Management Accounting TFIN 22_2 Summary

Prepared By
Zeeshan Raza Haryani
ACA, ACCA Finalist
Certified FICOBW
Zeeshan.haryani@gmail.com

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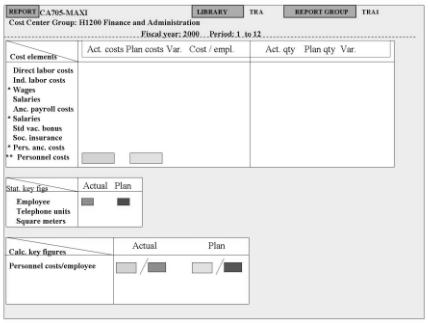
Unit 1 – Introduction to Report Painter/ Report Writer

Lesson 1 – Report Painter/ Report Writer Overview

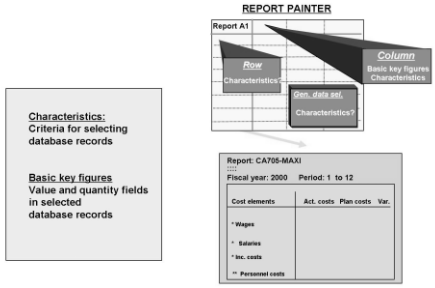


- Quick Viewer and SAP Query are menu-driven tools that help a user compile lists.
- With the Report Painter, users can report on data from a wide variety of applications. The form layout tool enables a user to see the report in the form in which it will appear when the data is output.
- The Report Writer uses sets exclusively to map the row and column structures, thereby supporting more complex reports.
- The drill-down reporting facility provided by SAP is an online information system featuring user-friendly functions that help you navigate through your data.
- The data can be analyzed in the Logistics Information System using both standard and flexible analyses. Standard analyses are based on statistics files or information structures in the Logistics Information System to which important key figures are updated directly from the relevant application. Flexible analyses can be used to evaluate SAP data structures and form the basis for ad-hoc analyses.
- The graphical user interface (GUI) of the Report Painter can be used for various purposes, such as to define:
    - Planning layouts
    - Drill-down reports
    - Report Writer reports
- The Report Painter performs a similar function to the Report Writer but is much easier to use. To create reports with the Report Painter, you do not need to be familiar with the set concept of the Report Writer.
- The Report Painter is based on the What You See Is What You Get (WYSIWYG) principle. The Report Painter represents the interface between the user and Report Writer.
- Each Report Writer report is based on a reporting table which may include one or more physical database tables.
- The reporting table contains all of the fields that can be used to compile a report. Characteristics are non-numeric fields where as Basic key figures are numeric value fields,
- A key figure comprises a basic key figure and one or more characteristics.
- A library is a collection of characteristics, basic key figures, and key figures that are selected from the entries in a Report Writer table.
- Every new report must be created for a library. Before a report can be run, it must be included in a report group. A report group can contain one or more reports. When a report group is generated, executable ABAP programs are created to select and format the data.

- The reporting table CCSS is shipped for Overhead Cost Controlling reports. The standard libraries include the library 1 VK Cost Center Absorption Costing and the library 601 Internal Orders.
- The position assigned to the characteristics, basic key figures, and key figures when the library is maintained determines the order of these objects when the report is defined.

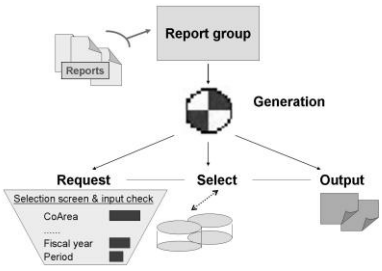
Unit 2 – Create Reports with Report Painter

Lesson 1 – Structuring Reports



- To define a report, you must determine the row and column structure and the general data selection criteria.
- With the format presented by the Report Painter, you can easily enter rows, columns, and general selection criteria.
- The rows constitute characteristic values or groups
- The columns contain basic key figures, such as costs and quantities with characteristic values for key figures, which are combinations of predefined basic key figures/characteristic values.
- General data selections are carried out using characteristic values, which are valid throughout the entire report.
- You can use either a combination of characteristic values or a formula to define a row.
- Columns contain a combination of a key figure and optional restricting characteristic values. You can also use predefined columns combinations of key figures and characteristics, such as, actual costs in the current period and scheduled activity.
- To define rows, you select the characteristics you want to display in these rows and enter the appropriate values. You can enter specific values, intervals of values, or a group.
- You can use the formula editor to define formula rows. The formulas used can refer to other rows in the same section and to cells selected in the report.
- One way to define a column is to combine a key figure with several characteristics. To restrict the characteristics, you can enter intervals or groups as in the case of defining single values for the report rows.
- After you have defined the rows and columns, you can define additional criteria that are valid for the entire report. The additional criteria you select will restrict the data processed in the report. These restrictions are stored in so-called general data selections.

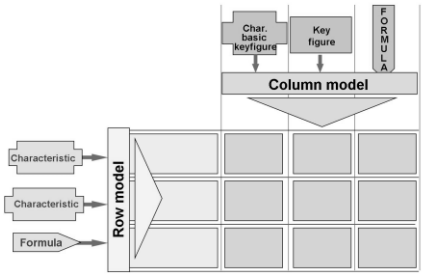
Lesson 2 – Generating and Executing Reports



- Before a report can be output, it must be included in a report group. A report group is a collection of reports in a library that are executed in one run.
- You cannot process reports from different libraries in the same report group.
- When a report group is generated, the system creates ABAP reports that you can run.
    - In the first ABAP, inputs are proposed and verified with regard to output parameters, the data source, and extract parameters. In addition, values or sets are proposed for selection if the report definition contains variables.
    - In the second ABAP, data is selected from the database.
    - The last ABAP formats data so that it can be output.
- When using groups or several single values to define rows, you can define whether only a totals row is to be displayed, or the complete group hierarchy with subtotals is to be exploded, or every single value in a row is to be displayed. The system is set up in such a way that only those rows are displayed for which corresponding data exists.
- If you use a combination of several characteristics in a row block and this row block is exploded, you can choose the hierarchical sequence in which the characteristics are displayed.
- Instead of using fixed values in the report definition, you can also use variables.
- When you execute a report group, an input field appears on the report selection screen for each variable used.
- There are three types of variables:
    - value variables,
    - variables for groups (set variables), and
    - Formula variables.
- You can define texts at the following points within a report:
    - Title page
    - Header
    - Footer
    - Final page
- When the report is exported, say, to Excel, the worksheet header is taken from the exported text. The header and footer in the report are intended for lists and, therefore, do not appear in the worksheet. This also applies to the title page and final page.
- You can enter text directly for the title page, header, footer, and final page. You can also use the following types of text variables:
    - General variables
    - Selection parameters
    - Characteristics
    - Special variables

Unit 3 – Model Rows & Column

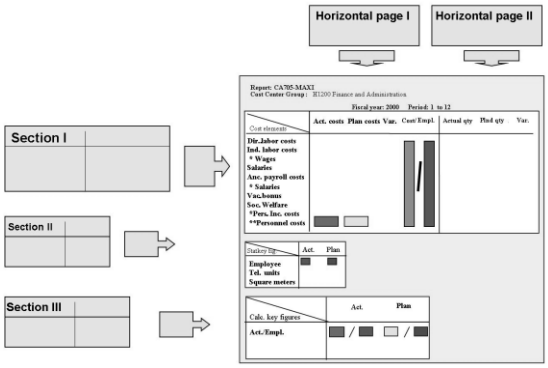
Lesson 1 – Using Row and Column Model



- You can store frequently used row and column structures in row and column models. You can copy row models and column models into a report. This is the quickest way to define a report.
- Row and column models must be created for libraries. These can only be used in reports in the same library.
- If you want to use the same models in different libraries, you have to copy them. Note that you can only copy models form one library to another if the target library has the required fields.

Unit 4 – Sections and Horizontal Pages

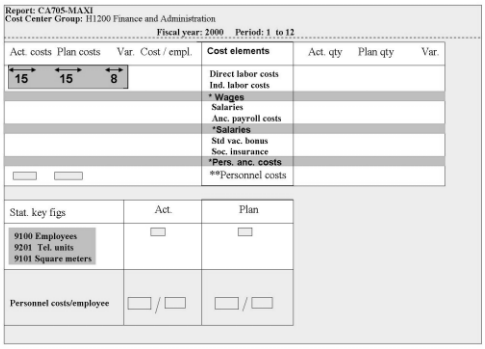
Lesson 1 – Defining sections and horizontal pages



- A report can consist of several sections. Each section may contain one or more Horizontal Pages that have a common row structure.
- Each section in a report can comprise several Horizontal Pages. All of the Horizontal Pages in a section have the same row structure.
- Formula columns can refer to columns from all Horizontal Pages in the same section.
- Every report can be broken down into any of following sections:
    - Sections with characteristics and key figures
    - Sections with Calculated Key Figures
- You can use cells to carry out mathematical operations in your reports. A cell defines a certain location or interval in the row/column matrix of a report. Once the Report Writer has identified a location or interval (or a coordinate), it can use the cell in formulas.
- You can use the cells selected in the report to calculate formula columns in the same way as standard columns. In sections with calculated key figures, you can use the cells selected in the report to define new key figures.
- To define a section with calculated key figures, you must define texts for the rows and columns in the section. Then, define each individual cell using the formula editor.
- You cannot select cells in exploded rows. The reference value in the row for a cell is the maximum total of the respective hierarchy.
- If you want to choose cells for a subgroup, you have to define an additional report row for the subgroup, choose the required cell, and hide the report row.
- You can suppress or hide individual rows and columns in a report. You can use the hidden rows and columns to calculate formula rows or formula columns or to define sections with calculated key figures.

Unit 5 – Formatting Reports

Lesson 1 – Using Standard layouts and Format Groups



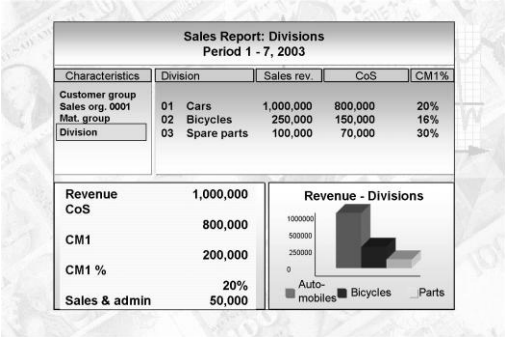
- The standard layout can also be changed during output which is assigned in the report header.
- There are a total of six format groups (0 to 5), formally known as print classes. You can use the format groups to control certain formatting options for a column. The format groups can be stored at different points, such as report definition, standard layout, and section layout.
- You can define the layout functions for individual sections, instead of defining them for the entire report.
- You can use the following formatting options in the section of a report definition:
    - Select a short text, medium text, or a single-line long text for all columns.
    - Define color and over score/underscore options to emphasize a summarization (*) level.
    - Expand/compress the summarization levels.
    - Choose format groups for the columns to optimize the number format and column width.
- You create a standard layout independent of a report.
- You assign the standard layout to your report. If you are not working with a standard layout you created yourself, the SAP layout is used.
- This standard layout defines the format of your report. In the layout, you can define parameters that control:
    - Rows
    - Lead column
    - Columns
    - Column headings
    - Representation
    - Language-specific parameters
    - Graphics
- In the report definition, you can assign a standard layout to a report in the report header.
- When a report group is output on the screen, you can either use the standard layout entered in the header of the Report Painter report or copy it locally as a report layout for this report and modify selected parameters for this report if the “Change allowed during execution” flag is set in the layout.
- You may have to define different formats form amounts in different columns. In the Report Writer, you use the format groups for this purpose.
- The Report Writer comprises a series of layout parameters in six different variants, which are numbered in a sequence. The number is referred to as a format group. These format groups can be

entered above the columns. In a report, the parameter version that matches the format group is always used.

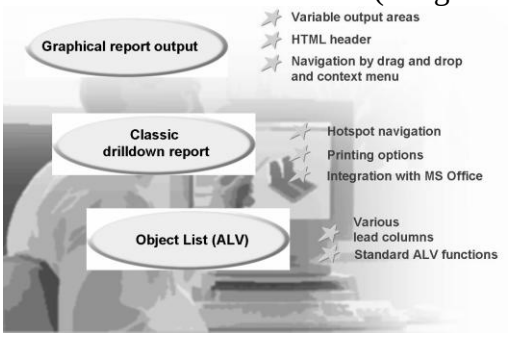
- Examples of these parameters include:
  - Column width
  - Number of decimal places
  - Scale
  - Flag: print units
  - Right margin
  - Flag: reverse +/- sign
- The section layout contains control information on:
  - Row totals
  - Row texts
  - Column texts
- The section settings can also be modified in the report output.

Unit 6 – Information System

Lesson 1 – Overview of Financial Analytics



- In SAP system, drill-down reporting is an online reporting tool that allows you to interactively evaluate the data in Profitability Analysis.
- In drill-down reporting, you can display both reports with a simple, fixed layout, basic reports, and reports with a more complex structure and formatting, form reports.
- Drill-down reporting is used in both costing-based and account-based CO-PA.
- You can summarize the data according to the derived characteristics and then drill down interactively in reporting. At each level of the report, you can display the drill-down list (overview) or extensive information (margin analysis).



- The functions of drill-down reporting are divided into three levels so that you can give each user only the functions that the user requires:
    - Step 1: Contains the basic functions of drill-down reporting and enables you to send reports by SAPmail. This level is designed for users who do not require the entire functions of drill-down reporting.
    - Step 2: Contains the rest of the drill-down functions and enables you to display graphics and download reports to Microsoft Excel.
    - All functions: includes all functions in drill-down 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 drill-down functions.
- You can define the required level for each user by entering the parameter, RLV (0 = All functions, 1 = Level 1, 2 = Level 2) in the user's user parameters.
- With the help of the various analysis functions, you can classify and rank your CO-PA data. There are three analysis functions available:
    - Cumulative curve
    - ABC analysis

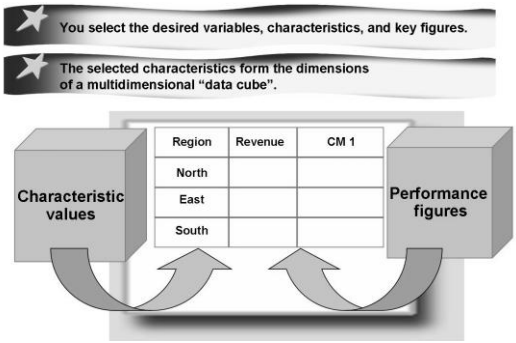
  - Classification
- An exception is a rule that determines whether the performance of a profitability segment differs significantly from what had been expected. You can define the exceptions for any key figure in a cell or an entire column of a report.
- An exception consists of two threshold values that determine the range of tolerance within which the value might move. If the value exceeds the upper threshold or falls below the lower threshold, the system displays it in the color that was defined for that threshold, green or red.
- There are two basic types of exceptions.
  - You can define an exception for a single cell, which is an intersection between one row and one column, or
  - For an entire column.
- That means that the exception is valid for that column on every list at every level of the report.
- When you define an exception for a cell, it only applies to that cell on that particular list. That means that the exception is not visible if you drill down to the next level.
- You can make a number of settings directly from a displayed report list to define how the data should be displayed and printed. The settings include changing the currency, the characteristic display, how the total rows are displayed, sorting functions, such as sort columns, switching display variants, such as cumulative on/off, and various print settings.
  - Currency: Translates the displayed currency to any other currency for the selected column(s). The currency translation key is used to automatically find the exchange rate. You define the currency translation keys in Customizing.
  - Sort: Enables you to sort the rows of the list in ascending or descending order according to the values contained in the column where you have positioned the cursor.
  - Number format: Enables you to change the number format and the sign for individual columns.
- When you execute a drill-down report online, the system displays a Selection screen where you specify what data you want to see.
- You can also use the selection variants to execute reports in the background. You do this by first defining a variant group and entering a number of selection variants for the different reports in that group. Then, you can schedule the entire variant group for background processing.
- In this way, a variant group enables you to combine separate tasks into one step:
  - Schedule different combinations of variables for one report
  - Schedule variants for different reports

Lesson 2 – Creating Reports

- **Basic Report**
  - Quick, easy to define
    - Select characteristics
    - Select key figures
    - Select variables
- **Form Report**
  - Specially formatted reports with
    - Layout based on a standardized "form"
    - Special formatting options (color, dividing lines, etc.)
    - Use of variables

- A distinction is made between two different types of reports.
  - Run a quick, ad-hoc analysis to search for a specific effect. These reports have a predefined basic structure for general use.
  - Represent more complex reports and can be designed according to their specific purpose. These reports are used for official reports and are suited for printing.

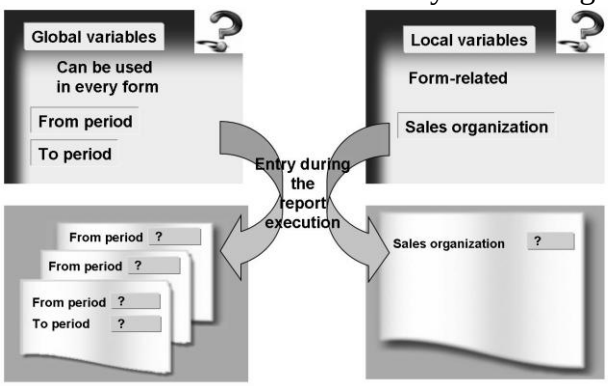
- Form reports are defined on the basis of "forms". Forms are independent objects that can be used for different reports. There are different types of forms, which differ in terms of what elements are defined where in their structure.
- Basic reports do not require the use of a form. When you define a basic report, you simply need to select the characteristics, characteristic values, and key figures that you want to analyze.
- Remember that each report that you define is valid only for either costing-based or account-based Profitability Analysis, and not for both.
- You can use characteristics, key figures, and forms to define a report. As a result, when you display the report, a number of lists and graphics that you can call up and analyze interactively appear.
- A form determines the content and formal structure of a report list. A form can be thought of as a semi-finished report, which you complete by indicating characteristics and key figures when you define the individual report.
- You can indicate characteristics in the form as well as in the report. Key figures can be contained only in either the form or the report.
- Drill-down reporting in CO-PA provides you with easy-to-use functions to move through the dataset. Drill-down reporting provides special functions to define the report layout to print, such as page breaks, headers, footers, and underscores.



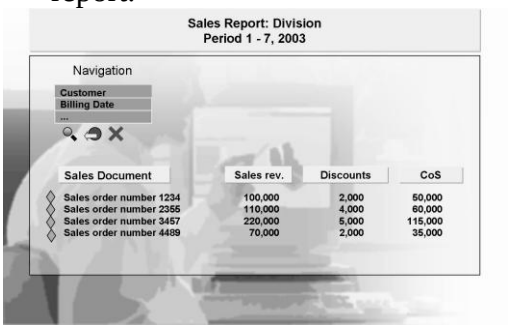
- When you define a basic report, the system first asks you to enter a from and a to period, a plan/actual indicator, a version, and in costing-based CO-PA, a record type.
- Next, the system displays a list of all the characteristics in the operating concern. These characteristics will form the dimensions of your multidimensional "data cube".
- In the costing-based CO-PA, you can enter a key figure scheme to get a list of all key figures of this scheme. When you select Value fields, you can extend the list to include all the value fields of the operating concern. In account-based CO-PA, the system automatically displays a list of all the fixed basic key figures.
- The formula editor allows you not only to enter value fields but also to define complex formulae. This means that constants as well as any elements of the key figure scheme can be linked up by standard arithmetic operations or user-defined ABAP functions.
- You can define hierarchical relationships between different characteristic values in Profitability Analysis and analyze these later in drill-down reporting.
- A characteristic hierarchy is defined using the master data (characteristic values) that belong to a characteristic. Notice that different characteristics that use the same master data table have the same master data hierarchy. You cannot define hierarchies for the characteristics that do not use a master data table. This applies for the characteristics that were defined with no check table and text table.
- Note: These hierarchies are only hierarchies of values of a single characteristic. For this reason, each hierarchy can contain only the values of that particular characteristic. In addition, each characteristic value can occur only one time in a hierarchy. This means that each value remains unique throughout the entire hierarchy.

- In the drilldown, there are two categories of reports: Ad-hoc reports and form reports. In contrast to basic reports, the user defines the layout of a form report.
- In drill-down analytics, local and global variables are used to enter characteristic values, such as company codes, when executing a report, and to automatically enter texts, such as column headings.
- The content of a form should normally be regarded as fixed and should only be changed under exceptional circumstances. This is because when you change a form, it changes all the reports that use that form.
- A distinction is made between the forms with one axis and the forms with two axes.
    - Forms with one axis consist of only one dimension, which are either rows or columns.
    - Forms with two axes contain both rows and columns. This means that you can define the forms with one axis, which may not be useful as a basis for final reports, and use them as templates to create the forms with two axes.
- 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 press 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.
- In a form with one axis and without the key figure, you only need to define the columns. To do this, you indicate characteristics and characteristic values.
- When you execute a report, you obtain a drill-down list with two headers, with each key figure standing above a group of columns that contains the characteristics you specified in the form.
- In a form with one axis and with the key figure, you set the key figures you want to analyze, such as planned revenue and actual revenue, in the rows of the form. You can also limit the key figures further if you specify characteristics and their values as well.
- Remember that in a form with one axis and with the key figure, you define either the rows or the columns of the form.
- Notice that when you define a form, you define the layout of the detail list. This means that the position of the elements in the form determine their position in the detail list. This is the reason why e key figures are shown in the rows by default in the forms with one axis and with the key figure
- In a form with two axes (matrix form), you define both the rows and the columns using characteristics and key figures. The key figures must appear in either the rows or the columns of the form, but not both. Conversely, characteristics can be used to define both rows and columns.
- The following functions are available when you define a form:
    - Colors: Used to highlight certain elements of the form.
    - Number format: This function lets you specify a display factor and the number of decimal places displayed. This function is always applied to a specific column or row. When you have executed the report, you can make additional settings for each row or column.
    - Plus/minus sign reversal: Used to reverse the signs of a specific column.

- Negative values are displayed as positive, and positive values as negative. In the form, "-"is used to indicate this.
- Zero suppression: Used to hide all the rows with the value, 0.
- Text type: Allows you to specify whether you want to see the short, medium, or long text of each element in the lines or columns.
- Column width: Allows you to change the width of a column.

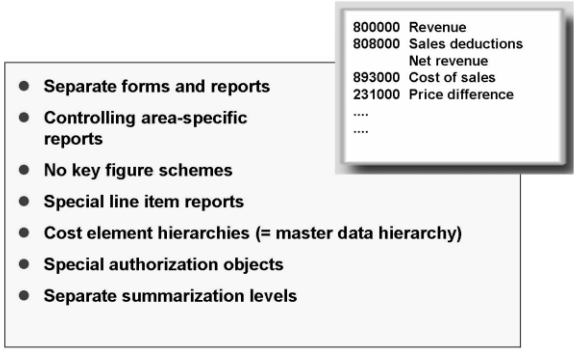


- Variables allow you more flexibility to define your forms and reports. Variables are report or form parameters, which you do not want to specify until you define or execute a report. You can use different methods to replace variables. Depending on how often you want to use them, you can define your variables globally or locally.
  - If you want to create a variable which you need only in one particular form or report, you can create a local variable. Notice that 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 which uses that form.
  - If you use a variable frequently, you can define it globally. You can then use global variables in all your forms and reports. Global variables are maintained in the Customizing. If you then want to use global variables in a form or a report, they are displayed for selection in the input help.
  - Note: Notice that when you change an existing global variable, this activity may affect a number of reports and forms, which already use it.
- You use a variable for characteristic values if you want to leave the value of a characteristic undefined in the report. Variables for characteristic values can be used in both forms and reports. These are then filled when editing or executing the report. Variables used in the report definition are replaced when the report is executed.
- If you want to use a variable for the line or column text in a form, you need to define a text variable.
- Notice that text variables can be used only in form reports and are always defined directly in the form. They are replaced automatically by the text of the characteristic value when you execute the report.



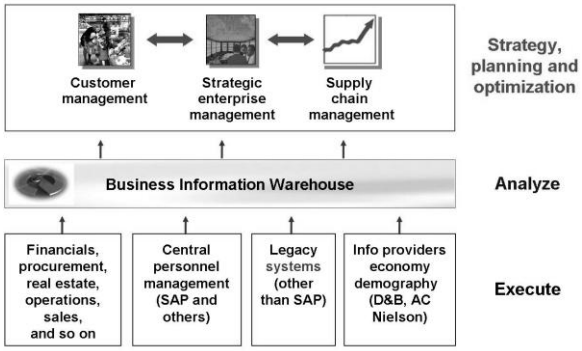
- Line item analytics is used to analyze individual business transactions.

- Reports based on line items permit you to use the following characteristics:
  - Characteristics in the segment level
  - Characteristics that are not activated as segment-level characteristics
  - The date the line item was created
  - The person who created the line item
- You need to create special forms and reports in Customizing for reports based on line items. When you select additional report components such as key figure schemes, variables, and authorization objects, you can refer back to the ones created for standard drill-down reports.
- Reports based on line items are available only for costing-based Profitability Analysis.
- Please note that the time and effort required to read line item-based reports is very high. Summarization data and summarization levels are not supported for this type of report.
- The line item list is defined using the layout functions in the ABAP list viewer. This means that you can display a list, adapt it to your requirements, and then save the changes as a layout.



- A hierarchy on the “cost element” characteristic can only be represented by specifying a set. You define line item layouts in Customizing. The following display forms are available:
  - Compact display
  - Line display
  - Asterisk display
- You can display different currencies in the same report:
  - Controlling area currency
  - Company code currency
  - Transaction currency
- You can display line item lists in account-based Profitability Analysis. You can also format the lists as you want using your own line item layouts. If you do not specify a layout, the system uses the standard line item layout
- You can use this function to export a report in the XXL format, a special format to transfer data to a spreadsheet application. Using this format, you can transfer all of the selected characteristics of the report into the table calculation.
- In this way it is possible to carry out a breakdown through the individual characteristics in the table calculation. You can select this function when:
  - The list currently displayed is a drill-down list. For technical reasons, this function is not available in detail lists.
  - You are displaying the report values as absolute values (function Percentage/absolute). The function is not active when you switch to percentages.
- The interface with Microsoft Word enables you to download drill-down reports to Word and print them from there. You can print all reports using Word, except the ones that you called up from another report using the report/report interface.

Lesson 3 – Financial Analytics in BI

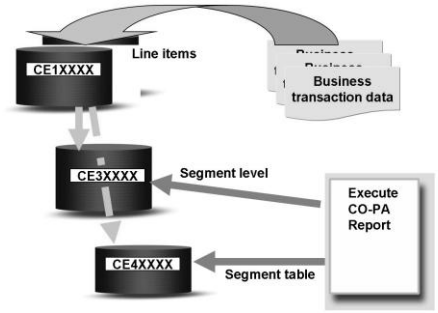


- Supply chain planning is a key component because you can use it to improve the performance of the supply chain of a company and create shareholder value. The major benefits are improved customer service, reduced inventories, cycle time compression, lower supply chain variability, and maximized ROA.
- SAP APO enables a company to implement the best business practices to achieve outstanding improvements. These include Sales and Operations Planning (SOP), Vendor Managed Inventory, Synchronous Manufacturing, and Capable-to-Promise.
- The Logistics Execution System (LES) is a part of the unique Supply Chain Management Initiative of SAP. It allows you to forge strong yet flexible links between the production, procurement, storage, distribution, transportation, and sales and service processes
- A business component provides self-contained business functions with stable interfaces. Such a component has its own cycle with regard to development, implementation, and maintenance. Some components can run on their own, dedicated database.
- The business components make use of the object-oriented interface technology based on Business Application Programming Interfaces (BAPIs). A BAPI is a method of an SAP Business Object and attains a new level of interoperability between the encapsulated SAP Business components that can be networked.
- SAP uses Application Link Enabling (ALE) and SAP Business Workflow to ensure the integration of the whole system. This means that business processes can also be formed across components.
- The Business Information Warehouse is preconfigured with SAP business know-how or Business Content.
- Business Content covers information models, queries, and extractors, as well as external data and company benchmarking.
- The Business Content strategy allows SAP to:
    - Map the content of the standard SAP ERP system.
    - Display the industry-specific models.
    - Provide a platform for partners' content.
    - Include external data such as:
    - Consolidated POS data
    - Market research data
    - Demographic data
    - Company benchmark data
- SAP systems and external systems are displayed as OLTP systems in the lower section of the screen.
- Metadata and application data is managed on the Business Information Warehouse server.
- The Business Explorer, with its reporting tools, forms a third layer.

- As components of the Business Framework, the OLTP applications and the Business Information Warehouse communicate using Business Application Programming Interfaces (BAPIs).
- The Administrator Workbench is the tool used to get data from the source systems into the Business Information Warehouse.
- An Info Source is a summarized quantity of information that logically belongs together for a unit. Info Sources can either encompass transaction data or master data, such as attributes, texts and hierarchies.
- An Info Source is always a quantity of an Info Object collection. An Info Source always signifies one scenario from an application, such as Financial Accounting.
- The business evaluation objects, such as customer and sales revenue, are known as Info Objects in the BW. They are divided into characteristics, key figures, units, and time characteristics.
- The scheduler is the connecting link between the source systems and the Info Cubes. With this tool, you establish what data is requested from the source system and at what time it is updated in the Info Cube and the Operational Data Store (ODS). The principle of the scheduler goes back to the functions of the SAP ERP background jobs. The data request can be scheduled either straightaway or with a background job, and automatically at a later point in time.

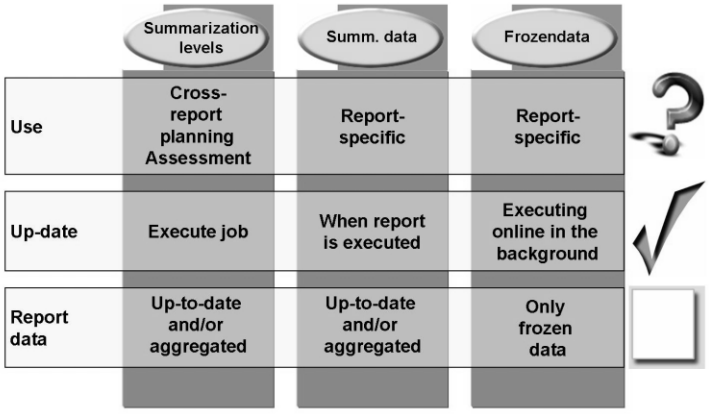
Unit 7 – Tools

Lesson 1 – Performance Tools



- There are three main performance-tuning tools used to improve the retrieval of CO-PA data such as summarized data, frozen data, and summarization levels. Each tool has its distinct advantages.
- Summarization levels: Improve CO-PA performance when there are large volumes of data. The summarization levels are not just used within data selection in the Information System, but also within planning and for actual data, cost center assessment, and top-down distribution.
- The lowest levels from which the application reads data is the segment table and the segment level. This level contains the data from the line item in a primary summarized form.
- The segment table contains the profitability segments and their characteristic values. The segment level contains the value fields for profitability segments and the characteristics of time.
- The segment level always contains the most up-to-date data because it is updated simultaneously with each transaction instead of periodically.
- The division of this information into two tables according to characteristics, segment table, value fields, and segment level, reduces data volume by eliminating redundancy. This method also has two other important advantages:
    - Saving historic data: If you do not need the origin information for data from previous periods, you can archive the line items and retain only the segment level.
    - Realigning posted data: For example, you can retroactively assign a customer to a different sales representative. This only changes the segment table, and the line items retain the assignment they had when you originally posted the documents. No change is required in the segment level because the change in the segment table implicitly affects the data for the periods in the segment level.
- To improve run-times, you need to reduce the volume of data that has to be read online. You can achieve this by creating summarized versions of the dataset.
- In reports, you can display:
    - Only the data from the summarization level, which means the data up to the last time you, updated the level.
    - The current data, in which case the system reads the summarization level and then adds the line items that have been posted since the last update.
    - If no suitable summarization level exists, the system displays a warning.
- You should you use the current data when you want to display the data from the current period. Use the most recent summarized data when you want to display data only after the end of the period, which means when the data is not going to change anymore.

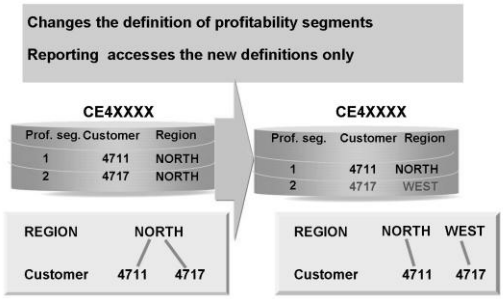
- When defining a report in Financial Analytics, you need to specify whether a report should continue with execution if it cannot find a suitable summarization level, which could take some time, or it should continue executing with a warning that it could take some time, or if it should stop executing.
- To use summarization levels, you need to perform the following steps:
    - Define the summarization levels in configuration.
    - Fill the summarization levels with data from the segment-level summary records on the user side.
    - Update the summarization levels periodically in the background, on the user side.
- From a physical point of view, every summarization level consists of two tables in the database – a key table and a total records table. The relationship between these two tables is similar to the one between the CE4 and CE3 tables in the cost-based profitability analysis.
- Performing a realignment on CO-PA data automatically invalidates all the data that had been previously summarized in the summarization levels. After a realignment has been performed, the summarization levels have to be filled and rebuilt from scratch again instead of being updated.
- For both forms of Profitability Analysis, account-based and costing-based, you can obtain from the system:
    - A record of user behavior in reporting.
    - Proposals for new summarization levels appropriate to this behavior.
    - You can determine the period to be used for analyzing user behavior.
- You can decide whether the system should take into account the existing summarization levels when generating proposals or completely new levels should be created instead.
- Summarization data signifies a set of summarized data for a combination of variables for a specific report. When you execute a report that has existing summarization data, the system accesses the summarization data and updates it by adding the line items that have been posted since the last time the report was executed. The report output then displays the new summarization data.
- Frozen data signifies the data stored for a specific report and a specific set of variable values at a specific point in time. There can only be one set of frozen data for each combination of variables in a report.
- The difference is that frozen data cannot be updated. Frozen data is reporting data that has been "frozen" at a particular point in time. It can be generated from the object level or using summarization data or summarization levels.



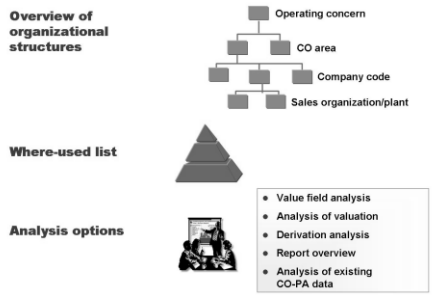
- You can use the function, Freeze Report Data, to save the data selected for the report. When you choose this function, the system also saves any changes you have made to the report definition.
- By freezing report data, you can execute the report online later without the system needing to read any data from the database. This reduces run-times substantially when you execute reports online.

Lesson 2 – Realignment and Customizing Monitors

- The realignment function enables organizational changes in the data structures for products, customers, or sales. For example, it reassigns sales districts to areas or products to product groups. After realignment has been carried out, only the new definition is recognized in the Information System and in planning. You can only display the characteristic values that were previously valid using line item reports. Because the existing profitability segments, (Ce4 Table!!), are adjusted to the new definition, all the objects posted to a profitability segment, such as sales orders or projects, and all the available documents, such as bills or Financial Accounting documents, are assigned to the characteristics in Profitability Analysis based on the new definition.



- The realignment function alters the definitions of the profitability segments in the database. Its primary use is for restating historic data so that it makes sense in the context of the current market situation. Notice that it can also be used to correct the mistakes in CO-PA and populate the characteristics that have recently been added to an operating concern on historic summary records.
- Following a realignment, you can therefore no longer analyze the old view in your drilldown reports. However, it is possible to analyze line items either from the old view or from the new view.
- With the selection criteria, characteristic values are specified to point the profitability segments that are to be changed. With conversion rules, it is specified whether the characteristic values in the selected profitability segments are changed through overwriting them to some specified value, or received based on any new values and current derivation logic, or fixed and do not change at all.
- Realignments can be executed in the test mode before they are run to actually change the database. The test monitor is a flexible tool that can be used to show exactly what the effects of the realignment will be, and why.
- Realignments can be executed online or in the background from the Transaction screen. Multiple realignments can run at one time, unless two or more specify that characteristics are to receive fixed values. To avoid discrepancies, these types of realignments must be run in a sequence.
- Reversing a realignment using the restore function has the effect of restoring the definitions of the profitability segments that were changed to the definitions prior to that time. Reversal is only possible if the definition of the realignment run has been preserved.
- Realignments affect both costing-based and account-based profitability analysis because both these sub modules share the profitability segment definitions in the database.
- Realignments invalidate both frozen data and data in summarization levels. This means that both these items have to be constructed again from the beginning after a valid realignment run.
- Customizing Monitor - This monitor can be used to analyze the various aspects of CO-PA configuration. It helps with master data maintenance as well as trouble-shooting transaction data errors or issues.



- You can use the Customizing Monitor to carry out three key analysis functions:
  - Overview of the organizational structures: The organizational structures for the current operating concern are displayed here.
  - Where-used list: In this list, you can display an overview of the objects in which a characteristic or value field is used in CO-PA Customizing.
  - The report overview specifies the reports in which particular characteristics are used. In this way, you can set up certain useful summarization levels.

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