

INTRODUCTION TO MM REPORTS / LIS REPORTS

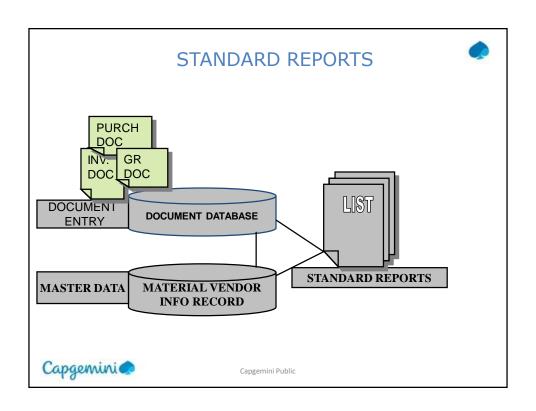


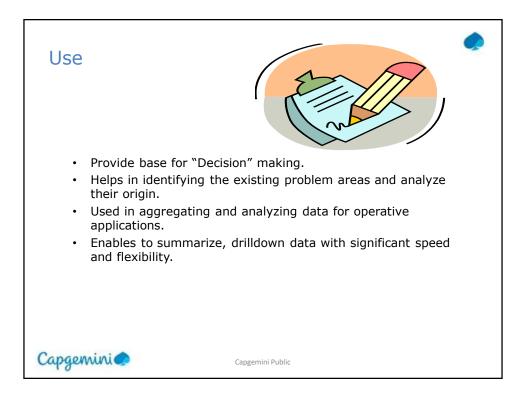


Purpose:

- Reports allow us to view the information from our operative applications from any perspective we wish.
- Benefit from in depth analysis of supply chain processes, inventory and purchasing provided in Reports.
- Reports can be used effectively to plan the entire logistics cycle.
- They provide comprehensive insight to the entire organization as whole.







Based on the analytical information provided by reports one can take business decisions

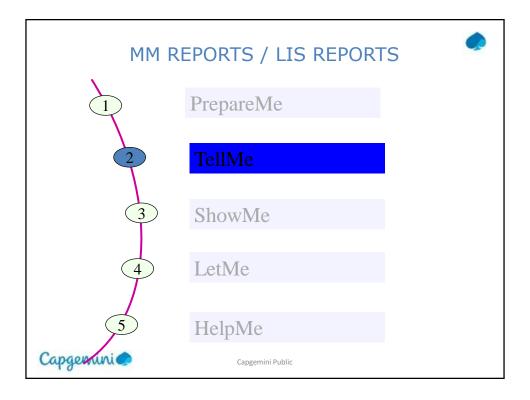
Challenges

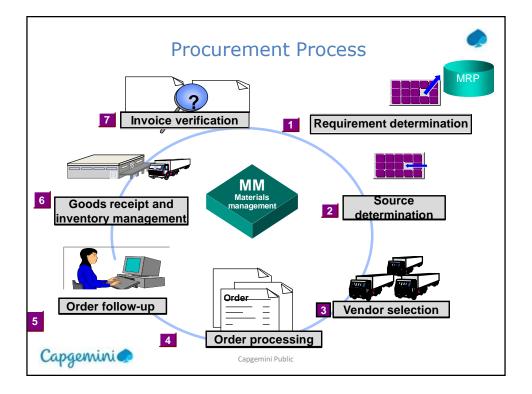
• Information on existing report is either missing or unclear.



- Searching thousands of available reports is a challenge.
- Reports are predefined, list oriented and provide very limited flexibility.
- Knowledge of how often a report is used is not available, such as which reports are frequently used or ever used.







The need to procure a material originates in a user department or in MRP.

A source of supply must be identified.

In RFQ processing, quotations can be solicited. Via price comparison the most reasonable vendor can be selected.

Purchase orders can also be created by referencing other documents

Goods Receiving can directly reference the purchase order. Information concerning material stocks can be easily obtained.

A purchase order or GR document can also be directly referenced in Invoice Verification.

Reporting



In production environment wide variety of reports can be generated example

Listing of ...

- Purchasing Documents
- Material Documents
- •Invoice Documents
- Accounting documents





SAP List Viewer and ALV Grid Control



The SAP list Viewer and ALV Grid Control standardize and simplify the handling of lists in SAP System.



The Key element of the SAP List Viewer and ALV Grid Control can be summarized as follows:

- Uniform design of all lists and tables.
- Cross- application, standardized function with uniform icons.
- Simple creation and changing of layouts (display variants)



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We can use layouts or change variants to change the appearance of many lists. We can then display additional fields from the column set or hide unwanted fields from the column selection. We can also arrange the fields in the order of our choice and generate totals. In addition, we can adjust the size of the columns.

Reporting and Analysis Functions In Purchasing

Examples:

- Which purchase orders were created for a particular vendor over a certain period.
- •For how many purchase orders have goods already been received? For which purchase orders are the relevant goods receipt still open?
- •Do the goods and invoices received agree with purchase order data?
- •Which is the average PO value achieved by a certain purchasing group?



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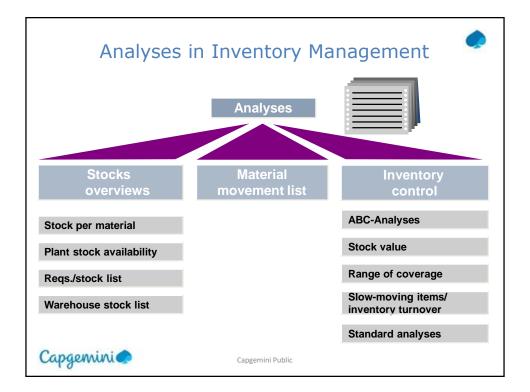
This gives us variety of report and analysis ex. PO's by vendor, by material, by material groups, and so on.

Reporting and Analysis Functions in Inventory Management

The reporting and analyses in inventory management can be divided roughly into three groups.

- · Analyses of stock situation
- Analyses of good movements
- Analyses that serve to identify inconsistencies in stock data





Analyses for inventory management purposes can be created from the inventory management menu (Environment and Inventory control options).

You can influence the scope and layout of analyses by making the appropriate selections.

You will find further analyses in inventory control.



Inventory Management

List of Displays

Analyses of

- Material documents
- Accounting document for example
- Material Document list
- Accounting Document for material
- Cancelled material documents
- etc...

Inventory

Analyses of stocks

- Individual Materials
- Several Materials for example
- Stock overview
- Plant stock availability
- Warehouse stock
- •.....etc....



Reporting and Analysis Functions in Invoice Verification

The information provided by the list of invoice document include the following:

- · Persons who entered the invoice.
- Document date
- Posting Date
- · Number of invoice document
- Number of associated accounting document
- Status of invoice (for example, posted, parked, on hold)



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In logistics invoice verification, there is a general analysis of invoice documents, the invoice overview. You can use this function to generate a list of invoices. You use this function to generate list of invoices. Ex: Which documents have been entered manually by a certain user or a certain invoicing party for a specific period.

Logistics Information System (LIS)



How LIS System Work?

Based on business events in R/3-for example, creating an order (transaction ME21N)-the LIS Interface (Communication Structure) gives selected data generated by transactions to update rules that in turn update special tables, called information structures.

R/3 transaction tables and LIS information structures are updated in two modes:

Synchronous: The transaction tables and information structure are updated automatically.

Asynchronous: The transaction table are updated first and information structures later.



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The LIS is an information system in which data can be continuously updated on the aggregated basis and evaluated and analyzed with various reporting tools. The advantage of LIS reporting is it does not use whole different tables according to query, but aggregates data from events according to rules you defined. Then the data passed into info structure is used via report library and reporting tools (Report Writer and Report Painter).

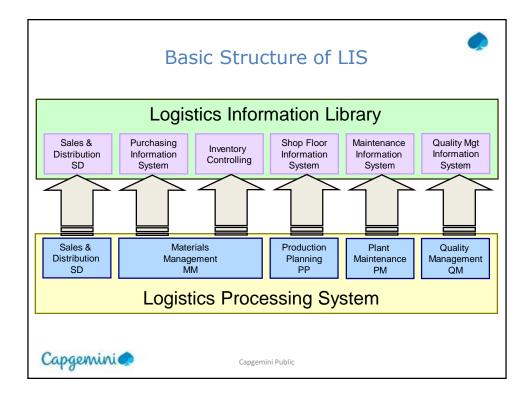


Basic Structure of LIS

In Logistics, we can distinguish between the following information systems:

- Sales Information System (SIS)
- Purchasing Information Systems (PURCHIS)
- Inventory Controlling (INVCO)
- Warehouse Management Information System (WMIS)
- Shop Floor Management Systems (SFIS)
- Quality Management Information System (QMIS)
- Plant Maintenance Information Systems (PMIS)
- Retail Information System (RIS)





The information systems in logistics are flexible tools for collecting, aggregating and analyzing

data from the operative applications (Purchasing, Sales, Production, Inventory Controlling, Plant

Maintenance, Quality Management/Inspection Processing). They thus enable you to continually

control target criteria and to react in time to exceptional situations.

Purchasing Information System



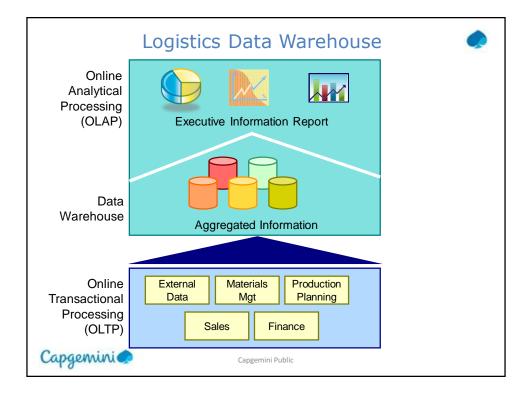
Purchasing Information System are updated when following types of event occur

- Create/Change purchasing documents (purchasing documents are: purchase order, scheduling agreements, contract, RFQ/Quotation)
- Good Receipt for a purchase order, scheduling agreement.
- Invoice receipt (Volume based rebate)
- Credit Memo / Billing document (Volume based rebate)



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Data analysis in the Purchasing Information system is based on the statistical data that is updated from the purchasing to the information structures. Data flows from document structure to the information structure.



- •The Executive Information system (EIS) is used to review and analyze key performance figures throughout the R/3 System
- •The Logistic Information System (LIS) uses the summary data. Data from other systems may also be used in the LIS
- ullet Standard Reporting uses the daily transactions from the R/3 application

Logistics Data Warehouse



OLTP:

- Quantitative reduction of data takes place as result of period wise reporting.
- Further the information is qualitatively reduced to statistically relevant portions.

Logistics Data Warehouse:

 Logistics also known as information structure. They constitute the data basis of the LIS.

OLAP

Evaluation of data is carried out at this level.



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Online Analytical Processing (OLAP) technologies enable you to perform flexible analyses from a variety of business perspectives. It is based on a multi-dimensional data model that is achieved using relational database tables.

The information system of the LIS are continuously supplied with data from the operative applications (Sales and Distribution, Purchasing, Production etc. This level is also known as **Online Transaction processing (OLTP)**. The data derived from documents SAP R/2, SAP R/3 or external/ non SAP systems.

Logistics data warehouse is parallel to OLTP level. In the process, first a quantitative reduction in the data volume takes place as a result of the period wise updating and second information is qualitatively reduced to the statistically relevant portions.



OLTP Vs OLAP

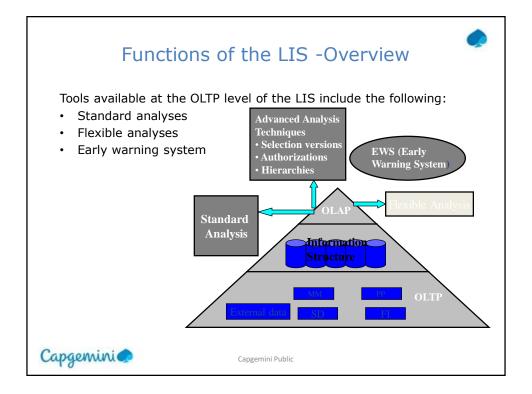
OLTP

- Current data
- · Short database transactions
- Online update/insert/delete
- Normalization is promoted
- High volume transactions
- Transaction recovery is necessary

OLAP

- · Current and historical data
- Long database transactions
- Batch update/insert/delete
- Demoralization is promoted
- · Low volume transactions
- Transaction recovery is not necessary





The standard analyses in the LIS provide comprehensive data evaluation options based on the data in the standard information structures. Standard analyses provide multitude of functions to facilitate a detailed and targeted evaluation of the data. We can select various options to define the scope of data to be evaluated.

Early Warning System is used to search unusual patterns. This enables you to react in time to previously defined exception situations and correct them.

With the aid of **Flexible analyses**, we can compile and aggregate key figures on an individual basis. In this connection, the possibility of structuring layout of our report to meet own specific requirement is particularly useful.



Reporting in the LIS

Standard Analysis

Standard analyses provide multitude of functions to facilitate a detailed and targeted evaluation of the data.

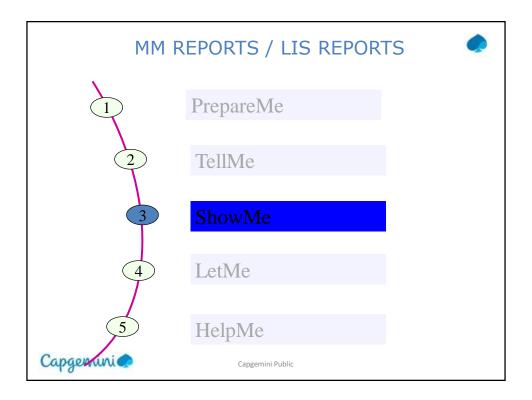
Early Warning System

Enables us to react in time to previously defined exceptions situations and correct them.

Flexible Analysis

Enables us to compile, aggregate and structuring the layout to meet specific requirement.

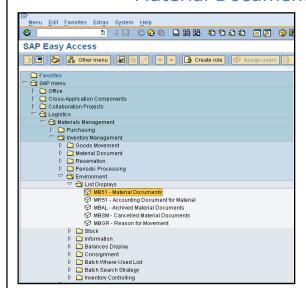






Material Document List

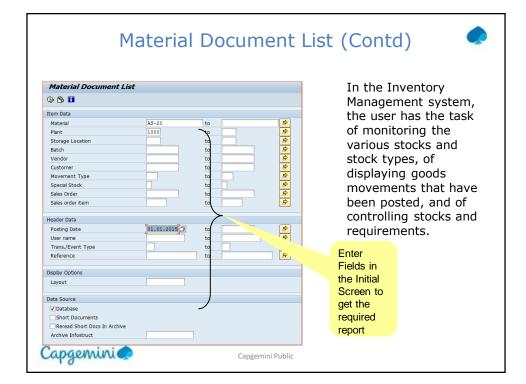




Purpose:

Perform this procedure when information or proof regarding a goods movement is required. Any goods movement will generate a material document that serves as proof of the movement and as a source of information for any applications that follow.

Select Logistics \rightarrow Material Management \rightarrow Inventory Management \rightarrow Environment \rightarrow List Displays \rightarrow MB51 Material Documents \rightarrow Cappenini Public



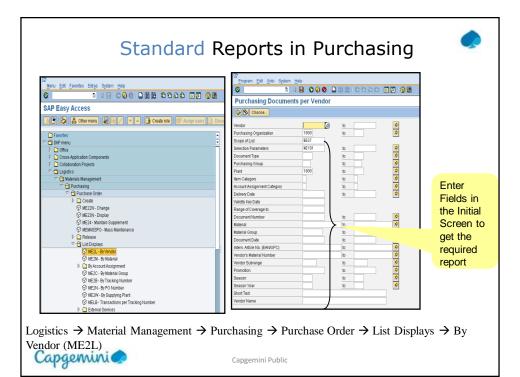


Material Document List (Contd)

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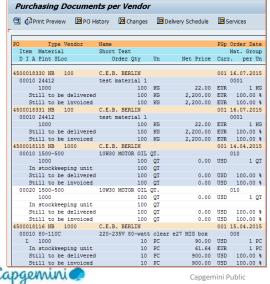
This reports provide for documents posted in Inventory Management. The user may view specific details about the item and the material document







Standard Reports in Purchasing



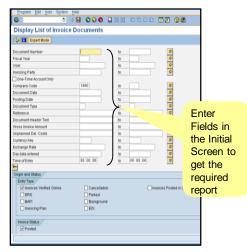
Reports and analyses can be chosen from

- PO's by vendor
- By material
- By material groups
- •.....etc...

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Choose Logistics → Material Management → Logistics Invoice Verification → Further Processing → Display List of Invoice Documents

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Display List of Invoice Documents 🕱 Follow-On Documents ... | 🖪 🖟 | 🛆 😾 😿 | 🗷 | 🗸 🗗 🗷 🖟 🛗 📅 🐿 | 🖽 🖷 🖷 🚻 | 🚯
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Perform this procedure when needing to analyze invoices related to purchase orders







Display List of Invoice Documents



Click to see related documents to the highlighted invoice.

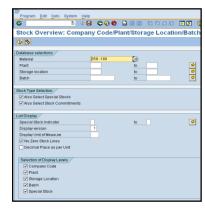






Stock Overview





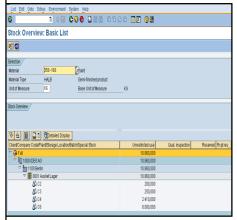
This procedure to provide an overview of the inventory levels of a material at all organizationa I levels.

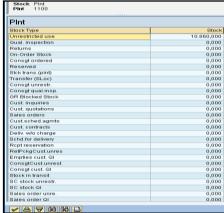
Choose: Logistics → Material Management → Inventory Management → Environment → Stock → Stock Overview MMBE





Stock Overview (Contd)



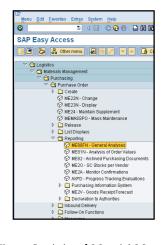


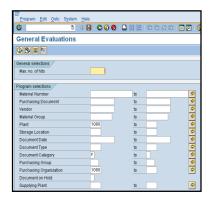
Perform this procedure when a plant needs to check the inventory status of one particular material at a plant and all storage locations.





General Analyses in Purchasing

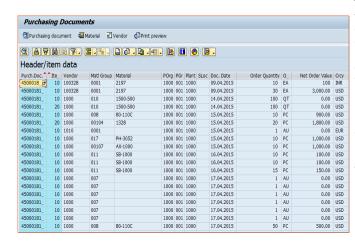




Choose Logistics → Material Management → Purchasing → Reporting → General Analyses ME80FN Capgemini



General Analyses in Purchasing (Contd)

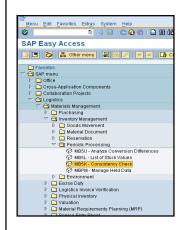


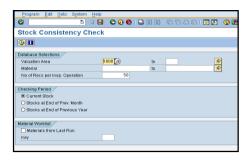
This report provides the amount entered on purchasing documents for a purchasing group and can be selected by vendor and/or material group. It provides a report based upon the amount entered on purchase orders, **NOT** the amount paid for goods.



Stock Consistency Check





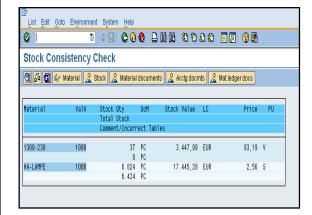


Choose Logistics \rightarrow Material Management \rightarrow Inventory Management \rightarrow Periodic Processing \rightarrow Consistency Check MB5K

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Stock Consistency Check (Contd)



Perform this procedure to check the consistency of your stock data at company code level, valuation area level, or material level.

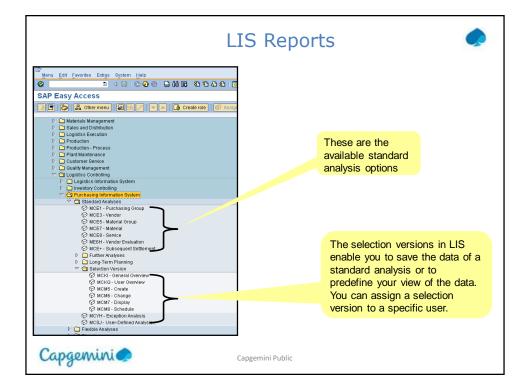


Agenda

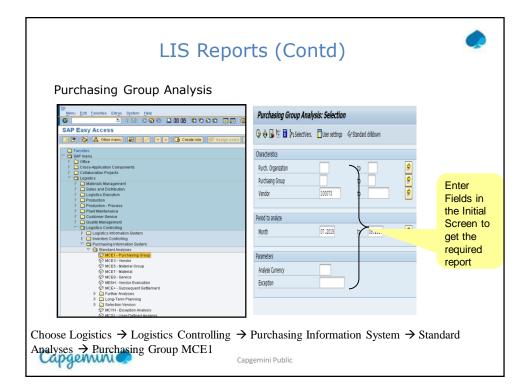
- LIS Reports
- Purchasing Group Analysis
- Storage Location Analysis
- Service Analysis
- Material Analysis
- Plant Analysis
- Material Type Analysis



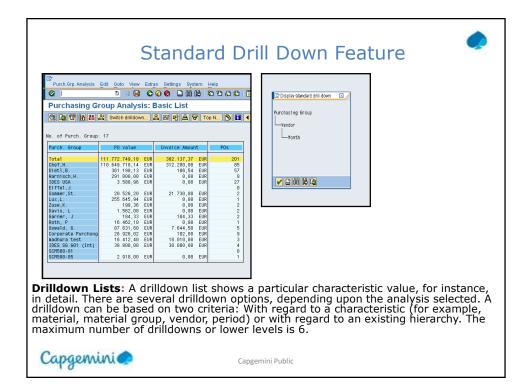




Logistics information system can be used to effectively plan the entire logistics cycle in SAP. A user can control and monitor business events in the logistics cycle to make effective decisions. Data coming in from various sub modules in SAP can be clubbed and analyzed using the logistics information system. LIS thus acts as a flexible tool to aggregate and cull out important data. Key figures can be defined in LIS to keep track of important logistics parameters. Users can analyze data in various ways. LIS even allows users to customize the reports as per individual reporting requirements making it a flexible reporting and analytical tool.

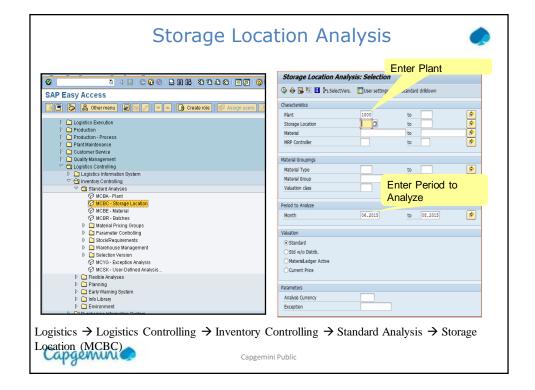


The standard analysis for purchasing groups derives its data from the information structure, S011. With this standard analysis, the Purchasing Organization, Purchasing Group, and Vendor are the characteristics that can be selected using the period that the user wants to define.



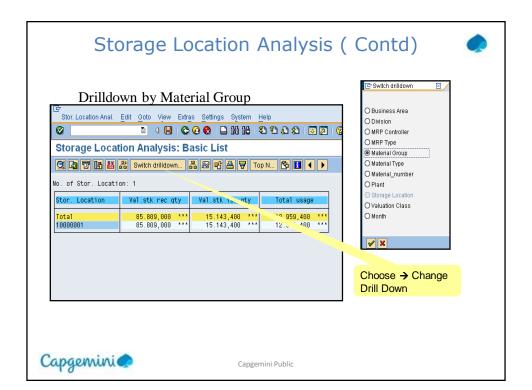
A **drill-down function** allows you to vary the level of detail in which the information is displayed. You can specify the sequence in which the levels of information are displayed or you can follow the predefined analysis path, known as a standard drill-down sequence.

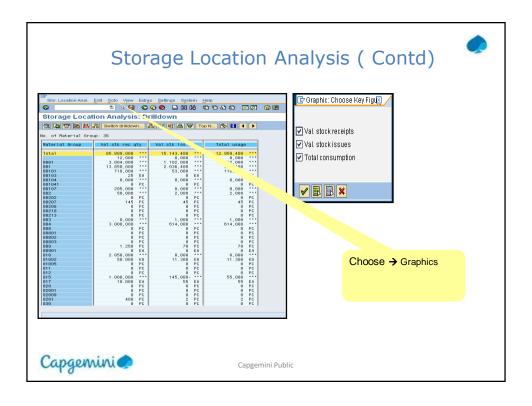
At each level, you can carry out a wide range of additional functions, including cumulative frequency curves, ABC analysis, correlation, classification, dual classification, and ranking lists. All results can be displayed in the form of graphics.

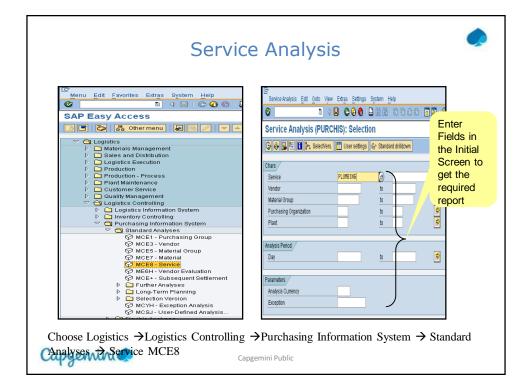


Perform this procedure to view the following

- •Valuated stock receipt quantity
- •Valuated stock issued quantity
- •Total usage



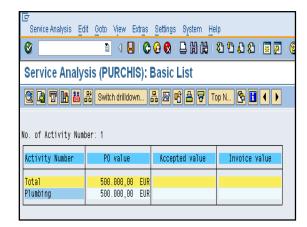




The standard analysis for services will report on the purchase order value, accepted value and invoice value of all services or those from the selection criteria entered. The results will be based on the period defined for the analysis.

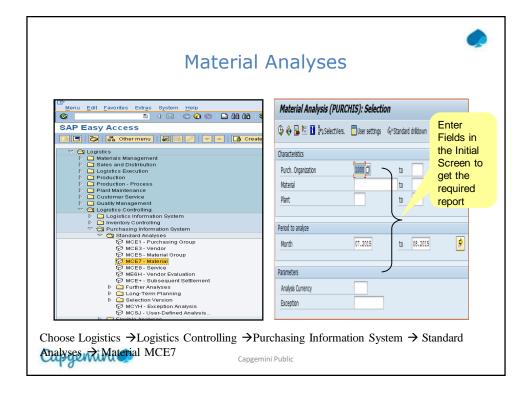






Perform this procedure to analyze purchasing activities of an enterprise by displaying statistical data on services

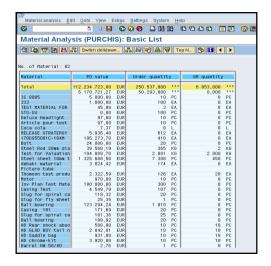




The standard analysis for materials also derives its data from the information structure S012. The standard analysis for materials will report on the purchase order value, good receipt totals, and order quantity of all materials or those from the selection criteria entered. The results will be based on the period defined for the analysis.

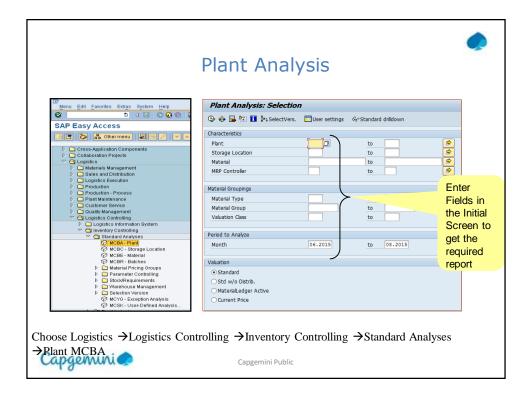


Material Analyses (Contd)



Perform this procedure to analyze material on basis of purchase order value, goods receipt totals and ordered quantity from the selection criteria entered.

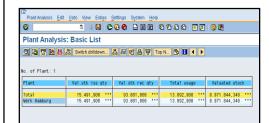




The standard analysis for a plant derives its data from the information structures S031 and S032. The results will be based on the period defined for the analysis.



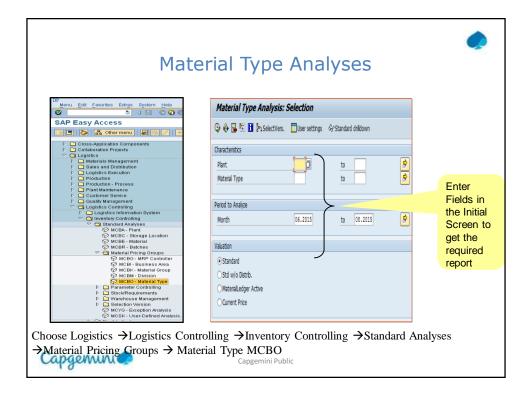
Plant Analysis (Contd)



Perform this procedure to view the following

- Valuated stock issued quantity
- Valuated stock receipt quantity
- Total usage quantity
- Quantity of the valuated stock

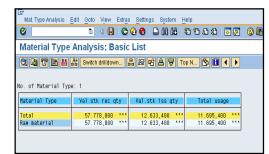




The standard analysis for materials will report valuated stock receipt quantity, valuated stock issued quantity and total usage criteria of all materials or those from the selection criteria entered. The results will be based on the period defined for the analysis.



Material Type Analyses (Contd)



Perform this activity to view the following:

- Valuated stock received quantity
- Valuated stock issued quantity
- Total usage quantity



Additional Information



- While calculating key figures i.e. purchase order price, invoice receipt and value of goods receipt on an aggregated level (for example for material group or purchasing organization) can only occur if values with same currency and quantities are cumulated
- Updating of the key figures Average stock at receipt and Value of average stock at receipt in information structure is not continuous and must be activated
 - To initiate update Choose Logistics →Logistics Controlling →Inventory Controlling →Standard Analyses →Parameter Controlling →Set up data

Specify the period and characteristics for which data is to be updated in information structure and select Program →Execute

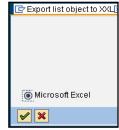


Additional Information

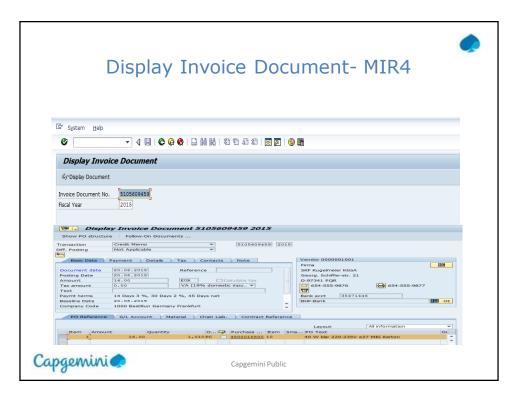


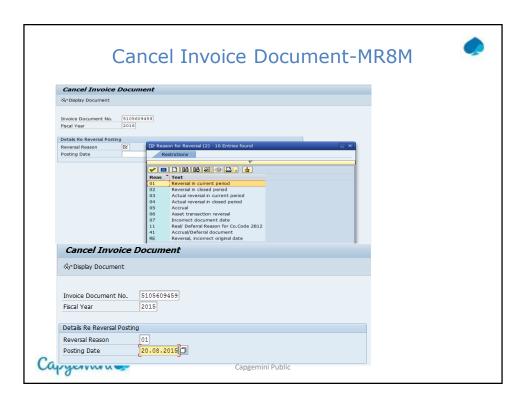
Exporting Reports to Excel Sheet

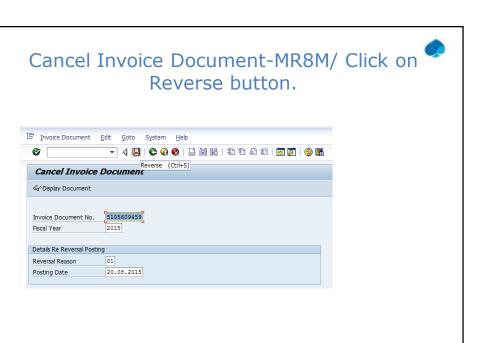




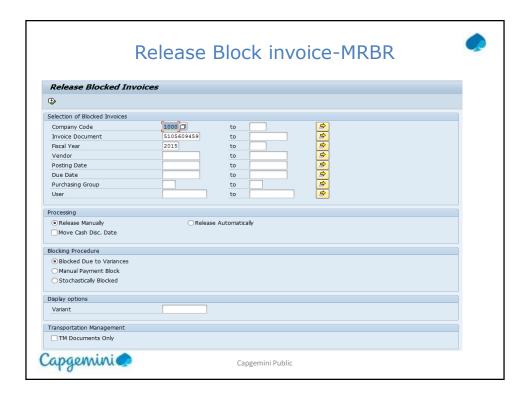












Enter Company Code.

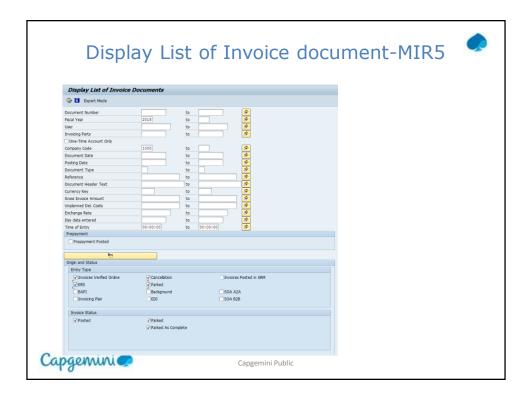
Enter Invoice Document Number for which you want to release the invoice block.

Enter Fiscal year.

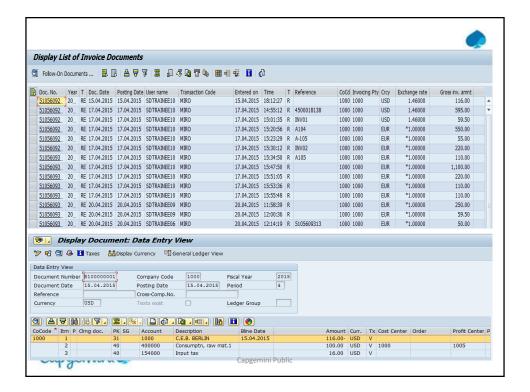
Select the option Blocked due to variance. Execute it. After execution please follow next slide.



Select line item and click on Release button as shown. After release Status will be changed as released. Now save it. You will get the message that 1 invoice is released.



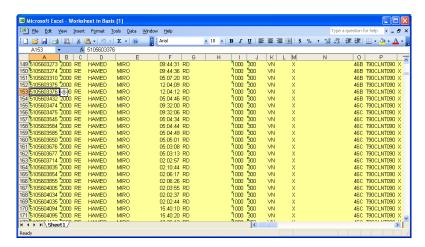
Enter Fiscal Year, Company Code. Select the entry type as shown. Select the Invoice status as displayed. Execute it.



After execution system will display list of invoice documents. From here you can check the follow on documents for required Invoices. Select the Invoice number and click on follow on documents to check the invoice accounting. You can fetch the data to an excel sheet from this report.

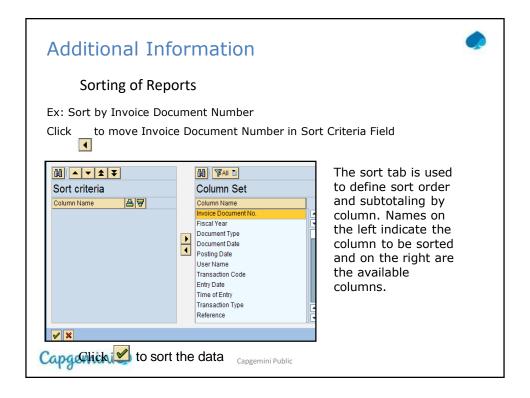






Data must be saved in Excel before going back to SAP screen





After a report has been generated, there are many options available for customizing the data within the

ALV grid. The sections below give more information for using the available options.

1. Modifying Columns

Resize Columns

Move Columns

Freeze Columns

Sort Columns

Hide Columns

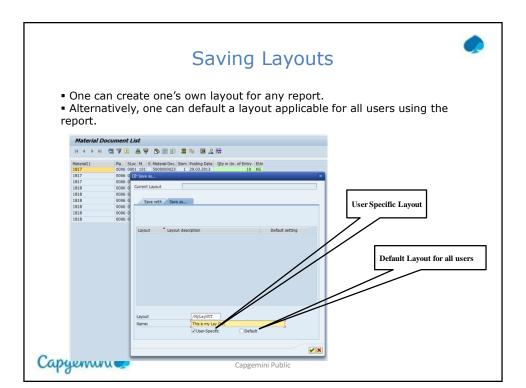
Calculate Columns

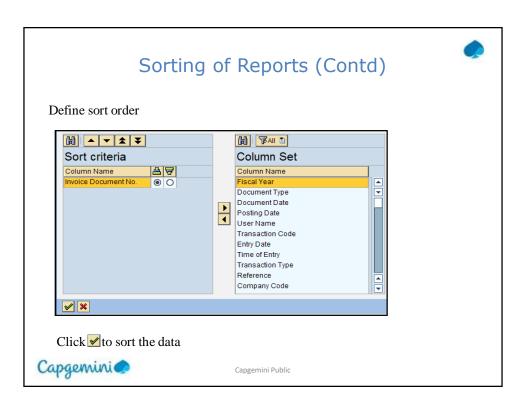
- 2. Navigating Subtotals
- 3. Change a Report Layout

Change Column Order

Change Sort Order

Apply Filter



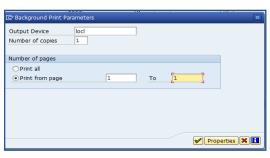




Executing Reports in Background

- For Reports with Huge data output one can run the report in background (meaning will not affect the current session and will be run on server). The output will be stored on the server
- One can always go back to see the output of the report through SM37 transaction code.
- This saves time and resources.
- In many cases if the data to be pulled out is huge it may result in short dumps in the system. However, running them in background will get you desired output.



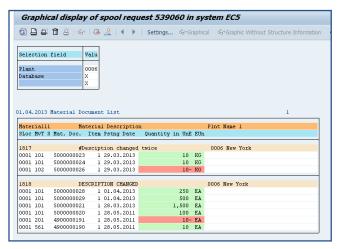




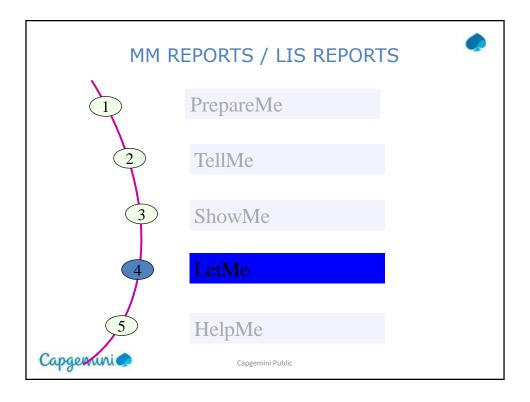




Final Report Output (downloadable format)









Exercise

- 1.Display a list of all PO's for Purchasing Organization ---- and Plant --- for which good receipt have taken place.
- 2. How would you Drill Down on a Purchase Order in order to see the detailed line items?



3. What is difference between MM Report and LIS Report?



Transaction Codes



MB51 Material Doc. List

MB5L List of Stock Values: Balances

MBBS Display valuated special stock

MC\$G PURCHIS: Material PurchVal Selection

MC\$I PURCHIS: Material PurchQty Selection

MC.1 INVCO: Plant Anal. Selection: Stock

MC.2 INVCO: Plant Anal. Selection, Rec/Iss

MC.5 INVCO: SLoc Anal. Selection, Stock

MC.9 INVCO: Material Anal. Selection, Stock

MC.A INVCO: Mat.Anal.Selection, Rec/Iss

MC.L INVCO: Mat.Group Analysis Sel. Stock



Transaction Codes



MC48 INVCO: Anal. of Current Stock Values

MC50 INVCO: Analysis of Dead Stock

MCBA INVCO: Plant Analysis Selection

MCBC INVCO: Stor. Loc. Analysis Selection

MCBE INVCO: Material Analysis Selection

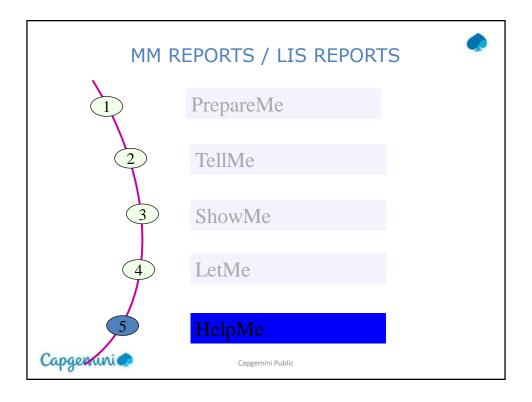
MCBK INVCO: MatGrp Analysis Selection

MCBR INVCO: Batch Analysis Selection

MCE1 PURCHIS: PurchGrp Analysis Selection

MCE3 PURCHIS: Vendor Analysis Selection

Capgemini





Information Structures

Following information structures are available in Purchasing information system

- S011 " Purchasing Group" S012 " Purchasing" S013 " Vendor Evaluation" S015 " Subsequent Settlement"

Information structure available in Inventory Controlling

- S031 " Movements"
- S032 " Stocks"
- S033 " Movements" (Individual Records)
- S034 " Movements" (Batches)
- S035 " Stocks (Batches)
- S039 " Planning"
- S094 " Stock / Requirement Analysis





