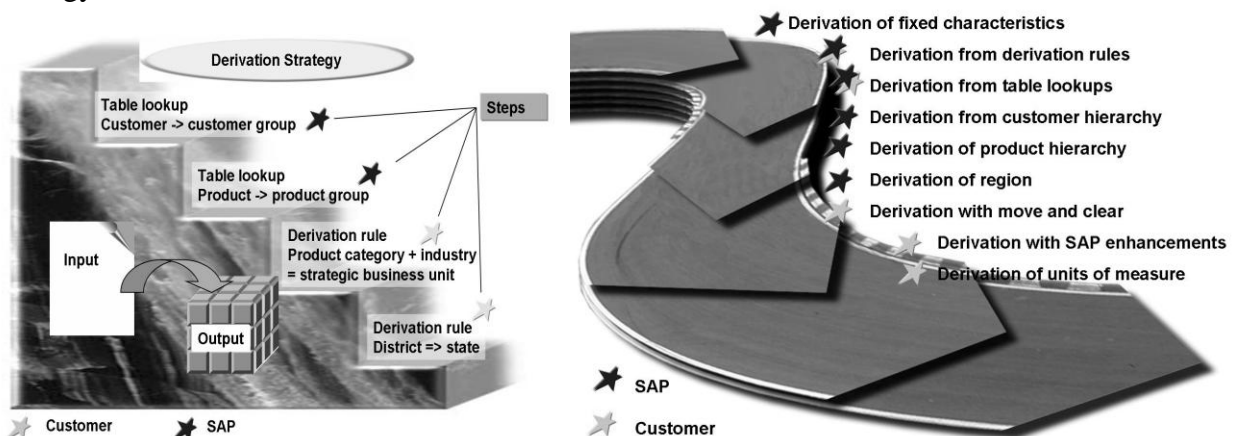
- Characteristic derivation is used to determine the value of one characteristic based on the value of another, provided there is a logical dependency between the two. It is important to realize that most derivation steps are created automatically by the system during generation. However there are cases in which the users must define their own derivation steps and the possibilities that the system offers for doing this.
- Valuation can only be used in the costing-based approach and it can be used for both planning and actual values. For actual data in particular, valuation is only used if the user wants to calculate or estimate the values to supplement the existing actual values. Valuation is also used to read cost estimates for materials and, as a result, retain the cost component split for the cost of goods manufactured. This cost component split for the cost of goods manufactured is the only way in which fixed and variable manufacturing costs can be displayed separately, and contribution margin accounting according to full and partial costs can be realized.
- Some key points about derivation:
  - Derivation supplements or overwrites certain automatically mapped characteristic values.
  - A derivation strategy is a sequence of steps, where each step uses one derivation technique to calculate one or more values for one or more characteristics, respectively.
  - Control attributes can be assigned to each step, such as conditions for execution, reactions when unsuccessful, and overwrite authority.
  - Some derivation steps are created by the system at generation time, of which some are modifiable. Others are created by the configurator from the beginning.
- Some key points about valuation are:
  - Valuation supplements the data being passed directly from transactions into Controlling Profitability Analysis with calculated, retrieved, or otherwise accessed values.
  - A valuation strategy can contain CO-PA costing sheets, Sales Order Management pricing procedures (in planning), product costing calls, and user exit calls, in a sequence that can be customized.
  - Valuation strategies must be assigned to record types, points of valuation, and plan versions when applicable to be activated. –
  - Using valuation is optional. It is merely a tool that can be used in an attempt to get the most complete and useful information out of CO-PA.
- Every CO-PA relevant activity in the SAP system (for example, billing) creates line items in CO-PA. The data created in CO-PA are defined by automatic and manual assignments as well as the configuration of the characteristic derivation and the valuation.

### ***Lesson 2 – Characteristics Derivation***

- The fact that most check tables are maintained in other applications but the check tables for user-defined characteristics need to be maintained by someone with access to CO-PA configuration.
- For each CO-PA-relevant transaction, if the derivation strategy is complete, the system tries to derive a characteristic value for each characteristic in the operating concern. If the system cannot

determine a characteristic value for a characteristic, then a blank, null, or unassigned characteristic value is posted.

- The total combination of (segment-level) characteristic values for a given transaction consists of the definition of the relevant profitability segment. The profitability segment is the account assignment object for the Profitability Analysis.
- Sequence of operations: Certain derivation steps have to take place before others can be successfully executed. The Derivation strategy table allows the user to move steps up or down the list.
- The system automatically creates a standard derivation strategy for each operating concern. This strategy contains the derivation steps for all the dependencies that are already known between characteristics. You can then change this strategy to meet the requirements of your organization. If you define your own characteristics that need to be derived from other characteristics, you need to add your own derivation steps to the standard strategy to define this derivation.
- The system goes through a sequence of steps in attempting to locate a characteristic value for each characteristic for a COPA-relevant transaction. This step sequence is known as the derivation strategy.



- The steps are performed in a customizable sequence to maximize the possibilities to locate or determine valid characteristic values. The following items can be configured for each step:
  - Conditions under which the step should be executed
  - Whether or not initial values are allowed for source fields in a step
  - Whether or not the step should overwrite an existing characteristic value
  - Whether or not an error message should generate if the step is unsuccessful
- Each step normally represents one of the customizable derivation techniques, such as table lookups, derivation rules, region, product and customer hierarchies, moves, clears, and enhancements. The values for one or more characteristics can be determined in a single step.
- Certain characteristics, such as division and profit center, have fixed derivation steps. This means that the system automatically generates non-modifiable steps that may be used to determine their values. These may take the form of one of the six standard derivation techniques or may be function calls.
- You can use other derivation steps to overwrite the values determined through the fixed derivation steps. This can be normally achieved with all characteristics, except for controlling area, company code, product, and customer. These have fixed non-modifiable derivation.
- A table lookup is a derivation method used by CO-PA to access the characteristic values from SAP master data tables when this information is not available on the originating transaction.
- Table lookups can be performed when the key of the table to be accessed can be filled with the characteristic values that are already known to CO-PA for the transaction. For example, a country value can be determined when a customer is known.

- Some table lookups are generated automatically on the basis of a characteristic's definition. These are generated when the operating concern environment is generated. Notice that the nonfixed lookups can be modified. Other table's lookups, such as the ones for user-defined characteristics must be created from the beginning.
- Derivation rules are used to determine characteristic values through user-defined logic. They are frequently used with user-defined characteristics although they are not limited to this application.
- With derivation rules, characteristic values, known as target values, are determined directly based on the values of other characteristic values, known as source values.
- Similar to other derivation steps, derivation rules can be configured either to apply for all situations or to only apply when certain conditions are met (for example, only for sales organization 1000).
- Accordingly, you can also configure the derivation rules to produce an error message when a characteristic value cannot be determined through the rule entries. You can also ignore the error and proceed.
- In contrast to other derivation steps, derivation rule entries can be configured to be either related to a specific interval or time, which is being time-dependent or applicable for all times, which is being time-independent? Derivation rules can be set up in sequence with other derivation steps and methods to produce complex derivation logic.
- With a move, you can directly transfer a characteristic value or a part of the characteristic value to another characteristic. Under certain conditions, you can also move a constant to a characteristic.
- When certain conditions arise, the clear function is available to clear a value from a characteristic.
- The Customizing Monitor provides an overview of all derivation steps.

### ***Lesson 3 – Valuation***

- With the valuation function, you can supplement the information provided directly by a transaction. Valuation can be performed both when updating actual values and within planning. It is used in costing-based profitability analysis only because account-based profitability analysis is reconciled with the Financial Accounting and does not use estimated values.
- There are various valuation techniques within CO-PA, such as
  - valuation with conditions and costing sheets,
  - valuation using material cost estimates, and
  - valuation using user-defined valuation routines or
  - User exits.
- The condition technique can be used to estimate the values that are needed for analysis in Profitability Analysis but which are not known at the time the document is posted. As a result, to evaluate a sales transaction, any commissions, cash discounts, discounts, or freight costs, which are not known at the time of invoicing, can be estimated.
- The product cost estimate technique is used to determine the manufacturing costs when data is updated to Profitability Analysis. This technique can be used to supplement the revenues and sales deductions transferred from the invoice in the case of a sales transaction with the fixed and variable manufacturing cost components belonging to the product.
- User-defined valuation routines are supported to allow you to determine the values that cannot be determined using the other two techniques. This allows for the implementation of user-defined valuation logic, should this be required.
- Valuation using material cost estimates is primarily used to determine the manufacturing costs when billing documents are transferred to Profitability Analysis. By valuating transactions using cost estimates from Product Cost Planning, you can supplement the revenues and sales deductions



transferred from the billing document with the fixed and variable manufacturing cost components belonging to the product. Transactions can be valued with up to six different cost estimates in parallel. This option is available only for the costing key assigned to other characteristics.

- The cost component split can be transferred in either the company code currency or the Management Accounting area currency. The manufacturing costs can be transferred to Profitability Analysis both according to the cost component split and the primary cost component split. Based on the customizing settings made for Product Cost Planning, the cost component split and the primary cost component split are stored either in the main cost component split or in the auxiliary cost component split of a cost estimate.
- The relevant cost estimates are assigned either on the basis of the material or material type or on the basis of any other characteristics in an operating concern. Either using the plant of the CO-PA line item or a special valuation plant stored in customizing can access the costing data. To set up valuation using material cost estimates, work through the steps described in Customizing. There, you will also find further information on this subject.
- Valuation Using a Costing Sheet - The condition technique in the case of CO-PA is used to determine estimated values.
- Valuation is relevant only for costing-based CO-PA. In addition, explain that many value fields will be populated through the Sales Order Management and Management Accounting interfaces. As a result, valuation will populate value fields if the data was not transferred from any other source
- In costing-based Profitability Analysis, you can configure a function known as valuation to supplement the performance information provided directly by a transaction. The additional information may be estimated, calculated, or retrieved from a different source.



- Components of the value assignment
  - Access product standard costs for the transaction.
  - Calculation of other cost-accounting sales costs and price components
  - Transfer of actual costing/material ledger



- Sources for the valuation
  - Product cost controlling
  - Pricing in sales order management
  - Costing in CO-PA



- Time of value assignment
  - Actual – transaction-related/periodical
  - Planned – manual planning/planning using standard planning function

- Valuation can be used with either actual or planning data. It is often used in Controlling Profitability Analysis (CO-PA) planning to access the pricing and product cost information for the products that have planned quantities. This enables the automatic calculation of projected revenue and cost-of-sales figures.
- Valuation can be configured to function either in real-time, which means at the time data is first posted to CO-PA, or periodically, which means at some later point when manually triggered.
- The valuation strategy is central to valuation configuration. A valuation strategy may contain references to multiple valuation techniques, such as costing sheets, user exits, and product costing information, which are to be applied to a given COPA-relevant transaction.
- You need to decide to what record types, F, A, B, C, and 0-9, and at what points, known as points of valuation, each valuation strategy should apply. Similarly, if a strategy is to be applied to planning data, the relevant planning version must be specified.
- The various valuation techniques that populate the value fields in different ways are:
  - With costing sheets, condition types are mapped to value fields.
  - From Product Costing, cost components are mapped to value fields.
  - Value fields are updated directly through user exits.
- The Product Cost Controlling (CO-PC) module is used to generate the product cost estimates for materials. The results of a product cost estimate can be viewed in different ways, such as by item,

cost element, or cost component. Through valuation, the product cost estimate information for CO-PC can be transferred into CO-PA, through cost component values. This function can be used to import extensive cost-of-sales information into CO-PA for flexible margin reporting.

- In configuration, cost components are mapped to value fields. You can map each component to its own value field or multiple components to a single value field. You can also map the fixed and variable portions of a component to separate value fields.
- Using a costing key, you can determine which cost estimate, meaning which costing variant should be used with which validity date for valuation.
- If an entry exists for the material, this has priority over the entry for the material type. The entry for the material type has priority over any entries defined for other characteristics.
- In the assignment lines, you determine which values of the cost component structure are transferred to which value fields in the operating concern
- When you define a costing key, you can enter either a costing date or a period or a value for the period indicator.
- Using the plan period indicator, you specify the date for which the system should look for a valid material cost estimate in the database, for Product Cost Controlling.
- The following options are available for the plan period indicator:
  - 0 for the future standard cost estimate.
  - 1 for the current standard cost estimate.
  - 2 for the past standard cost estimate.
  - 3 for the standard cost estimate valid on the posting date.
  - 4 for the standard cost estimate valid on the date of goods issue.
- If you enter 0, 1, or 2 for the plan period indicator, the system reads the standard cost estimate valid on the first day of the period. This refers to the future, current, or past period for which the standard cost estimate is valid according to the entries in the valuation segment of the relevant material master record.
- If you enter 3 or 4 for the plan period indicator, the system reads the standard cost estimate valid on the given posting date or date of goods issue, regardless of what is stored in the material master.
- In addition to assigning the costing keys to products or material types, you can assign the costing keys to any combination of characteristics. This allows greater flexibility and control in using costing keys. You can use up to three characteristics as source fields”, such as plant, product, and group.
- Costing sheets consist of a sequence of user-defined condition types, each of which access a value or perform specific calculations, as dictated by the definitions of the condition types. Each condition type is mapped to a value field in the operating concern
- A condition type represents one step in a costing sheet. What calculation the system carries out in that step depends on the following control indicators:
  - Condition category
  - Calculation type
  - Condition class
  - Scale basis
- Calculation type: The calculation type determines how the system calculates prices, reductions, or surcharges for a condition type. For example, it can specify that a sales deduction should be dependent on the quantity sold or a value scale.
- Scale basis: The scale basis determines how the system interprets the value or quantity scale for a condition. Scales can be dependent on a quantity or a currency amount.

- Base condition types form the basis for calculations. They signify the value fields that have already been populated through other means. These condition types must have on their master record, a condition category of “K”, a calculation rule of “B”, and a condition class of “B”.
- Calculation condition types perform calculations on the lines in the costing sheets that represent subtotals of amounts, such as base amounts. These condition types actually populate the value fields with values
- The value field analysis function enables you to analyze all the flows of actual data to Profitability Analysis. The report shows you what value flows the value field is involved in and what condition types or cost elements it gets its values from. In all, you can analyze the following actual value flows:
  - Transfer of billing documents and incoming sales orders from Sales Order Management.
  - Direct postings from Financial Accounting and operations.
  - Order and project settlement from Overhead Cost Orders (CO-OPA), and the Project System Cost center assessment from Cost Center Accounting (CO-OM-CCA).
  - External data transfer.
- Valuation analysis is available to you when entering of plan or actual data. Notice that you have the possibility of checking valuation by simulating the entry of single line items.

## Unit 9 – Actual Data

### Lesson 1 – Flow of Actual Data

- Revenues and discounts are transferred to profitability segments in Profitability Analysis at the point of billing in Sales Order management.
- Quantities sold are valued at the same time with the standard cost of goods manufactured according to the cost component split from Product Cost Controlling (CO-PC).
- Primary postings are posted to the objects in Overhead Cost Controlling and allocated to the cost object by the most source-related means available. The actual cost of goods manufactured is also allocated to the cost object, and the cost centers that perform the activity are credited. From the viewpoint of Profitability Analysis, this leads to under absorption or over absorption for the cost centers performing the activity and production variances for the corresponding cost objects, such as production orders
- Production variances: The difference between the actual costs of goods manufactured and the standard costs determined for cost objects, in this case production orders, are divided into variance categories and settled to profitability segments.

SD	Billing document	Quantity Sales Sales deductions Cost of goods sold
CO-PC	Cost estimate	Variable costs of goods manufactured Fixed costs of goods manufactured
FI	General ledger posting	Bonuses Freight costs
CO-OM	Cost center Order Process	Sales and administration costs Marketing costs Process costs
PS	WBS element Network operation	Research & Development costs
CO-PC-OBJ	Production order	Production variances
CO-PA	Additional costs	Estimated discounts Estimated bonuses

- The value fields in the costing-based CO-PA contain the amounts and quantities that you want to report on. This enables you to calculate the contribution margins that your organization requires in the Information System.

### Lesson 2 – Integration with Sales Order Management

Costing-based	Account-based
Data transfer as soon as it is created	Data transferred when it is posted in financial accounting
↓ Short-term, up-to-date data	↓ As in FI
↓ Transferred to value fields	↓ Transferred to cost and revenue elements
↓ Reconciliation value fields with accounts	↓ Always reconciled with FI
↓ Imputed costs	

- Main purposes of Costing Based COPA is the use of value fields and the automatic calculation of anticipated or accrual data (valuation). The advantage of this method is that the data is up-to-the-minute.

- Account-based CO-PA enables you to reconcile cost and Financial Accounting at any time at the account level. All the costs and revenues are posted to account-based CO-PA simultaneously and using the same valuation approach as Financial Accounting.
- The main difference here is that the cost of sales is transferred at the point of goods issue and not together with the revenues.
- The central document in sales order management is the sales order. When you create an order, the information about the customer and the products or services sold is stored in the document.
- The following information is passed on to all the subsequent documents created for this business transaction:
  - The delivery is created when the product is shipped to the customer, which means the goods issue.
  - A billing document is created to bill the customer for the goods or services provided.
- This is a central process in the SAP system and the starting point for the data transfer to Financial Analytics. In some cases, data is transferred to costing-based and account-based CO-PA at different times using different valuation approaches.
- You can value incoming sales orders as expected revenues and transfer them from sales order management to costing-based CO-PA to obtain an early analysis of anticipated profits.
- To analyze incoming orders, indicate the record type, A, in the report. To analyze billing data, indicate the record type, F.
- The two options available to activate the transfer of incoming orders are:
  - Activating on the entry date: Updates the orders under the same period in which they were created in the system.
  - Transfer with the delivery date or the planned settlement date: Displays the order in CO-PA in the period of the planned delivery or the planned settlement date and thus represents a billing-related update of the incoming sales orders.
- If you activate Profitability Analysis after you have gone productive with Sales Order Management, you can post the existing sales orders for the current or past periods subsequently to CO-PA.
- The goods issue is triggered by a delivery in Sales Order Management. This affects the values in Materials Management and Financial Accounting. Balance sheet and stock change postings are made in FI when the goods issue is posted.
- Note: Note that the posting of the goods issue does not cause any postings of data into the costing-based CO-PA. The COGS are not transferred into the CO-PA until transfer of the billing document.
- A business transaction is normally concluded in Sales Order Management with the billing document. The billing data is automatically transferred to Financial Accounting (FI), where the revenue and receivable postings are made at the same time.
- When a billing document is created, Sales Order Management calculates all sales revenues, sales deductions, and other values, such as the standard cost using pricing procedures, and stores these values in condition types. By assigning these condition types to the value fields in Profitability Analysis, you can have the system automatically transfer their values to CO-PA.
- By valuating this billing data from Sales Order Management using a material or sales order cost estimate, you can assign further anticipated costs and sales deductions to this transaction. The billing data is transferred to Profitability Analysis with the record type, F. In addition, you can transfer the quantities from the Sales Order Management quantity fields by assigning them to the corresponding quantity fields in CO-PA.
- During billing, the system checks whether the data can be updated in FI and in CO-PA. If one of the two postings cannot be executed due to an error, the other posting is also not executed. This ensures that data is updated in parallel and the Profitability Analysis is reconciled with FI.

**Sales Order Flow:**

Transaction	Costing-based		Account-based	FI
Create Sales Order	Revenue Discounts COS	Record Type A		
Post Goods Issue			DR COS	DR COS CR Inventory
Billing	Revenue Discounts COS	Record Type F	CR Revenue DR Discounts	CR Revenue DR Discount DR Customer AR

- A pricing procedure defines the conditions that are permitted for a particular document and the sequence in which the system takes these conditions into account during pricing. During pricing, the SAP System automatically determines the pricing procedure that is valid for a business transaction and it takes the condition types contained in it into account one after the other.
- A condition type is a representation in the system of some aspect of your daily pricing activities. For example, you can define a different condition type for each type of price, discount, or surcharge that occurs in your business transactions.
- A condition table defines the combination of fields that identifies an individual condition record. A condition record is how the system stores the specific condition data that you enter in the system as condition records. For example, when you enter the price for a product or a special discount for a good customer, you create individual condition records.
- An access sequence is a search strategy that the system uses to find valid data for a particular condition type. It determines the sequence in which the system searches for data. The access sequence consists of one or more accesses. The sequence of the accesses establishes which condition records have priority over others. The accesses instructs the system where to look first, second, and continue in this way until it finds a valid condition record. You specify an access sequence for each condition type for which you create condition records.
- Transfer the Material Value at the time of goods issue through the condition, VPRS.
- The condition type VPRS transfers the costs of sales posted at the time of goods issue into CO-PA. Even when the standard price changes between the time of goods issue and the billing date, VPRS saves this value and guarantees that the costs of sales can be reconciled with FI.
- Valuation using material cost estimates enables you to determine the cost of goods manufactured for the product sold whenever a sales document is transferred to Profitability Analysis.
- In the activity, simulating the Transfer of Documents from Billing, you have the option of simulating the transfer of billing document data into Profitability Analysis.
- The function, Valuation analysis, allows you to perform an analysis of the valuation strategy valid for valuating the billing document data.
- The CO-PA reconciliation report contains a list of the corresponding balances for value fields, condition types and P&L accounts. This list offers you the following fundamental functions:
  - Using posted data, you can check and understand, through post-analysis, the assignments in Customizing of the Sales Order Management conditions to the accounts in FI and to the value fields in CO-PA, as well as the flows of values resulting from the assignments.
  - You can analyze the differences between CO-PA and SD as well as between CO-PA and FI with a view to locating their origin. This is especially useful for the reconciliation of FI with the Profitability Analysis.

- You can monitor the budgeting process from the assignments within the customer agreement to the billing document in CO-PA. This is because the budget assignments are transferred to CO-PA when you maintain the conditions.
- You can keep checking the budget assignments by carrying out variance analyses of the planned and available budget. This allows you to monitor sales promotions extensively right from the early stages of profitability analysis.
- Data can be passed on to CO-PA:
  - When the condition record is created as part of the sales agreement
  - When the sales order is created
  - When the billing document is created
- This allows for accurate reporting through all the stages of the process.

### ***Lesson 3 – Transfer of Overheads***

- To allow full analysis of the costs that have arisen in Overhead Cost Controlling, you can periodically transfer the overhead costs that are not directly attributable to the cost centers or business processes to Profitability Analysis. These are sometimes referred to as below the line expenses or SG expenses.
- These costs can be allocated to any market segment or profitability segment and, as a result, to any level of the contribution margin hierarchies. This function allows you to transfer the sales, marketing, and administration costs, as well as the variances in service cost centers or production cost centers to Profitability Analysis. Underline the fact that CO-PA uses the same assessment tool as Overhead Cost Controlling.
- It is to note that the product cost information can be retrieved when transferring sales order management documents. The differences between condition type VPRS and other COGS or COGM fields that are populated through valuation. VPRS can be reconciled to Financial Accounting. It is the legal Cost of Sales, and COGM or COGS may indicate a future or current standard cost estimate.
- You can transfer to Controlling Profitability Analysis (CO-PA) the particular overhead costs for the cost centers and the business processes that are not allocated to the inventory. This can be done using periodic assessment. In addition, you can execute a direct or indirect allocation of internal activities into CO-PA for Cost Centers and business processes.
- If you use the cost component split in Cost Center Accounting or Activity-Base Costing for price calculation, you can update the prices divided into cost components during allocations to Profitability Analysis.

Credit object	Which time basis
Cost Center Assessment CostCenter	Periodical costs
Direct activity allocation	Cost center Quantity Price ad-hoc

Indirect activity allocation	Cost center Quantity Price periodic
Process assessment	Process costs periodic
Template allocation	Process Quantity Price periodic

- You can transfer overhead costs from Cost Center Accounting either on an activity-allocation or a periodic basis. You can transfer the activities either directly or indirectly to Profitability Analysis. You can use a PA transfer structure to control the secondary cost element of activity allocation in the value fields for costing-based profitability analysis.

- The assessment of cost center costs function allows you to transfer the variances in production cost centers as well as the costs in sales and administrative cost centers to Profitability Analysis.
- A cycle controls how assessment is processed. It contains all the relevant information about the senders, receivers, sender rules, receiver rules, and tracing factors. Each cycle can contain a number of segments. The segment describes a combination of senders and receivers that are to be processed together.
- The sender cost centers or processes are credited in the assessment cost element specified in the segment of the cycle.
- The receiver is defined by a combination of characteristic values, which means a profitability segment. The values are debited to the profitability segment using the assessment cost element, such as account-based CO-PA and value fields, such as costing-based CO-PA, which you specified for each segment of the cycle.
- When you create the process allocation, you can specify a profitability segment as the receiver by selecting the Profit segment field. Then, when you press ENTER, the system displays a dialog box in which you can specify the characteristic values to which you want to allocate the process.
- In account-based CO-PA, the costs are debited with the same allocation cost element. For costing-based CO-PA, you need to assign this allocation cost element to the required value field in the PA transfer structure CO.
- You can use a process template to define the formulae and functions that select the cost drivers from Profitability Analysis or other sources to assign the costs most accurately to their cause.
- In Customizing, you assign this process template to characteristics, which are used to select the cost drivers. Then, you need to assign update characteristics, which ultimately determine the profitability segments to which the business process costs are allocated.
- In SAP system, internal orders (CO), sales orders (SD), projects (PS), and production orders (PP), can be settled to profitability segments. These objects are used for the various purposes that are relevant to Profitability Analysis.
  - Internal orders and projects can be used to control the costs of an internal activity, such as the costs of an advertising campaign. The costs of the activity are posted to the order and collected there. At the end of the activity, they are settled to the appropriate profitability segments, such as the product range and sales area.
  - You can also use Management Accounting orders to calculate the anticipated values to be able to evaluate the accuracy of your accrual method. First, you credit the accrual costs calculated in CO-PA to a special cost order for accruals, currently by manual posting only. When the costs are actually incurred, they are posted to that order as well so that the difference between the anticipated costs and the actual costs can be displayed at the order level.
  - A third possible use of internal orders or projects is in make-to-order manufacturing. If you are handling sales orders, a customer project or a Management Accounting order to which revenue postings are allowed, you can post costs, such as production costs and S costs, as well as revenue and sales deductions to the order or project. When the product is complete, the costs and revenues can be settled to Profitability Analysis. You can also transfer the accrued values that are particularly important for progress billing.
- In a settlement profile, you define which receivers are allowed for order settlement.
- In account-based CO-PA, costs are settled to the settlement cost element specified in the settlement structure. In costing-based CO-PA, costs are settled from the original cost elements to the value fields to which they are assigned in the PA transfer structure.



- The PA transfer structure contains the assignment of costs and revenues to the value fields in costing-based CO-PA. PA transfer structures are used in order settlement, direct postings from FI, and internal activity allocations in Management Accounting.
- A PA transfer structure must meet the following criteria:
  - It must be complete: All the cost and revenue elements that can receive costs or revenues must be assigned to a value field in the PA transfer structure.
  - The assignments must be unique: Each cost or revenue element can only occur one time within a PA transfer structure.
- An allocation structure consists of one or several settlement assignments. An assignment defines which costs (Origin: Cost element groups from debit cost elements) are to be settled to which receiver type (for example, cost center or order). You have two alternatives in settlement assignment:
  - You can assign the debit cost element groups to a settlement cost element.
  - You can settle by cost element, which means the debit cost element is the settlement cost element.

## ***Lesson 4 – Direct Postings***

- Using direct postings in Financial Accounting, you can post actual sales reductions or actual costs, such as freight costs estimated when the period was closed to allow short-term analysis to the corresponding profitability segments. This supplements the estimated costs with the actual costs.
- In a profitability report, you can display both the estimated costs and the actual costs. Following that, you can post the actual costs to the original profitability segment, to the sales order or to a combination of customer and product. If a detailed assignment is no longer possible or necessary, you can also post the actual costs to a higher level, for example, freight costs to the “division” level. In PA transfer structure, Financial Accounting is always used for the costing-based CO-PA to map costs to value fields.
- You assign the values to a profitability segment directly in the Financial Accounting (FI) posting transaction. There, you can call up a special assignment dialog box for each posting line by clicking the Prof. Segment field.
- In account-based CO-PA, the data is posted in the same cost or revenue element.
- If your system allows dual postings to both a profitability segment and a cost center, the real posting always goes to the profitability segment. The cost center is posted only for statistical purposes.
- Automatic postings, such as those generated in Materials Management, can be passed on to Profitability Analysis using automatic PA assignment functions. The documents are updated in CO-PA for the profitability segment found on the basis of characteristic information in the corresponding Financial Accounting document.
- The transactions for which it is prudent to define an automatic PA assignment include the activities to:
  - Transfer the price differences that are posted in the Purchasing application component due to the price changes in an invoice.
  - Transfer the income or expenses that arise through the revaluation of material inventories.
  - Transfer inventory differences.

## ***Lesson 5 – Value flow from CO Object***

- Costs, revenues, and sales reductions can be posted to sales orders in the SD system, which allow revenue postings. After completion, the costs and revenues can be settled in Profitability Analysis.
- Accrued values, such as the costs of sales and provisions for imminent losses, can also be transferred to Profitability Analysis. This is particularly important for milestone billing.
- When the cost object is created, a preliminary cost estimate will be carried out automatically to calculate the planned costs for the cost object. Actual costs are incurred when the materials from stock or activity types of cost centers are consumed. Primary costs can be posted directly from the other system components to the production order. Process costs can be incurred by allocating process quantities using the process template. Because the related costs are posted to the production order simultaneously with the consumption of materials and activity, production order costs can be reviewed and analyzed at any time.
- When the produced goods are delivered to the stock, the cost object is credited with the value of the delivered quantity and the goods are capitalized in inventory. Depending on the method of price control, this may result in a revaluation of the finished goods inventory. In this example, you use a standard price controlled material.
- After finishing the production process or at the end of the period, the production order will be settled to a price difference account. Additional period-end closing activities may be performed:
  - Calculation of overhead
  - Calculation of work in process (WIP)
  - Calculation of variances
- You can settle or transfer the production variances calculated in Product Cost Controlling for both final production orders as well as run schedule headers, settled periodically to Controlling Profitability Analysis (CO-PA). The individual variance categories, such as material price variance and material quantity variance, can be transferred separately
- A PA transfer structure consists of one or more items called assignment lines. In these assignment lines, you assign a cost element group and a variance category to a value field of the operating concern.
- Notice the following when you define a PA transfer structure:
  - Every debit cost element must be in the PA transfer structure. You can either group all the cost elements into a cost element group or define a number of groups for materials, internal activities, business processes, and other overhead costs. These groups are entered in the “cost elements” area.
  - Every variance category must be represented in the PA transfer structure. The variance categories are specified by the system and are entered under the “source” section.
  - Each debit cost element or combination of cost element group and variance category can only be assigned to one value field.
- You should make sure that:
  - The current standard cost estimate is selected for valuation in Profitability Analysis.
  - The cost components of the standard cost estimate are linked to value fields.
- In the account-based CO-PA, variances are updated depending on the definition of the price difference account. The account for the price difference posting is found automatically in operations.
- In costing-based CO-PA, you can assign these variances to the different value fields according to variance categories and cost elements. To transfer variances, the Variances flag must be selected in the settlement profile assigned to the relevant production order.
- Note: Only the variances calculated in the target version, 0, can be settled to a profitability segment
- If the costs and revenues have been generated for a sales order item but the amount billed does not correspond with the costs incurred up to that point, you can use results analysis to calculate the cost

of sales expected on the basis of the existing actual revenues. To transfer the costs and revenues for the sales order item to Profitability Analysis, you need to settle the item.

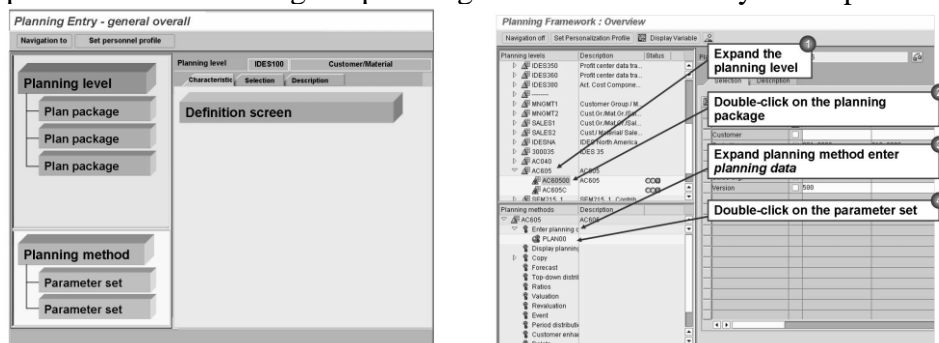
- The purpose of settlement is to pass the revenues, cost of sales, and any reserves for imminent loss for the item on to Profitability Analysis for the period. You can carry out results analysis using different methods.
- For the non-valuated sales order stock, you always need to use a cost bearing and revenue bearing sales order item. Consequently, in complex make-to-order manufacturing, you are always controlling at the sales order item level.
- In Profitability Analysis, sales revenues, sales deductions, and costs of goods manufactured are normally stored at the customer or product level. Notice that many business transactions, such as freight invoices, insurance expenses, or advertising cannot easily be assigned to such an extensive level in CO-PA. As a result, these needs to be posted at a summarized level, such as the division, sales organization, or company-code level.
- Top down distribution of actual data is a periodic function that enables you to distribute this aggregated data to extensive levels, such as the division level or the customer level in CO-PA, based on reference information, such as the data from the previous year. This function works in the same way as top down distribution of plan data.
- Note: Top-down distribution in Actual can only be executed in the cost-based CO-PA. In comparison to the top-down distribution of plan data, here only the “not assigned” method is available.
- If you use parallel valuation, which means the legal valuation together with profit-center valuation, you can value the valuation views again separately in periodic valuation.
- A number of periodic tasks are executed on a regular basis, which means daily, weekly, or monthly in the SAP System. One example of this kind of task is period-end closing, as this requires the processing of a large number of individual objects at particular points in time. This process is supported by the individual components of the schedule manager.
- Benefits include:
  - The closing process is more transparent and easy to handle.
  - Event-driven processing means that the SAP system automatically performs the necessary steps.
  - Monitoring the complete process is user-friendly.
  - Work list-driven error analysis and integrated error-handling procedures reduce the time needed for error correction.
  - Total processing time is minimized by optimized work list processing
- Flow Definition: In a flow definition you can link the tasks to one another if they are related or if they should be processed in a work list.
- Scheduler: In the scheduler, you can schedule tasks in a structure tree.
- Monitor: Provides an overview of the scheduled tasks during and after processing.
- Work list: Objects that are to be processed in a processing step sequence are managed in the work list.
- Task Schedule: A structured group of tasks that are executed periodically and possibly by more than one user to complete a certain process, such as period-end closing.
- Scheduler: To enable the system to start tasks at certain times, you need to schedule the tasks from the task list in the daily overview using drag and drop.
  - Use drag and drop to schedule a task from the task list in the daily overview.
  - Transactions and programs can only be started directly by the user.

- The Monitor: Tool to display all the information on an active or completed job that was scheduled in Scheduler.
- A flow definition (combination of flow steps) is attached to the task schedule of the scheduler. Then, the execution of the flow steps is scheduled in the daily overview of the flow steps.

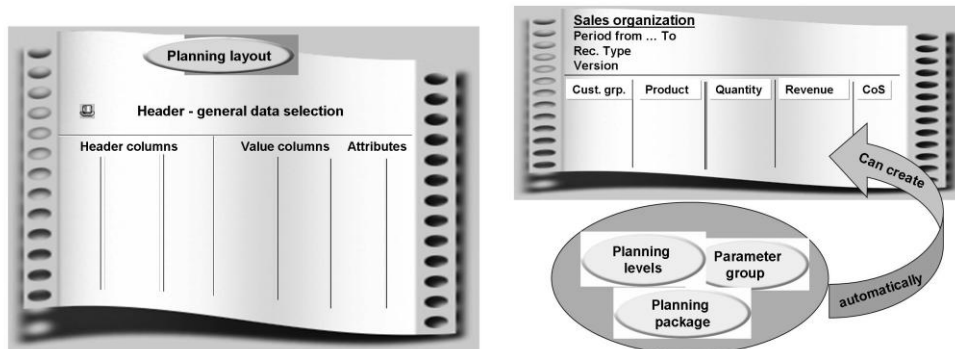
## Unit 10 – Planning

### Lesson 1 – The Profit Planning Method

- Initially, a corporate goal is set at a high level within an organization. This goal drives the overall sales budget from a revenue and quantity standpoint. A breakdown of the budget to the lower levels in the organization, in turn, drives the product budget, if applicable, which then drives the direct production costs. In the next step, the overhead expenses are added to the direct costs, which in turn, yield the complete contribution margin plan. The plan can then be broken down to any level of detail needed.
- Planning levels and packages afford the opportunity to provide the planner with the characteristics or the characteristic values the planner needs. For example, the goal is to establish a full contribution margin plan for a division. The sales force will provide the quantity and revenue plan figures, the sales managers will add selling expenses, and the planning coordinator will complete the plan with direct costs and other overheads.
- Each “planner” needs a different view of the planning data:
  - Salesperson: Customers for their territory, revenue, and quantity.
  - Sales manager: Divisions they manage, quantity, revenue, discounts, and cost
  - Planning coordinator: Sales organization, division, quantity, revenue, discounts, direct costs, and overheads
- In addition, mention the importance of the versions that are needed to accomplish any type of planning. Versions are valid throughout Controlling and across all the operating concerns. In Profitability Analysis, versions are used to enter and store different plan data for profitability segments. In the general version definition function for Profitability Analysis, the fields, Actual and Exclusive use, are, as a result, irrelevant.
- Each version incorporates the settings that are made in reference to the plan version of an operating concern. These attributes determine whether planning is allowed for the plan version, in which currency the data for the version is managed, the exchange rate used to translate the foreign currency amounts into the operating concern currency, and whether the characteristic derivation logic is checked when you enter the plan data.
- The planning tool in Profitability Analysis offers all the people involved in the planning process a uniform, graphical planning interface that is straightforward and modern.
- Your planning structure is represented in a tree hierarchy. From the initial
- Planning screen, you can execute almost all the planning functions, right from modeling the planning process and monitoring the planning tasks to manual entry of the planning data



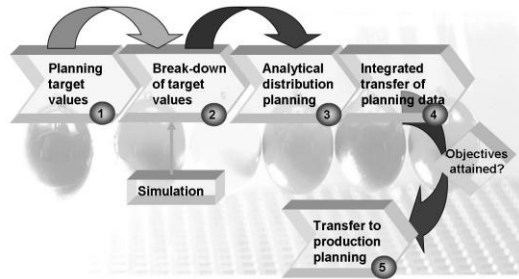
- Planning in CO-PA can be executed on many different levels. In this way, for example, you can plan on product group and product level, on customer/product level or simply on customer level. In fact, you can plan on any profitability segment in CO-PA.
- By design, the system ensures that the data remains consistent across all the levels throughout the planning process.
- Derivation is automatically carried out in the background when the plan data is saved. This means that the values planned under one or more characteristic values are also automatically summarized under other higher-level characteristics.



- Planning layouts are customized screens for entering plan data. The definition of a planning layout controls not only the appearance of the Planning screen but also some of the functions. This allows for complete flexibility in controlling the planning entry process.
- A planning layout definition consists of three parts, the general data selection, the lead columns, and the value columns. The general data selection is where the characteristic values are specified that are valid for the entire layout. The lead columns are where additional characteristics that are to be planned may be specified. The value columns contain characteristic/value field combinations.
- Variables may be used when defining planning layouts to give them maximum flexibility. Variables can be used for any characteristic and they can be installed anywhere necessary, such as rows, columns, or the general data selection. Users will be prompted to enter the values for these variables when planning.
- Separate planning layouts are required for costing-based CO-PA and account-based CO-PA because planning figures on the two sides of CO-PA are not related or linked in any way. When defining layouts in costing-based CO-PA, you need the characteristic record type. When defining layouts in account-based CO-PA, you need the characteristic cost element.
- A general planning layout that corresponds to the selections made in the plan level and the package can be created automatically. Specific layout features can be maintained manually.
- There are two basic options for defining the lead column(s):
  - Each row in the lead column can be defined separately and consists of a combination of characteristic values (in this case, the columns are value columns) or each row is a value row (in this case, the columns are characteristic values).
  - The entire lead column can be selected to represent a characteristic (the columns are value columns). With this option, you can obtain multiple lead columns but you cannot hard-code any rows.
- Value columns are defined using characteristics, value fields, attributes, or formulas. If the lead column contains only characteristics, then each value column must contain at the minimum a value field. The column can also contain the characteristic values that pertain to the value field.
- The following attributes can be tagged to each value column:
  - A distribution key for distributing the summarized values to periods.

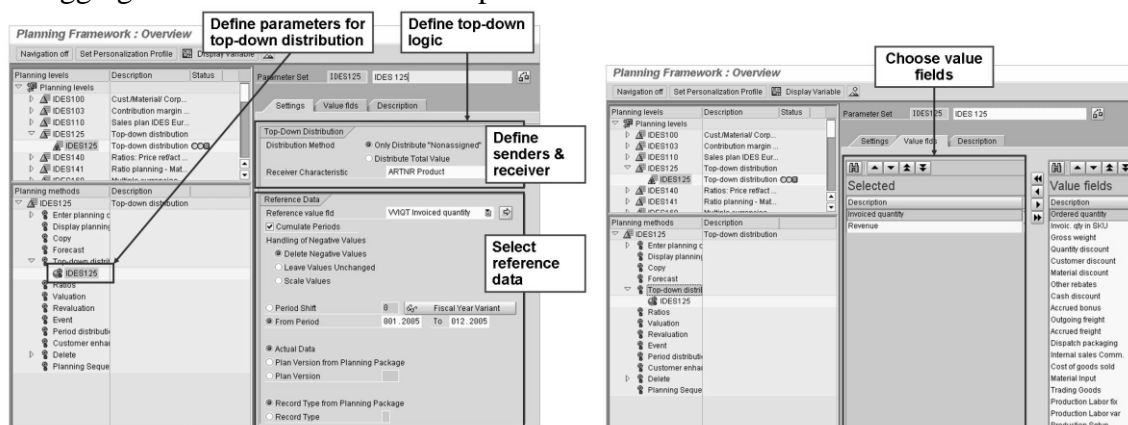
- A unit for the value field (either a currency or a unit).
- A long text indicator (indicating some long text can exist).
- All characteristics.
- You can define the variables for your planning levels and planning packages.

## Lesson 2 – Planning Methods



- The process begins with the planning of target values, such as at the material group level. Average prices and cost of goods manufactured can be determined at this stage.
- In the next planning phase, plan data is distributed top down. The plan data for material groups is broken down into combinations of customer groups and products.
- In bottom up planning, the plan data can be entered manually for each sales representative and then brought together in a single plan version.
- In the fourth planning step, the additional plan data can be transferred to sales and profit planning from other business areas, such as cost center accounting or incoming orders.
- After planning has been finalized, the plan data can be transferred to production planning, allowing production plan data to be reconciled with sales planning.
- By means of ratios, which are quotients of two value fields, used directly in the planning layout, you can calculate prices quickly and simply, and simulate price, value, and quantity changes.
- You can use ratios and ratio schemes, which are similar to costing sheets, to value your current plan version with the average prices from reference data, such as the actual data or another plan version. This allows you to plan prices and quantities separately and simultaneously use the valuation prices for quantity planning. This function is available for both manual planning and automatic planning.
- At the start of the first planning phase, in which you plan target values, you define average prices and the cost of goods manufactured. Introducing ratios helps simplify planning prices manually.
- With the Goal Seek function, you can enter a target revenue and have the system calculate the planned price required to attain it.
- Ratios or prices are not saved on the database. Instead, they are calculated dynamically from the quantities and values at each planning level. This avoids the build-up of redundant data and ensures a consistent dataset
- You can summarize ratios in a ratio scheme. Ratios can be combined into ratio schemes, which can then be applied against The existing plan data for the purpose of valuing the existing plan base values with ratio values or the rates that are calculated based on specific reference data. The reference data can be the actual data or the data from another planning version.
- You can use ratio schemes in both manual planning and in automatic planning. In both cases, you indicate the ratio scheme and the reference data (plan/actual data, plan version, record type, and reference time interval). In automatic planning, ratio schemes can be applied using the Copy and Change functions.

- You can perform data simulations in planning using the Goal Seek function. This function allows you to enter a target contribution margin in manual planning and to have the system calculate the corresponding quantity sold.
- With the top down distribution function, you distribute the data from a higher planning level to the underlying levels. You could initially plan on the product group level and then break the plan down into products. The plan data is distributed in the same way as the existing reference data. Both plan data and actual data can be used. You can distribute the data for a certain period or based on the accumulated period values to smooth out fluctuations.
- Top down Distribution in Planning
  - Method: Distributing “non-assigned values”
  - Method: Distributing total values
- You can use an extensive top down distribution function available in both manual and automatic planning for the second planning phase, which involves the top down distribution of the target values to an extensive planning level.
- Top down distribution is a process for distributing data that has been planned at one level in CO-PA to the additional levels based on some reference data, which can be plan or actual CO-PA data. It can only be done in automatic planning.
- Plan values can be distributed strictly according to the reference data by period or based on the reference data aggregated across the periods. The latter has the effect of equalizing the distribution percentages across periods for the receivers.
- When performing a top down distribution, you need to specify the field(s) in the reference data, the values of which should be used as the reference base. The options are:
  - Fixed value field: The data of all value fields is distributed according to the distribution of values of this value field.
  - All value fields: The data of each value field is distributed according to the relative reference data for each profitability segment for the same value field.
- The plan data is distributed in the same way as the existing reference data. For this distribution, you can use either plan or actual data. You can distribute the data separately by period or you can aggregate the values over several periods to level out fluctuations.



- In the parameter set, you can specify the following:
  - You have the choice between two top-down procedures that define exactly what values are to be distributed: You can either only distribute values that are posted directly at the higher level with the method, Only distribute "non-assigned" or you can distribute all the values located at the higher level, regardless of whether they were posted there directly or rolled up



from more extensive levels, using the Distribute total value method. When you use this method, the values taken from the extensive level are overwritten by the new, distributed value.

- You specify the receiver characteristic for the distribution under Receiver characteristic. You can select several characteristics from the characteristics specified in the planning level.
- Under Reference value field, you can enter as the basis for distribution, a specific value field for the reference data or a key figure calculated from value fields.
- Alternatively, you can specify that the distribution occurs by value fields. In this way, each value field is taken as the basis for its distribution.
- You specify the time frame for the reference data that is to be used as the basis for executing the planning method.
- You specify whether the data to be used as the reference data is the actual data or the data from the plan version for the planning package or from a different plan version that is yet to be specified.
- You can specify for a sender characteristic that a different characteristic value in the reference data forms the basis for distribution.
- By making the appropriate setting, you specify whether the planning method is to be executed in a test run or in an update run, or whether this decision is to be postponed until the point of execution of the parameter set.
- You can jump to a background processing screen.
- In the Value fields tab page, you specify the specific value fields that are to be distributed.
- Bottom-up planning signifies manual planning using lower level characteristics, which in turn, rolls up to higher-level characteristics. The most granularities you can get are the customer and product levels. Explain that most sales companies perform a combination of bottom up and top down planning. For example, certain key customers are planned at the product/customer level for the highest selling product. Miscellaneous customers are planned at the customer group level.
- The automatic planning functions enable the automatic processing of a large number of profitability segments for planning purposes. The functions support copying, forecasting, top down distribution, changing, and deleting plan data.
- The copy function can be used to process a large number of profitability segments automatically.
- With the forecast function, you can forecast the planned values for several profitability segments at a time using a specified forecast profile. The plan data that is forecast is generated on the basis of existing reference data.
- The change function allows you to change the existing plan data automatically. The delete function can be used to recreate a plan at a certain point in time.
- The third planning phases in which plan values are planned bottom up and merged could occur in several steps.
- Integrated Microsoft Excel allows individual sales representatives to create their sales plan data locally.
- Finally, the individual plans can be merged into a single version and valued with the operative prices and costs of goods manufactured.
- The integration of Microsoft Excel into profit planning means that you can use Excel functions such as the ones for additional calculations, graphics and printing, and the SAP system ensures the consistency of the data centrally, providing central functions such as derivation and valuation.
- To perform local planning, you can save Excel sheets that have been created in the SAP system locally on a personal Computer or laptop and then work on them in Excel outside the SAP environment. The data can then be loaded back into the SAP system later using the upload functions.

- **Automatic Planning Functions** These functions can be used to simultaneously process a large number of profitability segments for planning. They can be executed either online or in the background. You must have the appropriate authorizations to use these functions.
- **Automatic planning functions** have been included in the concept of planning levels and planning packages. There are 12 planning methods: You select the characteristics to be planned at the planning level and in the planning package. You enter all other settings and select the value fields in a parameter set for the corresponding planning method, such as Copy.
- **Planning Management** You use this function to track which automatic planning functions were executed and by whom. It provides a complete log of the mass changes made to plan data, the log information when certain functions were carried out, who carried them out, and what profitability segments were changed.
- **Copying Plan Data (1)**
  - In the target fields, specify the following:
    - The posting periods to be updated with the copied data.
    - The plan version to be updated.
    - The record type under which the plan data is to be saved.
  - In the source fields, specify the following:
    - The posting periods from which data is to be copied.
    - The plan version from which the data is to be copied (if copying plan data).
    - The record type of the plan data you want to copy.
    - The plan/actual indicator.
- Specify a distribution key if you want to summarize the source data for all the periods and then distribute them across the target periods. If you leave this field blank, the values are copied straight from the source periods to the target period.
- Select the **Valuate** radio button box if you want the system to automatically perform valuation during the copy process. Then, target value fields may be populated with values from costing sheets, product costing, and user-exits.
- You can use the forecasting function to automatically calculate new plan data using the existing data and customizable forecast profiles. You can use forecasting in manual planning and in automatic planning.
- A forecast profile is a combination of a forecast model delivered by SAP and a set of user-defined parameters. The SAP system supports a number of predefined forecast models, including trend models, seasonal models, and exponential models
- In **Manual Planning**, you make a forecast by selecting a value or a column and then clicking the **Forecast** function. In the dialog window, enter the required parameters, such as the forecast period and the reference data to be used.
- To forecast in **Automatic Planning**, select **Automatic Planning** → **Forecast** in the application menu and enter a forecast profile and the required parameters on the Initial screen.
- You can use planning sequences to combine several automatic planning methods, sort them, and execute them in one run.
- In integrated planning, the data transfer to LIS, evaluations with manufacturing or conditions from the sales order management are only possible in the costing-based CO-PA. However, data can be transferred from the costing-based and account-based CO-PA into the Profit Center Accounting. Only the cost center cost assessment for plan values is supported for both approaches.
- In the fifth planning phase, you can complete your sales and profit planning data with the additional plan data from other application components.

- By design, the SAP system supports integrated planning in controlling, where planning is conducted separately for multiple business activities but the different plans are linked to ensure consistency and to drive realistic corporate-wide planning.
- This integration is accomplished in the SAP system through both real-time and periodic synchronization of the data in the plan versions across modules.
- To reflect Plan costs from Cost Center Accounting in Profitability Analysis, you need to transfer those costs into the CO-PA portion of a plan version through a cost center assessment.
- Assessments affect both costing-based CO-PA and account-based CO-PA, if both are active.

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