

TSCM52

Procurement II, Part 1 of 2

mySAP ERP Procurement and Logistics Execution

Date _____
Training Center _____
Instructors _____

Education Website _____

Instructor Handbook

Course Version: 2006 Q2

Course Duration: 5 Day(s)

Material Number: 50079969

Owner: Winfried Wuerzer (D036695)



An SAP Compass course - use it to learn, reference it for work

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About This Handbook

This handbook is intended to complement the instructor-led presentation of this course, and serve as a source of reference. It is not suitable for self-study.






Typographic Conventions

American English is the standard used in this handbook. The following typographic conventions are also used.

Type Style	Description
<i>Example text</i>	Words or characters that appear on the screen. These include field names, screen titles, pushbuttons as well as menu names, paths, and options. Also used for cross-references to other documentation both internal (in this documentation) and external (in other locations, such as SAPNet).
Example text	Emphasized words or phrases in body text, titles of graphics, and tables
EXAMPLE TEXT	Names of elements in the system. These include report names, program names, transaction codes, table names, and individual key words of a programming language, when surrounded by body text, for example SELECT and INCLUDE.
Example text	Screen output. This includes file and directory names and their paths, messages, names of variables and parameters, and passages of the source text of a program.
Example text	Exact user entry. These are words and characters that you enter in the system exactly as they appear in the documentation.
< Example text >	Variable user entry. Pointed brackets indicate that you replace these words and characters with appropriate entries.

Icons in Body Text

The following icons are used in this handbook.

Icon	Meaning
	For more information, tips, or background
	Note or further explanation of previous point
	Exception or caution
	Procedures
	Indicates that the item is displayed in the instructor's presentation.

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Course Overview

This course initially covers the functions of Inventory Management. Of particular importance are the different goods movements, their entry, and their effects. Management of the physical inventory is also covered in this course. The course covers the most important Customizing settings for inventory management and physical inventory, and those for purchasing and message determination.

Target Audience

This course is intended for the following audiences:

- Solution Consultants responsible for implementing procurement using mySAP ERP or mySAP SCM

Course Prerequisites

Required Knowledge

- TSCM50 or relevant customer courses SCM500 (Processes in Procurement), SCM515 (Invoice Verification), (SCM525 (Consumption-Based Planning), and SCM520 (Purchasing)
- Business knowledge in the area of procurement

Course Duration Details

Unit 1:

Introduction to Inventory Management

Inventory Management and Physical Inventory	20 Minutes
Transaction for Goods Movements - MIGO	60 Minutes
Exercise 1: Understanding Transaction MIGO	10 Minutes

Unit 2: Goods Receipts

Goods Receipt Without Reference	60 Minutes
Exercise 2: Goods Receipt Without Reference	30 Minutes
Goods Receipt with Reference	60 Minutes
Exercise 3: Goods Receipt with Reference to Purchase Order	20 Minutes
Exercise 4: Goods Receipt with Reference to Production Order	15 Minutes
Exercise 5: (Optional) Automatic Generation of Purchase Order at Time of Goods Receipt	15 Minutes
Return Delivery, Returns, and Cancellation	75 Minutes
Exercise 6: Return Delivery, Subsequent Delivery and Reversal Postings	20 Minutes

Exercise 7: (Optional): Returns	10 Minutes
Delivery Completed Indicator and Tolerances	60 Minutes
Exercise 8: Delivery Completed Indicator and Tolerances	30 Minutes
Exercise 9: (Optional) Purchase Order Price Unit Date Checks in GR for Purchase Order	10 Minutes
	45 Minutes
Exercise 10: Date Check for Goods Receipt	15 Minutes
Unit 3: Stock Transfers/Transfer Postings	
Transfer Postings	50 Minutes
Exercise 11: Transfer Postings	25 Minutes
Stock Transfer Between Storage Locations	40 Minutes
Exercise 12: Stock Transfer Between Storage Locations	Minutes
Stock Transfer Between Plants	60 Minutes
Exercise 13: Stock Transfer Between Plants	Minutes
Unit 4: Reservations	
Manual Reservations	40 Minutes
Exercise 14: Manual Reservations	Minutes
Evaluations for Reservations	30 Minutes
Exercise 15: Manage Reservations	Minutes
Availability and Missing Part Check	45 Minutes
Exercise 16: Dynamic Availability Check	20 Minutes
Unit 5: Goods Issues	
Unplanned Goods Issues	45 Minutes
Exercise 17: Unplanned Goods Issues	20 Minutes
Goods Issue with Reference	45 Minutes
Exercise 18: Goods Issue with Reference	10 Minutes
Negative Stock	30 Minutes
Exercise 19: Negative Stocks	Minutes
Unit 6: Special Procurement Form: Consignment	
Vendor Consignment	60 Minutes
Exercise 20: Vendor Consignment	25 Minutes
Unit 7: Physical Inventory	
Preparing and Carrying Out Physical Inventory	90 Minutes
Exercise 21: Carrying Out the Physical Inventory	30 Minutes
Simplification of Physical Inventory	30 Minutes
Exercise 22: Simplifying Physical Inventory	15 Minutes
Unit 8: Analyses	
Stock Lists and Document Lists	45 Minutes
Exercise 23: Lists	20 Minutes
Periodic Processing	30 Minutes
Unit 9: Customizing for Inventory Management	
Settings for Documents in Inventory Management	30 Minutes

Movement Types	45 Minutes
Exercise 24: Movement Types	30 Minutes
Other Customizing Settings	60 Minutes
Exercise 25: Customizing Settings for the Enjoy Transactions in Inventory Management	Minutes
Unit 10: Purchasing Customizing Settings	
Document Types in Purchasing	100 Minutes
Exercise 26: Purchasing Document Types and Number Assignment	40 Minutes
Field Selection and Account Assignment Categories	50 Minutes
Exercise 27: Field Selection and Account Assignment Categories	35 Minutes
Special Aspects of Customizing	40 Minutes
Unit 11: Message Determination	
Message Determination in Purchasing	150 Minutes
Exercise 28: Message Determination and Output Control	45 Minutes
Message Determination in Inventory Management	40 Minutes
Exercise 29: Message Determination	35 Minutes



Course Goals

This course will prepare you to:

- Use the inventory management and physical inventory functions in the SAP System
- Name the most important Customizing settings in inventory management and purchasing, and implement them in the system.



Course Objectives

After completing this course, you will be able to:

- Enter goods movements, including goods receipts, transfer postings, and goods issues
- Process reservations
- Execute the inventory
- Analyze stocks and transactions for Inventory Management and physical inventory
- Make the Customizing settings for inventory management and physical inventory
- Make Customizing settings for purchasing
- Make simple settings for message (output) determination in purchasing and inventory management

SAP Software Component Information

The information in this course pertains to the following SAP Software Components and releases:

Curriculum Path

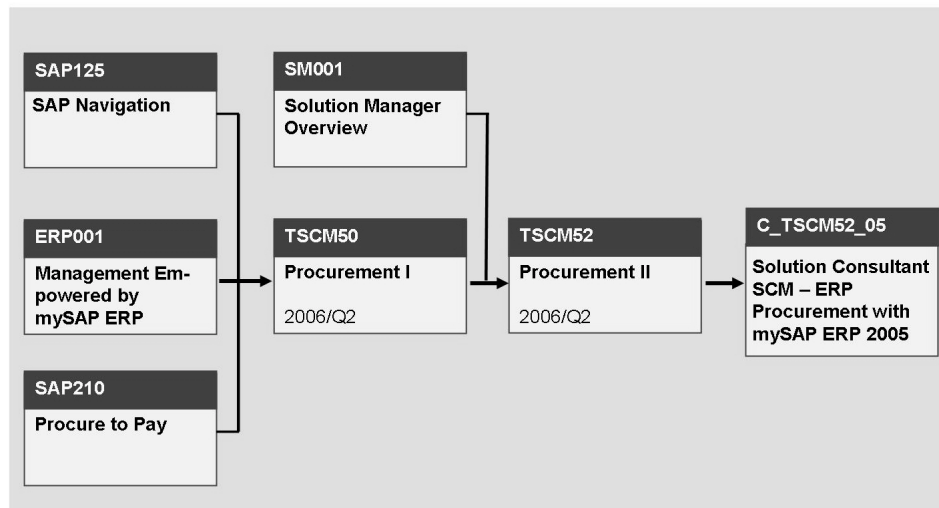


Figure 1: Solution Consultant: SCM - Procurement with mySAP ERP 2005



CATTs

For this course there is a CATT **ZT_TSCM52** that must have run before the course starts. This CATT generates the master data (materials, vendors, info records) and changes Customizing settings. The CATT is run automatically for groups 00 to 30 (or 20) prior to the start of the course. (If this should not be the case, please contact the CATT group.) It takes about 30 minutes to run the CATT. If you need the CATT to be run in a system at short notice, tell the CATT group how many groups are required, as a lower number of groups reduces the runtime.

The CATT team requires the following information in order to process your request quickly:

- System and client in which the CATT is to be run
- Name of the CATT (ZT_TSCM52)
- Course for which this CATT is required (TSCM52). If you do not enter the course name, you cannot check whether the system is booked for this course.
- Number of groups required (maximum 00 through 30)

The ISM Homepage in the Corporate Portal contains a CATT request, "Request for CATT Execution", that you can use to request a CATT execution.

Users

Create the user master records for the participants and for your own user, if necessary:

User for the instructor:

- If you have not specified an own user in the training system, then logon for the first time with the user **TRAINING**. The password changes monthly: you will receive the new one in the mail for the week, which will be sent to you automatically before the course begins.
- With transaction SU01, you can then create your own user. Copy the reference user **SCM5XX-99** or manually enter all necessary data (user group TRAINING, profile SAP_ALL and SAP_NEW).



Caution: The TRAINING user cannot be used as a reference.


User for the course participants:

- Use transaction ZUSR (user maintenance for SAP courses) to copy the template user ID **SCM5XX-99**.



Caution: The reference user has authorizations SAP_ALL and SAP_NEW. The course participants therefore have all authorizations, for Customizing changes too. Point this out to participants at the start of the course and ask them not to make any changes in the training system unless explicitly requested to do so in an exercise. Point out that a thoughtless change can “disrupt” the system.

Previous experience has shown that the participants use their authorizations responsibly and there are therefore no problems.

- Enter the following data in the relevant fields and choose  *Execute*:

Copy reference	SCM5XX-99
Course code	TSCM52
Number of training groups	(according to demand)
Initial password	initial (or another password, case-sensitive)

- In the window that subsequently appears, choose the *Create* button and answer the question regarding the uniqueness of the group numbers with No. Finally, choose *Create* again.

The instructor must run program **ZSENQOFF** (transaction SA38), so that all course participants can work in Customizing simultaneously.



Caution: System data is specified for trainer demos and exercises in the instructor handbook. TSCM52-## should always be used for the **user ID**.

Exercises and Demos

If possible, explain to the participants before the first exercise that the character string “##” corresponds with the group numbers attached to the monitors in the training classrooms. Enter these group numbers instead of “##” in the exercises.

A “facilitated discussion” has been included in some lessons for purely formal reasons, where exercises are either not possible for technical reasons involving the system, or they have no sensible purpose. You should think carefully before expressly stimulating discussion, since experience shows that lively debates are liable to break out during the course anyway.

In many lessons, a detailed description of the demonstration has been dispensed with. In such lessons, the instructor should orientate him- or herself on the exercises when performing the demo. When preparing for the course, the instructor is advised to go through **all** demonstrations and exercises at least once and, of course, to read the course documentation carefully.

Other

The times specified in the “course duration details” are only general guide values. Previous experience has shown that the time requirement for the contents of this course varies according to participant interest and previous knowledge. You will therefore need much more time than planned for some lessons, and much less time for other lessons.

Some lessons do not include a detailed description of the demonstration. In these lessons, the instructor should refer to the exercises for the demonstration. It is generally recommended that the instructor run through **all** demonstrations and exercises before taking the course.

Unit 1



Introduction to Inventory Management



The integration of Inventory Management and the physical inventory in the Logistics environment is repeated in the first lesson. Participants will be familiar with this from the preceding training course TSCM52, meaning that it should not be necessary to spend a great deal of time on this first lesson.

The second lesson contains a thorough explanation of how to use the **MIGO** transaction as this transaction is used in many of the units that follow. At the end of this unit, all participants should be in a position to name the essential elements of the transaction and execute the most important navigation steps.

Unit Overview

This unit provides an overview both of inventory management and of how this is integrated into the logistics.

The main focus of this unit is the transaction for the entry of goods movements. This is the single-screen transaction MIGO that you use for goods receipts and transfer postings as well as goods issues.



Unit Objectives

After completing this unit, you will be able to:

- Explain how inventory management and the physical inventory are integrated into the *SAP ERP Central Component*
- Describe the functions of inventory management and physical inventory
- Name the screen areas of the single-screen transaction for goods movements
- Navigate in the single-screen transaction for the goods movements
- Post a goods receipt with reference to a reference document
- Explain the account movements during the posting
- List the effects of a goods movement

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Demonstration: Hold Data	25
Exercise 1: Understanding Transaction MIGO	27

Lesson: Inventory Management and Physical Inventory



Lesson Duration: 20 Minutes

Lesson Overview

This lesson introduces the integration of inventory management and the physical inventory into materials management and the broader area of logistics. Tasks involved in inventory management are also explained in brief.



Lesson Objectives

After completing this lesson, you will be able to:

- Explain how inventory management and the physical inventory are integrated into the *SAP ERP Central Component*
- Describe the functions of inventory management and physical inventory



At the end of this lesson, participants should be able to describe the scope, tasks and functions of inventory management.

Business Example

Changes to stock are made in your company on a daily basis. These might be, for example, goods deliveries from vendors, internal stock transfers or provisions of materials for production. Relations between inventory management and other areas of logistics shall now be checked.

Scope of Inventory Management and Physical Inventory

Inventory management is an essential component of materials management and is embedded in the whole logistics process.

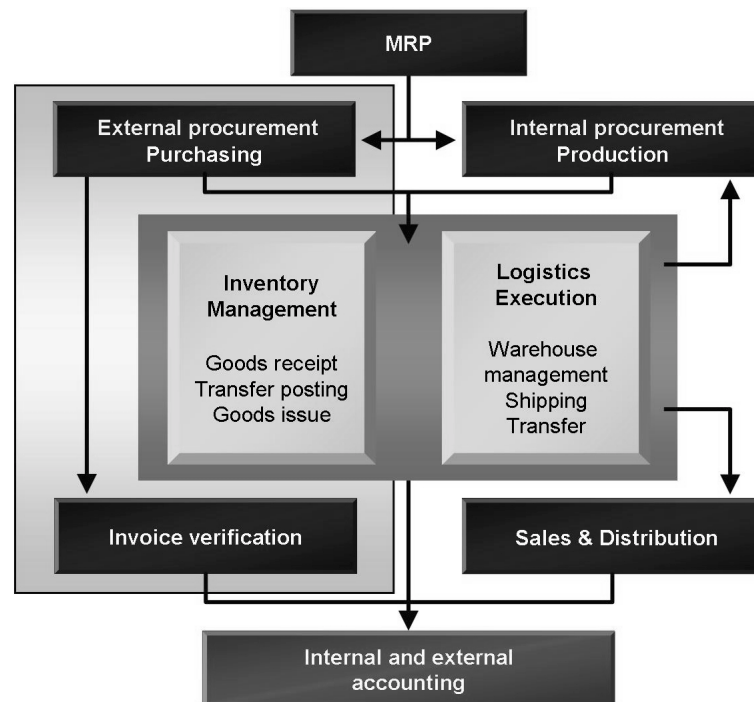


Figure 2: Scope of inventory management

Inventory management provides information to MRP which takes into account not only physical stock but also planned movements (requirement and receipts). Requirements calculated by MRP are acquired externally or internally.

When a material is ordered from a vendor, goods receipt takes place in inventory management with respect to the purchase order. The vendor invoice is later processed by invoice verification. Amongst other checks, verification is made as to whether the quantities and values from the purchase order and the goods receipt agree with those on the invoice.

If a material is acquired internally by means of production, inventory management provides for provision of components. Receipt of the finished products into the warehouse is also posted in inventory management in the same way.

On the other hand the material has not been withdrawn from the warehouse for internal production, but for the delivery of sales orders. A dynamic availability check can already give you information about whether the required material is available in sufficient quantity at the time the sales order is entered. (The availability check may also be used in conjunction with reservations and production orders.) When the delivery is generated, the quantity to be delivered is marked as "delivery to customer" and deducted from the total stock when the goods issue is posted.

By managing your warehouse stock using inventory management, you will be able to manage your material stocks in several storage locations in terms of quantity and value.

Warehouse Management also enables you to display your entire warehouse complex in the system in detail including storage levels. This not only provides you with an overview of the total quantity of a certain material your warehouse complex, it also enables you to determine where a specific material is located in your warehouse complex at any given time. By using Warehouse Management you can optimize how you use all storage locations and warehouse movements and store material stocks from chaotically-managed warehouses across several plants together.



Note: Warehouse Management belongs to the field of Logistics Execution.

Inventory Management and Inventory as Part of Materials Management

As well as the purchasing and logistics invoice verification, inventory management is a classic component of materials management.

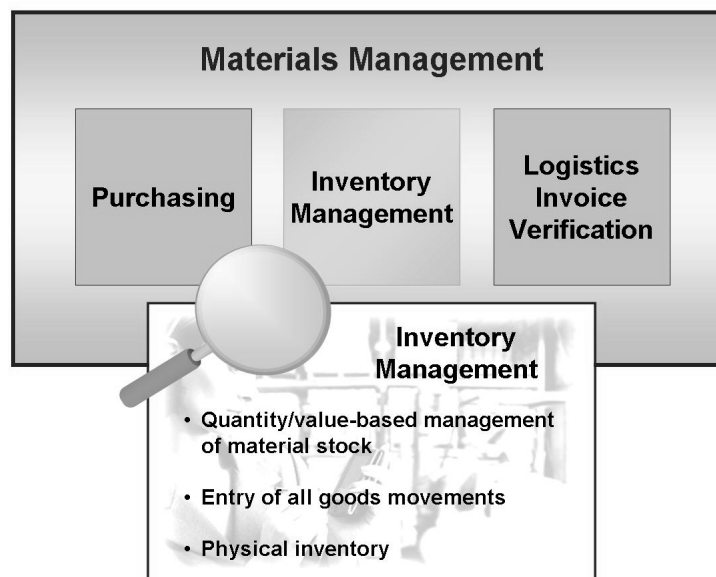


Figure 3: Tasks of Inventory Management

Inventory Management includes the following tasks:

- Managing the material stocks by quantity and value
- Planning, creating, and verifying all goods movements
- Carrying out the physical inventory

Managing Material Stocks by Quantity

Inventory Management displays the physical stocks by creating all operations that cause a change in the stock and the resulting stock updates in real time. An overview of the current stock situation of a material is always available. This enables you to differentiate between:

- Stock quantities in unrestricted-use stock
- Stock quantities in quality inspection
- Stock quantities already ordered but not yet received
- Stock quantities that are in the warehouse but are reserved for production or a customer

If a material is to be divided further into lots, a batch can be created for each lot and is managed individually in the stock. Inventory Management can also manage many of its own and external special stock forms (such as consignment stocks) separately from the normal stock.

Managing Material Stocks by Value

Stocks can also be managed by value. With each goods movement, the system automatically updates the following data:

- Quantity and value update for Inventory Management
- Account assignment for cost accounting
- G/L accounts for Financial Accounting via an automatic account determination

The organizational level on which the material stocks are managed by value is the valuation area. The valuation area can correspond with a plant or a company code. Inventory Management generally uses plant and storage location levels. When you enter a goods movement, you then only need to enter the plant and the storage location of the goods. The company code is derived from the plant via the valuation area.

Planning, Creating, and Verifying All Goods Movements

Goods movements include both “external” movements (such as goods receipts from external procurement or goods issues for sales orders) and “internal” movements (such as goods receipts from production, material withdrawals for internal purposes, stock transfers, and transfer postings).

Documents that are created for the goods movements and are the basis for the quantity and value update also serve as verification for the movement.

Carrying Out the Physical Inventory

The physical inventory inventories your stocks. Physical inventory can be executed for your own or for external stocks.



Facilitated Discussion

Check of discussed relationships

Discussion Questions

Use the following questions to engage the participants in the discussion. Feel free to use your own additional questions.

Which parts of materials management belong to the wider field of inventory management?

Name the master data and transaction data (documents) important for this context.



Lesson Summary

You should now be able to:

- Explain how inventory management and the physical inventory are integrated into the *SAP ERP Central Component*
- Describe the functions of inventory management and physical inventory

Lesson: Transaction for Goods Movements - MIGO



Lesson Duration: 60 Minutes

Lesson Overview

This lesson introduces the transaction MIGO. In addition to allowing you to enter goods movements, the transaction includes other functions, such as material document display and posting reversal. The main focus of this lesson is a general description of this transaction and explanation of how to use it. For this introduction, we will use the goods receipt as an example.



Lesson Objectives

After completing this lesson, you will be able to:

- Name the screen areas of the single-screen transaction for goods movements
- Navigate in the single-screen transaction for the goods movements
- Post a goods receipt with reference to a reference document
- Explain the account movements during the posting
- List the effects of a goods movement



In this lesson, the instructor describes the essential basics for using the single-screen transaction MIGO. As the transaction is used again and again in this course, make sure you have planned enough time. At the start, the instructor will name the goods movements that you can enter using transaction MIGO as of SAP R/3 Enterprise and explain which documents are then created when you post goods movements.

The final point will be a detailed explanation of the structure and navigation for this transaction.



Caution: Special features connected with the individual transactions are omitted on purpose.

The introduction of the transaction can be divided into individual steps:

- Explanation of the different screen areas and the process of showing and hiding these areas.
- Explanation about which fields in the desired transaction and document are selected.
- Introduction of the user-specific default values.
- Entry of a goods receipt for the purchase order and the subsequent display of the material document. You should also show the options for branching to the material master, the vendor master, the purchase order, and the stock overview.

Business Example

As an employee in the warehouse, you are responsible for the entry of goods movements. To become better acquainted with the single-screen transaction for goods movements, you want to enter a goods receipt. After the posting, check whether the quantity-based and value-based update of the stock has taken place.

Goods Movements

Goods movements include both “external” and “internal” movements. In general, a transaction that causes a stock change is marked as a goods movement. You can distinguish between goods receipts, goods issues, stock transfers, and transfer postings.

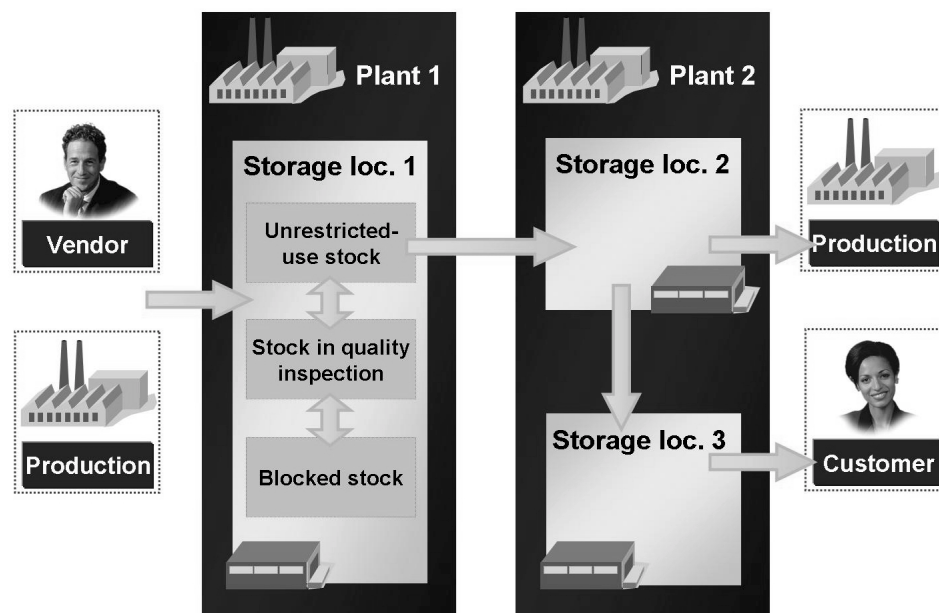


Figure 4: Goods Movements

A goods receipt (GR) is a goods movement in which the receipt of goods from both an external vendor and from production is posted. A goods receipt leads to an increase of warehouse stock.

A goods issue (GI) is a goods movement in which a material withdrawal, goods issue, material consumption, or goods shipment is posted to a customer. A goods issue leads to a decrease of warehouse stock.

A stock transfer is removal of materials from a particular storage location and placement into another storage location. Stock transfers can take place both within the same plant and between two plants.

A transfer posting is a superordinate term for stock transfers and changes the stock identification or qualification of a material, regardless of whether the posting is linked to a physical movement or not. Examples of a transfer posting include the release of the stock for quality inspection, the transfer posting from material to material, or the transfer of consignment material.

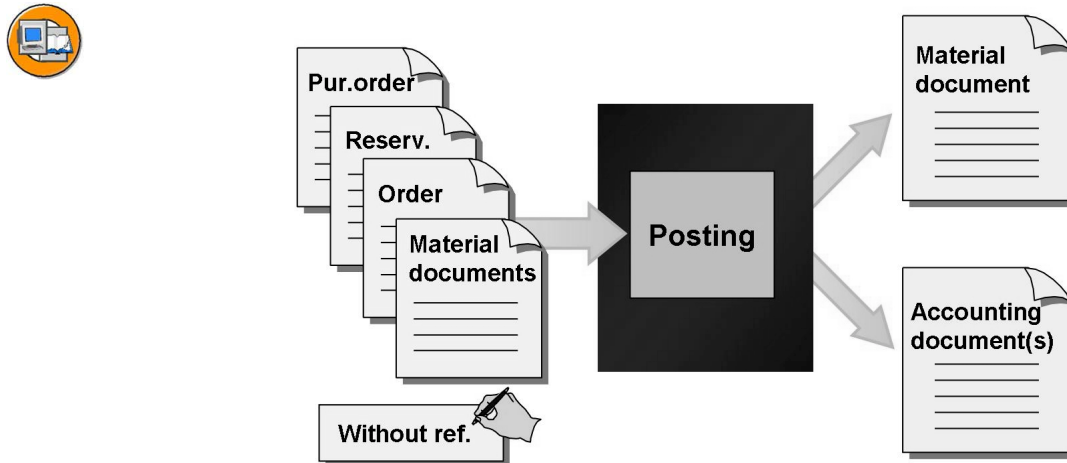


Figure 5: Documents for Goods Movements

When you enter a goods movement, you can work with or without a reference document. You can enter a goods receipt, for example, with reference to a production order or to a purchase order. However, you can also enter all the necessary data manually. Documents that are created for posting goods movements and are the basis for the quantity and value update also serve as verification for the movement. The bookkeeping principle “no posting without document” is valid here.

Material document

The material document serves as verification for the goods movement and as a source of information for all subsequent applications. The material document consists of a header and at least one item. The header contains general data about the movement type, such as the date and delivery note number. The items describe the individual movements.

A material document is identified by the document number and the material document year.

Accounting document

If the movement is relevant for Financial Accounting (in other words, if the movement leads to an update of the G/L accounts) the system creates an accounting document parallel to the material document. In some cases -- for example, for two material document items with different plants that belong to different company codes -- the system creates several accounting documents for one material document. The G/L accounts affected by a goods movement are updated by automatic account determination.

An accounting document is identified by the company code, the document number, and the fiscal year.



Hint: The material document number and the accounting document number are different, as a rule.

As well as the creation of the documents mentioned above, the entry of a goods movement triggers other transactions in the system. The system therefore updates the stock quantities and values in the material master record. If other applications are involved in the transaction, the system also updates these.

Units of Entry for Goods Movements

Inventory Management distinguishes between the following units of entry:

- Base unit of measure or stockkeeping unit
- Unit of entry
- Purchase order price unit

The base unit of measure or stockkeeping unit is the unit in which the stocks of a material are managed. You can also enter goods movements in other units of measure, assuming that these units of measure are defined in the material master record as *alternative units of measure* or as standard conversions (for example, g into Kg). If the unit of entry differs from the stockkeeping unit, the quantity is converted into the stockkeeping unit.

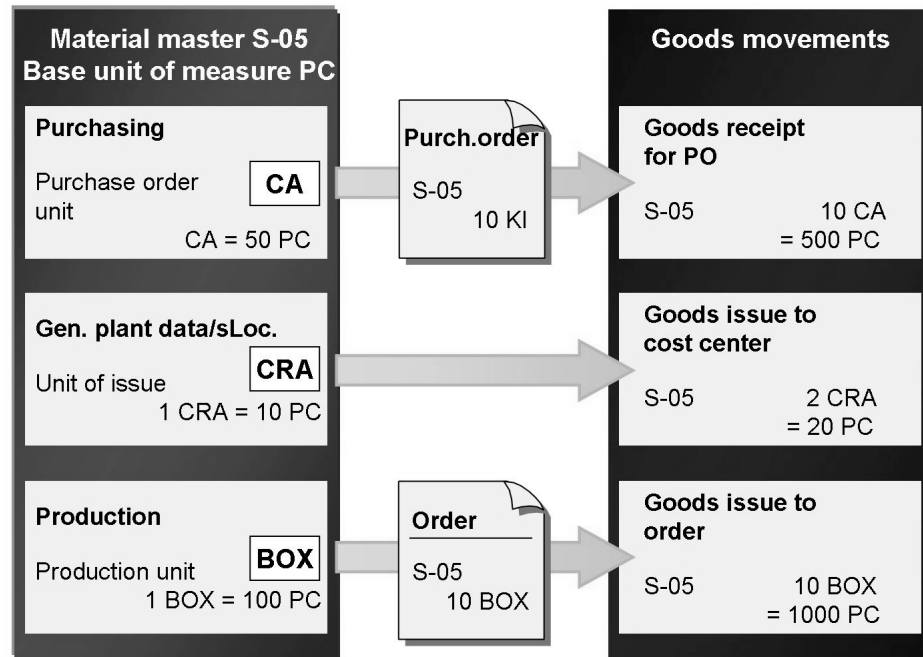


Figure 6: Units of Measure in Inventory Management

You have the option of defining different units of entry in the material master record for the applications.

- Order unit (OUn)
- Sales unit
- Unit of issue
- Production unit

These units of measure are then automatically proposed for the goods movement. If you have not maintained a particular unit of measure, the system proposes the stockkeeping unit.



Demonstration: Alternative Units of Measure (Optional)

Purpose

Definition of alternative units of measure for a material.

CATT: ZT_SCM510

System Data

System: Training System
Client: 8xx

User ID: Own user ID or SCM510-00
Password: Ask the instructor
Set up instructions: None

1. Change material master record **T-M510Z01**. In the extra data, further units of measure should be maintained according to the “Units of Measure in Inventory Management” graphic.
1 CS = 50 pc
1 CAR = 10 pc
1 BOX = 100 pc
2. Call the stock overview for material T-M510Z01 for plant 1000 and switch the unit of measure in the display from PC to CS, CAR, and BOX. Caution: It could be that only on-order stock is available for the material.

Transaction MIGO



This section introduces the screen areas, the most important fields, and the use of transaction MIGO. The instructor should call the transaction and explain and demonstrate the respective screen areas, fields, or navigation steps.

The transaction for entering goods movements is a single-screen transaction. This is divided into the screen areas

- Overview tree
- Header data
- Item overview
- Detail data for item

In the header and detail data, the information is grouped on individual tab pages.

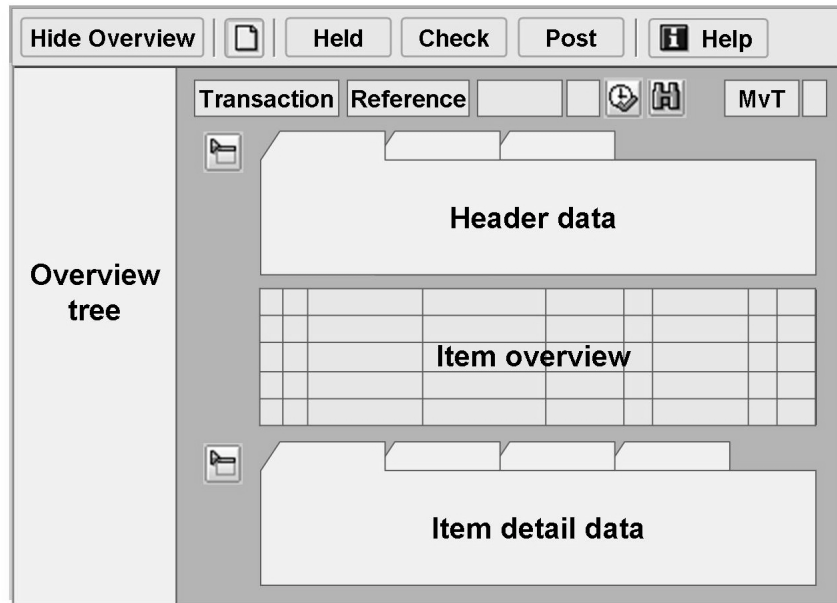



Figure 7: Goods Movements: Transaction MIGO

Overview tree

The overview tree displays your last 10 documents for purchase orders, orders, reservations, material documents, and held data. The system inserts these documents automatically into the overview tree. These documents (purchase orders, orders, reservations) are documents you referred to when posting a goods movement, and the material documents that were created. You therefore always have an overview of the activities you last executed.



Hint: The document overview is not intended for a document search. You can use  *Search for Document* for this purpose.



Hint: From the document overview, you can select *Material documents only* for display.

Header data

In the header data, you will find information that refers to the complete material document, such as the document and posting date, the document header text, the person who created it, and the entry date.

From the header data, you can branch to the accounting document.

Item overview and detail data for item

The document items are listed in the item overview. If you click on the number of an item in the overview, the system opens the detail data for this item. In the *Details*, you will find information on reference documents or account assignment.

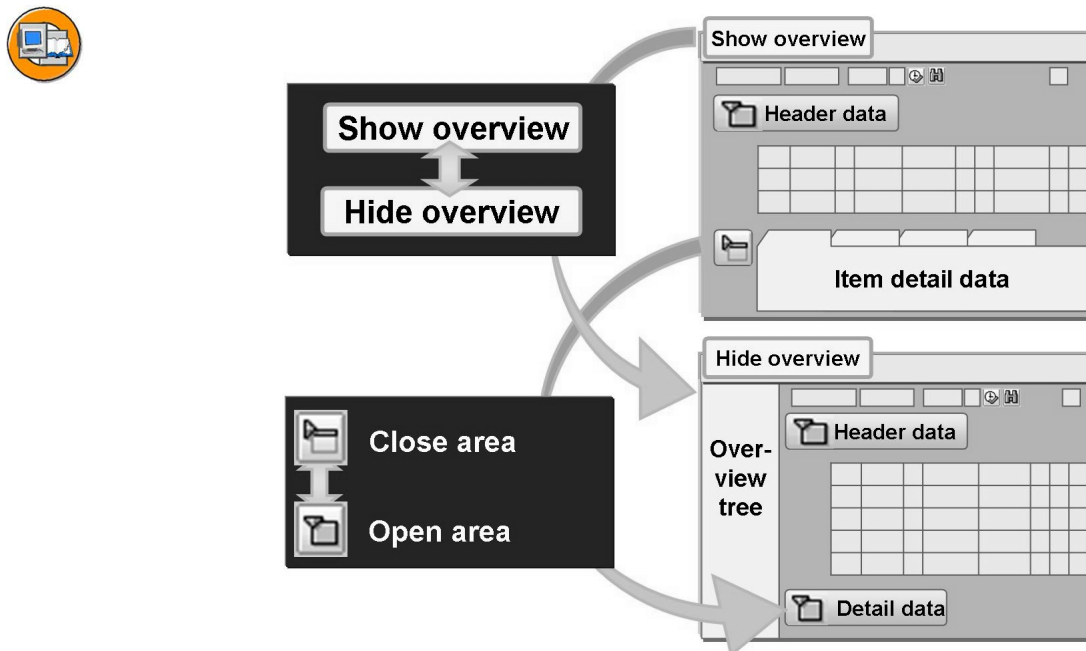


Figure 8: Navigation in Transaction MIGO (1)

You can open and close the screen areas individually, with the exception of the item overview. You can show and hide the overview tree using *Show/Hide Overview*. For the header and item details, choose *Open/Close Header Data* or *Open/Close Detail Data*. You can also open the detail data for the item by clicking on the item number in the item overview.



Caution: If you have opened the detail data of an item, you can make changes to this item only in the detail data, not in the item overview.

By opening and closing the areas, you can influence the size of the screen areas. If, for example, you close the header and detail data, the item overview is increased. Each time you call the transaction, the screen appears in the layout that you selected before closing your last session.

In the following, the important fields and functions of transaction MIGO are described in more detail.

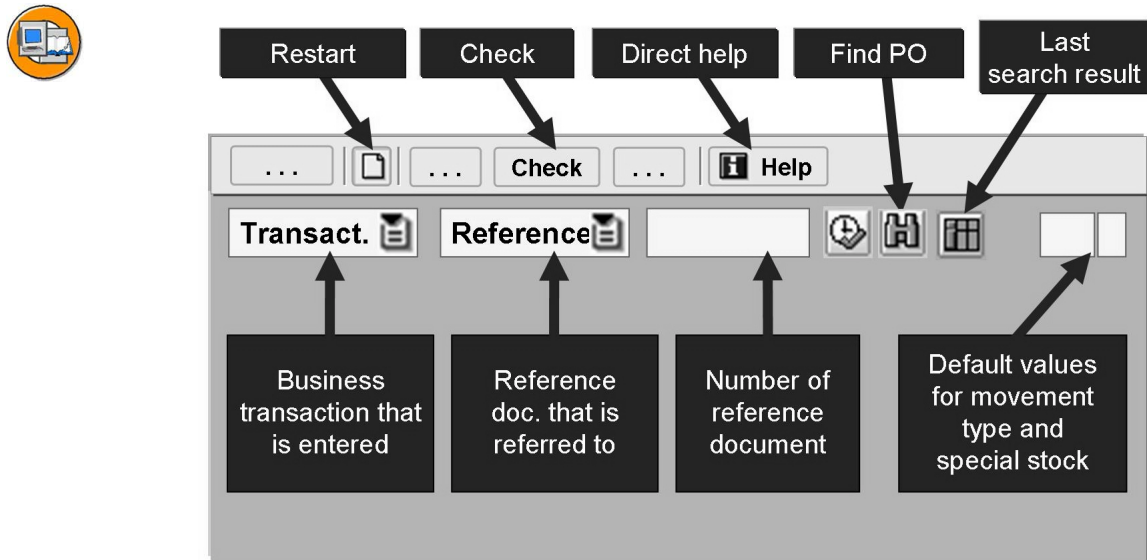



Figure 9: Navigation in Transaction MIGO (2)

Function: Restart

To terminate a processing transaction in MIGO, it is not necessary to leave the transaction. Simply choose  *Restart* and you can start with a new transaction.

List field: Transaction

In this list field, you can select the transaction you want to process. You can choose from the following references:


- Goods receipt
- Return delivery
- Subsequent delivery
- Subsequent adjustment
- Release GR blocked stock
- Goods issue
- Transfer posting
- Remove from storage
- Place in storage
- Cancellation
- Display

List field: Reference



In this list field, you determine the document you want to refer to for the respective transaction. You can choose from the following references:

- Inbound delivery
- Order
- Outbound delivery
- Purchase order
- Delivery note
- Material document
- Reservation
- Others (without reference)
- Transport
- Transport ID code

Function: Search for document

According to the selected reference, you can search for reservations, purchasing documents, or material documents using , with the quick info text *Find Purch. Order*.

When you have called the search function, enter your search criteria in the dialog box. The search result is displayed in a separate window in the lower area of the screen. Within the search results issued, you can use the functions of the SAP List Viewer. It is therefore possible to sort the documents according to different criteria. With a double-click on the relevant document, you can copy the documents into the item overview for processing.




To close the window with the search results, choose , with the quick info text *Close Search Result*. If you want to show the last search result again, choose , with the quick info text *Display Last Search Result*. When you leave the transaction, the search results are lost.

Function: Check

While you are processing a goods movement and entering data, the system does not issue any warning or error messages. If you want to know for which items the system would issue warning or error messages before you post, first choose *Check*. A dialog box will then display all warning and error messages. After you have checked a document for the first time, you will see in the item overview a new column, *Status*, that displays the check results for each item with a traffic light symbol. If you click on the traffic light symbol, you will reach the message log for this item.

If you save the document immediately without saving, you will only receive a dialog box with a message log including warning and error messages if error messages occur. If no error messages appear during posting, the system does not display possible warning messages.

Direct help

If you choose  *Help*, another screen area opens with information and user tips for the MIGO transaction. You can read the help for use in the transaction. To hide the help again, choose  *Help* or  *Close*.

Default values for movement type and special stock indicator

With these fields, you can enter default values directly for the movement type and special stock indicator. The system then proposes these values in all items.

If you change the default values during an entry transaction, your change does not have any affect on the items you have already entered. The new default values are only valid for items that you enter after the change.

To change these default values, you can also choose *Settings* → *Default Values*. This will take you to a separate dialog box in which you can determine your own personal default values.



Change Default Values

General Default Values

StorageLoc. Propose OK function in future
 In Plant Propose all items
 Copy acct assignment fields

Action	Reference doc.	Move..	S...	Stock type
Goods receipt	Purchase order	101		Quality inspection
...
Goods issue	Others	201	K	Unrestricted-use

Non-ordered items at goods receipt for purchase order

Material GI receipt without order
 Transport equipment M GI receipt RTP

General Settings

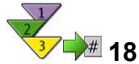
...

Figure 10: Default Values for Transaction MIGO

In a list, you determine the default values for movement type, special stock indicator, and stock type, depending on the transaction and reference document.

Aside from these default values, you can also determine additional values that the system proposes when entering another goods movement. These values may include plant, storage location, and the *OK* indicator.

The system saves all default values specifically for the user, and they are valid until you change them again.

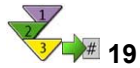


Entering a Goods Receipt Against a Purchase Order

	Material	OK	Qty	EuN	Stor.Loc.	MvT	Plant
1	Monitor	<input type="checkbox"/>	10	pc		101	1000
2	Keyboard	<input checked="" type="checkbox"/>	15	pc	Storage 1	101	1000





Figure 11: Entering a Goods Receipt Against a Purchase Order

1. On the *SAP Easy Access* screen, choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
 2. Choose *Goods Receipt* and the reference *Purchase Order*.
 3. Check the default value for the movement type and change it to **101** if necessary.
 4. Enter the purchase order number. To find the purchase order, choose with the quick info text *Find Purch. Order*.
 5. To copy the item from the purchase order, choose with the quick info text *Execute*.
 6. Enter the document date and the delivery note number of the vendor on the *General* tab page.
 7. Select the delivered items using the *OK* indicator. If necessary, change the default quantity for the items and specify a storage location.
- Caution:** If you have opened the detail data of an item, you can make changes to this item only in the detail data, not in the item overview.
8. Post the goods receipt.



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Displaying a Material Document and a Corresponding Accounting Document

1. On the *SAP Easy Access* screen, choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
2. Choose *Display* and the reference *Material Document*.
3. Enter the material document number and the document year. You can also search for the material document (choose  with the quick info text *Find Material Doc.*) or double-click the material document number from the overview to select your documents.
4. To display the material document, choose  with the quick info *Execute*.
5. To display the accounting document, open the header data and choose the *Document info* tab page. Choose  *FI Documents*. This takes you to a dialog box. Select the accounting document and choose  to display it.

Continued on next page



Demonstration: Entering a Goods Receipt Against a Purchase Order

Purpose

Using an easy example, the instructor will demonstrate to the participants the processes described above for entering a goods receipt for a purchase order and for displaying a material document.

The individual steps from the procedures are used and are not described in detail below. The demo contains entries for the purchase order, for the vendor, and for items.

CATT: ZT_SCM510_02

System Data

System:	Training System
Client:	Allocated client
User ID:	Own
Password:	Known
Set up instructions:	None in particular are necessary

1. Search for purchase order with vendor **T-K510Z01**. The number of the purchase order to be chosen is **4151-9901**.

Enter or change the following values:

Delivery note number: **LS-510-01**

Item 1: quantity **50 pieces**, storage location **0001**

Item 2: quantity **2 pieces**, storage location **0002**

Before posting the goods receipt, you should **check** the entered data.

2. After you have posted the goods receipt, display the material and accounting document.

Material document: The instructor should explain navigation in MIGO and the information on individual tabs. He or she should also demonstrate branching to the material master record, vendor master record, the purchase order, or the stock overview.

Accounting document: Material T-M510Z01 is valued with the standard price of 2 Euro. Material T-M510Z02 is valued with the moving average price. The instructor can also repeat material valuation with the S and MA prices using this demo.

Hold Data and Manage Held Data

If you have to terminate goods movement processing before posting, the system can hold the data that has already been entered without posting. In your next session, therefore, you will not have to enter all the data again, you can simply call the held data. The system does not create a document for held data.

To copy data that you want to hold, use *Hold* to copy it to the list of held data. You can display this list in transaction MIGO. To display the data, choose *Goods Receipt* → *Held Data*. Simply select the data that you want to continue processing. The last 10 items of held data are displayed in the overview tree. From here you can select this data for further processing by double-clicking it. The system deletes the held data automatically when you continue to process the goods movement.

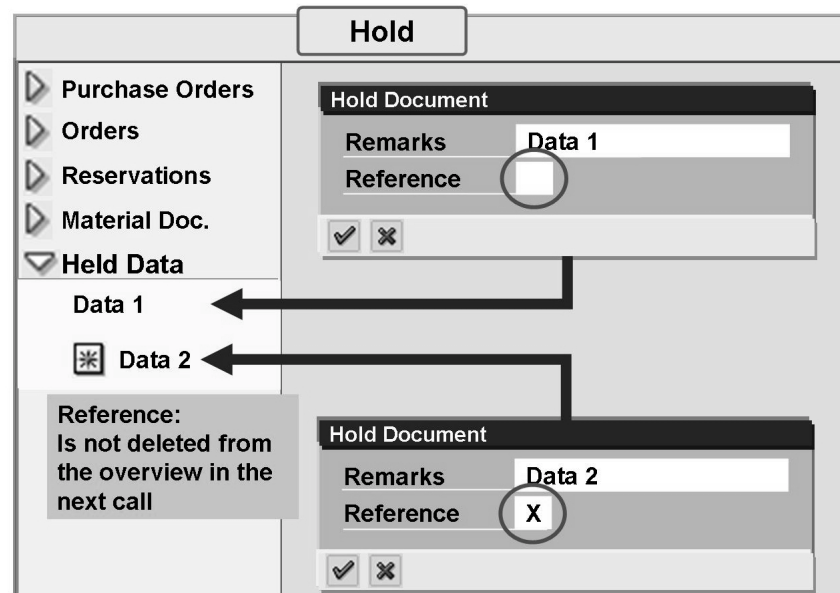




Figure 12: Hold Data

It is also possible to use held data as a reference for frequently recurring transactions. References are not deleted after you call them again. To make a reference from held data, set the *Reference* indicator. You can recognize a reference in the overview tree by the symbol  in front of the comment.

If you want to delete held data that you no longer require from the overview tree, you can select the data for deletion by choosing *Goods Receipt* → *Held Data* (or  *Delete Selected Entries*).

If you want to delete held data from other users, choose the **Manage Held Data** report (MMIM_PREDOC_MAINTAIN). To get to this report, choose *Logistics* → *Materials Management* → *Inventory Management* → *Periodic Processing* → *Manage Held Data*.



Caution: The system cannot hold certain data; you have to enter this again after retrieving it. Data that cannot be held includes:

- Batch classification
- Import data
- Result object

In the batch classification, newly created selection criteria are lost if the document is not posted immediately.



Demonstration: Hold Data

Purpose

The participants should learn about the *Hold Data* function and understand the difference between held data and a reference.


CATT: See above

System Data

System:	See above
Client:	See above
User ID:	See above
Password:	See above
Set up instructions:	See above

1. Enter a second goods receipt for purchase order **4151-9901**.
2. Set the *OK* indicator for the item but do **not specify a storage location**.
3. During posting, the system issues the error message “Enter storage location”, the goods receipt cannot be posted. Instead, the incomplete goods receipt is **held**.
4. To continue processing, first select with quick info *Restart*. Then you can select the held data from the overview by double-click. The held data disappears from the overview.
Change the quantity to 1 piece, enter storage location 0001, and post.
5. Enter a third goods receipt for purchase order **4151-9901**.
6. Set the *OK* indicator for the item, change the quantity to **1 piece**, but do **not specify a storage location**.
7. Hold the data and set the indicator **X** for **reference**.
8. To continue processing, first select with quick info *Restart*. Then you can select the reference from the overview by double-click.

Enter storage location 0001 and post the goods receipt. The reference still exists in the overview.

9. Finally, delete the reference from the overview. Select the reference in the overview and choose *Goods Receipt* → *Held Data* to reach the dialog screen *Held Data*. Select the reference and continue with  with the quick info text *Delete Selected Entries*.
-



Exercise 1: Understanding Transaction MIGO

Exercise Duration: 10 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Maintain your personal default values in transaction MIGO
- Enter a simple goods movement using transaction MIGO
- Display a material document with transaction MIGO

Business Example

As an employee in the warehouse, you are responsible for the entry of goods movements. To become better acquainted with the single-screen transaction for goods movements, you want to enter a goods receipt. After the posting, check whether the quantity-based and value-based update of the stock has taken place.

System Data

System: Training System
Client: 8xx
User ID: Ask the instructor
Password: Ask the instructor
CATT: ZT_SCM510
Set up instructions: None

Task 1: Default Values

Before you enter a goods receipt for a purchase order, check the default values in the transaction for goods movements MIGO.

1. Open the dialog box *Change default values* and note the proposed movement types and stock types for the following transactions (actions) and reference documents.

Action	Reference document	Movement type	Stock type
Goods receipt	Purchase order		
Goods receipt	Order		

Continued on next page

Action	Reference document	Movement type	Stock type
Goods receipt	Other		
Goods issue	Reservation		
Goods issue	Other		

2. Enter the default values **Hamburg Plant (1000)** for plant and **Material Warehouse (0001)** for storage location.

Task 2: Holding and Posting a Goods Receipt

After you have maintained your default values, enter a goods receipt for a purchase order. Hold the data. Call the held data and post the goods receipt. Display the posted material document.

1. You receive a delivery in plant **1000** of 100 pieces of **T-M510A##** from vendor **T-K510A##**. Hold the data with the description **GR for purchase order no. <your purchase order no.>**. Use the search function of the transaction to find the purchase order number. As the selection criteria, enter the vendor number and material number. Select the first purchase order.

Then leave transaction MIGO without posting the goods receipt.

2. Call the held data. Before you post the goods receipt, check your entered data for completeness.
3. Display the material document and note the following information.

Field	Entry
<i>Vendor</i>	
<i>Entered by</i>	
Movement type	
Stock type	

Solution 1: Understanding Transaction MIGO

Task 1: Default Values



Before you enter a goods receipt for a purchase order, check the default values in the transaction for goods movements MIGO.

1. Open the dialog box *Change default values* and note the proposed movement types and stock types for the following transactions (actions) and reference documents.

Action	Reference document	Movement type	Stock type
Goods receipt	Purchase order	<u>101</u>	<u>Unrestricted-use</u>
Goods receipt	Order	<u>101</u>	<u>Unrestricted-use</u>
Goods receipt	Other	<u>501</u>	<u>Unrestricted-use</u>
Goods issue	Reservation		<u>Unrestricted-use</u>
Goods issue	Other	<u>201</u>	<u>Unrestricted-use</u>

- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
 - b) Choose *Settings* → *Default Values*.
 - c) For the next step, stay in the dialog box.
2. Enter the default values **Hamburg Plant (1000)** for plant and **Material Warehouse (0001)** for storage location.
 - a) Enter the following data:

Plant: 1000

Storage location: 0001
 - b) Choose  *Adopt* and confirm the tip about changing the default values with  with the quick info text *Continue (Enter)*.


Continued on next page

Task 2: Holding and Posting a Goods Receipt

After you have maintained your default values, enter a goods receipt for a purchase order. Hold the data. Call the held data and post the goods receipt. Display the posted material document.


1. You receive a delivery in plant **1000** of 100 pieces of **T-M510A##** from vendor **T-K510A##**. Hold the data with the description **GR for purchase order no. <your purchase order no.>**. Use the search function of the transaction to find the purchase order number. As the selection criteria, enter the vendor number and material number. Select the first purchase order.

Then leave transaction MIGO without posting the goods receipt.


- a) Choose *Goods Receipt* and the reference *Purchase Order*.
- b) Choose , with the quick info text *Find Purch. Order*.
- c) Select the following:



Vendor: T-K510A##

Material: T-M510A##

- d) Select the item for purchase order **4151-01##** and choose  with the quick info *Adopt*.




Hint: To close the screen area with the search results, choose  with the quick info *Close Search Result*.


- e) Set the *Item OK* indicator for the item.
- f) Choose *Hold*. The system proposes the purchase order number 4151-01## as the comment. Change the comment according to the data and choose  with the quick info text *Continue (Enter)*.
- g) Check whether the comment is listed under *Held Data* in the overview.
- h) Choose  with the quick info text *Exit* and confirm the message “Save the entered document first?” with *No*.

Continued on next page


2. Call the held data. Before you post the goods receipt, check your entered data for completeness.
 - a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.



Hint: If you have not called transaction MIGO again, choose  with the quick info text *Restart*. Confirm the message “Save Entered Document First?” with *No*.

- b) From the menu bar, choose *Goods Receipt* → *Held Data*.
 - c) Select the held data from the previous exercise step and choose *Enter*.
 - d) Choose *Check*. The system displays missing data with an error message. A traffic light in the *Line* column displays the status. The system checks all items that have the *Item OK* indicator set.
 - e) Choose  with the quick info text *Post*.
3. Display the material document and note the following information.

Field	Entry
<i>Vendor</i>	<u>T-K510A##</u>
<i>Entered by</i>	<u><your user> (such as SCM510-##)</u>
Movement type	<u>101</u>
Stock type	<u>Unrestricted-use</u>

- a) Choose *Display* and, as reference, *Material Document*.
 - b) Choose  with the quick info text *Execute*.
 - c) For information about the vendor, see the header data on the *Vendor* tab page.
 - d) For information about the enterer, see the header data on the *Document Info* tab page.
 - e) For information about the stock type and movement type, see the *Where* tab page in the item details.



Lesson Summary

You should now be able to:

- Name the screen areas of the single-screen transaction for goods movements
- Navigate in the single-screen transaction for the goods movements
- Post a goods receipt with reference to a reference document
- Explain the account movements during the posting
- List the effects of a goods movement



Unit Summary

You should now be able to:

- Explain how inventory management and the physical inventory are integrated into the *SAP ERP Central Component*
- Describe the functions of inventory management and physical inventory
- Name the screen areas of the single-screen transaction for goods movements
- Navigate in the single-screen transaction for the goods movements
- Post a goods receipt with reference to a reference document
- Explain the account movements during the posting
- List the effects of a goods movement



Test Your Knowledge

1. Which screen area(s) in the transaction for goods movements MIGO cannot be closed?

Choose the correct answer(s).

- A Overview tree
- B Header data
- C Item overview
- D Detail data for item

2. For which functions can you use MIGO?

Choose the correct answer(s).

- A Enter a goods receipt with reference
- B Enter a transfer posting without reference
- C Create a reservation
- D Display a purchase order
- E Display a material document
- F Delete a material document

3. When you enter a goods receipt for a purchase order with transaction MIGO, choose the _____ goods receipt and the reference _____. Choose movement type _____. Then enter the purchase order number and select _____ to copy the items from the _____. Select delivered items with the _____, change the _____ if necessary, and enter a _____. Then post the goods receipt.

Fill in the blanks to complete the sentence.



Answers

1. Which screen area(s) in the transaction for goods movements MIGO cannot be closed?

Answer: C

Excluding the item overview, you can open and close all screen areas individually in the MIGO transaction.

2. For which functions can you use MIGO?

Answer: A, B, E

With the MIGO transaction, you can enter goods movements (receipts/issues and transfer postings) with and without reference to reference documents. You can also display and cancel material documents (material documents cannot be deleted as they are used for the documentation of goods movements). You cannot process or display purchase orders and reservations directly with transaction MIGO; it is only possible to display material documents.

3. When you enter a goods receipt for a purchase order with transaction MIGO, choose the transaction goods receipt and the reference purchase order. Choose movement type 101. Then enter the purchase order number and select Execute to copy the items from the purchase order. Select delivered items with the OK indicator, change the quantity if necessary, and enter a storage location. Then post the goods receipt.

Answer: transaction, purchase order, 101, Execute, purchase order, OK indicator, quantity, storage location

For a detailed description of the procedure, see the “Transaction for Goods Movements” lesson.

Unit 2



Goods Receipts



This unit deals with different forms of goods receipts. Both unplanned (without reference) and planned goods receipts (with reference) are introduced. The first lesson deals with Other Goods Receipts. All other lessons assume the existence of a preceding document. The largest weighting lies on the goods receipts with purchase order reference and the possible characteristics.

The goods receipts for production orders are part of the courses from the mySAP SCM Production area.

Unit Overview

In this unit, you will learn about the different types of goods receipts with and without reference. This includes, for example, the initial entry of stock balances and free delivery, as well as the relevant postings. With goods receipts with reference, the focus is on the goods receipts with purchase order reference and the corresponding characteristics, such as overdeliveries, checks for minimum shelf life, or return deliveries.



Unit Objectives

After completing this unit, you will be able to:

- Describe the procedure for the initial entry of stock balances in the SAP system
- Enter a goods receipt without a purchase or production order
- Enter a free-of-charge delivery
- Enter a goods receipt with reference to a PO or production order into unrestricted-use stock, stock in quality inspection, or blocked stock
- Describe the process of receiving goods in GR blocked stock and its special aspects
- List the necessary settings for the automatic generation of purchase orders at the time of goods receipt
- Enter a return delivery for a goods receipt (GR)
- Enter a subsequent delivery

- Create a purchase order with a returns item and post the goods issue
- Describe how a goods movement posting is reversed
- Manually set the Delivery completed indicator during goods receipt entry
- Explain the circumstances in which the Final delivery indicator is automatically set when posting a goods receipt
- Enter a goods receipt for a purchase order with one of the order price units that varies from the order unit
- List the prerequisites for the shelf life expiration date check
- Enter a goods receipt and enter and check the shelf life expiration date
- Activate the check for the latest possible goods receipt date

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Lesson: Goods Receipt Without Reference



Lesson Duration: 60 Minutes

Lesson Overview

Using selected examples, this lesson introduces you to the process of entering goods receipts without reference to another document. Such other goods receipts might be receipts from external vendors or from internal production. You also make the initial entry of book inventories from a legacy system as goods receipts without reference.



Lesson Objectives

After completing this lesson, you will be able to:

- Describe the procedure for the initial entry of stock balances in the SAP system
- Enter a goods receipt without a purchase or production order
- Enter a free-of-charge delivery



In this lesson, participants should learn:

- Which data has to be entered manually in the case of an “other goods receipt”
- Why there are different movement types for other goods receipts

The first topic is the initial entry of stock balances. It should be made clear that these postings are necessary if book inventories are transferred to the SAP system from a legacy system.

Generally, goods receipts without a purchase or production order are only to be used if the components purchasing and production are not active.

Business Example

Before the SAP system goes live, stocks of materials belonging to your enterprise must be recorded in the new system through an initial entry of stock balances. You also wish to test how goods receipts can be entered in the system without reference to a purchase or production order.

Other Goods Receipt

We speak of an **other goods receipt** if we are entering the goods movement without reference to another document (purchase order, production order, or reservation). Such goods receipts thus belong to unplanned goods movements, since no information on the material, quantity, delivery date, receiving plant, or origin is stored in the system prior to the actual posting.



Figure 13: Goods Receipt Without Reference

Initial Entry of Stock Balances

You must carry out an initial entry of stock balances when you implement the SAP system in order to record the starting physical warehouse stock figures or transfer the book inventories from a legacy system as book inventories in the SAP system. No physical material movement occurs during this process. The initial entry of stock balances can take place by posting to three stock types:

- Unrestricted-use stock (movement type 561)
- Stock in quality inspection (movement type 563)
- Blocked stock (movement type 565)

The quantity recorded is posted to the selected stock type and increases the total valuated stock of the material.

The movement types can also be used together with all special stock indicators. This means that the initial entry of stock balances can be done for consignment stock with vendors and customers, for example, or the project and sales order stock.



Hint: If the stock figures are to be adopted from a legacy system, the entry of large volumes of data is not carried out manually but via the Data Transfer Workbench. For more information, see the SAP Library under *SAP ERP Central Component (or SAP R/3 Enterprise Application Components)* → *Scenarios in the Applications* → *CA Data Transfer* → *Data Transfer Workbench* → *Transfer Objects by Applications* → *MM Materials Management* → *Goods Movements*.

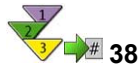
The valuation of the stocks to be recorded depends on two factors:

- The data in the material master record (valuation class, price control, and current valuation price)
- Whether you enter a value for the quantity to be recorded in the initial entry of stock balances (*ExtAmt. LocCurr* in the item details on the *Quantity* tab page)

If no external amount in local currency is specified in the initial entry of stock balances, the quantity to be recorded is valued on the basis of the valuation price from the material master record (that is, at the moving average or standard price).

If an external amount is entered, however, the quantity to be recorded is valued at this amount. In this case, if the material involved is valued at moving average price, the latter is then adjusted accordingly.

The offsetting posting to the stock posting is made to a special account for the initial entry of stock balances.



Initial Entry of Stock Balances

	Material	OK	Quantity	UnE	Stor. loc.	MVT	Plant
1	Monitor	<input checked="" type="checkbox"/>	10	pc	Warehouse 1	561	1000
2	Keyboard	<input checked="" type="checkbox"/>	15	pc	Warehouse 2	561	1200

Figure 14: Enter Other Goods Receipt

1. On the *SAP Easy Access* screen, choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
2. Choose *Goods Receipt* and *Others*.
3. Check the default value for the movement type and change it if necessary to 561, 563, or 565 (receipt via initial entry of stock balances to unrestricted-use, quality inspection, or blocked).
4. Enter the material number, the quantity, the storage location, and the plant for the items to be entered. Enter the material number in the *Material Short Text* column.



Hint: There are extended entry options for the data on material, plant, and storage location. For example, if you cannot remember the exact material number, simply enter part of the material short text (short description) and choose *Continue*. The system shows you all the materials containing the short text in a dialog box.

5. Post the document.

Continued on next page



Demonstration: Initial Entry of Stock Balances with Movement Type 561

Purpose

Show participants the most important steps for the entry of a goods receipt without reference. In this connection, the instructor can also show the extended entry options for material, plant, and storage location in transaction MIGO. After posting the initial stock balances, the FI postings generated as a result should be discussed.

CATT: ZT_SCM510_02

System Data

System: Training System
Client: 8xx
User ID: Own user ID
Password: Ask the instructor
Set up instructions: None

1. Show the accounting view of materials **T-M510Z03** (MAP = 10 €) and **T-M510Z04** (S price = 10 €) for plant 1000. The stock figure for both materials should be 0.

SAP Easy Access → Logistics → Materials Management → Inventory Management → Environment → Information → Material

2. Enter the initial balances using movement type (MvT) **561**. Take the data from the following table:



Hint: Refer to the above procedure for the individual steps for an “other goods receipt”.

	Material	Quantity	Storage loc.	Plant	Ext.Amt. LocCurr
Item 1	T-M510Z03 (Material, MAP)	10 pc	0001	1000	
Item 2	T-M510Z04 (Material, S price)	10 pc	0001	1000	

You can enter the relevant text instead of the material, storage location, or plant number.

Post the goods movement.

3. Display the material document just generated. Branch to the relevant material master record by double-clicking on the material short text and display the accounting view for plant 1000.
4. Display the associated accounting document and explain the postings.



Demonstration: Initial Entry of Stock Balances with MvT 563 and MvT 565

Purpose

For the materials used in the first demo, stock in quality inspection and blocked stock are also to be created via an initial entry of stock balances. In the process, the option of specifying an external amount is to be shown for a material subject to valuation at moving average price.

CATT: ZT_SCM510_02

System Data

System: Training System
Client: 8xx
User ID: Own user ID
Password: Ask the instructor
Set up instructions: None

1. Enter further initial stock balances as stock in quality inspection and blocked stock.

	Material	Quantity	MvT	Storage location	Plant	Ext.Amt. Loc-Curr
Item 1	T-M510Z03 (Material, MAP)	10 pc	563	0001	1000	120
Item 2	T-M510Z04 (Material, S price)	10 pc	565	0001	1000	120

2. Display the material and accounting documents and discuss the postings.
3. Display the material master records for plant 1000, accounting view and plant stock.

Goods Receipt Without Purchase Order or Production Order

If you have to record an external receipt of goods without having previously created a corresponding purchase order or scheduling agreement in the SAP system, you must enter it as an other goods receipt. The same applies to an internal receipt from production for which no production order has previously been created. The lack of upstream (preceding) documents for external or internal procurement may be due to the fact that the relevant application area has not been implemented.

You can decide the stock type to post the receipt to for these goods receipts too:

- Unrestricted-use stock (without PO: movement type 501; without production order: movement type 521)
- Stock in quality inspection (without PO: movement type 503; without production order: movement type 523)
- Blocked stock (without PO: movement type 505; without production order: movement type 525)



Demonstration: Goods Receipt Without Production Order (MvT 521), Without Purchase Order (MvT 501)

Purpose

In this demo, further goods receipts are to be entered without reference. In particular, the postings for a goods receipt without a production order should be explained.

CATT: ZT_SCM510_02

System Data

System: Training System
Client: 8xx
User ID: Own user ID or SCM510-00
Password: Ask the instructor
Set up instructions: None

1. Enter a goods receipt with movement type 521:

	Material	Quantity	Storage location	Plant
Item 1	T-M510Z05 (Material, production)	10 pc	0001	1000

2. Display the material and accounting documents and discuss the postings.
3. Display the material master records for plant 1000, accounting view and plant stock.
4. Optional: Enter a goods receipt with BWA 501 for the material T-M510Z03 or T-M510Z04. (Repeat steps 1 through 3.)

Delivery Free of Charge

If you receive a free-of-charge delivery from a vendor without a PO having been issued beforehand, you post the free delivery as an other goods receipt. In the standard system, you specify a text and a vendor for each item. This control for the *Text* and *Vendor* fields can be changed depending on the movement type 511 in Customizing for *Inventory Management and Physical Inventory* under *Settings for Enjoy Transactions* → *Settings for Goods Movements (MIGO)* → *Field Selection per MvT Type*.

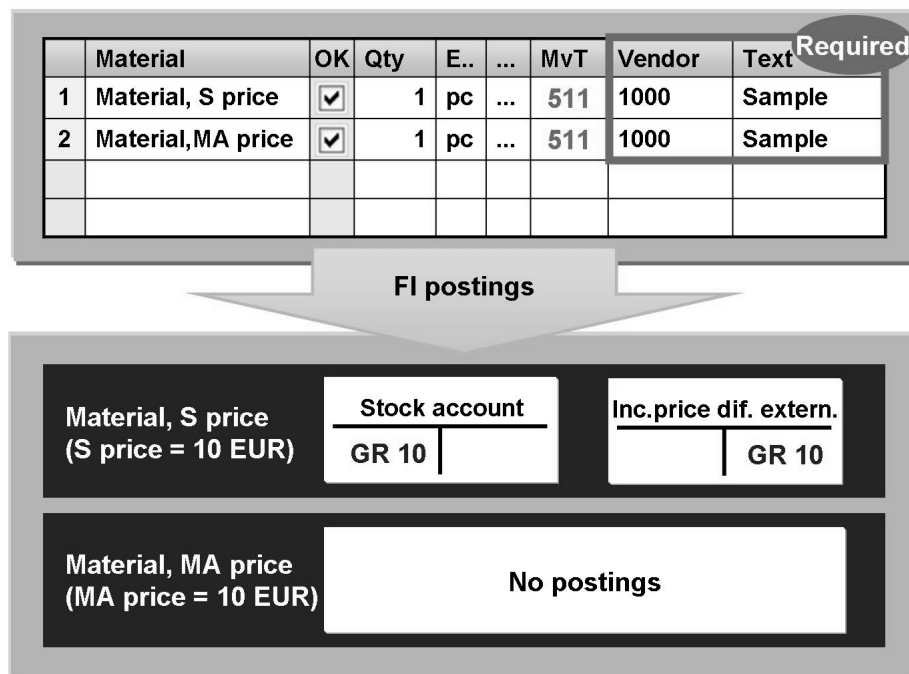


Figure 15: Other Goods Receipt: Free-of-Charge Delivery

For the valuation of the materials delivered free of charge, you must note which price control has been defined in the material master record.

- If the material is valued at **moving average price**, the stock figure is updated on a quantity basis only, not on a value basis. Thus the total stock quantity increases but the total value of the stock remains unchanged. This results in a reduction in the moving average price.
- If the material is valued at **standard price**, the stock figure is updated on a quantity and a value basis. The receipt is valued on the basis of the standard price. The offsetting posting to the stock account posting is made to a revenue account for price differences.



Demonstration: Goods Receipt for Free-of-Charge Delivery

Purpose

This demo shows free-of-charge deliveries of materials subject to valuation at moving average and standard price. The focus is on the different postings. This demo can also be used to give an initial introduction to field selection depending on the movement type.

CATT: ZT_SCM510_02

System Data

System: Training System
Client: 8xx
User ID: Own user ID or SCM510-00
Password: Ask the instructor
Set up instructions: None

1. Enter a goods receipt using movement type 511. Before posting the goods receipt, branch to the material master record and make a note of the total stock, its total value, and the valuation price.

	Material	Quantity	Storage location	Plant
Item 1	T-M510Z03 (Material, MAP)	10 pc	0001	1000

The system cannot post the goods receipt because specification of a text and the vendor is mandatory for movement type 511. Enter any text and vendor no. T-K510Z in the item overview. Alternatively, you can enter this data on the *Where* and *Partners* item detail tab pages.

2. Display the material document. Also attempt to display the accounting document and discuss why the system did not create one.

3. Display the material master record (accounting view) and compare the new and old figures for total stock, total stock value, and the valuation price. Ask the participants to explain the changes.
4. Enter a second goods receipt with movement type 511. Also enter a text and vendor no. T-K510Z. Before posting the goods receipt, branch to the material master record and make a note of the total stock, the total stock value, and the valuation price.

	Material	Quantity	Storage location	Plant
Item 1	T-M510Z04 (Material, S price)	10 pc	0001	1000

5. Display the material and accounting documents and discuss why postings have been made for S price material.
 6. Display the material master record (accounting view) and compare the new and old figures for total stock, total stock value, and the valuation price. Ask the participants to explain the changes.
-



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Exercise 2: Goods Receipt Without Reference

Exercise Duration: 30 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Post free-of-charge deliveries and initial stock balances in the SAP system
- Explain the postings in Financial Accounting made in the case of goods receipts without reference

Business Example

In your SAP system, the data on a few stocks is not adopted from the legacy system via the Workbench, but posted manually as initial stock balances.

Some vendors have agreed to grant discounts in kind. You enter these in the system as free-of-charge deliveries.

System Data

System: Training System
Client: 8xx
User ID: Ask the instructor
Password: Ask the instructor
CATT: ZT_SCM510
Set up instructions: None

Task 1: Price Control Process

Make the settings for the price control for materials **T-M510A##** and **T-M510B##**.

1. Make a note of the following information from the material master records for materials **T-M510A##** and **T-M510B##** for plant 1000.

	T-M510A##	T-M510B##
Price control		
Price		

Continued on next page

Task 2: Initial Entry of Stock Balances

It was not possible to transfer the data of a few stocks from the legacy system to the SAP system using the Workbench. Post the initial stock balances manually.

1. Post an initial entry of stock for 20 pieces each of **T-M510A##** and **T-M510B##** for plant 1000, storage location 0001.
2. Display the accounting document for the initial entry of stock balances and make a note of the amounts posted to the stock account.

Amount (T-M510A##)	Amount (T-M510B##)
_____	_____

3. Does the price control influence the amount posted?

Task 3: Free Delivery

Vendor **T-K510A##** delivers certain materials to your company as discounts in the form of bonus goods. Enter these materials as free-of-charge deliveries and display the accounting document.

1. Post a free-of-charge delivery (MvT 511) of 10 pieces each of materials **T-M510A##** and **T-M510B##** in plant 1000, storage location 0001, with the text **Discount**.
2. Display the accounting document for this goods receipt and determine the material for which the accounting document was generated.

Material	_____
----------	-------

3. Why is there no posting in Financial Accounting for a free-of-charge delivery of material **T-M510A##**?



Solution 2: Goods Receipt Without Reference

Task 1: Price Control Process

Make the settings for the price control for materials **T-M510A##** and **T-M510B##**.

1. Make a note of the following information from the material master records for materials **T-M510A##** and **T-M510B##** for plant 1000.



	T-M510A##	T-M510B##
Price control	<u>V</u>	<u>S</u>
Price	<u>10</u>	<u>10</u>

- a) Choose *Logistics* → *Materials Management* → *Material Master* → *Material* → *Display* → *Display Current (MM03)*.
- b) Enter the *Material Number* **T-M510A##**.
- c) Choose *Select View(s)* and select *Accounting 1*.
- d) Choose *Organizational levels* and enter *plant 1000*.
- e) Choose  *Continue (Enter)*.
- f) Note the values you are asked for.
- g) Choose  with the quick info text *Other material* to return to the initial screen, and repeat the procedure from step b) with the material number **T-M510B##**.

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Task 2: Initial Entry of Stock Balances

It was not possible to transfer the data of a few stocks from the legacy system to the SAP system using the Workbench. Post the initial stock balances manually.

1. Post an initial entry of stock for 20 pieces each of **T-M510A##** and **T-M510B##** for plant 1000, storage location 0001.
 - a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
 - b) Choose *Goods Receipt*, and *Other* as the reference.
 - c) Enter *Movement Type 561*.
 - d) Enter the following data:
 - Material tab page: *Material T-M510A##*
 - Quantity tab page: *Qty in Unit of Entry 20 pc*
 - Where tab page: *Plant 1000, Storage Location 0001*
 - e) Set the *Item OK* indicator.
 - f) Choose , with the quick info text *Next Item*.
 - g) Enter the following data for the second item:
 - Material tab page: *Material T-M510B##*
 - Quantity tab page: *Qty in Unit of Entry 20 pc*
 - Where tab page: *Plant 1000, Storage Location 0001*
 - h) Set the *Item OK* indicator.
 - i) Choose  with the quick info text *Post*.
2. Display the accounting document for the initial entry of stock balances and make a note of the amounts posted to the stock account.

Continued on next page

Amount (T-M510A##)	Amount (T-M510B##)
<u>200</u>	<u>200</u>



- a) Choose *Display*, and *Material Document* as the reference.
 - b) Choose  with the quick info text *Execute*.
 - c) In the document header, choose the *Document Info* tab page.
 - d) Choose  *FI Documents*.
 - e) In the *List of Documents in Accounting* dialog box, double-click the number of the *accounting document*.
 - f) Choose  with the quick info text *Select Layout* and choose the layout **Z_Material (Inventory Management Layout)** to display the material in the items.
 - g) Note that the amount is 200 euros for each of the two materials.
3. Does the price control influence the amount posted?

Answer: No, the amount “quantity times valuation price” is posted to the stock account in both cases.

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Task 3: Free Delivery

Vendor **T-K510A##** delivers certain materials to your company as discounts in the form of bonus goods. Enter these materials as free-of-charge deliveries and display the accounting document.

1. Post a free-of-charge delivery (MvT 511) of 10 pieces each of materials **T-M510A##** and **T-M510B##** in plant 1000, storage location 0001, with the text **Discount**.
 - a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
 - b) Choose *Goods Receipt*, and *Other* as the reference.
 - c) Enter the *movement type* **511** and confirm your entry with *Enter*.
 - d) Enter the following data:
 - Material tab page: *Material* **T-M510A##**
 - Quantity tab page: *Qty in Unit of Entry* **10 pc**
 - Where tab page: *Plant* **1000**, *Storage Location* **0001**, *Text:* **Discount**
 - Partner tab page: *Vendor* **T-K510A##**
 - e) Set the *Item OK* indicator.
 - f) Choose , with the quick info text *Next Item*.
 - g) Enter the following data:
 - Material tab page: *Material* **T-M510B##**
 - Quantity tab page: *Qty in Unit of Entry* **10 pc**
 - Where tab page: *Plant* **1000**, *Storage Location* **0001**, *Text:* **Discount**
 - Partner tab page: *Vendor* **T-K510A##**
 - h) Set the *Item OK* indicator.
 - i) Choose  with the quick info text *Post*.
2. Display the accounting document for this goods receipt and determine the material for which the accounting document was generated.

Continued on next page

Material	T-M510B##
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- a) Choose *Display*, and *Material Document* as the reference.
 - b) Choose  with the quick info text *Execute*.
 - c) In the document header, choose the *Document Info* tab page.
 - d) Choose  *FI Documents*.
 - e) In the *List of Documents in FI* dialog box, select the accounting document and choose  with the quick info text *Select*.
 - f) Double-click item 1 and choose  *More*.
 - g) Material T-M510B##.
3. Why is there no posting in Financial Accounting for a free-of-charge delivery of material **T-M510A##**?

Answer: In the case of a free-of-charge delivery, the goods have no value. Materials valued at moving average price (T-M510A##) do not have postings in Financial Accounting because the value in the stock account does not change.

The stock value of materials valued at standard price (T-M510B##) **must** change with every change in quantity. Therefore, if a free-of-charge delivery of 10 pc is received, the stock value must be updated by “10 x standard price.”



Lesson Summary

You should now be able to:

- Describe the procedure for the initial entry of stock balances in the SAP system
- Enter a goods receipt without a purchase or production order
- Enter a free-of-charge delivery

Lesson: Goods Receipt with Reference



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Lesson Duration: 60 Minutes

Lesson Overview

This lesson deals with the entry of goods receipts with reference to other documents. In this context, we also look at the unrestricted-use stock, stock in quality inspection, and blocked stock types.

Within the context of goods receipts for purchase orders, we will introduce the topics of good receipt blocked stock and the automatic generation of POs at the time of goods receipt.



Lesson Objectives

After completing this lesson, you will be able to:

- Enter a goods receipt with reference to a PO or production order into unrestricted-use stock, stock in quality inspection, or blocked stock
- Describe the process of receiving goods in GR blocked stock and its special aspects
- List the necessary settings for the automatic generation of purchase orders at the time of goods receipt



This lesson introduces goods receipts with reference. To kick off, the instructor can discuss with participants what can be referenced at the time of goods receipt (in other words, which documents). It should become clear that it is customary to enter goods receipts from production with reference to completion confirmations. The entry of such confirmations is not dealt with in this course.

Business Example

The goods you have procured from vendors and the materials manufactured in-house must be added to your own stock. To do so, you enter goods receipts with reference to the relevant documents (PO or production order). Depending on how the materials can be used, you book them into unrestricted-use stock, stock in quality inspection, or blocked stock. Some deliveries may be subject to conditional acceptance. In such cases, you book the goods received into non-valuated GR blocked stock for closer examination.

Goods Receipt with Reference

A goods receipt with reference is always a planned goods receipt. To preplan a receipt means entering certain key information pertinent to the receipt prior to the actual GR posting.

- What? (Which material?)
- When? (Which delivery date?)
- How much? (Which quantity?)
- From where? (From which vendor or plant?)
- To where? (Which place of destination? Which stock?)

The aim of preplanning is to facilitate and accelerate the goods receipt process and better organize work in the goods receiving department, thus avoiding bottlenecks, for example. Also, materials planning can use preplanning to monitor stocks of ordered materials or materials produced in-house, and optimize stockholdings.

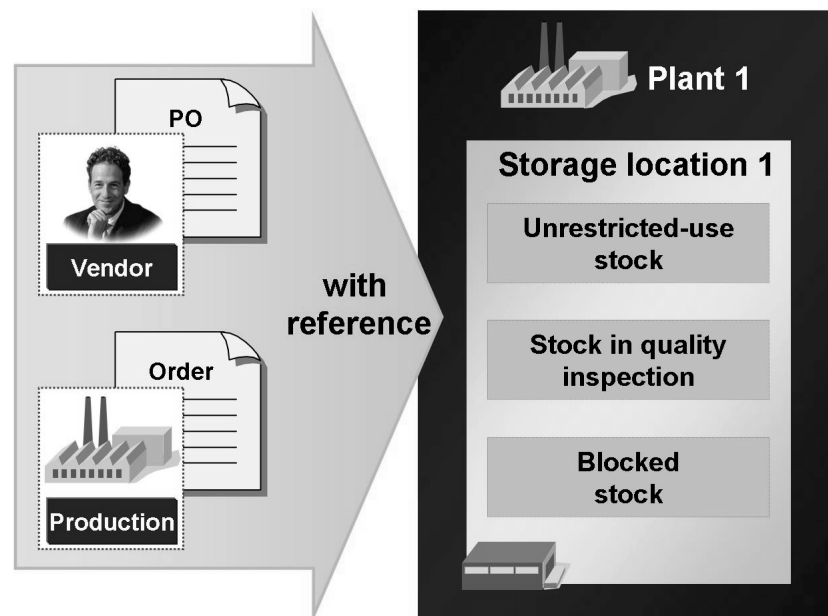


Figure 16: Goods Receipt with Reference

The documents with which you preplan goods receipts serve as reference documents when you enter the goods movement. The preplanning of goods receipts normally takes place using purchase and production orders. In exceptional cases, you can also preplan a receipt using a reservation.



Hint: Even though you can preplan goods receipts using reservations, reservations are primarily used for planning goods issues.

You enter goods receipts against production and purchase orders with movement type **101**. For a goods receipt into the warehouse, you can decide on the basis of the stock type whether the receipt is to be booked into unrestricted-use stock, stock in quality inspection, or blocked stock.

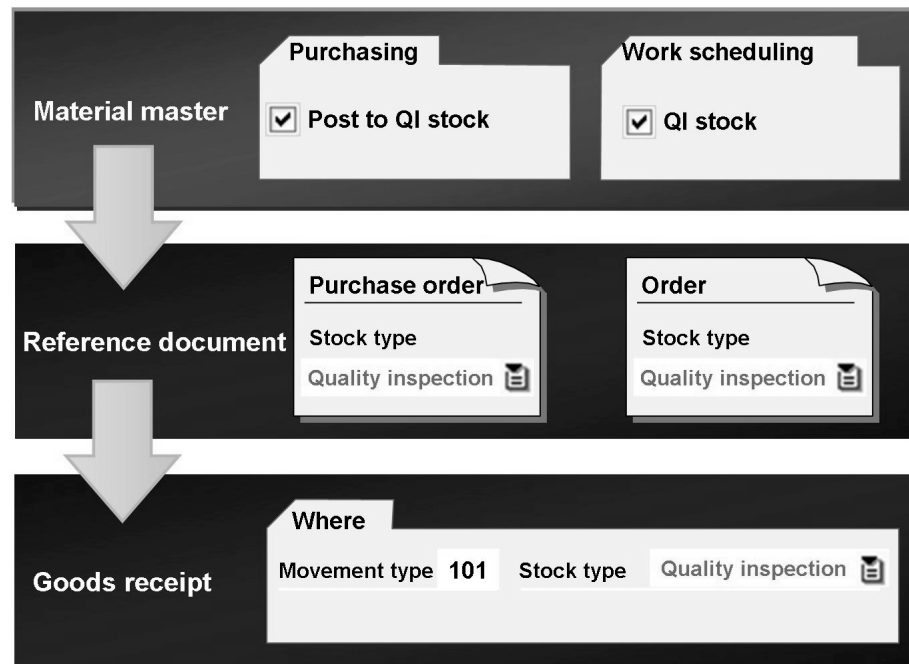


Figure 17: Goods Receipt into Stock in Quality Inspection

If the goods receipt into stock in quality inspection is to be preplanned, you have a number of options:

- If the material is generally subject to a quality check prior to use, set the *Post to inspection stock* indicator in *Purchasing* or *Work Scheduling Data* in the material master record. The stock type *Quality Inspection* is then adopted in the purchase or production order.
- If you want to make the material subject to a quality check in exceptions only, enter the stock type *Stock in Quality Inspection* only in the relevant document (purchase or production order). An example from purchasing is where material is procured from a new vendor and the quality of the vendor's goods needs to be checked at the first delivery.



Hint: You will find the stock type for the PO item in the item details on the *Delivery* tab page. In the production order, you will find the stock type on the *Goods Receipt* tab page.

When you post a receipt to the warehouse, the quantity and value of the stock is increased irrespective of the stock type (except for material types without value updating).



Demonstration: Goods Receipt with Reference to Production Order

Purpose

Introduction of goods receipts with reference to a production or purchase order. Using a purchase order as an example, participants are shown how goods receipts can be booked into the stock types stock in quality inspection or blocked stock.

System Data

System:	Training System
Client:	8xx
User ID:	Own user ID or SCM510-00
Password:	Ask the instructor
Set up instructions:	None

1. Create a production order:

Logistics → Production → Shop Floor Control → Order → Create → With Material


Use the following data for the production order:

Field	Value	Continue with
Material	P-100	
Production plant	1000	
Order type	PP01	
Total qty	2	
Basic dates - finish	Current date + 7 days	
Task list group (if necessary)	50000002	

Before the order is saved, it must be released. Choose and then .

2. Enter a goods receipt for the order:

Logistics → Materials Management → Inventory Management → Goods Movement → Goods Receipt → GR for Order (MIGO)

Choose *Goods Receipt* as the transaction, *Order* as the reference, and **101** as the default value for the movement type. Enter the number of the production order directly or use the search function . Set the *OK* indicator for the item and post the goods receipt.

3. Display the material document and the accounting document for the goods receipt again and explain the postings. The offsetting posting to the stock posting is made to a factory output production orders account.



Hint: The components needed to manufacture the material are only booked out of stock automatically if they have been flagged for backflushing in the bill of material and the goods receipt is posted using a completion confirmation for the order.



Demonstration: Goods Receipt into Stock in Quality Inspection with Reference to Purchase Order

Purpose

Introduction of goods receipts with reference to purchase orders. Using this example, participants are shown how goods receipts can be booked into the stock types stock in quality inspection or blocked stock.

CATT: ZT_SCM510_02

System Data

System:	Training System
Client:	8xx
User ID:	Own user ID or SCM510-00
Password:	Ask the instructor
Set up instructions:	None

1. Change material master record **T-M510Z01** for plant **1000**. In the purchase order, stock in quality inspection is to be suggested for the goods receipt.

Logistics → *Materials Management* → *Materials Master* → *Material* → *Change* → *Immediately*.


The *Post to insp. stock* indicator must be set in the purchasing view.

2. Create purchase order:

Logistics → *Materials Management* → *Purchasing* → *Purchase Order* → *Create* → *Vendor/Supplying Plant Known*


Use the following data for the purchase order:

Field	Value
Header data	
Vendor	T-K510Z01
Purchasing organization	1000
Purchasing group	020
Company code	1000
Item data	
Material	T-M510Z01
Quantity	100
Price	2 euros per piece (each)
Plant	1000
Storage location	0001


Before saving the purchase order, display the item detail tab page *Delivery* and check the value in the *Stock type* field. **Quality inspection** must appear as the default value for the stock type (taken from the material master record). Then save the purchase order .

3. Enter a goods receipt against a purchase order:

Logistics → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Receipt* → *For Purchase Order* → *GR for Order (MIGO)*

Choose *Goods Receipt* as the transaction, *Purchase Order* as the reference, and **101** as the default value for the movement type. Enter the number of the purchase order directly or use the search function .

Set the *OK* indicator for the item and check the stock type.

Optional: Demonstrate the  *Distribute Quantity* function by posting 90 pc to stock in quality inspection at storage location 0001 and the remaining 10 pc to blocked stock at storage location 0006.

Post the goods receipt.

4. Display the material document and the accounting document for the goods receipt again and explain the postings. The offsetting posting to the stock posting is made to a GR/IR clearing account.

Display the stock overview for the material.

Goods Receipt to GR Blocked Stock

If you wish to accept goods from a vendor conditionally (because a certificate is missing, for example), you initially post the goods to the non-valuated goods receipt blocked stock (GR blocked stock) upon receipt, using movement type **103**. The quantity posted to GR blocked stock does not yet form part of your regular inventory. It is merely recorded in the PO history.

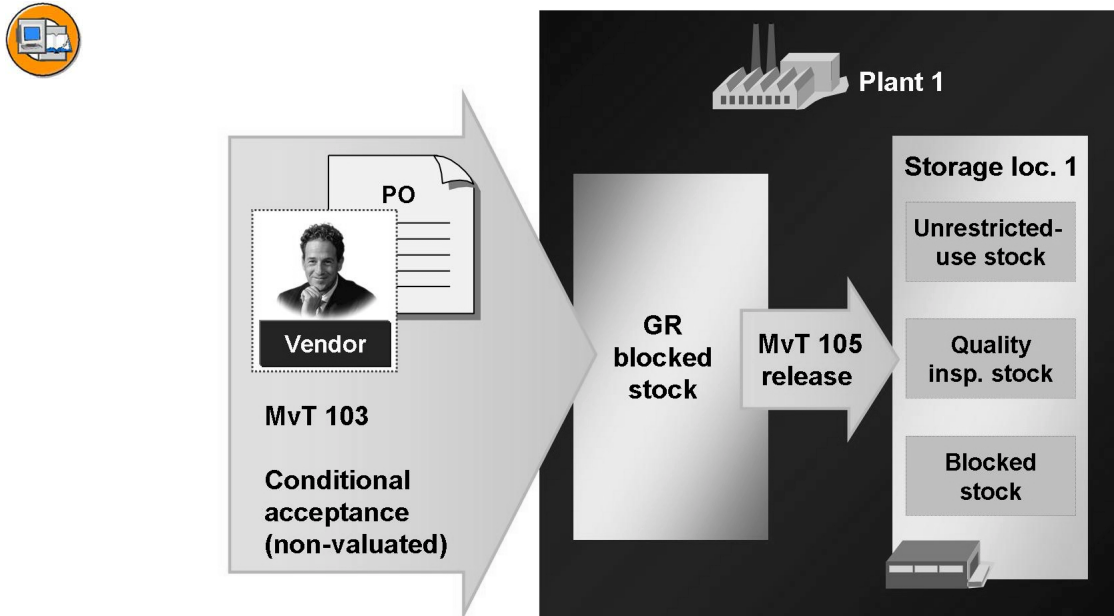


Figure 18: Goods Receipt to GR Blocked Stock

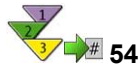
The material document generated at the time of the goods receipt serves merely as a record of the receipt of the goods. Since GR blocked stock is not valuated, no accounting document is generated at the time of the goods receipt.

The valuated stock is not changed as a result of a receipt to GR blocked stock. Furthermore, you should note that although GR blocked stock is updated in the PO history, the open PO quantity is not reduced as a result.

You can display GR blocked stock from two views:

- Stock overview for the material (at plant level)
(From the *SAP Easy Access* screen, choose *Logistics* → *Materials Management* → *Inventory Management* → *Environment* → *Stock* → *Stock Overview*.)
- PO history for the purchase order item
(From the *SAP Easy Access* screen, choose *Logistics* → *Materials Management* → *Inventory Management* → *Environment* → *Information* → *Purchase Order*.)


When the conditions for the acceptance of the delivery have been fulfilled, you transfer the material to unrestricted-use stock, stock in quality inspection, or blocked stock. The valuation and updating of the stock data does not take place until the material is released using movement type **105**. If the conditions for release are not satisfied, it is possible to return the goods to the vendor.




Releasing GR Blocked Stock

1. From the *SAP Easy Access* screen, choose *Logistics* → *Materials Management* → *Inventory Management* → *Material Document* → *Release Blocked Stock*.
2. Choose *Release GR Blocked Stock* and *Material Document*.
3. Enter the material document number and the year of the document that was generated at the time of posting to GR blocked stock.



Hint: To find the material document number, choose  *Find Material Doc.*. As selection values, enter movement type **103**, the material, and the posting date, for example.

4. Choose  with the quick info text *Execute*. Enter a storage location and set the *OK* indicator.
5. Post the material document.



Demonstration: Goods Receipt to GR Blocked Stock

Purpose

Introduction of the special aspects of goods receipts into GR blocked stock (new movement type, updating of PO and stock) and the release of GR blocked stock.

CATT: ZT_SCM510_02

System Data


System:	Training System
Client:	8xx
User ID:	Own user ID or SCM510-00
Password:	Ask the instructor
Set up instructions:	None

1. Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
2. Choose the transaction *Goods Receipt* and, as reference, *Purchase Order*. Enter **103** as the default movement type.
3. Search for the purchase order according to vendor **T-K510Z01** and material **T-M510Z02**. The number of the purchase order to be chosen is **4151-9902**.

Before the goods receipt is posted, the material master record (accounting view), the purchase order, and the stock overview for the material should be displayed.

4. Set the *OK* indicator for the item and post the goods movement.
5. Display the material document and then go back to the material master record, the purchase order, and the stock overview to discuss the effects of the conditional acceptance of the goods.

Try to display an accounting document. This is not possible because no postings have been made.

6. To release the GR blocked stock, change the transaction to *Release GR Blocked Stock* and the reference to *Material Document*.
7. The material document generated under step 4 is suggested by the system and only has to be adopted with .

Display the movement type **105** suggested by the system and enter **0001**.
Post release

8. Display the material document, accounting document, material master record (accounting view), stock overview, and PO history, and discuss the updating of the data.

Automatic Generation of PO at Time of Goods Receipt

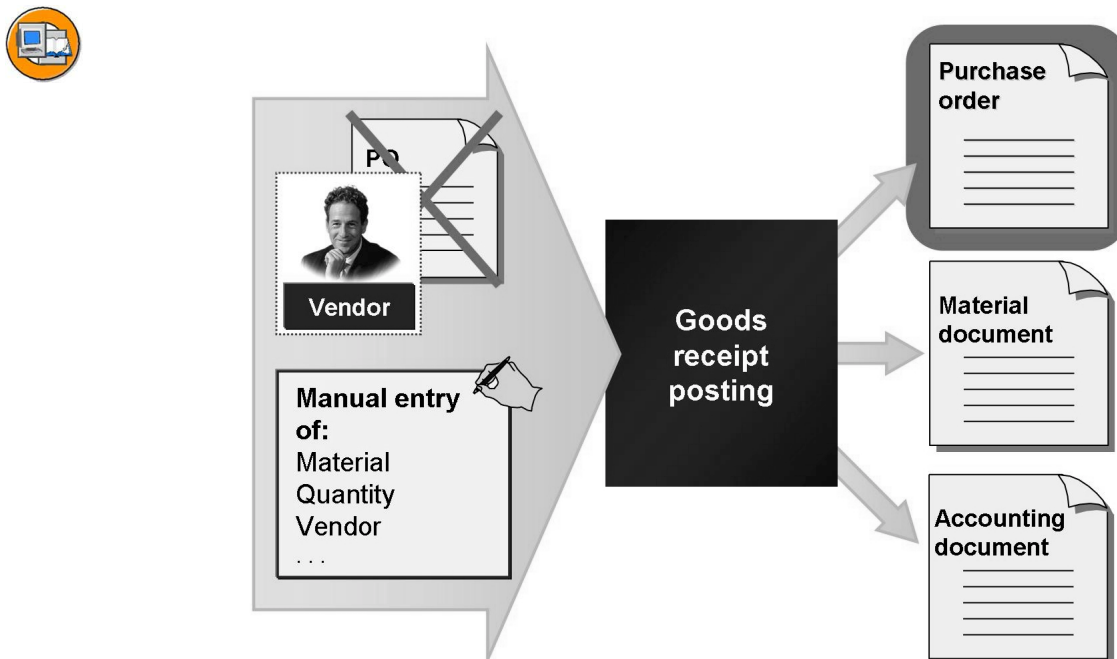


Figure 19: Automatic Generation of PO at Time of Goods Receipt

If you receive a delivery for which there is no purchase order in the system, you can enter it as an **other goods receipt**, which is a goods receipt without reference to a PO. The invoice for this delivery cannot be entered and checked with reference to the PO.

Alternately, the SAP system provides you with the option of having a PO generated automatically by the system at the time of goods receipt. For this to occur, the following prerequisites must be fulfilled:

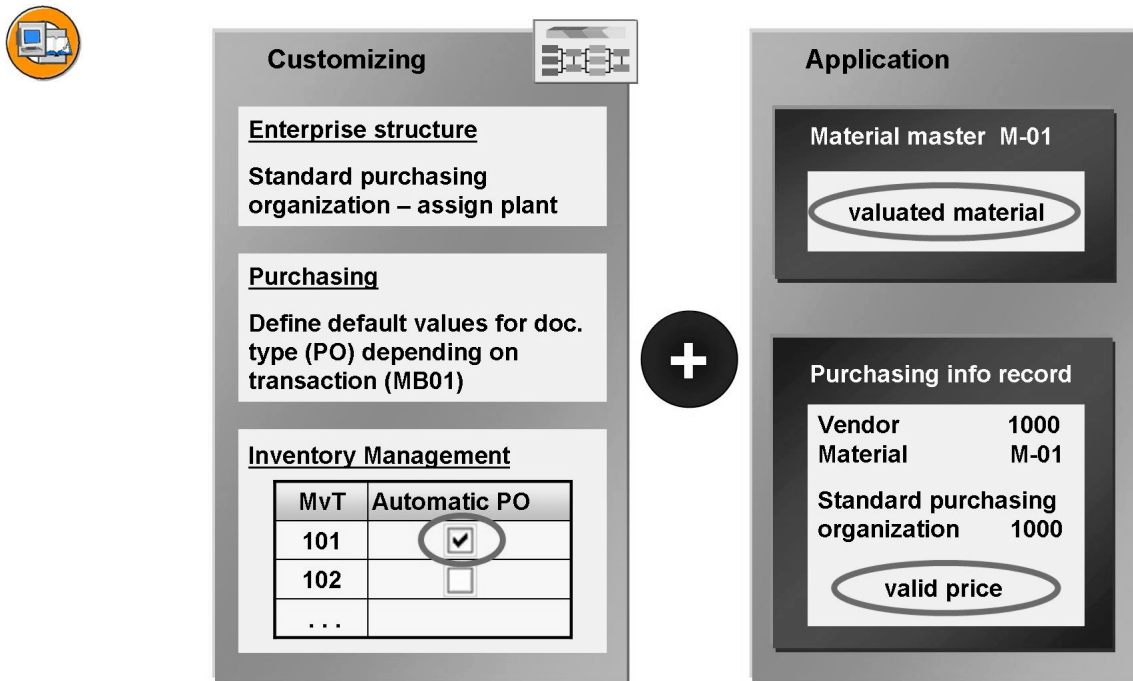


Figure 20: Automatic Generation of PO: Prerequisites

Prerequisites in Customizing

- *Automatic PO Generation* must be activated for the movement type.
(In Customizing for *Materials Management*, choose *Inventory Management and Physical Inventory* → *Goods Receipt* → *Create Purchase Order Automatically*.)



Hint: The automatic generation of POs is only possible for movement types for which goods receipts can be entered with reference to purchase orders (101 and 161).

- The plant for which the goods receipt is entered must be assigned to a **standard purchasing organization**.
(In Customizing for the *Enterprise Structure*, choose *Assignment* → *Materials Management* → *Assign standard purchasing organization to plant*.)
- A default document type for the purchase order must be specified for the goods receipt.
A document type must be maintained for transaction MB01 in Customizing for Materials Management under *Purchasing* → *Define Default Values for Document Type*.

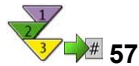
Prerequisites in the Application

- The material delivered must be managed as a valuated material.
- A purchasing info record must exist for the vendor, the material, and the standard purchasing organization of the plant receiving the deliveries. The conditions of the purchasing info record must be valid or a link to the last purchasing document must exist in the purchasing info record.

The automatic generation of purchase orders is only possible for receipts in the warehouse, not for consumption. Similarly, you cannot book any movements into GR blocked stock with this function.

The system determines the data necessary for the automatic generation of a purchase order as follows:

- Vendor, material, quantity, plant, and storage location = manual entry by entry clerk at time of goods receipt
- Purchasing organization = standard purchasing organization of plant
- Purchasing group = purchasing group from the material master record
- Delivery date = posting date of goods receipt
- Price = price from purchasing info record



GR with Automatic PO Generation

1. From the *SAP Easy Access* screen, choose *Logistics ? Materials Management ? Inventory Management ? Goods Movement ? Goods Movement (MIGO)*.
2. Choose the transaction *Goods Receipt* and, as reference, *Purchase Order*.
3. Choose *Settings* → *Default Values* and change the movement type for *Non-Ordered Items at Goods Receipt for Purchase Order* in the material field to **101**. To save the new default values, choose *Adopt*.
4. Close the detail data with *Close Detail Data*.
5. In order to enter items manually at the time of a goods receipt against a PO, choose *Non-Ordered Item*. Now enter the material, quantity, storage location, plant, and vendor in the item overview.
6. Choose with the quick info text *Post*.

Result

Upon posting, the system generates a material document, an accounting document, and a purchase order. You can then enter an invoice against this PO during the invoice verification process.



Demonstration: GR with Automatic PO Generation

Purpose

Demonstration of the prerequisites and procedure for entering a goods receipt without reference to a purchase order, whereby a PO is generated automatically.

CATT: ZT_SCM510_02

System Data

System:	Training System
Client:	8xx
User ID:	Own user ID
Password:	Ask the instructor
Set up instructions:	None

1. Show the Customizing settings mentioned above for movement type **101**.
Do not forget to activate automatic PO generation for movement type **101**.
2. Display the purchasing info record for vendor/material/purchasing organization (combination **T-K510Z01/T-M510Z02/1000**) and go from there to the last purchase order.

3. Enter a goods receipt for the material and vendor without a purchase order. Refer to the procedure described above for the individual steps.
 4. Display the material document and the automatically generated purchase order.
-



Exercise 3: Goods Receipt with Reference to Purchase Order

Exercise Duration: 20 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Enter and post a goods receipt with reference to a purchase order
- Display the purchase order from within the material document
- When you enter a goods receipt with a purchase order reference, book it into stock in quality inspection and GR blocked stock.

Business Example

As senior storeperson, you record incoming deliveries of ordered materials. You book deliveries that are clearly defective into GR blocked stock.

System Data

System: Training System
Client: 8xx
User ID: Ask the instructor
Password: Ask the instructor
CATT: ZT_SCM510
Set up instructions: None

Task 1: Goods Receipt into Stock in Quality Inspection

Enter a goods receipt against a purchase order. Selected materials are booked into stock in quality inspection (QI stock) at the time of goods receipt.

1. Enter the receipt of 100 pc of material **T-M510C##** (gaskets) with reference to purchase order **4151-02##**. The materials **T-M510A##** and **T-M510B##** are **not** included in this delivery. Check that the delivery is booked into stock in quality inspection. Distribute the delivered quantity of material **T-M510C##** among multiple storage locations:

Storage location	Quantity
0001	60
0002	20
0003	20

Continued on next page

2. Display the material document and go to the stock overview for material **T-M510C##**. Check that the stock has been updated correctly in the storage locations.
3. From the material document, go to the purchase order. Find out where the default value *Stock in Quality Inspection* is stored for the stock type in the purchase order.

Task 2: GR of Blocked Stock

The remaining open items for purchase order **4151-02##** are delivered. You realize that the packaging has been exposed to moisture during transportation. You cannot immediately decide whether the materials have been damaged as a result. Record your conditional acceptance of the materials (movement type 103).

Subsequent close inspection reveals no damage to material **T-M510A##**. You therefore release the GR blocked stock for this material.

1. Enter the receipt of materials **T-M510A##** and **T-M510B##** against purchase order **4151-02##** into **non-valuated** GR blocked stock.
2. Display the material document and go to the stock overview for material **T-M510A##**. Check that the GR blocked stock has been updated correctly.
3. Was an accounting document generated for the goods receipt with movement type **103**?
4. Release the GR blocked stock of material **T-M510A##**. Post this receipt to unrestricted-use stock at storage location **0001**.
5. Display the material document for release. Which movement type was used to post this transaction and is there an accounting document for this posting?
6. Which of the following statements is correct?
Choose the correct answer(s).
 - A GR blocked stock is valuated stock, comparable with stock in quality inspection.
 - B The GR blocked stock can be valuated or unvaluated and is managed at plant level only.
 - C Purchase orders can be posted to general blocked stock or GR blocked stock using movement type 101.
 - D You post deliveries that are subject to conditional acceptance into GR blocked stock upon receipt.
 - E You release GR blocked stock using special movement types (105 or 108).







Solution 3: Goods Receipt with Reference to Purchase Order

Task 1: Goods Receipt into Stock in Quality Inspection




Enter a goods receipt against a purchase order. Selected materials are booked into stock in quality inspection (QI stock) at the time of goods receipt.

1. Enter the receipt of 100 pc of material **T-M510C##** (gaskets) with reference to purchase order **4151-02##**. The materials T-M510A## and T-M510B## are **not** included in this delivery. Check that the delivery is booked into stock in quality inspection. Distribute the delivered quantity of material **T-M510C##** among multiple storage locations:

Storage location	Quantity
0001	60
0002	20
0003	20

- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
- b) Choose the transaction *Goods Receipt* and, as reference, *Purchase Order*.
- c) Enter the purchase order number **4151-02##** and choose  *Execute*.
- d) Set the *Item OK* indicator for *item 3* and choose  *Delete* to delete the non-selected *item 1* and *item 2*.
- e) Check that the *Quality Check stock type* is proposed for the delivered item on the *Where* tab page.
- f) Choose  *Distribute Quantity*.
- g) Enter the above-mentioned quantities and storage locations and choose  *Accept*.
 **Caution:** The system splits item 3 into three lines with different storage locations but with the same description: *Line 3*.
- h) Choose  with the quick info text *Post*.

Continued on next page


2. Display the material document and go to the stock overview for material **T-M510C##**. Check that the stock has been updated correctly in the storage locations.
 - a) Choose *Display* and *Material Document*.
 - b) Choose  with the quick info text *Execute*.
 - c) Open up the details for one of the items and choose the *Where* tab page.
 - d) Choose  *Stock Overview*. The system shows you the current stocks of material T-M510C## at storage locations 0001 to 0003 in plant 1000.
 - e) Return to the material document with .
3. From the material document, go to the purchase order. Find out where the default value *Stock in Quality Inspection* is stored for the stock type in the purchase order.
 - a) In the item details, choose the *Purchase Order Data* tab page and double-click the PO number to display the purchase order.
 - b) Open the detail data for item 30.
 - c) Choose the *Delivery* tab. Here you can see the set *Stock Type: Quality Check*.








Continued on next page

Task 2: GR of Blocked Stock





The remaining open items for purchase order **4151-02##** are delivered. You realize that the packaging has been exposed to moisture during transportation. You cannot immediately decide whether the materials have been damaged as a result. Record your conditional acceptance of the materials (movement type 103).

Subsequent close inspection reveals no damage to material **T-M510A##**. You therefore release the GR blocked stock for this material.

1. Enter the receipt of materials **T-M510A##** and **T-M510B##** against purchase order **4151-02##** into **non-valuated** GR blocked stock.
 - a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
 - b) Choose the transaction *Goods Receipt* and, as reference, *Purchase Order*.
 - c) Enter *Movement type 103* and press *Enter*.
 - d) Enter the purchase order number **4151-02##** and choose  *Execute*.

 **Caution:** The lines of the material document are created with the movement type set in the default values. **Always** enter the desired movement type first, followed by the number of the reference document.
 - e) Set the *Item OK* indicator for both items.
 - f) Choose  with the quick info text *Post*.
2. Display the material document and go to the stock overview for material **T-M510A##**. Check that the GR blocked stock has been updated correctly.
 - a) In the transaction for goods movements MIGO, choose *Display* and *Material Document* as the reference.
 - b) Choose  with the quick info text *Execute*.
 - c) In the item details, choose the *Where* tab page and choose  *Stock Overview*. Navigate to the GR blocked stock with .
 - d) Return to transaction MIGO with .
3. Was an accounting document generated for the goods receipt with movement type **103**?
 - a) Choose the *Document Info* tab page in the document header and choose  *FI/CO Documents*. The message “No follow-on documents found in accounting” is displayed.

Continued on next page

4. Release the GR blocked stock of material **T-M510A##**. Post this receipt to unrestricted-use stock at storage location **0001**.
 - a) Choose *Release GR Blocked Stock* and *Material Document*.
 - b) Choose  with the quick info text *Execute*.
 - c) Set the *Item OK* indicator for item 1, enter *storage location 0001* if necessary, and choose  with the quick info text *Post*.
5. Display the material document for release. Which movement type was used to post this transaction and is there an accounting document for this posting?
 - a) In the transaction for goods movements MIGO, choose *Display* and *Material Document* as the reference.
 - b) Choose  with the quick info text *Execute*.
 - c) In the item details, choose the *Where* tab page. The system automatically determined **105** as the movement type.
 - d) Choose the *Document Info* tab page in the document header and choose  *FI/CO Documents*. When you release the non-valuated GR blocked stock, postings equivalent to those of a goods receipt with movement type 101 are generated in accounting.
6. Which of the following statements is correct?

Answer: B, D, E

A receipt can be posted to GR blocked stock either non-valuated using movement type 103 or valuated using movement type 107 (as of ECC6.0). GR blocked stock is managed at plant level. If you have posted conditional acceptances using movement type 103, they are only updated to accounting when they are released.



Exercise 4: Goods Receipt with Reference to Production Order

Exercise Duration: 15 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Enter a goods receipt with reference to a production order

Business Example

As senior storeperson, you record receipts of materials that have been manufactured in-house.


System Data

System:	Training System
Client:	8xx
User ID:	Ask the instructor
Password:	Ask the instructor
CATT:	ZT_SCM510
Set up instructions:	None

Task:

Enter a goods receipt against a production order. Upon receipt, the produced material is booked into stock in quality inspection.

1. Enter the receipt of 50 pc of **R-F1##** in plant 1000 with reference to the production order.

Use the search function  to find the order number. Choose the production order with more than 50 pc of the material.


2. Display the production order from within the material document. Find out where the default value *Stock in Quality Inspection* is stored for the stock type in the production order.




Solution 4: Goods Receipt with Reference to Production Order

Task:

Enter a goods receipt against a production order. Upon receipt, the produced material is booked into stock in quality inspection.

1. Enter the receipt of 50 pc of **R-F1##** in plant 1000 with reference to the production order.

Use the search function  to find the order number. Choose the production order with more than 50 pc of the material.

 - a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
 - b) Choose *Goods Receipt and Order*.
 - c) Choose , with the quick info text *Find Order*. Select according to material **R-F1##**.
 - d) Choose the production order with 50 pc of material R-F1##.
 - e) Set the *Item OK* indicator and check that the correct stock type *Quality Check* is selected (on the *Where* tab page, for example).
 - f) Choose  with the quick info text *Post*.
2. Display the production order from within the material document. Find out where the default value *Stock in Quality Inspection* is stored for the stock type in the production order.
 - a) Choose *Display* and *Material Document*.
 - b) Choose  with the quick info text *Execute*.
 - c) In the item details, choose the *Order Data* tab page and double-click the order number to display the production order.
 - d) Choose the *Goods Receipt* tab page. *Quality Inspection* has been set for the stock type.



Exercise 5: (Optional) Automatic Generation of Purchase Order at Time of Goods Receipt

Exercise Duration: 15 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Have a purchase order created automatically at the time of goods receipt
- Check the setting for automatic PO generation at the time of goods receipt

Business Example

One of your vendors, who supplies components for production to your company, sends you a consignment of goods together with a packing slip. In order that the goods receipt data can be used for invoice verification purposes, the system has been configured in such a way that purchase orders can be created automatically when incoming goods are received.

System Data

System:	Training System
Client:	8xx
User ID:	Ask the instructor
Password:	Ask the instructor
CATT:	ZT_SCM510
Set up instructions:	None

Task:

In Customizing, verify the settings required to create an automatic purchase order at goods receipt. Enter the receipt of material **T-M510B##** with automatic PO generation and then display the PO created.



Caution: Do not change the Customizing settings!

1. Check the Customizing settings for automatic PO generation with movement type 101.
2. Check the Customizing setting for the standard purchasing organization of plant 1000. Purchasing organization 1000 should be assigned as standard purchasing organization.

Continued on next page

3. Post the goods receipt of 10 pc of material **T-M510B##** for vendor **T-K510A##** in plant 1000, storage location 0001. Choose the movement type that causes the system to automatically generate a PO when the goods are received.
4. Display the PO that is generated.
5. Which master data must exist in the SAP system for the automatic generation of a PO when the goods are received?
Choose the correct answer(s).
 - A Bill of material (BOM)
 - B Material master record
 - C Outline agreement
 - D Source list
 - E Purchasing info record
 - F Vendor master record




Solution 5: (Optional) Automatic Generation of Purchase Order at Time of Goods Receipt

Task:




In Customizing, verify the settings required to create an automatic purchase order at goods receipt. Enter the receipt of material **T-M510B##** with automatic PO generation and then display the PO created.



Caution: Do not change the Customizing settings!

1. Check the Customizing settings for automatic PO generation with movement type 101.
 - a) Choose *Tools* → *Customizing* → *IMG* → *Edit Project (SPRO)*.
 - b) Choose  *SAP Reference IMG*.
 - c) In Customizing, choose *Materials Management* → *Inventory Management and Physical Inventory* → *Goods Receipt* → *Create Purchase Order Automatically*.
 - d) Check that the *Generate Purchase Order Automatically* indicator for movement type 101 has been set.
2. Check the Customizing setting for the standard purchasing organization of plant 1000. Purchasing organization 1000 should be assigned as standard purchasing organization.
 - a) Choose *Tools* → *Customizing* → *IMG* → *Edit Project*.
 - b) Choose  *SAP Reference IMG*.
 - c) In Customizing, choose *Enterprise Structure Assignment* → *Materials Management* → *Assign standard purchasing organization to plant..*
 **Note:** Instead of steps a) to c), you can also call the transaction OMKI directly.
 - d) Check whether the standard purchasing organization 1000 has been entered for plant 1000.

Continued on next page

3. Post the goods receipt of 10 pc of material **T-M510B##** for vendor **T-K510A##** in plant 1000, storage location 0001. Choose the movement type that causes the system to automatically generate a PO when the goods are received.
 - a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
 - b) Choose the transaction *Goods Receipt* and, as reference, *Purchase Order*.
 - c) Choose  *Non-Ordered Item*.
 - d) Enter the following data:
 - Material* tab page: *Material T-M510B##*
 - Quantity* tab page: *Quantity 10*
 - Where* tab page: *Movement Type 101*
 - Where* tab page: *Plant 1000*
 - Where* tab page: *Storage Location 0001*
 - Partner* tab page: *Vendor T-K510A##*
 - e) Set the *Item OK* indicator.
 - f) Choose  with the quick info text *Post*.
4. Display the PO that is generated.
 - a) In transaction MIGO, choose *Display* and, as reference, *Material Document*.
 - b) Choose  with the quick info text *Execute*.
 - c) In the item details, choose the *Purchase Order Data* tab page and double-click the PO number to display the purchase order.
5. Which master data must exist in the SAP system for the automatic generation of a PO when the goods are received?

Answer: B, E, F

For the automatic generation of a purchase order, the system needs the material master record for the plant and storage location, the vendor master record, and the purchasing information record for the standard purchasing organization.



Lesson Summary

You should now be able to:

- Enter a goods receipt with reference to a PO or production order into unrestricted-use stock, stock in quality inspection, or blocked stock
- Describe the process of receiving goods in GR blocked stock and its special aspects
- List the necessary settings for the automatic generation of purchase orders at the time of goods receipt

Related Information

- Goods receipt with Quality Management (QM) active:

Information on this topic is available in the SAP library under *SAP ERP Central Component (or SAP R/3 Enterprise Application Components) → Logistics → Materials Management → Inventory Management → Inventory Management and Physical Inventory → Goods Receipt → Goods Receipts for Purchase Order → Goods Receipt with Quality Management Active.*

Lesson: Return Delivery, Returns, and Cancellation



Lesson Duration: 75 Minutes

Lesson Overview

In this lesson, you will learn about the options that are available for sending goods back to a vendor. The SAP system distinguishes between return deliveries and returns for the purchase order. The way in which these goods movements differ and the process of creating vendor substitute deliveries are in this lesson, along with the process of reversing a goods movement.



Lesson Objectives

After completing this lesson, you will be able to:

- Enter a return delivery for a goods receipt (GR)
- Enter a subsequent delivery
- Create a purchase order with a returns item and post the goods issue
- Describe how a goods movement posting is reversed



To start this lesson, the instructor can work out the circumstances under which stock-reducing postings with reference to a purchase order may occur.

- As a result of a purchase order with faulty delivered goods, the goods are returned to the vendor.
- The vendor agrees to take the goods back. The goods may be used filters, empty toner cartridges, or even the remainder of the summer collection.
- Incorrect data was entered in a goods receipt. This incorrect posting is reversed.

In all cases, the posting updates the purchase order history.

Business Example

You want to send damaged or faulty materials with reference to the original delivery back to the vendor (return delivery). You have the option of marking purchase order items as returns and then returning the materials to the vendor without reference to the previous delivery. If, however, you have entered a posting incorrectly, you can correct this with a reversal posting in the SAP system.

Return Delivery

You have entered goods from a vendor in the system with reference to a purchase order. Now you determine that, for example, the incorrect material was delivered, or that the quality of the delivered material is insufficient. In this case, you

return the material to the vendor. Such a return delivery can take place from unrestricted-use stock, stock in quality inspection, or blocked stock, but also from non-valuated GR blocked stock, according to the stock you posted the goods to on receipt.

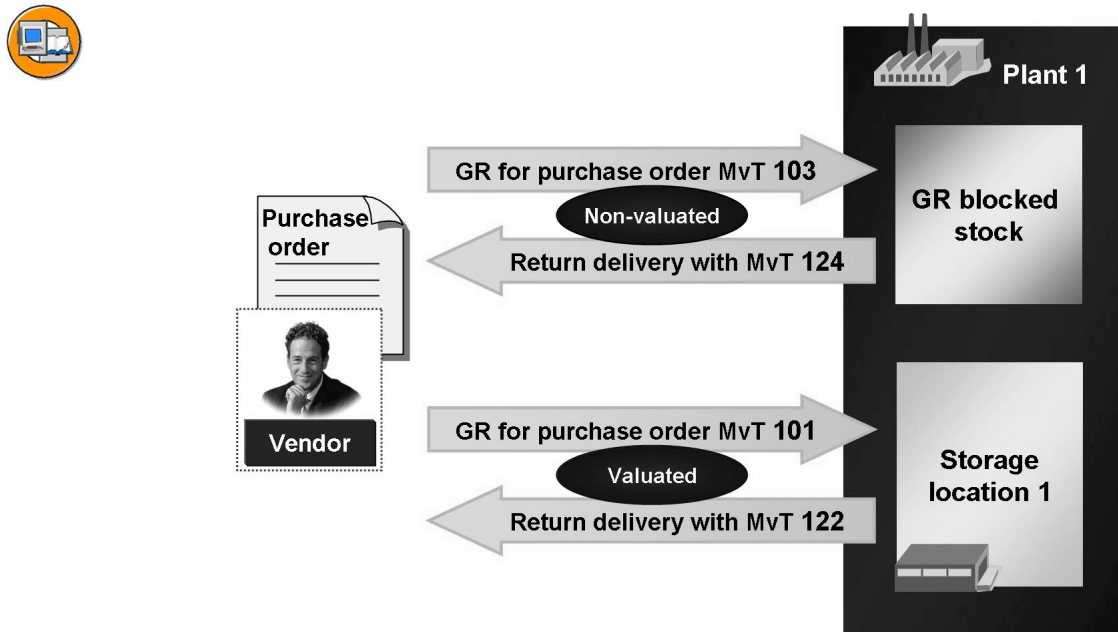


Figure 21: Return Delivery to Vendor

If you have accepted the goods conditionally and posted the goods receipt with movement type (MvT) **103** in the non-valuated GR blocked stock, use movement type **124** for the return delivery. As a non-valuated goods receipt is concerned in this case, the return delivery is also non-valuated.

If, however, you have increased your own valuated stock in the goods receipt by posting with movement type **101** then the return delivery is posted with movement type **122**. This means that the return delivery reduces your own stock on both a quantity and value basis.

If you enter a return delivery, you can refer to the material document of the goods receipt or purchase order. You also have the option of using the functions of the Shipping (LE-SHP) component when posting a return delivery; for example, you can use picking and packing. You will therefore have detailed shipping documents and delivery notes. You can use return deliveries via Shipping for standard purchase orders, purchase orders with account assignment and material number, and purchase orders with special stocks. For more information about return delivery, see the SAP Library under *SAP ERP Central Component (or SAP R/3 Enterprise Application Components) → Logistik → Materials Management (MM) → Inventory Management (MM-IM) → Inventory Management and Physical Inventory → Goods Movements → Goods Movement via Shipping*.

Subsequent Delivery

If the vendor sends you a substitute delivery after the return delivery, you can enter the new goods receipt as a **subsequent delivery**. In a *subsequent delivery*, you refer to the material document of the original goods receipt or to the material document of the return delivery. The original reference document number (delivery note number) is therefore copied into the new material document. The direct assignment between the goods receipts and the invoice remains. In addition, the item is proposed from the reference document.

If, for example, the vendor specifies your document number for the return delivery on the delivery note for the substitute delivery, you can refer to this document using subsequent delivery. This means that the system proposes the exact materials and quantities for the return delivery. It is not necessary to select the purchase order items again.

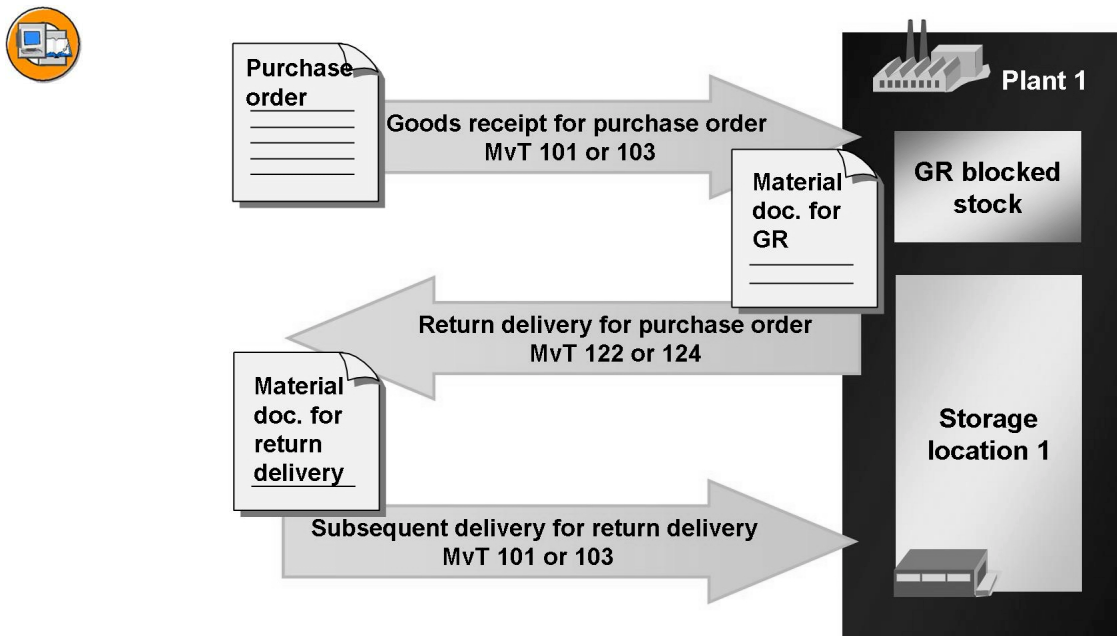


Figure 22: Return Delivery/Subsequent Delivery

Entering a substitute delivery as a *subsequent delivery* is particularly useful in goods-receipt-based invoice verification. Even if a goods receipt is reversed and a new goods receipt is posted after you have entered the invoice, this should be a subsequent delivery for goods-receipt-based invoice verification.



Hint: In Customizing for Inventory Management, you can make a setting for each movement type to specify whether a reversal of goods receipt or a return delivery is allowed in goods-receipt-based invoice verification if you have already entered the relevant invoice.

These settings are in Customizing for Materials Management under *Inventory Management and Physical Inventory* → *Goods Receipt* → *For GR-Based IV, Reversal of GR Despite Invoice (transaction OMBZ)*.

Reason for Movement

If you want to be able to analyze why goods were sent back to a vendor, you can enter a reason when you enter the goods movement.



Control Reason			
MvT	...	Reason	Control reason
101		—	Field is suppressed
103		.	Entry in this field is optional
122		+	Entry in this field is required
...		...	

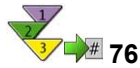
Reason for Movement			
MvT	...	Reason	Reason for movement
103		1	Certificate missing
122		1	Poor quality
122		2	Incomplete
122		3	Damaged
...		...	

Figure 23: Define Reason for Goods Movements

With Customizing for Inventory Management, you determine the following, depending on the movement type:

- Is it mandatory, possible, or impossible to specify a reason?
- What are the reasons that can be selected?

These settings can be made in Customizing for Materials Management under *Inventory Management and Physical Inventory → Movement Types → Record Reason for Goods Movements*.





Entering a Return Delivery with Reference to a Material Document

1. From the *SAP Easy Access* screen, choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
2. Choose *Return Delivery* and reference *Material Document* or *Delivery Note*, depending on which number you know.



Hint: You can then refer to the delivery note only when this number is entered in the goods receipt.

3. Enter the material document number and the document year or delivery note number. If you do not know the material document number, you can search for it (choose , with the quick info text *Find Material Doc.*).
4. To copy the data from the material document, choose , with the quick info text *Execute*.
5. Select the items that were returned with the *OK* indicator and change the proposed quantity if necessary. On the *Where* tab page, enter a reason for the goods movement for each item in the item details.





Hint: If the return delivery is to take place via Shipping, you must set the *Via Delivery* indicator in the header on the *General* tab page.

6. Post the return delivery.



Entering a Return Delivery with Reference to a Purchase Order

1. From the *SAP Easy Access* screen, choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
2. Choose *Goods Receipt* and, as reference, *Purchase Order*.
3. Change the default value for the movement type to **122** (or **124**, if the goods receipt was posted to non-valuated GR blocked stock).
4. Enter the number of the purchase order. If you do not know the purchase order, you can search for it (choose , with the quick info text *Find Purch. Order*).
5. To copy the data from the purchase order, choose , with the quick info text *Execute*. The system proposes the items with the delivered quantities.



Hint: For purchase order items that are intended for goods-receipt-based invoice verification, the system proposes one item for each goods receipt.

6. Select the items that were returned with the *OK* indicator and change the proposed quantity if necessary. On the *Where* tab page, enter a reason for the goods movement for each item in the item details.



Hint: If the return delivery is to take place via Shipping, you must set the *Via Delivery* indicator in the header on the *General* tab page.

7. Post the goods movement.



Demonstration: Enter Return Delivery and Subsequent Delivery

Purpose

In this demo, the instructor should introduce the return delivery and the subsequent delivery with transaction MIGO. The instructor should emphasize the fact that these postings occur with reference to another material document.

Before and after the individual goods movements, the stock overview (in particular, the unrestricted-use stock and the on-order stock) and the purchase order history should be displayed in order to check the updates.

CATT: ZT_SCM510

System Data

System:	Training System
Client:	8xx
User ID:	Own user ID or SCM510-00
Password:	Ask the instructor
Set up instructions:	None

1. Enter a goods receipt for the purchase order **4151-9903, item 10** (material T-M510Z01) with transaction MIGO.

Enter any delivery note number and change the proposed quantity from 100 pieces to **50 pieces**.

Post the goods receipt.
2. With reference to the material document from step 1, enter a return delivery of **20 pieces**. Use the process from the procedure above. Before you post, enter movement type **122** and a reason.

Post the return delivery.
3. Display the material document and accounting document of the return delivery and discuss the postings. Then branch to the purchase order history; the return delivery has been updated.
4. Enter a subsequent delivery for the return delivery with MIGO. Choose the transaction *Subsequent Delivery* and, as reference, *Material Document*.

Enter the material document from step 2, copy the data and post the goods movement.
5. Display the material document and accounting document of the subsequent delivery and discuss the postings. Then branch to the purchase order history; the subsequent delivery has been updated.



Demonstration: GR, Return Delivery and Subsequent Delivery in GR-Based Invoice Verification

Purpose

Highlight the characteristics of goods-receipt-based invoice verification.


CATT: ZT_SCM510

System Data

System:	Training System
Client:	8xx
User ID:	Own user ID or SCM510-00
Password:	Ask the instructor
Set up instructions:	None

1. This demo is carried out in the same way as the first demo with item **20** for purchase order **4151-9903**.

Note that the material document of the original goods receipt is referred to in both the return delivery material document and the subsequent delivery material document. The material document number is entered in the item details on the *PO Data* tab page.

For this item, you can also branch to the *GR/IR assignment* view in the purchase order history using , with the quick info text *Change View*. The assignment to the individual goods movements is clear here.



Demonstration: Customizing Setting: Reason for Goods Movement

Purpose

The instructor should show the participants the relevant Customizing settings for the *Reason for Goods Movement*.

CATT: ZT_SCM510

System Data

System:	Training System
Client:	8xx
User ID:	Own user ID
Password:	Ask the instructor
Set up instructions:	None

1. From the *SAP Easy Access* screen, choose *Tools* → *Customizing* → *IMG* → *Edit Project* and then *Goto* → *SAP Reference IMG*.
Continue with Materials Management → *Inventory Management and Physical Inventory* → *Movement Types* → *Record Reason for Goods Movements*.
 2. Choose *Control Reason* and show the different field controls for the reason for a goods movement, for example, for the movement types 101, 102, 122, and 124.
 3. Choose *Reason for Movement* and show that reasons have been maintained for movement type **122**, but not for movement type **124**. Copy (📄) at least two entries for movement type 122 to movement type 124. Save the data.
 4. Enter a goods receipt to the GR blocked stock with movement type **103** for the open quantities from purchase order **4151-9903**.
 5. Then post a return delivery with reference to the material document from step 4. Display the movement type and choose one of the newly defined reasons. Save the return delivery.
 6. If you then enter another subsequent delivery with reference to a return delivery, the system proposes movement type **103** again.
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Returns for Purchase Order

Returns for a purchase order also concern return deliveries of materials to an external vendor. You therefore do not create a reference to the purchase order that you created for the original delivery or the goods receipt posted. For this type of return, you create a returns item in the purchase order. You create a returns item by setting the *Returns* indicator for this item in the item overview of the purchase order. If you later receive a credit memo from the vendor for the return, you can then refer to the purchase order during invoice verification.

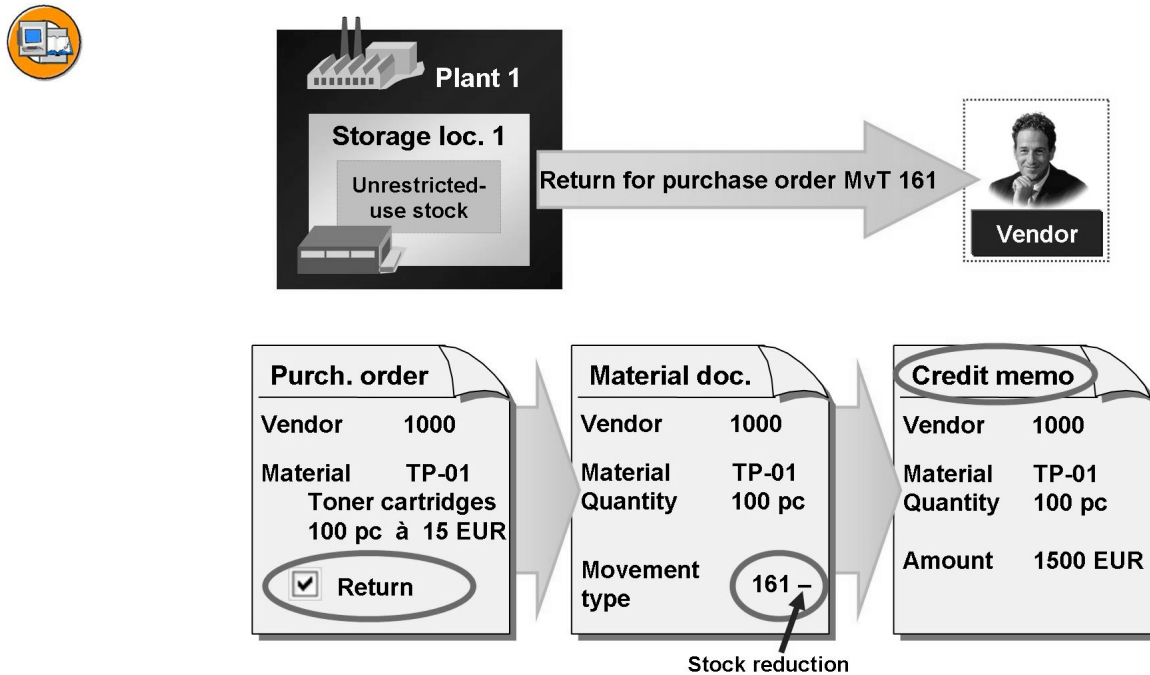


Figure 24: Returns for Purchase Order

Examples for returns for purchase order:

- You procure filters from a vendor. You return the dirty filters to the vendor for recycling.
- You have agreed with your cable vendors that you can return cable remnants to them. You then receive a credit memo for the value of the copper contained in the cables.

You enter a return just like you enter a goods receipt for a purchase order. Choose *Goods Receipt* and, as reference, *Purchase Order*. The system automatically proposes movement type **161** and the direction indicator **Issue (-)** for the returns item.

You can also specify that the system generates a purchase order automatically in the background when you enter a returns item. In Customizing for Inventory Management, choose *Goods Receipt* → *Create Purchase Order Automatically* for movement type **161**.

If the return is to be handled in Shipping, you must set the *Return via Shipping* indicator in the vendor master record in the purchasing organization data. The required settings for shipping processing must also exist.



Demonstration: Returns for Purchase Order

Purpose

Demonstration of entering a return for purchase order. Optional: A purchase order with return items can be created automatically during the GR.

CATT: ZT_SCM510

System Data

System: See above

Client: See above

User ID: See above

Password: See above

Set up instructions: None

1. Display purchase order **4151-9904**. Item **20** is a returns item.

(From the *SAP Easy Access* screen, choose *Logistics* → *Materials Management* → *Inventory Management* → *Environment* → *Information* → *Purchase Order* and then *Goto* → *Display SAP Reference IMG*. From *Purchase Order* → *Other Purchase Order* you see a dialog box in which you enter the purchase order number **4151-9904**.

The returns indicator is in the item overview.

2. Enter a goods receipt for the purchase order **4151-9904** with the movement type **101**. Display the movement types of the two items. For the returns item, the system automatically determines movement type **161**. Branch to the stock overview for material **T-M510Z07**.
3. Post the goods movement.
4. Display the material document, the accounting document, and the stock overview for material **T-M510Z07** again and discuss the changes.

Cancellation

If you make an error when entering a goods movement (for example, incorrect quantity, incorrect movement type), you have to cancel the material document, since the data in the material document can no longer be changed. Then enter the item with the correct data.

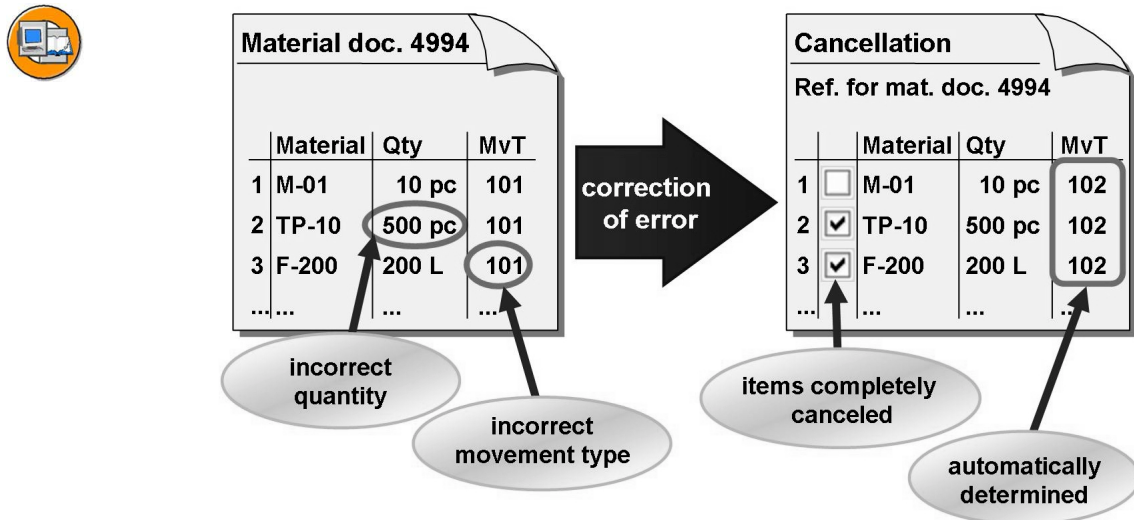


Figure 25: Cancellation

We recommend you to enter a cancellation document with reference to the original material document. This has several advantages:

- You can copy the items to be reversed from the source document.
- The system automatically determines the reversal movement type.
- Reversal postings of goods issues, transfer postings, and goods receipts without reference are valued with the value of the original document.
- Reversal postings of goods receipts with reference to purchase orders or production orders are valued with the value determined from the purchase order or production order.
- You can use the list of canceled material documents (transaction MBSM) to analyze the canceled material documents.

(From the *SAP Easy Access* screen, choose *Logistics* → *Materials Management* → *Inventory Management* → *Environment* → *List Displays* → *Cancelled Material Documents*.)

You can also enter a cancellation document without reference to the original material document. You enter a cancellation document without reference in the same way as you enter the original material document, the only difference being that you use the reversal movement type here. You can use this function, for example, if you only want to reverse a partial quantity.

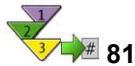


Hint: As a rule, this is valid for the reversal movement type:

Reversal movement type = original movement type + 1


Examples:

Goods movement	Movement type	Reversal movement type
GR for purchase order / production order	101	102
GR to non-valuated GR blocked stock	103	104
Return Delivery	122	123
Initial entry of stock balances	561	562



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Cancellation with Reference to a Material Document

1. From the *SAP Easy Access* screen, choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
2. Choose *Cancellation* and, as reference, *Material Document*.
3. Enter the number of the material document to be canceled.
You can also use  *Find Material Doc..*
4. Select the items you wish to reverse using the *OK* indicator.
5. Post the reversal document.



Demonstration: Cancellation

Purpose

This demo will explain how to reverse goods movements.

CATT: See above

System Data

System:	See above
Client:	See above
User ID:	See above
Password:	See above
Set up instructions:	None

1. During the demo, get used to the procedure above.
 2. Choose one of the material documents you have already created, by searching for the material document with the selection values *User name* and *Posting date*.
 3. Post the reversal document.
 4. Display the material and accounting documents and discuss the postings.
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Exercise 6: Return Delivery, Subsequent Delivery and Reversal Postings

Exercise Duration: 20 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Post a return delivery with reference to material document
- Enter a subsequent delivery for the material document
- Reverse goods receipt postings

Business Example

If materials are delivered that are of poor quality, return these to the vendor using a return delivery. If, however, you have entered something incorrectly for a correction to the goods receipt posting, you must first reverse the wrongly posted goods receipts and then enter the postings correctly as a subsequent delivery in the system.

System Data

System:	Training System
Client:	8xx
User ID:	Ask the instructor
Password:	Ask the instructor
CATT:	ZT_SCM510
Set up instructions:	None

Task 1: Reversal and Subsequent Delivery

Enter the goods receipt for the purchase order **4151-03##** in plant 1000, storage location 0002, in the stock in quality inspection.

Reverse this posting so that you can then enter the delivery note number. Enter the correct document as a subsequent delivery for reversal.

1. Enter the goods receipt of **50 pieces** of material **T-M510A##** for purchase order **4151-03##** into the stock in quality inspection of plant 1000, storage location 0002.

Make a note of the movement type and the material document number.

Movement type	
Material document number	

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Display the purchase order history and the accounting document after posting. Make a note of the following posting information.

Description	Amount	D/C

2. You have not entered a delivery note number. Since it is not possible to change the material document later, you have to reverse the material document you just entered.

Make a note of the document number of the reversal document and the movement type posted. Display the accounting document.

Movement type	
Material document number	

Display the purchase order history and the accounting document for the reversal and make a note of the following details for the postings.

Description	Amount	D/C

3. Enter the goods receipt with the delivery note number **65##** as a **subsequent delivery** for the reversal from exercise 1-2. Ensure that the goods receipt is posted to stock in quality inspection.

Make a note of the movement type and the material document number.

Movement type	
Material document number	

Display the purchase order history and the accounting document. Compare the posting information with that from exercises 1-1 and 1-2.

Continued on next page

Task 2: Return delivery

During quality inspection of the delivery from task 1, serious defects appeared. You have decided to send 10 pieces back to the vendor.

1. Post a **return delivery** of 10 pieces of **T-M510A##** from plant 1000, storage location 0002, from the stock in quality inspection. Use the delivery note **65##** from exercise 1 as the reference document. Enter the *Reason* **Poor quality**.

Make a note of the movement type and the material document number.

Movement type	
Material document number	

Display the purchase order history and the accounting document. Make a note of the following details for the postings.

Description	Amount	D/C

Task 3: (Optional) Questions

1. Which statements are correct?
Choose the correct answer(s).
 - A With the transaction for goods movements MIGO, you can post, display, and change material documents.
 - B Material documents with movement type 101 are canceled with movement type 102.
 - C You can enter subsequent deliveries for the material document.
 - D A reversal does not have any consequences in Financial Accounting.
 - E A return delivery has the same update in Financial Accounting as a reversal.
 - F You can only define reasons for reversal movement types in Customizing.

Solution 6: Return Delivery, Subsequent Delivery and Reversal Postings

Task 1: Reversal and Subsequent Delivery

Enter the goods receipt for the purchase order **4151-03##** in plant 1000, storage location 0002, in the stock in quality inspection.

Reverse this posting so that you can then enter the delivery note number. Enter the correct document as a subsequent delivery for reversal.

1. Enter the goods receipt of **50 pieces** of material **T-M510A##** for purchase order **4151-03##** into the stock in quality inspection of plant 1000, storage location 0002.






Make a note of the movement type and the material document number.

Movement type	<u>101</u>
Material document number	

Display the purchase order history and the accounting document after posting. Make a note of the following posting information.

Continued on next page

Description	Amount	D/C
<u>Raw materials 1</u>	<u>500,00</u>	<u>D</u>
<u>GR/IR clearing External procurement</u>	<u>500,00 –</u>	<u>C</u>

- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
 - b) Choose the transaction *Goods Receipt* and, as reference, *Purchase Order*.
 - c) Enter *movement type 101* and order number **4151-03##** .
 - d) Choose  with the quick info text *Execute*.
 - e) Set the *Item OK* indicator.
 - f) On the *Quantity* tab page, change the quantity to **50** pieces and on the *Where* tab page, change the stock type to **Quality inspection**.
 - g) Choose , with the quick-info text *Post* and make a note of the document number.
 - h) Choose *Display*, and *Material Document* as the reference.
 - i) Choose  with the quick info text *Execute*.
 - j) In the item details, choose the *Purchase Order Data* tab page.
 - k) Double-click the purchase order number to display the purchase order. On the item detail screen, choose the *PO History* tab page.
 - l) Return to the material document with .
 - m) Choose the *Document Info* tab page in the header data, then choose  *FI Documents* to display the accounting document. Make a note of the account number and name, and the amount of the postings.
2. You have not entered a delivery note number. Since it is not possible to change the material document later, you have to reverse the material document you just entered.





Make a note of the document number of the reversal document and the movement type posted. Display the accounting document.

Movement type	<u>102</u>
Material document number	

Display the purchase order history and the accounting document for the reversal and make a note of the following details for the postings.

Continued on next page

Description	Amount	D/C
<u>Raw materials 1</u>	<u>500.00</u>	<u>C</u>
<u>GR/IR clearing external procurement</u>	<u>500.00</u>	<u>D</u>





- a) In transaction MIGO, choose *Cancellation* and reference *Material Document*.
 - b) Check whether the specified material document number matches the document number from task 1-1.
 - c) Choose  with the quick info text *Execute*.
 - d) Set the *Item OK* indicator and choose  *Post*.
 - e) Choose *Display* and *Material Document*.
 - f) Make a note of the movement type *102 (goods receipt - reversal)* and the material document number.
 - g) Choose the *Document Info* tab page and choose  *FI/CO Documents*. Make a note of the posting data in the table.
 - h) Return to the material document with  and choose the *Order Data* tab page.
 - i) Double-click the purchase order number to display the purchase order. On the item detail screen, choose the *PO History* tab page. The reversal posting has also been updated correctly.
3. Enter the goods receipt with the delivery note number **65##** as a **subsequent delivery** for the reversal from exercise 1-2. Ensure that the goods receipt is posted to stock in quality inspection.

Make a note of the movement type and the material document number.

Movement type	<u>101</u>
Material document number	

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Display the purchase order history and the accounting document. Compare the posting information with that from exercises 1-1 and 1-2.

- a) In transaction MIGO, choose *Subsequent Delivery* and reference *Material Document*.
- b) Check whether the specified material document number is the document number of the reversal.
- c) Choose  with the quick info text *Execute*.
- d) In the header data on the *General* tab page, enter the delivery note number **65##** and set the *Item OK* indicator.
- e) Choose  with the quick info text *Post*.
- f) Choose *Display* and *Material Document*.
- g) Make a note of the movement type *101 (Goods Receipt)*.
- h) Choose the *Document Info* tab page, then choose  *FI Documents* to display the accounting document. The postings match those from the first goods receipt.
- i) Return to the material document with  and choose the *Order Data* tab page.
- j) Double-click the purchase order number to display the purchase order. On the item detail screen, choose the *PO History* tab page.

Task 2: Return delivery

During quality inspection of the delivery from task 1, serious defects appeared. You have decided to send 10 pieces back to the vendor.

1. Post a **return delivery** of 10 pieces of **T-M510A##** from plant 1000, storage location 0002, from the stock in quality inspection. Use the delivery note **65##** from exercise 1 as the reference document. Enter the *Reason* **Poor quality**.






Make a note of the movement type and the material document number.

Movement type	<u>122</u>
Material document number	

Display the purchase order history and the accounting document. Make a note of the following details for the postings.

Continued on next page

Description	Amount	D/C
<u>Raw materials 1</u>	<u>100.00</u>	<u>C</u>
<u>GR/IR clearing External procurement</u>	<u>100.00</u>	<u>D</u>

- a) In transaction MIGO, choose *Return Delivery*, with *Delivery Note* as the reference.
- b) Enter the delivery note number **65##** of the subsequent delivery from exercise 1-3 and choose  with the quick info text *Execute*.
- c) Change the quantity to **10 pieces** and enter the movement **0001** as the reason on the *Where* tab page.
- d) Set the *Item OK* indicator and choose  *Post*.
- e) Choose *Display*, and *Material Document* as the reference.
- f) Choose  with the quick info text *Execute*.
- g) Note movement type *122 (Return delivery to vendor)*.
- h) Choose the *Document Info* tab page, then choose  *FI Documents* to display the accounting document. Make a note of the posting data in the table.
- i) Return to the material document with  and choose the *Order Data* tab page.
- j) Double-click the purchase order number to display the purchase order. On the item detail screen, choose the *PO History* tab page. All goods movements (goods receipt, reversal, subsequent delivery, and return delivery) have been updated in the purchase order history.

Task 3: (Optional) Questions

1. Which statements are correct?

Answer: B, C, E



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Exercise 7: (Optional): Returns

Exercise Duration: 10 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Identify a returns item in the purchase order
- Post a return to the vendor with transaction MIGO

Business Example

At regular intervals, you order 50 full printing cartridges and send the empty cartridges back to the vendor as a return.

System Data

System:	Training System
Client:	8xx
User ID:	Ask the instructor
Password:	Ask the instructor
CATT:	ZT_SCM510
Set up instructions:	None

Task:

Post the goods receipt of 50 full printer cartridges. The vendor then takes 50 empty cartridges away.

1. Post the goods receipt for purchase order **4151-04##** for 50 pieces of material **T-M510D##** in plant 1000, storage location 0001. The vendor then takes 50 empty cartridges, **T-M510E##**, away.

Which movement types do you use to post the items? Before posting, make a note of the movement type and the direction indicator for each item.

Material	<i>Movement type</i>	Direction indicator
T-M510D## (printer cartridge - full)		
T-M510E## (printer cartridge - empty)		

Note the posted movement type for the return of material **T-M510E##**. Display the accounting document, the purchase order history, and the return indicator in the purchase order.

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2. After posting, display the accounting document and explain the postings on the stock accounts.
3. Then go to the purchase order to check the returns indicator and the purchase order history for the second item (material T-M510E##).

Solution 7: (Optional): Returns

Task:



Post the goods receipt of 50 full printer cartridges. The vendor then takes 50 empty cartridges away.

1. Post the goods receipt for purchase order **4151-04##** for 50 pieces of material **T-M510D##** in plant 1000, storage location 0001. The vendor then takes 50 empty cartridges, **T-M510E##**, away.

Which movement types do you use to post the items? Before posting, make a note of the movement type and the direction indicator for each item.



Material	<i>Movement type</i>	Direction indicator
T-M510D## (printer cartridge - full)	<u>101</u>	<u>+</u> (receipt)
T-M510E## (printer cartridge - empty)	<u>161</u>	<u>-</u> (issue)

Note the posted movement type for the return of material **T-M510E##**. Display the accounting document, the purchase order history, and the return indicator in the purchase order.

- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
- b) Choose the transaction *Goods Receipt* and, as reference, *Purchase Order*.
- c) Enter the *movement type* **101** and the *order number* **4151-04##** .
- d) Choose  with the quick info text *Execute*.
- e) Make a note of the movement types and direction indicators and set the *Item OK* indicator in both lines.
- f) Choose  with the quick info text *Post*.


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2. After posting, display the accounting document and explain the postings on the stock accounts.

- a) Choose *Display* and *Material Document*.
- b) Choose  with the quick info text *Execute*.
- c) Choose the *Document Info* tab page in the document header, then choose  *FI Documents* to display the accounting document.

For the full printer cartridges T-M510D##, a receipt was posted to the stock account 300010 of 7500 EUR (price of the purchase order 150 EUR * 50 pieces).

For the empty printer cartridges, T-M510E##, an issue of 250 EUR is posted from stock account 300010 (standard price of the material 5 EUR * 50 pieces).

- d) Return to the material document with .
3. Then go to the purchase order to check the returns indicator and the purchase order history for the second item (material T-M510E##).

- a) In the material document, choose the *Purchase Order Data* tab page.
- b) Double-click on the purchase order number to display the purchase order. On the item detail screen for item 20, choose the *PO History* tab page.

The returns indicator is in the item overview of the purchase order.



Lesson Summary

You should now be able to:

- Enter a return delivery for a goods receipt (GR)
- Enter a subsequent delivery
- Create a purchase order with a returns item and post the goods issue
- Describe how a goods movement posting is reversed

Related Information

- Return delivery via Shipping:

For more information about Shipping, see the SAP Library under *SAP ERP Central Component (or SAP R/3 Enterprise Application Components) → Logistics Execution (LE) → Shipping (LE-SHP)*

Lesson: Delivery Completed Indicator and Tolerances



Lesson Duration: 60 Minutes

Lesson Overview

This lesson covers underdeliveries and overdeliveries during goods receipt for a purchase order. The *Delivery completed* indicator is also covered here. We will also discuss the variances in the goods issue for purchase order items, where the order unit varies from the order price unit.



Lesson Objectives

After completing this lesson, you will be able to:

- Manually set the Delivery completed indicator during goods receipt entry
- Explain the circumstances in which the Final delivery indicator is automatically set when posting a goods receipt
- Enter a goods receipt for a purchase order with one of the order price units that varies from the order unit



The main topic of this lesson could be the conditions that need to be fulfilled so that a purchase order is completed for purchasing. There should be no more expected deliveries or invoices. Invoices are not part of this lesson, but deliveries are. As long as there are still open purchase order quantities for items, the purchase order cannot be completed. Outstanding deliveries must either be urged (in Purchasing), or it must be possible to define at item level that there are no more deliveries expected.

This lesson first covers the term *open purchase order quantity*. This includes the special features of the goods receipt in the goods receipt blocked stock (see figure 1). The next main topic is the under and overdelivery. Only then is the topic of the delivery completed indicator mentioned.

Business Example

A vendor informs you during a partial delivery that he cannot deliver the remaining purchase order quantity. To take account of this factor in the purchase order, set the Delivery completed indicator during the goods receipt. In the case of nominal underdeliveries, the system can also set the *Delivery completed* indicator automatically. You want to test the necessary settings.

Open Purchase Order Quantity

For a goods receipt to a purchase order, the SAP system proposes the open purchase order quantity of an item for the goods receipt.

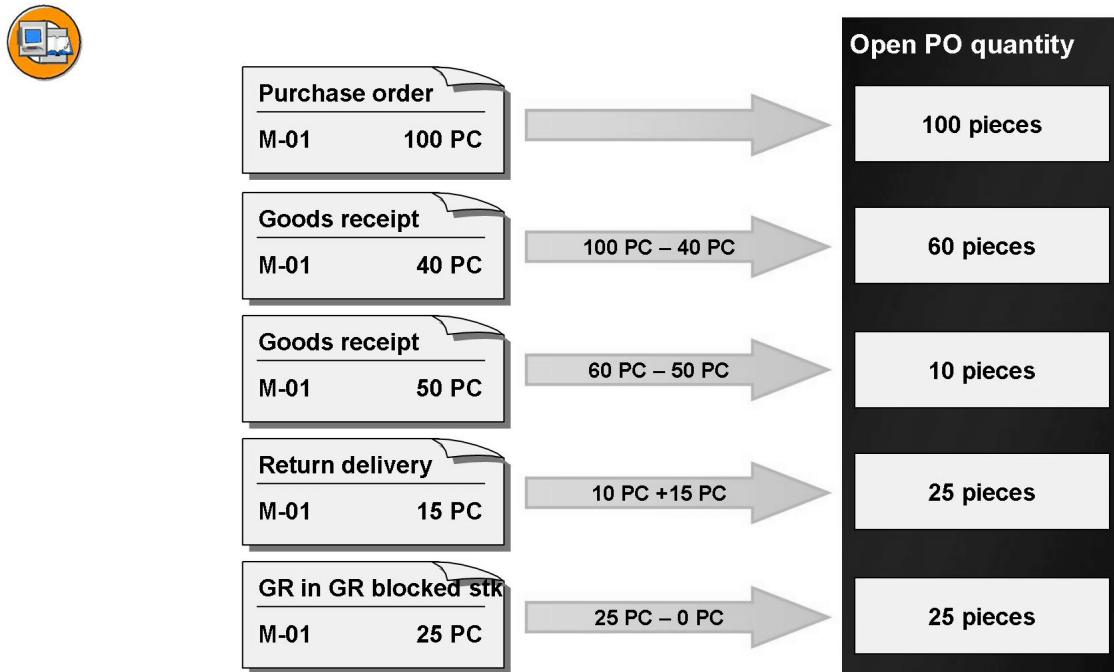


Figure 26: Open Purchase Order Quantity

The **open purchase order quantity** specifies the quantity still to be delivered for a purchase order item. The system calculates the open purchase order quantity as the difference between the ordered quantity and the delivered quantity. If the entire purchase order quantity or more was delivered, then the open order quantity equals zero. The system automatically matches the open purchase order quantity for each goods movement with the purchase order item (goods receipt, subsequent delivery, return delivery, cancellation).



Hint: A goods receipt in the goods receipt blocked stock (GR blocked stock) or a return delivery from the GR blocked stock does not change the open purchase order quantity!

You can change the open purchase order quantity proposed during the goods receipt if the delivered quantity is different. The system compares the entered delivered quantity with the open purchase order quantity and determines underdeliveries and overdeliveries.

Under and Overdeliveries in Goods Receipt to Purchase Order

Underdeliveries are generally allowed. The system interprets and accepts the underdelivery as a partial delivery. If you check the entries before posting the goods receipt, the system refers to the underdelivery by warning message.

In the order item, you can also enter a percentage value for underdelivery tolerance. If the total of previously delivered and currently entered quantities lies within the underdelivery tolerance, the system does not issue a warning message. If the total is under the tolerance, the system then creates a warning message during a check.

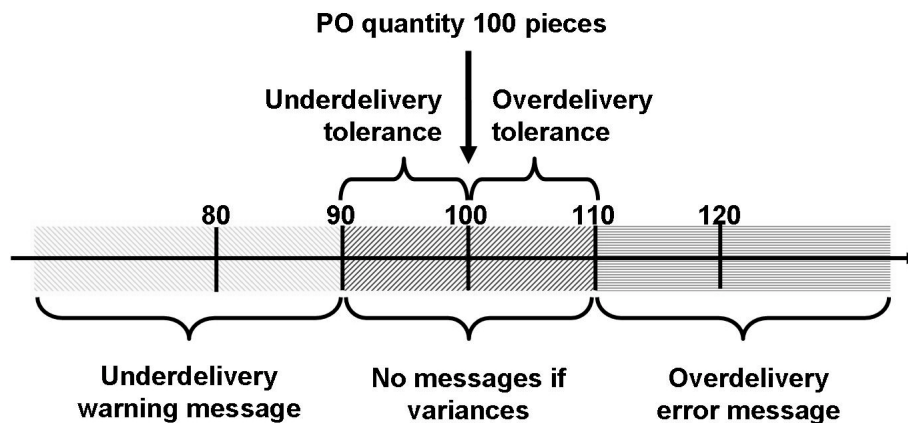


Figure 27: Underdelivery and Overdelivery

Overdeliveries to a purchase order item are only allowed if this is determined in the order item. You have the option of setting the indicator for unlimited overdelivery in the purchase order item or specifying a percentage overdelivery tolerance. If the total of previously delivered and currently entered quantities lies within the overdelivery tolerance, the system does not issue a message. If the total is over the tolerance, then the system issues an error message.

Default Values for Under and Overdelivery Tolerances

If the same underdelivery and overdelivery tolerances always apply for one material, you can define them in the material master record as default values for purchasing. The tolerances are determined by the purchasing value key that can be specified in the purchasing data of the material master record. The purchasing value key delivers further default values and is created in Customizing for *Materials Management* under *Purchasing* → *Material Master* → *Define Purchasing Value Keys*.

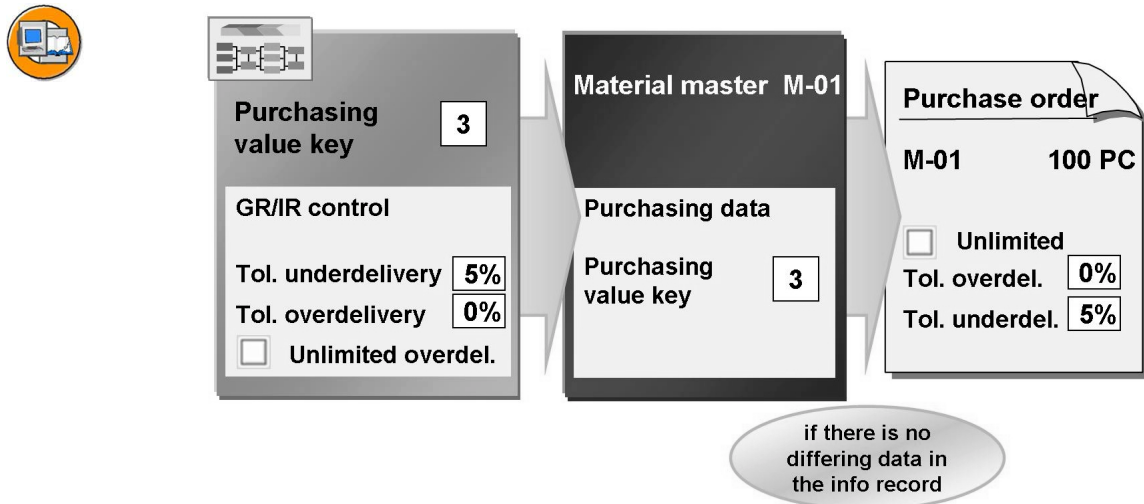


Figure 28: Underdelivery and Overdelivery Tolerances

If under and overdelivery tolerances that vary from the material master record are valid for a vendor-material combination, you can define them in the purchasing info record for the vendor and material.

It is also possible to specify the tolerances directly in the purchase order. The *Tolerance limit for underdelivery* and *Tolerance limit for overdelivery* fields and the *Unlimited overdelivery allowed* indicator are to be found in the detail data of an item on the *Delivery* tab.



Demonstration: Underdelivery and Overdelivery Tolerances

Purpose

As a result of this demo, the participants should know the Customizing for the purchasing value key and its use in the material master record.

It should now also be clear how the under and overdelivery tolerances are copied from the material master record as default values into the purchase order. The instructor should point out that these tolerances can be changed or, in the case of missing values from the material master record, first be entered in the order item.

CATT: ZT_SCM510

System Data

System: Training System
Client: 8xx
User ID: Own user ID or SCM510-00
Password: Ask the instructor

Set up instructions: None

1. Show Customizing of the purchasing value key.

IMG → Materials Management → Purchasing → Material Master → Define Purchasing Value Keys

Display details for the purchasing value key 1.

2. Display the purchasing data for material master records T-M510Z03 and T-M510Z04 for plant 1000. The purchasing value key 1 is set for T-M510Z03, no value has been maintained for T-M510Z04.
3. Create a purchase order with the following data:

Field	Value
Header data	
Vendor	T-K510Z01
Purchasing organization	1000
Purchasing group	020
Company code	1000
Item data Item 10	
Material	T-M510Z03
Quantity	100 pc
Price	10 euros per piece (each)
Plant	1000
Storage location	0001
Item data Item 20	
Material	T-M510Z04
Quantity	100 pc
Price	10 euros per piece (each)
Plant	1000
Storage location	0001
Overdelivery tolerance	0 %
Underdelivery tolerance	5 %

In the item detail on the *Delivery* tab, display the over/underdelivery tolerance. Adopt the same values for item 10. For item 20, define overdelivery of 0 % and underdelivery of 5 %.

4. Enter partial delivery for purchase order. **20 PC delivered for each item.** Post goods receipt **without checking**. The system does not issue any messages.
5. Enter partial delivery for purchase order. **40 PC delivered for each item.** Before posting, **check** and discuss the messages.
6. Enter partial delivery for purchase order. **33 PC delivered for each item.** Before posting, **check**; a message is only issued for the second item.
7. Enter partial delivery for purchase order. **10 PC delivered for each item.**

Post immediately. Posting is not possible as an overdelivery is not allowed for item 20 of the purchase order. The system enters an error message for this item. The system does not issue a message for item 10 of the purchase order, as the delivery lies within the overdelivery tolerance.

Delivery Completed Indicator

If the *Delivery completed* indicator is set for a purchase order item, it has the following effects:

- The purchase order item is considered complete even if only part of the ordered quantity was delivered. The open order quantity for the item is zero.



Hint: A purchase order item without a *Delivery completed* indicator is also considered complete if the entire purchase order quantity was delivered.

- A further delivery for the order item is not expected, but is possible.



Hint: If you have set the *Propose the OK Function in Future* indicator in the default values for transaction MIGO, the system does not specifically suggest a delivery completed item in another goods receipt.

- In the case of a purchase order with account assignment, the commitment is canceled out.

In Customizing for *Inventory Management and Physical Inventory* under *Goods Receipt* → *Set Delivery Completed Indicator*, you can determine for each plant whether the system automatically sets the delivery completed indicator for delivery quantities within the underdelivery and overdelivery tolerances.

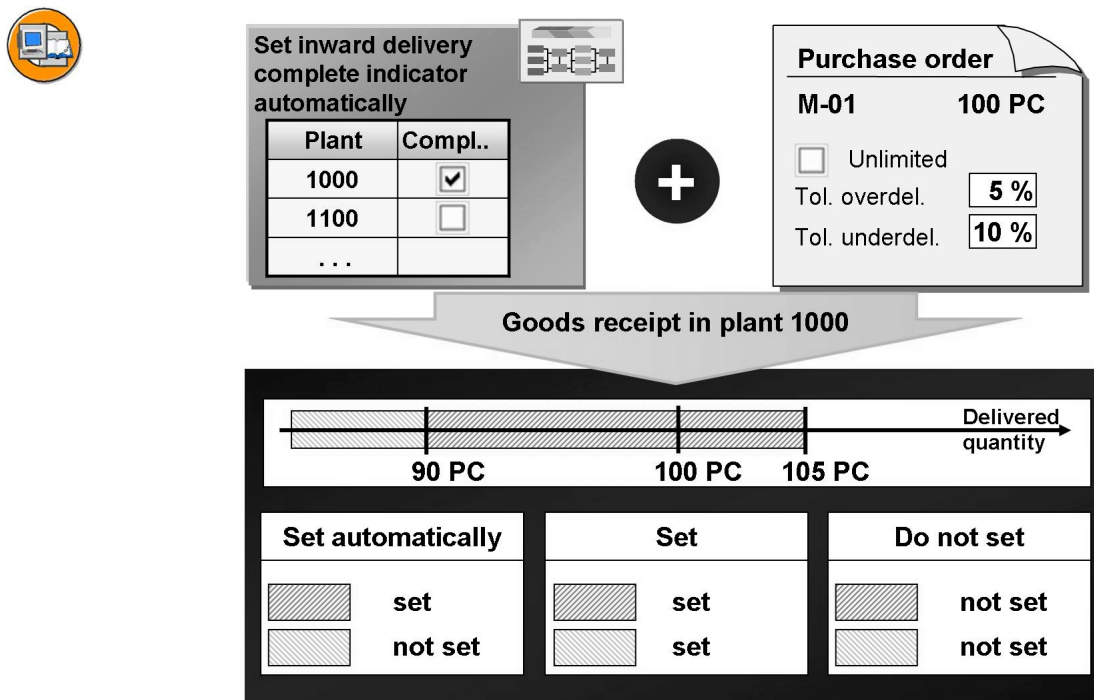


Figure 29: Set *Delivery Completed* Indicator

Independently of these Customizing settings and over/underdelivery tolerances, you can manually define whether or not the *Delivery Completed* indicator is to be set for goods movements with purchase order reference (goods receipt, return delivery, subsequent delivery, cancellation) .

In the list field *Delivery completed indicator*, choose whether the *Delivery completed* indicator is to be set automatically, not set, or set in all cases. This list field for each item is in the item overview or on the *PO data* tab.

If you enter a return delivery or cancellation for a *delivery completed* item and the delivered quantity falls short of the underdelivery tolerance, the *Delivery completed* indicator is automatically reset. If you do not expect any further delivery, change the value of the *Delivery completed indicator* field from *Set automatically* to *Set*. The delivery process for the item is therefore complete.

The *Delivery completed* indicator can also be set in the purchase order or reset.



Hint: For goods receipts for orders, the functions for under, over and final delivery correspond with those for goods receipts for purchase orders. In the order, you can specify the tolerances for the underdelivery and overdelivery on the *Goods Receipt* tab.



Demonstration: Delivery Completed Indicator

Purpose

This demo should clarify that the delivery completed indicator is only set for delivered quantities within the under and overdelivery tolerances and only if it is set for the plant in Customizing.

CATT: ZT_SCM510

System Data

System: Training System
Client: 8xx
User ID: Own user ID or SCM510-00
Password: Ask the instructor
Set up instructions: None

1. Check the Customizing settings for the Delivery Completed indicator.

IMG → Materials Management → Inventory Management and Physical Inventory → Goods Receipt → Set Delivery Completed Indicator

The delivery completed indicator is automatically set for plant 1000, but not for plant 1200.

2. Create a purchase order with the following data:

Field	Value
Header data	
Vendor	T-K510Z01
Purchasing organization	1000
Purchasing group	020
Company code	1000
Item data Item 10	
Material	T-M510Z03
Quantity	100 pc
Plant	1000
Storage location	0001
Item data Item 20	

Field	Value
Material	T-M510Z03
Quantity	100 pc
Plant	1200
Storage location	0001

Display the over and underdelivery tolerance for both items; these should each be 10 %.

- Now there are several partial deliveries to be entered. Always choose **Set delivery completed indicator automatically**. Before posting, ask the participants whether the delivery completed indicator is set or not.

After posting, check whether the delivery completed indicator was set automatically. Also check the open purchase order quantity.

Partial delivery 1 of 50 PC for each item.

Partial delivery 2 of 45 PC for each item.

- Enter a further partial delivery of 10 PC for each item and choose **Set Delivery Completed Indicator** for item 20.
- Enter a return delivery for the second partial delivery. The delivery completed indicator should be automatically reset for both items.
- Enter another goods receipt for 45 PC for the first item and choose **Do not set delivery completed indicator**.

Finally, check the purchase order.

Order Unit and Order Price Unit

In the purchase order, it is possible to specify an **order price unit (OPUn)** as well as the order unit (OUn). The order price unit is valid in connection with the net price and is the basis used when valuating the goods receipt and verifying the invoice. You therefore need to enter the delivered quantity in both units of measure when the goods are received (OUn and OPUn).

Example: You order frozen geese, 10 pieces at the price of 5 euros per kg. In the purchase order, you assume that one goose has an average weight of 4 kg (order value 40 kg * 5 euros). During the goods receipt, you determine that 10 geese weigh a total of 45 kg. For the valuation of the goods receipt and the invoice verification, there is an amount of 45 kg * 5 euros for the 10 geese.

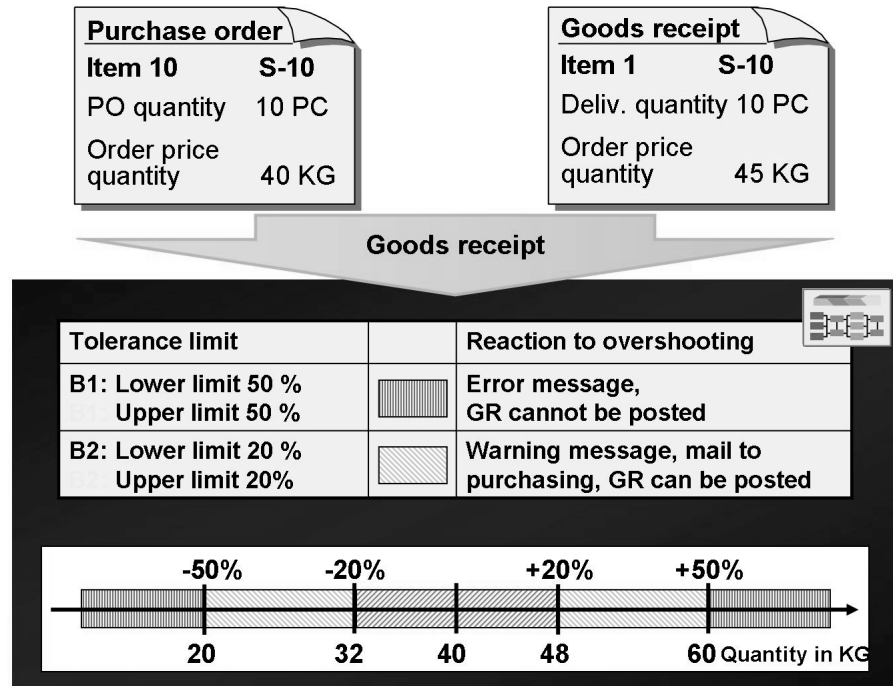


Figure 30: Order Price Quantity Variances

In Customizing for *Inventory Management* under *Goods Receipt* → *Set Tolerance Limits*, you can define two tolerances for the variance in the order price quantity per company code:

- **Tolerance key B1** (error message)

With tolerance key B1, you define the upper and lower limits for the maximum percentage variance. If the variance is larger than the maximum variance, the system creates an error message. The goods receipt cannot be posted.

- **Tolerance key B2** (warning message)

Tolerance key B2 defines the lower and upper limits for the percentage variance as of which a warning message is issued (only with the *Check* function). The buyer is also informed of the purchase order price quantity variance by a mail, if the following conditions are met:

The *GR Message* indicator is set on the *Delivery/Invoice* tab page in the header data for the purchase order.

The Customizing settings required for message determination, message type MLMD, have been made.



Demonstration: Purchase Order Price Unit

Purpose

Show a goods receipt for a purchase order with one of the order price units that varies from the order unit

CATT: ZT_SCM510

System Data

System: See above

Client: See above

User ID: See above

Password: See above

Set up instructions: None

1. Display the Customizing settings for the tolerance limits. In Customizing for Materials Management, choose *Inventory Management and Physical Inventory* → *Goods Receipt* → *Set Tolerance Limits*.
2. Display purchase order 4151-9905; 10 geese were ordered at a price of 5 euros per KG. In the item detail on the *Quantities* tab, you can see the conversion 1 PC = 4 KG.
3. Enter a goods receipt for purchase order 4151-9905. In the item detail, *Quantity* tab, enter the purchase order price quantity of **19 KG**. The goods receipt cannot be posted with this purchase order price quantity.
4. Change purchase order price quantity to 45 KG and post the goods receipt.
5. Display the material document and accounting document. The goods receipt was valuated with $45 * 5$ euros = 225 euros.



Exercise 8: Delivery Completed Indicator and Tolerances

Exercise Duration: 30 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Manually set the Delivery completed indicator during goods receipt posting
- Set and test the automatic setting of the Delivery Completed indicator in the system

Business Example

A vendor informs you during a partial delivery that he cannot deliver the remaining purchase order quantity. To enter this factor in the purchase order, set the Delivery completed indicator during the goods receipt. In the case of nominal underdeliveries, the system can also set the Delivery completed indicator automatically. You want to test the necessary settings.

System Data

System:	Training System
Client:	8xx
User ID:	Ask the instructor
Password:	Ask the instructor
CATT:	ZT_SCM510
Set up instructions:	None

Task:

You want to test automatic and manual setting of the *Delivery completed* indicator. A setting has been made in Customizing for plant 1100, so that the system proposes the *Delivery completed* indicator for goods receipts for the purchase order. For the material, you have used a purchasing value key to determine an underdelivery tolerance of 10% and an overdelivery tolerance of 10%.

On-order stock for the material and the "delivery completed" indicator will be altered during the course of the exercise. To get a better overview of these changes, enter the *on-order stock total quantity delivered* and the *delivery-completed indicator* in the following table after the individual subtasks.



Hint: You can take the on-order stock from the stock overview, and the other data from the purchase order.

Exercise step	On-order stock	Total delivered quantity	Delivery completed indicator
Task 1 Starting situation			
Task 2 GR 50 pieces			
Task 3 GR 25 pieces			
Task 4 GR 20 pieces			
Task 5 GI 20 pieces			
Task 6 GR 35 pieces			

- Note in the first line of the table the on-order stock for material **T-M510A##** in plant 1100, storage location 0001. Also note whether the Delivery completed indicator is set in purchase order **4151-05##** for item 10 and the total delivered quantity for the item.
- Enter the goods receipt for purchase order **4151-05##**. This is a partial delivery of 50 pieces of material **T-M510A##** in plant 1100, storage location 0001. Set the Delivery Completed indicator manually at the goods receipt. Check the entered data before posting. Note the messages issued by the system.

Complete the above table after making the posting.

Message	Warning/Error

Continued on next page

3. Enter another partial delivery of 25 pieces of **T-M510A##** for purchase order **4151-05##** for storage location 0001. The system will automatically set the *Delivery completed* indicator.

Complete the above table after making the posting.

4. Enter another partial delivery of 20 pieces. Distribute the delivery quantity as follows: 10 pieces in storage location 0001 and 10 pieces in storage location 0002.

Note the line in the material document in which the delivery completed indicator for the material document or purchase order item is set.

Complete the above table after making the posting.

Line	1	2
<i>Delivery completed</i> indicator of the material document		
<i>Delivery completed</i> indicator of the purchase order item		

5. Cancel the last-posted goods receipt and after making the posting complete the above table.
6. You have set an overdelivery tolerance of 10% for the material. Enter a goods receipt for 35 pieces of **T-M510A##** for purchase order **4151-05##** in plant 1100, storage location 0001. Check whether you can post a delivery of 36 pieces.

Solution 8: Delivery Completed Indicator and Tolerances

Task:


You want to test automatic and manual setting of the *Delivery completed* indicator. A setting has been made in Customizing for plant 1100, so that the system proposes the *Delivery completed* indicator for goods receipts for the purchase order. For the material, you have used a purchasing value key to determine an underdelivery tolerance of 10% and an overdelivery tolerance of 10%.

On-order stock for the material and the "delivery completed" indicator will be altered during the course of the exercise. To get a better overview of these changes, enter the *on-order stock total quantity delivered* and the *delivery-completed indicator* in the following table after the individual subtasks.




Hint: You can take the on-order stock from the stock overview, and the other data from the purchase order.

Exercise step	On-order stock	Total delivered quantity	Delivery completed indicator
Task 1 Starting situation	<u>100</u>	<u>0</u>	<u>Not set</u>
Task 2 GR 50 pieces	<u>0</u>	<u>50</u>	<u>Set</u>
Task 3 GR 25 pieces	<u>25</u>	<u>75</u>	<u>Not set</u>
Task 4 GR 20 pieces	<u>0</u>	<u>95</u>	<u>Set</u>
Task 5 GI 20 pieces	<u>25</u>	<u>75</u>	<u>not set</u>
Task 6 GR 35 pieces	<u>0</u>	<u>110</u>	<u>set</u>







1. Note in the first line of the table the on-order stock for material **T-M510A##** in plant 1100, storage location 0001. Also note whether the Delivery completed indicator is set in purchase order **4151-05##** for item 10 and the total delivered quantity for the item.
 - a) Choose *Logistics* → *Materials Management* → *Environment* → *Stock* → *Stock Overview (MMBE)*.
 - b) Enter **T-M510A##** for material and **1100** for plant.
 - c) Choose  *Execute* and note the on-order stock. Now exit the transaction.

Continued on next page

- d) Choose *Logistics* → *Materials Management* → *Purchasing* → *Purchase Order* → *Display (ME23N)*.
 - e) Choose  *Other Purchase Order* and enter the order number **4151-05##**.
 - f) Choose *Other Document*.
 - g) Choose the *Delivery* tab page and note whether the *delivery completed indicator* has been set.
 - h) The total quantity delivered is 0. You can tell this by the lack of a *PO History* tab page in item details.
2. Enter the goods receipt for purchase order **4151-05##**. This is a partial delivery of 50 pieces of material **T-M510A##** in plant 1100, storage location 0001. Set the Delivery Completed indicator manually at the goods receipt. Check the entered data before posting. Note the messages issued by the system.
- Complete the above table after making the posting.







Continued on next page

Message	Warning/Error
PC ordered quantity fallen short of by 50 pieces	Warning
Item is indicated as delivery completed.	Warning

- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
 - b) Choose the transaction *Goods Receipt* and, as reference, *Purchase Order*.
 - c) Enter *movement type 101* and order number **4151-05##** .
 - d) Choose  with the quick info text *Execute*.
 - e) Change the default quantity to 50 pieces and set the *Item OK* indicator.
 - f) For the *Delivery Completed indicator*, choose **Set**. The field is in the item overview or in the item details on the *PO Data* tab page.
 - g) Choose *Check* and note the messages: “PC ordered quantity fallen short of by 50 pieces” and “Item is indicated as delivery completed.”
 - h) Choose  with the quick info text *Post*.
 - i) Choose *Display*, and *Material Document* as the reference.
 - j) Choose  with the quick info text *Execute*.
 - k) Choose the *Where* tab and choose , with the quick info text *Stock Overview*. Use  to navigate to on-order stock. Note that the on-order stock of plant 1100 is equal to 0 pieces.
 - l) Return to the material document with .
 - m) Choose the *PO Data* tab page and double-click the PO number to display the purchase order.
 - n) In the item details, choose the *Delivery* tab page. Note that the *Delivery Completed* indicator is set.
 - o) Choose the *PO History* tab. There you can see that the delivery quantity total is 50 pieces.
3. Enter another partial delivery of 25 pieces of **T-M510A##** for purchase order **4151-05##** for storage location 0001. The system will automatically set the *Delivery completed* indicator.

Continued on next page

Complete the above table after making the posting.









- a) Choose the transaction *Goods Receipt* and, as reference, *Purchase Order*.
 - b) Enter *Purchase order number 4151-05##*.
 - c) Choose  with the quick info text *Execute*.
 - d) Set the *Item OK* indicator and change the proposed quantity to **25** pieces.
 - e) Choose  with the quick info text *Post*.
 - f) Choose *Display*, and *Material Document* as the reference.
 - g) Choose  with the quick info text *Execute*.
 - h) Choose the *Where* tab and choose , with the quick info text *Stock Overview*. Use  to navigate to on-order stock. Note that the on-order stock at plant level is 25 pieces.
 - i) Return to the material document with .
 - j) Choose the *PO Data* tab page and double-click the PO number to display the purchase order.
 - k) In the item details, choose the *Delivery* tab page. Note that the delivery completed indicator is not set.
 - l) Choose the *PO History* tab. There you can see that the delivery quantity total is 75 pieces.
4. Enter another partial delivery of 20 pieces. Distribute the delivery quantity as follows: 10 pieces in storage location 0001 and 10 pieces in storage location 0002.

Note the line in the material document in which the delivery completed indicator for the material document or purchase order item is set.





Complete the above table after making the posting.

Continued on next page


Line	1	2
<i>Delivery completed</i> indicator of the material document	<u>Not set</u>	<u>Set</u>
<i>Delivery completed</i> indicator of the purchase order item	<u>Set</u>	<u>Set</u>

- a) Choose the transaction *Goods Receipt* and, as reference, *Purchase Order*.
- b) Enter purchase order number **4151-05##**.
- c) Choose  with the quick info text *Execute*.
- d) Set the *Item OK* indicator. Change the suggested quantity to **20** pieces.
- e) Choose  *Distribute Quantity*.
- f) Enter the quantities and storage locations mentioned above and choose  *Adopt*. The system splits line 1 into two lines with different storage locations but with the same description: *Line 1*.
- g) Choose  with the quick info text *Post*.
- h) Choose *Display*, and *Material Document* as the reference.
- i) Choose  with the quick info text *Execute*.
- j) Choose the *Where* tab for the first item and choose  with the quick info text *Stock Overview*. Use  to navigate to on-order stock. Note that the stock at plant level is 0 pieces.
- k) Return to the material document with .
- l) Choose the *PO Data* tab page and double-click the PO number to display the purchase order.
- m) In the item details, choose the *Purchase Order History* tab page. The total quantity delivered is 95 pieces.
- n) Choose the *Delivery* tab. Note that the *Delivery Completed* indicator is set.
- o) Return to the material document, choose the *PO Data* tab and note whether the *delivery completed* indicator is set for the material document item or the PO item. Choose line 2 and note the indicator.

Continued on next page




5. Cancel the last-posted goods receipt and after making the posting complete the above table.
 - a) Choose *Cancellation* and, as reference, *Material Document*.
 - b) Choose  with the quick info text *Execute*.
 - c) Set the *Item OK* indicator for both items.
 - d) Choose  with the quick info text *Post*.
 - e) Choose *Display*, and *Material Document* as the reference.
 - f) Choose  with the quick info text *Execute*.
 - g) Choose the *Where* tab and choose  with the quick info text *Stock Overview*. Note that the stock at plant level is 25 pieces.
 - h) Return to the material document and choose the *PO Data* tab page. Double-click the purchase order number to display the purchase order.
 - i) Choose the *Delivery* tab. Note that the delivery completed indicator is not set.
 - j) Choose the *PO History* tab. The total quantity delivered is 75 pieces.

Continued on next page

6. You have set an overdelivery tolerance of 10% for the material. Enter a goods receipt for 35 pieces of **T-M510A##** for purchase order **4151-05##** in plant 1100, storage location 0001. Check whether you can post a delivery of 36 pieces.
- Choose the transaction *Goods Receipt* and, as reference, *Purchase Order*.
 - Enter purchase order number **4151-05##**.
 - Choose  with the quick info text *Execute*.
 - Set the *Item OK* indicator.
 - Change the quantity to **36** pieces.
 - Choose *Check*.



Hint: This purchase order allows you to post up to 10% above the purchase order quantity, 110 pieces in total. As 75 pieces have already been created, you can now only enter a maximum of 35 pieces.

- Change the quantity to **35** pieces.
- Choose  with the quick info text *Post*.
- Choose *Display*, and *Material Document* as the reference.
- Choose  with the quick info text *Execute*.
- Choose the *Where* tab and choose , with the quick info text *Stock Overview*. Note that the on-order stock at plant level is 0 pieces.
- Return to the material document and choose the *PO Data* tab page. Double-click on the purchase order number to branch to the purchase order.
- Choose the *Delivery* tab. Note that the Delivery Completed indicator is set.
- Choose the *PO History* tab. The total quantity delivered is 110 pieces.



Exercise 9: (Optional) Purchase Order Price Unit

Exercise Duration: 10 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Enter the goods receipt for purchase order items for which the purchase order price unit differs from the order unit
- Explain tolerances for purchase order price unit

Business Example

You have ordered two cheeses for the cheese buffet for your company's anniversary party. The amount you have to pay for these cheeses depends on their weight. For this reason you also have to enter the quantity delivered in kilograms when receiving the goods.

System Data

System: Training System
Client: 8xx
User ID: Ask the instructor
Password: Ask the instructor
CATT: ZT_SCM510
Set up instructions:

1. None

Task:

You have ordered two cheeses of 12,5 kg each. It costs 3,90 Euro per kilo. The system calculates the delivered total weight of the cheese.

1. Find out which tolerances are allowed for variances from the planned purchase order price quantity for the purchase order in company code 1000.
2. Enter the goods receipt for 2 pieces of cheese for purchase order **4151-06##**. What is the total weight of the cheese that can be posted? Check the following values.



Continued on next page

Total weight (kg)	postable (?)
12	
25	
40	

Solution 9: (Optional) Purchase Order Price Unit


Task:

You have ordered two cheeses of 12,5 kg each. It costs 3,90 Euro per kilo. The system calculates the delivered total weight of the cheese.

1. Find out which tolerances are allowed for variances from the planned purchase order price quantity for the purchase order in company code 1000.
 - a) Choose *Tools* → *Customizing* → *IMG* → *Edit Project*.
 - b) Choose  *SAP Reference IMG (SPRO)*.
 - c) In *Customizing*, choose *Materials Management* → *Inventory Management and Physical Inventory* → *Goods Receipt* → *Set Tolerance Limits*.
 **Note:** Instead of steps a) to c), you can also call the transaction OMC0 directly.
 - d) Select the lines for *company code 1000* and the *tolerance key B1* and *B2*.
 - e) Choose *Goto* → *Details* to display the details for *tolerance key B1*. To display the details for *tolerance key B2*, choose *Goto* → *Next Entry*.
2. Enter the goods receipt for 2 pieces of cheese for purchase order **4151-06##**. What is the total weight of the cheese that can be posted? Check the following values.

Continued on next page

Total weight (kg)	postable (?)
12	<u>not postable</u>
25	<u>postable</u>
40	<u>not postable</u>

- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
- b) Choose the transaction *Goods Receipt* and, as reference, *Purchase Order*.
- c) Enter *Purchase order number 4151-06##*.
- d) Choose  with the quick info text *Execute*.
- e) Set the *Item OK* indicator.
- f) On the *Quantity* tab page in the item details, enter the *Qty in Unit of Entry* according to the table entries. Choose *Check* to determine whether the quantity can be posted.



Note: The Customizing settings for this system permit a maximum variance of +/- 50%.



Lesson Summary

You should now be able to:

- Manually set the Delivery completed indicator during goods receipt entry
- Explain the circumstances in which the Final delivery indicator is automatically set when posting a goods receipt
- Enter a goods receipt for a purchase order with one of the order price units that varies from the order unit

Lesson: Date Checks in GR for Purchase Order



Lesson Duration: 45 Minutes

Lesson Overview

In this lesson, you will learn about the date check options in the goods receipt.



Lesson Objectives

After completing this lesson, you will be able to:

- List the prerequisites for the shelf life expiration date check
- Enter a goods receipt and enter and check the shelf life expiration date
- Activate the check for the latest possible goods receipt date



The main focus of this lesson is on the shelf life expiration date check. This lesson only covers the shelf life expiration date check for goods receipt, not for goods issue. To also take the shelf life expiration date for goods issue into account, you must manage the material in batches. Batches are not discussed in this lesson. They are a topic in course SCM595 (Batch Management).

Business Example

In the goods receipt of perishables, there should be a shelf life expiration date check of the goods in your company. You need to know which messages the system may issue if a delivery is early or late, and which presettings are necessary.

Shelf Life Expiration Date Check

When you receive goods from a vendor, the system may check the minimum shelf life of the goods during the goods receipt. You can therefore ensure that goods are only placed in storage if their shelf life corresponds with your requirements.

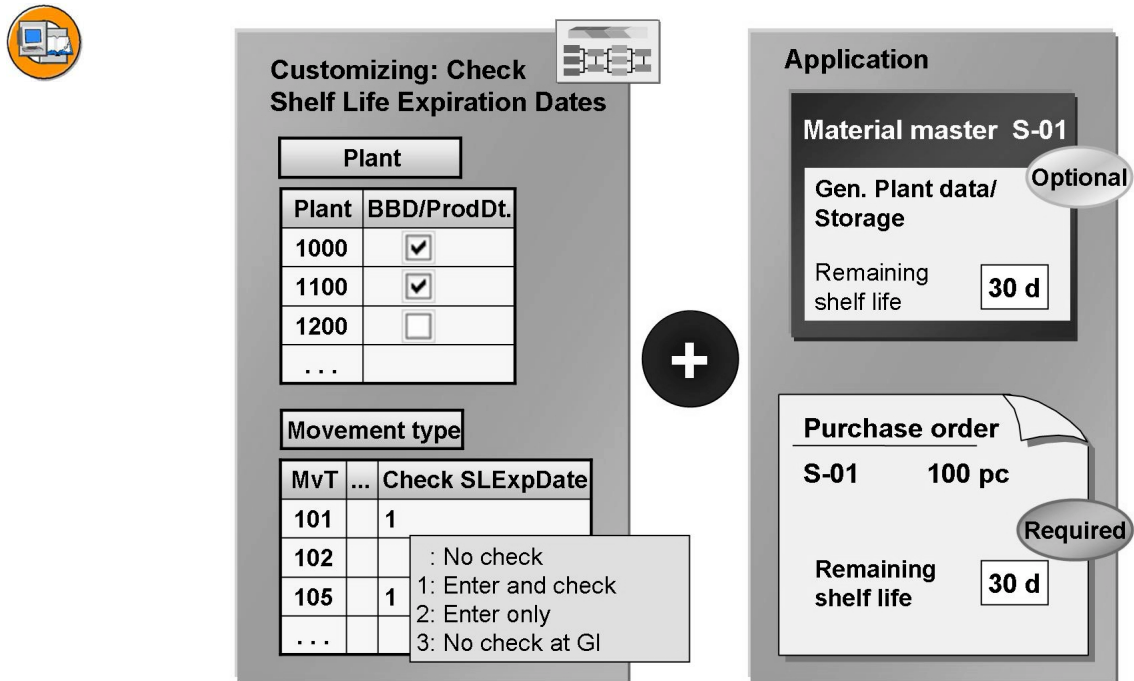


Figure 31: Shelf Life Expiration Date Check : Prerequisites

To check the minimum shelf life in the goods receipt for the purchase order, the following prerequisites must be met:

- The shelf life expiration date check must be activated for the plant and the movement type in Customizing for *Inventory Management* under *Goods Receipt* → *Set Expiration Date Check*.
- In the purchase order item, make sure the remaining shelf life is maintained (item detail *Delivery* tab page). You can enter a default value for the remaining shelf life in the material master record (*General plant data/storage*).



Hint: The minimum remaining shelf life value is the number of days that a material has to be usable for the system to accept the goods receipt.

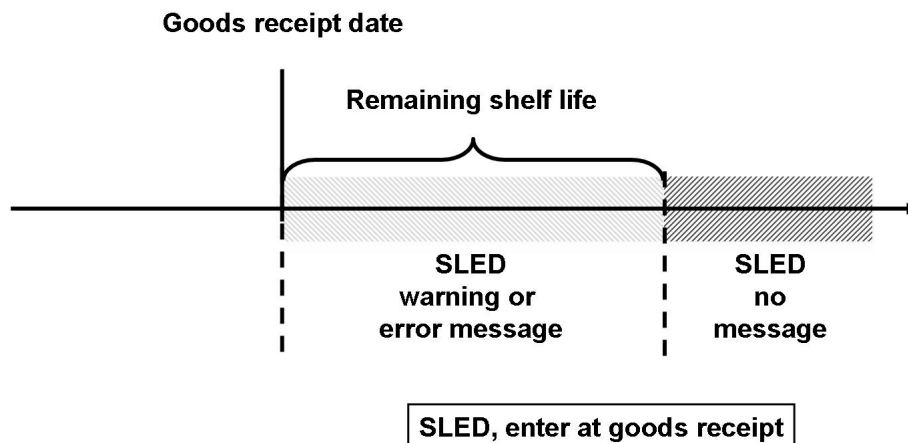


Figure 32: Minimum Shelf Life Check

If these prerequisites are fulfilled, the system will request that you specify the minimum **shelf life expiration date (SLED)** in the *Shelf Life Expiration Date/BBD* field in the goods receipt. The system will then check whether the required remaining shelf life complies with the entered shelf life expiration date. In the case of a shortfall, you can decide in Customizing whether the system issues the message (work area 12, message no. 007) as a warning or error message.

In the shelf life expiration date check, it is also possible to use the **date of manufacture**. It is therefore necessary that you enter the **total shelf life** as well as the remaining shelf life in the material master record. In this case, you enter the date of manufacture in the goods receipt. The system calculates the minimum shelf life expiration date (date of manufacture + total shelf life = SLED).

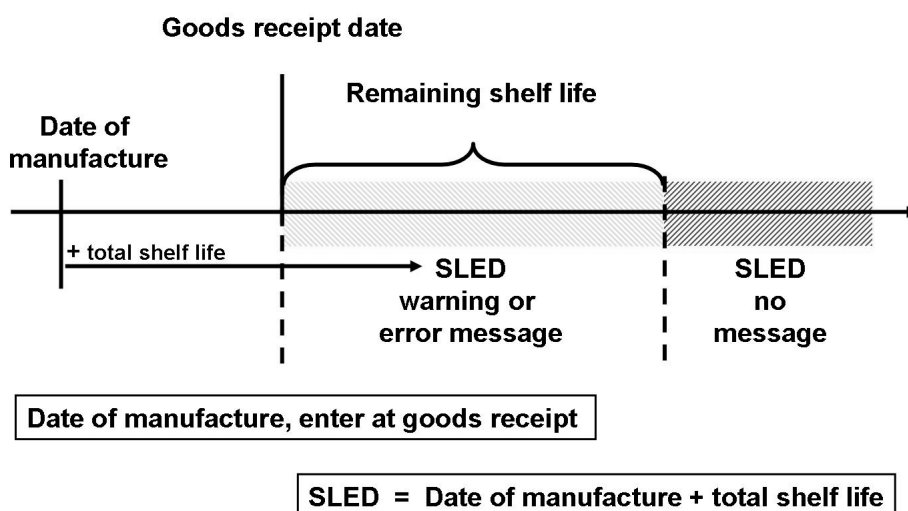


Figure 33: Checking the Minimum Shelf Life (with total shelf life)

For materials without a batch management requirement, you can enter and check the minimum shelf life expiration date for only the goods receipt. You can also print the minimum shelf life expiration date on the GR/GI slip. For materials with a batch management requirement, it is also possible to use the shelf life expiration date in batch determination for goods issues and in analyses for batches. (For more information, see the SAP documentation for *Inventory Management and Physical Inventory (MM-IM)* under *Goods Receipt → Shelf Life Expiration Date Check → Expiration Date Check for Materials Handled in Batches*).



Hint: If the storage location is subject to warehouse management, there is no batch management requirement for monitoring and withdrawal of materials according to their minimum shelf life. The following conditions must be met for this:

- The minimum shelf life expiration date management must be activated for the warehouse number. (Customizing)
- The stock removal strategy selected for the storage type must be “shelf life expiration date” or “strict FIFO”. (Customizing)
- The *minimum remaining shelf life* must be entered in the material master record.
- The *shelf life expiration date* must have been entered when the material was received.



Demonstration: Shelf Life Expiration Date Check

Purpose

This demonstration will show the prerequisites and procedure of the shelf life expiration date check. You enter the shelf life expiration date in the demonstration. If you also want an example with the date of manufacture entry, the instructor must change the material accordingly and create a new purchase order.

CATT: ZT_SCM510

System Data

System:	Training System
Client:	8xx
User ID:	Own user ID or SCM510-00
Password:	Ask the instructor
Set up instructions:	None

1. Check the Customizing settings for the shelf life expiration date check.

IMG → Materials Management → Inventory Management and Physical Inventory → Goods Receipt → Set Expiration Date Check

2. Display the general plant data/storage of material T-M510Z09 for plant 1000. The remaining shelf life is 30 days. Also make an entry in the total shelf life field.
3. Display purchase order **4151-9906**. Display the detail data for the item. On the *Delivery* tab page, you will find the remaining shelf life.



Hint: The instructor can point out here that this value is copied from the material master record, but that it can be changed.

4. Enter a goods receipt for purchase order **4151-9906**. If you post without entering the shelf life expiration date, it will become clear that you now have to enter the shelf life expiration date.
5. Correct errors and enter the shelf life expiration date. Choose the date so that the remaining shelf life is not reached.
Check the data and discuss the message log.
6. Now choose a suitable shelf life expiration date and check again. The system does not issue any more messages. Post the goods receipt.

Delivery: Too Early and Too Late

For each purchase order item, Purchasing specifies a delivery date. The system may check during the goods receipt whether the goods are delivered too early or late.

To check whether the **delivery is made before the planned delivery date**, you must set message number 254 (work area M7) to warning or error message in Customizing for *Inventory Management and Physical Inventory* under *Define Attributes of System Messages*.



Customizing: Characteristics of System Messages				
Version	Appl.ar	No.	Message text	Cat
...	
00	M7	254	Earliest possible delivery date is &1	W E
...	



Figure 34: Check for Premature Delivery

If the goods receipt date lies before the planned delivery date in the purchase order, the system then issues the “Earliest delivery date is ...” message according to your settings.



Hint: The system only issues a warning message in transaction MIGO if you check the entries before you post the goods receipt.

If you have set the message as an error message, you can then post prematurely delivered goods to the GR blocked stock. If the delivery date is achieved, the GR blocked stock can be released. The check for premature delivery may be useful if your storage capacity is limited.

To prevent goods from being accepted in the case of **delayed delivery**, you must specify the *latest possible goods receipt date* for the item in the purchase order. This field is in the item detail data on the *Delivery* tab page. You also have to set message 163, “Last possible delivery date was...” (work area M7), as a warning or error message in Customizing.



Customizing: Characteristics of System Messages				
Version	Appl.ar	No.	Message text	Cat
...	
00	M7	163	Last possible delivery date was &1	W E
...	

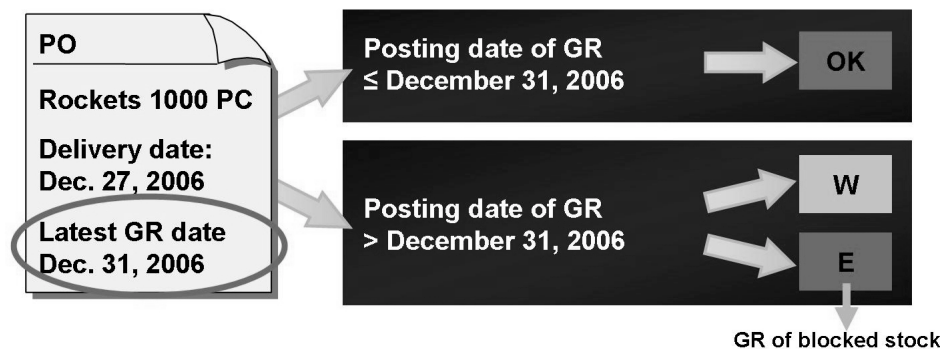


Figure 35: Check for Late Delivery

If you have set the message as an error message for delayed delivery, you can post the delivered goods to the GR blocked stock and then post a return delivery from the GR blocked stock.



Demonstration: Delivery: Too Early and Too Late

Purpose

In this demonstration, you can show Customizing for system messages in Inventory Management and enter premature and late goods receipts.

CATT: ZT_SCM510

System Data

System: Training System
Client: 8xx
User ID: Own user ID or SCM510-00
Password: Ask the instructor
Set up instructions: None

1. Check the Customizing settings for the shelf life expiration date check.

IMG ? Materials Management → Inventory Management and Physical Inventory → Define Attributes of System Messages

Set message 254 as a warning message and message 163 as an error message.

2. Create a purchase order with the following data:

Field	Value
Header data	
Vendor	T-K510Z01
Purchasing organization	1000
Purchasing group	020
Company code	1000
Item data Item 10	
Material	T-M510Z03
Quantity	100 pc
Delivery date	Today + one month
Plant	1000
Storage location	0001
Item data Item 20	
Material	T-M510Z03
Quantity	100 pc
Delivery date	Today - one week
Plant	1200
Storage location	0001
Latest possible GR date (item details on <i>Delivery</i> tab page)	Yesterday

3. Enter a goods receipt for the purchase order and check.



Exercise 10: Date Check for Goods Receipt

Exercise Duration: 15 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Enter the goods receipt for materials with the minimum shelf life expiration date

Business Example

In your company, you often refer to goods with shelf life expiration dates. To guarantee that the materials will have a long shelf life, you check the remaining shelf life of the material when the goods are received.

System Data

System:	Training System
Client:	8xx
User ID:	Ask the instructor
Password:	Ask the instructor
CATT:	ZT_SCM510
Set up instructions:	None

Task:

Your company has ordered 500 kg of tomato soup for the cafeteria. The shelf life expiration date of the soup has to be checked as part of the goods receipt check. Check the data of the material master record and the purchase order, and enter the goods receipt.

1. Display material **T-M510G##** in plant 1000 and check your entries for shelf life. Make a note of the remaining shelf life and total shelf life.

Material	Remaining shelf life	Total shelf life
T-M510G##		

2. Display purchase order **4151-07##** and check the data for the shelf life expiration date check.

Continued on next page

PO	Remaining shelf life
4151-07##	

3. Check whether you can enter the goods receipt for purchase order 4151-07##. The tomato soup has a minimum shelf life of <today + 5 months>.
4. (Optional) Which statements are correct?
Choose the correct answer(s).
- A The system checks the shelf life expiration date for all goods receipts.
 - B You must set the check for the SLED in Customizing for plant and movement type.
 - C When you enter the remaining shelf life in the material master record, the date of manufacture must be entered in the goods receipt.
 - D When you enter the remaining shelf life in the material master record, the expiration date must be entered in the goods receipt.
 - E The total shelf life of the material can be maintained manually in the purchase order.
 - F The remaining shelf life of the material can be manually maintained in the purchase order.

Solution 10: Date Check for Goods Receipt

Task:


Your company has ordered 500 kg of tomato soup for the cafeteria. The shelf life expiration date of the soup has to be checked as part of the goods receipt check. Check the data of the material master record and the purchase order, and enter the goods receipt.

1. Display material **T-M510G##** in plant 1000 and check your entries for shelf life. Make a note of the remaining shelf life and total shelf life.


Material	Remaining shelf life	Total shelf life
T-M510G##	<u>6 months</u>	<u>No entry</u>

- a) Choose *Logistics* → *Materials Management* → *Material Master* → *Material* → *Display* → *Display Current (MM03)* .
 - b) Enter *Material number* **T-M510G##**.
 - c) Choose *View Selection* and select *General Plant Data/Storage 1*.
 - d) Choose *Org.Levels* and enter *Plant 1000*. Confirm your entries with *Enter*.
 - e) Note the remaining shelf life of 6 months. A total shelf life has not been entered.
2. Display purchase order **4151-07##** and check the data for the shelf life expiration date check.

PO	Remaining shelf life
4151-07##	<u>6 months</u>

- a) Choose *Logistics* → *Materials Management* → *Purchasing* → *Purchase Order* → *Display (ME23N)*.
- b) Choose  *Other Purchase Order*.
- c) Enter *purchase order* **4151-07##** and choose *Other Purchase Order*.
- d) Choose the *Delivery* tab page in the item detail and compare the remaining shelf life with the result from exercise 1.

Continued on next page

3. Check whether you can enter the goods receipt for purchase order 4151-07##. The tomato soup has a minimum shelf life of <today + 5 months>.
 - a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
 - b) Choose the transaction *Goods Receipt* and, as reference, *Purchase Order*.
 - c) Enter *Movement type 101*.
 - d) Enter *Purchase order number 4151-07##*.
 - e) Choose  with the quick info text *Execute*.
 - f) Set the *Item OK* indicator. Enter the shelf life expiration date, <**today + 5 months**>, on the *Material* tab page.
 - g) Choose *Check*.
 - h) The system issues the error message that the minimum shelf life has fallen short. A goods receipt in the valuated stock is not possible with these settings.
4. (Optional) Which statements are correct?

Answer: B, D, F

The check for the shelf life expiration date or the date of manufacture must be set in Customizing. You can maintain the total shelf time of the material only in the material master record. You can maintain the remaining shelf life in the material master record, in the purchase order, and in the purchasing information record.



Lesson Summary

You should now be able to:

- List the prerequisites for the shelf life expiration date check
- Enter a goods receipt and enter and check the shelf life expiration date
- Activate the check for the latest possible goods receipt date



Unit Summary

You should now be able to:

- Describe the procedure for the initial entry of stock balances in the SAP system
- Enter a goods receipt without a purchase or production order
- Enter a free-of-charge delivery
- Enter a goods receipt with reference to a PO or production order into unrestricted-use stock, stock in quality inspection, or blocked stock
- Describe the process of receiving goods in GR blocked stock and its special aspects
- List the necessary settings for the automatic generation of purchase orders at the time of goods receipt
- Enter a return delivery for a goods receipt (GR)
- Enter a subsequent delivery
- Create a purchase order with a returns item and post the goods issue
- Describe how a goods movement posting is reversed
- Manually set the Delivery completed indicator during goods receipt entry
- Explain the circumstances in which the Final delivery indicator is automatically set when posting a goods receipt
- Enter a goods receipt for a purchase order with one of the order price units that varies from the order unit
- List the prerequisites for the shelf life expiration date check
- Enter a goods receipt and enter and check the shelf life expiration date
- Activate the check for the latest possible goods receipt date



Test Your Knowledge

1. Which of the following statements regarding other goods receipts is correct?
Choose the correct answer(s).
 - A Other goods receipts are receipts that cannot reference another document.
 - B These goods receipts are always non-valuated.
 - C The free-of-charge delivery does not belong to this form of goods receipt.
 - D A initial stock balance entry is an other goods receipt.
 - E You can enter a value manually for some of these goods receipts.

2. The posting of a free-of-charge delivery always leads merely to a change in the stock quantity. It does not cause a change in stock value.
Determine whether this statement is true or false.
 - True
 - False

3. You enter a goods receipt against a production order. Which movement type do you choose if you wish to post the receipt to blocked stock?
Choose the correct answer(s).
 - A 105
 - B 505
 - C 525
 - D 101
 - E 501
 - F 521

4. You enter a goods receipt against a purchase order. *Quality Inspection* is suggested as the stock type. Where does this default value come from?

5. The goods receipt into GR blocked stock is non-valuated.
Determine whether this statement is true or false.
 - True
 - False

6. What prerequisites must be fulfilled for the automatic generation of purchase orders?

Choose the correct answer(s).

- A A reference purchasing organization must be assigned to the plant.
- B Automatic PO generation must be allowed for the movement type.
- C Automatic PO generation must be allowed for the plant.
- D A purchasing info record must exist for the combination vendor – material – standard purchasing organization.
- E The material must be managed as a valuated material.
- F The material must be managed as a non-valuated material.



Answers

- Which of the following statements regarding other goods receipts is correct?

Answer: A, D, E

In the case of goods receipts without reference, initial entries of stock balances, GRs without POs, or GRs without production orders are valued if the movement involves a valuated material.

When we speak of a delivery free-of-charge, we mean that the goods are received from a vendor without having been ordered and do not have to be paid for. Therefore, there is no purchase order in SAP R/3 that can be referenced when you enter the goods receipt.

You can determine whether an “external amount in domestic currency” can be specified via the field control for the movement type.

- The posting of a free-of-charge delivery always leads merely to a change in the stock quantity. It does not cause a change in stock value.

Answer: False

The price control of a material has a decisive influence on the valuation of a free-of-charge delivery. All movements of materials valuated at standard price must be valuated at this price. This also applies to a free-of-charge delivery of the material. Receipts representing free-of-charge deliveries of materials valuated at moving average price, on the other hand, are not valuated.

- You enter a goods receipt against a production order. Which movement type do you choose if you wish to post the receipt to blocked stock?

Answer: D

In the case of a goods receipt against a production (or purchase) order, it is not the movement type that determines the stock type to which the posting is made. Instead, you have to additionally specify the stock type. In the standard system, the movement type is always 101, irrespective of the stock type.

- You enter a goods receipt against a purchase order. *Quality Inspection* is suggested as the stock type. Where does this default value come from?

Answer: It is possible to preplan the goods receipt into stock in quality inspection in the purchase order. However, it is also possible that the stock type *Quality Inspection* was adopted from the personal default values.

5. The goods receipt into GR blocked stock is non-valuated.

Answer: True

Since a posting to GR blocked stock represents a conditional acceptance of goods, there is no valuation in this case. This ensures that in the case of materials with a moving average price, the moving average price remains unchanged following the goods receipt.

6. What prerequisites must be fulfilled for the automatic generation of purchase orders?

Answer: B, D, E

A standard purchasing organization must be assigned to the plant, not a reference purchasing organization (this is needed for special contracts in purchasing).

Unit 3



Stock Transfers/Transfer Postings



In diesem Kapitel werden unternehmensinterne Warenbewegungen behandelt. You can enter these stock transfers and transfer postings in the same way as goods receipts, with transaction MIGO. The instructor should also mention the “new” MIGO screen. The item detail data is displayed for transfer postings between the header data area and the item overview. This is because in these goods movements, a “from” and “to” entry is always necessary and the detailed data is therefore structured accordingly.

Unit Overview

This unit deals with goods movements that take place within your company. These may be transfer postings of a material between different organizational levels, or transfer postings between different stock types or different materials.



Unit Objectives

After completing this unit, you will be able to:

- Describe the procedure for a stock-to-stock transfer posting
- List the prerequisites for a material-to-material transfer posting and make this type of posting
- Distinguish between the one-step and two-step procedures for stock transfers
- Demonstrate the entry of a stock transfer from storage location to storage location
- Carry out a stock transfer between plants of a company code using the one-step and two step procedures
- Create a stock transport order
- Carry out a stock transfer with reference to a stock transport order using the two-step procedure

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Lesson: Transfer Postings



134

Lesson Duration: 50 Minutes

Lesson Overview

This lesson gives you an overview of transfer postings and the levels at which they can take place. The difference between a transfer posting and a physical stock transfer is also discussed. Using a stock-to-stock posting as an example, you are shown how to enter a transfer posting using the transaction MIGO. We will also discuss the prerequisites for and execution of a material-to-material stock posting.



Lesson Objectives

After completing this lesson, you will be able to:

- Describe the procedure for a stock-to-stock transfer posting
- List the prerequisites for a material-to-material transfer posting and make this type of posting



At the beginning of this unit, you should discuss some application scenarios for transfer postings. In the process, you should explain the organizational levels “storage location”, “plant”, and “company code”, which can play a role in transfer postings. Possible examples:

- Stock in quality inspection is released. However, for legal reasons, the goods must also be transferred to a different storage location for this posting.
- Material is initially produced in one plant of the enterprise and is then transferred to another for finishing.
- Material is sold to another enterprise within the corporate group. This is a physical stock transfer that also involves inter-company billing.
- The properties of a material change over time. The material therefore has to be managed using a different master record. A material-to-material transfer posting is necessary.

The instructor should make sure that participants understand the difference between physical stock transfers and transfer postings.

Business Example

Goods posted to stock in quality inspection at the time of their receipt have been checked and can now be released to production or for sale. You therefore make a posting transferring the relevant stock from quality inspection to unrestricted-use. The properties of some materials change in the course of time, necessitating a change in the numbers under which they are managed. In such cases, you have to make a material-to-material transfer posting.

Transfer Postings and Physical Stock Transfers

In any enterprise, goods movements do not only take the form of goods receipts and goods issues. For organizational reasons (for example, decentralized storage) or due to other factors (such as quality assurance) internal transfer postings and physical stock transfers may be necessary.

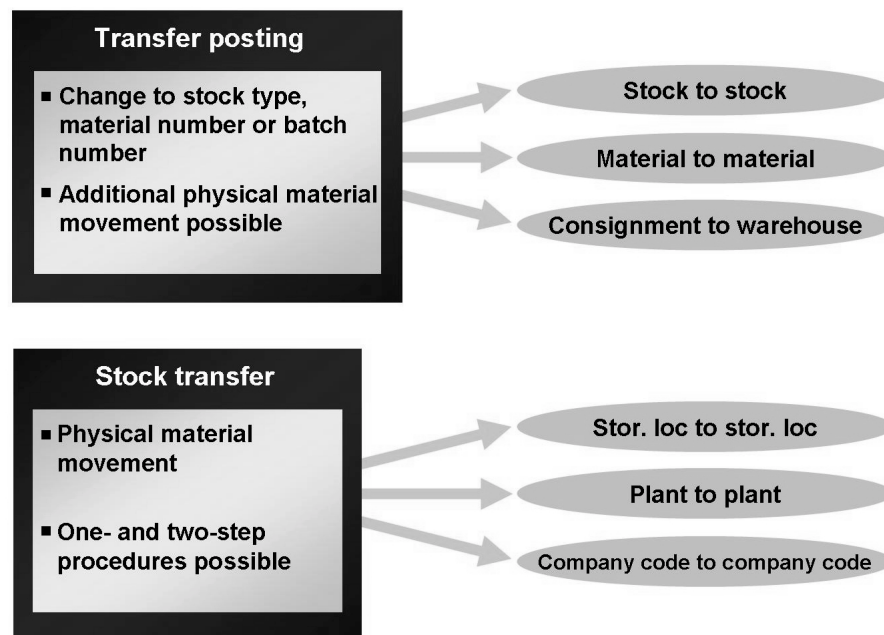


Figure 36: Transfer Posting/Physical Stock Transfer

In the case of **transfer postings**, the key aspect is a change in the stock ID number or the stock category of a material. Transfer postings need not involve an actual (physical) goods movement. In the case of **stock transfers**, on the other hand, there is always a physical movement of goods.

- Examples of transfer postings:
Stock to stock (for example, in quality inspection to unrestricted-use) or material to material
- Examples of (physical) stock transfers:
Storage location to storage location, plant to plant

As you can see from the examples, transfer postings and physical stock transfers can take place at different organizational levels. If stock is transferred between two storage locations within a plant, we speak of a **storage-location-to-storage-location** stock transfer. If stock is transferred between two plants and the plants belong to the same company code, we speak of a **plant-to-plant** stock transfer. If the plants are assigned to different company codes, we speak of a **company-code-to-company-code** stock transfer.

Transfer Postings

Stock to Stock

There are three stock types in inventory management that indicate the usability of a material: unrestricted-use, in quality inspection, and blocked. If the usability of a material changes, you must make transfer postings between the different stock types. With this type of transfer posting, you can also enter a physical goods movement to a different storage location. However, it is only possible to enter a movement within one plant, not between several plants.

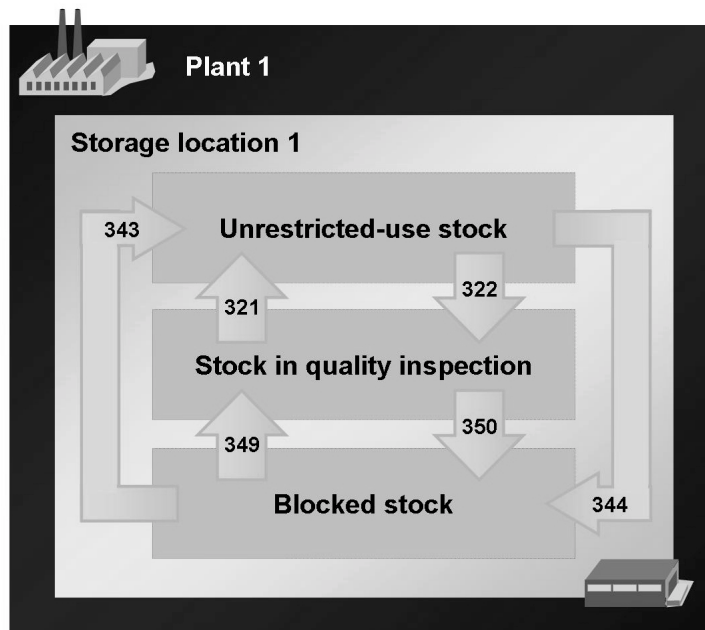


Figure 37: Stock-to-Stock Transfer Posting

Examples:

- Material is posted to stock in quality inspection at the time of a goods receipt against a purchase or production order. Following quality inspection, the quantity is posted to unrestricted-use stock.



Hint: If inspection processing in the quality management system is active, you cannot post any issues from stock in quality inspection within Inventory Management. Such movements can only be carried out within the framework of inspection processing.

- Due to a damaged water pipe in a warehouse, a certain material can no longer be used and is transferred to blocked stock.

Material to Material

If the state of a material changes over time, for example, so that instead of the properties defined in the original material master record it now has those corresponding to another material number, a **material-to-material** transfer becomes necessary. This is often the case in the chemical and pharmaceutical industries.



Caution: A material-to-material transfer posting is possible only if both materials are managed in the same base unit of management.

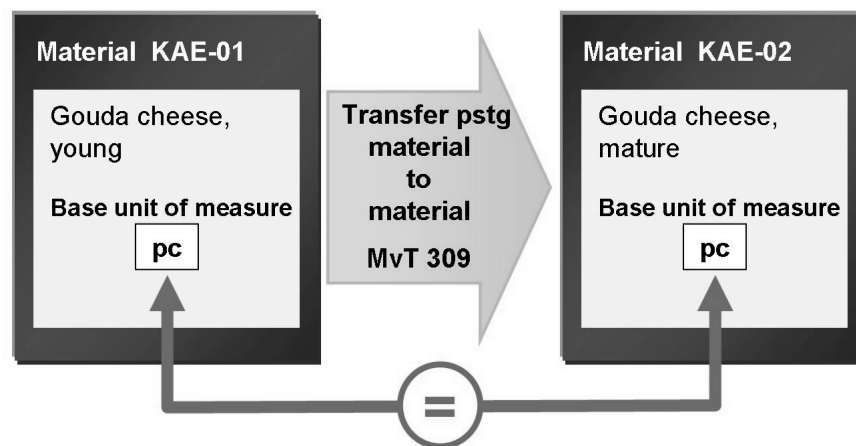
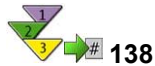


Figure 38: Material-to-Material Transfer Posting

The following additionally applies to material-to-material transfer postings:

- They cannot be preplanned via a reservation.
- They can only be posted from unrestricted-use stock of the issuing material to unrestricted-use stock of the receiving material.
- They can only be posted in a single step.



Entering Transfer Postings Using Transaction MIGO

	Material	OK	Quantity	EUn	Storage loc.	MvT	Plant	Oth...
1	Sunny	<input checked="" type="checkbox"/>	20	PC	0001	321	1000	

Figure 39: Transfer Posting Using Transaction MIGO (Example)

1. From the *SAP Easy Access* screen, choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Transfer Posting (MIGO)*.
2. Choose *Transfer Posting* and, as reference, *Others*.
3. Check the default value for the movement type and change it if necessary (for example, movement type 321 for the transfer posting quality to unrestricted-use).
4. In the item detail data, enter the material for which you wish to make a transfer posting under the *From* data for the material. You must also specify the issuing plant and the issuing storage location.
5. Under the *To* data, specify the receiving material, the receiving plant, and the receiving storage location.



Hint: The fields available under the *To* data depend on the movement type. For example, in the case of stock-to-stock transfer postings, it is only possible to specify a receiving storage location. In the case of a material-to-material transfer posting, on the other hand, you can also enter the material and the plant.

Continued on next page


6. Enter the quantity to be transferred in the item details.
7. Make the transfer posting.

Copying Rules for Transfer Postings in Transaction MIGO

If you wish to enter several transfer posting items in one document using transaction MIGO, you can use the **copying rules for transfer postings** to save time and effort.

For example, you want to transfer 20 materials in plant 1000 from stock in quality inspection at storage location 0001 to unrestricted-use stock at storage location 0002. Using copying rules, you can specify that the system always suggests storage location 0001 as the issuing location and storage location 0002 as the receiving location in plant 1000.

Proceed as follows:

Enter the first item with the necessary data. Then choose  with the quick info text *Copy to New Item*. If you are using this function for the first time for a combination of movement type and special stock indicator, you are automatically taken to a dialog box in which you can specify copying rules.



Enter/Change Copying Rules										
	MvT	S...	Material	Plant	SLoc	...	Material TrPg	Plant TrPg	SLoc. TrPg	...
	321		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	309		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Figure 40: Copying Rules for Transfer Postings (MIGO)

In this dialog box, you can specify which fields from the current item are to be adopted when the *Copy to New Item* function is executed. You can choose the following fields, for example: *Material*, *Plant*, *Storage Location*, *Batch*, *Material (Transfer Posting)*, *Plant (Transfer Posting)*, *Storage Location (Transfer Posting)*, and *Batch (Transfer Posting)*.

You can change these settings at any time by choosing *Settings* → *Copying Rules for Transfer Posting*.

If, after copying to the new item, fields of the primary posting are not filled, but have been maintained for the transaction under *Settings* → *Default Values*, these values are adopted where possible (for example, plant and storage location).



Demonstration: Stock-to-Stock Transfer Posting

Purpose

This demonstration shows how to enter transfer postings using the transaction MIGO. The exact procedure is described “Entering Transfer Postings Using Transaction MIGO.”

Since stocks should be checked before and after the postings in this demonstration, it is helpful to work with two sessions. You can call the stock overview in one and the MIGO transaction in the other.

CATT: ZT_SCM510_02

System Data

System: Training System
Client: 8xx
User ID: Own user ID or SCM510-00
Password: Ask the instructor
Set up instructions: None

1. Display stock overview for materials T-M510Z03 and T-M510Z04 for plants 1000 to 1200 without restriction of the storage locations. Choose the display variant **51** (version SCM510).
2. Enter a “stock-to-stock” transfer posting with movement type 321 (quality inspection to unrestricted-use) with the data from the following table. For the second item, use the copying function and show how to create copying rules for transfer postings. You can use figure 4 as a guide.

Item	Material	Plant	Storage location	Quantity	Rec. stor. loc.
1	T-M510Z03	1200	0001	10 pc	0002
2	T-M510Z04	1200	0001	10 pc	0002

3. Enter more stock-to-stock transfer postings, for example, with movement types 349 and 344. Show how these transfer postings can be entered in a material document by changing the default value for the movement type prior to entering new items.

4. For at least one “stock-to-stock” transfer posting, show that no accounting document was generated.



Demonstration: Material-to-Material Transfer Posting

Purpose

This demonstration shows how to enter a “material-to-material” transfer posting using the transaction MIGO. In this case too, the exact procedure is described under “Entering Transfer Postings Using Transaction MIGO”.

CATT: ZT_SCM510_02

System Data

System: Training System
Client: 8xx
User ID: Own user ID or SCM510-00
Password: Ask the instructor
Set up instructions: None

1. Display the stock overview for the materials T-M510Z06 and T-M510Z07 for plant 1000 without restricting the storage locations. Choose the display variant **51** (version SCM510).
2. Enter a “material-to-material” transfer posting with movement type 309 using the data from the following table.

Item	Material	Plant	Storage location	Quantity
1	T-M510Z06	1000	0001	10 pc
2	T-M510Z07	1000	0001	10 pc

3. Display the accounting document for this “material-to-material” transfer posting. Display the stock overview for the two materials again.



Exercise 11: Transfer Postings

Exercise Duration: 25 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Enter various transfer postings in the system

Business Example

After the quality inspection, you must transfer post the stock of the material in quality inspection to make the quantity available for use.


Also, some printer cartridges have run out and you must transfer these items to the stock of empty cartridges.

System Data

System:	Training System
Client:	8xx
User ID:	Ask the instructor
Password:	Ask the instructor
CATT:	ZT_SCM510
Set up instructions:	None

Task 1: Stock-to-Stock Transfer Posting

Many of the materials that are delivered every day are automatically posted to stock in quality inspection upon receipt. After the quality inspection, the relevant material must be transferred to unrestricted-use stock. In plant 1200, you maintain your stock in quality inspection and your stock for unrestricted use at different storage locations.

1. Because you will be making several transfer postings for plant 1200 in the system, you adjust your default values for the transaction MIGO accordingly. Do not specify a default value for the storage location.
2. When copying items for the purposes of a transfer posting with movement type 321, you wish to adopt the data on plant and storage location (issuing and receiving) in new items. Adjust the copying rules for transaction MIGO.
3. Enter the transfer posting in plant 1200 for 10 pc of material **T-M510A##** and 10 pc of **T-M510B##** from stock in quality inspection at storage location QP01 to unrestricted-use stock at storage location 0001. Use the copying function for transaction MIGO ( *Copy to New Item*).

Continued on next page

Task 2: Material-to-Material Transfer Posting

In the warehouse, a number of printer cartridges with the material number T-M510D## are found to be leaking. Transfer the cartridges to empty printer cartridges T-M510E##.

1. Display the two materials and make a note of the base unit of measure.

Material	Base unit of measure
T-M510D##	
T-M510E##	




2. Transfer 10 pc from full printer cartridges **T-M510D##** from plant 1200, storage location 0001, to empty printer cartridges **T-M510E##** (movement type 309). The plant and storage location are not changed.
3. Display the accounting document for the transfer posting and make a note of the accounts to which postings have been made.

for T-M510D##		for T-M510E##	
Account	D/C	Account	D/C


Solution 11: Transfer Postings

Task 1: Stock-to-Stock Transfer Posting

Many of the materials that are delivered every day are automatically posted to stock in quality inspection upon receipt. After the quality inspection, the relevant material must be transferred to unrestricted-use stock. In plant 1200, you maintain your stock in quality inspection and your stock for unrestricted use at different storage locations.

1. Because you will be making several transfer postings for plant 1200 in the system, you adjust your default values for the transaction MIGO accordingly. Do not specify a default value for the storage location.
 - a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
 - b) Choose *Settings* → *Default Values*.
 - c) Enter *plant 1200* and delete the entry for storage location.
 - d) Choose  *Adopt*.
2. When copying items for the purposes of a transfer posting with movement type 321, you wish to adopt the data on plant and storage location (issuing and receiving) in new items. Adjust the copying rules for transaction MIGO.
 - a) Choose *Settings* → *Copying Rules, Transfer Posting*.
 - b) Choose  *Insert New Line*.
 - c) Enter movement type **321**.
 - d) Set the indicator for *Plant, SLoc, Plant Tfr Pstg, SLoc Tfr Pstg*.
 - e) Choose  *Adopt*.

Continued on next page

3. Enter the transfer posting in plant 1200 for 10 pc of material **T-M510A##** and 10 pc of **T-M510B##** from stock in quality inspection at storage location QP01 to unrestricted-use stock at storage location 0001. Use the copying function for transaction MIGO ( *Copy to New Item*).
 - a) Choose *Logistics → Materials Management → Inventory Management → Goods Movement → Goods Movement (MIGO)*.
 - b) Choose *Transfer Posting* and, as reference, *Other*.
 - c) Enter movement type **321** and confirm your entries with *Enter*.
 - d) Enter the following data on the *Transfer Posting* tab page:

From area



Material T-M510A##

Plant 1200

Storage location QP01

Dest area

Storage Location 0001

Unit of Entry 10 pc
 - e) Choose  *Copy to New Item*.
 - f) The system generates a second item with the same data for plant and storage locations. Enter the *Material T-M510B##* and *Quantity 10*.
 - g) Choose  with the quick info text *Post*.



Task 2: Material-to-Material Transfer Posting

In the warehouse, a number of printer cartridges with the material number T-M510D## are found to be leaking. Transfer the cartridges to empty printer cartridges T-M510E##.

1. Display the two materials and make a note of the base unit of measure.

Continued on next page

Material	Base unit of measure
T-M510D##	Pc (pieces)
T-M510E##	Pc (pieces)

- a) Choose *Logistics* → *Materials Management* → *Material Master* → *Material* → *Display* → *Display Current (MM03)*.
 - b) Enter the *Material Number T-M510D##*.
 - c) Choose *Select View(s)* and select *Purchasing*.
 - d) Choose *Organizational Levels* and then .
 - e) Make a note of the base unit of measure *pc* (piece).
 - f) Return to the entry screen with  and repeat the steps from step b) with material number **T-M510E##**.
 - g) Material T-M510E## also has the base unit of measure *pc* (piece).
2. Transfer 10 pc from full printer cartridges **T-M510D##** from plant 1200, storage location 0001, to empty printer cartridges **T-M510E##** (movement type 309). The plant and storage location are not changed.
- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
 - b) Choose *Transfer Posting* and, as reference, *Other*.
 - c) Enter the movement type **309** *Material-to-Material Transfer* and confirm your entries with *Enter*.
 - d) Enter the following data on the *Transfer Posting* tab page:

From area


Material T-M510D##

Plant 1200

Storage Location 0001



Dest area

Material T-M510E##

Unit of Entry 10 pc
 - e) Choose  with the quick info text *Post*.
3. Display the accounting document for the transfer posting and make a note of the accounts to which postings have been made.

Continued on next page

for T-M510D##		for T-M510E##	
Account	D/C	Account	D/C
<u>300010 (stock account)</u>	<u>C</u>	<u>300010 (stock account)</u>	<u>D</u>
		<u>235000 (expense from stock transfer)</u>	<u>D</u>

- a) Choose *Display*, and *Material Document* as the reference.
- b) Choose  with the quick info text *Execute*.
- c) Choose the *Document Info* tab page in the document header, and choose  *FI/CO Documents*. To display the accounting document, double-click on the document number.
- d) An issue from and a receipt to stock account 300010 are posted. However, the full amount of the issue (credit posting for T-M510D##) is not posted back to the stock account (debit posting for T-M510E##), because the empty printer cartridges (T-M510E##) are valued according to the standard price procedure. The difference between the amounts of the credit and debit postings to the stock account is posted to a separate **Expense from Stock Transfer** account (235000) (debit posting).



Lesson Summary

You should now be able to:

- Describe the procedure for a stock-to-stock transfer posting
- List the prerequisites for a material-to-material transfer posting and make this type of posting

Lesson: Stock Transfer Between Storage Locations



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Lesson Duration: 40 Minutes

Lesson Overview

This lesson deals with physical stock transfers between two storage locations within a plant. You will learn how to enter physical stock transfers in one step and in two steps, and look at the effects of stock transfers.



Lesson Objectives

After completing this lesson, you will be able to:

- Distinguish between the one-step and two-step procedures for stock transfers
- Demonstrate the entry of a stock transfer from storage location to storage location



At the beginning of this lesson, you can again briefly discuss the difference between transfer postings and physical stock transfers. The focus of this lesson is on the transfer of stock between storage locations of a plant.

The instructor should use this special scenario to demonstrate that all transfer postings and stock transfers consist of a goods issue and a goods receipt. The difference between the one-step and the two-step procedures for stock transfers can then be explained.

The instructor should make clear to participants which procedure is suitable for which cases.

The following scenario could be used as an example of a physical transfer from stock in quality inspection at one storage location to stock in quality inspection at another storage location: Material is withdrawn from stock in quality inspection in the warehouse and taken to the laboratory. After testing, the material can be taken back to the warehouse. (A withdrawal for sampling should only be posted if the material is destroyed in the course of testing.)

Business Example

In your enterprise, numerous materials have also been approved for direct factory sale. For this reason, you must transfer these materials to a special factory outlet warehouse.

One-Step and Two Step Procedures

A stock transfer/transfer posting consists of a goods issue from the issuing point and a goods receipt at the receiving point. The goods issue and goods receipt can be entered using a **single** posting for all transfer postings/stock transfers.

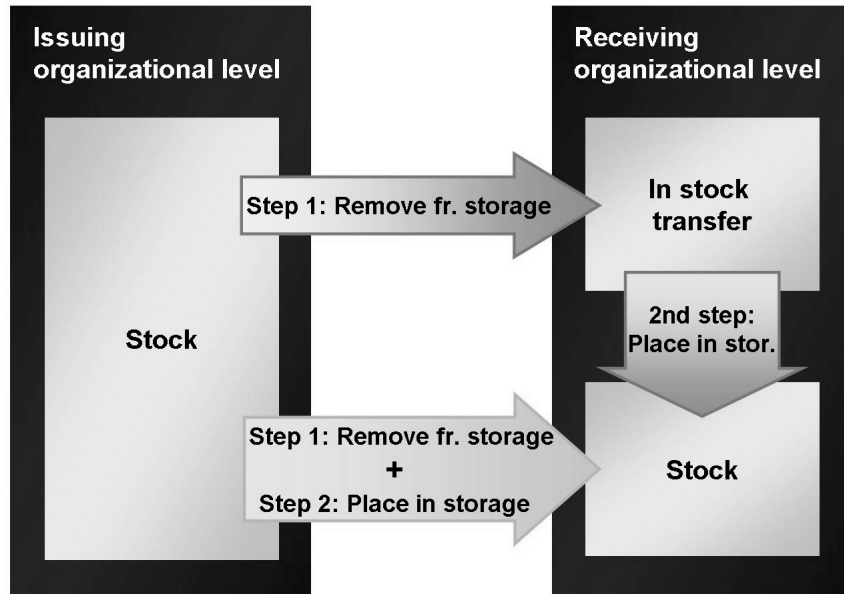


Figure 41: One-Step/Two-Step Procedures

For some stock transfers, you have the additional option of entering the goods issue and goods receipt in two separate steps and thus in two separate postings. In the case of storage-location-to-storage-location and plant-to-plant stock transfers, a distinction is made between the **one-step procedure** and the **two-step procedure**.

The one-step procedure has the advantage that you enter a single transaction in the system. However, using the two-step procedure enables you to monitor stocks that you are in the process of transferring from one place to another. Once you have posted the goods issue from the issuing point, the stock is regarded as **in transfer** at the receiving point, and is treated as such in the system.



Hint: In the case of stock transfers between plants, the two-step procedure is necessary if users have authorizations only for their own plant in each case.



Hint: At the time of physical inventory, you should not have any stocks in transfer because you cannot inventory such stocks.



Demonstration:

Purpose

Stock transfer using the one-step procedure

CATT: ZT_SCM510

System Data

System: Training System
Client: 8xx
User ID: Own user ID or SCM510-00
Password: Ask the instructor
Set up instructions: None

1. In the MIGO transaction, choose Remove from Storage and Others. Enter movement type 311 and the following information:

Material: T-M510Z03

Plant 1200

From storage location 0001 to storage location 0002

2. Choose Post.
3. Display the material document. Show that no FI documents have been generated.

Storage Location to Storage Location: One-Step Procedure

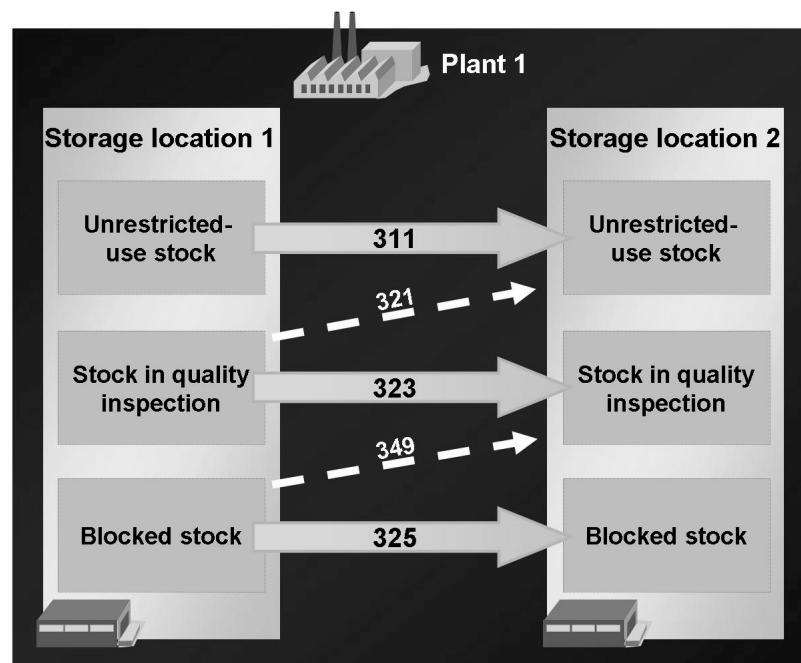


Figure 42: Storage Location to Storage Location: One-Step Procedure

A stock transfer from one storage location to another is carried out within a plant. You can post a storage-location-to-storage-location stock transfer using the one-step procedure for all stock types. In the process, a material document is generated, containing two material document items for each item you entered:

- One item for the removal of the material from storage (goods issue) at the issuing storage location
- One item for the placement of the material in storage (goods receipt) at the receiving storage location

No accounting document is generated for this stock transfer because the transferred material is managed in the same plant, and therefore has the same posting data as before.



Hint: If stock is transferred from one storage location to another, an accounting document is generated if the material is split-valuated and the valuation type changes in the course of the transfer.



Demonstration:

Purpose

Stock transfer using the two-step procedure

CATT: ZT_SCM510_02

System Data

System: Training System
Client: 8xx
User ID: Own user ID or SCM510-00
Password: Ask the instructor
Set up instructions: None

1. Choose Remove from Storage and Others in the transaction MIGO. Enter movement type 313 and the following information:
Material: T-M510Z03
Plant 1200
From storage location 0001 to storage location 0002
2. Choose Post.
3. Display the material document. Show that no FI documents have been generated.
4. Display the stock in transfer at storage location 0002 in the stock overview. (MMBE)

5. Place the materials in storage at storage location 0002. In the transaction MIGO, choose Putaway (place in storage) and Material Document. Enter movement type 313 and the following information:
 - Material: T-M510Z03
 - Quantity: 10 pc
 - Plant 1200
 - From storage location 0001 to storage location 0002
6. Show that although you can change the quantity and storage location, you cannot post this data because the quantity falls short of the stock in transfer figure. After each change, choose Check.
7. Enter storage location 0002 and the quantity 10 pc, and then choose Post.

Storage Location to Storage Location: Two-Step Procedure

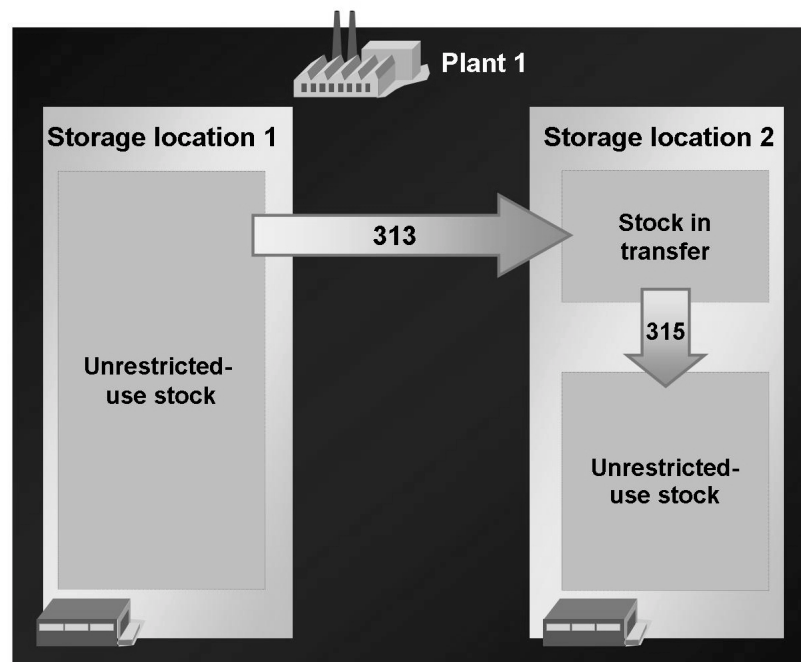


Figure 43: Storage Location to Storage Location: Two-Step Procedure

Using the two-step procedure, you can only transfer material from unrestricted-use stock at the issuing location to unrestricted-use stock at the receiving storage location. After the stock removal posting, the quantity is booked out of the issuing storage location. At the receiving storage location, the quantity is already included in the stock for that location, not as unrestricted-use stock, however, but as stock

in transfer. The quantity is not available for unrestricted use at plant level either. When the goods are received at the receiving storage location, the quantity is transferred from stock in transfer to unrestricted-use stock.

In the course of a stock transfer from storage location to storage location using the two-step procedure, two material documents are generated: one at the time of goods issue (in this case referred to as **removal from storage**), and a second at the time of goods receipt (in this case referred to as **putaway** or placement in storage). Valuation does not take place in the case of the two-step procedure.



Stock Transfer Using the Two-Step Procedure: Removal from Storage

1. From the *SAP Easy Access* screen, choose *Logistics ? Materials Management ? Inventory Management ? Goods Movement ? Transfer Posting (MIGO)*.
2. Choose *Remove from Storage* and, as reference, *Others*.
3. Check the default value for the movement type and change it to **313** if necessary.
4. In the item detail data, enter the material that is to be transferred under the **From data**. You must also specify the issuing plant and the issuing storage location.
5. Enter the receiving storage location under the *Dest* data.



Hint: It is necessary to specify the receiving storage location because the stock in transfer belongs to the receiving location.

6. Enter the quantity to be transferred in the item details.
7. Post the removal from storage.



Stock Transfer Using the Two-Step Procedure: Putaway

Prerequisites



In order for a putaway (placement in storage) to be posted, stock in transfer must exist at the receiving storage location.



Hint: You can simplify the entry of the putaway if you reference the material document of the removal from storage when doing so. In this case the system provides the materials, the quantities, the receiving plant, the receiving storage location, and the movement type as default values for the putaway.

However, you can also enter the necessary data manually, as with the removal from storage.

Procedure

1. From the *SAP Easy Access* screen, choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Transfer Posting (MIGO)*.
2. Choose *Place in Storage* and, as reference, *Material Document*.
3. Enter the material document number. You can also search for the material document. To do so, choose  *Find Material Doc.* and enter the *movement type* 313, the material, and the plant as selection values.
4. Choose  *Execute* to transfer the items.
5. Select the desired items using the *OK* indicator. If necessary, change the default quantity for the items.
6. Post the putaway (placement in storage).



Exercise 12: Stock Transfer Between Storage Locations

Exercise Duration: Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Enter a stock transfer using the two-step procedure

Business Example

For direct factory sales, materials must be transferred from a central storage location to the factory outlet storage location.

System Data

System:	Training System
Client:	8xx
User ID:	Ask the instructor
Password:	Ask the instructor
CATT:	ZTSCM510_02
Set up instructions:	None

Task: Stock Transfer Between Storage Locations Using the Two-Step Procedure

Transfer two materials from the central storage location 0001 of plant 1200 to storage location 0120 for direct factory sales. Use the two-step procedure.

1. Remove 10 pc of each of the materials **T-M510A##** and **T-M510B##** from storage at **plant 1200** storage location 0001, and transfer them to storage location 0120 (direct factory sales).

For a stock transfer between storage locations, you usually need to enter multiple items. To reduce the time and effort required for entry, maintain the copying rules for this transaction.

Make a note of the material document number after the posting.

Material document number	
--------------------------	--

2. Display stock in transfer at **plant 1200, storage location 0120**.

Continued on next page

3. Enter the placement into storage of the 10 pc each of materials **T-M510A##** and **T-M510B##** as a stock putaway for a material document. Before posting, check the following points for one of the two materials:

Question	Result
Can you change the stock type?	
Can you place 15 pc in storage?	
Can you place 5 pc in storage?	
Can you put away 10 pc in storage location 0001?	

4. Check whether the stock in transfer of material **T-M510A##** at **plant 1200**, **storage location 0120** has been completely cancelled out as a result of the putaway.

Solution 12: Stock Transfer Between Storage Locations

Task: Stock Transfer Between Storage Locations Using the Two-Step Procedure

Transfer two materials from the central storage location 0001 of plant 1200 to storage location 0120 for direct factory sales. Use the two-step procedure.

1. Remove 10 pc of each of the materials **T-M510A##** and **T-M510B##** from storage at **plant 1200** storage location 0001, and transfer them to storage location 0120 (direct factory sales).

For a stock transfer between storage locations, you usually need to enter multiple items. To reduce the time and effort required for entry, maintain the copying rules for this transaction.

Make a note of the material document number after the posting.

Continued on next page

Material document number	
--------------------------	--

- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
- b) Choose *Remove from Storage* and, as reference, *Others*.
- c) Enter the movement type **313** (*Transfer Posting Storage Location to Storage Location*) and confirm your entries with *Enter*.
- d) Enter the following data on the *Transfer Posting* tab page:

From area


Material T-M510A##



Plant 1200

Storage Location 0001

Dest area


Storage Location 0120

Unit of Entry 10 pc
- e) Set the *Item OK* indicator.
- f) Choose  *Copy to New Item*.




 **Note:** The system opens a dialog box for you to enter copying rules.
- g) In the line for movement type 313, select *Plant*, *Storage Location*, *Plant TfrPstg* and *SLoc TfrPstg*.
- h) Choose  *Adopt*.
- i) Enter the following data for the second item on the *Transfer Posting* tab page:

From area

Material T-M510B##

Unit of Entry 10 pc
- j) Set the *Item OK* indicator.
- k) Choose  with the quick info text *Post*.
- l) Make a note of the material document number.

Continued on next page


2. Display stock in transfer at **plant 1200, storage location 0120**.
 - a) Choose *Display* and *Material Document*.
 - b) Choose  with the quick info text *Execute*.
 - c) On the *Transfer Posting* tab page, choose  *Stock Overview*.
 - d) Position the cursor on the line storage location 0120 and choose  *Detail Display*. The storage-location-related stock in transfer is described as *Stock Transfer (SLoc)*.
3. Enter the placement into storage of the 10 pc each of materials **T-M510A##** and **T-M510B##** as a stock putaway for a material document. Before posting, check the following points for one of the two materials:


Continued on next page

Question	Result
Can you change the stock type?	<u>No</u>
Can you place 15 pc in storage?	<u>No</u>
Can you place 5 pc in storage?	<u>Yes</u>
Can you put away 10 pc in storage location 0001?	<u>No</u>




- a) Choose *Place in Storage* and, as reference, *Material Document*.
- b) Enter the number of the material document from the removal from storage.



Hint: You can use the search function  *Find Material Doc..* Enter movement type **313** and the user name **SCM510-##** as selection values.

- c) Choose  with the quick info text *Execute*.
- d) Set the *Item OK* indicator for both items.
- e) The stock type cannot be changed. The two-step procedure for storage-location-to-storage-location stock transfers is only possible for unrestricted-use stock.
- f) Enter the *Quantity 15* and choose *Check*. The system issues the error message telling you that there is a shortfall of 5 pc below the stock-in-transfer stock figure. The stock putaway cannot be posted.
- g) Enter the *Quantity 5* and choose *Check*. The system does not issue a message and the putaway can be posted.
- h) Enter the *Quantity 10* and *Storage Location 0001*. Then choose *Check*. The system issues the error message informing you that the stock-in-transfer figure has been exceeded by 10. The stock putaway cannot be posted.
- i) Enter the *Quantity 10* and *Storage Location 0120*. Then choose *Post*.

Continued on next page

4. Check whether the stock in transfer of material **T-M510A##** at **plant 1200, storage location 0120** has been completely cancelled out as a result of the putaway.
 - a) Choose *Display* and reference *Material Document*.
 - b) Choose  with the quick info text *Execute*.
 - c) On the *Where* tab page, choose  *Stock Overview*.
 - d) Position the cursor on the line storage location 0120 and choose  *Detail Display*. The storage-location-related stock in transfer *Stock Transfer (SLoc)* amounts to 0 pc.



Lesson Summary

You should now be able to:

- Distinguish between the one-step and two-step procedures for stock transfers
- Demonstrate the entry of a stock transfer from storage location to storage location

Lesson: Stock Transfer Between Plants



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Lesson Duration: 60 Minutes

Lesson Overview

This lesson introduces you to physical stock transfers between two plants of a company code. Both the one-step and two-step procedures for stock transfer are discussed. In addition to these two procedures, in the case of cross-plant stock transfers you also have the option of carrying out the transfer using a stock transport order. This is also discussed in the lesson.



Lesson Objectives

After completing this lesson, you will be able to:

- Carry out a stock transfer between plants of a company code using the one-step and two step procedures
- Create a stock transport order
- Carry out a stock transfer with reference to a stock transport order using the two-step procedure



This lesson discusses various procedures for transferring stocks from plant to plant. Cross-company-code stock transfers are deliberately excluded from the scope of this lesson. As a rule, the shipping and possibly also sales and distribution departments are also involved in stock transfers of the latter type. For this reason, good prior knowledge of these areas is required to deal with such scenarios. Cross-company-code stock transfers without the involvement of shipping and sales are entered in exactly the same way as stock transfers within a company code.

If the instructor wishes to show cross-company-code processes, he or she can fall back on the IDES scenarios.



Hint: Stock transfers with the involvement of shipping are dealt with in course SCM680 (Cross-Application Processes in SD and MM).

Business Example

Parts that are prefabricated in one of your plants must be transferred to your main plant for final assembly. You want to test the process of stock transfer with and without a stock transport order.

Cross-Plant Stock Transfer

In the case of a plant-to-plant stock transfer, the plants between which material is transferred can belong either to the same company code or to different ones. As a general rule, cross-plant stock transfers can only be booked out of unrestricted-use stock.

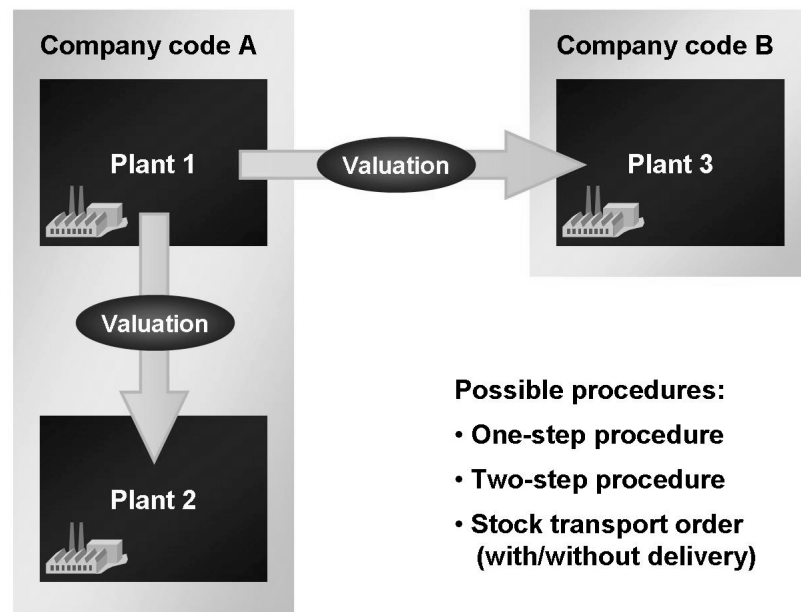


Figure 44: Stock Transfer: Plant to Plant

In contrast to a storage-location-to-storage-location stock transfer, a plant-to-plant transfer affects Financial Accounting and Material Requirements Planning.

- **Financial Accounting** (only if the two plants are assigned to different valuation areas):

A cross-plant stock transfer leads to a value update in the stock accounts. An accounting document is generated parallel to the material document for the stock transfer. The stock transfer is valued at the valuation price of the material in the issuing plant.

In the case of a cross-company-code stock transfer, two accounting documents are created at the time of posting: one for each company code. The offsetting entry to the stock posting is then made to a company-code clearing account.



Hint: If the stock transfer is entered in two separate steps, valuation always takes place at the time of the first step.

- **Material Requirements Planning (MRP):**

A change in the plant stock is taken into account by MRP.



When introducing the different procedures for plant-to-plant stock transfers, it is helpful to call the section *Special Stocks and Special Forms of Procurement* → *Stock Transfer using Stock Transport Order* in the SAP Library. This section lists the different procedures with their characteristics and differences.

Several procedures are available for the physical transfer of materials from one plant to another:

- one-step procedure
- two-step procedure

Possible reasons for a stock transfer using the two-step procedure are that the plants are located far away from each other and the goods remain in transit for a certain time, or that a different employee is responsible in each plant, each of whom can post movements only in his or her own plant.

- Stock transport order without delivery
- Stock transport order with delivery via shipping (also possible with billing document).

For more information about stock transfers using stock transport orders, see the *Inventory Management (MM-IM)* section of the SAP Library under *Special Stocks and Special Forms of Procurement* → *Stock Transfer via Stock Transport Order*.

The approaches to the entry of plant-to-plant stock transfers for the one-step and two-step procedures without a stock transport order correspond to those for storage-location-to-storage-location transfers.

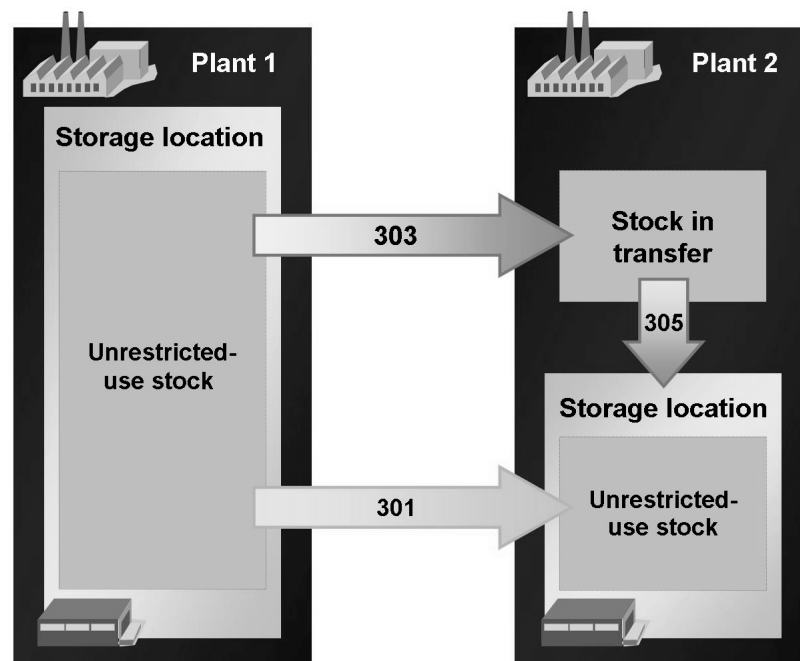


Figure 45: Plant to Plant: One-Step/Two-Step Procedures

In the **one-step procedure**, the goods issue and goods receipt are posted in a single material document. You must therefore enter all relevant data, such as the material, issuing plant, issuing storage location, receiving plant, and receiving storage location in this one step. The movement type (in the standard system) is 301.

In the case of the **two-step procedure**, when removing the material from storage (movement type 303), you must specify the receiving plant in addition to the material and the issuing organizational levels. This is necessary because valuation of the stock transfer takes place when the material is removed from storage and posted to stock in transfer at the receiving plant. You can either enter the putaway (placement in storage, movement type 305) with reference to the material document of the stock removal or enter all data manually. As a result of the putaway, the quantity is booked out of stock in transfer and into unrestricted-use stock at the receiving plant. Valuation of the putaway is not necessary, since the stock in transfer and the unrestricted-use stock at the receiving storage location belong to the same plant.



Demonstration:

Purpose

Stock transfer using the two-step procedure

CATT: ZT_SCM510

System Data

System:	Training System
Client:	8xx
User ID:	Own user ID or SCM510-00
Password:	Ask the instructor
Set up instructions:	None

1. Choose Remove from Storage and Others in the transaction MIGO. Enter movement type 303 and the following information:
 - Material: T-M510Z03
 - From plant 1000 to plant 1200
 - From storage location 0001 to storage location 0002
2. Choose Post.
3. Display the material document. Show that FI documents have been generated.
4. Display the stock in transfer at plant 1200 in the stock overview. (MMBE)
5. Place the materials in storage at plant 1200, storage location 0002. In the transaction MIGO, choose Putaway (place in storage) and Material Document. Enter the following data:
 - Material: T-M510Z03
 - Plant 1200
 - Quantity: 10 PC
 - Plant 1200
 - From storage location 0001 to storage location 0002
6. Show that although you can change the quantity and storage location, you cannot post this data because the quantity falls short of the stock in transfer figure. After each change, choose Check.
7. Enter storage location 0002 and quantity 10 pieces. Choose Post.



Demonstration:

Purpose

Stock transport order

CATT: CATT exercise

System Data

System:	Training System
Client:	8xx
User ID:	Own user ID or SCM510-00
Password:	Ask the instructor
Set up instructions:	None

1. Demonstrate the stock transfer with a purchase order using the data of the exercise (group 00).
-

Stock Transport Order Without Delivery

This type of stock transfer involves not only Inventory Management but also purchasing at the receiving plant. The process begins in the receiving plant with the entry of a stock transport order in the purchasing department. A goods issue referencing this stock transport order is then entered in the issuing plant. The quantity booked out is initially managed as **stock in transit** at the receiving plant. The process is ended by the posting of the goods receipt against the stock transport order at the receiving plant.

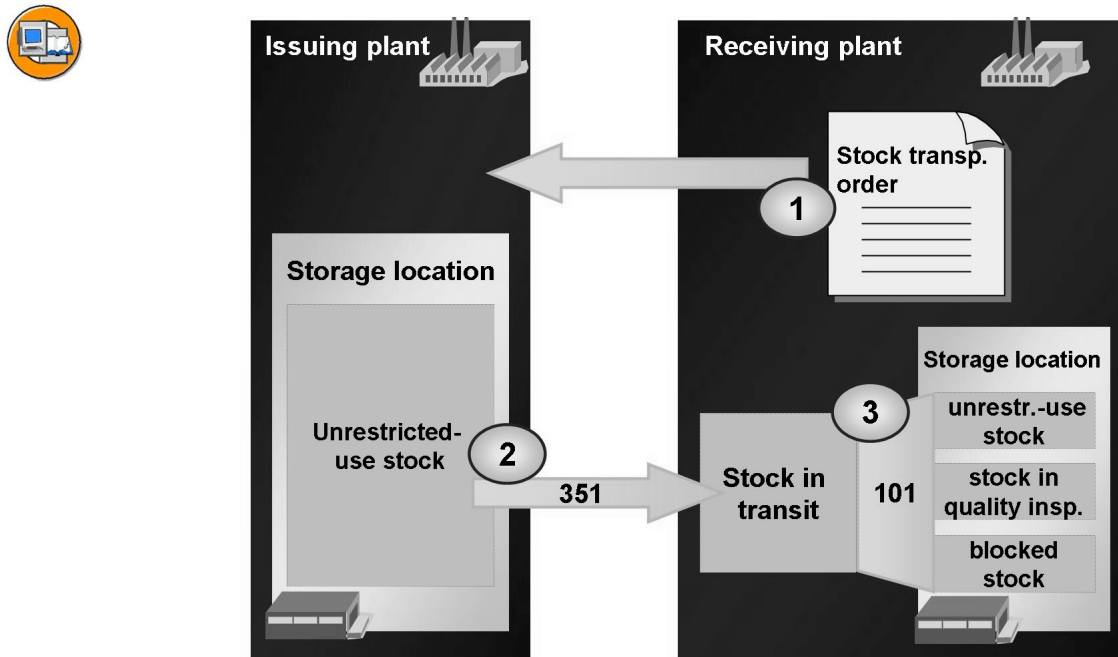


Figure 46: Stock Transport Order

A stock transfer using a stock transport order has the following advantages compared with a stock transfer without a stock transport order:

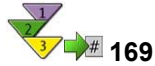
- The stock transport order is integrated within MRP; purchase requisitions generated by MRP can be converted into stock transport orders.
- The receipt can be planned at the receiving plant.
- You can enter delivery costs and a forwarder/carrier in the stock transport order.
- The goods receipt can be posted directly to consumption.
- In the case of a goods receipt into the warehouse, you can also post the material to stock in quality inspection or to blocked stock.
- The entire process (goods issue and goods receipt) can be monitored via the PO history.

Displaying Stock in Transit



The stock in transit is shown in the material master record in the plant stock view for the receiving plant.

A special report for the analysis of transit stocks is available in the *Inventory Management* menu under *Environment* → *Stock* → *Stock in Transit (MB5T)*. With this report, you can select transit stocks for the receiving or issuing plant, for example.

Stock in transit is also displayed in the *Stock Overview* and the *Warehouse Stocks of Material* report. In the Warehouse Stocks of Material report, stocks in transit and stocks in transfer are summarized at plant level in a stock line without a storage location.



Goods Issue for Stock Transport Order

1. From the *SAP Easy Access* screen, choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Transfer Posting (MIGO)*.
2. Choose *Goods Issue* and, as reference, *Purchase Order*.
3. Check the default value for the movement type and change it to **351** if necessary.
4. Enter the number of the stock transport order. To find the purchase order, choose  with the quick-info text *Find Purchase Order*.
5. Choose  *Execute* to adopt the items from the purchase order.
6. Select the items you wish to remove from storage using the *OK* indicator. If necessary, change the default quantity for the items and specify the storage location from which the material is to be withdrawn.
7. Post the goods issue.

Result

A material document and an accounting document are generated. The quantity is booked out of the issuing plant. At the receiving plant, the material is not yet part of unrestricted-use stock. Instead it is recorded as stock in transit at plant level. The PO history is also updated.



Hint: Post the placement of the stock in transit into storage (stock putaway) via a goods receipt against the stock transport order. Enter this goods receipt in the same way as a goods receipt against a normal purchase order. However, it is not possible to book the goods receipt into GR blocked stock because the stock in transit is already valued.

Damage to Goods During Transportation

If goods are damaged during transportation, leading to their destruction, you must report this as scrapping so that the system can correct the figure for the quantity of stock in transfer or stock in transit.

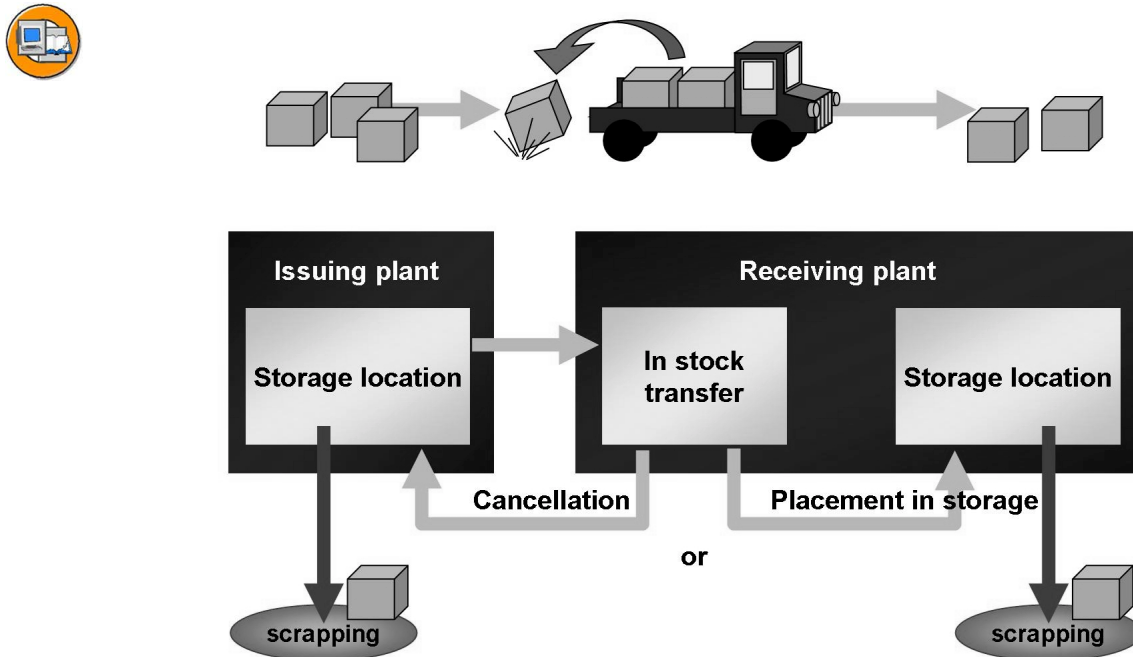


Figure 47: Damage to Goods During Transportation

This can be done in different ways:

- Reverse the removal from storage at the issuing plant and then post the scrapping of the material at the issuing plant. In this case, the scrapping is posted on a value basis in the issuing plant.
- Alternatively, place the full quantity of the goods into storage at the receiving plant and then post the scrapping at the receiving plant. The scrapping is then posted on a value basis at the receiving plant.



Hint: Movement types 557 (issue from stock in transit – adjustment posting) and 558 (receipt to stock in transit – adjustment posting) are used to post adjustment postings for stock in transit. These movement types can only be used in particular circumstances; see SAP Note 392205. These movement types can only be posted with transaction MB1A.

It is important that the quantity destroyed does not remain in stock in transfer or stock in transit, but is reported in the system as scrapped.



Exercise 13: Stock Transfer Between Plants

Exercise Duration: Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Enter stock transfers between plants with reference to purchase orders
- Display stock in transit

Business Example

Parts that are prefabricated in your plant must be transferred to the main plant for final assembly. You use stock transport orders for all cross-plant stock transfers.

System Data

System:	Training System
Client:	8xx
User ID:	Ask the instructor
Password:	Ask the instructor
CATT:	ZT_SCM510
Set up instructions:	None

Task 1: Stock Transfer Between Plants Using a Stock Transport Order

Enter the goods issue and goods receipt for a stock transport order. Monitor the process in the purchase order history and in Financial Accounting. Display the stock in transit.

1. Display purchase order **4151-08##** and make a note of the following information:

Field	Data
Document type	
Supplying plant	
<i>Item category</i>	
Plant for items (ordering plant)	
<i>Stock type for item 10</i>	
<i>Stock type for item 20</i>	

Continued on next page

2. Enter the goods receipt for the purchase order. The materials are withdrawn from **storage location 0001** of plant 1000. From which stock type do you need to take the materials?



Caution: In the header data, delete the entry in the *Plant* field (according to fields for the purchase order number and purchase order item). Alternatively, enter the plant to which the stock is transferred, plant 1200.

Display the the accounting document and purchase order history after posting.

3. The stock in transit was posted into which plant?

4. Display the stock in transit at the receiving plant.
5. Enter the goods receipt in plant 1200 against purchase order **4151-08##**. Display the PO history.
6. Which of the following stock transfers is relevant to accounting?
Choose the correct answer(s).
- A Stock transfer between storage locations of the same plant using the one-step or two-step procedure
 - B Stock transfers between storage locations in different plants using the one-step procedure
 - C Removal from storage in the case of a stock transfer between plants
 - D Placement in storage (putaway) in the case of a stock transfer between plants
 - E Stock transfers between storage locations in different company codes
 - F All stock transfers

Continued on next page

Task 2: (Optional) Creating a Stock Transport Order

Some materials are replenished from a depot. To better plan and evaluate the transfer of stock, you carry out all such transfers using purchase orders. Create a stock transport order for **10 pc of material T-M510A##** from plant 1000 to plant 1200, storage location 0001. Make a note of the purchase order number.

1. Create a stock transport order with the following data:

Data type	Value
Document type	Stock transport order
Supplying plant	1000
Purchasing organization	1000
Purchasing group	SCM500-## (T##)
Company code	1000
Material	T-M510A##
Quantity	10 pc
Delivery date	<today+7 days>
Plant	1200
Storage location	0001
Purchase order number	


Solution 13: Stock Transfer Between Plants

Task 1: Stock Transfer Between Plants Using a Stock Transport Order

Enter the goods issue and goods receipt for a stock transport order. Monitor the process in the purchase order history and in Financial Accounting. Display the stock in transit.

1. Display purchase order **4151-08##** and make a note of the following information:

Field	Data
Document type	<u>Stock transport order</u>
Supplying plant	<u>Plant Hamburg (1000)</u>
Item category	<u>U</u>
Plant for items (ordering plant)	<u>Dresden (1200)</u>
Stock type for item 10	<u>Quality inspection</u>
Stock type for item 20	<u>Blocked</u>




- a) Choose *Logistics* → *Materials Management* → *Purchasing* → *Purchase Order* → *Display (ME23N)*.
 - b) Choose  *Other Purchase Order*.
 - c) Enter purchase order number **4151-08##** and choose *Other Document*.
 - d) The document type is **stock transport order** and the item category is **U**.
 - e) The Dresden plant orders from the Hamburg plant.
 - f) The stock type is found in the item detail on the *Delivery* tab page.
2. Enter the goods receipt for the purchase order. The materials are withdrawn from **storage location 0001** of plant 1000. From which stock type do you need to take the materials?



Caution: In the header data, delete the entry in the *Plant* field (according to fields for the purchase order number and purchase order item). Alternatively, enter the plant to which the stock is transferred, plant 1200.

Continued on next page



Display the the accounting document and purchase order history after posting.

- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
- b) Choose *Goods Issue* and, as reference, *Purchase Order*.
- c) Enter the purchase order number **4151-08##** and delete the plant details.
- d) Check the movement type **351** (*Transfer Posting: Unrestricted to Stock in Transit*).
- e) Choose  with the quick info text *Execute*.
- f) Set the *Item OK* indicator for both items.
- g) Enter *Storage Location 0001* for both items.
- h) Choose  with the quick info text *Post*.
- i) Choose *Display*, and *Material Document* as the reference.
- j) Choose the *Document Info* tab page, then choose  *FI Documents* to display the accounting document.
- k) Return to the material document and choose the *PO Data* tab page.
- l) Double-click the purchase order number to display the purchase order. On the item detail screen, choose the *PO History* tab page.

3. The stock in transit was posted into which plant?




Answer: In the case of a goods issue for a PO, the materials are booked into the stock in transit of the receiving plant (here, plant 1200).

4. Display the stock in transit at the receiving plant.

- a) Choose *Display*, and *Material Document* as the reference.
- b) Choose  *Stock Overview* for the first item (T-M510A##) for To plant 1200.
- c) Position the cursor on the line plant 1200 and choose  *Choose*.
- d) Repeat steps b and c for the second item (T-M510B##).

Stock in transit at plant 1200 shows 100 pc T-M510A## and 100 pc T-M510B##.

Continued on next page

5. Enter the goods receipt in plant 1200 against purchase order **4151-08##**. Display the PO history.
 - a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
 - b) Choose the transaction *Goods Receipt* and, as reference, *Purchase Order*.
 - c) Enter the purchase order number **4151-08##** and choose  *Execute*.
 - d) Set the *Item OK* indicator for both items and choose  *Post*.
 - e) Choose *Display*, and *Material Document* as the reference.
 - f) Choose  *Execute*.
 - g) Choose the *Purchase Order Data* tab page.
 - h) Double-click on the PO number to branch to the purchase order. On the item detail screen, choose the *PO History* tab page.
6. Which of the following stock transfers is relevant to accounting?

Answer: B, C, E

Goods movements between valuation areas are relevant to accounting. The valuation area in this case is the plant. Stock transfers within the plant are, therefore, never relevant to accounting.

Task 2: (Optional) Creating a Stock Transport Order

Some materials are replenished from a depot. To better plan and evaluate the transfer of stock, you carry out all such transfers using purchase orders. Create a stock transport order for **10 pc of material T-M510A##** from plant 1000 to plant 1200, storage location 0001. Make a note of the purchase order number.

1. Create a stock transport order with the following data:

Data type	Value
Document type	Stock transport order
Supplying plant	1000
Purchasing organization	1000
Purchasing group	SCM500-## (T##)
Company code	1000
Material	T-M510A##
Quantity	10 pc
Delivery date	<today+7 days>

Continued on next page

Data type	Value
Plant	1200
Storage location	0001
Purchase order number	


- a) Choose *Logistics* → *Materials Management* → *Purchasing* → *Purchase Order* → *Create* → *Vendor/Supplying Plant Known (ME21N)*.
- b) Choose the document type *Stock Transport Order*.
- c) Enter the *Supplying Plant 1000*.
- d) Enter the following header data on the *OrgData* tab page:



Purchasing Organization 1000

Purchasing Group T##

Company Code 1000



Hint: To open the header data, choose  *Expand Header*.

- e) Enter the following data in the item overview:
 - Material T-M510A##*
 - Quantity 10*
 - Delivery Date <Today+7 days>*
 - Plant 1200*
 - Storage Location 0001*
- f) Choose  *Save*.
- g) To display the purchase order, choose  *Other Purchase Order* and then *Other Document*.



Lesson Summary

You should now be able to:

- Carry out a stock transfer between plants of a company code using the one-step and two step procedures
- Create a stock transport order
- Carry out a stock transfer with reference to a stock transport order using the two-step procedure



Unit Summary

You should now be able to:

- Describe the procedure for a stock-to-stock transfer posting
- List the prerequisites for a material-to-material transfer posting and make this type of posting
- Distinguish between the one-step and two-step procedures for stock transfers
- Demonstrate the entry of a stock transfer from storage location to storage location
- Carry out a stock transfer between plants of a company code using the one-step and two step procedures
- Create a stock transport order
- Carry out a stock transfer with reference to a stock transport order using the two-step procedure



Test Your Knowledge

1. Which of the following statements is/are correct?

Choose the correct answer(s).

- A A stock transfer between storage locations is not relevant to accounting.
- B A stock transfer changes the properties of the material.
- C You can enter stock transfers using the transaction MIGO.
- D You can only carry out stock transfers using the one-step procedure.
- E You can only carry out stock transfers using the two-step procedure.
- F When the material is removed from storage, it is posted to stock in transfer.
- G Stock in transfer is assigned to the issuing storage location.

2. Stock transfers between plants can be planned with purchase orders. You can connect to the functions of the application component Logistics Execution.

Determine whether this statement is true or false.

- True
- False



Answers

1. Which of the following statements is/are correct?

Answer: A, C, F

2. Stock transfers between plants can be planned with purchase orders. You can connect to the functions of the application component Logistics Execution.

Answer: True

Unit 4



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Reservations



In the first lesson of this unit, the reservation document, its structure, entry, and change are covered. In addition, the example of a reservation for a stock transfer demonstrates how a goods movement is entered with reference to a reservation. You selected a transfer posting as the goods movement, because this goods movement (unlike the goods issue) has already been dealt with in the previous unit.

In the second lesson, the main theme is the evaluations of reservations. The availability check represents the closing and is explained here for reservations. The instructor should also be aware that the availability check is also used in other areas, such as goods issue, production order, sales order.

Unit Overview

Reservations are documents in the SAP system that you can use to plan goods movements. In this unit, we will discuss the “reservation” document and the related evaluations and Customizing settings.



Unit Objectives

After completing this unit, you will be able to:

- Explain the structure of a reservation and the information it contains
- Create a reservation manually, with and without a reference
- Change the data in a reservation
- Enter a goods movement with reference to a reservation
- Determine whether reservations exist for a cost center
- Name the functions of the picking list for reservations
- List the settings for the availability check in the case of reservations
- Name other applications where the application check can be used
- Explain the purpose of the missing part check
- Name the settings for the missing part check

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Lesson: Manual Reservations



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Lesson Duration: 40 Minutes

Lesson Overview

This lesson will provide you with an introduction to reservations. We will cover the purpose and structure of a reservation and the difference between automatically-created and manually-entered reservations. You will learn to create and change a reservation, and to enter a goods movement with reference to a reservation.



Lesson Objectives

After completing this lesson, you will be able to:

- Explain the structure of a reservation and the information it contains
- Create a reservation manually, with and without a reference
- Change the data in a reservation
- Enter a goods movement with reference to a reservation



This lesson introduces reservations. It covers the structure and manual maintenance of reservations. It also gives an overview of automatically-created reservations. However, you do not need to go into much detail on this topic. It is up to the instructor to decide whether he, for example, creates a production order to show that a reservation is created for individual components.

The following functions are introduced as new transactions: Create / change / display reservation. Firstly, you should determine the structure of a reservation, then the navigation in the transactions for the reservation.

Business Example

To guarantee material availability, the required materials (with the intended purpose), the required quantity, and the requirements date are reserved.

Function and Origin of a Reservation

A reservation is the requirement of the warehouse to have materials for a goods movement (generally a withdrawal) ready at a later date and for a particular purpose. It is important that reservations are considered in materials planning so that a required material can be procured at the right time. A reservation also simplifies and speeds up the entry process, and helps prepare the work in the goods issuing department.

Typically, you will preplan goods issues and transfer postings with a reservation, but you can also preplan goods receipts. The preplanning of goods issues is typical.

Preplanning of transfer postings is only possible for transfer postings in the one-step procedure, from storage location to storage location (movement type 311) and plant to plant (movement type 301). The preplanning of goods receipts with a reservation should only take place in exceptional cases. If you are using purchasing and production, then goods receipts are planned with purchase orders and production orders. Receipt reservations are not necessary.

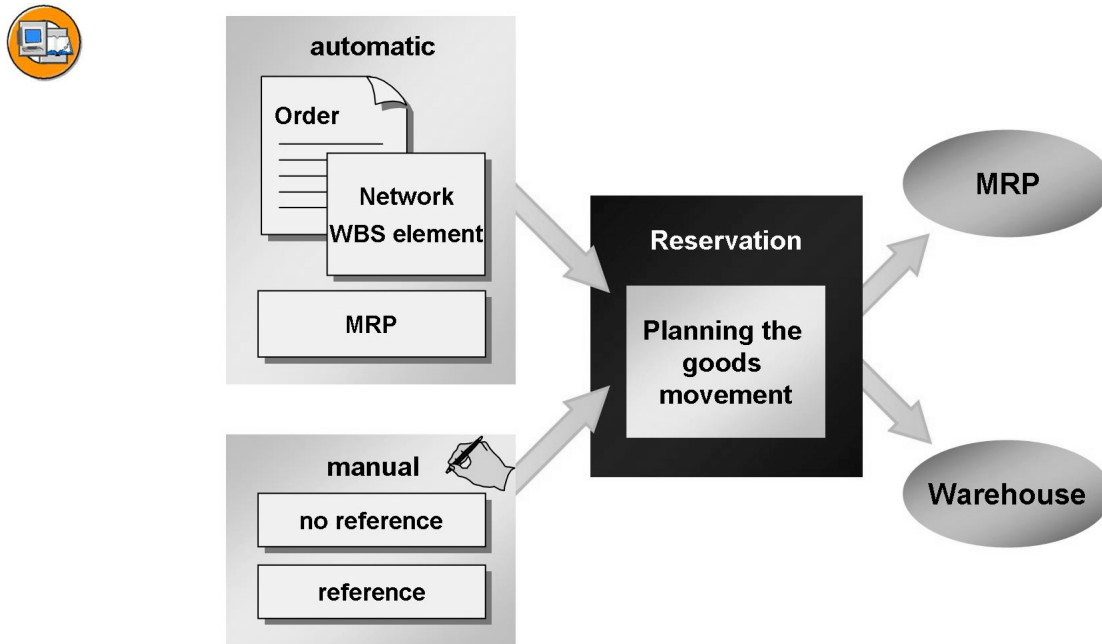


Figure 48: Reservations

Reservations can be created both manually and automatically. The user enters manual reservations. Automatic reservations are generated by the SAP system. There are two types of automatic reservations:

- Reservations for orders, networks, and work breakdown structure elements (WBS elements)

When you open an order, a network, or a project, the warehouse components are automatically reserved.

- Stock transfer reservations

If, for example, reorder point planning is managed at storage location level, and the available stock has fallen short of the reorder point at storage location level, the system creates a stock transfer reservation in the plant with the amount of the replenishment quantity.

You cannot display or directly maintain automatic reservations. You cannot, for example, change a reservation for an order directly; the components must be changed in the order. The system then updates the reservation automatically.

Structure of a Reservation

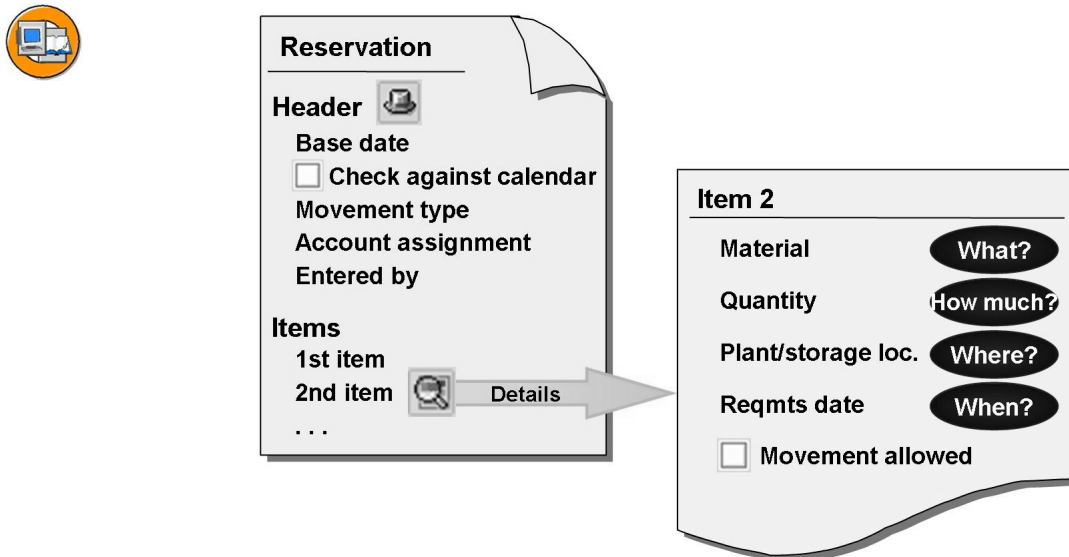


Figure 49: Structure of a Reservation

A reservation document consists of a header and at least one item. The header contains general data about the reservation transaction (created by, movement type, account assignment, base date). The items describe the individually planned movements (material, quantity, requirements date, plant, storage location).



Caution: You can create a reservation for only one particular purpose, in other words, you can only enter *one* movement type in a reservation and create *one* account assignment (for example, a particular cost center). You cannot change these two entries after posting.

Create, Change, and Display a Reservation



Using the graphic in this section, you can introduce the use of the reservation transactions. The upper area shows the simplest and fastest entry process: Initial screen – multiple-entry screen – post.

You can navigate to other areas using Goto and Edit. This is also explained in the text. The instructor should demonstrate these options on the system after discussing it.

You can also find the breakdown into header and item data in the transactions Create Reservation (MB21), Change Reservation (MB22) and Display Reservation (MB23). In these transactions, you will first see the initial screen from which you can reach other data screens. When creating and changing, you can quickly enter the most important data for the header and item on the *Collective Processing* screen.

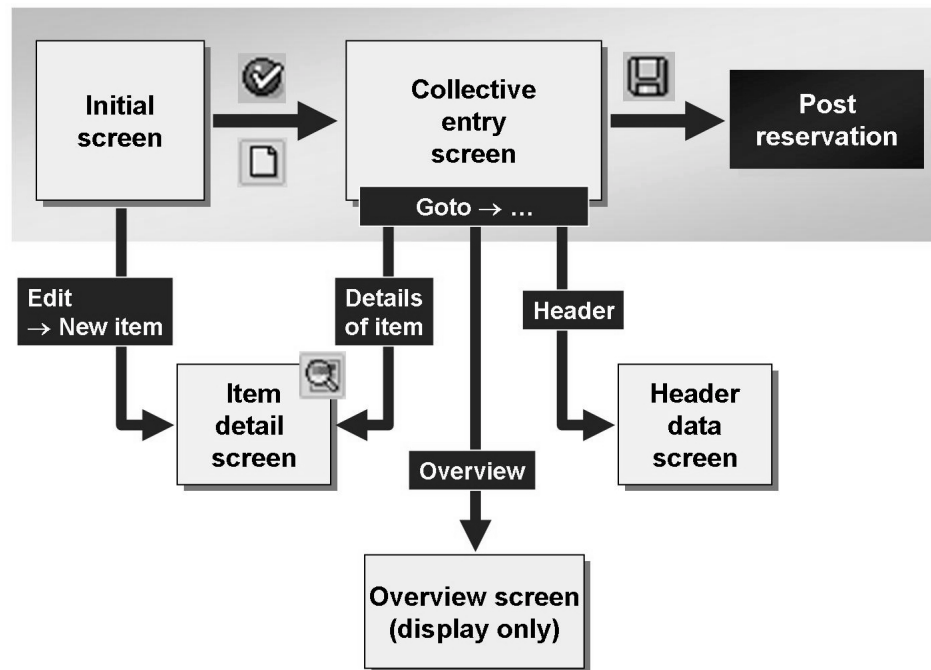


Figure 50: Navigation: Transactions MB21, MB22, and MB23

With *Goto → Detail from item..* and *Goto → Header*, you can open other detail screens for each item and for the header.

With *Goto → Overview*, you can access another overview screen that displays the individual items with more detailed data.

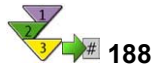


Hint: You cannot make changes on the *Overview* screen. To make changes, branch to the *Collective Processing* screen. Choose *Goto → Collective Processing*. You can also double-click on the desired item to branch to the item detail screen.

When you create a reservation, you can also refer to another reservation. You can then change the base date, movement type, and the account assignment data. The system suggests the items from the reference reservation, and you can select the items you want to copy. You can also change the quantities and requirements dates of the items.



Hint: Using *Reservation* → *Maintain Copy Rules for Reference Documents*, in *Customizing for Inventory Management and Physical Inventory*, you can determine whether the selection for copying is already set for all items in the reference reservation.



Creating a Reservation Manually

1. From the *SAP Easy Access* screen, choose *Logistics* → *Materials Management* → *Inventory Management* → *Reservation* → *Create*.

This will take you to the *Create Reservation: Initial Screen*.

2. Enter the base date, movement type, and plant.



Hint: If you want to use another reservation as a reference, enter the reservation number in the *Reference - reservation* field.

3. Choose  *Enter*.

This will take you to the collection processing screen.

4. Enter the necessary account assignment data and, if necessary, the goods recipient. Enter the data necessary for the individual items.



Hint: Double-click on the item to call the item's detail screen.

5. Post the reservation.



Changing the Base Date of a Reservation

1. From the *SAP Easy Access* screen, choose *Logistics* → *Materials Management* → *Inventory Management* → *Reservation* → *Change*.
This will take you to the *Change Reservation: Initial Screen*.
2. Enter the reservation number.
3. Choose *Goto* → *Header*.
4. Change the base date to the favored time and choose *Enter*.
This will take you to a screen on which the old and new requirement dates are listed for the individual items.
5. If necessary, change individual requirement dates and copy the data with *Enter*.
6. Post the reservation.



Demonstration: Create Manual Reservations

Purpose

This demonstration shows how you can use transaction MB21 to create a reservation with and without a reference, and which values in the reference can be changed. The exact procedure can be copied from the “Create Reservation Manually” procedure.

CATT: ZT_SCM510_02

System Data

System:	Training System
Client:	8xx
User ID:	Own user ID or SCM510-00
Password:	Ask the instructor
Set up instructions:	None

1. Display the stock overview for the materials T-M510Z03 and T-M510Z04 for plant 1200 without restricting the storage locations. Choose the display variant 51 (version SCM510).

Logistics → *Materials Management* → *Inventory Management* → *Environment* → *Stock* → *Stock Overview*

2. Enter a reservation with the following data:

Field	Value	Continue with
Base date	Today's date	
Evaluate calendar	X	
Movement type	201	
Plant	1200	<i>Enter</i>
Cost center	1000	
Goods recipient	Enter own user	
Item 1		
Material	T-M510Z03	
Quantity	10 pc	
Plant	1200	
Storage location	0001	
Item 2		
Material	T-M510Z04	
Quantity	10 pc	
Plant	1200	
Storage location	0001	<i>Post</i>

3. Create another withdrawal reservation with reference to the reservation from part 2. **Change the base date.**

Field	Value	Continue with
Base date	Today's date + 7 days	
Evaluate calendar	X	
Movement type	201	
Plant	1200	
Reference reservation	Number, see step 21000	<i>Enter</i>

For both items, change the quantities and **delete the storage location**. Now copy both items and post the reservation.

4. Create another reservation using the reservation from part 2 for reference. Change only the cost centers to **4100** and keep the same movement type, you can copy the other values without changing them.

With this example, display the menu entries Goto and Edit. Change the requirements date for both items: item 1 + 3 days and item 2 + 10 days. Then post the reservation.

5. Create another reservation using the reservation from part 4 for reference. Now change the movement type to **221** and enter the **WBS element E-9990**. Copy the rest of the data as before.
6. Now change the base date in the header of the last reservation and show that this automatically shifts the requirements dates of the individual items by the same time interval. Press *Enter* to copy the new requirements dates to the dialog screen, and then save the changes.
7. Create a reservation for a transfer posting storage location to storage location.

Field	Value	Continue with
Base date	Today's date	
Evaluate calendar	X	
Movement type	311	
Plant	1200	<i>Enter</i>
Recv. SLoc	0002	
Item 1		
Material	T-M510Z03	
Quantity	20 pc	
Plant	1200	
Storage location	0001	
Item 2		
Material	T-M510Z04	
Quantity	20 pc	
Plant	1200	
Storage location	0001	<i>Post</i>

8. Display the stock overview again for materials T-M510Z03 and T-M510Z04 for plants 1000 to 1200, without restricting the storage locations. Choose the display variant 51 (version SCM510).

Goods Movement with Reference to Reservation

When posting a goods movement, you can refer only to reservation items for which the *Movement allowed* indicator is set. With this indicator, you can also prevent a goods movement from being posted to a reservation item. This is useful if the requirement date for the material lies far in the future.

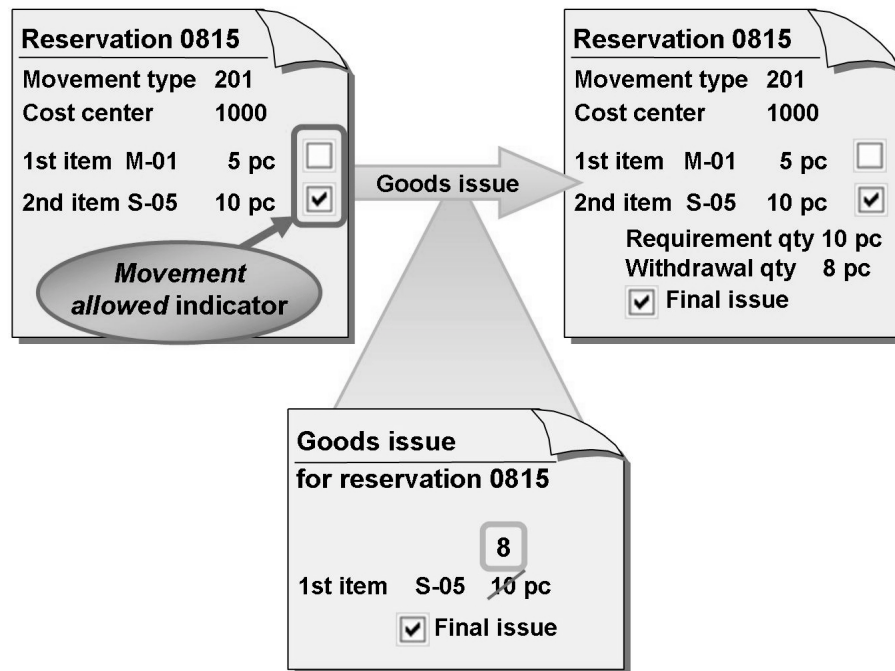


Figure 51: Goods Issue Against Reservation

If you determine the reservation with the search function during the goods movement, the system selects only reservation items for which the *Movement allowed* indicator is set.

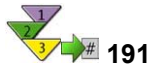


Hint: Using *Reservation* → *Define Default Values* in Customizing for *Inventory Management and Physical Inventory*, you can specify for each plant whether the *Movement allowed* indicator is suggested when you create a reservation for the items.



You can activate or deactivate the indicator for all items. Choose *Edit* → *Additional functions* → *For all items* → *Movement on/off*. With the **Manage Reservations** report, you can also have the system set the indicator automatically for several reservations.

If you issue the total reserved quantity during the goods issue, the system automatically sets the **Final issue** indicator. You can also set the indicator manually if you do not issue the total reserved quantity and the remaining quantity

is no longer required. This remaining quantity is then deemed as unrestricted-use stock. You can set the *Final issue* indicator when you enter the goods movement in the reservation.



Goods Movement with Reference to Reservation

1. From the *SAP Easy Access* screen, choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*..
2. Choose whether you want to execute a goods issue, a transfer posting, or a goods receipt. As the reference, choose *Reservation*.
3. Check that there is no default value entered for the movement type, as the movement type is copied from the reservation.
4. Enter the reservation number. You can also search for the reservation by material, plant, and account assignment (choose  *Find reservation*).
5. Choose  *Execute* to transfer the items from the reservation.
6. Select the relevant items using the *OK* indicator. If necessary, change the default quantity for the items and specify a storage location.



Hint: If you wish to set the *Final issue* indicator manually, open the detail data on the item and choose the *Reservation* tab page.

7. Post the goods movement.



Demonstration: Transfer Posting with Reference to Reservation

Purpose

The goods movement transfer posting storage location to storage location demonstrates the entry of a goods movement with reference to the reservation.

CATT: See above

System Data

System:	See above
Client:	See above
User ID:	See above
Password:	See above
Set up instructions:	None

1. Display the stock overview for materials T-M510Z03 and T-M510Z04 for plants 1000 to 1200, without restricting the storage locations. Choose the display variant 51 (version SCM510).

2. Enter a transfer posting with reference to the reservation from the demo “Create Manual Reservations”, step 7. You can use the procedure from “Goods Movement with Reference to Reservation”.

Reduce the entry quantity for an item and set the *Final issue* indicator. Post the stock transfer.

3. Display the material document and go to the reservation. Display the details for both reservation items. Refer to the update of the withdrawal quantity and the *Final issue indicator*.
-



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Exercise 14: Manual Reservations

Exercise Duration: Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Create and change manual reservations
- Display reservation stocks
- Enter goods issue for reservation

Business Example

You plan to transfer part of the stock of material **T-M510A##** to another warehouse. You create a reservation manually to achieve this.

System Data

System:	Training System
Client:	8xx
User ID:	Own user ID or SCM510-##
Password:	Ask the instructor
CATT:	ZT_SCM510
Set up instructions:	None

Task 1: Creating a Manual Reservation

Create two reservations for the same movement type. Use the copying function.

1. Create a reservation for a transfer posting of 10 pieces each of materials **T-M510A##** and **T-M510B##** from plant 1200, storage location 0001, to storage location 0002. The stock transfer is to be executed in one week. Note the reservation number.

Reservation	
-------------	--

2. Create a second reservation for a stock transfer in **2 weeks**. Use the reservation from exercise 1 as a reference. For the second reservation, you do not yet know the storage location from which the materials are to be withdrawn. Before copying data, you therefore need to delete the storage location entry.

With the same reservation, reserve 10 pieces of material **T-M510C##** for a stock transfer from storage location 0001 to storage location 0002 in plant 200 for **<today + 16 days>**.

Continued on next page

Note the reservation number.

Reservation	
-------------	--

- You have just heard that the first stock transfer can only start in **2 weeks**. Change the base date of the reservation from step 1-1 by one week to **<today +14 days>**.
- Display the reservation stocks of material **T-M510A##** in the stock overview and complete the table.

Org.level	Stock	Quantity
Plant 1200	Reserved	
Plant 1200	Receipt Reservation	
Plant 1200, storage location 0001	Reserved	
Plant 1200, storage location 0001	Receipt Reservation	
Plant 1200, storage location 0002	Reserved	
Plant 1200, storage location 0002	Receipt Reservation	

- Why is there a higher reservation stock managed at plant level than there is at storage location level?

Task 2: Stock Transfer for Reservation

Enter the stock transfer in the system. Use the reservations as reference documents. Then display the reservation again.

- Enter the transfer posting in the system. Post both reservations from task 1 in a document. All materials are withdrawn from storage location **0001**. Only 5 pieces of material **T-M510C##** are transferred; the remainder is no longer needed. Manually set the *Final issue effected* indicator in the reservation.
- Display both reservations and check the *Final Issue Effected* indicator for all of the reservation items.

Continued on next page

3. Which of the following statements is correct?

Choose the correct answer(s).

- A For reservations, you can only post goods movements if the *Final Issue Effected* indicator is not set.
- B For reservations, you can only post goods movements if the *Final issue Effected* indicator is not set and the *Movement Allowed* indicator is set.
- C For reservations, you can only post goods movements if the *Movement Allowed* indicator is set.
- D Only automatically-created reservations are relevant for planning.



Solution 14: Manual Reservations

Task 1: Creating a Manual Reservation

Create two reservations for the same movement type. Use the copying function.

1. Create a reservation for a transfer posting of 10 pieces each of materials **T-M510A##** and **T-M510B##** from plant 1200, storage location 0001, to storage location 0002. The stock transfer is to be executed in one week. Note the reservation number.

Reservation	
-------------	--








- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Reservation* → *Create*.
 - b) Choose *Movement Type* → *Transfer Posting* → *From SLoc. to SLoc.*
 - c) Enter *Plant 1200* and the *Base Date* <today + 7 days>, and choose  *Enter*.
 - d) Enter the following data for the first item:
 - Recv. SLoc 0002*
 - Material T-M510A##*
 - Quantity 10*
 - Storage Location 0001*
 - e) Enter the same data for material **T-M510B##**.
 - f) Choose  with the quick info text *Post*.
2. Create a second reservation for a stock transfer in **2 weeks**. Use the reservation from exercise 1 as a reference. For the second reservation, you do not yet know the storage location from which the materials are to be withdrawn. Before copying data, you therefore need to delete the storage location entry.

With the same reservation, reserve 10 pieces of material **T-M510C##** for a stock transfer from storage location 0001 to storage location 0002 in plant 200 for <today + 16 days>.

Note the reservation number.



Continued on next page

Reservation	
-------------	--

- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Reservation* → *Create*.
 - b) Enter the reservation number from exercise 1 as a reference, enter the base date, **<today +14 days>**, and *plant 1200*. Choose  *Enter*.
 - c) Delete the storage location entries of both items and check whether both items are selected.
 - d) Choose  *Adopt*.
 - e) Choose , with the quick info text *New Items*.
 - f) Enter the following data:
 - Material T-M510C##*
 - Quantity 10*
 - Storage Location 0001*
 Confirm your entries with *Enter*.
 - g) Position the cursor on item 3 and choose , with the quick info text *Choose*. The system displays the detail data for item 3.
 - h) Change the *requirements date* to **<today +16 days>**.
 - i) Choose  with the quick info text *Post*.
 - j) Note the reservation number.
3. You have just heard that the first stock transfer can only start in **2 weeks**. Change the base date of the reservation from step 1-1 by one week to **<today +14 days>**.
 - a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Reservation* → *Change*.
 - b) Enter the reservation number from step 1 and choose *Goto* → *Header*.
 - c) Enter the new *base date*, **<today +14 days>**, and choose  *Enter*.
 - d) Choose *Enter* to confirm the requirement date changed by a week.
 - e) Choose  with the quick info text *Post*.
 4. Display the reservation stocks of material **T-M510A##** in the stock overview and complete the table.

Continued on next page

Org.level	Stock	Quantity
Plant 1200	Reserved	<u>20</u>
Plant 1200	Receipt Reservation	<u>20</u>
Plant 1200, storage location 0001	Reserved	<u>10</u>
Plant 1200, storage location 0001	Receipt Reservation	<u>0</u>
Plant 1200, storage location 0002	Reserved	<u>0</u>
Plant 1200, storage location 0002	Receipt Reservation	<u>20</u>

- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Environment* → *Stock* → *Stock Overview*.
 - b) Enter *Material T-M510A##* and *Plant 1200* and choose , with the quick info text *Execute*.
 - c) Position the cursor on the relevant line and choose , with the quick info text *Select*.
5. Why is there a higher reservation stock managed at plant level than there is at storage location level?




Answer: In exercise 2, you created a reservation without a storage location entry. The reserved quantity of 10 pieces can therefore only be shown in the reservation stock at plant level, not at storage location level.


For the stock receipt reservation, 20 pieces are also specified at storage location level, because the receiving storage location **must** be entered in the reservation for a storage-location-to-storage-location transfer posting.

Continued on next page

Task 2: Stock Transfer for Reservation

Enter the stock transfer in the system. Use the reservations as reference documents. Then display the reservation again.

1. Enter the transfer posting in the system. Post both reservations from task 1 in a document. All materials are withdrawn from storage location **0001**. Only 5 pieces of material **T-M510C##** are transferred; the remainder is no longer needed. Manually set the *Final issue effected* indicator in the reservation.
 - a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
 - b) Choose *Transfer Posting* and, as reference, *Reservation*.
 - c) Enter the reservation numbers and choose , with the quick info *Execute*.
 - d) Set the *Item OK* indicator for all items.
 - e) Change the quantity of material T-M510C## to **5 pc**, and set the *Final Issue Effected* indicator for this item. The indicator is in the item overview and in the item details on the *Reservation* tab.
 - f) Enter storage location **0001** in the items of the second reservation.
 - g) Choose  *Post*.
2. Display both reservations and check the *Final Issue Effected* indicator for all of the reservation items.
 - a) Choose *Display*, and *Material Document* as the reference.
 - b) Choose  with the quick info text *Execute*.
 - c) In the item details for the first item, choose the *Reservation* tab page and double-click the reservation number to display the reservation.

The overview screen for the reservation is displayed. Here you can see that the *Final Issue Effected* indicator has been set automatically for all items, since the entire reserved quantity has been withdrawn for these items.
 - d) Return to the material document with .
 - e) In the item details for the last item, choose the *Reservation* tab page and double-click the reservation number to display the reservation.

The overview screen for the reservation is displayed. The *Final Issue Effected* indicator has been set for all items. For items 1 and 2 this is done automatically, since the entire reserved quantity has been withdrawn. For item 3, this is done manually when you create the transfer posting.

Continued on next page

3. Which of the following statements is correct?

Answer: C



Lesson Summary

You should now be able to:

- Explain the structure of a reservation and the information it contains
- Create a reservation manually, with and without a reference
- Change the data in a reservation
- Enter a goods movement with reference to a reservation

Lesson: Evaluations for Reservations



201

Lesson Duration: 30 Minutes

Lesson Overview

This lesson describes the evaluations that appear in the reservations menu. These comprises a list of reservations, the picking list for reservations and the report for managing reservations.



Lesson Objectives

After completing this lesson, you will be able to:

- Determine whether reservations exist for a cost center
- Name the functions of the picking list for reservations



As a starter for this lesson you can discuss in which situations it is advisable or necessary to select several reservations - for example, if the *Movement allowed* indicator has been preset when a reservation is created. You can also link to the report *Manage Reservations*. You can also gain an overview of own reservations. To do this, use the *Reservation list*.

Business Example

You want an overview of the reserved materials for the next weeks. You know that you can list all reservations with a requirement date in this time period. Using the picking list to stage materials that were reserved for a cost center or a production order, you can select the desired reservations and post the goods issue.



Demonstration:

Purpose

Demonstration of the reservation list and picking list

CATT: CATT exercise

System Data

System:	Training System
Client:	8xx
User ID:	Own user ID or SCM510-00
Password:	Ask the instructor
Set up instructions:	None

1. Use the entries in the exercises to demonstrate processing and displaying reservations with the reservation list and the picking list (group 00). You have the option of also using the following data:

Material: m-01

Plant: 1000

Storage location: 0001

2. Show the Customizing settings for managing reservations, under:
IMG: Materials Management → Inventory Management and Physical Inventory → Reservation → Define Default Values.
-

Reservation List Inventory Management

Use the reservation list if you want an overview of the reservations. Here you have the option of selecting reservations according to different criteria. These criteria may include:

- Material
- Requirement date
- User name (created by)
- Goods recipient
- Account assignment (cost center, order, WBS element, and so on)



Initial Screen for Selection Restrictions

Reservation data	Acc. assigt	Scope of list
Material	<input type="checkbox"/> W/o account assgt	<input checked="" type="checkbox"/> Open reservations
Plant	Cost center	<input type="checkbox"/> Receipts
Requirement date	Order	<input checked="" type="checkbox"/> Issues
...

↓

Reservtn	Item	ReqmtsDate	MvT	Material	Reqmt Quantity	RAA	Acc. assigt
17875	10	13.10.2003	261	100-100	10	F	60002832
17891	5	21.09.2003	201	100-100	22	K	1000
17914	1	02.11.2003	221	100-300	80	P	E-9990

Figure 52: Reservation List Inventory Management

The report issues a list with reservation items according to the selection. Receipt reservations are highlighted in yellow. For each reservation item, all the detailed information is issued. The values displayed include:

- Reservation number and item
- Material
- Requirements quantity
- Movement type
- Account assignment
- Requirements date
- Difference quantity between reserved and already reduced quantity

If you require further data and want to evaluate it in detail, you can enhance the current layout or select another existing layout under *Settings* → *Layout*. For more information on all functions of the *SAP List Viewer (ALV)*, see the SAP Library under *SAP ERP Central Component (or SAP R/3 Enterprise Application Components)* → *Cross-Application Components* → *General Application Functions (CA-GTF)* → *SAP List Viewer (ALV): Classic*.



Hint: In Customizing for *Inventory Management and Physical Inventory*, you can change the display of the output list from *SAP List Viewer* to *SAP Grid Control* under *Reporting* → *Set Up Print Functions for Reporting*. The SAP Grid Control form offers enhanced functions and is easier to use.

If you want to display a reservation from the list, double-click on the reservation number. If you double-click on the reservation item, you can see the details of this item.



Demonstration: Reservation List Inventory Management

Purpose

The demonstration shows the participants how to use the report *reservation list*.



System Data

System:	Training System
Client:	8xx
User ID:	Own user ID or SCM510-00
Password:	Ask the instructor
Set up instructions:	None

1. Call the transaction *Reservation list*.
Logistics → *Materials Management* → *Inventory Management* → *Reservation* → *Reservation List*
2. Explain the individual screen areas: *Reservation data*, *Account assignment*, *Scope of list*
3. Select all reservations for *plants 1000 to 1200* and die *Requirements Date 01.01.2002 to 31.12.of the current year*.



Hint: You can also search for reservations that you or the participants created. To do this, search by *User name*.

4. Show some of the functions, for example
 - Sort in ascending order according to requirements date:
Select column *Requirements date* and then choose  *Sort in ascending order*.
 - Filter according to movement type:
Select column *Movement type* and then choose  *Set filter*. As the movement type, choose a value that appears in the reservation list.
With *Edit* → *Delete Filter*, remove the restriction.

Reservation Management

With the Reservation Management report, you can set the *Movement allowed* indicator for several reservation items with a mass change, and delete reservations.

The base date is of double importance in this report. First, this is a selection value, in other words, only reservations that have a base date in the reservation header that is before this date or this same actual date are considered. Second, it is used for calculating the time intervals used in both mass changes and deletion of reservations.

Set Movement Allowed Indicator

When creating reservations, you can decide whether the *Movement allowed* indicator is to be set for the items. If you want to book goods movements for a reservation item, you must set this indicator.

With this report, you can now automatically set the *Movement Allowed* indicator for all reservation items whose requirement dates lie in the near future (within the next 10 days).

Example: If you enter October 01 as the base date, movements are allowed for all items with requirements dates before or on October 11.

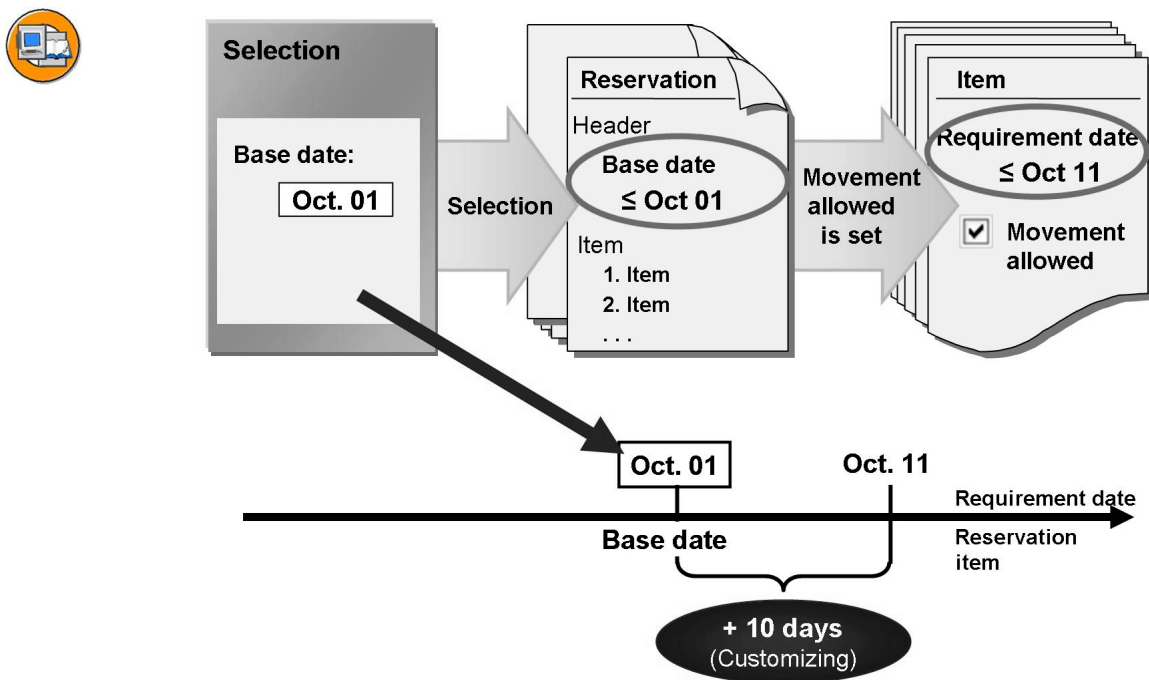


Figure 53: Managing Reservations: Allow Goods Movement

Specify a requirements date and, if necessary, any other selection criteria (for example, reservation number) on the initial screen. Select *Allow goods movement* in the *Actions to be performed* area and then execute the report.

As long as the requirement date of the selected reservation items lies within the period of the requirement date plus a number of days (determined in Customizing), the *Movement allowed* indicator is set in this reservation item. You specify the number of days (standard - 10 days) in Customizing for *Inventory Management and Physical Inventory* under *Reservation* → *Define Default Values*.

Deleting Reservations

To prevent the reservation file from becoming too large, make sure you regularly delete finished, old, or extra reservations. This takes two steps:

1. The management program marks the reservation items for deletion.
2. If all items of a reservation are marked for deletion, the reservation is physically removed from the file.

For this function, you also need to specify a base date for the selection. Select *Set deletion incl/delete reservation* and then execute the report. For all selected reservations, the system checks whether the requirement date of the individual reservation item is before the date calculated by the system. The system calculates this date from the base date minus a fixed number of days that is defined in Customizing (standard = 30 days).

Example: If you enter October 01 as the base date, all reservation items with requirement dates that are before or on September 01 are marked for deletion.

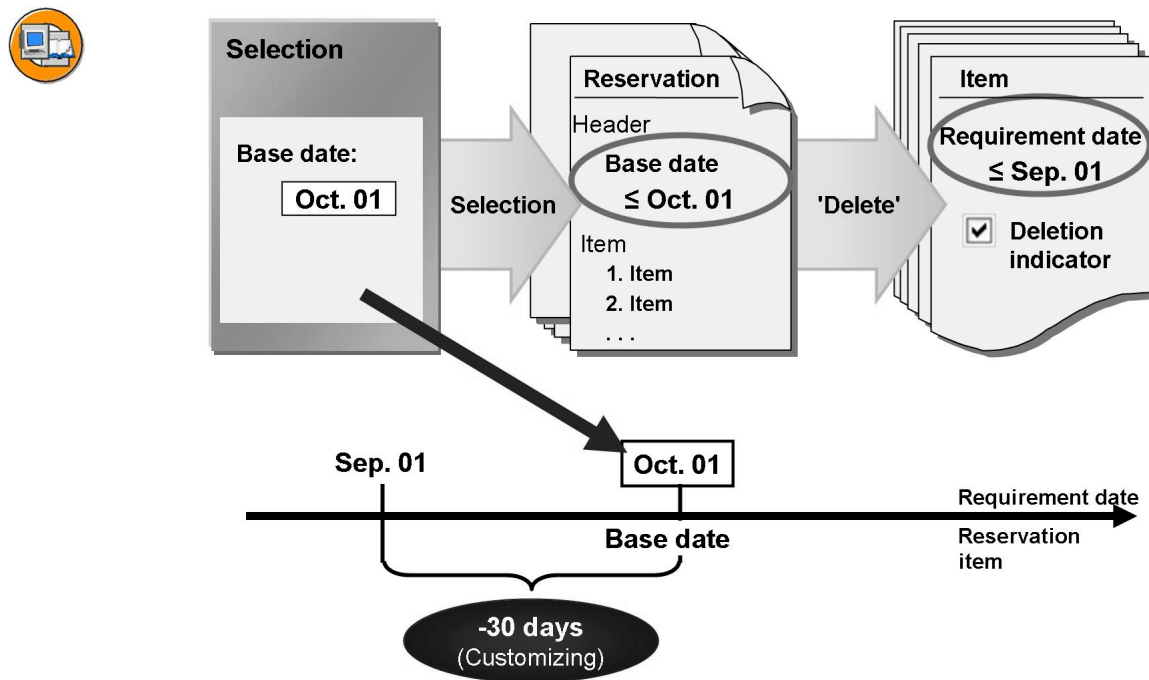


Figure 54: Managing Reservations: Deleting Reservations



Hint: You can determine on the selection screen that only completed items are marked for deletion. In addition, a completed reservation item must be withdrawn completely, or marked as final issue.

If all items of a reservation are marked for deletion, the reservation is physically deleted. It is possible to delete only the reservations that were created for a particular account assignment (cost center, order). To do this, enter the account assignment as a selection criterion.

Default Values for Reservations

The number of days for managing reservations is defined with further default values in Customizing for *Inventory Management and Physical Inventory* under *Reservation* → *Define Default Values*. In this step, define the following for each plant:

- Whether the *Movement allowed* indicator is proposed when you create reservations.
- The number of days that is used for calculating the period for setting the *Movement allowed* indicator in the *Manage Reservations* report.
- The number of days that is used for calculating the period for deleting the reservations in the *Manage Reservations* report.
- Whether the relevant storage location stock data is automatically created when you post a reservation for a material.



Reservations: Define Default Values					
Plant	Name 1	Mvt...	Days m	Rete	M...
0001	Plant 0001	<input type="checkbox"/>	10	30	<input checked="" type="checkbox"/>
1000	Plant Hamburg	<input type="checkbox"/>	10	30	<input checked="" type="checkbox"/>
1100	Berlin	<input type="checkbox"/>	15	40	<input checked="" type="checkbox"/>
1200	Dresden	<input checked="" type="checkbox"/>	7	20	<input checked="" type="checkbox"/>
...	...				

Indicator
Movement allowed
is proposed during
creation

Managing
reservations:
Allow days for
movement +
retention period

Create storage
location stock
automatically

Figure 55: Default Values for Reservations

Picking List for Reservations

The picking list allows you to create and post goods movements for several reservations in one processing step. When creating a picking list, you can select according to reservations, material and account assignments, and production orders.



Initial Screen for Selection Restrictions

Selection of reservations	Selection of production orders
Reservation	Material
Material	Production order
Cost center	Controller
Requirement date	...
...	

↓

Overview - goods movements

Material	...	Qty	BUn	Plant	Stor. loc.	..	MvT	MRA	Reservation
100-100		10	PC	1000	0001		261	<input type="checkbox"/>	17875
100-100		22	PC	1000	0001		201	<input type="checkbox"/>	17891
100-130		75	PC	1000	0002		221	<input checked="" type="checkbox"/>	17914

Figure 56: Picking List for Reservations (1)

Before posting, you can change the entry quantity for each item and set the *Goods movement item completed* indicator.

For stock transfers and goods issues, you can call the stock determination via *Goto* → *Stock Determination*, and the batch determination via *Environment* → *Batch Management* → *Batch Determination* to determine the stocks to be posted. If it is necessary to divide up an item for a goods movement, choose *Edit* → *Splitting*.

Sort and *Filter* are other functions of the picking list.



Caution: When you post the goods movements, all the reservations and production orders that correspond with the selection criteria are taken into consideration. This includes the items that you hid with the filter function. If there are items that you do not want to book goods movements for, select them and remove them from the list with *Edit* → *Delete*.

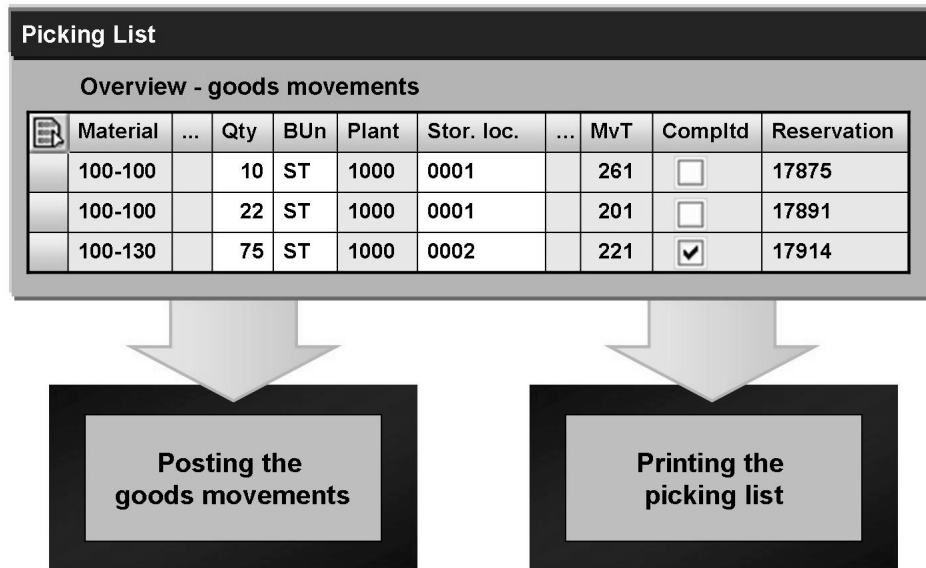


Figure 57: Picking List for Reservations (2)

In addition you have the option of printing a list of the materials to be picked. To do this choose *List* → *Print*. You will then receive a list of goods movements for which you can adjust the current layout to your personal settings with *Settings* → *Layout*, or you can choose an existing layout. To print the list, choose again *List* → *Print*.



Exercise 15: Manage Reservations

Exercise Duration: Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Evaluate lists of reservations
- Delete reservations with the “Manage Reservations” function

Business Example

In order that requirements planning can be kept as close to the schedule as possible, reservations can only be withdrawn from the warehouse shortly before the reserved date. You want to test the *Movement allowed* indicator. You also want to test the deletion of reservations that are final issue effected.

System Data

System:	Training System
Client:	8xx
User ID:	Ask the instructor
Password:	Ask the instructor
CATT:	ZT_SCM510
Set up instructions:	None

Task 1: Allowing Movement for Reservations

You want to optimize requirements planning. The manually reserved materials are often withdrawn too early from the warehouse. To prevent this from happening in the future, you use the *Movement allowed* indicator to only allow a goods withdrawal close to the base date of the reservation. Test the function of the indicator.

1. Create a reservation for a transfer posting of 10 pieces of material **T-M510A##**. The transfer posting is to take place between storage locations 0001 and 0002 of plant 1200. The base date of the reservation is today's date. The goods movement is not allowed for this reservation. Note the reservation number.

Reservation	
-------------	--

Continued on next page

2. Check with the reservation list that the *Movement Allowed* indicator is not set and the reservation is not final issue effected. You must therefore include both indicators in the layout of the list. Save the changed layout of the list as **GR##** (*Movmt allowed/Final issue*).
3. Test whether a goods movement is possible. To do this, use the picking list.



Hint: The picking list selects reservations according to possible goods movements. You cannot select a reservation if its goods movement is not possible.

4. Set the *Movement allowed* indicator in the reservation.
5. Check with the reservation list that the *Movement Allowed* indicator is set and the reservation is not final issue effected. Use the layout **GR##**.
6. Post the stock removal for the reservation. To do this, use the picking list.



Hint: With the picking list, the system posts all selected movements when you save. Goods movements that are not displayed due to a set filter are also posted when you save. Therefore, you must delete goods movements from the list if you do not want them to be posted.

7. Check with the reservation list that the *Movement Allowed* indicator is set and the reservation is final issue effected. Use the layout **GR##**

Task 2: Deleting reservations

You want to delete all reservations with final issue 30 days after the base date. Test the settings.

1. Check the Customizing settings for deleting reservations with the *Manage Reservation* function.

How many days after the base date is the final issue reservation deleted in plant 1200?

Time in storage	
-----------------	--

2. Delete the reservation created and posted in task 1. Use the transaction *MBVR Manage Reservation*.
Make a selection with the base date <today +2 months> and the reservation from task 1.
Only delete completed items.
3. Check whether you can still display the reservation.




Solution 15: Manage Reservations

Task 1: Allowing Movement for Reservations






You want to optimize requirements planning. The manually reserved materials are often withdrawn too early from the warehouse. To prevent this from happening in the future, you use the *Movement allowed* indicator to only allow a goods withdrawal close to the base date of the reservation. Test the function of the indicator.

1. Create a reservation for a transfer posting of 10 pieces of material **T-M510A##**. The transfer posting is to take place between storage locations 0001 and 0002 of plant 1200. The base date of the reservation is today's date. The goods movement is not allowed for this reservation. Note the reservation number.

Reservation	
-------------	--


- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Reservation* → *Create (MB21)*.
- b) Choose *Movement Type* → *Transfer Posting* → *From SLoc. to SLoc.*
- c) Enter the *Base Date* <today's date> and the *Plant 1200*, and choose  *Enter*.
- d) Enter the following data:
 - Recv. SLoc 0002*
 - Material T-M510A##*
 - Quantity 10 pc*
 - Storage Location 0001*
- e) Choose  *Execute*.
- f) Remove the *Movement allowed* indicator.
- g) Choose  with the quick info text *Post*.
- h) Note the reservation number.

Continued on next page

2. Check with the reservation list that the *Movement Allowed* indicator is not set and the reservation is not final issue effected. You must therefore include both indicators in the layout of the list. Save the changed layout of the list as **GR##** (*Movmt allowed/Final issue*).
 - a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Reservation* → *Reservation List (MB25)*.
 - b) Enter *Material T-M510A##*.
Choose *Goods movement not possible* under *Scope of list*. Remove any other selected indicators.
 - c) Choose  with the quick info text *Execute*.
 - d) Choose *Settings* → *Layout* → *Change*.
 - e) In the column set, select *Movement Allowed* and *Final Issue Effected* and choose  *Show Selected Fields*.
 - f) Choose  *Save Layout*.
 - g) Save the layout as *user-specific*, as **GR##** with the description **Movmt allowed/Final issue**.
 - h) Choose  *Continue*.
 - i) Choose  *Adopt*.
 - j) Check that neither the *Movement allowed* nor the *Final issue* indicators are set for the reservation created in exercise 1.
3. Test whether a goods movement is possible. To do this, use the picking list.







Hint: The picking list selects reservations according to possible goods movements. You cannot select a reservation if its goods movement is not possible.

- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Reservation* → *Picking (MB26)*.
- b) Select using the reservation number from exercise 1.
- c) Choose  with the quick info text *Execute*.



The system cannot select goods movements. The goods movement for this reservation is not possible.

Continued on next page


4. Set the *Movement allowed* indicator in the reservation.
 - a) Choose *Logistics* → *Material Management* → *Inventory Management* → *Reservation* → *Change (MB22)*.
 - b) Check the specified reservation number and choose  *Enter*.
 - c) Choose  *Details from Item*.
 - d) Set the *Movement allowed* indicator.
 - e) Choose  with the quick info text *Post*.
5. Check with the reservation list that the *Movement Allowed* indicator is set and the reservation is not final issue effected. Use the layout **GR##**.
 - a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Reservation* → *Reservation List (MB25)*.
 - b) Enter Material **T-M510A##**.
Choose *Open reservations* under *Scope of list*. Remove any other selected indicators.
Under *Display options*, enter layout **GR##**.
 - c) Choose  with the quick info text *Execute*.
 - d) Check that the *Movement allowed* indicator is set, but that the *Final issue* indicators are not set for the reservation created in exercise 1.
6. Post the stock removal for the reservation. To do this, use the picking list.



Hint: With the picking list, the system posts all selected movements when you save. Goods movements that are not displayed due to a set filter are also posted when you save. Therefore, you must delete goods movements from the list if you do not want them to be posted.

- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Reservation* → *Picking (MB26)*.
- b) Select using the reservation number from exercise 1.
- c) Choose  with the quick info text *Execute*.
- d) Choose  with the quick info text *Post*.

Continued on next page

7. Check with the reservation list that the *Movement Allowed* indicator is set and the reservation is final issue effected. Use the layout **GR##**
 - a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Reservation* → *Reservation List (MB25)*.
 - b) Enter the reservation number from exercise 1.
Choose *Cancellable reservations* under *Scope of list*. Remove any other selected indicators.
Under Display options, enter layout **GR##** .
 - c) Choose  with the quick info text *Execute*.
 - d) Check that both the *Movement allowed* and the *Final issue* indicators are set for the reservation created in exercise 1.


Task 2: Deleting reservations

You want to delete all reservations with final issue 30 days after the base date. Test the settings.

1. Check the Customizing settings for deleting reservations with the *Manage Reservation* function.



How many days after the base date is the final issue reservation deleted in plant 1200?

Time in storage	30 days
-----------------	---------

- a) Choose *Tools* → *Customizing* → *IMG* → *Edit Project (SPRO)*.
 - b) Choose  *SAP Reference IMG*.
 - c) In Customizing, choose *Materials Management* → *Inventory Management and Physical Inventory* → *Reservation* → *Define Default Values (OMBN)*.
 - d) Note the value for plant 1200.
2. Delete the reservation created and posted in task 1. Use the transaction *MBVR Manage Reservation*.
Make a selection with the base date <today +2 months> and the reservation from task 1.

Continued on next page

Only delete completed items.

- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Reservation* → *Manage (MBVR)*.
 - b) Select with the following criteria:
 - Base date* <today+2 months>
 - Reservation from task 1
 - c) Set the indicators *Set deletion ind/delete reservation* and *Only completed items*.
 - d) Choose  with the quick info text *Execute*.
3. Check whether you can still display the reservation.
- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Reservation* → *Display (MB23)*.
 - b) Enter the reservation number from task 1 and choose  *Enter*. The reservation has been deleted and can no longer be displayed.



Lesson Summary

You should now be able to:

- Determine whether reservations exist for a cost center
- Name the functions of the picking list for reservations

Lesson: Availability and Missing Part Check



217

Lesson Duration: 45 Minutes

Lesson Overview

This lesson deals with the availability check and the missing part check, the application areas in which they can be used, and the necessary settings.



Lesson Objectives

After completing this lesson, you will be able to:

- List the settings for the availability check in the case of reservations
- Name other applications where the application check can be used
- Explain the purpose of the missing part check
- Name the settings for the missing part check



At the beginning of this lesson, the instructor should point out that there are two types of availability check. This lesson is concerned with the dynamic availability check. To kick off this topic, you can discuss why and in which scenarios it is a good idea to check the availability of materials and which factors (stocks, receipts, issues) should be taken into account in this check.

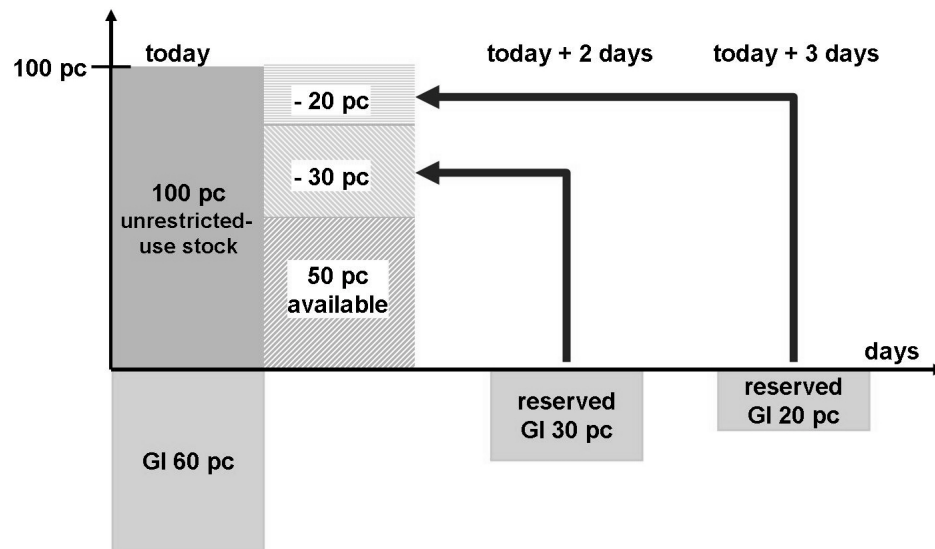
Business Example

When you create a reservation, you want to be informed if the quantity you need is not available on the desired date. To achieve this, you must set up the availability check for reservations. You also want to test the use of the missing part check.

Availability Check

There are two types of availability check:

- Availability check of the stock types in Inventory Management (static availability check)
- Check of available stocks from the viewpoint of Material Requirements Planning (dynamic availability check)



Question: Can a quantity of 60 pc be withdrawn today?

Check stock type ➡ O.K.

Check available stock ➡ not O.K.

Figure 58: Availability Check

Availability Check of Stock Types (Static Availability Check)

This check takes only the stocks existing at the time of entry into account. This check is carried out automatically and no settings can be made for it in the system. It covers the relevant stock affected at plant, storage location, and special stock level. The stocks affected are determined via the movement type. Non-availability leads to an error message.

Example: You enter a transfer posting for a material with movement type 321, transferring 20 pieces from stock in quality inspection to unrestricted-use stock. The system checks whether 20 pieces of the material actually exist in stock in quality inspection at the specified plant and storage location.

Check of Available Stocks (Dynamic Availability Check)

In addition to checking the stocks that physically exist in the warehouse, available stock can also be checked from the viewpoint of Material Requirements Planning. Here, planned receipts and issues can also be taken into account. This check enables you to prevent an already reserved quantity from being withdrawn or reserved for another purpose, for example.

Example: Today there are 100 pieces of a material in unrestricted-use stock in the warehouse. Thirty pieces have been reserved for a withdrawal tomorrow and another 20 pieces have been reserved for a withdrawal the day after. Consequently, only 50 pieces are actually available today, because the rest has already been earmarked for other purposes. Should you try to withdraw 60 pieces today, your attention would be drawn to this fact by a warning or error message .

The dynamic availability check is used in several applications. You can use the availability check not only in Inventory Management when entering reservations and goods movements, but also when entering a sales or production order.

Settings for Dynamic Availability Check in Inventory Management

The following figure illustrates the course of the availability check and the most important factors.

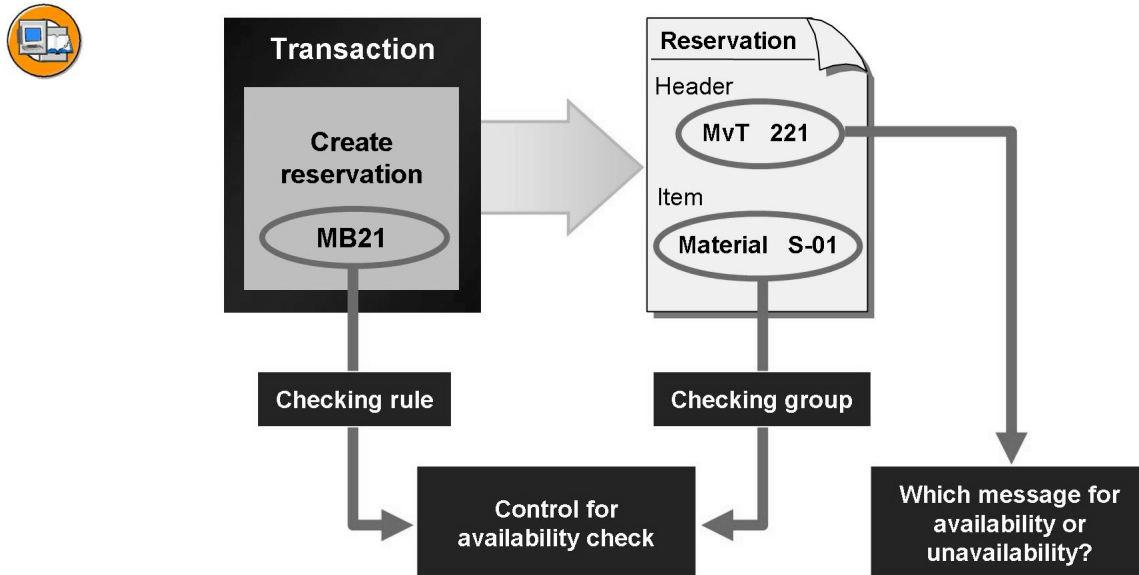


Figure 59: Dynamic Availability Check (Example: Reservation)

The following prerequisites must be satisfied in the system for the availability check to be carried out:

- A **checking rule** must be assigned to the transaction (in Customizing).
- A **checking group** must have been maintained for the availability check in the material master record (MRP data).
- For the combination of checking group and checking rule, you must have defined which stocks and which receipts and issues are to be taken into account in the check (in Customizing).
- You must specify which type of message (error, warning, or information) you want the system to issue for the movement type for availability or non-availability.

You maintain the Customizing settings in Customizing for *Inventory Management and Physical Inventory*:

- For goods movements under *Goods Issue/Transfer Postings* → *Set Up Dynamic Availability Check* or under *Goods Receipt* → *Set Up Dynamic Availability Check*.
- For reservations under *Reservation* → *Set Up Dynamic Availability Check*.

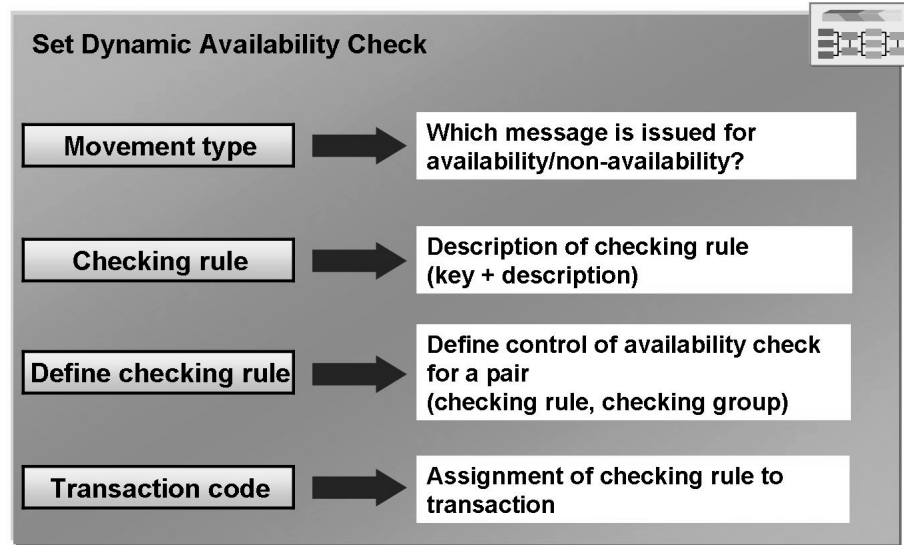


Figure 60: Customizing: Set Up Dynamic Availability Check

Four steps must always be executed:

- Setting for movement type
- Definition of checking rule
- Detailed specification of checking rule depending on the checking group
- Assignment of checking rule to transaction

When making the detailed specification of the checking rule, you can choose whether safety stock, stock in transfer, stock in quality inspection, or blocked stock is to count as available stock, for example. Similarly, planned receipts and future sales requirements or reservations can be included in the calculation of the available quantity through consideration of purchase requisitions, purchase orders, or production orders.



Availability Check Control: Details

Availability check

Checking rule

Stocks	Receipts/Issues
<input type="checkbox"/> Include safety stock <input type="checkbox"/> Stock in transfer <input checked="" type="checkbox"/> Include quality insp. stock <input type="checkbox"/> Include blocked stock <input type="checkbox"/> ...	<input type="checkbox"/> Incl. purchase orders <input type="checkbox"/> Incl. purchase requisitions <input checked="" type="checkbox"/> Incl. dependent requirements <input type="checkbox"/> Include reservations ... Incl. dependent reservatns <input type="text" value=""/> Incl. release order reqs <input type="text" value=""/> ... Incl. planned orders <input type="text" value=""/> ... Incl. production orders <input type="text" value=""/> ...
Replenishment lead time <input type="checkbox"/> Check without RLT	Receipts in the past <input type="checkbox"/> Include receipts from ...
Storage location inspection <input type="checkbox"/> No storage loc. inspection	
Missing parts processing Checking period GR <input type="text" value=""/>	

Figure 61: Customizing: Control of Availability Check

Normally, the replenishment lead time (RLT) is taken into account in the availability check. If, for example, there is a requirement in four weeks time that is not covered by stock, but the replenishment lead time is only one week, no warning message is issued. However, by setting the *Check Without RLT* indicator, you can specify that the RLT for the material is not to be taken into account in the check.

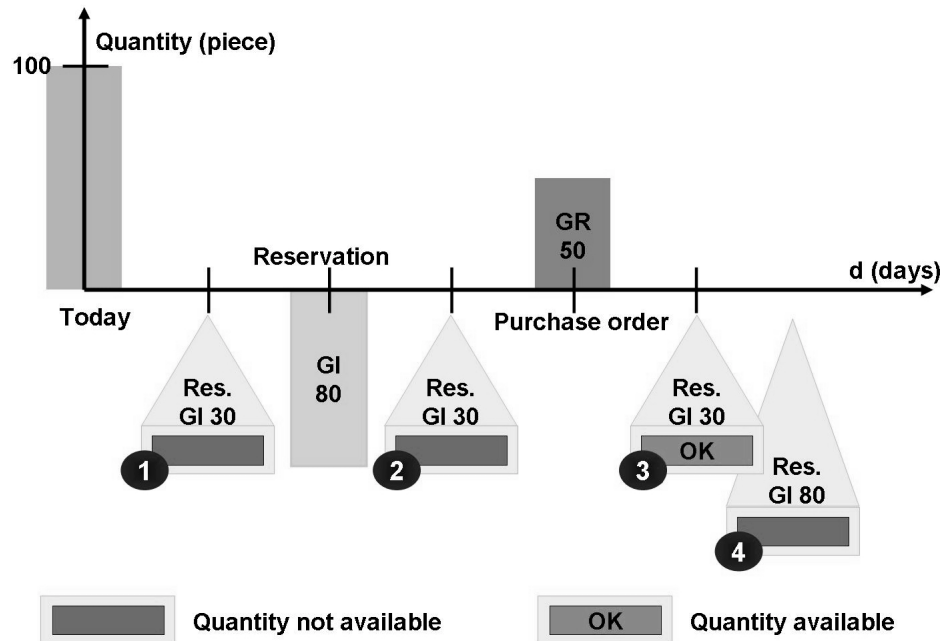


Figure 62: Example

Figure 64 represents a simple example of the availability check when a reservation is entered. The starting situation is that the following stocks exist and the following receipts and issues are planned for the material:

- Today: Stock 100 pc
- Today + 2 days: Goods issue (GI) for a reservation, 80 pc
- Today + 4 days: Goods receipt (GR) for a purchase order, 50 pc

The question now is what happens when you try to reserve another 30 pc for a withdrawal? Whether you get a warning message depends on the requirement date selected, and also on the relevant Customizing settings:

- Requirement date today + 1 days: 30 pc are not available (1)
- Requirement date today + 3 days: 30 pc are not available (2)
- Requirement date today + 5 days: 30 pc are available (3), but not 80 pc
- Requirement date after expiration of the replenishment lead time: 80 pc are available (4)



Demonstration:

Purpose

Dynamic availability check

System Data

System: Training System
Client: 8xx
User ID: Ask the instructor
Password: Ask the instructor
Set up instructions: None

1. Demonstrate the settings for dynamic availability with the data from the exercise (group 00).
2. Optional: You can show the example in the “Example” figure.

In this case, create the material **T-DV** with the following data in advance. Take care that the availability 01 has been defined in the reference material (for example, m-01).

Material: T-DV
Industry sector: Mechanical Engineering
Material type: Raw material
Reference: m-01
Views: Purchasing, MRP, Plant Data/Storage, Accounting.
Plant: 1000 (also reference)
Storage location 0001 (also reference)

Post an initial stock balance entry (561) of 100 pc in plant 1000, storage location 0001 for material T-DV.

Create a **reservation** with the following data:

Movement type 201
Plant 1000, storage location 0001
Cost center: 1000
Material: T-DV
Quantity: 80 pc
Requirement date: Today +2 days

Create a **purchase order** with the following data:

Vendor: T-K510Z01
Purchasing organization: 1000
Purchasing group: 001
Company code: 1000
Material: T-DV
Quantity: 50 pc
Price: “Any”

Delivery date: Today +2 days

Plant: 1000

Then create a reservation for a GI of 30 pc of material T-DV to a cost center. Change the requirement date in accordance with the data for the example. First ask the participants in each case whether the system will issue a non-availability message.

CAUTION: Do not save the reservation, just change the requirement date.

Missing Part Check

A **missing (short) part** is a stock of material that is already assigned to a goods issue at the time of goods receipt. This means that a current requirement could not be covered from existing stock (shortage or requirement undercoverage situation). As a rule, such a missing part bypasses the warehouse and, upon receipt, is forwarded directly to the point at which it is needed. However, this is only possible if the enterer and the responsible materials planner are informed of such a receipt.

So that you are automatically informed about such a requirement undercoverage situation when entering a goods receipt, you must make the following settings:

- Activate the missing part check for the plant
- Assign a checking rule to the transaction
- Maintain a checking group for the availability check in the material master record (MRP data)

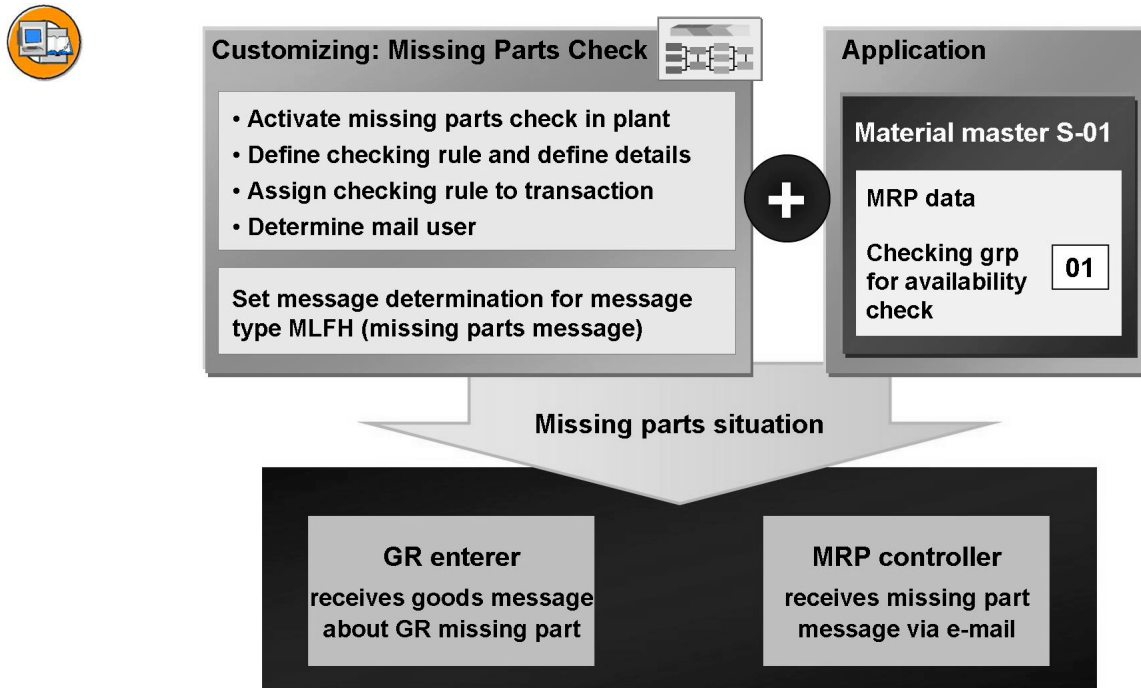


Figure 63: Missing Part Check

The missing part check builds upon the dynamic availability check. That is to say, the same elements, checking group, checking rule, and availability check control are used here. You must make the following settings in Customizing for *Inventory Management and Physical Inventory* under *Goods Receipt → Set Missing Parts Check*:

- Activation of missing part check per plant
- Definition of a checking rule
- Specification of the details for control of the availability check: To use the missing part check, you must enter a checking horizon for the missing part check. The checking horizon indicates for how many days in the future the system checks whether shortfall quantities exist for the material. Within the checking horizon, an e-mail is sent from Inventory Management informing the materials planner that there has been a goods receipt for a missing part.
- Assignment of checking rule: At transaction level, the missing part check uses the same checking rules as the availability check. However, you have the option of maintaining different checking rules at movement type level. The checking rule of the movement type takes precedence over that of the transaction. Note that an entry for the movement type without an entry for the transaction has no effect.
- Specification of the mail recipient (e-mail user): The system sends the missing part message to the materials planner (MRP controller) responsible for the material. In order for this to happen, a user ID must be assigned to the materials planner.
- Specification of missing part expediter: If no user ID is assigned to the responsible materials planner, the message is sent to the central missing part expediter responsible for the plant. This person is defined per plant.

In addition to these settings, you can specify for each plant whether the missing part message is to be output in summarized or non-summarized form. In the case of non-summarized missing part messages, a separate e-mail with a maximum of five MRP elements is sent per missing part material. With the summarized missing part message, a list of missing part materials without specification of MRP elements is generated per material document and plant.



Exercise 16: Dynamic Availability Check

Exercise Duration: 20 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Explain the settings for the dynamic availability check

Business Example

When you create a reservation, you want to be informed if the quantity you need is available on the desired date. Test the settings for the dynamic availability check.

System Data

System:	Training System
Client:	8xx
User ID:	Ask the instructor
Password:	Ask the instructor
CATT:	ZT_SCM510
Set up instructions:	None

Task:

Examine the settings for the dynamic availability check and reservations for material **T-M510B##** in plant 1100, storage location 0001.

The starting situation for the material in plant 1100 is as follows:

Warehouse stock	100 pc at storage location 0001
Purchase order	150 pc , delivery date next week, vendor T-K510A##
Purchase requisition	50 pc , requested for next week
Reservation	80 pc , withdrawal for cost center, current week

What message is displayed when you create a reservation for 60 pieces for today? First determine the message type (error/warning) from the settings in Customizing and the material master record. Check the result by creating a reservation.

1. Determine which checking group is assigned to the dynamic availability check for material **T-M510B##** in plant 1100. The checking group is shown in the MRP view of the material master record.

Continued on next page

Material	Availability
T-M510B##	

2. From the Customizing settings, determine which checking rule is used when a reservation is created (transaction code MB21).

Transaction code	Avail. rule
MB21	

3. Which stocks and which receipts/issues count as available stock when a reservation is created for material **T-M510B##**?



Hint: Unrestricted-use stock always counts as available stock.

Stock, receipt/issue	Relevant (+/-)
Unrestricted-use	
Quality inspection	
Blocked stock	
Purchase order	
Purchase requisition	
Reservation	

4. Using the availability overview, determine the available stock **today** for manual reservations entered for material **T-M510B##** in plant 1100.

Cumulative ATP quantity (for today's date)

5. Only 20 pieces are available. However, you want to reserve 60 pieces for today with movement type 311. Determine whether the system issues a message when the reservation is created and, if so, which message type.



Hint: Choose the entry for movement type 311 with quantity and value updating, without special stock.

Movement type	Message
311	

Continued on next page

6. Test the dynamic availability check using the scenario described above. Create a reservation for a stock transfer from storage location 0001 to storage location 0002 for 60 pieces of material T-M510B## in plant 1100 for today. Check whether the system issues a warning message.

Solution 16: Dynamic Availability Check

Task:

Examine the settings for the dynamic availability check and reservations for material **T-M510B##** in plant 1100, storage location 0001.

The starting situation for the material in plant 1100 is as follows:

Warehouse stock	100 pc at storage location 0001
Purchase order	150 pc , delivery date next week, vendor T-K510A##
Purchase requisition	50 pc , requested for next week
Reservation	80 pc , withdrawal for cost center, current week

What message is displayed when you create a reservation for 60 pieces for today? First determine the message type (error/warning) from the settings in Customizing and the material master record. Check the result by creating a reservation.



- Determine which checking group is assigned to the dynamic availability check for material **T-M510B##** in plant 1100. The checking group is shown in the MRP view of the material master record.

Material	Availability
T-M510B##	<u>01 Day's requirement</u>

- Choose *Logistics* → *Materials Management* → *Material Master* → *Material* → *Display* → *Display Current (MM03)*.
 - Enter the *Material Number* **T-M510B##**.
 - Choose *Select View(s)* and select *MRP 3*.
 - Choose *Organizational levels*, enter *Plant 1100*, and confirm your entries with *Enter*.
 - Note down the checking group for availability check **01**.
- From the Customizing settings, determine which checking rule is used when a reservation is created (transaction code MB21).

Continued on next page


Transaction code	Avail. rule
MB21	<u>03 Checking rule 03</u>

- a) Choose *Tools* → *Customizing* → *IMG* → *Edit Project (SPRO)*.
 - b) Choose  *SAP Reference IMG*.
 - c) In *Customizing*, choose *Materials Management* → *Inventory Management and Physical Inventory* → *Reservation* → *Set Up Dynamic Availability Check*.
 **Note:** Instead of steps a) to c), you can also call the transaction OMB1 directly.
 - d) Choose *Transaction Code*.
 - e) Note that rule 03 is used when a reservation is created (transaction MB21).
 - f) For the next part of the exercise, return to the selection screen.
3. Which stocks and which receipts/issues count as available stock when a reservation is created for material **T-M510B##**?



Hint: Unrestricted-use stock always counts as available stock.


Stock, receipt/issue	Relevant (+/-)
Unrestricted-use	±
Quality inspection	=
Blocked stock	=
Purchase order	±
Purchase requisition	=
Reservation	±

- a) In *Customizing*, choose *Materials Management* → *Inventory Management and Physical Inventory* → *Reservation* → *Set Up Dynamic Availability Check (OMB1)*.
- b) Choose *Define Checking Rule*.
- c) In the table, select the line with *Avail 01* (daily requirements), *Checking Rule 03* (checking rule 03) and choose  with the quick info text *Details*.

Continued on next page

4. Using the availability overview, determine the available stock **today** for manual reservations entered for material **T-M510B##** in plant 1100.


Cumulative ATP quantity (for today's date)
20 pc

- Choose *Logistics* → *Materials Management* → *Inventory Management* → *Environment* → *Stock* → *Availability Overview (CO09)*.
 - Enter *Material T-M510B##*, *Plant 1100*, and *Checking Rule 03*.
 - Choose  *Enter*.
 - Write down the *cumulative ATP quantity* of 20 pieces.
5. Only 20 pieces are available. However, you want to reserve 60 pieces for today with movement type 311. Determine whether the system issues a message when the reservation is created and, if so, which message type.





Hint: Choose the entry for movement type 311 with quantity and value updating, without special stock.

Movement type	Message
311	<u>A: Warning message only issued in the case of non-availability</u>

- In Customizing for *Materials Management*, choose *Inventory Management and Physical Inventory* → *Reservation* → *Set Up Dynamic Availability Check (OMBI)*.
- Choose *Movement Type*.
- Choose *Position*
- Enter *Movement Type 311*, *Value Updating X* and *Quantity Updating X* and choose  *Enter*.
- A: *Warning message is only issued in the case of non-availability*.

Continued on next page

6. Test the dynamic availability check using the scenario described above. Create a reservation for a stock transfer from storage location 0001 to storage location 0002 for 60 pieces of material T-M510B## in plant 1100 for today. Check whether the system issues a warning message.
- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Reservation* → *Create (MB21)*.
 - b) Enter the *base date* <today>, the *movement type* **311**, and the *plant* **1100** , and choose  with the quick info *Enter*.
 - c) Enter the following data for the item:
Recv. SLoc **0002**
Material **T-M510B##**
Quantity **60 pc**
Storage Location **0001**
 - d) The system issues a warning message. Only 20 pieces are available on today's date.
 - e) Choose *Enter* and then  *Post*.



Lesson Summary

You should now be able to:

- List the settings for the availability check in the case of reservations
- Name other applications where the application check can be used
- Explain the purpose of the missing part check
- Name the settings for the missing part check



Unit Summary

You should now be able to:

- Explain the structure of a reservation and the information it contains
- Create a reservation manually, with and without a reference
- Change the data in a reservation
- Enter a goods movement with reference to a reservation
- Determine whether reservations exist for a cost center
- Name the functions of the picking list for reservations
- List the settings for the availability check in the case of reservations
- Name other applications where the application check can be used
- Explain the purpose of the missing part check
- Name the settings for the missing part check



Test Your Knowledge

1. In the picking list, you can post goods issues with reference to the _____. The system posts all reservations that correspond to the _____. To prevent selected reservations from being posted, you must _____ them from the list.

Fill in the blanks to complete the sentence.

2. The dynamic availability check takes into account stocks at the time of entry and future receipts and issues. You can set up the check for each transaction in the applications.

Determine whether this statement is true or false.

- True
- False



Answers

1. In the picking list, you can post goods issues with reference to the reservation. The system posts all reservations that correspond to the selection criteria. To prevent selected reservations from being posted, you must delete them from the list.

Answer: reservation, selection criteria, delete

2. The dynamic availability check takes into account stocks at the time of entry and future receipts and issues. You can set up the check for each transaction in the applications.

Answer: True

Unit 5



Goods Issues



The participants should be able to enter goods issues in this unit without too much of a problem. The use of transaction MIGO should now be familiar to them.



Caution: The exercise for the lesson “Negative Stocks” is optional. You should only present this if there is sufficient time available.

Unit Overview

As this course has already covered both goods receipts and transfer postings, this unit will cover the goods issues. You can also enter these goods movements with and without reference to a reference document. Negative stocks should be introduced as a specialist topic in this unit.



Unit Objectives

After completing this unit, you will be able to:

- Enter goods issues without reference to another document
- Use a bill of material as a template for a goods issue
- Explain the differences between a withdrawal for a random sample or scrapping and a withdrawal for a cost center
- Enter a goods issue with reference to a reservation
- Enter a goods issue with reference to a production order
- Explain the difference between planned and unplanned goods issues
- Specify the settings necessary for the use of negative stocks

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Lesson: Unplanned Goods Issues



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Lesson Duration: 45 Minutes

Lesson Overview

This lesson shows you how to enter goods issues without reference to another document. This is done when materials are withdrawn to carry out random samples or for scrapping. We will also discuss the internal staging of materials, for example for a cost center or a project.



Lesson Objectives

After completing this lesson, you will be able to:

- Enter goods issues without reference to another document
- Use a bill of material as a template for a goods issue
- Explain the differences between a withdrawal for a random sample or scrapping and a withdrawal for a cost center



When dealing with goods issues, you must decide whether a withdrawal for consumption or a withdrawal for random sampling or scrapping is involved. A withdrawal for consumption also updates the consumption figures in the material master record. This is not so for random sample or scrapping. Although this update can be changed in Customizing depending on the movement type, customers should be introduced to the standard approach.

Business Example

Various transactions take place within an enterprise for which a goods issue without reference is entered. For example, you might have to scrap materials that have become unusable, or take random samples of materials for quality control purposes.



Demonstration:

Purpose

Unplanned Goods Issues

CATT: CATT exercise

System Data

System: Training System

Client: 8xx

User ID: Own user ID or SCM510-00
Password: Ask the instructor
Set up instructions: None

1. Demonstrate the goods issues with the data from the exercises (group 00).

Use the following data (optional):

Material: M-01

Plant: 1000

Storage location: 0001

Goods Issue Without Reference

A goods issue (GI) is a goods movement that leads to a reduction in stock. The following types of goods issue are possible: issue of material for a production order, withdrawal for random sampling purposes, scrapping of material, internal staging of material for other purposes, or shipping of goods to a customer. The transaction you enter is determined by the movement type selected. The movement type also determines which additional account assignment data you have to specify. For a goods issue to a cost center, for example, you use movement type 201. You then have to enter a cost center as the account assignment object.



Hint: Stock-reducing transactions (such as goods issues) are also posted when ordered goods are returned to vendors. However, these postings are entered under the special return delivery and transfer posting operations.

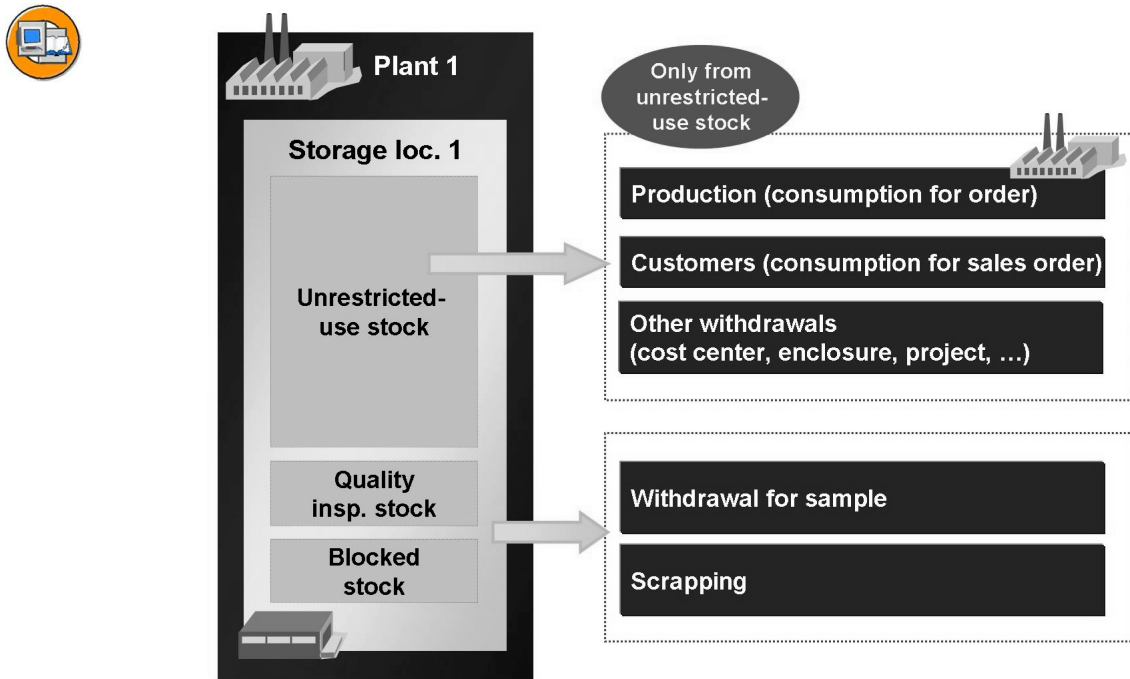


Figure 64: Goods Issue

Withdrawals for consumption (for example, for a production order, a sales order, or for a cost center) can only be posted out of unrestricted-use stock. A withdrawal for random sampling or scrapping, on the other hand, can also be booked out of stock in quality inspection and blocked stock. The most important effects of a goods issue are the following:

- A material document and an accounting document are generated.
- The stock of the material is reduced.
- The value of the material withdrawn is booked out of the stock account and posted to an offsetting account that depends on the relevant transaction (for example, a consumption account). The value posted is the value from the material master record at the time of posting.
- If consumption updating has been defined for the material type, the consumption figure for this material is increased by the quantity withdrawn. A distinction is made between planned and unplanned withdrawals. If the withdrawal is planned, total consumption is updated. If the withdrawal is unplanned, total and unplanned consumption are updated.

Consumption is not updated for withdrawals for scrapping and random sampling.



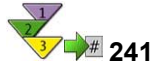
Hint: You can display the consumption of a material in the material master record at plant level. To do so, choose the *Consumption* tab page in the *Additional Data*.

- If appropriate, the specified account assignment will be debited (for example, the cost center).

If you cannot reference another document (such as a production order or reservation) when entering the goods issue, you must enter an other goods issue without reference and enter all the necessary data manually. Such cases are referred to as **unplanned** goods issues.

If you want to withdraw several materials that appear as components on a bill of materials (BOM), you can reference the BOM when entering the goods issue, thereby reducing the manual entry effort.

How to enter a goods issue without reference without reference and how to use a bill of materials as a template in the process are discussed in the following.



Goods Issue Without Reference

1. From the *SAP Easy Access* screen, choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
2. Choose action *Goods Issue* and reference *Others*.
3. Enter the desired movement type in the *Default Value for Movement Type* field (for example, 201 [consumption to cost center from warehouse], 221 [consumption for project from warehouse], or 241 [consumption for asset from warehouse]).



Hint: If you want to enter items with different movement types, you can change the *Default Value* for the movement type before entering further items. You can also change the movement type in the item itself.

4. Enter the material number, the quantity, the storage location, and the plant for the items to be entered. Enter the material number in the *Material Short Text* column. You must also enter the account assignment data that is dependent on the movement type (such as the cost center, the WBS element, or the asset).




Hint: There are extended entry options for the data on material, plant, and storage location. For example, if you cannot remember the exact material number, simply enter part of the material short text (short description) and choose *Continue*. The system shows you all the materials containing the short text in a dialog box.

5. Post the document.



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Posting a Goods Issue with Reference to a Bill of Materials

1. From the *SAP Easy Access* screen, choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
2. Choose action *Goods Issue* and reference *Others*.
3. Enter the desired movement type in the *Default Value for Movement Type* field.
4. Enter the BOM in the *Material Short Text* field. Enter a quantity, the account assignment data, the plant, and the storage location.
5. To explode the bill of material, choose  *Explode BOM* (below the item overview). The system now displays all components of the BOM in the item overview. You can change details of the individual items, such as the quantity, the storage location, or – for items you do not want to post – the *OK* indicator.
6. Post the document.

Sampling

Random samples are usually taken within the framework of quality control measures. Frequently, only a small quantity of materials undergoing quality inspection is actually checked or tested. The result of this check is then the basis of the usage decision for the entire quantity.

To ensure that the quantity to be checked is removed from stock, you post a sample. At the time of quality inspection (checking/testing), you must decide whether or not the check or test causes the destruction of the material, that is to say, whether or not the material can subsequently be used. If the checking or testing process is destructive, you enter a withdrawal for sampling. As a result of this posting, the quantity and value of the material is reduced. The value is posted out of a stock account and posted to a quality inspection expense account. A withdrawal for sampling does not result in a consumption update.

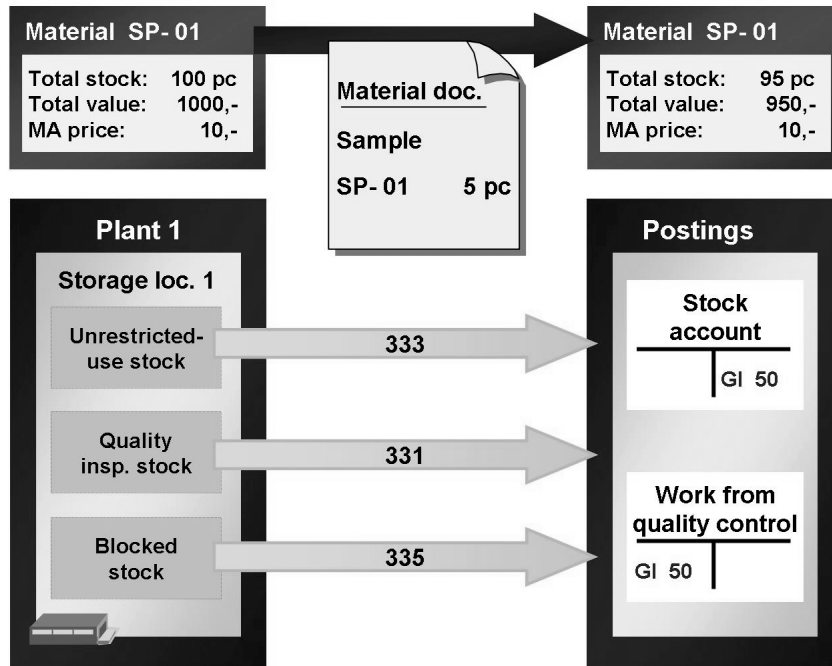


Figure 65: Destructive Sampling

A sample is entered in the same way as a goods issue without reference. In the standard system, the following movement types are defined for a withdrawal for sampling:

- **331:** Withdrawal for sampling from stock in quality inspection
- **333:** Withdrawal for sampling from unrestricted-use stock
- **335:** Withdrawal for sampling from blocked stock

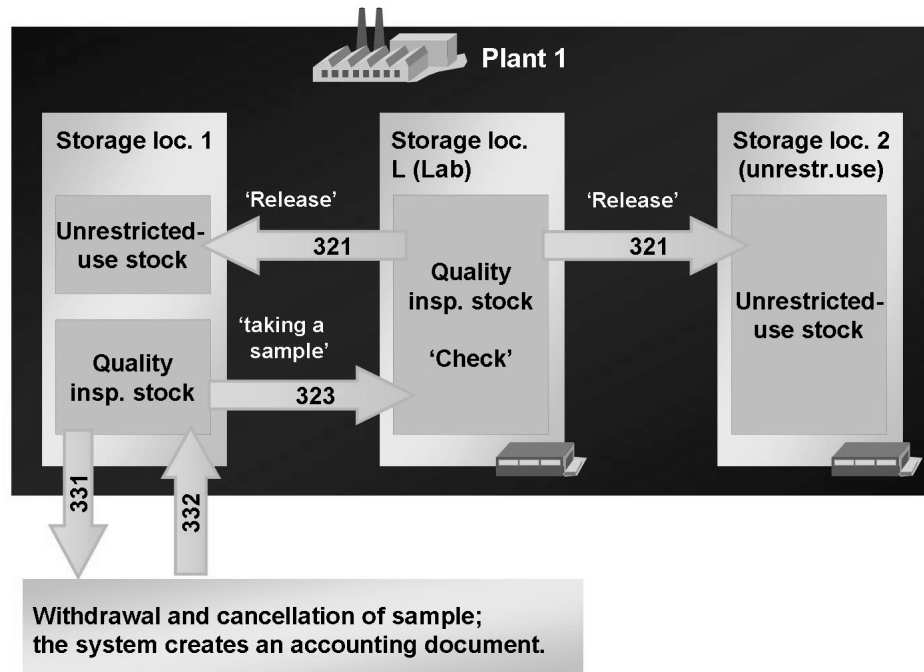


Figure 66: Non-Destructive Sampling

If the material can still be used after the checking/testing process, it is a good idea to define the laboratory or checking/testing point as a separate storage location and book the material to be checked into this storage location. The relevant quantity of the material is then still part of stock in quality inspection but is kept at a different storage location to the rest of the material. This allows you to keep track of exactly which quantities of materials are currently undergoing quality tests. This transfer posting has no effect on the total quantity or value of the material. After successful checking/testing, the material can be released directly from the checking/testing point storage location.



Caution: If inspection processing is active for a material, the quality checking and testing of a material are carried out in Quality Management. Note that issues from stock in quality inspection cannot then be made in Inventory Management, but only within the framework of inspection processing.

Scrapping

You enter a scrap posting if a material can no longer be used (for example, because it has been damaged, or because its minimum shelf life has been exceeded). Scrapping is possible from each of the three stock types and is entered as a goods issue without reference.

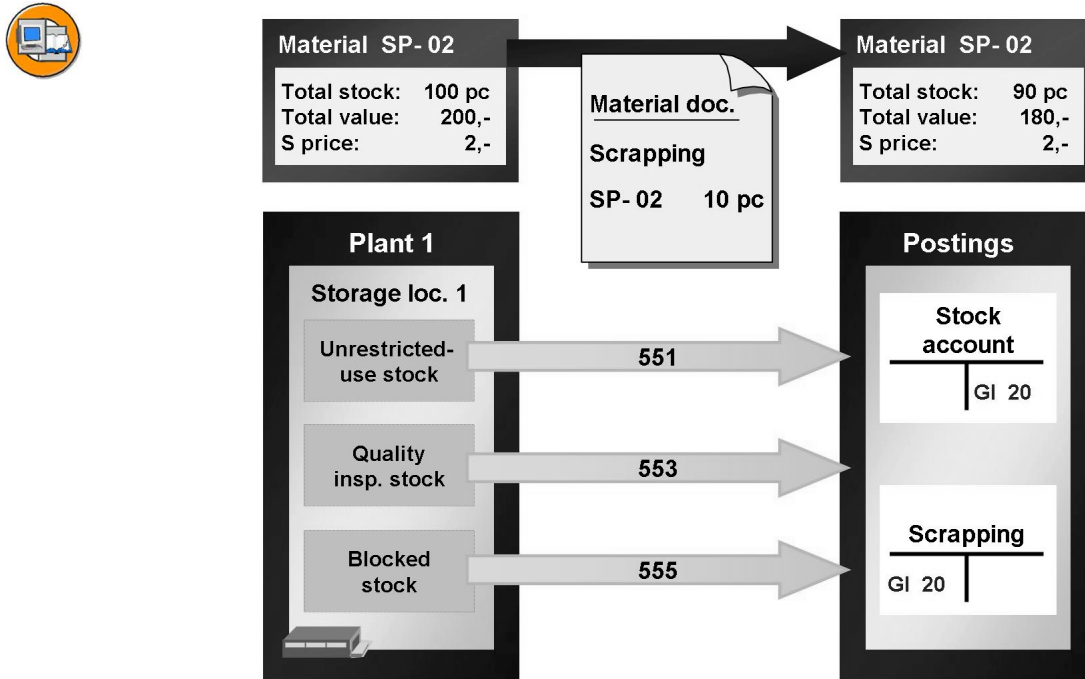


Figure 67: Scrapping

In the standard system, the following movement types have been defined for scrapping:

- **551:** Withdrawal for scrapping from unrestricted-use stock
- **553:** Withdrawal for scrapping from stock in quality inspection
- **555:** Withdrawal for scrapping from blocked stock

Scrapping causes a reduction in the associated stock. The value of the scrapped material is posted out of the stock account to a scrap account.



Exercise 17: Unplanned Goods Issues

Exercise Duration: 20 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Enter a goods issue for a cost center
- Enter a goods issue for a project
- Enter a materials scrap in the system

Business Example

Goods issues are entered in the system without reference in the case of scrapping and unplanned withdrawals.

System Data

System:	Training System
Client:	8xx
User ID:	Ask the instructor
Password:	Ask the instructor
CATT:	ZT_SCM510
Set up instructions:	None

Task 1: Consumption Posting

Various transactions take place within an enterprise for which a goods issue without reference is entered. Enter goods issues for a cost center and a withdrawal for scrapping. Display the consumption data for the material.

1. Make a note of the total and unplanned consumption in the consumption data for material **T-M510A##** in plant 1200.

Total consumption	_____
Unplanned consumption	_____

2. Enter the issue of material **T-M510A##** from plant 1200, storage location 0001. Enter 10 pc as goods issue from the warehouse for the cost center, and 20 pc as withdrawal for scrapping from unrestricted-use stock. Enter **T-L##** as the cost center for both items.
3. Make a note of the total and unplanned consumption in the consumption data for material **T-M510A##** in plant 1200.

Continued on next page

Material	T-M510A##
Total consumption	_____
Unplanned consumption	_____

Task 2: (Optional) Entering Goods Issue with Reference to Bill of Material

The manager of project **I/5001-1** reports that he urgently needs some components of the pump R-F1##.

1. Post the goods issue for the project from storage location 0002 at plant 1000. The manager needs 6 shafts and 2 housings. Use the BOM for the pump R-F1## to help you enter the items.


Solution 17: Unplanned Goods Issues

Task 1: Consumption Posting



Various transactions take place within an enterprise for which a goods issue without reference is entered. Enter goods issues for a cost center and a withdrawal for scrapping. Display the consumption data for the material.

1. Make a note of the total and unplanned consumption in the consumption data for material **T-M510A##** in plant 1200.

Total consumption	<u>0</u>
Unplanned consumption	<u>0</u>


- a) Choose *Logistics* → *Materials Management* → *Material Master* → *Material* → *Display* → *Display Current (MM03)* .
- b) Enter the *Material Number T-M510A##*.
- c) Choose *Select View(s)* and select *MRP 1*.
- d) Choose *Organizational levels*, enter *Plant 1200*, and choose *Enter*.
- e) Choose  *Additional Data*.
- f) Choose the *Consumption* tab page.
- g) No consumption of this material has yet been recorded in the system.

Continued on next page

2. Enter the issue of material **T-M510A##** from plant 1200, storage location 0001. Enter 10 pc as goods issue from the warehouse for the cost center, and 20 pc as withdrawal for scrapping from unrestricted-use stock. Enter **T-L##** as the cost center for both items.
 - a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
 - b) Choose *Goods Issue* and, as the reference, *Other*.
 - c) Enter *Movement type 201*. Confirm these entries with *Enter*.
 - d) Enter the following data for the first item:
 - Material tab page: *Material T-M510A##*
 - Quantity tab page: *Qty in Unit of Entry 10 pc*
 - Where tab page: *Plant 1200, Storage Location 0001*
 - Account Assignment tab page: *Cost Center T-L##*Confirm your entries with *Enter*.
 - e) Change the default value for the movement type to **551**. Confirm these entries with *Enter*.
 - f) Choose , with the quick info text *Next Item*, and enter the following data for item 2:
 - Material tab page: *Material T-M510A##*
 - Quantity tab page: *Qty in Unit of Entry 20 pc*
 - Where tab page: *Plant: 1200, Storage Location 0001*
 - Account Assignment tab page: *Cost Center T-L##*
 - g) Choose  with the quick info text *Post*.
3. Make a note of the total and unplanned consumption in the consumption data for material **T-M510A##** in plant 1200.

Continued on next page

Material	T-M510A##
Total consumption	<u>10</u>
Unplanned consumption	<u>10</u>


- a) Choose *Logistics* → *Materials Management* → *Material Master* → *Material* → *Display* → *Display Current (MM03)*
- b) Enter the *Material Number T-M510A##*.
- c) Choose *Select View(s)* and select *MRP 1*.
- d) Choose *Organizational levels*, enter *Plant 1200*, and choose *Enter*.
- e) Choose  *Additional Data*.
- f) Choose the *Consumption* tab page. The total consumption in the current period is 10 pieces. These 10 pieces have been posted without a reference to a reference document, meaning that the total consumption is the same as the unplanned consumption.

The scrapped quantity is not updated as consumption in the material master record.

Continued on next page

Task 2: (Optional) Entering Goods Issue with Reference to Bill of Material

The manager of project **I/5001-1** reports that he urgently needs some components of the pump **R-F1##**.

1. Post the goods issue for the project from storage location 0002 at plant 1000. The manager needs 6 shafts and 2 housings. Use the BOM for the pump **R-F1##** to help you enter the items.
 - a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
 - b) Choose *Goods Issue* and, as the reference, *Other*.
 - c) Enter *Movement type 221*. Confirm these entries with *Enter*.
 - d) Enter the following data:
 - Material tab page: *Material R-F1##*
 - Quantity tab page: *Qty in Unit of Entry 6 pc*
 - Where tab page: *Plant 1000, Storage Location 0002*
 - Account Assignment tab page: *WSB Element I/5001-1*
 - e) Choose  *Explode BOM*.




Hint: The system generates several sub-items for item 1. You can change the entires for each sub-item.

- f) Change the quantities for the components.
- g) Set the *Item OK* indicator for the housing and shaft.



Hint: The *Item OK* indicator must also be set for the “BOM material” **R-F1##**. When you explode the BOM, however, this item is not posted.

- h) Choose  with the quick info text *Post*.



Lesson Summary

You should now be able to:

- Enter goods issues without reference to another document
- Use a bill of material as a template for a goods issue
- Explain the differences between a withdrawal for a random sample or scrapping and a withdrawal for a cost center

Lesson: Goods Issue with Reference



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Lesson Duration: 45 Minutes

Lesson Overview

In this lesson, you will learn how to enter a goods issue (GI) with reference to a reservation or production order.



Lesson Objectives

After completing this lesson, you will be able to:

- Enter a goods issue with reference to a reservation
- Enter a goods issue with reference to a production order
- Explain the difference between planned and unplanned goods issues



In addition to the procedure for entering goods issues with reference to a another document, in this lesson the instructor should make clear why we talk about a “planned goods receipt” in such cases.

In this context, the subject of unplanned goods issues without a reference document must of course be addressed. If the lesson “Goods Issue Without Reference” has already been worked through, it is not necessary to deal with this subject again. Otherwise a brief explanation should be sufficient.

Business Example

Materials have been reserved for a cost center. You now want to issue some of the reserved items and enter this goods issue with reference to the relevant reservation. The remaining reserved quantity is no longer needed. In order to make this quantity freely available once again, set the *Final Issue* indicator when entering the goods issue.



Demonstration:

Purpose

Goods issue with reference to reservation or production order

System Data

System:	Training System
Client:	8xx
User ID:	Ask the instructor
Password:	Ask the instructor

Set up instructions: None

1. Prior to holding the course, create a production order with the following data:

Material: R-F1##

Order type: PP01

Plant: 1000

Quantity: 15

Start: Today +2 weeks.

Release the order prior to saving.

2. Demo in course: Post a goods issue against a reservation. Search for reservations with account assignment to the order created above.

Goods Issue with Reference to a Reservation

After having secured the timely provision of a material through a reservation, you enter the goods issue at the appropriate time with reference to the reservation. By referencing the reservation, you simplify the entry of the goods movement, since the data of the individual items can be adopted from the reservation. The enterer is thus also able to carry out a check. He or she can make sure that the materials and quantities that were reserved are actually withdrawn.

The reference to the reservation is also necessary in order for the quantities withdrawn to be updated in the reservation, thus providing Material Requirements Planning (MRP) with the correct values. If the entire reserved quantity is withdrawn for an item, the *Final Issue* indicator is set automatically in the reservation item. If only a partial quantity is withdrawn and the remaining quantity is not required, you should set the *Final Issue* indicator manually at the time of goods issue so that the requirement is completely cancelled out in MRP.



Caution: A withdrawal with reference to a reservation item is possible only if the *Movement Allowed* indicator has been set for the item.

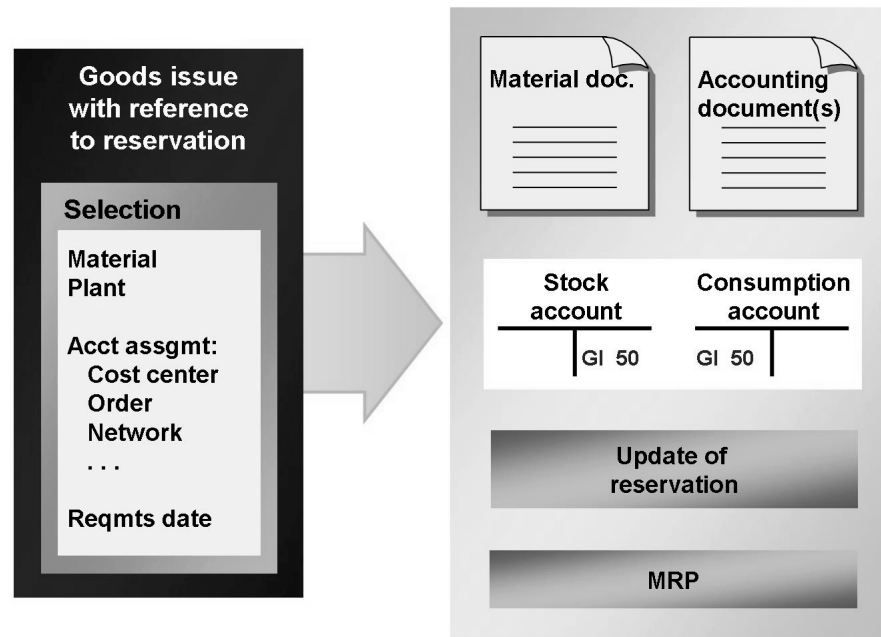


Figure 68: Goods Issue Against Reservation

If you do not know the reservation number, you can find the reservation using the **search function**. You can enter the material, the plant, and the account assignment as selection criteria, for example. You can also stipulate that you only wish to see *open reservations* (non-final-issue reservations), or final-issue (*cancelable*) reservations in the list of search hits. If you wish to adopt a final-issue item, you will get the message “Document contains no selectable items.” If you nevertheless wish to reference this reservation in a further goods issue, choose *Settings* → *Default Values* and select *Suggest All Items*..



Caution: It is not possible to reverse a goods movement with reference to a reservation using transaction MIGO. Information on entering a reversal with reference to a reservation is available in the SAP Library under *SAP ERP Central Component (or SAP R/3 Enterprise Application Components)* → *Logistics* → *Materials Management (MM)* → *Inventory Management (MM-IM)* → *Inventory Management and Physical Inventory* → *Goods Issue* → *Reversal of Planned Goods Issue*.



Demonstration:

Purpose

Goods issue for production order

CATT: CATT exercise

System Data

System: Training System
Client: 8xx
User ID: Own user ID or SCM510-00
Password: Ask the instructor
Set up instructions: None

1. Demonstrate the goods issue posting with the data from the exercise (group 00).

Posting a Goods Issue with Reference to an Order

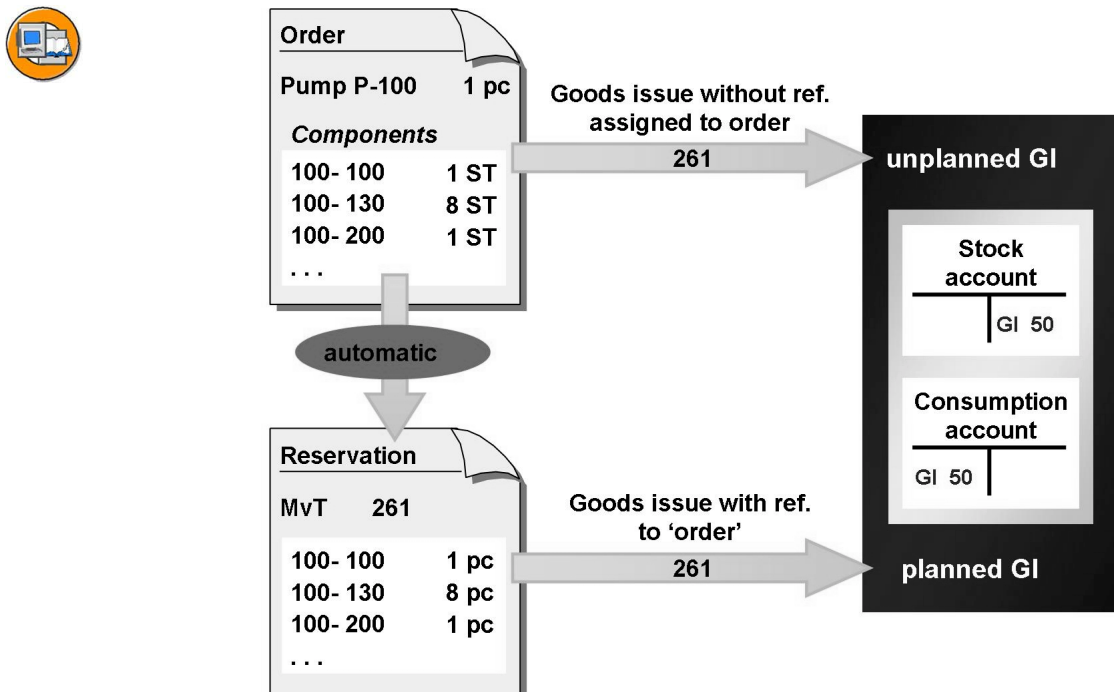


Figure 69: Goods Issue for Order



If a production order is created in the *SAP* system, the required quantities of the components are reserved automatically. However, it can happen that additional parts are needed. For this reason, there are a number of different goods issue postings for withdrawals of components for an order.

- **Planned goods issue**
You enter this goods issue with reference to the dependent reservation for the order. The system automatically determines 261 (consumption for order from warehouse) as the relevant movement type.
- **Unplanned goods issue**
You enter this goods issue without reference to a reservation as an other goods issue. In this case, too, you choose movement type 261 (consumption for order from warehouse). Specify the order number as the account assignment.
- **Backflush**
With this type of withdrawal, the components are already located at the place of production. They are physically consumed in the course of the production process; however, their consumption is not reported until the quantity consumed is known, that is, when completion of the order is confirmed. You do not need to enter a goods movement in Inventory Management for these components.

When completion of the order is confirmed, you can decide that all quantities reserved for the order but not needed are to be flagged as Final issue effected.



Posting a Goods Issue with Reference to an Order

1. From the *SAP Easy Access* screen, choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
2. Choose *Goods Issue* and, as reference, *Order*.
3. Check that no default value is shown for the movement type or that **261** appears as the default value.
4. Enter the number of the production order. You can also search for the dependent reservation for the order according to the components ( *Find Order*).
5. Choose  *Execute* to transfer the items from the reservation.
6. Select the relevant items using the *OK* indicator. If necessary, change the default quantity for the items and specify a storage location.



Hint: If you wish to set the Final Issue indicator manually, open up the detail data for the item and choose the *Reservation* tab page.

7. Post the goods movement.



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Exercise 18: Goods Issue with Reference

Exercise Duration: 10 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Enter a goods issue for a production order

Business Example

You enter the goods movements in production for a small number of materials using the transaction MIGO.

System Data

System:	Training System
Client:	8xx
User ID:	Ask the instructor
Password:	Ask the instructor
CATT:	ZT_SCM510
Set up instructions:	None

Task: Goods Issue with Reference to Production Order

Enter the issue of the components from the warehouse for production of the pump **R-F1##**. Then check that the *Final Issue Effected* indicator has been set for the components in the production order.






1. Enter the issue of the components for the production order for 10 pieces of pump **R-F1##**. Determine the order number with the aid of the input help. Use the Info System to search for the order with list type **Items**.
2. Display the production order and check whether the *Final Issue* indicator has been set for the components.

Solution 18: Goods Issue with Reference

Task: Goods Issue with Reference to Production Order

Enter the issue of the components from the warehouse for production of the pump **R-F1##**. Then check that the *Final Issue Effected* indicator has been set for the components in the production order.

1. Enter the issue of the components for the production order for 10 pieces of pump **R-F1##**. Determine the order number with the aid of the input help. Use the Info System to search for the order with list type **Items**.
 - a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
 - b) Choose *Goods Issue* and, as the reference, *Order*.
 - c) Choose the input help for the input field of the reference document number.
 - d) Choose *Production Orders via Info System*.
 - e) Enter the following data:

List Items
Material R-F1##
 - f) Choose  with the quick info text *Execute*.
 - g) Transfer the order for 100 pieces by double-clicking it.
 - h) Choose  with the quick info text *Execute*.
 - i) Set the *Item OK* indicator for all items.
 - j) Choose  with the quick info text *Post*.
2. Display the production order and check whether the *Final Issue* indicator has been set for the components.
 - a) Choose *Display*, and *Material Document* as the reference.
 - b) Choose  with the quick info text *Execute*.
 - c) In the item details, choose the *Account Assignment* tab page for any item.
 - d) Go to the order display by double-clicking the order number.
 - e) Choose  *Component Overview*.

The *Final Issue* indicator has been set for all components.



Lesson Summary

You should now be able to:

- Enter a goods issue with reference to a reservation
- Enter a goods issue with reference to a production order
- Explain the difference between planned and unplanned goods issues

Lesson: Negative Stock



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Lesson Duration: 30 Minutes

Lesson Overview

This lesson describes the settings you have to make in order to work with negative stock in the *SAP* system. In addition, this lesson explains the postings during the clearing of the negative stock for material with a moving average price.



Lesson Objectives

After completing this lesson, you will be able to:

- Specify the settings necessary for the use of negative stocks



Use a simple example to introduce negative stock. The instructor should then explain the postings for material with a moving average price (MA price) during clearing of the negative stock.

Business Example

For some materials, it may be that a received delivery cannot be entered immediately as a goods receipt in the system. So that a goods issue can be posted anyway, you want to allow negative stocks for these materials.

Negative Stock

A negative stock occurs when you post a goods issue (GI) with a quantity that is larger than the book quantity. Negative stock balances may be required if, for organizational reasons, you enter goods issues before the corresponding goods receipts, and the material is already physically located in the warehouse. Negative stocks always indicate that physical movements have to be entered in the system at a later stage.

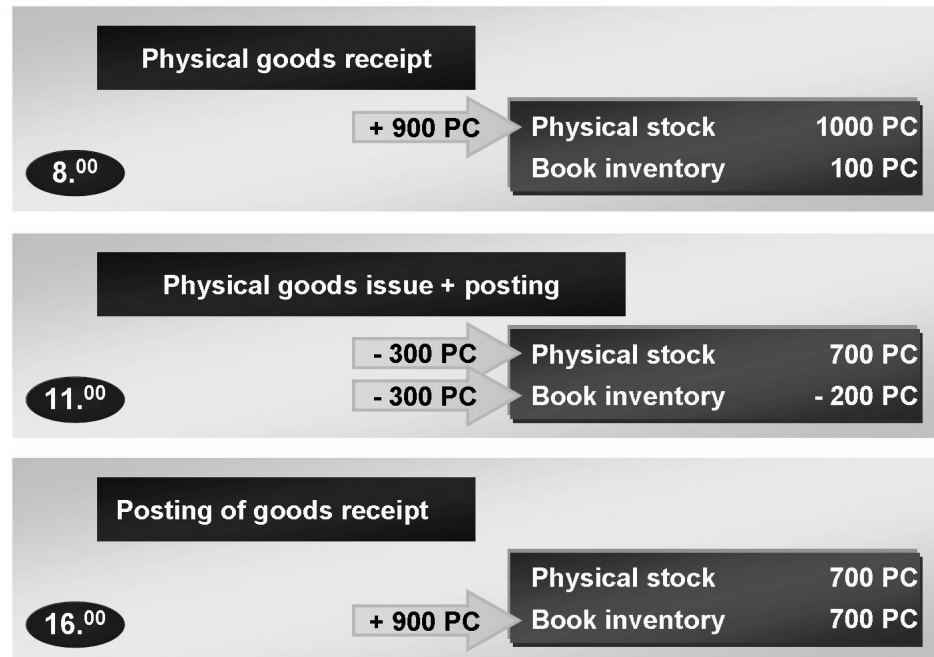


Figure 70: Negative Stock: Example

Example: According to the book inventory, 100 pieces of a material have entered storage location 0001 of plant 1000, but an additional 900 pieces have since entered the warehouse. The physical stock is 1000 pieces. This goods receipt has not yet been entered in the system due to time reasons.

300 pieces of the material are urgently required for production and withdrawn from the warehouse. This goods issue is immediately entered in the system. You therefore have a negative book inventory of -200 pieces, despite a physical stock of 700 pieces.

The goods receipt of 900 pieces is later posted. The book inventory and physical stock match again.

So that you can work with negative stock in the *SAP system*, you have to specifically allow this in Customizing for the affected material. Negative stock is possible for unrestricted-use and blocked stock and for the following special stock types:

- Vendor consignment (K)
- Stock of material provided to vendor (O)
- Consignment stock at customer (W)
- Sales order stock (E)
- Project stock (Q)
- Returnable packaging with customer (V)
- Returnable transport packaging (M)



Caution: If you work with negative stock balances, you have to ensure that you do not have negative stocks on the balance sheet key date or when you carry out a physical inventory.

Negative Stock Settings

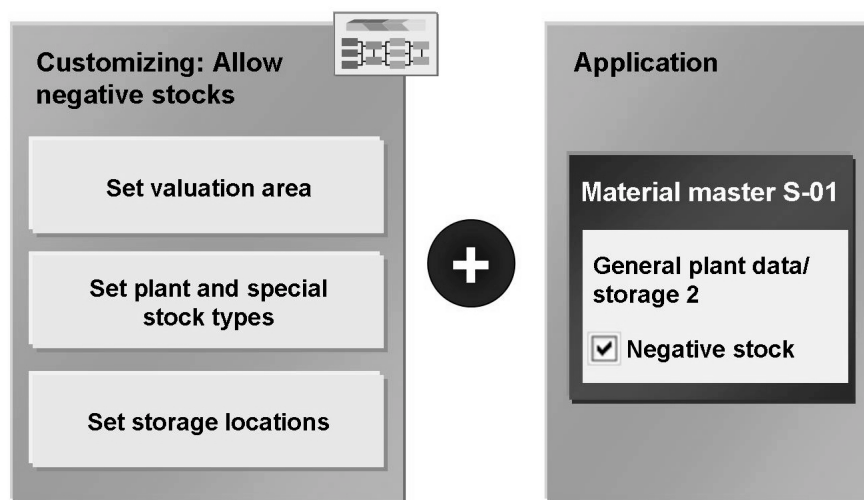


Figure 71: Negative Stock: Settings

In Customizing for *Inventory Management* and *Physical Inventory*, you will find the settings for negative stock under *Goods Issue / Transfer Postings* → *Allow Negative Stocks*. Negative stocks are allowed at valuation area level and storage location level. At plant level, you can set the special stocks for which negative stock is allowed.

You must also change the plant data for all materials that allow negative stocks. The indicator for negative stocks is with the storage data in a material master record.



Hint: If the first movement of a material is an outward movement, you can activate automatic creation of storage location data for goods issues for plant and movement type in Customizing for Inventory Management.

Postings for Goods Movements with Negative Stock

For materials that are valued with the standard price, there are no special features to note for negative stocks. On the other hand, for materials that are valued with the moving average price, a price difference account is posted to in the goods receipt.

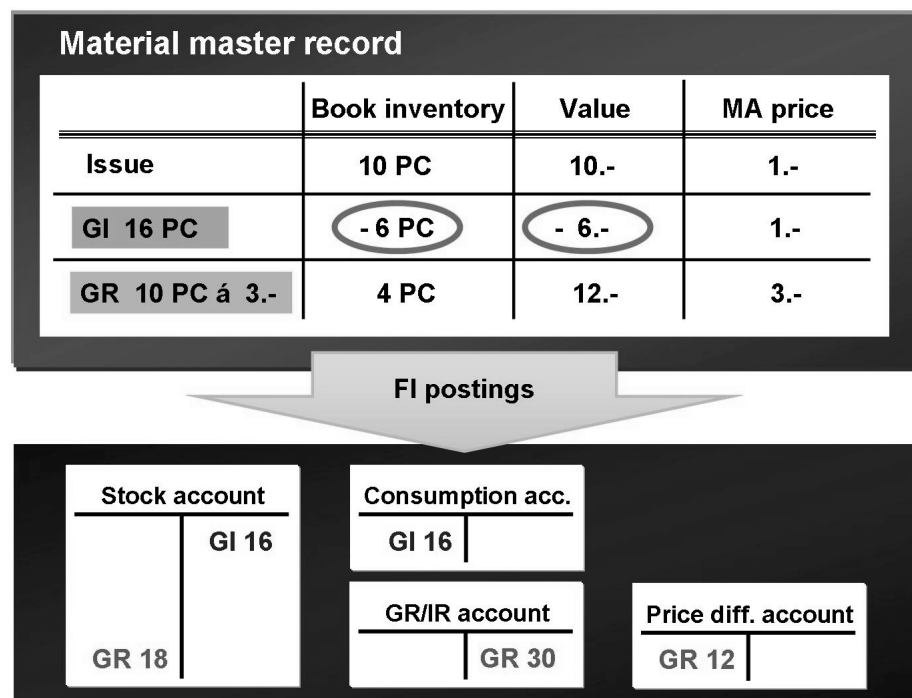


Figure 72: Negative Stock: Postings

Example:

1. To start, you have a material with a moving average price of 1 euro per piece and a stock of 10 pieces.
2. The system then posts a goods issue of 16 pieces. Each piece is valued with 1 euro (moving average price). The stock value is therefore reduced by 16 euros; the offsetting entry takes place on a consumption account. The stock and value of stock are therefore each -6.
3. You then create the goods receipt for a purchase order of 10 pieces of the material, the purchase order price is 3 euros for each piece.

An amount of 18 euros is posted to the stock account. This amount consists of 6 euros, to balance the negative stock of -6 euros and 12 euros, for the physically available 4 pieces that are valued with the purchase order price of 3 euros. This means the new moving average price is 3 euros for each piece.

The offsetting entry of the entire purchase order value of 30 euros (10 * 3 euros) takes place on the GR/IR account. The difference of 12 euros is posted to a price difference account.

Analyses for Negative Stocks

If you have a negative stock for a material, this is shown in the material master record on the accounting view, the plant stock view, and the storage location stock view. The negative stock is also displayed in the stock lists.

To determine for which materials you have negative stocks, use the Warehouse Stock for Material report. From the *SAP Easy Access* screen, choose *Logistics* → *Materials Management* → *Inventory Management* → *Environment* → *Stock* → *Warehouse Stock (MB52)*. You can execute the selection, for example, for several materials or for a storage location that allows negative stocks. So that only the materials with negative stocks are displayed, choose the *Only display negative stocks* indicator on the selection screen.



Demonstration: Negative Stock

Purpose

With this demonstration, the settings necessary for negative stocks and the postings for offsetting the negative stocks with a goods receipt are displayed. The demonstration example corresponds with the example from graphic 3.

CATT: ZT_SCM510_02

System Data

System: Training System
Client: Allocated client
User ID: Own
Password: Own
Set up instructions: None

1. In Customizing for *Materials Management* → *Inventory Management and Physical Inventory* → *Goods Issue / Transfer Postings* → *Allow Negative Stocks*, show the settings on the three levels; valuation area, plant, and storage location.

Negative stocks should be allowed for valuation area 1000, and therefore also for plant 1000. If not, set the indicator. Negative stocks are not allowed for special stocks. For plant 1000, you set the *Negative Stock* indicator for storage locations 0001 and 0002.

Save your entries.

2. Check whether negative stock is allowed for material T-M510Z10 and display the accounting data.

From the *SAP Easy Access* screen, choose *Logistics* → *Materials Management* → *Material Master* → *Material* → *Change* → *Immediately..* Enter material number **T-M510Z10** and choose *Enter*. Choose views **Accounting 1** and **Plant data/Storage 2** and the organizational level plant **1000**.

Check the data for the Plant data/Storage view and make sure the *Negative stock* indicator is set. In the accounting data, check the *total quantity* (10 PC), the *total value* (10 euros) and the *Moving average price* (1 euro).

3. Enter a goods issue for 16 pieces of the material.

From the *SAP Easy Access* screen, choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*. As the *transaction*, choose **Goods issue**, and as *Reference*, **Other** and as *Default movement type* **201**. Enter an item with the data from the following table.

Field name	Value
Material	T-M510Z10
Quantity	16
Cost center	1000
Storage location	0001
Plant	1000

Check your entries before you post.

4. Display the material document (*Transaction Display, Reference Material Document*). Branch to the accounting document (header data, tab *Document info*, FI/CO documents). Explain the postings and compare them with graphic 3.

Branch from the material document with a double-click to the material in the material master record and display the *Accounting view* again. Compare these values with graphic 3.

5. Enter a goods receipt for the purchase order 4151–9908 (*Transaction Goods Receipt, Reference Purchase Order*).
 6. Repeat the steps from 4.
-



Exercise 19: Negative Stocks

Exercise Duration: Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Allow negative stocks in the system

Business Example

In your company, goods receipts are not always entered promptly in the SAP system. Some withdrawals, therefore, cannot be posted for production, even though the goods are available in the warehouse. You want to allow negative stocks for the affected materials in the respective storage locations. For all other materials and storage locations, you still do not want to allow negative stocks.

System Data

System: Training System
Client: 8xx
User ID: Ask the instructor
Password: Ask the instructor
CATT: ZT_SCM510
Set up instructions:

1. None

Task: Negative Stocks

Check the settings for negative stocks in Customizing. Test the settings with material **T-M510B##**.

1. Check whether negative stocks are allowed for plant 1100. If so, note the special stocks for which the negative stocks are allowed.

Special stocks with allowed negative stocks

2. Note the storage locations of plant 1100 for which negative stocks are allowed.

Continued on next page

Storage locations with allowed negative stocks

3. Check whether negative stocks are allowed for material **T-M510B##** in plant 1100.
4. Enter a goods issue for 500 pieces of material **T-M510B##** in plant 1400, storage location 0001, for cost center **T-L##**. Display the negative stock in Inventory Management.

Solution 19: Negative Stocks

Task: Negative Stocks

Check the settings for negative stocks in Customizing. Test the settings with material **T-M510B##**.

1. Check whether negative stocks are allowed for plant 1100. If so, note the special stocks for which the negative stocks are allowed.






Special stocks with allowed negative stocks
<u>Vendor consignment</u>
<u>Project stock</u>
<u>Sales order stock</u>

- a) In Customizing, choose *Materials Management* → *Inventory Management and Physical Inventory* → *Goods Issue/Transfer Postings* → *Allow Negative Stocks (OMJI)*.
 - b) Open the *Valuation Area* file and select *1100*.
 - c) Open the *Plant* folder.
 - d) Note the special stocks with the set indicator.
 - e) Stay in the transaction for the next exercise step.
2. Note the storage locations of plant 1100 for which negative stocks are allowed.

Storage locations with allowed negative stocks
<u>0001</u>
<u>0002</u>
<u>0003</u>

- a) Open the *Storage locations* folder.
- b) Make a note of storage locations 0001, 0002, 0003

Continued on next page

3. Check whether negative stocks are allowed for material **T-M510B##** in plant 1100.
 - a) Choose *Logistics* → *Materials Management* → *Material Master* → *Material* → *Display* → *Current (MM03)*.
 - b) Enter the *Material Number T-M510B##*.
 - c) Choose *Select View(s)* and select *General Plant Data/Storage Location 2*.
 - d) Choose *Organizational levels*, enter *Plant 1100* , and choose .
 - e) The *Neg. Stocks Plant* indicator is set.
4. Enter a goods issue for 500 pieces of material **T-M510B##** in plant 1400, storage location 0001, for cost center **T-L##**. Display the negative stock in Inventory Management.
 - a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
 - b) Choose *Goods Issue* and, as the reference, *Other*.
 - c) Enter the *movement type 201* as the default value, and choose .
 - d) Enter the following data:
 - Material tab page: Material T-M510B##*
 - Quantity tab page: Qty in Unit of Entry 500 pc*
 - Where tab page: Plant 1100, Storage Location 0001*
 - Account Assignment tab page: Cost Center T-L##*
 - e) Set the *Item OK* indicator.
 - f) Choose  with the quick info text *Post*.
 - g) Choose *Display*, and *Material Document* as the reference.
 - h) Choose  with the quick info text *Execute*.
 - i) Choose the *Where* tab and choose , with quick info text *Stock Overview*. The system displays the current stocks of material T-M510B## in plant 1100.



Lesson Summary

You should now be able to:

- Specify the settings necessary for the use of negative stocks



Unit Summary

You should now be able to:

- Enter goods issues without reference to another document
- Use a bill of material as a template for a goods issue
- Explain the differences between a withdrawal for a random sample or scrapping and a withdrawal for a cost center
- Enter a goods issue with reference to a reservation
- Enter a goods issue with reference to a production order
- Explain the difference between planned and unplanned goods issues
- Specify the settings necessary for the use of negative stocks



Test Your Knowledge

1. You use the _____ transaction and _____ as the reference for an unplanned goods issue with reference to a BOM.
Fill in the blanks to complete the sentence.
2. Random samples and scrapping are goods movements that are not posted as consumption in the standard system. Their entry in the system necessitates a cost-relevant account assignment.
Determine whether this statement is true or false.
 - True
 - False
3. Which references can you choose in transaction MIGO for a goods issue?
Choose the correct answer(s).
 - A Reservation
 - B Purchase order
 - C Purchase requisition
 - D Planned order
 - E Production order
 - F Order
4. For which elements should you allow negative stocks?
Choose the correct answer(s).
 - A Valuation area
 - B Plant
 - C Purchasing organization
 - D Storage location
 - E Special stocks
 - F Material (for each plant)



Answers

1. You use the Goods Issue transaction and Other as the reference for an unplanned goods issue with reference to a BOM.

Answer: Goods Issue, Other

An unplanned goods issue is entered in the system as an **other goods issue**. If BOMs are used, the system can explode them into components and component quantities in transaction MIGO.

2. Random samples and scrapping are goods movements that are not posted as consumption in the standard system. Their entry in the system necessitates a cost-relevant account assignment.

Answer: True

The consumption data is not updated in the material master record in the case of the movement types for scrapping and sampling.

3. Which references can you choose in transaction MIGO for a goods issue?

Answer: A, B, F

4. For which elements should you allow negative stocks?

Answer: A, B, D, E, F

Unit 6



Special Procurement Form: Consignment



The special procurement form of vendor consignment is handled in this unit. The fact that special procurement forms are introduced means that purchasing data such as the purchasing info record and purchase order has to be discussed. Since however the TSCM50 (Procurement I) or SCM500 (External Procurement Processes) courses are a prerequisite for this course, participants should be familiar with these functions. You should only highlight the fields and indicators that are relevant to this process.

Unit Overview

This unit covers vendor consignment. This is a special procurement process that is used for specialist processing in purchasing and a special stock in inventory management.



Unit Objectives

After completing this unit, you will be able to:

- Explain the procurement process with consignment
- List the settings relevant for vendor consignment
- Post goods movements for consignment stock
- Settle consignment withdrawals
- Display consignment stock

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Lesson: Vendor Consignment



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Lesson Duration: 60 Minutes

Lesson Overview

This lesson introduces the process of vendor consignment. This includes the default settings required in purchasing consignment material. The Inventory Management transactions (goods receipts, transfer postings, goods issues) regarding consignment material are also covered. At the end of this lesson, there is a description of the settlement of withdrawals from the consignment stores.



Lesson Objectives

After completing this lesson, you will be able to:

- Explain the procurement process with consignment
- List the settings relevant for vendor consignment
- Post goods movements for consignment stock
- Settle consignment withdrawals
- Display consignment stock



In order to understand the vendor consignment process in Inventory Management, it is necessary to mention the purchasing information record, infotype consignment, as a prerequisite. As the consignment stores are generally filled with a consignment order, you also need to describe this type of purchase order.

In Inventory Management, the most important goods movements can be repeated using the consignment material. When posting goods movements for consignment material, you have to specify the special stock indicator K as well as the known movement types.

At the end of this lesson is the consignment withdrawal settlement, which completes the process.

Business Example

You have an arrangement with a vendor to supply a particular quantity of consignment material to your company. The consignment material is still owned by the vendor until you withdraw it from the consignment stores or post it to own valuated stock. You take ownership of the material when you issue to a cost center or transfer it into your own stock. You settle your consignment liabilities with the vendor monthly. You now want to test how this can be shown in the *SAP system* by completing the process for consignment material.



Demonstration:

Purpose

Consignment process

CATT: CATT exercise

System Data

System:	Training System
Client:	8xx
User ID:	Own user ID or SCM510-00
Password:	Ask the instructor
Set up instructions:	None

1. Demonstrate the process with the entries from the exercise (group 00).
2. Display the info record for consignment under

Logistics → Materials Management → Purchasing → Master Data → Info Record → Display.

Special Procurement Vendor Consignment

As described in the business example, consignment means that material made available to you by a vendor is stored in your company but actually belongs to the vendor. A liability towards the vendor only arises when you withdraw material from the consignment stores.

The following section roughly outlines the entire vendor consignment process. Details on the individual steps are covered in the further sections.

To manage material in the consignment stores, you need the following master data:

- **Material master record:** When you manage the affected material as your own material, it is not necessary to create a new material master record for the consignment material. By using the same material number, the consignment stock can be included in the unrestricted-use stock of a material.
- **Vendor master record** for the vendor of the consignment material.
- **Purchasing information record** of *Consignment infotype* for the consignment vendors and consignment material.

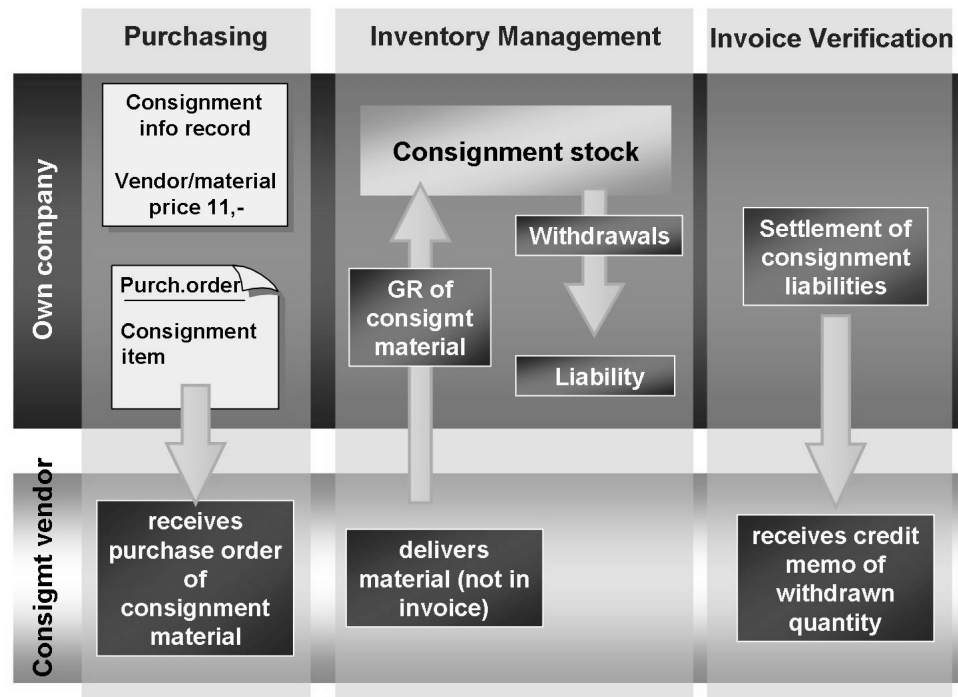


Figure 73: Vendor Consignment

To request consignment goods from vendors, create a purchase order with a special consignment item. With reference to the consignment item, posting is made directly to the consignment stock of the affected vendor during goods receipt (GR). It is also possible to post another goods receipt into the consignment stock. The system does not value the consignment stock during the goods receipt.

If material is withdrawn from the consignment stock, for example, for production, the withdrawal is valued with the price of the vendor that is defined in the consignment info record. For the settlement of withdrawals, there is a special report.

Vendor Consignment in Purchasing

This section covers the consignment purchasing info record and the order of consignment material.

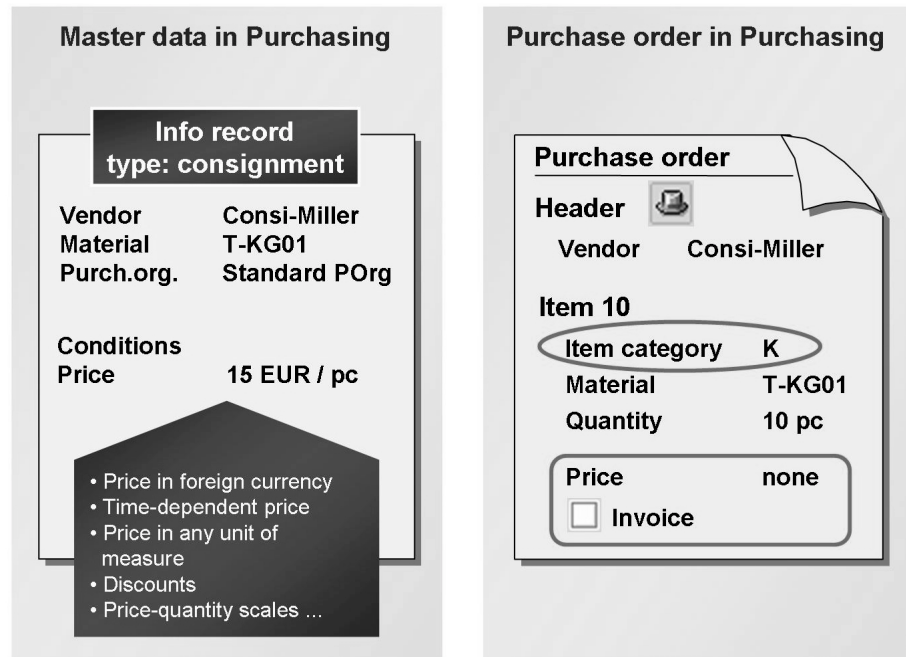


Figure 74: Consignment in Purchasing

Consignment Info Record

Before you can order consignment material at a vendor or post a goods receipt into consignment stock, you have to maintain the price of the material for the particular vendor in a purchasing info record. The price is necessary for the valuation and settlement of material withdrawals.

If you procure consignment material from several vendors, you must create a consignment info record for each vendor. The consignment stock is managed separately for each vendor.

To create the info record, go to the *Purchasing menu* and choose *Master Data* → *Info Record* → *Create*. Enter the vendor, material, plant, and the standard purchasing organization of the plant. As the *infotype*, choose *Consignment*. Further data maintenance corresponds with that of a normal purchasing info record.

Consignment prices can be determined in foreign currency, period-based, and in any unit of measure. You can also take advantage of the Purchasing condition technique, including the definition of discounts and price/quantity scales.

Consignment Order

To determine that a material is procured for consignment stores, enter the *item category K* (Consignment) in a purchase order. This *item category* has the following effects:

- You must enter a material number.
- You cannot enter a purchase order price or conditions for the item.
- You require a goods receipt for the item. The goods receipt is posted in the vendor consignment stock, and is non-valuated.
- You cannot enter an invoice for the consignment item.

Item category K can also be used in outline agreements and purchase requisitions.

If a material is always procured for the consignment stores of a plant, you have the opportunity to consider this with MRP using a special procurement key in the material master record. This special procurement key means that a purchase requisition with *item category K* is created during the planning run for a demand for this material.

Vendor Consignment in Inventory Management

Inventory Management supports the following functions within vendor consignment:

- Special stock type vendor consignment
- Goods receipt in vendor consignment stock with and without reference to a purchase order
- Transfer postings within the vendor consignment stock and transfer postings from vendor consignment stock to your own stock
- Goods issues from vendor consignment stock

Vendor Consignment Stock

Material that you procure using vendor consignment is managed in a vendor-related special stock, **K** (consignment vendor). This special stock is updated at storage location level, as the material is actually in your own company. The consignment stock is then not actually valuated because it still belongs to the vendor. For consignment stock, the stock types are *unrestricted-use*, *in quality inspection*, and *blocked*. The consignment stock is considered when you determine the available stock of a material.



Explain that consignment stock is available for planning and can be addressed in Inventory Management.

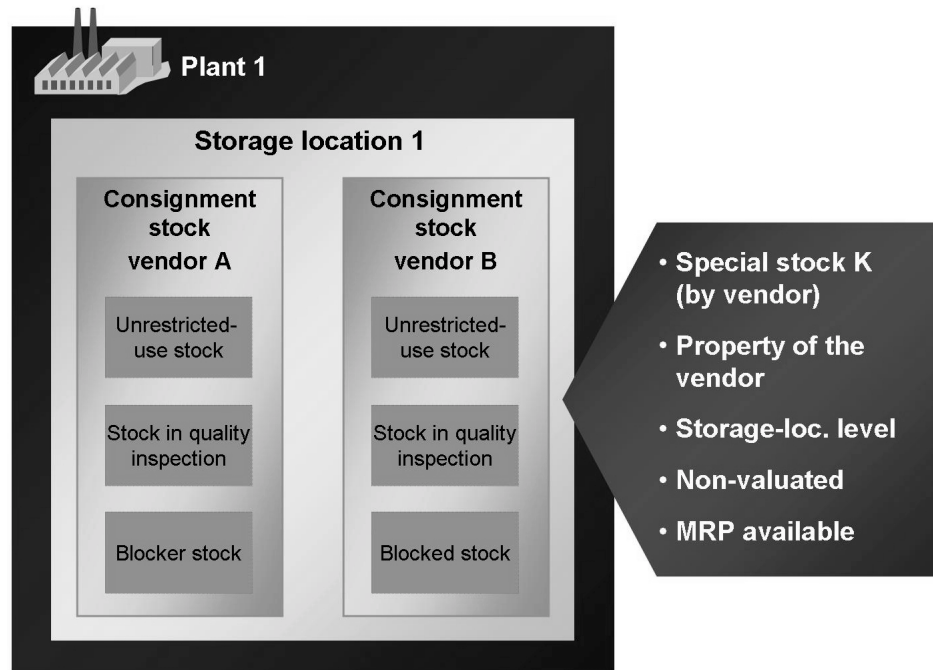


Figure 75: Special Stock: Vendor Consignment

If you have consignment stock for a material, it is displayed in the *stock overview* (transaction MMBE). At storage location level, there is a list of totals of all consignment stocks. With a double-click on this special stock level, you can see an exact overview of how this consignment stock is distributed to the individual consignment vendors.

Unlike the stock overview, with the *Display consignment stocks* function, you can display consignment stocks for several materials at the same time. From the *Inventory Management* menu, choose *Environment* → *Consignment* → *Consignment from Vendor* → *Stock* (transaction MB54).

Goods Receipt to Vendor Consignment Stock

You can enter goods receipts in your consignment stores with and without purchase order reference. If you enter a goods receipt for a consignment order, the system posts the delivered quantity automatically into the consignment stock of

the vendor. As the *movement type*, choose *101*; the system sets the special stock indicator K automatically. As for a normal goods receipt to a purchase order, you can post to all three stock types.

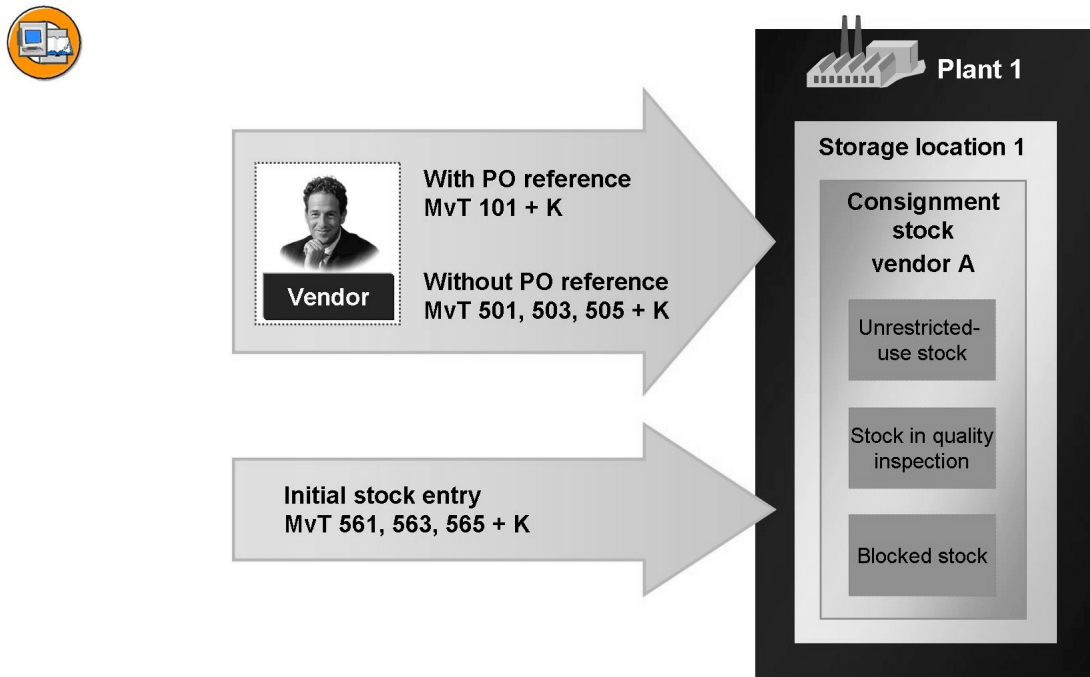


Figure 76: Vendor Consignment: Goods Receipts

You can also post another goods receipt without purchase order and make an initial entry of stock balances in the three stock types for consignment. In addition to the known movement types for these goods movements (501, 503, 505 for GR without purchase order; 561, 563, 565 for initial entry of stock balances), you must specify the special stock indicator K and the vendor of the consignment material.

All goods receipts in the consignment stock are non-valuationed.

Transfer Postings

For consignment stocks, you can also execute transfer postings and stock transfers. For these goods movements, in addition to the movement types for stock material, you must also specify the special stock indicator K and the vendor of the consignment material. These goods movements are also non-valuationed.

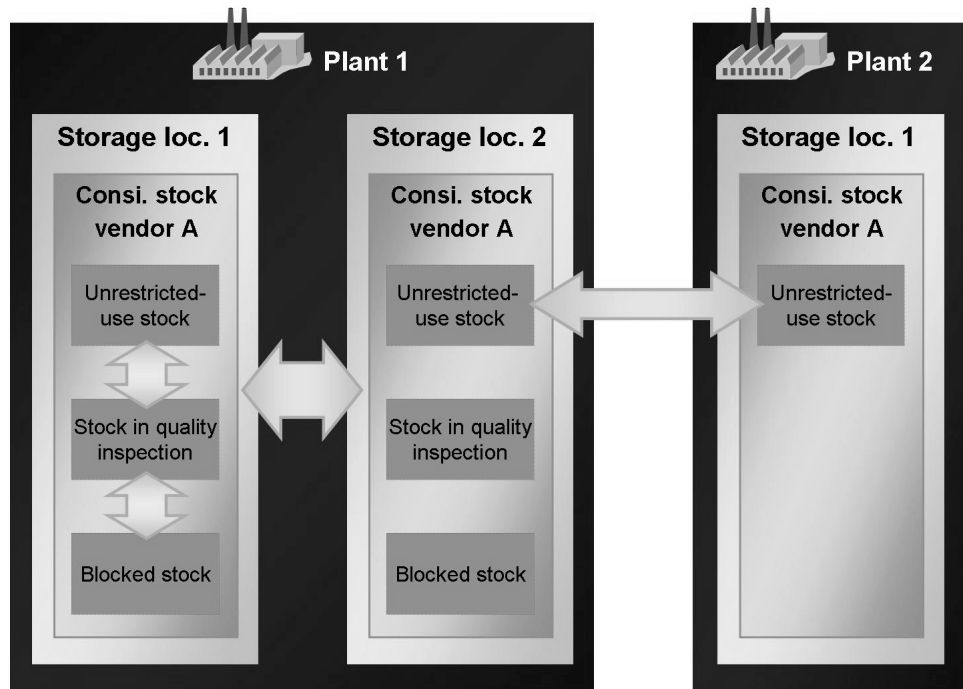


Figure 77: Vendor Consignment: Transfer Postings

These are the possible stock transfers and transfer postings for consignment stock:

- Stock-to-stock transfer posting
- Storage-location-to-storage-location stock transfers
- Plant-to-plant stock transfers

Goods Issue from Consignment Stock

You can only post a goods issue from unrestricted-use consignment stock for consumption. If the consignment material is in stock in quality inspection or in blocked stock, you must first post the consignment material to unrestricted-use stock. It is possible to make withdrawals for samples and scrapping from all three stock types. When entering goods issues, you must specify the special stock indicator K and the consignment vendor, in addition to the movement type in all goods movements.

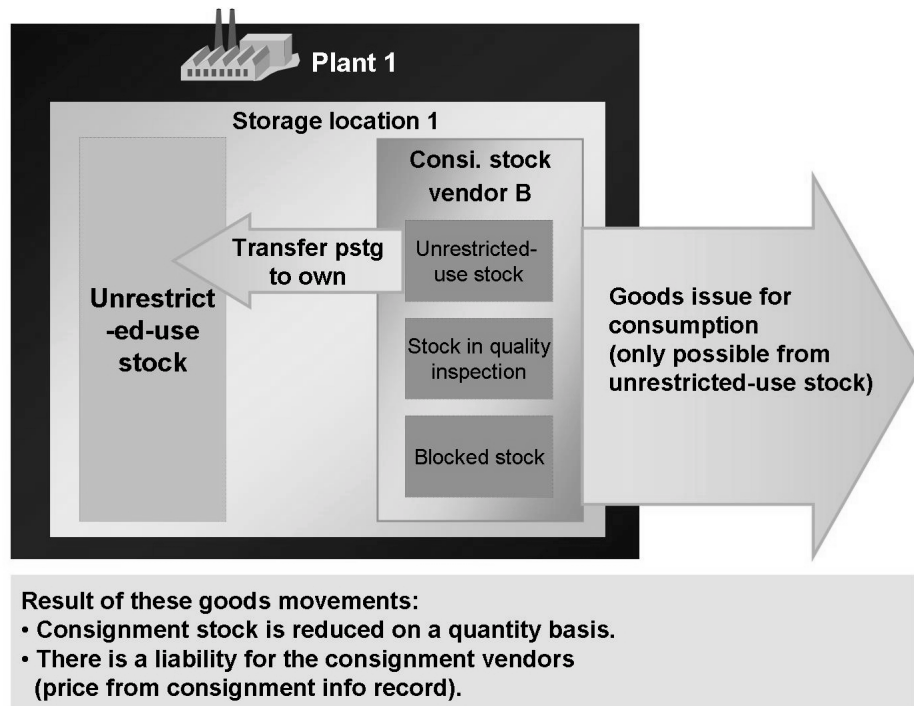


Figure 78: Vendor Consignment: Goods Issues

You also have the option of adopting consignment stocks into own stock. To do this, post a transfer posting with movement type **411** and *special stock indicator K*. Unlike the goods issue for consumption, this transfer posting causes an increase in the valuated stock and no consumption posting.

For both goods issues from consignment stock and transfer postings to own stock, there is a liability towards the consignment vendor. The withdrawal is valuated with the price from the consignment info record.

Vendor Consignment in Invoice Verification

You should regularly clear liabilities towards the vendor that exist because of the issues from the vendor consignment stock. The consignment goods are settled without invoice receipt, as the vendor cannot trace the goods withdrawal directly. The vendor can only manage the consignment stock with his deliveries and your payments.

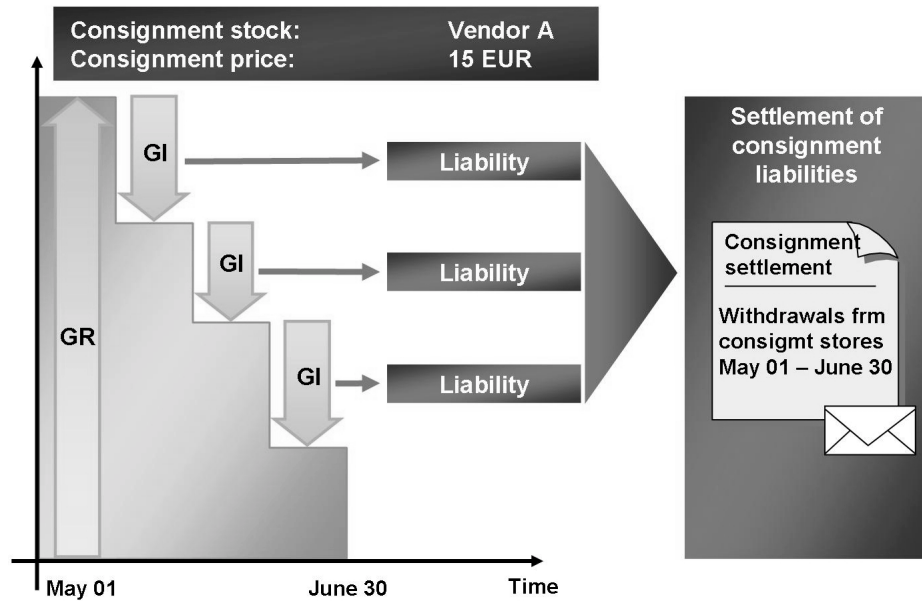


Figure 79: Vendor Consignment: Settlement

To settle consignment withdrawals, go to the *Inventory Management* menu and choose *Environment* → *Consignment* → *Consignment from Vendor* → *Liability* (transaction *MRKO*). With this report, you can display settled and non-settled consignment withdrawals and settle non-settled withdrawals. Possible selection criteria include company code, plant, vendor, material, document date and posting date of the withdrawal, and the material document number.

So that you can inform the vendor about the settled withdrawals and the credit memo amount, the system creates a message with message type **KONS** in addition to the settlement document.



Exercise 20: Vendor Consignment

Exercise Duration: 25 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Create a purchase order for a consignment material with item category K
- Post goods receipts into consignment stock
- Post goods issues from consignment stock
- Post transfer postings to consignment stock
- Settle consignment liabilities

Business Example

Your company has an agreement with two vendors to deliver consignment material.

System Data

System: Training System
Client: 8xx
User ID: Ask the instructor
Password: Ask the instructor

CATT: ZT_SCM510
Set up instructions: None

Task 1: Consignment Stock

You have stored consignment material from two vendors. Determine the stock quantities and the consignment prices for each vendor.

1. Determine the consignment stock of material **T-M510A##** in plant 1400. Which vendor owns the stocks and what was the agreed consignment price?

Vendor	Quantity	Consignment price
_____	_____	_____

2. Make a note of the stock situation for material **T-M510A##** in plant 1400.

Continued on next page

	Storage location 0001
Unrestricted-use (own)	_____
Unrestricted-use (consignment)	_____
Quality inspection (consignment)	_____
Blocked (consignment)	_____



Hint: For the following exercise step, stay in the stock overview.

- Display the Accounting view of the material master for material **T-M510A##** in plant 1400 and write down the total stock and total value.

Total stock	_____
Total value	_____

Task 2: Consignment Material Order and Goods Receipt

You order the material from vendor **T-K510A##**. Create a purchase order and enter the goods receipt.

- Create a consignment order for vendor **T-K510A##**. Order 100 pieces of material **T-M510A##** for plant 1400, storage location 0001, with a delivery date in 4 weeks. Which item category do you use? What is the purchase order price?

(Purchasing organization 1000, purchasing group T##)

Item category	_____
Order price	_____

- Display the on-order stock of the material in plant 1400.

On-order stock	_____
Consignment ordered	_____

- Vendor **T-K510A##** delivers the consignment material from the purchase order to plant 1400. The packing is damaged. Enter a goods receipt of 10 pieces into blocked stock and 90 pieces into stock in quality inspection in storage location 0001.

Then display the stock overview from the material document and check the consignment stock of material **T-M510A##**.

Continued on next page

Task 3: Transfer Posting to Consignment Stock

Following quality inspection, the relevant stocks must be transferred to unrestricted-use stock.

- For the 90 pieces of material **T-M510A##** from vendor **T-K510A##**, the quality inspection is now complete. Carry out the transfer to unrestricted-use consignment stock. Note the movement type and the special stock indicator.

Movement type	_____
Special stock indicator.	_____

- Display the stock overview and note the details for the consignment stock of vendor **T-K510A##** in plant 1400, storage location 0001.

Consignment stock of vendor T-K510A## Inventory AG	
Unrestricted use	_____
Quality inspection	_____
Blocked	_____

Task 4: Goods Issue from Consignment Stock

Cost center **T-L##** needs 50 pieces of material **T-M510A##** immediately.

- Create a reservation for today for 50 pieces of material **T-M510A##** in plant 1400, storage location 0001, for cost center **T-L##**. Note the reservation number.

Reservation number	_____
--------------------	-------

- Enter a goods issue of 50 pieces of material **T-M510A##** from the consignment stock of plant 1400, storage location 0001, vendor **T-K510A##**, with reference to the reservation from the exercise 1. Display the accounting document and note the descriptions of the updated G/L accounts.

Debit	Credit
_____	_____

Continued on next page

Task 5: Liability Settlement

You have agreed on a bimonthly settlement with vendor **T-K510A##**. Evaluate the goods movements of the consignment stock and settle the liabilities.

1. What were the movements of the consignment stock of material **T-M510A##** over the past two months?

Movement type	Quantity
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

2. Settle your consignment liabilities with vendor **T-K510A##** in company code 1000. Note the invoice number.

Invoice number	_____
----------------	-------

Task 6: (Optional) Data for Consignment

1. Which master data is required for the consignment process in the *SAP* system?

Choose the correct answer(s).

- A Material master record
- B Consignment master record
- C Vendor master record
- D Purchasing info record
- E Customer master record
- F Source list


Solution 20: Vendor Consignment

Task 1: Consignment Stock

You have stored consignment material from two vendors. Determine the stock quantities and the consignment prices for each vendor.

- Determine the consignment stock of material **T-M510A##** in plant 1400. Which vendor owns the stocks and what was the agreed consignment price?



Vendor	Quantity	Consignment price
<u>1010</u>	<u>15 pc</u>	<u>16</u>

- Choose *Logistics* → *Materials Management* → *Inventory Management* → *Environment* → *Consignment* → *Consignment from Vendor* → *Stock (MB54)*.
 - Select the *Material T-M510A##* and *Plant 1400*.
 - Choose  with the quick info text *Execute*.
- Make a note of the stock situation for material **T-M510A##** in plant 1400.

	Storage location 0001
Unrestricted-use (own)	<u>110</u>
Unrestricted-use (consignment)	<u>15</u>
Quality inspection (consignment)	<u>0</u>
Blocked (consignment)	<u>0</u>



Hint: For the following exercise step, stay in the stock overview.

- Choose *Logistics* → *Materials Management* → *Inventory Management* → *Environment* → *Stock* → *Stock Overview (MMBE)*.
- Enter *Material T-M510A##*, *Plant 1400*, and *Storage Location 0001*.
- Choose  with the quick info text *Execute*.
- Select the *Vendor Consignment* line, and choose  *Detail Display*.



Hint: For the following exercise, stay in the stock overview.

Continued on next page

3. Display the Accounting view of the material master for material **T-M510A##** in plant 1400 and write down the total stock and total value.

Total stock	<u>110</u>
Total value	<u>1100</u>

- a) Position the cursor on the plant line and choose *Extras* → *Display Material*.
- b) Choose the *Accounting I* tab.

Task 2: Consignment Material Order and Goods Receipt

You order the material from vendor **T-K510A##**. Create a purchase order and enter the goods receipt.

1. Create a consignment order for vendor **T-K510A##**. Order 100 pieces of material **T-M510A##** for plant 1400, storage location 0001, with a delivery date in 4 weeks. Which item category do you use? What is the purchase order price?

(Purchasing organization 1000, purchasing group T##)

Continued on next page

Item category	<u>K</u>
Order price	<u>0 Euro</u>


- a) Choose *Logistics* → *Materials Management* → *Purchasing* → *Purchase Order* → *Create* → *Vendor/Supplying Plant Known (ME21N)*.
- b) Enter *Vendor T-K510A##*.
- c) Enter the following data on the purchase order header on the *OrgData* tab page:



Purchasing Organization 1000

Purchasing Group T##



Company Code 1000



Hint: To open the header data, choose  *Expand Header*.

- d) Enter the following data in the item overview:
 - Item category K*
 - Material T-M510A##*
 - Quantity 100 pc*
 - Delivery Date <Today+4 weeks>*
 - Plant 1400*
 - Storage Location 0001*
 - e) Choose  *Save*.
 - f) To display the purchase order, choose  *Other Purchase Order* and then *Other Document*.
2. Display the on-order stock of the material in plant 1400.







On-order stock	<u>0</u>
Consignment ordered	<u>100</u>

- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Environment* → *Stock* → *Stock Overview (MMBE)*.
- b) Select the *Material T-M510A##* and *Plant 1400*.
- c) Choose  with the quick info text *Execute*.
- d) Position the cursor on the plant line and choose  *Detail Display*.

Continued on next page

3. Vendor **T-K510A##** delivers the consignment material from the purchase order to plant 1400. The packing is damaged. Enter a goods receipt of 10 pieces into blocked stock and 90 pieces into stock in quality inspection in storage location 0001.

Then display the stock overview from the material document and check the consignment stock of material **T-M510A##**.

- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
- b) Choose the transaction *Goods Receipt* and, as reference, *Purchase Order*.
- c) Enter the purchase order number and choose , with the quick info *Execute*.
- d) Set the *Item OK* indicator.
- e) Choose  *Distribute Quantity*.
- f) Enter the quantities and stock types mentioned above and choose  *Adopt*.
- g) Choose  with the quick info text *Post*.
- h) Choose *Display* and reference *Material Document*.
- i) Choose  with the quick info text *Execute*.
- j) Choose the *Where* tab page and then , with the quick info text *Stock Overview*.
- k) Display the consignment stock in detail.


Task 3: Transfer Posting to Consignment Stock

Following quality inspection, the relevant stocks must be transferred to unrestricted-use stock.



1. For the 90 pieces of material **T-M510A##** from vendor **T-K510A##**, the quality inspection is now complete. Carry out the transfer to unrestricted-use consignment stock. Note the movement type and the special stock indicator.

Continued on next page

Movement type	<u>321</u>
Special stock indicator.	<u>K</u>

- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
 - b) Choose *Transfer Posting* and the reference *Others*.
 - c) Enter the *movement type 321* and the *special stock indicator K*, and confirm your entries with *Enter*.
 - d) Enter *Material T-M510A##* on the *Transfer Posting* tab. Also enter *plant 1400* and *storage location 0001*, and *vendor T-K510A##*.
 - e) Enter *Qty in Unit of Entry 90 pc*.
 - f) Choose  with the quick info text *Post*.
2. Display the stock overview and note the details for the consignment stock of vendor **T-K510A##** in plant 1400, storage location 0001.

Consignment stock of vendor T-K510A## Inventory AG	
Unrestricted use	<u>90</u>
Quality inspection	<u>0</u>
Blocked	<u>10</u>

- a) Choose *Display* and reference *Material Document*.
- b) Choose  *Stock Overview*.
- c) Select the *Vendor Consignment* line, and choose  *Detail Display*.



Task 4: Goods Issue from Consignment Stock

Cost center T-L## needs 50 pieces of material T-M510A## immediately.

1. Create a reservation for today for 50 pieces of material T-M510A## in plant 1400, storage location 0001, for cost center T-L##. Note the reservation number.





Continued on next page

Reservation number	
--------------------	--

- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Reservation* → *Create (MB21)*.
 - b) Choose *Movement Type* → *Consumption* → *For Cost Center*.
 - c) Enter *plant 1400* and choose  *Continue*.
 - d) Enter the following data:
 - Cost Center T-L##*
 - Material T-M510A##*
 - Quantity 50 pc*
 - Storage Location 0001*
 - e) Choose  *Post*.
2. Enter a goods issue of 50 pieces of material **T-M510A##** from the consignment stock of plant 1400, storage location 0001, vendor **T-K510A##**, with reference to the reservation from the exercise 1. Display the accounting document and note the descriptions of the updated G/L accounts.

Continued on next page

Debit	Credit
<u>Consumption raw material 1</u>	<u>Liabilities from the consignment stores</u>

- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
- b) Choose *Goods Issue* and the reference *Reservation*.
- c) Enter the reservation numbers and choose , with the quick info *Execute*.
- d) Set the *Item OK* indicator.
- e) In the position details, go to the *Where* tab and enter the *special stock indicator K*. Confirm your entries with *Enter*.
- f) On the *Partner* tab, you can now enter *Vendor T-K510A##*.
- g) Choose  *Post*.
- h) Choose *Display* and reference *Material Document*.
- i) Choose  with the quick info text *Execute*.
- j) In the header data, choose the *Document Info* tab page.
- k) Choose  *FI Documents*.
- l) Choose *Accounting Document*.

Task 5: Liability Settlement

You have agreed on a bimonthly settlement with vendor **T-K510A##**. Evaluate the goods movements of the consignment stock and settle the liabilities.

1. What were the movements of the consignment stock of material **T-M510A##** over the past two months?


Movement type	Quantity
<u>101</u>	<u>+90</u>
<u>101</u>	<u>+10</u>
<u>201</u>	<u>-50</u>

Continued on next page

<u>321</u>	<u>-90</u>
<u>321</u>	<u>+90</u>
<u>561</u>	<u>+15</u>

- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Environment* → *List Display* → *Material Documents (MB51)*.
 - b) Enter *Material T-M510A##* and *Special stock indicator K*.
2. Settle your consignment liabilities with vendor **T-K510A##** in company code 1000. Note the invoice number.

Invoice number	
----------------	--

- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Environment* → *Consignment* → *Consignment from Vendor* → *Liability (MRKO)*.
- b) Enter *Company code 1000* and *Vendor T-K510A##* and set the indicators for *Consignment* and *Settle*.
- c) Choose  with the quick info text *Execute*.
The system settles a withdrawal of 50 pieces of material.

Task 6: (Optional) Data for Consignment

1. Which master data is required for the consignment process in the *SAP* system?

Answer: A, C, D

During a goods withdrawal from the warehouse, the system determines the consignment price from the purchasing info record. A vendor master record and a material master record are required.



Lesson Summary

You should now be able to:

- Explain the procurement process with consignment
- List the settings relevant for vendor consignment
- Post goods movements for consignment stock
- Settle consignment withdrawals
- Display consignment stock



Unit Summary

You should now be able to:

- Explain the procurement process with consignment
- List the settings relevant for vendor consignment
- Post goods movements for consignment stock
- Settle consignment withdrawals
- Display consignment stock



Test Your Knowledge

1. Which of the following statements is/are correct?

Choose the correct answer(s).

- A The vendor consignment stock is special stock K.
- B In a storage location with the *Consignment* indicator, you can only store consignment materials.
- C Consignment materials can be stored in all three stock types in each storage location.
- D For a consignment material order, use item category K.
- E The purchase price is credited to the vendors during the goods withdrawal from the warehouse in consignment processing.
- F Liabilities are not settled individually, but collectively over a time period agreed with the vendor.



Answers

1. Which of the following statements is/are correct?

Answer: A, C, D, E, F

Unit 7

Physical Inventory



SAP recommends working through the SAP documentation on the physical inventory as preparation for this unit.



Caution: The exercise for the lesson “Simplifying the Physical Inventory” is optional. You should only present this if there is sufficient time available.

Unit Overview

This unit deals with the basics of the physical inventory. In addition to explaining the basic process flow for the physical inventory, information on simplifying the physical inventory is also provided.



Unit Objectives

After completing this unit, you will be able to:

- Make preparations for physical inventory
- Create PI documents, enter count results, and post differences
- Describe the performance of the physical inventory
- Describe the postings for the physical inventory
- Combine steps in the physical inventory
- Explain the process of physical inventory with batch input sessions
- Create and run a batch input session

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Lesson: Preparing and Carrying Out Physical Inventory



302

Lesson Duration: 90 Minutes

Lesson Overview

This lesson introduces the basic process of physical inventory in the *SAP* system. The physical inventory is divided into three phases, regardless of the physical inventory procedure chosen: Creation of physical inventory documents, entry of inventory count results, and posting of the differences.



Lesson Objectives

After completing this lesson, you will be able to:

- Make preparations for physical inventory
- Create PI documents, enter count results, and post differences
- Describe the performance of the physical inventory
- Describe the postings for the physical inventory



This lesson covers carrying out the physical inventory, from the physical inventory document up to posting the difference. It deals with creating and editing physical inventory documents. The selection of the stock management units to be included in the physical inventory is a subject of the special procedures and simplification measures. The instructor should briefly point out that if Warehouse Management is used, the physical inventory is carried out there.

Business Example

For legal reasons, and to facilitate maximum precision in Material Requirements Planning, you are carrying out a physical inventory of the stock management units in the *SAP* system.

Physical Inventory

There are several reasons why an enterprise should inventory its stocks at regular intervals.

Many countries require by law that companies take a physical inventory of their material stocks. This physical inventory checks the material stocks for the current assets shown in the company's financial statement.

It is also important for internal reasons to establish the correct stock quantities on hand. It is the goal of Material Requirements Planning, for example, to ensure the availability of materials at all times while at the same time minimizing stockholdings. Incorrect stock data leads to faulty availability figures.

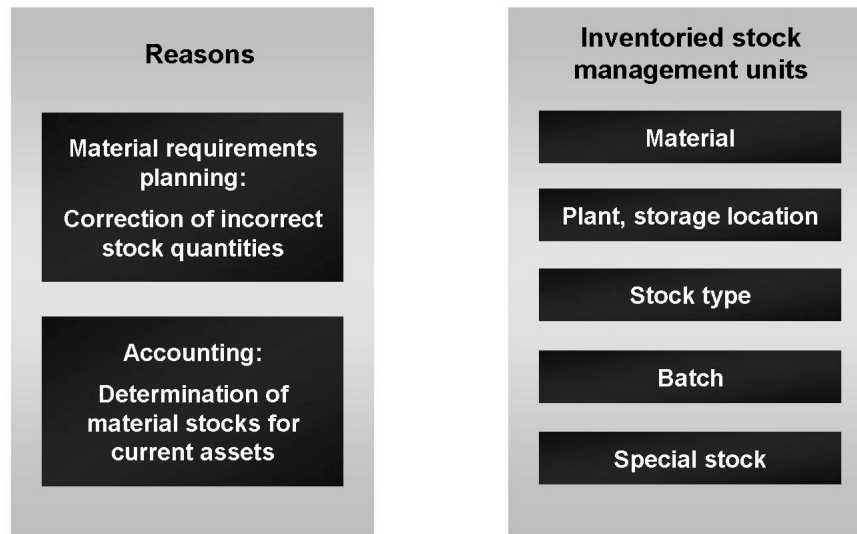


Figure 80: Physical Inventory

The physical inventory is carried out on the basis of stock management units. A **stock management unit** is a non-divisible part of a stock of materials for which a separate book inventory exists. A stock management unit is uniquely defined by:

- Material
- Plant, storage location
- Stock type
- Batch
- Special stock

Each stock management unit of a material is counted separately, and the inventory differences are posted per stock management unit. For example, you must record the quantities of unrestricted-use stock, stock in quality inspection, and blocked stock of a material at a storage location of a plant separately in each case.



Note: In a warehouse that is subject to warehouse management, the physical inventory is carried out on the basis of quants and storage bins.

Physical Inventory Process in Three Phases

The physical inventory process comprises three phases:

1. Creation of physical inventory documents
2. Entry of count
3. Posting of inventory difference

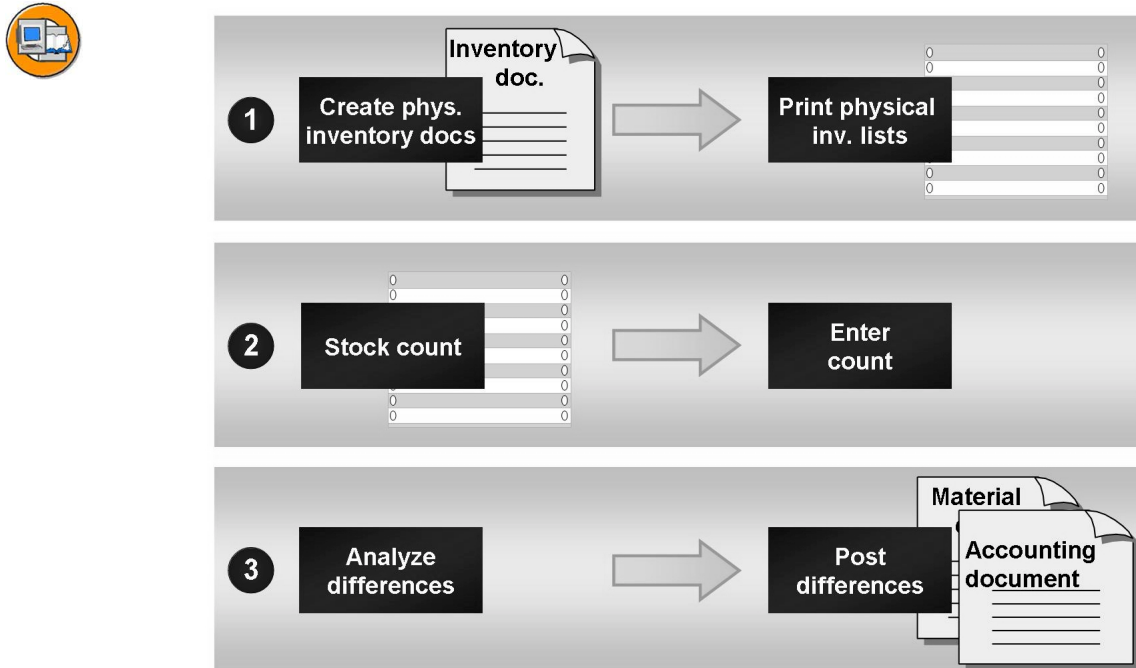


Figure 81: Phases of the Physical Inventory

In the first phase, you create the physical inventory (PI) documents. It is possible to generate inventory documents in large quantities using batch input. After selecting the stocks to be counted and creating the PI documents, you print out the documents in order to start the counting process.

You enter the count results in the system in the second phase. The system calculates the inventory differences. If some of the results seem doubtful, you can arrange for a recount of the stock management units affected. In this case, further PI documents are generated.

In the third phase, you post the inventory differences that have been identified. The quantities and values of the stock are updated. The stock accounts are updated in FI.

Physical Inventory Document

A physical inventory document contains data that includes:

- The plant and storage location in which counting is to take place
- The date on which the count is to take place (planned count date)
- The materials to be counted
 - The batches that are to be counted (in the case of material subject to a batch management requirement)
 - The partial stock that is to be counted (in the case of split valuation)
- The stock types to be counted
- The status of the item
- The status of the PI document

You create PI documents per plant and storage location. If you wish to inventory special stocks, you create PI documents per plant, storage location, special stock, and vendor or customer or project (depending on the special stock). You can specify the storage bin or the material group as further grouping values. The items of a PI document are then all assigned to a material group or a storage bin in addition to the above-mentioned groupings

When you create a physical inventory document, you can specify a **physical inventory number** in the document header. (Do not confuse this number with the number of the physical inventory document.) The physical inventory number facilitates selection of the PI documents to be processed during entry of the count data, posting of differences, and in evaluations. You have a free choice of physical inventory numbers. For example, you may wish to use the ID of the count group, the processor, or the department, or the month and/or date of the physical inventory for this purpose.

The status of an item indicates whether or not the item has been processed, counted, posted, or recounted. You can display an overview of the status of the items in the document statistics. You can use the status of a PI document item as a selection criterion in searches for physical inventory documents.

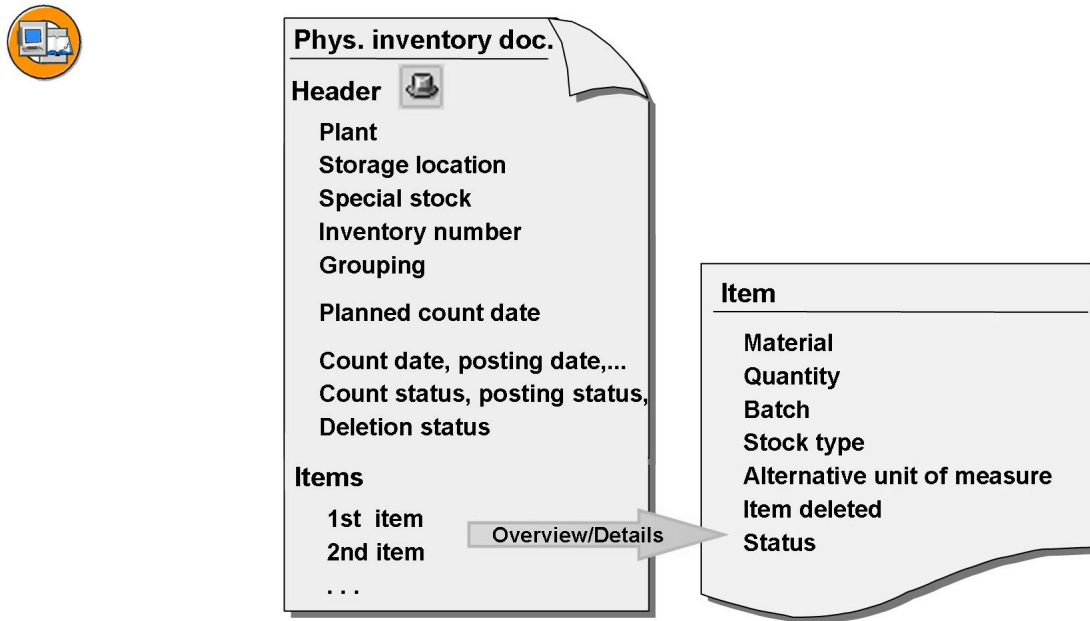


Figure 82: Physical Inventory Document



In the demo, here you can show how to create a physical inventory document.

You can make the following changes to a PI document:

- In the document header
 - Change the planned count date
 - Set or unset the posting block
 - Freeze book inventory
 - Enter or change the physical inventory number
- In a not-yet-counted item
 - Change the stock type
 - Change the count unit of measure
 - Set the deletion indicator
- Enter new items (as long as no count has yet been entered)
- Delete the document

Entering Physical Inventory Count

For the physical inventory count, you must print out the PI document and forward it to the persons responsible for the count.

You can enter the stock figures in the system with and without reference to a PI document.

When entering the physical inventory count, you can enter a percentage variance of the count quantity from the book inventory, above which the system issues a warning message. You can enter items counted as zero stock using the zero count facility. Here, all not-yet-processed document items are set to zero stock.



Hint: Using the zero stock count and the variance warning can cause the system to issue an undesirably large number of warning messages.

In the PI document, the count status of the item is set to *Counted* and the count date is updated in the document header.

When the entered data is saved, the system determines the book inventory in the system. The difference between the count result and this book inventory is the **inventory difference**.

You can analyze this difference via the **list of differences**. The list of differences contains the following information for each item:

- Quantity counted
- Book inventory
- Difference quantity
- Difference amount

You can perform the following functions with the list of differences:

- Enter, change, display count
- Post the difference
- Display, change document
- Recount document or item

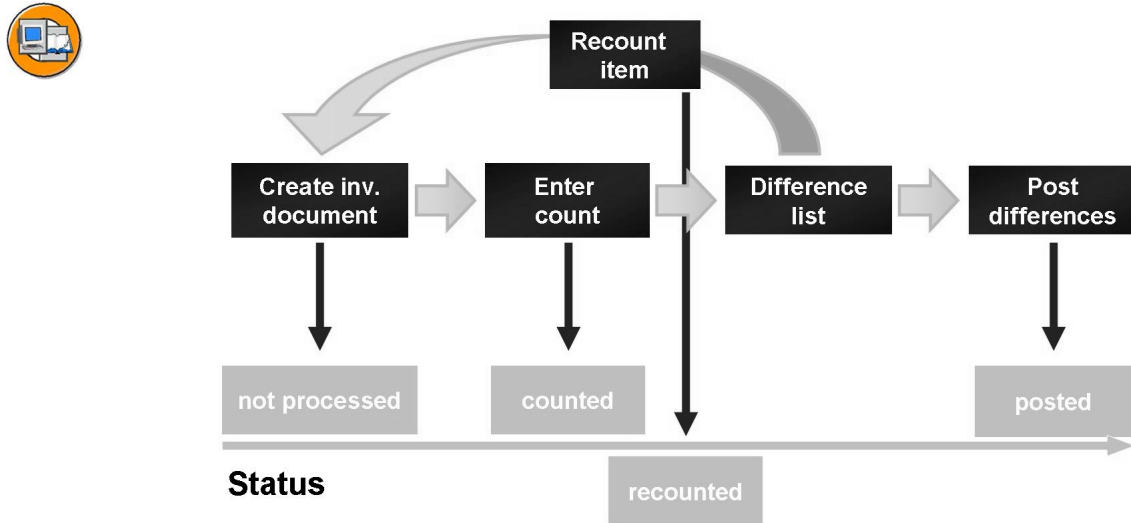


Figure 83: Physical Inventory Status of an Item



In the demo, you can show the entry of the count results and the list of differences (with recount) at this point.

Posting the Difference

You can post the inventory differences either via the list of differences or via separate transactions. When an inventory difference is posted, the system creates a material document that corrects the stock figures, and an accounting document recording the necessary account movements.



Note: You can specify a reason for the inventory difference discovered for each item. For example, you can record that a certain difference is due to theft.

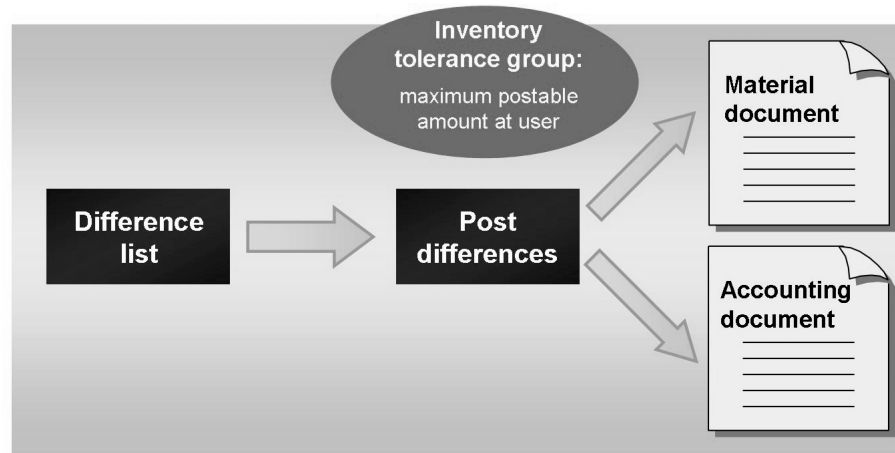


Figure 84: Posting of the Inventory Difference

You can define tolerances for the posting of inventory differences for a user group in *Customizing for Inventory Management and Physical Inventory* under *Physical Inventory* → *Define Tolerances for Inventory Differences*. Depending on the user group, you can define the following value tolerances for the posting of inventory differences:

- Maximum amount per physical inventory document
- Maximum amount per document item.

If a document exceeds the document tolerance defined for the user group, a user who is assigned to this physical inventory tolerance group may not post an inventory difference for this document. If the total value of the document lies below the document tolerance, but certain items exceed the maximum amount per item, the user is not permitted to post the differences for these items. He or she can process the other items.

The system fixes the **posting period** of the accounting document automatically when the first count is entered for the physical inventory document. The inventory difference must therefore either be posted in the same period or, if backposting to the previous period is allowed, in the following period.

The **fiscal year** is set as a result of specification of the planned count date when the PI document is created. All further postings for this document must be made in this fiscal year or in the first period of the following year if backposting is allowed.



Demonstration: Carrying Out the Physical Inventory

Purpose

Description of the processing of PI documents

System Data

System: Training System
Client: 8xx
User ID: Own user ID or SCM510-00
Password: Ask the instructor
Set up instructions: None

1. From the Easy Access screen, choose *Logistics* → *Materials Management* → *Physical Inventory* → *Physical Inventory Document* → *Create*.

2. Enter the following data:

Plant: **1000** (Hamburg)

Storage Location: **0001** (material warehouse)

Physical Inventory Number: **123456**

3. Choose  *Enter*.

4. Enter the following data:

Material: **m-10**

Stock type: **1** (unrestricted-use)

Material:: **m-10**

Stock Type: **2** (quality inspection)

Material:: **m-10**

Stock Type: **4** (blocked).

5. Save the physical inventory document.

6. To enter stockcount results:

From the Easy Access screen, choose *Logistics* → *Materials Management* → *Physical Inventory* → *Inventory Count* → *Enter*.

7. Check the physical inventory document number displayed.

8. Choose  *Enter*.

9. Enter the following data:

Stock figure for stock type 1: 39 pc

Stock figure for stock type 2: 1 pc.



10. Choose *Set Zero Count* and then save the count results.



Hint: Optional: Here you can also display the status of the PI document (shown in the header): **Counted**. The document statistics show 3 items as **counted**.

11. To post difference from list of differences:

From the Easy Access screen, choose *Logistics* → *Materials Management* → *Physical Inventory* → *Difference* → *Difference List*.


12. Select according to the PI document created in the foregoing.
13. Select item 1
14. Choose *Goto* → *Recount Document*
15. Choose  *Enter*.
16. Post the physical inventory document.
17. Make a note of the physical inventory document number.
18. Select items 2 and 3 in the list of differences.
19. Choose *Post Difference*.
20. Choose  *Post*.



Hint: Optional: Display the physical inventory document:

Statistics: 2 items posted, 1 recounted

21. To display the material document

From the Easy Access screen, choose *Logistics* → *Materials Management* → *Physical Inventory* → *Environment* → *Material Document for Material*.
22. Select according to *Material m-10*.
23. Position the cursor on the uppermost item (goods movement 703).
24. Choose *Environment* → *Material Document*.
25. To display the accounting document, choose the *Document Info* tab page in the material document header, then  *FI/CO Documents*.
26. Choose *Accounting Document*.



Demonstration:

Purpose

Physical inventory block

System Data

System:	Training System
Client:	8xx
User ID:	Own user ID or SCM510-00

Password: Ask the instructor

Set up instructions: None

1. Demonstrate the exercise with the data:
 - Material M-20
 - Plant 1000
 - Storage location 0001
 - Stock type: 1 (unrestricted-use)
 2. Test the block that has been set using a goods issue for cost center 4100
-

Determination of Book Inventory

When the count results are entered, the system determines the current book inventory. This book inventory is compared with the counted quantity entered, with any discrepancy representing the difference quantity to be posted. If goods movements are posted in the system between the physical counting of the stock and the entry of the PI count results, incorrect physical inventory differences may arise. In this case, the book inventory at the time of the count does not match up with the book inventory at the time the count results are entered.

The *SAP* system provides two possible ways of avoiding this source of errors in the physical inventory.



Here you can demonstrate the exercise including setting the physical inventory block.

Blocking Goods Movements

You can block all goods movements relating to a stock management unit for the purposes of a physical inventory. The system blocks all the stock management units of the relevant PI document by means of the *Posting Block* indicator in the PI document header. In the material master, the block is displayed in the *Physical Inventory Lock* indicator as X (material is locked for movements due to physical inventory) in the *Storage Location Stock* view.

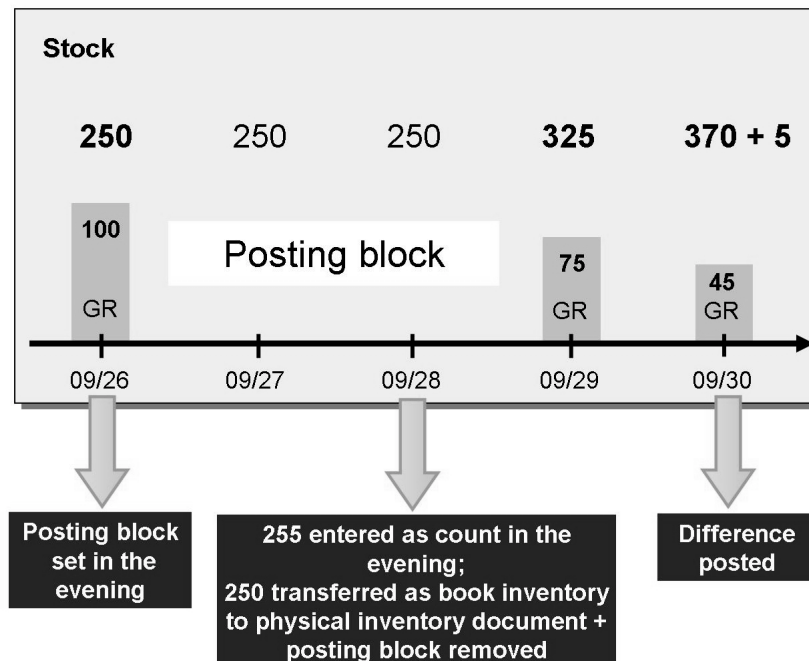


Figure 85: Blocking Goods Movements

In the case of the company's own stock, goods movements are blocked at the level of the plant and the storage location. In the case of special stocks, blocking takes place at the level of the plant, the storage location, the special stock and the additional specification customer, vendor, order, or project.

When the count result for the relevant stock management unit is entered, the block is lifted. In the material master record, the physical inventory blocking indicator is set to A (physical inventory of material not yet completed). The indicator is unset when the inventory difference is posted.

Freezing Book Inventory

If it is not possible to block the goods movement for organizational reasons, you can freeze the book inventory in the PI document at the time of the count. To do so, you set the *Freeze Book Inventory* indicator in the PI document. This prevents goods movements from changing the book inventory figure that is relevant to the inventory-taking process.

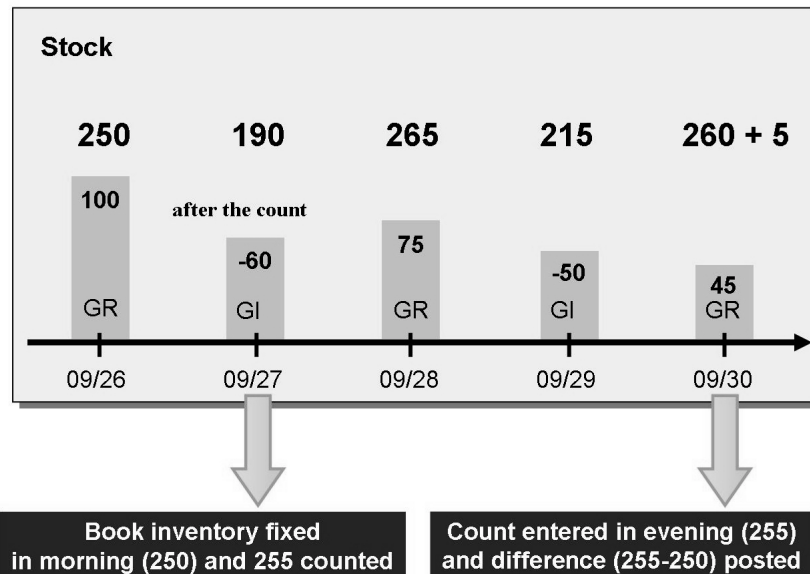


Figure 86: Freezing Book Inventory



Hint: You specify whether it is possible to freeze book inventories at the storage location in Customizing for *Inventory Management and Physical Inventory* under *Physical Inventory* → *Allow Freezing of Book Inventory Balance in Storage Location*.

Adjusting the Book Inventory in the PI Document

This function defines the system behavior when a goods movement is posted for a material that is currently subject to an active physical inventory in the relevant stock type, and for which the book inventory has already been taken over into the PI document. Updating of the book inventory in the PI document may be due to the following reasons:

- The *Freeze Book Inventory* indicator is set in the PI document.
- The count results have been entered in the PI document.

The *Adjust Book Inventory* indicator enables you to specify that when a goods movement is entered, the system recognizes that this posting would have had an effect on the book inventory in the PI document. You set the indicator on a plant-specific basis in Customizing for *Inventory Management and Physical Inventory* under *Physical Inventory* → *Settings for Physical Inventory*. If the indicator is set, the system checks whether a goods movement would have had an effect on the book inventory in the PI document in the event of timely and correct posting. If so, the book inventory in the PI document is adjusted by the amount of the goods movement. The inventory difference likewise changes by the amount of the goods movement. In the process, the system checks the date of

the goods movement. The goods movement must have taken place at least a day before the physical inventory count or on the day of the count. The *Adjust Book Inventory* indicator has three instances:

- Not active (“_”)
- Active. If the dates of goods movement and physical inventory are the same, the physical inventory was before the goods movement (“1”)
- Active. If the dates of the goods movement and physical inventory are the same, the goods movement was before the physical inventory (“2”)

Example:

1. **12/07:** The stock of the material is *31 pieces*.
2. **12/07:** You create a PI document and freeze the book inventory.
3. **12/08:** You enter the count result of *32 pc*.
4. **12/09:** You retrospectively enter a goods receipt of *5 pc* with the posting date 12/06.

The list of differences determines a difference of -4 pieces, since the book inventory was adjusted to $(31 + 5) \text{ pieces} = 36 \text{ pieces}$.

Postings Resulting from Physical Inventory

The account movements that take place when the physical inventory differences are posted depend on which stock you have inventoried.

- Own stock
- Consignment stock belonging to a vendor



Own stock		Consignment stock	
Material: 140-300		Material: 140-300	
S price: 15 EUR		S price: 15 EUR	
Stock: 100 pc		Stock: 100 pc	
Inventory count: 90 pc		Inventory count: 90 pc	
Stock account	Cost from inventory	Consump. from consignment	Cost from inventory
150	150	160	150
		Cost from consumption consignment material	
		10	

Figure 87: Postings Resulting from Physical Inventory

Own Stock

When inventory differences are posted, the stock figures in the material master record are changed. The total stock is automatically adjusted to the counted quantity. With regard to accounting, this is the same as a goods receipt or goods issue (GI). This means that the stock account is debited or credited when the inventory difference is posted.

- If the counted quantity is less than the book inventory, the stock account is credited with the value of the inventory difference multiplied by the price. The offsetting entry is made to the “Expense from Physical Inventory” account.
- If the counted quantity is greater than the book inventory, the stock account is debited with the value of the inventory difference multiplied by the price. The offsetting entry is made to the “Revenue from Physical Inventory” account.

Since the posting amount is calculated based on the current valuation price from the material master record, posting the inventory differences does not change the valuation price.

Vendor Consignment

When the inventory differences are posted, the vendor consignment stock is automatically adjusted to the counted quantity. Because this stock is managed on a non-valuation basis, there is initially no posting on the accounting side. An accounting document is nevertheless created. This is due to the way in which the *SAP* system interprets the difference.

- **Counted quantity less than book inventory**

If the quantity of consignment stock counted is less than the book inventory, it is assumed that the difference was withdrawn from consignment stock and subsequently “disappeared”. The inventory difference is therefore posted as a withdrawal. The vendor must be paid for the withdrawal. For this reason, when the inventory difference is posted, the same account movements take place as in the case of a transfer posting from consignment to own stock. There is one exception to this: The amount posted to the stock account at the time of the transfer posting goes to the “Expense from Inventory Differences” account when the inventory differences are posted.

- **Counted quantity greater than book inventory**

If the quantity of consignment stock counted exceeds the book inventory, it is assumed that larger withdrawals from consignment stores were posted than actually took place. The inventory difference is therefore posted as a reversal (cancellation) of withdrawals. Since withdrawals are posted to the “Liabilities from Consignment Stores,” this account must also be posted when the inventory difference is posted. The system therefore makes postings that contrast completely to the case “count quantity less than book inventory”.



Exercise 21: Carrying Out the Physical Inventory

Exercise Duration: 30 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Explain the process of physical inventory
- Create physical inventory documents
- Enter the results of physical inventory counts
- Post inventory differences

Business Example

You want to carry out a periodic physical inventory in your company. Goods movements are to be blocked during the physical inventory.

System Data

System:	Training System
Client:	8xx
User ID:	Ask the instructor
Password:	Ask the instructor
CATT:	ZT_SCM510
Set up instructions:	None

Task 1: Physical Inventory Block

Carry out the physical inventory for material **T-INV1##** in plant 1000, storage location 0001. Monitor the settings for the physical inventory indicator in the master record for material **T-INV1##**.

1. Fill out the following table throughout the course of the exercise to provide you an overview of the physical inventory indicator change based on the individual inventory phases.

In this subtask, determine the physical inventory indicator for material **T-INV1##** in plant 1000, storage location 0001 **before the inventory**.

Fill out the other table entries after each task.

Continued on next page

Exercise step	Physical inventory block
Task 1 before inventory	_____
Task 3 PI document created	_____
Task 5 Goods movement blocked	_____
Task 8 Count entered	_____
Task 11 Difference posted	_____

2. Create a physical inventory document for plant 1000. The count is to take place in two days. Assign the physical inventory number **GR##** for your group. Enter the count data for all three stock types for material **T-INV1##** at storage location 0001. Make a note of the PI document numbers.

Physical inventory document	_____
-----------------------------	-------

3. Note the physical inventory indicator for material **T-INV1##** in plant 1000, storage location 0001, and complete the table from exercise 1.
4. Set the posting block for the physical inventory document.
5. Make a note of the inventory block indicator for material **T-INV1##** in plant 1000, storage location 0001, and complete the table from exercise 1:
6. Which of the following goods movements relating to material **T-INV1##** cannot now be posted?
Choose the correct answer(s).
- A Goods receipt against PO in plant 1000, storage location 0002
 - B Sample from stock in quality inspection, plant 1000, storage location 0001
 - C Stock transfer from storage location 0001 to storage location 0002
 - D Goods issue for cost center, plant 1000, storage location 0001
 - E Goods issue from consignment stores, plant 1000, storage location 0001
 - F Goods issue from sales order stock, plant 1000, storage location 0001
7. Enter the physical inventory count.

Continued on next page

Material	Stock type	Stock
T-INV1##	1	490
T-INV1##	2	10
T-INV1##	4	0

8. Make a note of the inventory block indicator for material **T-INV1##** in plant 1000, storage location 0001. Complete the table from exercise 1:
9. Display the differences in the list of differences. Post the physical inventory difference.
10. Display the physical inventory statistics of the PI document.

Open	_____
Counted	_____
Posted	_____
Recounted	_____
Deleted	_____

11. Make a note of the physical inventory block indicator for material **T-INV1##** in plant 1000, storage location 0001, and complete the table from exercise 1.

Task 2: Recount

Carry out the physical inventory for material **T-INV2##** in plant 1000, storage location 0001. A recount is necessary for this material.

1. Create physical inventory documents for plant 1000. Assign the physical inventory number **IN##** to your group. Enter the count data for unrestricted-use stock for material **T-INV2##** at storage location 0001. Make a note of the PI document number.

Physical inventory document	_____
-----------------------------	-------

2. Enter the physical inventory count.

Material	Stock type	Stock
T-INV2##	1	220

3. Display the differences in the list of differences. Create a physical inventory document for the recount.

Continued on next page

Physical inventory document	
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4. Display the physical inventory statistics for your **first** physical inventory document for material T-INV2##, and make a note of the data. Display the physical inventory statistics for the item and determine the number of the recount document and the physical inventory status.

Open	_____
Counted	_____
Posted	_____
Recounted	_____
Deleted	_____

Solution 21: Carrying Out the Physical Inventory

Task 1: Physical Inventory Block


Carry out the physical inventory for material **T-INV1##** in plant 1000, storage location 0001. Monitor the settings for the physical inventory indicator in the master record for material **T-INV1##**.

- Fill out the following table throughout the course of the exercise to provide you an overview of the physical inventory indicator change based on the individual inventory phases.

In this subtask, determine the physical inventory indicator for material **T-INV1##** in plant 1000, storage location 0001 **before the inventory**.





Fill out the other table entries after each task.

Exercise step	Physical inventory block
Task 1 before inventory	<u>blank (no physical inventory)</u>
Task 3 PI document created	<u>A (physical inventory not completed)</u>
Task 5 Goods movement blocked	<u>X (blocked for movement)</u>
Task 8 Count entered	<u>A (physical inventory not completed)</u>
Task 11 Difference posted	<u>blank (no physical inventory)</u>

- Choose *Logistics* → *Materials Management* → *Material Master* → *Material* → *Display* → *Display Current (MM03)* .
 - Enter *Material Number* **T-INV1##**.
 - Choose *Select View(s)* and select *Storage Location Stock*.
 - Choose *Organizational levels* and enter *plant 1000*, storage location **0001**.
 - Choose  *Continue*.
 - Take note of the value in the *Physical inventory blocking indicator* field in the table.
- Create a physical inventory document for plant 1000. The count is to take place in two days. Assign the physical inventory number **GR##** for your group. Enter the count data for all three stock types for material **T-INV1##** at storage location 0001. Make a note of the PI document numbers.

Continued on next page

Physical inventory document	
-----------------------------	--

- a) Choose *Logistics* → *Materials Management* → *Physical Inventory* → *Physical Inventory Document* → *Create (MI01)*
 - b) Enter the *planned inventory count date* <today+2 days>, *plant* 1000, *storage location* 001, and *inventory number* GR## .
 - c) Choose  *Continue*.
 - d) Enter *Material Number* T-INV1## and *Stock Type* 1.
 - e) Enter *Material Number* T-INV1## and *Stock Type* 2.
 - f) Enter *Material Number* T-INV1## and *Stock Type* 4.
 - g) Choose  with the quick info text *Post*.
3. Note the physical inventory indicator for material T-INV1## in plant 1000, storage location 0001, and complete the table from exercise 1.
 - a) Solution as for exercise 1
 4. Set the posting block for the physical inventory document.
 - a) Choose *Logistics* → *Materials Management* → *Inventory* → *Physical Inventory Document* → *Change (MI02)*
 - b) Enter the inventory document number from step 2 and choose  with the quick info text *Header*.
 - c) Set the *Posting Block* indicator.
 - d) Choose  with the quick info text *Post*.
 5. Make a note of the inventory block indicator for material T-INV1## in plant 1000, storage location 0001, and complete the table from exercise 1:
 - a) Solution as for exercise 1
 6. Which of the following goods movements relating to material T-INV1## cannot now be posted?





Answer: B, C, D

Consignment stores and project stock are blocked via separate physical inventory documents. Goods movements (apart from stock transfers) involving storage location 0002 are not affected by the physical inventory at storage location 0001.

7. Enter the physical inventory count.


Continued on next page

Material	Stock type	Stock
T-INV1##	1	490
T-INV1##	2	10
T-INV1##	4	0

- a) Choose *Logistics* → *Materials Management* → *Physical Inventory* → *Inventory Count* → *Enter (MI04)*
 - b) Enter the physical inventory document number and choose  with the quick info text *Continue*.
 - c) Enter the physical inventory count results. Set the *Zero Count* indicator for the third item.
 - d) Choose  with the quick info text *Post*.
8. Make a note of the inventory block indicator for material **T-INV1##** in plant 1000, storage location 0001. Complete the table from exercise 1:
- a) Solution as for exercise 1
9. Display the differences in the list of differences. Post the physical inventory difference.
- a) Choose *Logistics* → *Materials Management* → *Physical Inventory* → *Difference* → *Difference List (MI20)*.
 - b) Select using the number of your physical inventory document or physical inventory number GR##.
 - c) Choose  *Execute*.
 - d) Select all items.
 - e) Choose *Post Difference*.
 - f) Choose  with the quick info text *Post*.
10. Display the physical inventory statistics of the PI document.

Continued on next page

Open	<u>0</u>
Counted	<u>3</u>
Posted	<u>3</u>
Recounted	<u>0</u>
Deleted	<u>0</u>



- a) Choose *Logistics* → *Materials Management* → *Physical Inventory* → *Physical Inventory Document* → *Display (MI03)*
 - b) Enter your physical inventory document number and choose  *Overview*.
 - c) Choose *Statistics*.
11. Make a note of the physical inventory block indicator for material **T-INV1##** in plant 1000, storage location 0001, and complete the table from exercise 1.
- a) Solution as for exercise 1

Task 2: Recount

Carry out the physical inventory for material **T-INV2##** in plant 1000, storage location 0001. A recount is necessary for this material.



1. Create physical inventory documents for plant 1000. Assign the physical inventory number **IN##** to your group. Enter the count data for unrestricted-use stock for material **T-INV2##** at storage location 0001. Make a note of the PI document number.

Physical inventory document	
-----------------------------	--




- a) Choose *Logistics* → *Materials Management* → *Physical Inventory* → *Physical Inventory Document* → *Create (MI01)*
 - b) Enter the *planned inventory count date* **<today>**, the *plant* **1000**, the *storage location* **0001**, and the *physical inventory number* **IN##** .
 - c) Choose  *Continue*.
 - d) Enter *Material Number* **T-INV2##** and *Stock Type* **1**.
 - e) Choose  with the quick info text *Post*.
2. Enter the physical inventory count.

Continued on next page

Material	Stock type	Stock
T-INV2##	1	220


- a) Choose *Logistics* → *Materials Management* → *Physical Inventory* → *Inventory Count* → *Enter (MI04)*
 - b) Enter the inventory document number and choose  with the quick info text *Continue*.
 - c) Enter the inventory count result **220 pc** .
 - d) Choose  with the quick info text *Post*.
3. Display the differences in the list of differences. Create a physical inventory document for the recount.

Physical inventory document	

- a) Choose *Logistics* → *Materials Management* → *Physical Inventory* → *Difference* → *Difference List (MI20)*.
 - b) Select using your physical inventory number **IN##**.
 - c) Choose  *Execute*.
 - d) Select the physical inventory item.
 - e) Choose *Goto* → *Recount Document*.
 - f) Choose  *Continue*.
 - g) Choose  with the quick info text *Post*.
4. Display the physical inventory statistics for your **first** physical inventory document for material T-INV2##, and make a note of the data. Display the physical inventory statistics for the item and determine the number of the recount document and the physical inventory status.

Continued on next page

Open	<u>0</u>
Counted	<u>1</u>
Posted	<u>0</u>
Recounted	<u>1</u>
Deleted	<u>0</u>

- a) Choose *Logistics* → *Materials Management* → *Physical Inventory* → *Physical Inventory Document* → *Display (MI03)*
- b) Enter the number of your first inventory document and choose  *Overview*.
- c) Choose *Statistics....* , and make a note of the information in the table.
- d) Close the dialog box for *Statistics* and choose *Physical Inventory History*. The physical inventory history for the item displays both the inventory status *counted*, *recounted* and the number of the recount document.



Lesson Summary

You should now be able to:

- Make preparations for physical inventory
- Create PI documents, enter count results, and post differences
- Describe the performance of the physical inventory
- Describe the postings for the physical inventory

Lesson: Simplification of Physical Inventory



325

Lesson Duration: 30 Minutes

Lesson Overview

This lesson introduces various ways of simplifying the physical inventory. You can combine individual steps, such as the creation of the PI documents and the entry of the count results. In the event of a large number of stock management units, you can use batch input sessions for the physical inventory, thus reducing entry time and effort.



Lesson Objectives

After completing this lesson, you will be able to:

- Combine steps in the physical inventory
- Explain the process of physical inventory with batch input sessions
- Create and run a batch input session



Participants learn to combine the three physical inventory steps for exceptions.

Physical inventory processing in sessions is the rule for physical inventories because you can select according to storage locations and all stock management units are completely recorded. Cycle counting and the sample-based physical inventory also make use of sessions to create physical inventory documents.

Business Example

You want to create all PI documents for a physical inventory with batch input for a plant. Only in individual cases are stocks that have not yet been recorded in PI documents found during the physical inventory.

Combining Physical Inventory Steps

In every physical inventory, you go through three basic phases:

1. Create physical inventory documents
2. Enter count
3. Post inventory difference

In the *SAP* system, you can combine individual phases and carry these out in one step.

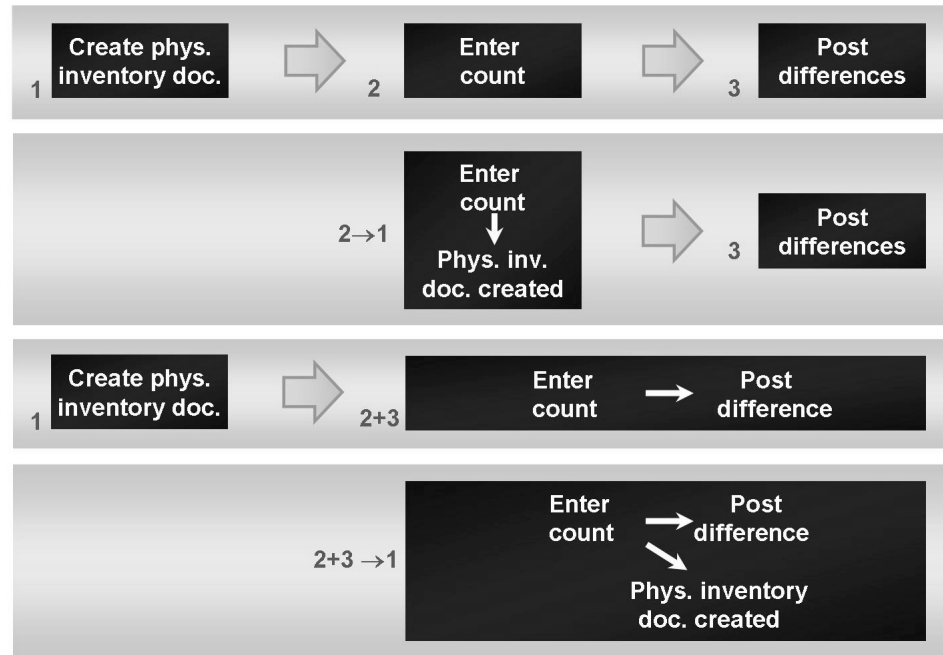


Figure 88: Combining Physical Inventory Steps

The following options are available if you wish to combine steps in the physical inventory:



It is not necessary to discuss each option in detail. Briefly explain the necessity of a physical inventory document. The goods movements can also be posted manually in transaction MIGO. However, in this case there is no documentation of the physical inventory.

Enter count without physical inventory document (1 and 2)

When a count is entered without a document, the system automatically creates a PI document when you save. You post the difference with reference to this PI document.

Enter count and post physical inventory difference (2 and 3)

The count results are entered for an existing physical inventory document. When the count results are saved, inventory differences are posted automatically.

Enter count without PI document and post inventory difference (1, 2, and 3)

All three phases are carried out in one step. The inventory count results are entered. When the results are posted, the system generates a physical inventory document and posts the inventory difference.



Hint: In the standard system, a PI document is not created automatically when the goods movement is posted. This can be activated in Customizing for the movement type.


**Demonstration:****Purpose**

Demonstration of exercise

CATT: CATT from the exercise

System Data

System: Training System
Client: 8xx
User ID: Own user ID or SCM510-00
Password: Ask the instructor
Set up instructions: None

1. Go through the exercise with the exercise data (group 00). Take care to enter the storage bin ID BL##. Without the storage bin ID, you create a session for all groups. Then the exercise cannot be carried out for other participants.
2. If a participant has created the session for all, show that the header of the PI document indicates the creator.
3. Display the documentation of a session. Call the transaction and choose . The Performance Assistant is called in one session.

Administration of Sessions

The steps in the physical inventory can also be performed with batch input sessions.

Batch Input

Batch input is a standard technique for transferring large amounts of data to the *SAP* system. The transaction process is simulated in this way. The data is transferred as if it had been entered online. The advantage of this procedure is that all transaction checks are carried out, which ensures data consistency.

The batch input procedure takes place in two steps:

1. A batch input session containing all relevant data is generated.
2. The batch input session is processed and the data it contains is imported into the SAP system.

Batch input is typically used for the one-time import of data from a legacy system into a newly installed *SAP* system. It is also used for periodic data transfers (hourly, daily) from non-*SAP* systems or legacy systems that are still used to the *SAP* system, in which all enterprise data is consolidated. Batch input offers the advantage of automating process steps. Tedious manual keying in of the data is no longer necessary.

You can access the main menu of the batch input service using *System* → *Services* → *Batch Input* → *Sessions* or transaction SM35.

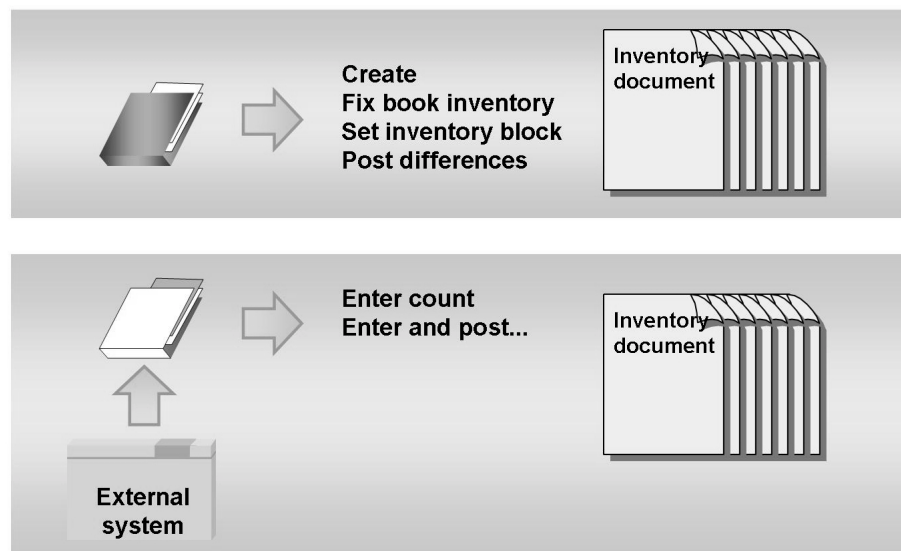


Figure 89: Batch Input Sessions

A batch input session consists of one or more transaction calls with the data to be processed by the transactions. Usually, the system does not perform the transactions in an interactive session. Consequently, a large volume of data can be imported in a very short time. Batch input sessions are usually started automatically, not manually.

In a physical inventory, this procedure can be used for the mass-processing of data and for transferring the count data.

Batch Input Sessions in Physical Inventory

When using batch input sessions, we differentiate between sessions that can only be run in *SAP* systems and those that transfer data from other systems.

The following sessions accept data from *SAP* systems:

Create physical inventory documents without special procedure

The system creates PI documents according to selection criteria. When the PI documents are created, a distinction is made between own and special stock. You need to create a separate session for each special stock.

Create PI documents with special procedure of physical inventory

In the case of the cycle counting procedure and the sample-based physical inventory, you generate PI documents using the batch input procedure. The selections comprise criteria such as the cycle counting indicator (CC indicator) in the material master record.

Block material and freeze book inventory

Because material movements during the physical inventory process lead to unwanted errors, you can prevent such movements by imposing a block on them, or you can freeze book inventory at the time of the count. The batch input session facilitates simple selection by the physical inventory number or the PI documents, for example.

Set zero count

You can also set the *Zero Count* indicator via a batch input report. To do so, choose *Sessions* → *Set Zero Count* from the physical inventory menu. As a result, the zero count is set for all items for which no count result has been entered.

Post difference

You can post differences for several PI documents using the difference list or this batch input session.

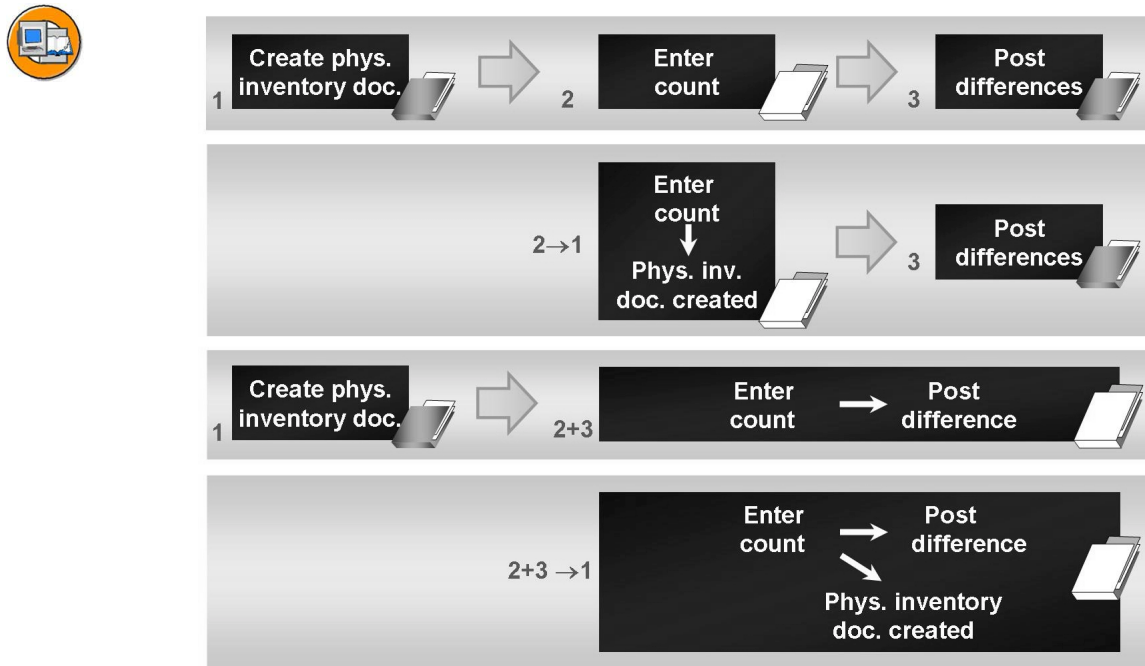


Figure 90: Carrying Out Physical Inventory with Batch Input Sessions

A count can also be transferred from another system by means of a batch input session.

You should run a test run prior to importing the sequential file. For this purpose, you must maintain relevant test data in Customizing for Inventory Management.

The following sessions accept data from other systems:

Enter count

Note that this program was developed for the special requirements of mySAP Retail. Should the scope of functions provided fail to satisfy your needs, we recommend transferring the mobile data entry (MDE) inventory count data to the *SAP* system using BAPIs (Business Application Programming Interfaces). In this case, use the business object MaterialPhysInv (material physical inventory) (object type BUS2028 - material physical inventory), method Count: “Enter Count for Certain Items of a Physical Inventory Document” (function module BAPI_MATPHYSINV_COUNT).

Post count and difference

For you to be able to enter material counts using a batch input session, the relevant PI document must already have been created in the system. If an attempt is made to enter a count for which no PI document has yet been created, an error is caused when the session is run, resulting in the termination of processing.

Enter count without reference

This report generates a batch input session that creates PI documents and simultaneously enters the count results when it is run. Before starting the report, you must ensure that the file specified on the selection screen has been created at operating system level in the specified directory.

Enter count without reference and posting of difference

This report generates a batch input session that creates PI documents and simultaneously enters the count results and posts inventory differences when it is run.



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Exercise 22: Simplifying Physical Inventory

Exercise Duration: 15 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Create and run batch input sessions
- Make use of options for simplifying physical inventory

Business Example

You are making preparations for a periodic (for example, annual) physical inventory in plant 1000.

System Data

System:	Training System
Client:	8xx
User ID:	Ask the instructor
Password:	Ask the instructor
CATT:	ZT_SCM510
Set up instructions:	None

Task:

Create physical inventory documents by running a batch input session. When entering the count, also post the inventory difference.

1. Create a batch input session for *Physical Inventory Documents Without Special Stock*. Select all raw materials of plant 1000, storage location 0001, and **storage bin ID BL##**. **Only unrestricted-use stock** of materials is to be inventoried. The physical inventory has the physical inventory number **BIM##**. Set the indicator to have the session held after it has been run. Make a note of the name of the session.

Name of session	
-----------------	--

2. Run the session you created in the background. Display only the errors while the session is running and choose the extended log. Display the log and make a note of the PI document number.


PI document number	
--------------------	--

Continued on next page

3. Manually enter the count result for the physical inventory. Post the inventory difference immediately after you enter the data.

Material number	Count
T-INV3##	28
T-INV4##	40
T-INV5##	51
T-INV6##	60
T-INV7##	69



Hint: To scroll to the next items of the document, choose  *Next Page*.

4. Display the PI document and make a note of the status in the document header.

Count status	
Inventory adjustment posting status	



Solution 22: Simplifying Physical Inventory

Task:

Create physical inventory documents by running a batch input session. When entering the count, also post the inventory difference.





1. Create a batch input session for *Physical Inventory Documents Without Special Stock*. Select all raw materials of plant 1000, storage location 0001, and **storage bin ID BL##**. **Only unrestricted-use stock** of materials is to be inventoried. The physical inventory has the physical inventory number **BIM##**. Set the indicator to have the session held after it has been run. Make a note of the name of the session.

Name of session	
-----------------	--

- a) Choose *Logistics → Materials Management → Physical Inventory → Sessions → Create Inventory Documents → Without Special Stock (MI31)*.
 - b) Enter the following data:
 - Plant 1000*
 - Storage Location 0001*
 - Material Type ROH*
 - Storage Bin Description BL##*
 - Physical Inventory Number BIM##*
 - c) Set the *Hold Processed Sessions* indicator.
 - d) Choose  *Acc. to Stck* and deselect the *In Quality Inspection* indicator.
 - e) Make a note of the name of the session.
 - f) Choose  with the quick info text *Execute*.
2. Run the session you created in the background. Display only the errors while the session is running and choose the extended log. Display the log and make a note of the PI document number.


Continued on next page


PI document number	
--------------------	--

- a) Choose *System* → *Services* → *Batch Input* → *Sessions*
 - b) To select your session, enter the *Creator * - ##* and confirm with *Enter*.
 - c) Select the session and choose  *Process*.
 - d) Set the *Display Errors Only* and *Extended Log* indicators and choose *Process*.
 - e) When the sessions have run, a dialog box is displayed. Choose  *Session Overview*.
 - f) Choose  *Log*.
 - g) Select the log and choose  *Display*. In the details, find the number of the physical inventory document generated by running the batch input session.
3. Manually enter the count result for the physical inventory. Post the inventory difference immediately after you enter the data.

Material number	Count
T-INV3##	28
T-INV4##	40
T-INV5##	51
T-INV6##	60
T-INV7##	69




Hint: To scroll to the next items of the document, choose  *Next Page*.

- a) Choose *Logistics* → *Materials Management* → *Physical Inventory* → *Difference* → *Count/Difference (MI08)*.
 - b) Enter the PI document number from exercise 2 and choose *Enter*.
 - c) Enter the results of the inventory count and choose  with the quick info text *Post*.
4. Display the PI document and make a note of the status in the document header.

Continued on next page

Count status	<u>X (all items counted)</u>
Inventory adjustment posting status	<u>X (all items posted)</u>

- a) Choose *Logistics* → *Materials Management* → *Physical Inventory* → *Physical Inventory Document* → *Display (MI03)*
- b) Enter the physical inventory document number from exercise 2 and choose  *Header*.



Hint: You can find out the meaning of the indicators using the F1 help for the fields.



Lesson Summary

You should now be able to:

- Combine steps in the physical inventory
- Explain the process of physical inventory with batch input sessions
- Create and run a batch input session



Unit Summary

You should now be able to:

- Make preparations for physical inventory
- Create PI documents, enter count results, and post differences
- Describe the performance of the physical inventory
- Describe the postings for the physical inventory
- Combine steps in the physical inventory
- Explain the process of physical inventory with batch input sessions
- Create and run a batch input session



Test Your Knowledge

1. The physical inventory can be divided into _____ steps. First _____ are created. In the second step, the _____ is entered in the system. In the third step, the _____ is posted in the system. The system creates a material document and an _____.

Fill in the blanks to complete the sentence.

2. Between which two different kinds of stock does the system differentiate for postings?

3. How can you create physical inventory documents in the standard system?

Choose the correct answer(s).

- A Manually
- B When entering the count
- C When entering the count and simultaneously posting the difference
- D With batch input sessions
- E With batch input sessions when the count data is transferred
- F With batch input sessions when the count data is transferred and the inventory difference is simultaneously posted

4. Which menu path do you use to call the administration of batch input sessions?



Answers

1. The physical inventory can be divided into three steps. First PI documents are created. In the second step, the count result is entered in the system. In the third step, the inventory difference is posted in the system. The system creates a material document and an accounting document.

Answer: three, PI documents, count result, inventory difference, accounting document

2. Between which two different kinds of stock does the system differentiate for postings?

Answer: Answers vary according to own stock and consignment stock.

3. How can you create physical inventory documents in the standard system?

Answer: A, B, C, D, E, F

A PI document can be generated manually or using a batch input session. It is possible to combine steps in the physical inventory both manually and with batch input sessions.

4. Which menu path do you use to call the administration of batch input sessions?

Answer: Choose *System* → *Services* → *Batch Input* → *Sessions*

Unit 8



Analyses



This unit covers the most important analyses of inventory management. A comprehensive description of each special feature was left out for space restrictions.

However, the instructor should be aware that the participants often have specific questions on the topic of analyses. When the instructor makes his preparations before the course, he should test the possibilities and restrictions of the individual analyses independently of the demonstration.

If time permits, the instructor can then give a brief demonstration about the Logistics Information System.

Unit Overview

Monitoring stocks and goods movements and checking the stock data for consistency are Inventory Management tasks. This unit will give you an overview of which analyses in the SAP system support you in this work.



Unit Objectives

After completing this unit, you will be able to:

- Use different lists to analyze stock
- Analyze documents created during goods movements
- List the Customizing settings for reporting in Inventory Management
- Specify the evaluations in Inventory Management that are to be executed regularly
- Explain the purpose of the periodic evaluations

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Lesson: Stock Lists and Document Lists



Lesson Duration: 45 Minutes

Lesson Overview

There are many different analyses in inventory management which should help you to monitor your stock situation and follow warehouse movements. This lesson provides an overview of the available reports on stocks and documents.



Lesson Objectives

After completing this lesson, you will be able to:

- Use different lists to analyze stock
- Analyze documents created during goods movements
- List the Customizing settings for reporting in Inventory Management



After this lesson, the participants should know where to find analyses in the inventory management menu, how the analyses are split up, and how you can procure precise information about the individual reports.

You do not need to explain all analyses in detail. Some of the reports may have already been mentioned in previous lessons if they were appropriate.

Business Example

To gain an overview of the stock situation of your materials, you test the different lists in the *SAP system*. If you require analyses for the individual goods movements, use the material document list.

Analyses in Inventory Management

In the *Inventory Management* menu, you will find analyses under *Environment* and *Periodic Processing*. This lesson deals with analyses in the *Environment* menu.

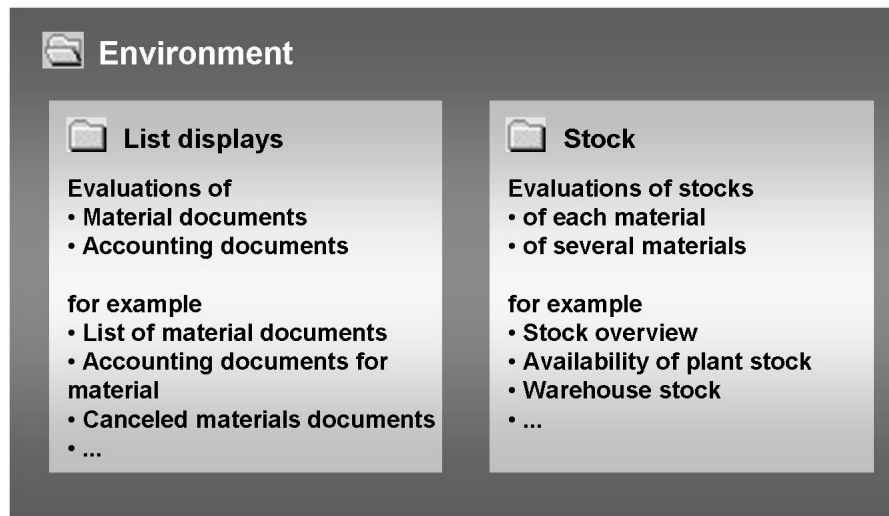



Figure 91: Analyses in the *Environment* Menu

Essentially, you need to decide whether you need information about the stock situation or whether you want to follow goods movements. Under *Environment* → *List Displays*, you will find analyses for material and accounting documents for goods movements. Under *Environment* → *Stock*, you will see the analyses for stocks.

Almost all of the lists in Inventory Management are displayed with the *SAP List Viewer*. In some of the lists (for example, *material document list*, *canceled material documents*, *stock in transit*, *stock with subcontractor*), you can switch to a list with more details by choosing *Goto* → *Detail Lists*. The detailed list is non-hierarchical. In this list, it is possible to generate accurate subtotals of any columns or totals of different units.

If a list is displayed with the *SAP List Viewer* you can extend the current layout or select an existing layout by choosing *Settings* → *Display Variant* or *Settings* → *Layout*. For more information on all functions of the *SAP List Viewer*, see the SAP Library under *SAP R/3 Enterprise Application Components* → *Cross-Application Components* → *General Application Functions (CA-GTF)* → *SAP List Viewer (ALV)*.

The individual analyses are briefly described below. For more information, refer to the documentation on the function. To display this documentation from the analysis selection screen, choose  *Program documentation*.



Demonstration:

Purpose

Lists

System Data

System:	Training System
Client:	8xx
User ID:	Own user ID or SCM510-00
Password:	Ask the instructor
Set up instructions:	None

1. Choose the material document list from the SAP menu: *Logistics* → *Materials Management* → *Inventory Management* → *Environment* → *List Displays* → *Material Documents*. Briefly explain the options for selection.
2. Open a second session to show the options for changing the selections in Customizing (IMG): *Materials Management* → *Inventory Management and Physical Inventory* → *Reporting* → *Define Field Selection for Material Document List*
3. Show a field for selection and call the transaction for the document list in the first session again.
4. Select the documents for material T-M510A##, for example all postings made by the course participants.
5. Show a field for display in the second session. Make another selection in the first session and display the new field that is shown.

Reports that Generate Document Lists

Material Documents List

With this report, you will see a list of the material documents that were posted for one or more material(s).

The available selection fields include plant, storage location, movement type, and special stock indicator. It is also possible to make restrictions with the user, the posting date, and the transaction type. You can also select whether you want to read a material document directly from the database or from the archive.

For information on the Customizing settings for the material document list, see the “Customizing” section in this lesson.

Accounting documents for material

This report issues a list with all accounting documents that are relevant for a selected material. You can make the selection with the material, the company code, the valuation area, the posting date, the document date, and the document type of the accounting document.

Archived material documents

This report reads archives for material documents and issues the corresponding documents according to the selection criteria.

Cancelled materials documents

This report issues a list with reversal documents and the relevant original documents. You can make selections using both the reversal document and original document numbers, but also with the material, plant, posting date, and user name of the enterer.



Caution: This report selects only reversal documents that were created with the *Cancel Material Documents* function.

Material documents with reason for movement

With this report, and according to your selections, you will see a list of all goods movements in which a reason for movement was specified during entry. The documents are selected according to two criteria:

- Documents without reference to purchase orders: The system analyzes all document items that have a reason for movement. If you select the *No vendor* indicator in the initial screen, the system analyzes only the documents without reference to a purchase order or a vendor.
- Documents with reference to purchase orders: This criterion is valid if at least one item has a reason for movement in a document and if it has a reference to a purchase order. With the purchase order history, the system reads all other goods receipt documents for the purchase order item.

You can restrict the selection using the material, plant, posting date, vendor, and purchasing document. For items with purchase order reference, the system displays the total delivered and returned quantities and their values, and the percentage of the returned quantity to the total delivered quantity.



Demonstration:

Purpose

Stock overview

System Data

System:	Training System
Client:	8xx
User ID:	Own user ID
Password:	Ask the instructor
Set up instructions:	None

1. Define a display variant in Customizing. Choose *Materials Management* → *Inventory Management and Physical Inventory* → *Reporting* → *Define Stock List Display*


Create a new display variant and define the variant.

2. Demonstrate the new display variant in the stock overview. You can enter the display variant on the selection screen.

Reports that Generate Stock Lists

Stock overview

This report gives you an overview of the stocks for one material across all organizational levels. In addition to the material, you can also limit your selection according to plant, storage location, and batch (for material subject to a batch management requirement). On the initial screen, you can decide whether you want to have special stocks displayed on the stock overview and, if so, which ones.

For the list display, you can specify that zero stock lines are hidden and select which levels are displayed in the basic list. Choose , with the quick info text *Execute*, to see the basic list.

The stocks displayed in the basic list and the organizational-level-specific detail list are determined by the display version that you specify on the initial screen. This display version also determines the sequence in which the selected stock types are displayed. Display versions are defined in “Customizing” for Inventory Management.



Hint: With *mySAP ERP 2004*, the stock overview display has been altered to a new design.

Stock/requirements list

The stock/requirements list displays the valid stock and requirements situation of a material. The respective MRP elements (such as plant stock, purchase requisitions, purchase orders, reservations) are reimported when the list is structured. The stock/requirements list therefore always gives you the current availability status of the material. The stock/requirements list contains information about one material in one plant.

Plant stock availability

This report gives you an overview of the available stock of one material in selected plants using the static availability check.

Availability overview

With this analysis, you can learn about the existing stocks of a material with the dynamic availability check. The quantity available on the day of analysis is specified.



Caution: This function is only possible with materials for which a checking group of the availability check is specified in the material master record.

Warehouse stock

With this report, you can display the total stock of several materials with quantities and values at plant and storage location level. As with the stock overview, you can select by materials, plants, storage locations, and batches. For this report, you can also select by material type, material group, and purchasing group. You specify on the initial screen whether special stocks are to be analyzed, and if so, which ones.

When analyzing warehouse stock, you can monitor materials with negative stocks. To do this, set the *Only display negative stocks* indicator on the initial screen.

You also decide here whether the list is to be displayed hierarchically or non-hierarchically.

Stock for posting date

This report lists stocks in a time interval (00:00 on start date to 24:00 on end date). The system depends on the current stock and counts the stock back to the specified posting date using the existing material documents.

The stock quantity and stock value at the start and end date, the sum and value of all receipts, the sum and value of all issues, and a list of the material documents in the selection time period are issued in the list.

Stock in transit

This report issues a list with all stocks found in the stock in transit of a plant. It includes both cross-plant stock transport orders and cross-company-code stock transport orders. On the selection screen, you can choose what types of purchase orders are to be displayed. You can also include delivered or deleted purchase orders. If you enter a special stock indicator, you can specifically select stock transfers of sales order stock.

Valuated special stock

This report issues a list with the valuated sales order stock and valuated project stock.

Stock with subcontractor

With this report, you can analyze which materials and which quantities can be found at a subcontractor.

Customizing

In Customizing for Inventory Management and Physical Inventory, a *Reporting* node contains the functions for configuring the analyses in Inventory Management.

Define Stock List Display

You define the display versions for the stock overview under *Reporting* → *Define Stock List Display*. There are three steps:

- **Display version:** You define a *display version* by allocating a version number with the relevant description.
- **Rules for display of stock balances:** Version-dependent determination of stocks displayed in the basic list. The system defines which stocks appear on which screen and in which column of the screen.
- **Detail screen for stock balance display:** Determination of stocks and their sequence for the detail list of the stock overview.

Define Field Selection for Material Document List

For the material document list, you can configure the selection screen and the number of fields in the catalog under *Reporting* → *Define Field Selection for Material Document List*.

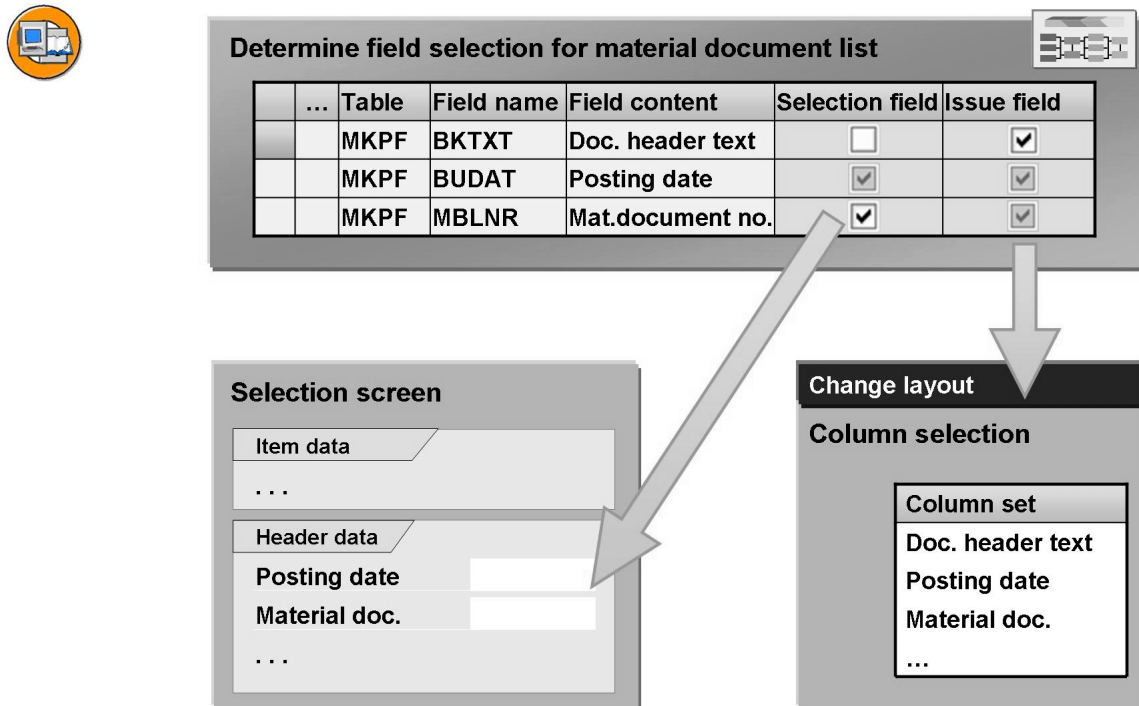


Figure 92: Customizing: Material Document List

- You can add additional fields to the **selection screen**, such as the fields *Number of material document* and *Material document year*.
- In the standard settings, all fields are included in the **field catalog**. The field catalog includes all fields that can be selected when setting up the display. By decreasing fields in the field catalog, you can increase performance if necessary.

Set Up Print Functions for Reporting

Under *Reporting* → *Set Up Print Functions for Reporting*, you can specify which information is also required for printing the output list for inventory management reports.

You specify whether the detail list (non-hierarchical list) for a report is to be displayed in an alternative form (with the *ALV Grid Control* instead of the *SAP List Viewer*). ALV Grid Control is easy to use and gives you more options for working with the detail lists. For example, you can:

- Reorganize columns by dragging and dropping
- Adjust the column width by dragging and dropping
- Select multiple columns with the **Ctrl** and **Shift** keys
- Generate subtotals with item characteristics

Group Movement Types for Stock Lists

Under *Reporting* → *Group Movement Types for Stock Lists*, assign *movement types* to a *movement type group*. This assignment can be used in the *Stock on posting date* report for evaluation purposes. You have the option of combining all movement types that affect Purchasing into one group. In the output list of the report, you can then filter out material documents from this group without having to individually specify all purchasing-relevant movement types.



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Exercise 23: Lists

Exercise Duration: 20 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Run and process lists of documents and stocks

Business Example

You need an overview of particular goods movements and of the stocks in your plant.

System Data

System:	Training System
Client:	8xx
User ID:	Ask the instructor
Password:	Ask the instructor
CATT:	ZT_SCM510
Set up instructions:	None

Task 1: Document Lists

As the head of department, you gain an overview of all component provisions that affect the subcontractor T-K510A##. You also display all reversal documents for goods receipts (101).

1. Display all material documents with movement types 541 and 542 for vendor **T-K510A##** and the special stock indicator O. For more display options, go to the **Detail List**. Determine the total quantity provided for each material.



Hint: Since you want realistic information when forming totals, you should also include possible reversal postings with movement type 542.

Quantity for R-T1##	_____
Quantity for R-T2##	_____
Quantity for R-T3##	_____

2. Display the reversal postings for the current week. Filter the list according to reversal postings for goods receipts with reference.

Continued on next page

Task 2: Stock Lists

You want to carry out an inventory in plant 1100. For some materials, you have allowed negative stocks in this plant. Check in plant 1100 to see whether purchase orders are still open and whether the stocks are negative.

1. Check with the stock overview of material **T-M510B##** to see whether purchase orders in plant 1100 are still open.
2. No negative stocks are allowed for the inventory. Check if this is the case in plant 1100.

Negative stocks	Yes/No
-----------------	--------

Solution 23: Lists

Task 1: Document Lists





As the head of department, you gain an overview of all component provisions that affect the subcontractor T-K510A##. You also display all reversal documents for goods receipts (101).

1. Display all material documents with movement types 541 and 542 for vendor **T-K510A##** and the special stock indicator O. For more display options, go to the **Detail List**. Determine the total quantity provided for each material.







Hint: Since you want realistic information when forming totals, you should also include possible reversal postings with movement type 542.

Quantity for R-T1##	<u>100 pc</u>
Quantity for R-T2##	<u>300 pc</u>
Quantity for R-T3##	<u>1200 pc</u>


- a) Choose *Logistics* → *Inventory Management* → *Environment* → *List Displays* → *Material Documents (MB51)*.
- b) Select the following:
 - Vendor T-K510A##*
 - Movement type 541 to 542*
 - Special Stock O*
- c) Choose  with the quick info text *Execute*.
- d) Choose  *Detail List*.
- e) Select the column *Quantity in UnE* and choose  *Add Up Values*.
- f) To form the subtotals for each material, select the *Material* column and choose  with the quick info *Subtotal...*

Continued on next page

2. Display the reversal postings for the current week. Filter the list according to reversal postings for goods receipts with reference.
 - a) Choose *Logistics* → *Inventory Management* → *Environment* → *List Displays* → *Cancelled Material Documents (MBSM)*.
 - b) Select the following:
Posting Date <start of week> to <today>
 - c) Choose  with the quick info text *Execute*.
 - d) Choose *Edit* → *Set Filter*.
 - e) Select *Movement Type* and choose  with the quick info *Show Selected Fields*.
 - f) Choose  *Adopt*.
 - g) Enter the movement type **102** and choose  with the quick info text *Execute*.


Task 2: Stock Lists

You want to carry out an inventory in plant 1100. For some materials, you have allowed negative stocks in this plant. Check in plant 1100 to see whether purchase orders are still open and whether the stocks are negative.

1. Check with the stock overview of material **T-M510B##** to see whether purchase orders in plant 1100 are still open.
 - a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Environment* → *Stock* → *Stock Overview (MMBE)*.
 - b) Enter *Material T-M510B##* and *Plant 1100*.
 - c) Choose  with the quick info text *Execute*.
 - d) Position the cursor on the plant line and choose *Environment* → *Open Purchase Orders*. There are still open purchase orders.
2. No negative stocks are allowed for the inventory. Check if this is the case in plant 1100.

Continued on next page

Negative stocks	Yes/No
-----------------	--------

- a) Choose *Logistics* → *Materials Management* → *Inventory Management* → *Environment* → *Stock* → *Warehouse Stock (MB52)*.
- b) Select plant 1100.
- c) Select *Display Only Negative Stocks*.
- d) Choose  with the quick info text *Execute*. Material T-M510B## is possibly in negative stock.



Lesson Summary

You should now be able to:

- Use different lists to analyze stock
- Analyze documents created during goods movements
- List the Customizing settings for reporting in Inventory Management

Lesson: Periodic Processing



Lesson Duration: 30 Minutes

Lesson Overview

The *SAP* system provides analyses in the *Periodic Processing* menu which you should carry out on a regular basis in order to recognize inconsistencies in your stock data early for example. These evaluations are covered in this lesson.



Lesson Objectives

After completing this lesson, you will be able to:

- Specify the evaluations in Inventory Management that are to be executed regularly
- Explain the purpose of the periodic evaluations



Periodic processing is – as the name suggests - about activities that have to be executed regularly, for example, once a month.

The reports *List of stock values* and *Consistency check* concern checks for the correct update of stock data, both quantity-based and value-based. If the system determines inconsistencies in the stock data, then it is not easy to determine the cause of this. The earlier the inconsistencies are determined, the 'easier' it is to determine the cause. The number of postings that have to be traced back is lower and there are still many changes to the Customizing settings. You should make it clear to the customers just how important a regular execution of these evaluations is.

The evaluation *Analysis of conversion differences* delivers difference values that can occur if materials are managed in different units of measure.

Business Example

You have made changes to Customizing for account determination. To ensure that all stock postings have been set correctly, the system should generate the list of stock values regularly.



Demonstration:

Purpose

Conversion differences

The demonstration data corresponds with the data in the graphic “Analysis of Conversion Differences.”

System Data

System:	Training System
Client:	8xx
User ID:	Own user ID or SCM510-00
Password:	Ask the instructor
Set up instructions:	None

1. Create a material with the base unit of measure **ton** (plant data, storage 1, accounting 1)
2. Post an initial entry of stock balances of 987.6 kg. Post a goods issue to cost center 1000 of 123,3 Kg.
3. Call report RM07AUMD under *System* → *Services* → *Reporting to*.

Analyzing Conversion Differences

In the *SAP* system, you can manage materials in different units of measure. Basically, a base unit of measure must be specified. Alternative units of measure are then defined with a conversion factor for calculating from this base unit of measure. The system automatically converts all quantities that you enter that are not in the base unit of measure to the base unit of measure.

These conversions may contain rounding differences. In the following cases in particular, considerable rounding differences may occur:

- The base unit of measure is a metric unit of measurement (for example, meter, liter, kilogram) and goods movements are posted in non-metric units (for example, yard, gallon, pound).
- The base unit of measure is not the smallest unit of measure, unlike the alternative unit of measure.

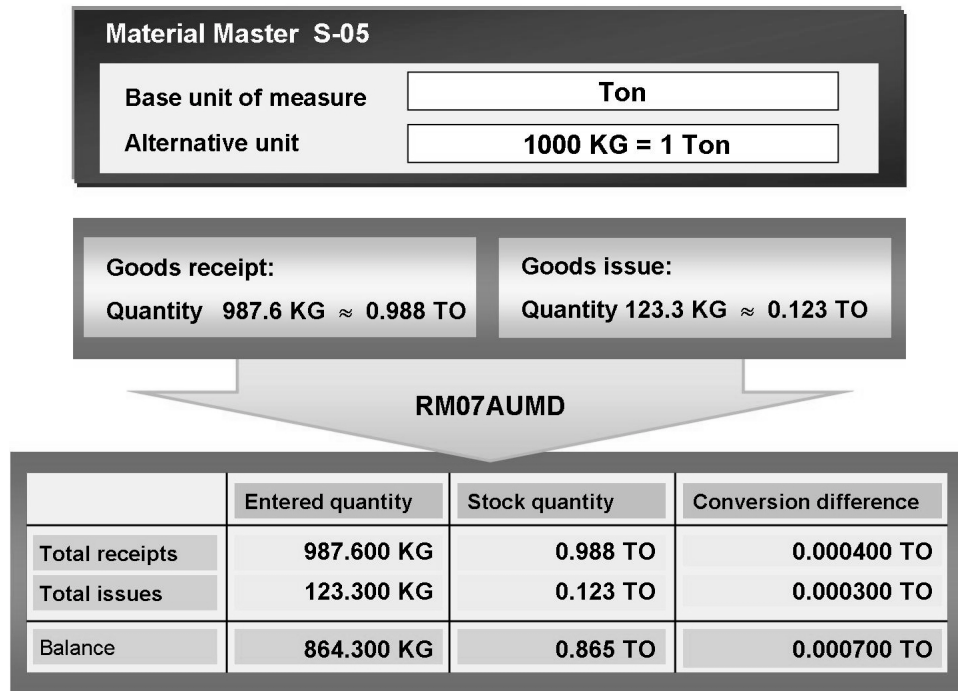



Figure 93: Analyzing Conversion Differences

To make your selection, you can use the posting date, material, plant, and special stock indicator. You can also specify a threshold value for the conversion difference to exclude negligible, small differences from the analysis.

In the output list, the total of all receipts and issues is generated and the quantity is displayed in the entry unit of measure and the base unit of measure. In the *Conversion differences* column, the system shows which rounding errors occurred during conversion. With the help of the balance of the conversion differences, you can post the determined differences manually.

For more information about this report, see the program documentation. To do this, choose , with the quick info text *Program documentation* on the evaluation initial screen.

List of Stock Values: Balance Display

You can restrict the selection with the following fields in this report:

- Material
- Company code
- Valuation area
- Valuation type
- Valuation class
- G/L account

In addition, you can choose the period for the evaluation (current period, previous period, or previous year) and specify the scope of the list (for example, totals, negative stocks only).

If you select one or more materials, the system displays the total stock quantity and the total stock value at plant level and storage location level for these materials. In addition, the system determines the stock accounts that were posted to during goods movements for the specified materials and the balance of these stock accounts.

For each G/L account, the balance is compared with the total of the storage values of the relevant materials. The variance between the two totals is displayed.

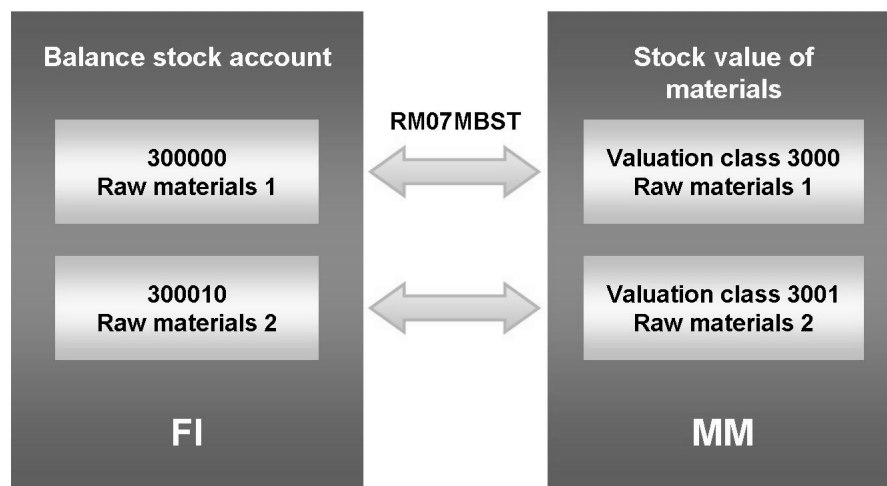


Figure 94: List of Stock Values

If you start a report without specifying a material specification, valuation area, and valuation class, the balance for each stock account must match the total of all stock values of the materials for the relevant valuation class. Variances can result for the following reasons:

- You made manual postings to the stock account.
- Other postings besides stock postings are made to the stock account. In this case, you have to check account determination in Customizing for valuation. Ensure that the stock accounts are used for transaction key BSX (stock postings) only.
- Account determination for the stock accounts (transaction/event key) BSX were changed in the current operation. The relevant stocks were not debited directly from the old account (MVT 562) and posted to the new one (MVT 561).

If you select the G/L account in the output list and choose *Environment* → *Stocks*, you will receive an overview of all materials that are managed in this G/L account. The system also displays the total value and total stock for each material.



Caution: Because the materials cannot be locked during the execution of the report and postings are therefore possible, the balance values may not equal zero, even though there are no inconsistencies. In the current posting system, you will get significant results only when you let the report run several times and then compare the results.

Stock Consistency Check

With this report, you can check the valuation area level or material level of your stock data for consistency. You can therefore determine possible errors in your stocks before they cause greater problems.

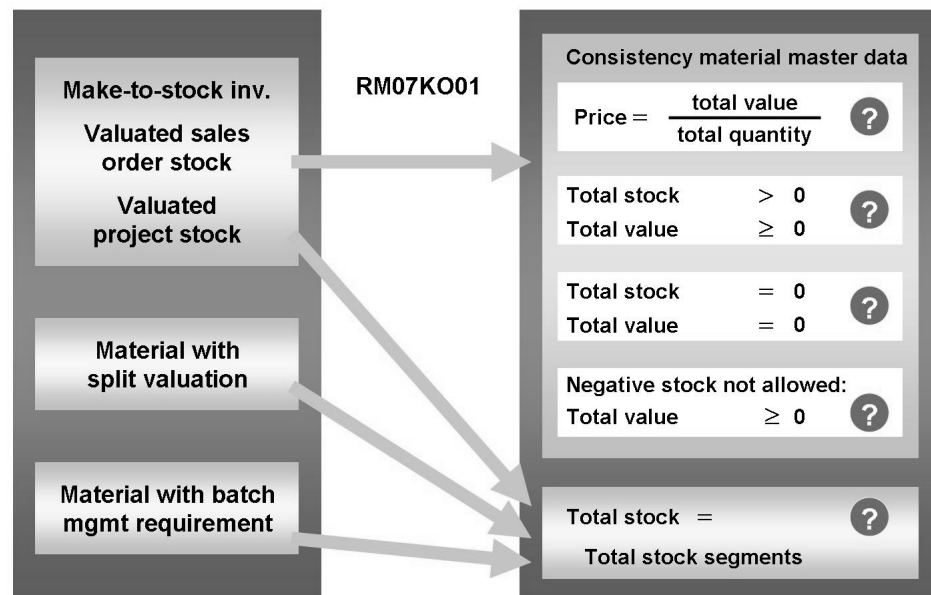


Figure 95: Stock Consistency Check

The report provides the following functions (for information on all functions, see the program documentation).

For the stock values of the make-to-stock inventory and the valuated sales order stock and project stock, the program checks the following:

- Whether the valuation data in the material master record is coherent
 - Is the specified valuation price the same as the quotient of value and quantity?
 - Does the positive quantity of a material also have a negative price?
 - Does a negative value exist for a material even though negative stocks are not allowed?
 - Is the value unequal to zero even though the relevant material has a stock of zero?
- Whether the quantity of the total valuated stock corresponds with the total of the individual subordinate segments

For materials with split valuation, the program checks, for example, whether the total valuated stock of a material corresponds with the total of all valuation types of this material.



Facilitated Discussion

Discussion Questions

Use the following questions to engage the participants in the discussion. Feel free to use your own additional questions.



Lesson Summary

You should now be able to:

- Specify the evaluations in Inventory Management that are to be executed regularly
- Explain the purpose of the periodic evaluations



Unit Summary

You should now be able to:

- Use different lists to analyze stock
- Analyze documents created during goods movements
- List the Customizing settings for reporting in Inventory Management
- Specify the evaluations in Inventory Management that are to be executed regularly
- Explain the purpose of the periodic evaluations

Unit 9



Customizing for Inventory Management



Many of the Customizing settings for Inventory Management and Physical Inventory have already been discussed in the previous units, since these settings are necessary for using the relevant functions. In this unit, other important Customizing settings will be introduced.

The movement types will be discussed in a separate lesson.

Unit Overview

Many Customizing settings for Inventory Management and physical inventory have already been discussed in this course. This unit will enhance your knowledge of the configuration options in SAP systems for Inventory Management with explanations of the most important Customizing settings that are still missing.



Unit Objectives

After completing this unit, you will be able to:

- Explain the number assignment settings for accounting documents
- Describe the number assignment settings for material and physical inventory documents
- Describe the number assignment settings for reservations
- List the control functions of the movement type
- Define a new movement type
- Explain how plant parameters are used
- Outline the Customizing settings for transaction MIGO

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Lesson: Settings for Documents in Inventory Management



366

Lesson Duration: 30 Minutes

Lesson Overview

This lesson introduces the Customizing settings for material and physical inventory documents, reservations, and accounting documents.



Lesson Objectives

After completing this lesson, you will be able to:

- Explain the number assignment settings for accounting documents
- Describe the number assignment settings for material and physical inventory documents
- Describe the number assignment settings for reservations



To start this lesson, the instructor can display different documents to reference the various numbers in the documents:

Material documents of goods receipts with and without reference, incl. accounting documents

Material documents of goods issues, incl. accounting documents

Physical inventory documents

Reservations

Business Example

You want an overview of the transactions in Inventory Management and the document number assignment in Inventory Management and Physical Inventory.

Number Assignment

Different documents are created in Inventory Management: material and inventory documents, accounting documents, and reservations. These documents can be identified by their document numbers and sometimes by the document year. Number assignment is performed separately for the different documents.

Number Assignment for Accounting Documents

To enable a differentiated document number assignment to differentiate between the account-based transaction, there are different document types in SAP systems for accounting documents. A number range is assigned to every document type.

In a company code, you must determine number intervals for each number range and fiscal year. The transaction in Inventory Management determines which document type is used.

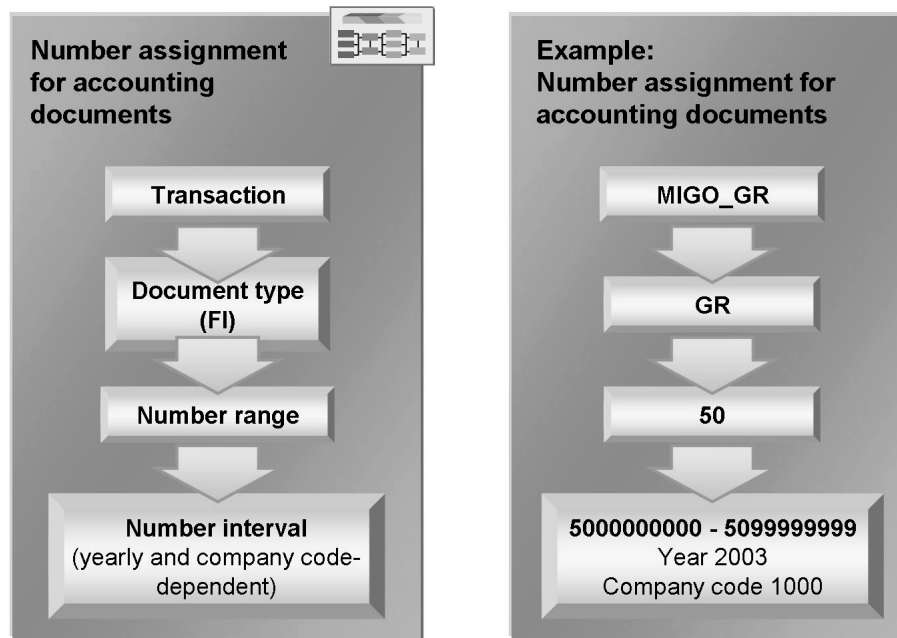


Figure 96: Number Assignment for Accounting Documents

In the SAP standard system, the following document types are predefined for Inventory Management:

- **WA** for goods issues, transfer postings, other goods receipts
- **WE** for goods receipts with reference to purchase orders
- **WI** for inventory differences
- **WL** for goods issues for deliveries (Sales and Distribution (SD))
- **WN** for net postings of goods receipts
- **PR** for revaluation documents



Demonstration: Number Assignment for Accounting Documents

Purpose

Show the settings and dependencies of the number assignment for accounting documents.

System Data

System: Training System
Client: 8xx
User ID: Own user ID or SCM510-00
Password: Ask the instructor
Set up instructions: None

1. Call the settings for accounting documents for Inventory Management and Physical Inventory transactions.

Choose in Customizing for *Inventory Management and Physical Inventory Number Assignment* → *Define Number Assignment for Accounting Documents*.

2. Display the assigned number range intervals for document types **WA**, **WE**, and **WI**.

Choose the button *Financial Accounting Document Types*. Select the document types **WA**, **WE**, **WI** and choose *Goto* → *Detail*. *Goto* → *Next Entry* will take you to the next document type. Refer to the entry in the *Number range* field.

Document type	Number range
WA	49
WE	50
WI	49

3. Display the number ranges **49** and **50** for financial accounting in company code **1000**.

Return to the “initial screen” of the document types and choose the *Financial Accounting Number Ranges* button. Enter company code **1000** and choose the button *(Display) Intervals*.

4. In the goods receipts and goods issues examples, show the assignment of the document type to transactions MIGO_GI and MIGO_GR.

Return to the “initial screen” of the document types and choose the *Goods Issue Document Type* button. For transaction MIGO_GI, the **WA** document type has been entered.

Repeat this step with the *Goods Receipt Document Type* button and transaction MIGO_GR

Number Assignment for Material and Inventory Documents

The number assignment of the material and physical inventory documents depends on the transaction type and is assigned to each transaction in Inventory Management. The transaction types are split into number range groups. A number range interval must be defined for each group.

You cannot change the transaction types. However, you can change the number range intervals or assign transaction types to new groups.

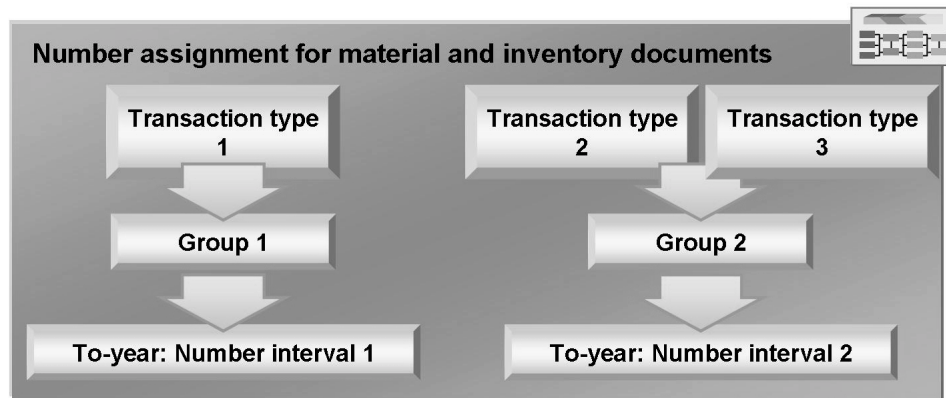


Figure 97: Number Assignment for Material and Inventory Documents

Here is a segment from the SAP standard system showing document types with their number range intervals and transaction types in Inventory Management:

- Physical inventory documents (number range interval of 0100000000 to 0199999999):

The group includes the following transaction types:

IB for physical inventory documents

ID for physical inventory documents for counts and differences without reference

IN for physical inventory documents for recounts

IZ for physical inventory documents for counts without reference

WV for physical inventory documents for difference posting (Warehouse Management)

- Material documents for goods movements and physical inventory differences (number range interval of 4900000000 to 4999999999)

The group includes the following transaction types:

WA for goods issues, transfer postings, other goods receipts

WI for material documents for inventory adjustment postings

WL for goods issues for delivery documents (SD)

WR for goods movements for completion confirmations (Production Planning [PP])

- Material documents for goods receipts (number range interval of 5000000000 to 5999999999)

The group contains the following transaction types:

WE for goods receipts for purchase orders

WF for goods receipts for production orders

WO for subsequent adjustment of subcontract order

- Inventory sampling numbers (number range interval of 0200000000 to 0299999999)

The group contains transaction type SI.

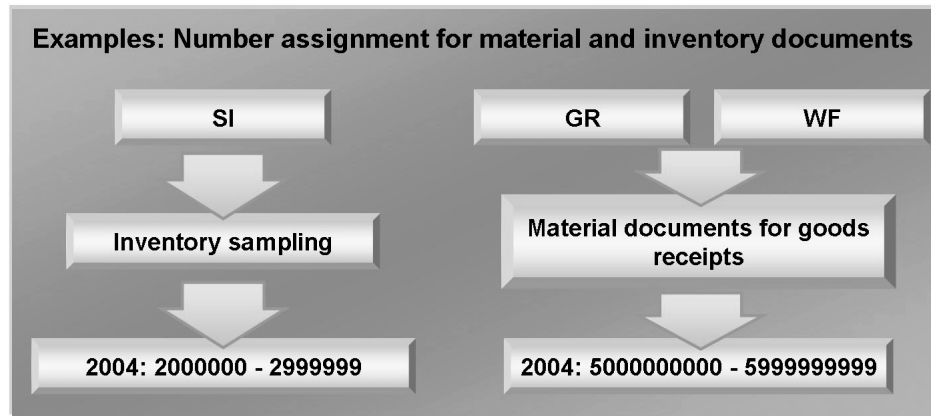


Figure 98: Number Assignment for Material and Inventory Document: Example



Demonstration: Number Assignment for Material and Inventory Documents

Purpose

Show the settings and dependencies of the number assignment for material and physical inventory documents.

System Data

System:	Training System
Client:	8xx
User ID:	Own user ID or SCM510-00
Password:	Ask the instructor
Set up instructions:	None

1. Call the settings for the number assignment for material and inventory documents.

Choose in Customizing for *Inventory Management and Physical Inventory Number Assignment* → *Define Number Assignment for Material and Physical Inventory Documents*.

2. First display the intervals.

Choose the *(Display) Intervals* button.

3. Then show the overview for the number range objects.

Return to the “initial screen” and choose *Number Range Object* → *Overview*.

You will then see a list for the defined group with the assigned transactions and number range intervals.

4. Show how the number range intervals are maintained for a group.

Return to the “initial screen”. Choose *Group* → *Maintain*. Select one of the groups and choose *Interval* → *Maintain*.

Position the cursor on the last interval and choose *Edit* → *Insert year*. Enter another interval for the year **2011** with the numbers **4900000000** to **4999999999**.

5. Create a new group **SCM510** to clarify that the reference to the number range interval is also created.

Return to the “Maintain Number Range Groups” screen and choose *Group* → *Insert*.

In the *Insert Group* dialog box, enter the following values:

Text	SCM510
Year	2003
Number from	39000000
Number to	39999999

Confirm your entries with *Enter*.

6. Assign transaction **WA** to group **SCM510**.

Position the cursor on transaction **WA**. Then choose *Edit* → *Select element*.

Select group **SCM510** and choose *Edit* → *Assign element to group*.

Save the changes.

7. Enter another goods receipt for any material to show that the material document number now starts with 39 and only has 8 digits.

Number Assignment for Reservations

For the number assignment for reservations, you can enter only one interval. This number assignment is valid for all reservations and plants in your client.



Hint: Only one internal number assignment is possible for reservations.



Facilitated Discussion

Discussion Questions

Use the following questions to engage the participants in the discussion. Feel free to use your own additional questions.



Lesson Summary

You should now be able to:

- Explain the number assignment settings for accounting documents
- Describe the number assignment settings for material and physical inventory documents
- Describe the number assignment settings for reservations

Lesson: Movement Types



372

Lesson Duration: 45 Minutes

Lesson Overview

When entering goods movements in *SAP* systems, movement types are used to specify the type of goods movement. This lesson covers the Customizing settings for the goods movements in more detail.



Lesson Objectives

After completing this lesson, you will be able to:

- List the control functions of the movement type
- Define a new movement type



As more and more goods movements have been entered and their various effects considered in the previous lessons of this course, this lesson should now cover some control data.

Some of the lessons also mentioned the Customizing settings that have to be made depending on the movement type, such as automatic purchase order generation during goods receipt.

The participants now need a central view of the most important settings and control functions of the movement type.

Business Example

In your company, you want to enable automatic purchase order generation during goods receipt for selected users and simplify selection of the relevant material documents. You therefore want to create a copy of movement type 101 and allow automatic purchase order generation for this movement type.

To differentiate between individual goods movements, you must enter a movement type when entering a movement. The movement type is a three-digit key for identifying a goods movement. The movement type has important control functions in Inventory Management. For example, it plays a central role in the following operations:

- Updating the quantity fields
- Updating the stock and consumption accounts
- Determining the screen structure of the document entry

To create a new movement type or make changes to an existing movement type, in Customizing, choose *Materials Management* → *Inventory Management and Physical Inventory* → *Movement Types* → *Copy, Change Movement Types*.

Control Functions of the Movement Type

You can make many movement type settings in other places in Customizing for Inventory Management. This control indicator is also here in the movement types. It concerns, for example, the following settings:

- Shelf Life Expiration Date Check
- Automatic creation of storage location data in the material master record
- Automatic Generation of PO at Time of Goods Receipt
- Stock Determination
- Dynamic availability check
- Field selection



Level	... dependent on Settings for ...
Movement type	Movement type	Creation control (check print and batch indicators, best before date) Update control (SLoc automatic, consumption, statistics, inventory)
Short texts	Movement type Special stock indicator Movement indicator Receipt indicator Consumption indicator	Movement types text (Description of movement)
Allowed transactions	Movement type	When can you use movement type? (Suggest movement type despite other KZBEW?)
Help texts	Movement type Special stock indicator Transaction	Enhanced text (Text to describe individual movement)
Field selection/ batch search	Movement type Special stock indicator	Field sel. control, batch search procedure (Procedure for batch determination)

Figure 99: Customizing for Movement Type (1)

The various settings for the movement types are split into different views (for example, field selection, update control). Each view contains the relevant control indicator. As some control indicators do not just depend on the movement type, but also on other parameters (such as debit/credit indicators, special stock indicator, indicator for quantity and value update), some views will have several entries for a single movement type. These entries are necessary for covering every possible data constellation in the system.



Level	... dependent on Settings for ...
Posting control, WM movement types	Movement type and indicator for value/quantity update, special stock, movement, receipt and consumption	Creation control (availability date, missing part processing) Update control (LIFO-/FIFO, LVS, QM, value/quantity string)
Account modification	Movement type and indicator for special stock, value/quantity update, movement and consumption	Account modification constant, Indicator for "Check acc. assignment"
Revers./follow-on movement types	Movement type, function code	Reversal movement type, Indicator for "Type of posting"
Reason for movement	Movement type, key for reason	Description of reason
Deactivate QM inspection proc.	Movement type and indicator for special stock, movement, receipt and consumption	Movement type for QM inspection processing not active
Statistics group LIS	Movement type and indicator for special stock and movement	Update control (LIS)

Figure 100: Customizing for Movement Type (2)



In Customizing under *Materials Management* → *Inventory Management and Physical Inventory* → *Movement Types* → *Copy, Change Movement Types*, the instructor should call the settings for movement types, display individual data for movement types **101** and **201**, and explain some of the control functions, both known and new. For example

- **Detail data** (create storage location data automatically, consumption posting, ...)
- Allowed transactions
- Update control (for these settings there are several entries for one movement type (without/with special stock indicator, with/without quantity or value update))
- Reversal/follow-on movement types

Create New Movement Type

To create a new movement type, copy one which already exists first. Then change the control parameters for the new movement type. The key for the new movement type must start with **9**, **X**, **Y** or **Z**. When copying, make sure you also copy all dependent entries of the reference movement type. Finally, check and change the relevant data.

Copy the reversal movement type and the reference movement type and assign them to the new movement type.



Demonstration: Creating a New Movement Type

Purpose

System Data

System: Training System
Client: 8xx
User ID: Own user ID or SCM510-00
Password: Ask the instructor

Set up instructions:

1. Give a demonstration according to the specifications in the exercise (group 00).
-



Exercise 24: Movement Types

Exercise Duration: 30 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Copy a movement type

Business Example

You want to copy movement type 201 and set the goods recipient as a required entry field.

System Data

System:	Training System
Client:	8xx
User ID:	Ask the instructor
Password:	Ask the instructor
CATT:	ZT_SCM510
Set up instructions:	None

Task:

Copy movement type 201. Make the *Goods recipient* field a required entry field.







1. Create movement type **Z##**. To do this, copy movement type 201 with all subentries.
2. Test the movement type. Enter a goods issue of 10 pieces of **T-M510C##** from plant 1200, storage location 0001, for cost center **T-L##** and goods recipient **SCM510-##**.

Check whether the *Goods recipient* field is a required entry field.

Solution 24: Movement Types


Task:

Copy movement type 201. Make the *Goods recipient* field a required entry field.

1. Create movement type Z##. To do this, copy movement type 201 with all subentries.
 - a) Choose *Tools* → *Customizing* → *IMG* → *Edit Project (SPRO)*.
 - b) Choose  *SAP Reference IMG*.
 - c) In the Implementation Guide, choose *Materials Management* → *Inventory Management and Physical Inventory* → *Movement Types* → *Copy, Change Movement Types*.
 - d) Select *Movement Type* and choose  with the quick info text *Continue (Enter)*.
 - e) Select *Movement Type 201 to zzz*, and choose , with the quick info text *Continue (Enter)*.
 - f) Select entry 201 and choose , with the quick info text *Copy As...*
 - g) Enter *Movement type z##* and confirm your entries with *Enter*.
 - h) Choose *Copy All*.
 - i) Choose *Enter* until all entries have been copied.
 - j) You have to save the movement type before you can make changes to the new movement type Z01. After you have copied the movement type, choose  *Save*.
 - k) Select the newly created movement type and open the folder *Field selection (Enjoy)*.
 - l) Set the *Required Entry Field* indicator for the Goods Recipient field (*field name WEMPF*) .
 - m) Choose  *Save*.
2. Test the movement type. Enter a goods issue of 10 pieces of **T-M510C##** from plant 1200, storage location 0001, for cost center **T-L##** and goods recipient **SCM510-##**.

Continued on next page

Check whether the *Goods recipient* field is a required entry field.

- a) In the SAP Easy Access menu, choose *Logistics* → *Materials Management* → *Inventory Management* → *Goods Movement* → *Goods Movement (MIGO)*.
- b) Choose *Goods Issue* and, as the reference, *Other*.
- c) Choose the *movement type Z##* and confirm your entry with *Enter*.
- d) Enter the following data:
 - Material tab: *Material T-M510C##*
 - Quantity tab page: *Qty in Unit of Entry 10 pc*
 - Where tab page: *Plant 1200, Storage Location 0001*
 - Account Assignment tab page: *Cost Center T-L##*
- e) Set the *Item OK* indicator.
- f) Choose *Check*.
- g) On the *Where* tab page, enter *Goods Recipient SCM510##*.
- h) Choose  with the quick info text *Post*.



Lesson Summary

You should now be able to:

- List the control functions of the movement type
- Define a new movement type

Lesson: Other Customizing Settings



379

Lesson Duration: 60 Minutes

Lesson Overview

This lesson introduces some selected topics from Customizing for Inventory Management. Topics include the plant parameters and the special configuration options for transaction MIGO.



Lesson Objectives

After completing this lesson, you will be able to:

- Explain how plant parameters are used
- Outline the Customizing settings for transaction MIGO



This lesson only introduces selected Customizing settings.



Caution: Because this lesson was created in connection with the remaining lessons of course SCM510, the settings that have already been discussed in previous lessons have been deliberately left out to avoid repetition. This factor must be taken into account if the lesson is to be used independently of the other lessons in SCM510.

In this lesson, the instructor will summarize the most important Customizing settings of Inventory Management and Physical Inventory. It is useful to open the *Inventory Management and Physical Inventory* section in Customizing and discuss the individual objects step by step. It is probably best if the instructor calls the reference IMG at the start of the lesson and then opens the *Inventory Management and Physical Inventory* area.

Start with the first entry and discuss the individual points. If the settings are already known, the instructor does not need to explain them any further. A brief recap should suffice.

The most important settings that have not yet been covered are described in this unit.

Business Example

Within the implementation project, you need an overview of the special settings intended for transaction MIGO in Customizing.

Plant Parameters

Using plant parameters, make general plant settings for Inventory Management and physical inventory. All settings, which you can make here centrally for each plant, can also be found in the individual steps of the Implementation Guide (IMG) for Inventory Management.



Plant Parameters

Settings for goods movements

- Create storage location data of materials automatically
- *Delivery completed* indicator default
- Missing parts check active at GR
- Batch where-used list activate/deactivate
- Check remaining shelf life
- ...

Settings for physical inventory

- Stock type
- Propose alternative units of measure
- Determine batch in background
- Create change documents with changes to count results
- Adjust book inventory balance
- Reason for inventory difference

Settings for reservations

- Propose *Movement allowed* indicator
- Number of days for setting *Movement allowed* indicator
- Retention period for reservation items

Settings for negative stocks

- Allow negative stocks for individual special stocks (condition: negative stocks are allowed at plant and storage location level)

Figure 101: Plant Parameters

The plant-dependent control parameters of inventory management and physical inventory are grouped together in figure 135. The parameters are grouped for each plant as follows:

- According to settings for goods movements
- According to settings for the physical inventory
- According to settings for reservations
- According to settings for negative stocks



Caution: The activation of negative stocks is not possible here.

You should make the actual settings in the relevant IMG activities because you cannot maintain dependent entries in the plant parameters.



Hint: If you create a new plant with the copy function, the plant parameters are also copied from the reference plant.



Demonstration: Plant Parameters

Purpose

Presentation of the plant parameters

System Data

System:	Training System
Client:	8xx
User ID:	Own user ID or SCM510-00
Password:	Ask the instructor
Set up instructions:	None

1. Call the plant parameters for plant **1000**.

In Customizing for *Inventory Management and Physical Inventory*, choose the *Plant Parameter* node. Select plant **1000** and choose *Goto → Detail*.

2. Discuss some of the parameters already known, such as create storage location data automatically, shelf life expiration date check.
3. Specify the fact that in the *negative stocks* section, only the special stocks that are possible for the negative stocks can be selected. You must allow the negative stock for the plant under *Goods Issue/Transfer Postings → Allow Negative Stocks*.



The *Field Selection for Goods Movements Initial/Header Screens* activity in Customizing for Inventory Management contains settings for the initial screens and header screens in the old transactions for goods movements MB01, MB1A, MB1B, MB1C and are therefore not dealt with in this course.

Settings for Enjoy Transactions

The settings for the Enjoy transactions are divided into three sections. In the first section you set the field selection for header fields in transaction MIGO. The second section is for setting the field selection depending on the movement type. In the last section, you can influence the allowed transactions and reference documents.

Field Selection for MIGO

In this step, you can hide individual fields or buttons that you do not need. To check whether an entry will be made in the fields, you can define them as required entry, for example, delivery note and bill of lading.



Field Selection for MIGO

Modifiable field	Input	Req.	Display	Hili
Bill of lading	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="checkbox"/>
Collective slip	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>
Delivery	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>
Delivery note	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>

Figure 102: Field Selection for Transaction MIGO



Hint: In the standard, all fields that can be set are defined as optional entry, with the exception of the *GR/GI slip* field, which is hidden in the standard as it is required only in certain countries, for example, Italy.



Caution: The characteristic **required entry** field is evaluated only for fields with the name GOHEAD... (header fields) and GOITEM... (item fields). The characteristic **Light** is supported like field control, depending on an influencing value.

Field Selection per Movement Type

You can make the settings for the movement-type-dependent field selection here, but also in the IMG activity *Copy, Change Movement Types*. You can determine for each field whether an optional entry or a required entry is necessary.

The table contains all fields that are visible on the screen interface. For these fields, select either optional or required entry. To hide a field, you delete the required entry from the table. In the entries, there is no difference between the different special stock indicators. The special stock fields are always shown automatically.



Field Selection per Movement Type

Mvt type	Field name	Required entry	Optional entry
101	SGTXT	<input type="radio"/>	<input checked="" type="radio"/>
102	GRUND	<input checked="" type="radio"/>	<input type="radio"/>
102	SGTXT	<input type="radio"/>	<input checked="" type="radio"/>
103	GRUND	<input checked="" type="radio"/>	<input type="radio"/>

Figure 103: Field Selection per Movement Type

To show a hidden field, choose *New Entry*. Then enter the movement type and select the field to be inserted from the list of input options.



Hint: You cannot change all fields for all movement types.

Settings for Transactions and Reference Documents

You can restrict the number of selectable transactions (for example, goods receipt, goods issue, transfer posting) and reference documents (material document, purchase order, order) for each Enjoy transaction.

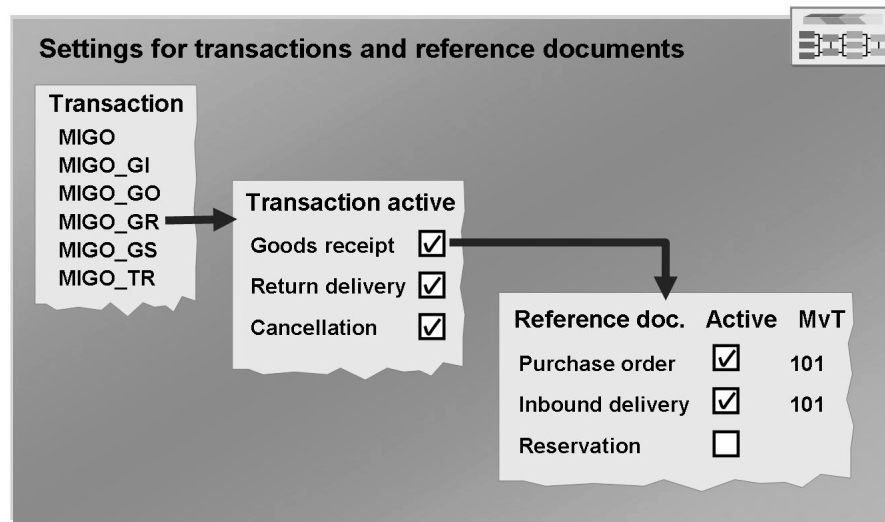


Figure 104: Settings for Transactions and Reference Documents

You can also specify the movement type that the system should propose for every reference document. If you require only certain operations, you can use the following transactions:

- MIGO: Entry of all goods movements
- MIGO_GR: Entry of all goods receipts from external procurement
- MIGO_GO: Entry of all goods receipts for production orders
- MIGO_GI: Entry of all goods issues and other goods receipts
- MIGO_GS: Subsequent adjustment of material provided (subcontracting)
- MIGO_TR: Entry of all transfer postings



Demonstration:

Purpose

Change to the field control for transaction MIGO and check of this change.

System Data

System:	Training System
Client:	8xx
User ID:	Own user ID or SCM510-00
Password:	Ask the instructor
Set up instructions:	None

1. Call field selection for the header data and determine that the delivery note is a “required entry”.

In Customizing for *Inventory Management and Physical Inventory*, choose the *Field Selection for Goods Movements Initial/Header Screens* node. For the delivery note, select the *Required* button and save the change.

2. Create a purchase order.

Logistics → *Materials Management* → *Purchasing* → *Purchase Order* → *Create* → *Vendor/Supplying Plant Known*.

Use the following data for the purchase order:

Field	Value
Header data	
Vendor	T-K510Z01
Purchasing organization	1000
Purchasing group	020
Company code	1000
Item data	
Material	T-M510Z01
Quantity	100
Price	2 Euro per piece (each)
Plant	1000
Storage location	0001

Save your entries and note the purchase order number.

3. Enter a goods receipt for purchase order to test whether a delivery note number now has to entered.

If you try to save without a delivery note entry, you will receive an error message. If you enter a number, for example, LS-XYZ, you can post the goods receipt.



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Exercise 25: Customizing Settings for the Enjoy Transactions in Inventory Management

Exercise Duration: Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Outline the Customizing settings for transaction MIGO

Business Example

You want to change the selection of reference documents for particular transactions in your company. Therefore, you want to learn about the relevant Customizing settings that are available.

System Data

System:	Training System
Client:	8xx
User ID:	Ask the instructor
Password:	Ask the instructor
Set up instructions:	None

Task:


Check the Customizing settings for the transactions and reference documents for the transactions MIGO_GR and MIGO_GI. Determine whether an **other goods receipt** is allowed for one of these transactions.

1. Start the IMG activity *Settings for Transactions and Reference Documents*.
2. Check whether **Goods Receipt – Other** has been selected for one of the transactions; MIGO_GR or MIGO_GI, for the combination of transaction – reference document.

Solution 25: Customizing Settings for the Enjoy Transactions in Inventory Management

Task:

Check the Customizing settings for the transactions and reference documents for the transactions MIGO_GR and MIGO_GI. Determine whether an **other goods receipt** is allowed for one of these transactions.

1. Start the IMG activity *Settings for Transactions and Reference Documents*.
 - a) Choose *Tools → Customizing → IMG → Edit Project (SPRO)*.
 - b) Choose  *SAP Reference IMG*.
 - c) In the Implementation Guide, choose *Materials Management → Inventory Management and Inventory → Settings for Enjoy Transactions → Settings for Goods Movements (MIGO) → Settings for Transactions and Reference Documents*.
2. Check whether **Goods Receipt – Other** has been selected for one of the transactions; MIGO_GR or MIGO_GI, for the combination of transaction – reference document.
 - a) Select transaction MIGO_GR.
 - b) Double-click in the dialog structure on the *Transaction event* entry.
 - c) Select the *Goods Receipt* transaction.
 - d) In the dialog structure, double-click on the *Reference Document*.
You can see in the table whether *Others* is activated or not.
 - e) Repeat steps a to d for transaction MIGO_GI.



Lesson Summary

You should now be able to:

- Explain how plant parameters are used
- Outline the Customizing settings for transaction MIGO



Unit Summary

You should now be able to:

- Explain the number assignment settings for accounting documents
- Describe the number assignment settings for material and physical inventory documents
- Describe the number assignment settings for reservations
- List the control functions of the movement type
- Define a new movement type
- Explain how plant parameters are used
- Outline the Customizing settings for transaction MIGO



Test Your Knowledge

1. Name at least four functions in Inventory Management that are controlled by the movement type.

1.	
2.	
3.	
4.	



Answers

1. Name at least four functions in Inventory Management that are controlled by the movement type.

1.	
2.	
3.	
4.	

Functions where the control depends on the movement type include stock determination, shelf life expiration date check, automatic purchase order generation during goods receipt, and automatic creation of storage location data in the material master data. Other functions include account determination and field selection for transactions.

Unit 10



Purchasing Customizing Settings



Relevant topics from the Purchasing Customizing settings are covered in this unit.

Experience has shown that many participants have difficulties with the settings and exercises in Customizing. This means that during your system demonstration, you should show all the parts of the exercises for this unit in the system. This is the only way to ensure that participants are able to work through all the exercises in this unit.

A comprehensive system demonstration is recommended for the user parameters EVO and EFB. Point out to the participants that the settings for the EFB parameter have nothing to do with authorization profiles in user management.



Hint: Specific lessons come from the standard courses SCM520 and SCM550. You should therefore note the following:

- Use the purchasing groups T## oder Z## instead of the purchasing group L##.
- You can restrict your selection to a new document type for purchase orders in the lesson “Document Types”.

Unit Overview

This unit deals with selected Customizing topics of interest to those involved in procurement.

Settings for the document types and those for field selection are covered.

User-dependent control options using purchasing parameters and settings for the InfoUpdate indicator in the Enjoy purchase order transactions are presented as an additional aspect of the Customizing settings that is relevant to procurement.



Unit Objectives

After completing this unit, you will be able to:

- Create new document types for purchase transactions

- Describe the factors influencing the screen layout of purchasing documents and adjust the field selection for purchase transactions
- Explain the significance of user parameters EVO and EFB
- Name the available options for controlling the use of the info update indicator

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Lesson: Document Types in Purchasing



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Lesson Duration: 100 Minutes

Lesson Overview

The standard shipment of the SAP system includes document types for all standard transactions. However, you may wish to create your own document types, in order to establish the origin of a document, for example. If a purchase order originates from a program such as the **SAP Enterprise Buyer**, say, you want a different document type to be used. For this purpose, it makes sense to create new document types.



Lesson Objectives

After completing this lesson, you will be able to:

- Create new document types for purchase transactions



When creating the new document types, the instructor should explain the topic “linkage with requisition” very slowly and step by step, since many participants have problems understanding this aspect.

Business Example

You have been asked to set up a new document type for which only subcontracting items are allowed.

Number Assignment for Purchasing Documents

Number assignment for purchasing documents is carried out in two steps:

- First you set up number ranges.

For a number range, you have to specify the interval for number assignment (defined by lower and upper limits) and indicate whether numbers are to be assigned internally or externally. The individual intervals you define for a Customizing activity must not overlap.

The numbers may have a maximum length of 10 characters.

- In the second step, you assign the number ranges to the individual document categories and types.

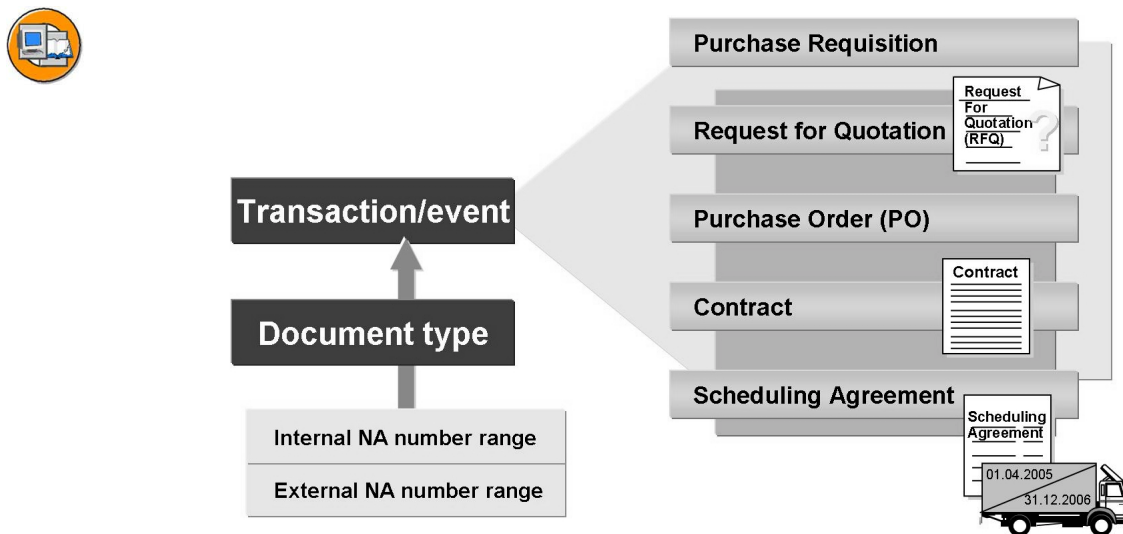


Figure 105: Number Assignment in Purchasing Transactions

A number range for internal number assignment and a further range for external number assignment can be assigned to each document type.

There are separate number ranges for purchase requisitions and external purchasing documents.



Hint: With regard to number assignment, note that RFQs, POs, contracts, and scheduling agreements are stored in the same database (logical database MEPOLED).

If you only wish to allow internal number assignment for a certain document type, no external number range interval may be entered for this document type.

For contract types that are distributed among decentralized (local) systems (ALE), you must specify a number range for internal number assignment. The numbers of contract release orders in the local systems are not unique in the central system; therefore, new keys must be assigned to such orders.

In the standard SAP system, the numbers of purchasing documents are not buffered.

Document Types in Purchasing

Document types in purchasing have a control function. This enables you to set up your own document types for the special procurement types *consignment* and *subcontracting*, for example, to define the field selection control at header level differently for these procurement transactions than for others. You can also use the document type to influence the layout of document output (for example, the purchase order printout).

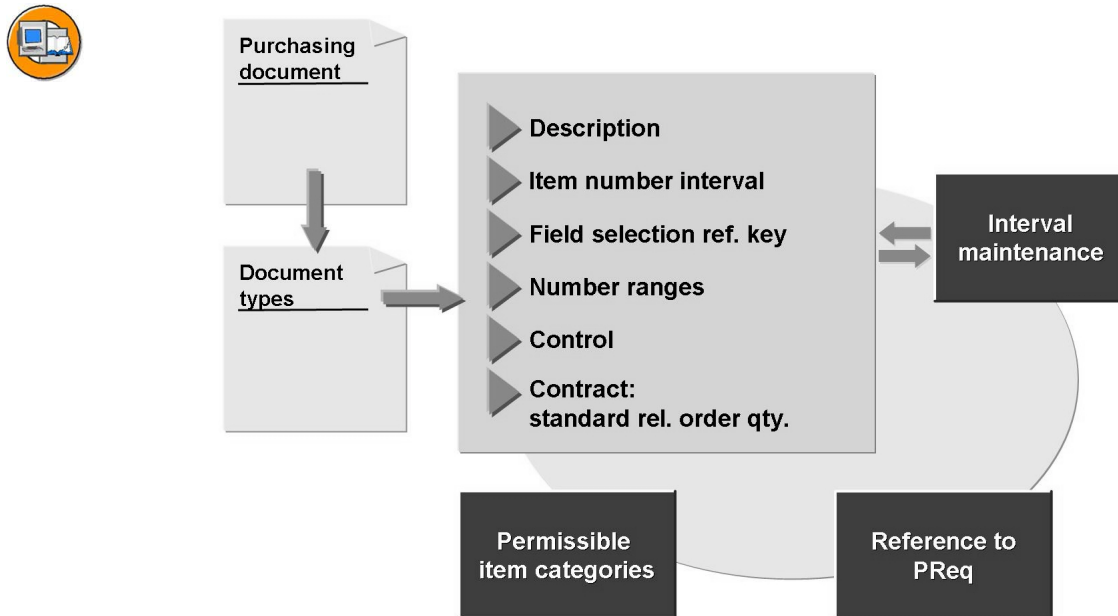


Figure 106: Document Types for Purchase Transactions

Separate document types are defined for each category of purchasing document (PO, requisition, contract, and so on).

You must also define the permissible item categories for each document type.

If you wish to create a purchasing document type with reference to a purchase requisition, you must also permit the transfer of the purchase requisition items with the different item categories for the relevant document type to the requisition.

At least one number range must be assigned to each document type.

You can create new document types. User authorizations can be assigned for the individual document types belonging to a document category (objects M_ANFR_BSA, M_BANF_BSA, and so on).

With the *control* indicator of the document type, you can define special indicators dependent on the document category in Customizing. These are discussed in more detail later.



Hint: If you also wish to use partner roles for documents of a new document type, you must also assign a partner schema to this document type. (*SAP Reference IMG* → *Materials Management* → *Purchasing* → *Partner Determination* → *Partner Settings in Purchasing Documents* → *Assign Partner Schemas to Document Types*.) This assignment is not copied with the other data when a document type is copied.

If you wish to define a new document type, proceed in three steps:

- Document types
For each document type, here you define the general settings, for example, for number assignment and field selection.
- Permitted Item Categories
Here you assign the permitted item categories dependent on the document type.
- Linkage of Requisition to Document Type
Here you define - dependent on the document types and item category of the purchase requisition and purchasing document - which purchase requisition items can be converted into which purchasing document items.



Dialog structure

- Document types
- Allowed item categories
- Linkage of requisition to document

Type	Description	No. int.	No. ext.	Field selection
EC	Electronic commerce	30	PO	NBF
NB	Standard order	45	41	NBF
FO	Framework order	45	41	FOF
UB	Stock transfer order	45	41	UBF

1st step: Define document type
2nd step: Assign item categories
3rd step: Possibly link PReq and doc. type

Figure 107: Defining Document Types: Overview

Document type

At *document type* level, you can define the following general parameters:

- Item number interval
The item number interval determines the size of the steps between the default item numbers.
- Field Selection
Here you enter a field selection key controlling the screen layout and thus the attributes of the fields (field selection) of a document type.

The following excerpt from the SAP system Customizing shows you the dialog structure for the definition of document types taking the *purchase order* as an example.

Document Types Purchase order Change										
Type	Doc. type descrpt.	ItmInt.	NoRgeInt	NoRge Ext	FieldSel.	Control	Trfr \vdr	Sltml	Updat...	
EC	Electronic commerce	10	45	P0	NBF		<input type="checkbox"/>		SAP	
FO	Framework order	10	45	41	FOF		<input type="checkbox"/>		SAP	
NB	Standard PO	10	45	41	NBF		<input type="checkbox"/>		SAP	
UB	Stock transport ord.	10	45	41	UBF	T	<input type="checkbox"/>		SAP	

Figure 108: Defining Document Types

At the *document type* level, there are further control indicators that are different dependent on the document category.

Purchase Requisition

You can define the following special features for purchase requisitions:

- Control
In the *Control* column, you can assign the indicator **R** to a document type for purchase requisitions. By doing so, you specify that an outline purchase agreement is required as a follow-on document to this purchase requisition instead of a standard purchase order.
- Overall Release
You can use the *Overall Release* indicator to specify that purchase requisitions of this document type cannot be released item by item but only in their entirety in the course of a release procedure.

Request for Quotation (RFQ)

You can define the following special features for RFQs:

- Global percentage bid
You can define an RFQ document type for external services as a global percentage bidding document type. In this case, the price is pre-specified in the RFQ. You then expect the vendor to quote a percentage addition to or deduction from your prices, that is, indicate whether or not he can beat your price estimates.
- Time-dependent conditions
You can set the *Time-Dependent Conditions* indicator for the RFQ document types. This determines whether a validity period can be maintained for the conditions of the global percentage bid and whether scales are possible.

Purchase Order (PO)

You can define the following special features for purchase orders:

- Control
In the *Control* column, you can assign the indicator **T** to a document type for purchase orders. By doing so, you designate this document type as a stock transport order.
- Stock transfer: Take vendor data into account
For stock transport order document types, you can also set the *Stock Transfer: Take Vendor Data into Account* indicator. This enables you to also work with vendor master records when processing stock transport orders if such records have been created for the supplying plants in question.

Further settings are necessary for document types for stock transport orders.

Scheduling Agreement

You can define the following special features for scheduling agreements:

- Control
In the *Control* column, you can assign the indicator **T** to a document type for scheduling agreements. By doing so, you designate this document type as a stock transport scheduling agreement.
- Stock transfer: Take vendor data into account
For stock transport scheduling agreement document types, you can also set the *Stock Transfer: Take Vendor Data into Account* indicator. This enables you to also work with vendor master records when processing stock transport scheduling agreements if such records have been created for the supplying plants in question.
- Time-dependent conditions
You can set the *Time-Dependent Conditions* indicator for the scheduling agreement document types. This determines whether a validity period can be maintained for the conditions and whether scales are possible.
- Release documentation
You can set the *Release Documentation* indicator for the scheduling agreement document types. As a result, scheduling agreement releases are stored in a separate file and can be displayed at any time.

Contract

You can define the following special features for contracts:

- Shared lock only
If you set this indicator, a *shared lock* is set when a release order is created against a contract of this document type, instead of an exclusive lock. This enables several users to issue release orders against the contract simultaneously (an advantage), as a result of which, however, the target quantity may be exceeded (a disadvantage).
- ALE-distributed contract
If you set this indicator, changes are identified by pointers when contracts are transmitted via *Application Link Enabling* (ALE). You can then evaluate the changes via the ALE administration facility.

Allowed Item Categories

All item categories you wish to use for the documents of a document type must be assigned to this document type. If you then create a document, only the item categories thus specified will be offered to you in the F4 help.

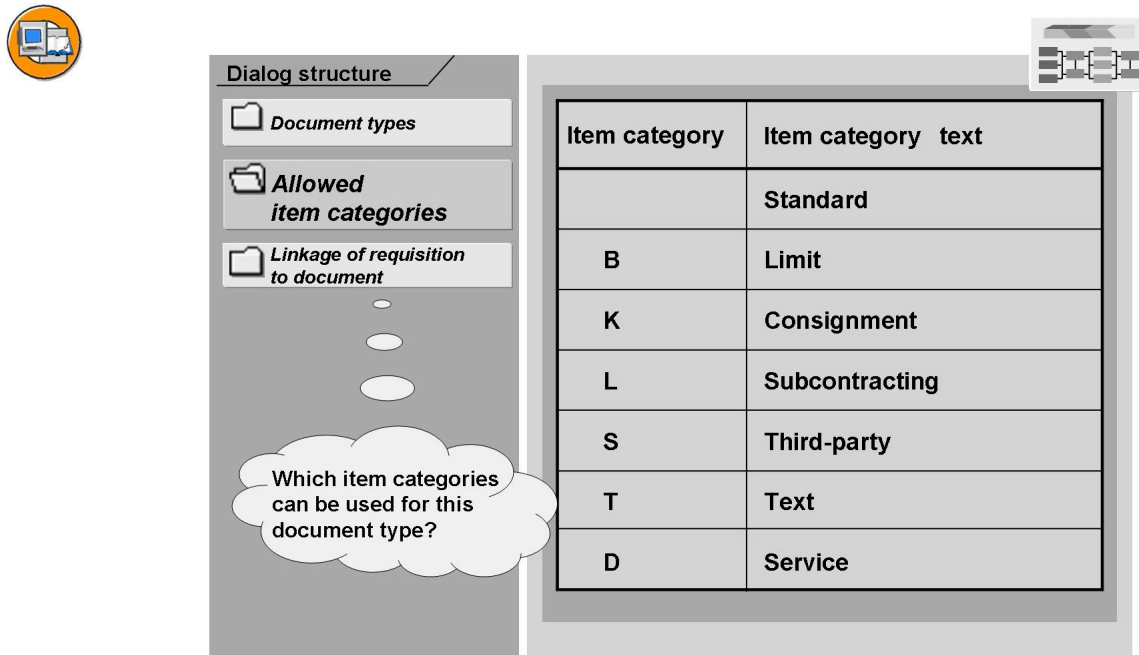


Figure 109: Assigning Item Categories

The item categories supported depend on the document category. Some item categories are defined for contracts only, such as *M* (material unknown) and *W* (material group).

Linkage of Requisitions to External Purchasing Documents

If external purchasing documents are to be created with reference to a requisition, you must link the document types to each other. To do so, it is best to proceed on an item category basis.

For each item category of a purchase requisition document type, you must specify which purchasing documents (document category and document type) and items (with which item types) can be created with reference to this purchase requisition item.

Purchase requisition		Purchasing document			
Document type	Item category	Item category	NAA	R/S	Dial.
NB PReq	Standard	Standard			
NB PReq	Standard	Consignment	✓		✓
NB PReq	Stock transfer	Standard			
...			

Which combination of document type and item category for a purchase requisition can be converted into which combination of the new document type with which item categories?

Figure 110: Linking a Purchase Requisition to an External Purchasing Document

Example:

- You create a document type NX for POs. The item categories *standard* and *subcontracting* are allowed in this document type.
- You also want to create documents of this document type with reference to purchase requisitions of document type NB. In the process, it is to be irrelevant whether the items of such requisitions have been created with the item category *standard* or *subcontracting*.

In this case, you might have to maintain four entries in the table:

1. Requisition items of document type NB with the item category *standard* may be converted into external purchasing documents of document type NX with the item category *standard*.
2. Requisition items of document type NB with the item category *standard* may be converted into external purchasing documents of document type NX with the item category *subcontracting*.
3. Requisition items of document type NB with the item category *subcontracting* may be converted into external purchasing documents of document type NX with the item category *standard*.
4. Requisition items of document type NB with the item category *subcontracting* may be converted into external purchasing documents of document type NX with the item category *subcontracting*.

This linkage can be called and maintained starting from the activity *Requisition Document Types* or the activity *(External) Purchasing Document Types*.

In addition, you can set the dialog indicator for certain linkages (for combinations that are to be allowed in exceptional circumstances only). In this case, you receive a warning message when creating the purchasing document.

No linkage can be created between types of external purchasing document (for example, RFQ and PO).

The following excerpt from the SAP system Customizing shows you the linkages (2) and (4) from the above overview between the requisition document type NB and the external purchasing document type NB.

Linkage Requisition - Document Type for Document Type NB Standard PO									
Purchase requisition = Reference Doc.;									
Purchasing document									
DTy	Description	It...	Dsc.ItmCat.	It...	Dsc.ItmCat.	NAA	R/S	Dialog	
NB	Purch.requis. Stand.		Standard	L	Subcontracting		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NB	Purch.requis. Stand. L		Subcontracting L	L	Subcontracting		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Figure 111: Linkage of Requisition to Document Type

Of the two *Item Category* columns, the one on the left in the figure relates to the purchase requisition. The *Item Category* column on the right relates to the item category of the NB standard purchase order (see title line).

Item Categories

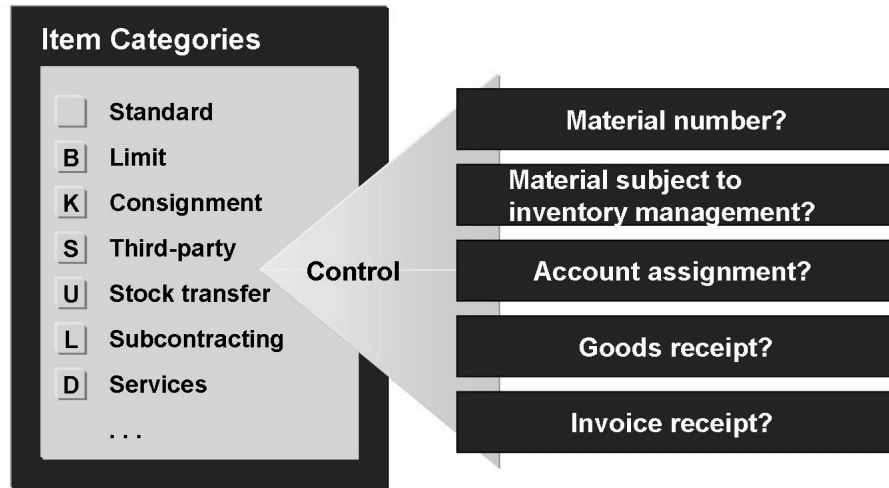


Figure 112: Item Category Control

The item category specifies the following for items in the purchasing documents:

- Whether items are possible even without a material number
- Whether items can or must contain an account assignment
- Whether a goods receipt can or must be posted for an item
- Whether an invoice receipt is possible or necessary for an item

The SAP system includes the following item categories:

- **Standard:** Used for materials that are to be procured externally (material number and account assignment possible, GR possible or necessary for warehouse material, IR possible).
- **Limit:** You procure consumable materials or services with a value limit (account assignment necessary, GR not possible, IR required).
- **Consignment:** The vendor provides you with material, which you then manage on your premises as consignment stock. Until you withdraw the material from stock for use, it continues to belong to the vendor. For this reason, a liability is created not when the material first enters consignment stores but only when it is taken out of storage (material number necessary, non-valuated GR necessary, account assignment and IR not possible).
- **Subcontracting:** The end product is ordered from the vendor. The components that the vendor requires to produce the end product are entered in "material to be provided" items (material number and account assignment possible, GR required, IR possible).
- **Stock transfer:** Material is transferred from one plant to another (material number required, GR required).
- **Third-party:** The ordered material is to be delivered directly to a third party (for example, a customer). You receive the material invoice from the vendor (account assignment and IR required).

You cannot create any new item categories. You cannot delete or change item categories in Customizing either.

Only the external representation (that is, the key used in the purchasing documents for the relevant item categories) and the designation can be changed.



Demonstration: Document Types in Purchasing

Purpose

This demonstration shows how to make Customizing settings and thus introduces the options customers have for adjusting the SAP system to their specific company requirements.

System Data

System:	Training system
Client:	Training client
User ID:	Own user ID
Password:	User password
Set up instructions:	No additional

1. Show the most important Customizing settings for the individual slides and associated details in the application. In doing so, use the exercises as a guide.
-



Exercise 26: Purchasing Document Types and Number Assignment

Exercise Duration: 40 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Check and adjust the settings for purchasing document types
- Define a new purchasing document type and make the settings for number assignment for this document type

Business Example

In your company, it has been decided that a special document type is to be used for procurement via subcontracting.

This will allow a different field selection and a separate number range for subcontract purchase orders. Furthermore, different headings and texts can be used for message output.

You are the member of the project team responsible for this issue.

System Data

System: Training system
Client: Training client
User ID: SCM550-##
Password: User password
Set up instructions: IDES

Task 1:

Number assignment for purchasing documents

1. Upon which of the keys shown does number assignment for purchasing documents depend in the standard system?

Key	Yes	No
Purchasing organization		
Purchasing group		
Document type		
Company code		

Continued on next page

2. Which **number ranges** have been defined for number assignment in the case of purchase orders and requisitions of document type **NB**?

	Internal	External
Purchase requisitions		
Purchase orders		

Task 2:

New document types for purchase requisitions and purchase orders

Define a new document type for requisitions and a new document type for purchase orders based on the following data.



Hint: Recommendation: Copy without dependent entries and maintain manually. (You need single entries only and would otherwise have to delete a very large number of entries.)

1. *Optional:*

Define a new internal number range interval for **purchase requisitions**. Choose any free number for your interval (for example, 50 + your group number) and define the number area from 10##000 to 10##999.



Hint: If you want to use your new number range “immediately”, you first have to exit the transaction *Edit Project* and then call it up again.

2. Create a new document type **X##** for purchase requisitions. To do so, copy document type **NB**.
- When carrying out the copying operation, choose **Only Copy Entry** if asked to do so.
- Call your new document type **X##-PReq**.
3. What are the effects of the decision to copy with or without dependent entries?
-
-

4. Specify that only **internal number assignment** is possible for purchase requisitions of document type **X##**.
- Use either your new number range (created in subtask 1) or the number range with the interval from **01000000** to **01999999**.

Continued on next page

To which number range do you assign your document type?

5. Only **subcontracting items** are allowed for your document type **X##**. Make the necessary setting.
6. Make the appropriate setting to ensure that items of a requisition of document type **X##** and item category **L** may only be converted into RFQ items (document type **AN**) of item category **L**.
7. Create a new document type **Y##** for purchase orders. Call it **Y##-PO**.
8. Make the appropriate setting to ensure that the numbers of purchase orders of document type **Y##** are only assigned **internally** from **470000000** to **479999999**.
9. Only **subcontracting items** are allowed for your document type **Y##**. Make the necessary setting.
10. Make the necessary setting to ensure that items of the order type **Y##** (item category **L**) can be created with reference to items of the purchase requisition document types **X##** (item category **L**) and **NB** (item categories **Standard** and **Subcontracting**).

Which three entries must you maintain?

11. *Optional:*
Assign the partner schema for standard purchase orders to your new purchase order document type **Y##** .
12. *Optional:*
Activate **version management** for purchasing organization **1000** for your new purchase order document type.

Task 3:

Carry out a test in the purchasing area to check that your settings for the document types **X##** and **Y##** are correct.

1. Create a purchase requisition with the document type **NB** and two items for purchasing group **L##**.

Request two lots of **100 pc** of material **R-B1##** for plant **1000**, one as a **standard item** and the other as a **subcontracting** item.

Continued on next page

Number of the first purchase requisition:

2. Create a second requisition with document type **X##** for purchasing group **L##**.

Request another **100 pc** of material **R-B1##** for plant **1000**.

Which item categories are allowed?

Number of the second purchase requisition:

3. Check whether it is possible to convert your **second requisition** into a purchase order with the document type **NB** (vendor **T-K500C##**, purchasing organization **1000**, purchasing group **L##**).

Convert the requisition into a PO using the document overview.

Give reasons for the result.

4. Create a purchase order of document type **Y##** for vendor **T-K500C##** for purchasing organization **1000**, purchasing group **L##** and plant **1000**.

Reference your two purchase requisitions. The price per piece is **EUR 150.00** for all items.

Purchase order number:

5. Can you extend this purchase order by adding an item of the *standard* item category (item category “_”)?
-
-

Task 4:

Properties of item categories

1. Find out which indicators are defined for the item category **subcontracting**.

Internal representation: _____

External representation: _____

2. Which properties are defined for the item category *subcontracting*?

Continued on next page

For items of this category, **can** or **must**:

- a) Material master records be used? _____
- b) Goods receipts be entered? _____
- c) Invoice receipts be entered? _____
- d) Additional account assignments be made? _____

Give reasons for your answer to question b):

Solution 26: Purchasing Document Types and Number Assignment

Task 1:

Number assignment for purchasing documents

1. Upon which of the keys shown does number assignment for purchasing documents depend in the standard system?

Key	Yes	No
Purchasing organization		
Purchasing group		
Document type		
Company code		

- a) In the standard system, number assignment for a purchasing document depends only on the **document type**.
2. Which **number ranges** have been defined for number assignment in the case of purchase orders and requisitions of document type **NB**?

	Internal	External
Purchase requisitions		
Purchase orders		

- a) *IMG → Materials Management → Purchasing → Purchase Requisition → Define Document Types*

and

IMG → Materials Management → Purchasing → Purchase Order → Define Document Types

	Internal	External
Purchase requisitions	01	02
Purchase orders	45	41

Continued on next page

Task 2:

New document types for purchase requisitions and purchase orders

Define a new document type for requisitions and a new document type for purchase orders based on the following data.



Hint: Recommendation: Copy without dependent entries and maintain manually. (You need single entries only and would otherwise have to delete a very large number of entries.)

1. *Optional:*

Define a new internal number range interval for **purchase requisitions**. Choose any free number for your interval (for example, 50 + your group number) and define the number area from 10##000 to 10##999.



Hint: If you want to use your new number range “immediately”, you first have to exit the transaction *Edit Project* and then call it up again.

a) **IMG** → **Materials Management** → **Purchasing** → **Purchase Requisition** → **Define Number Ranges**

Choose **Change Intervals**.

Choose **Insert Interval**.

Interval number: For example, **50 + ##** (or another free number; alphanumeric intervals are also possible).

Enter the upper and lower limit of the interval:

From number **10##000**

To number **10##999**

Choose **Insert**.

Save your number range.

2. Create a new document type **X##** for purchase requisitions. To do so, copy document type **NB**.

When carrying out the copying operation, choose **Only Copy Entry** if asked to do so.

Continued on next page

Call your new document type **X##-PReq**.

- a) **IMG** → **Materials Management** → **Purchasing** → **Purchase Requisition** → **Define Document Types**

Select document type **NB** and choose **Copy as**.

Enter document type **X##** and the name **X##-PReq**.

Choose **Continue**.

Choose **Only Copy Entry**.

3. What are the effects of the decision to copy with or without dependent entries?

-
- a) If you copy a document type **with** all dependent entries, all existing assignments and linkages are adopted as well. The new document type can be used immediately.

However, you must delete any undesired entries in this case.

If you copy a document type **without** dependent entries, you must insert any further entries that may be necessary manually. The new document type cannot be used until you have done this.

4. Specify that only **internal number assignment** is possible for purchase requisitions of document type **X##**.

Use either your new number range (created in subtask 1) or the number range with the interval from **01000000** to **01999999**.

To which number range do you assign your document type?

-
- a) Place the cursor on the **NR Int.As.** field and choose **F4**.

Adopt the number range **01** or your number range from subtask 1.
Delete the external number range.

5. Only **subcontracting items** are allowed for your document type **X##**. Make the necessary setting.

- a) Select document type **X##**. On the left in the dialog structure, choose **Allowed Item Categories**.

The list should be empty.

Choose **New Entries** and enter the item category **L**.

Save your input.

Continued on next page

6. Make the appropriate setting to ensure that items of a requisition of document type **X##** and item category **L** may only be converted into RFQ items (document type **AN**) of item category **L**.
 - a) Select document type **X##**.
Choose **Link Purchase Requisition - Document Type** on the left of the dialog structure.
The list should be empty. Choose **New Entries** and enter the RFQ document type **AN** and the item category **L** for the external purchasing document **and** the purchase requisition.
Save your input.
7. Create a new document type **Y##** for purchase orders. Call it **Y##-PO**.
 - a) **IMG** → **Materials Management** → **Purchasing** → **Purchase Order** → **Define Document Types**
Select document type **NB**.
Choose **Copy as**. Enter document type **Y##** and the name **X##-PO**.
Choose **Continue**.
Choose **Only Copy Entry**.
8. Make the appropriate setting to ensure that the numbers of purchase orders of document type **Y##** are only assigned **internally** from **470000000** to **479999999**.
 - a) Place the cursor on the **NR Int.As.** field and choose **F4**. Adopt the number range **47**. Delete the entry in the field **No. Range Ext.**
9. Only **subcontracting items** are allowed for your document type **Y##**. Make the necessary setting.
 - a) Select document type **Y##**.
In the dialog structure, choose **Allowed Item Categories**.
Choose **New Entries** and enter the item category **L**.
Save your input.
10. Make the necessary setting to ensure that items of the order type **Y##** (item category **L**) can be created with reference to items of the purchase requisition document types **X##** (item category **L**) and **NB** (item categories **Standard** and **Subcontracting**).

Which three entries must you maintain?

Continued on next page

-
- a) Choose **Back**.

Select document type **Y##**.

Choose **Link Purchase Requisition - Document Type** in the dialog structure.

Choose **New Entries**.

First entry: Enter the purchase requisition document type **NB**, the item category **standard (blank)** for the purchase requisition, and item category **L** for the purchasing document.

Second entry: Enter the purchase requisition document type **NB** and the item category **Subcontracting** for both the purchase requisition and the purchasing document.

Third entry: Enter the purchase requisition document type **X##** and the item category **Subcontracting** for both the purchase requisition and the purchasing document.

Save your input.

11. *Optional:*

Assign the partner schema for standard purchase orders to your new purchase order document type **Y##** .

- a) **IMG** → **Materials Management** → **Purchasing** → **Partner Determination** → **Partner Settings in Purchasing Documents** → **Assign Partner Schemas to Document Types**

Enter the partner schema **0002** for your new purchase order document type **Y##**.

Save your input.

12. *Optional:*

Continued on next page

Activate **version management** for purchasing organization **1000** for your new purchase order document type.

- a) *IMG → Materials Management → Purchasing → Version Management → Set Up Version Management for External Purchasing Documents*

Choose *New Entries*.

Add the following entry:

Document category **F** (purchase order)

Document type **Y##**

Purchasing organization **1000**

Select the *Active* field and save your entries.

Task 3:

Carry out a test in the purchasing area to check that your settings for the document types **X##** and **Y##** are correct.

1. Create a purchase requisition with the document type **NB** and two items for purchasing group **L##**.

Request two lots of **100 pc** of material **R-B1##** for plant **1000**, one as a **standard item** and the other as a **subcontracting** item.

Number of the first purchase requisition:

- a) On the *SAP Easy Access* screen, choose:

Logistics → Materials Management → Purchasing → Purchase Requisition → Create (Transaction code ME51N)

Create the items:

Item 1: Material **R-B1##**, quantity **100**, plant **1000**, purchasing group **L##**

Item 2: Item category **L**, material **R-B1##**, quantity **100**, plant **1000**, purchasing group **L##**

Save the purchase requisition.

2. Create a second requisition with document type **X##** for purchasing group **L##**.

Request another **100 pc** of material **R-B1##** for plant **1000**.

Which item categories are allowed?

Continued on next page

Number of the second purchase requisition:

- a) Choose document type **X##**.

Call up the **F4 help** on the item category field: Only item category **L** is allowed.

Enter the item: Item category **L**, material **R-B1##**, quantity **100**, plant **1000**, purchasing group **L##**.

Now save your second purchase requisition too.

3. Check whether it is possible to convert your **second requisition** into a purchase order with the document type **NB** (vendor **T-K500C##**, purchasing organization **1000**, purchasing group **L##**).

Convert the requisition into a PO using the document overview.

Give reasons for the result.

- a) On the *SAP Easy Access* screen, choose:

Logistics → **Materials Management** → **Purchasing** → **Purchase Order** → **Create** → **Vendor/Supplying Plant Known (Transaction code ME21N)**

Choose **Document Overview On**.

Call the selection variant **My Purchase Requisitions**.

Drag the purchase requisition from subtask 3 onto the shopping cart and enter vendor **T-K500C##**.

You should now receive an error message, since there is no linkage between the PO document type **NB** and the purchase requisition document type **X##**.

4. Create a purchase order of document type **Y##** for vendor **T-K500C##** for purchasing organization **1000**, purchasing group **L##** and plant **1000**.

Reference your two purchase requisitions. The price per piece is **EUR 150.00** for all items.

Continued on next page

Purchase order number:

- a) Leave the faulty items as they are and change the document type to **Y##**.

Drag the first purchase requisition onto the shopping cart as well.

Both requisitions can be converted into a **Y##-PO**. Enter 150 EUR as the net price in each case.

Save the purchase order.

5. Can you extend this purchase order by adding an item of the *standard* item category (item category “_”)?

- a) No. In the settings for document type **Y##**, you have only allowed item category **L**.

Task 4:

Properties of item categories

1. Find out which indicators are defined for the item category **subcontracting**.

Internal representation: _____

External representation: _____

- a) **IMG** → **Materials Management** → **Purchasing** → **Define External Display of Item Categories**

Internal representation: **3**

External representation: **L**



Hint: The internal representation is used in classification. If you wish to set up a document release procedure that is dependent on the item category, for example, you must always use the internal representation as the characteristic value.

2. Which properties are defined for the item category *subcontracting*?

For items of this category, **can** or **must**:

Continued on next page

- a) Material master records be used? _____
- b) Goods receipts be entered? _____
- c) Invoice receipts be entered? _____
- d) Additional account assignments be made? _____

Give reasons for your answer to question b):

- a) Select item category **L**

Choose *Details*

a) Material master records **can** be used, but they are not mandatory (indicator: *Material Required: Possible*).

b) Goods receipts **must** be entered for subcontracting items. This is because only then are the materials provided to the subcontractor automatically booked out of the SAP system as consumption. (Indicator: GR Firm in PO.)

c) Invoice receipts **can** be entered but are not mandatory because the “IR” indicator can be changed in the PO item. (Indicator **IR Indicator Firm: Changeable in PO**)

d) Additional account assignments are **allowed**, but are not mandatory (indicator: *Additional Account Assignment: Possible*).



Lesson Summary

You should now be able to:

- Create new document types for purchase transactions

Lesson: Field Selection and Account Assignment Categories



420

Lesson Duration: 50 Minutes

Lesson Overview

You can set up separate field selections for different purchasing documents depending on the document type and document category. For this purpose, you assign a field selection key to the document type for which the field attributes are defined.

In the case of the account assignment category, on the other hand, the field selection is included in the IMG activity for defining such categories. In addition, you can set up new account assignment categories and specify default values for the G/L accounts in the case of items with account assignment.



Lesson Objectives

After completing this lesson, you will be able to:

- Describe the factors influencing the screen layout of purchasing documents and adjust the field selection for purchase transactions



The instructor should point out the advantages and disadvantages of prepopulating the G/L account fields depending on account assignment category and material group.

Business Example

You want to work with a special account assignment category in your company that allows account assignment to both a cost center and a production order. In the process, you also take a look at the other factors influencing field selection in the case of purchasing documents. In addition, you wish to influence the default accounts that appear during the creation of purchase orders.

Field Selection for Purchasing Documents

The field selection for purchasing documents is controlled by a) the field selection key and b) the account assignment categories (only for the additional fields for items with account assignment). You can specify the field selection for the header data of the documents (except for purchase requisitions) and for the item data by means of the field selection key (see: “Screen Layout”). The field selection specifications for the account assignment category, on the other hand, relate only to additional fields that can be shown or hidden depending on the account assignment category, for example (see “Account Assignment Category”).

Screen Layout

Field selection for purchasing documents has several influencing factors.

Separate field selection screens are stored in the system for each of these influencing factors. You can specify field attributes (that is, whether a field is to be hidden, displayed only, or ready for input, and, in the latter case, whether input is mandatory or optional) for each field selection key.

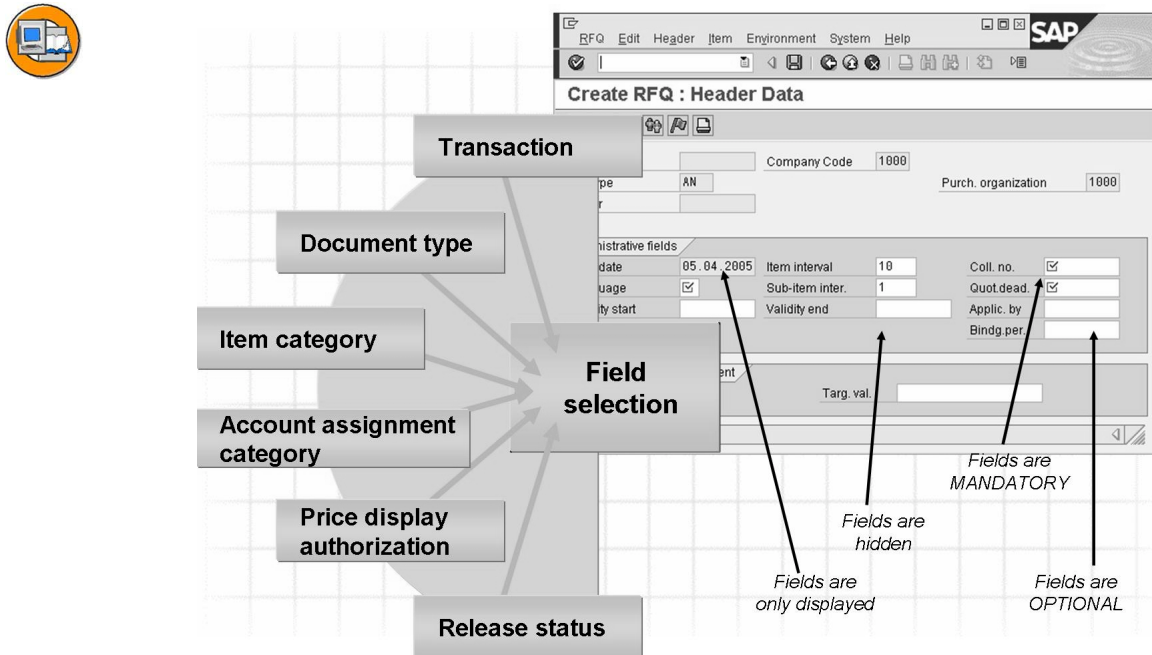


Figure 113: Screen Layout for Purchase Transactions

The following sections present the different types of field selection keys for purchasing documents.

- **Transaction Field Selection Key**

This field selection key has a fixed link to the transaction used. For the transaction *Change Contract*, for example, it is the field selection key ME32, and for the transaction *Display Contract* it is the field selection key ME33.

For the single-screen transaction for maintaining purchase orders, there is only the field selection key ME21N
- **Activity Type Field Selection Key**

There are four activity types

 - AKTH (Create)
 - AKTV (Change items)
 - AKTE (Purchase order extension)

- AKTA (Display items)

The activity type field selection key is necessary, since it is possible, for example, to add an item in the transaction *Change Contract* (transaction ME32). The field selection key AKTH would be used for this item.

- Purchasing Document Type Field Selection Key

Each document type of a purchasing document can be assigned its own field selection key. For example, the field selection key UBF is assigned to the document type UB (stock transport orders within a company code). In this field selection key, the fields *price* and *price unit* are hidden.

- Item Category Field Selection Key (for each document type)

This field selection key is determined from the item type in combination with the document type. The first two characters of the field selection key are the letters PT, the third character is the item category (internal), and the fourth is the document type:

- A for requests for quotations
- B for purchase requisitions
- F for purchase orders
- K for contracts
- L for scheduling agreement

Therefore, for the field selection control for a subcontracting purchase order item, the field selection key PT3F is used.

- Release Status Field Selection Key

The field status of a purchase requisition can be set using the field selection key for the release indicator, depending on the respective release status of the purchase requisition.

In addition, you can also control the field selection depending on the user parameter **EFB** (for purchasing function authorization). You can assign a *Function Authorization (EFB)* field selection key to the different keys for this parameter. This field selection key is for controlling the authorization for the price display or entry in the purchasing documents (purchase orders, outline agreements). If the user parameter EFB (function authorization in purchasing) has been assigned to a user, this field selection key is also used. If the authorization for the price display is removed using the EFB parameter without an additional field selection key having been defined, then the field selection key \$\$\$\$ is used. In addition, this user parameter can be used to assign an additional field selection key especially for the field selection of the single-screen transactions for maintaining the purchase requisitions.

In field selection for a transaction in the purchasing area, the relevant field selection keys are linked together. The same linkage rules apply as in the case of the field selection for material and vendor master records. Once again, the following order of priority applies (where 1 = highest and 4 = lowest priority):

- 1. Hide
- 2. Display
- 3. Mandatory entry
- 4. Optional entry

The following table shows the linkage rules for the individual field selection settings for purchasing documents:

Characteristic	<i>Hide</i>	<i>Display</i>	<i>Mandatory</i>	<i>Optional</i>
<i>Hide</i>	Hide	Hide	Hide	Hide
<i>Display</i>	Hide	Display	Display	Display
<i>Mandatory</i>	Hide	Display	Mandatory	Mandatory
<i>Optional</i>	Hide	Display	Mandatory	Optional

If a certain field is defined as a *mandatory* field by one field selection key and as an *optional* field by another key, the attribute *mandatory* applies, since this attribute has the higher priority.



Caution: Avoid definitions whereby you use field selection key 1 to set a field to *mandatory*, and use field selection key 2 to hide or *display* it.

The field selection keys for the release status apply only to purchase requisitions and if you have also assigned a field selection key to the individual release indicators.

The field selection keys for the authorization to display price data apply only to users to whom special function authorizations for buyers have been assigned via user parameter EFB and for whom a field selection key has thus also been assigned.

Account Assignment Categories and Their Attributes

The account assignment category in purchasing documents indicates whether an item is to have an auxiliary account assignment (such as a cost center). You can change the attributes of the account assignment categories for purchasing documents and create new categories.

Account Assignment Category

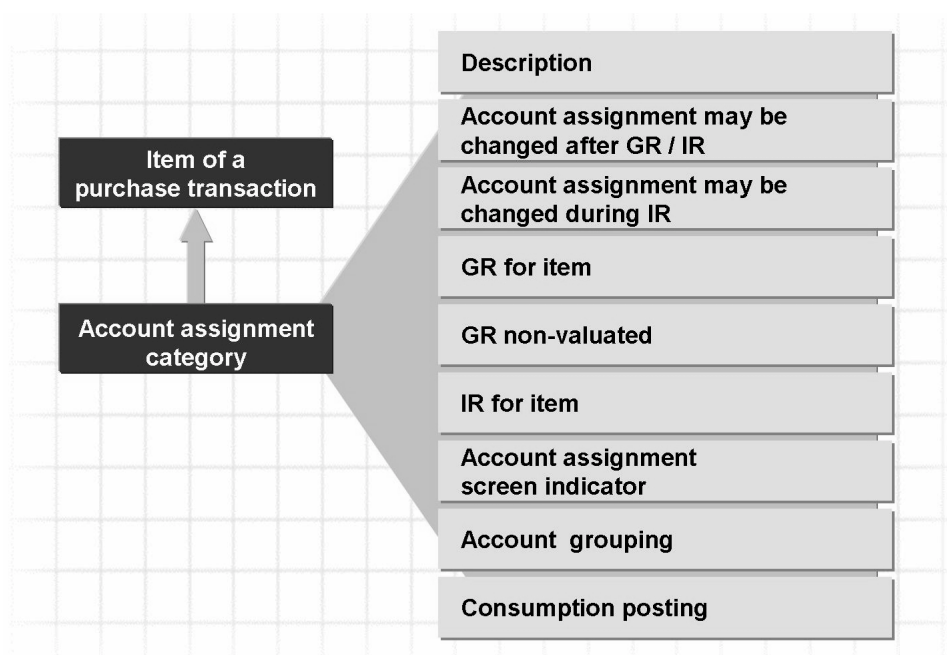


Figure 114: Account Assignment Categories

The account assignment category is assigned at item level in purchasing documents.

The account grouping code of the account assignment category allows you to have the system propose a consumption account number when a purchasing document item with account assignment is created. (Note that the account grouping code may also be referred to as the account modifier or account modification.)

You assign this account number under the settings for automatic postings for the transaction *Offsetting Entry to Stock Posting* (see lesson “Special Cases of Account Assignment”). (In the system, the transaction may also be referred to by the name *Offsetting Entry to Inventory Posting*.)

In addition, you can set up a field selection that is dependent on the account assignment category. These field selection specifications relate only to those fields that are shown in addition to the account assignment category.

The following excerpt from the SAP system Customizing shows the setting options for account assignment categories taking the category K (cost center) as an example.

Acct assignment cat. K Cost center

Detailed information

Acct. assg. changeable Consumption posting V Distribution 1

AA Chgble at IR Acct modification VBR Partial invoice 2

Derive acct. assgt. ID: AcctAssgt Scrn 1 Single account assig

Del. CstsSep. Special Stock

Goods receipt GR non-valuated Invoice receipt

GR Ind. Firm GR NonVal. Firm IR Ind. Firm

Fields

Field Label	Mand.Ent.	Opt.Entry	Display	Hidden
Asset	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Asset subnumber	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Business area	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business partner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Business process	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
CO/PP order	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Commitment item	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Cost Center	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cost object	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

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Figure 115: Details of Account Assignment Category K

You can make specifications such as the following for each account assignment category:

- Whether the indicator for a goods receipt is to be proposed and, where applicable, whether it is also to be mandatory
This setting must not contradict the specifications for the item category.
- Whether the indicator for a non-valuated goods receipt is to be proposed and, where applicable, whether it is also to be mandatory
This indicator is required in the SAP system for purchasing document items with multiple account assignment.
- Whether the fields for the entry of a single or multiple account assignment (as a list) are to appear in the account assignment area of the item detail data for the purchasing documents

Combination of Item Category and Account Assignment Category

You specify which account assignment categories are allowed for each item category. You enter all combinations of item categories and account assignment categories allowed in your company in the relevant Customizing activity. Choose: *IMG* → *Materials Management* → *Purchasing* → *Account Assignment* → *Combination of Item Categories - Define Account Assignment Categories*.

Item cat.	Acct. assgmt. cat.	Item cat. text	Acct assgt cat description
	K	Standard	Cost center
L	K	Subcontracting	Cost center
U	A	Stock transfer	Asset
D	U	Service	Unknown
...

Figure 116: Combination of Item Categories/Account Assignment Categories

Fixed control parameters that cannot be changed in Customizing are defined in the item category. For each account assignment category, you can specify the associated control parameters such as the goods receipt indicator on a company-specific basis.

If, for this indicator, different specifications are made for the account assignment category than for the item category, those for the item category have a higher priority. This means that for the following indicators:

- Goods receipt
- Goods receipt non-valuated
- Invoice receipt

the following applies:

1. If the indicator for the item category is *mandatory*, the specification for the account assignment category for this indicator must not contradict this.
2. If the indicator for the item category is defined as *changeable*, the specification of the account assignment applies.



Demonstration: On Field Selection for Purchasing Documents and the Account Assignment Categories

Purpose

This demonstration shows how to make Customizing settings and thus introduces the options customers have for adjusting the SAP system to their specific company requirements.

System Data

System:	Training system
Client:	Training client
User ID:	Own user ID
Password:	User password
Set up instructions:	No additional

1. Show the most important Customizing settings for the individual slides and associated details in the application. In doing so, use the exercises as a guide.
-



Exercise 27: Field Selection and Account Assignment Categories

Exercise Duration: 35 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Check and adjust settings for account assignment categories
- Check and adjust field selection dependent on the account assignment category
- Specify the consumption account to be taken as the default dependent on the account assignment category

Business Example

In your company, further account assignment categories are needed for purchasing in order to provide a different account assignment and a changed field selection. A different field selection is also necessary for subcontract purchase orders. You are the member of the project team responsible for these settings.

System Data

System:	Training system
Client:	Training client
User ID:	SCM550-##
Password:	User password
Set up instructions:	IDES

Task 1:

Settings for account assignment category

1. Take a look at the settings for the account assignment category **K**. Which changeable default or mandatory pre-set values for the **Goods Receipt** and **Invoice Receipt** indicators does this category contain?

Goods receipt: _____
Invoice receipt: _____

2. Which **account grouping code** (account modification) has been assigned to account assignment category **K**?

Continued on next page

3. Which G/L account number is suggested by the system as a result if material **R-T1##** is ordered in plant **1000** for a **cost center**?

Determine the account numbers in the **settings for automatic account determination**, in the case of transaction key **GBB**, supplemented by the account grouping code for the account assignment category **K** and the valuation class of material **R-T1##**.

4. May the account assignment category **K** be used for the following items in purchasing documents?

Standard items:

Subcontracting items:

5. Test these settings by ordering material **R-T1##** from vendor **T-K500D##** using order type **NB**. The material is for purchasing organization **1000**, purchasing group **L##**, and plant **1000**. Assign the order to **cost center 1000**.

Purchase order number:

Task 2:

New account assignment category

1. Define a new account assignment category. Your instructor assigns one of the following account assignment categories to each group:

0, 2, 3, 4, 5, 6, 7, 8, 9, H, I, J, L, R, S, V, W, Y.

Copy the account assignment category **K** for this purpose.

2. Your new account assignment category is to allow assignment to a **cost center** or a **production order**. Furthermore, entry of the **goods recipient** (consignee/ship-to party) is to be mandatory. Set up the field selection accordingly.



Hint: The production order is referred to in the table as a CO/PP order.

3. Your account assignment categories provide that the system suggests the following default G/L accounts for PO items for plant **1000**:

For materials assigned to valuation class **3000**:

Continued on next page

G/L account **400080**

For items **without a material number or valuation class**:

G/L account **400***** (as template)

Name the necessary steps for this.

Make the necessary settings. Use the account grouping code (account modification) **K##**.



Hint: Ignore the warning message to the effect that G/L account 400*** has not been created. In the case of a template, the user need not enter a valid G/L account until the item is ordered.

4. Your account assignment category is to be used exclusively for **standard items**. How do you ensure this?

5. Test the settings for your new account assignment category by extending your PO from task 1, subtask 5. Add two new items.

Use your new account assignment category for both items. Order **100 pc** of your material **R-T1##** and **1 pc** of a **consumable material without a material number** (order via name of material). Assign each item to **cost center 1000**.

Which G/L accounts does the system suggest?

Task 3:

Field selection depending on the item category

1. Via which field selection key can you change the field selection for all **subcontracting items** in purchase requisitions or purchase orders without items with other item categories being affected by any such change?

2. What do you have to do if the **Confirmation Control Key** field is to be a mandatory (required-entry) field for POs of your new document type **Y##** (and for this one only)?

Sketch out the procedure and make the settings.

Continued on next page

Create a new field selection key **Y##F** by copying the entry **NBF** that was defined for the document type **NB**. The new field selection key is named **Y##-Field Selection**.

3. Test your settings by creating a purchase order for material **R-B1##** using your document type **Y##**.

Use vendor **T-K500C##**, purchasing organization **1000**, plant **1000** and purchasing group **L##**.

You must use the item category **L** (subcontracting).

The confirmation control key field should be mandatory.

Purchase order number:

4. *Optional:*

Attempt to post a goods receipt against the PO from subtask 3. Which system message appears?

Solution 27: Field Selection and Account Assignment Categories

Task 1:

Settings for account assignment category

1. Take a look at the settings for the account assignment category **K**. Which changeable default or mandatory pre-set values for the **Goods Receipt** and **Invoice Receipt** indicators does this category contain?

Goods receipt: _____

Invoice receipt: _____

- a) *IMG* → *Materials Management* → *Purchasing* → *Account Assignment* → *Maintain Account Assignment Categories*

Select account assignment category **K**.

Choose *Details*

Default values for goods receipt:

The PO item involves a goods receipt, but the indicator is changeable. The indicator for non-valuated goods receipt has not been set - but can be set.

Default values for invoice receipt:

The PO item involves an invoice receipt, but the indicator is changeable.

2. Which **account grouping code** (account modification) has been assigned to account assignment category **K**?

- a) The account grouping code (account modification) for account assignment category **K** is **VBR**.

3. Which G/L account number is suggested by the system as a result if material **R-T1##** is ordered in plant **1000** for a **cost center**?

Determine the account numbers in the **settings for automatic account determination**, in the case of transaction key **GBB**, supplemented by the account grouping code for the account assignment category **K** and the valuation class of material **R-T1##**.

Continued on next page

-
- a) The program determines this G/L account with the keys:
- Chart of accounts
 - Valuation grouping code (valuation modification)
 - Account grouping code (general modification)
 - Valuation class

Company code **1000** is assigned to chart of accounts **INT**.

Valuation grouping code **0001** is assigned to plant **1000** (valuation area 1000).

Account grouping code **VBR** is assigned to the account assignment category **K**.

Material **R-T1##** has the valuation class **3000**.

With this information, you can determine the G/L account from the account determination table.

IMG → Materials Management → Valuation and Account Assignment → Account Determination → Account Determination Without Wizard → Configure Automatic Postings

Choose ***Account Assignment***.

Choose the transaction ***GBB***.

Click ***Choose***.

Enter ***INT*** as the chart of accounts.

Confirm your entry.

Place the cursor on the line with ***General Modification VBR*** and ***valuation category 3000***.

G/L account **400000** has been entered for this combination.

4. May the account assignment category **K** be used for the following items in purchasing documents?

Standard items:

Continued on next page

Subcontracting items:

- a) **IMG → Materials Management → Purchasing → Account Assignment → Define Combination of Item Categories/Account Assignment Categories.**

Account assignment category K may be used for **both** item categories in our training system.

5. Test these settings by ordering material **R-T1##** from vendor **T-K500D##** using order type **NB**. The material is for purchasing organization **1000**, purchasing group **L##**, and plant **1000**. Assign the order to **cost center 1000**.

Purchase order number:

- a) On the *SAP Easy Access* screen, choose:

Logistics → Materials Management → Purchasing → Purchase Order → Create → Vendor/Supplying Plant Known (transaction code ME21N)

In the case of a PO item with account assignment (material: **R-T1##**) with account assignment category **K**, the system suggests G/L account **400000**.

Task 2:

New account assignment category

1. Define a new account assignment category. Your instructor assigns one of the following account assignment categories to each group:

0, 2, 3, 4, 5, 6, 7, 8, 9, H, I, J, L, R, S, V, W, Y.

Copy the account assignment category **K** for this purpose.

- a) **IMG → Materials Management → Purchasing → Account Assignment → Maintain Account Assignment Categories**

Select account assignment category **K**.

Choose **Copy as**.

Enter the **account assignment category** assigned to you and a **name**.

Choose **Continue** and save your entry.

Continued on next page

2. Your new account assignment category is to allow assignment to a **cost center** or a **production order**. Furthermore, entry of the **goods recipient** (consignee/ship-to party) is to be mandatory. Set up the field selection accordingly.



Hint: The production order is referred to in the table as a CO/PP order.

- a) Select your new account assignment category.

Choose **Details**

Change the field selection for the specified fields:

- Select **Optional Entry** for **CO/PP order** and **cost center**.
- Select **Required Entry** for **goods recipient**.

Save your input.

3. Your account assignment categories provide that the system suggests the following default G/L accounts for PO items for plant **1000**:

For materials assigned to valuation class **3000**:

G/L account **400080**

For items **without a material number or valuation class**:

G/L account **400***** (as template)

Name the necessary steps for this.

Continued on next page

Make the necessary settings. Use the account grouping code (account modification) **K##**.



Hint: Ignore the warning message to the effect that G/L account 400*** has not been created. In the case of a template, the user need not enter a valid G/L account until the item is ordered.

- a) To achieve this, you must assign a new account grouping code (account modification) to the new account assignment category.

Remain in the maintenance function for the new account assignment category. Assign the account grouping code (account modification) **K##** to the new account assignment category.

Save your changes.

Next you must enter the following entries for the transaction/event key **GBB** in account determination.

IMG → Materials Management → Valuation and Account Assignment → Account Determination → Account Determination Without Wizard → Configure Automatic Postings

Choose ***Account Assignment***.

Choose the transaction **GBB** and the chart of accounts **INT**.

Choose ***New Entries***.

Include the following entries for your **account grouping code K##** and ...

– enter the G/L account **400080** (debit and credit) for valuation class **3000**.

– for valuation class “___”, (blank) G/L account **400***** (debit and credit)

Save your entries.

4. Your account assignment category is to be used exclusively for **standard items**. How do you ensure this?

Continued on next page

-
- a) **IMG → Materials Management → Purchasing → Account Assignment → Define Combination of Item Categories/Account Assignment Categories.**

Choose **New Entries**.

Add an entry for item category “_” (standard) and your new account assignment category.

Save your input.

5. Test the settings for your new account assignment category by extending your PO from task 1, subtask 5. Add two new items.

Use your new account assignment category for both items. Order **100 pc** of your material **R-T1##** and **1 pc** of a **consumable material without a material number** (order via name of material). Assign each item to **cost center 1000**.

Which G/L accounts does the system suggest?

- a) On the *SAP Easy Access* screen, choose:

Logistics → Materials Management → Purchasing → Purchase Order → Change (Transaction code ME22N)

In the item details, choose the tab page **Account Assignment**.

In the case of a PO item with account assignment with the new account assignment category and for material **R-T1##**, the system suggests G/L account **400080** for plant **1000**.

In the case of a PO item with account assignment with the new account assignment category for a material without a number, the system suggests G/L account **400***** for plant **1000**.

Change the default to G/L account **400010** and then save your entries.

Task 3:

Field selection depending on the item category

1. Via which field selection key can you change the field selection for all **subcontracting items** in purchase requisitions or purchase orders without items with other item categories being affected by any such change?
-

Continued on next page

- a) Choose: *IMG* → *Materials Management* → *Purchasing* → *Purchase Requisition* → *Define Screen Layout at Document Level* or *IMG* → *Materials Management* → *Purchasing* → *Purchase Order* → *Define Screen Layout at Document Level*

Search for the field selection groups for subcontracting items.

PT3F for purchase orders

PT3B for purchase requisitions



Hint: The significance of the various field selection keys is also explained in the online documentation for this IMG activity.

2. What do you have to do if the **Confirmation Control Key** field is to be a mandatory (required-entry) field for POs of your new document type **Y##** (and for this one only)?

Sketch out the procedure and make the settings.

Create a new field selection key **Y##F** by copying the entry **NBF** that was defined for the document type NB. The new field selection key is named **Y##-Field Selection**.

Continued on next page

-
- a) If field selection is to depend on the document type, you must define a new field selection key for - and assign it to - the document type.
- Choose: *IMG* → *Materials Management* → *Purchasing* → *Purchase Order* → *Define Screen Layout at Document Level*
- Select field selection key **NBF** and choose *Copy as*.
- Enter **Y##F** as the new field selection key.
- Choose *Continue*.
- Select the new field selection key **Y##F** and choose *Details*.
- Choose **Deadline Monitoring**.
- Change the attribute of the **Confirmation Control Key** field to *mandatory* (required entry).
- Choose *Back* to return to the list of field selection groups.
- Choose *Back* again.
- Save your entry.
- Choose: *IMG* → *Materials Management* → *Purchasing* → *Purchase Order* → *Configure Document Types*
- Assign the field selection key **Y##F** to your purchase order document type **Y##**.
- Save your change.
3. Test your settings by creating a purchase order for material **R-B1##** using your document type **Y##**.
- Use vendor **T-K500C##**, purchasing organization **1000**, plant **1000** and purchasing group **L##**.
- You must use the item category **L** (subcontracting).
- The confirmation control key field should be mandatory.
- Purchase order number:
-
- a) On the *SAP Easy Access* screen, choose:
- Logistics* → *Materials Management* → *Purchasing* → *Purchase Order* → *Create* → *Vendor/Supplying Plant Known (transaction code ME21N)*
- You are asked to enter a confirmation control key. Enter the confirmation control key **0001**.

Continued on next page

4. *Optional:*

Attempt to post a goods receipt against the PO from subtask 3. Which system message appears?

- a) On the *SAP Easy Access* screen, choose:

Logistics → Materials Management → Inventory Management → Goods Movement → Goods Movement (transaction code MIGO)

The message **Purchase order 47000000XX has no items** appears.

The reason for this is confirmation control key 0001. This specifies that a goods receipt cannot take place until an inbound delivery has been entered.

For more information about this topic, see the documentation under ***IMG → Materials Management → Purchasing → Confirmations → Configure Confirmation Control***



Lesson Summary

You should now be able to:

- Describe the factors influencing the screen layout of purchasing documents and adjust the field selection for purchase transactions

Lesson: Special Aspects of Customizing



Lesson Duration: 40 Minutes

Lesson Overview

In particular, we will focus on user parameters and the info update indicator.



Lesson Objectives

After completing this lesson, you will be able to:

- Explain the significance of user parameters EVO and EFB
- Name the available options for controlling the use of the info update indicator



In this unit, it is up to you how comprehensive the system demonstration is. Basically, you could go through a short example in the system for each field in the parameters EVO and EFB.

Business Example

You have been given the task of making special purchasing-relevant Customizing settings during the implementation of an SAP system in your enterprise.

User Parameters in Purchasing

There are two purchasing-specific user parameters that can influence and control the activities of buyers. These are the parameters EVO (default values) and EFB (function authorizations).

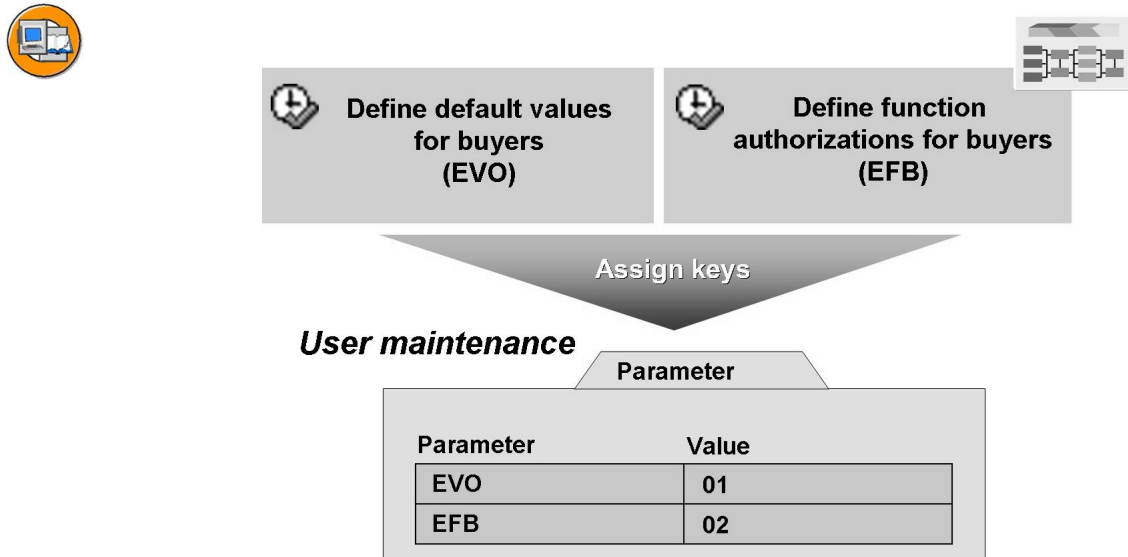


Figure 117: User Parameters in Purchasing

Both user parameters are defined in Customizing for purchasing and then assigned to the relevant user by entering the keys for the parameter IDs in the user data.

Create user parameter EVO:

SAP Customizing Implementation Guide → *Materials Management* → *Purchasing* → *Environment Data* → *Define Default Values for Buyers*

Create user parameter EFB:

SAP Customizing Implementation Guide → *Materials Management* → *Purchasing* → *Authorization Management* → *Define Function Authorizations for Buyers*

User Parameter EVO

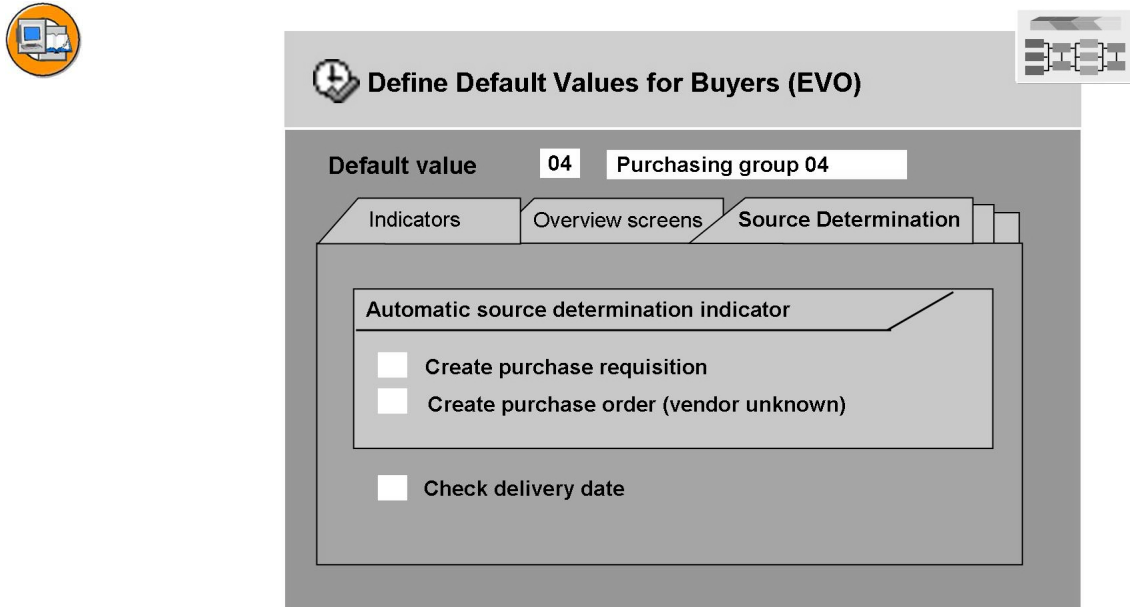


Figure 118: User Parameter EVO

This parameter enables you to change the standard settings for certain fields on a user-specific basis. The following settings are possible on the individual tab pages:

- **Indicators**

On the *Indicators* tab page, you can influence the default values for the info update indicator in purchase orders and quotations. If the user data does not contain an EVO parameter, the info update indicator is preselected in purchase orders as the default setting. In quotations, the default setting is that the info update indicator is not preselected.

Setting the *Set Acknowledgment Requirement Automatically* indicator causes the *Acknowledgment Required* indicator to be preselected. You can make separate settings for POs, contracts, and scheduling agreements.

- **Overview screens**

On the *Overview Screens* tab page, you can specify whether the overview screens for entering document items in purchasing are to have a two-line display (step-loop technique) or a one-line display (table control technique).



Hint: Use of the step-loop technique is not possible in the case of the Enjoy transactions.

- **Fast processing:**

Since the process of creating POs with reference to a requisition was changed substantially in SAP R/3 4.6C, most settings for fast processing are now irrelevant. Only the *Adopt All → Assign and Process Requisition* indicator can still be used in the Enjoy transactions to simplify the process of converting requisitions to POs. The other indicators are only relevant for RFQs and outline agreements.

By setting the *Adopt All → Assign and Process Requisition* indicator, you specify that assigned requisition items are to be automatically adopted in the relevant purchasing documents (as PO or RFQ items, or scheduling agreement delivery schedules). This setting affects the *Assign and Process Requisition* transaction and the conversion of requisitions to POs from the current stock/requirements situation (or MRP list).

- **Variants**

Here you can specify whether or not the following is/are to be displayed in lists and in the purchasing document item overview when configurable materials are used:

- The line for the configurable material only
- The lines for the variants of a configurable material only
- Both

- **Additional screens**

The *Change Document Type When Saving Requisition* indicator enables you to switch the document type within the transaction *Purchase Order → Create → Vendor Unknown* when saving items as requisitions.

Example:

When creating a PO using the transaction *Purchase Order → Create → Vendor Unknown*, you enter the desired order type for the PO on the initial screen. The document type also applies to items that are saved not as a PO, but as a requisition.

However, if the document type used does not exist for requisitions, the items cannot be saved. Setting the *Change Document Type When Saving Requisition* indicator causes a dialog box in which the document type can be reselected to appear when items are saved as requisitions.

The *Detailed Information: Availability Check in Case of Stock Transfers* indicator determines whether or not detailed information regarding the availability of a material is shown when a stock transfer order is created using transaction ME27. If a stock transfer order is created using transaction ME21N, you can access the detailed information via *Environment* → *Availability*, irrespective of the indicator setting.

- **Adoption of price**

You can use the EVO parameter to prevent a price from being pulled from the last PO as a default value.

The *Manual Price Becomes Gross Price* indicator causes a gross price that has been determined to be overwritten by the manually entered price. However, this applies exclusively to the gross price condition type. All other condition types continue to be calculated and proposed by the price determination facility.

- **Source determination**

The indicators for automatic source determination control the relevant default value in the transactions *Create Purchase Requisition* and *Purchase Order* → *Create* → *Vendor Unknown*.

If the *Check Delivery Date* indicator has been set, in the course of automatic source determination the system proposes only those sources that can deliver on the desired date. In doing so, it takes the planned delivery time and purchasing department processing time into account.

User Parameter EFB



Define Function Authorizations for Buyers (EFB)

General parameters

<input type="checkbox"/> Display conditions	Field Selection <input type="text"/>
<input type="checkbox"/> Enter conditions	
<input type="checkbox"/> W/o material	Field sel. key free <input type="text"/>
<input type="checkbox"/> Adoption of PO price	

Possible reference objects

<input type="checkbox"/> W/o reference	<input type="checkbox"/> Reference to reference PO
<input type="checkbox"/> Reference to contract	<input type="checkbox"/> Reference to RFQ
<input type="checkbox"/> Reference to requisition	<input type="checkbox"/> Reference to quotation
	<input type="checkbox"/> Info record or quotation

Manual source assignment

<input type="checkbox"/> Contract	<input type="checkbox"/> W/o material
<input type="checkbox"/> Contract item M	<input type="checkbox"/> Info record
<input type="checkbox"/> Contract item W	

Figure 119: User Parameter EFB

User parameter EFB enables you to restrict the function authorizations for the requisitioning and ordering transactions on a user-specific basis.

With the aid of parameter EFB, you can make the following settings:

- **General parameters**

The EFB parameter enables you to determine whether a user can create conditions in purchasing documents or only display them. If the *Display Conditions* indicator has not been set, the relevant fields and tab pages in the purchasing document (PO and outline agreement) are hidden. If the *Enter Conditions* indicator has not been set, a field selection key controlling the field status (display or hide) of the relevant fields must additionally be defined. If both indicators are not selected, then the field selection key does not have to be entered.

The *Without Material* indicator determines whether PO items without a material master record may be created.

The *Price Adoption* indicator enables you to specify, when creating or changing a purchase requisition item, whether the internal valuation price of the requisition is to be adopted in the PO. It is possible to adopt the valuation price as a net price or gross price in the purchase order.

Via the field selection keys for the purchase order (*Field Sel.* field) and the Enjoy purchase requisition (*FieldSelKey:Release* field), it is possible to control the statuses of individual fields on a user-specific basis.

- **Possible reference objects**

The indicators from these areas relate exclusively to the creation of PO items. The indicators can be used to determine whether you must reference a preceding document when you create a PO item. They can also be used to determine which procurement options are allowed.

The conditions of the last purchase order are only adopted in a new PO item if the *Info Record Without Quotation* indicator has been set.

- **Manual source assignment**

If the relevant indicators for manual source assignment have not been set, a requester (requisitioner) can only use the automatic source determination facility. In this case, only sources that have been entered in the source list are taken into account. The process of automatic source determination via source list and quota arrangement takes place independently of the status of the indicators of the EFB parameter.

Info Update Indicator

When creating a purchase order using transaction ME21N, a buyer can only stipulate whether a corresponding info record is to be created or, if one already exists, updated. As of SAP R/3 4.6A, the settings for the status of the info update

indicator in the purchase order have been moved to Customizing. The status of the info update indicator in transaction ME21N is controlled by both general and user-dependent settings.

- **General setting**

The setting controlling the use of plant-specific conditions is made in Customizing for purchasing (condition control). The setting made there determines the user-independent status of the info update indicator in transaction ME21N.

- If conditions may be created with or without a plant (indicator blank), this corresponds to status C of the info update indicator. Status C means that a purchasing-organization-wide info record is created if no info record yet exists for the relevant organizational levels (plant or purchasing organization). If a plant-specific or purchasing-organization-wide info record already exists, it is updated.
- If conditions may only be created on a plant-specific basis (indicator +), this corresponds to status B of the info update indicator. Status B means that a plant-specific info record will be created if no such record yet exists. An existing info record will be updated.
- If conditions may not be created on a plant-specific basis (indicator -), this corresponds to status A of the info update indicator. Status A means that a purchasing-organization-wide info record will be created if no such info record yet exists for the relevant organization. An existing info record will be updated.




 Define control of conditions on plant level				
	Plant	Name	Ind.	Conditions at plant level
<input type="checkbox"/>	1000	Hamburg		Conditions with and without plant allowed
<input type="checkbox"/>	1100	Berlin	+	Only plant-specific conditions allowed
<input type="checkbox"/>	1200	Dresden	-	No plant-specific conditions allowed

Figure 120: General Setting for Info Update Indicator

- **User-dependent setting**

The settings for the info update indicator incorporated in parameter EVO override the general settings, thus affording you the opportunity to define the status of that indicator on a user-specific basis. If the user data does not include an EVO parameter, the info update indicator is set in a PO item as a default value. Parameter EVO enables you to override this setting.

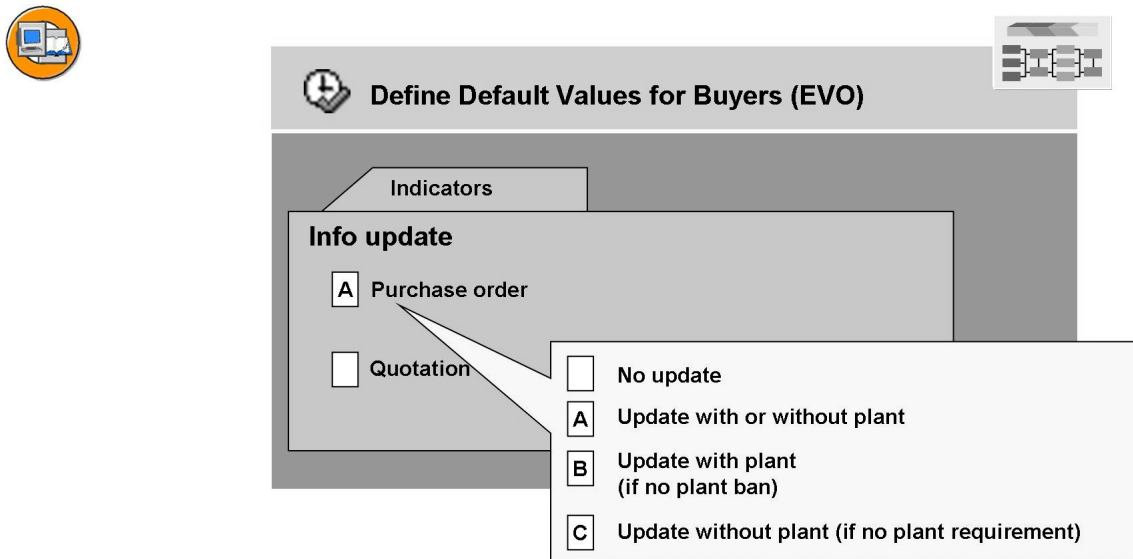


Figure 121: User-Dependent Setting for Info Update Indicator

General setting of info update indicator for transaction ME21N:

SAP Customizing Implementation Guide → Materials Management → Purchasing → Conditions → Define Control of Condition at Plant Level

User-dependent setting of info update indicator for PO and quotation transactions:

SAP Customizing Implementation Guide → Materials Management → Purchasing → Environment Data → Define Default Values for Buyers



Facilitated Discussion

Optional: Check participants' knowledge of the subject Special Aspects of Customizing.

Discussion Questions

Use the following questions to engage the participants in the discussion. Feel free to use your own additional questions.

Use the questions of the concluding test at the end of the unit to check participants' knowledge of this subject.



Lesson Summary

You should now be able to:

- Explain the significance of user parameters EVO and EFB
- Name the available options for controlling the use of the info update indicator



Unit Summary

You should now be able to:

- Create new document types for purchase transactions
- Describe the factors influencing the screen layout of purchasing documents and adjust the field selection for purchase transactions
- Explain the significance of user parameters EVO and EFB
- Name the available options for controlling the use of the info update indicator



Test Your Knowledge

1. Parameter EVO enables you to set the default value for the info update indicator on a user-dependent basis.

Determine whether this statement is true or false.

- True
- False

2. Which of the following statements apply to the parameter EFB?

The parameter EFB enables you to determine whether

Choose the correct answer(s).

- A The price from the last purchase order appears as the default value when a new PO is created.
- B The conditions in an outline agreement are displayed to a user.
- C A user may create a PO without reference to a preceding document.
- D The planned delivery time is checked against the delivery date during the source determination process.



Answers

1. Parameter EVO enables you to set the default value for the info update indicator on a user-dependent basis.

Answer: True

On the *Indicators* tab page of parameter EVO, you can influence the default values for the info update indicator in purchase orders and quotations.

2. Which of the following statements apply to the parameter EFB?
The parameter EFB enables you to determine whether

Answer: B, C

Statements A and D apply not to parameter EFB, but to parameter EVO.

Unit 11



453

Message Determination



This unit covers message determination for purchasing and inventory management.

Message determination for purchasing, which is covered in the first lesson, is explained in greater detail with the individual elements of the condition technique. The second lesson assumes that this basic technique is known and covers the special aspects of message determination in inventory management.

Unit Overview

This unit gives you an introduction to message determination technology. The most important elements of this are explained using the examples of purchasing and inventory management. The special features of these applications during message generation are also explained.



Unit Objectives

After completing this unit, you will be able to:

- Describe the message determination process for purchase transactions
- Specify the details relating to message (output) determination in inventory management

Unit Contents

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Lesson: Message Determination in Purchasing



454

Lesson Duration: 150 Minutes

Lesson Overview

The purpose of this lesson is to familiarize you with the necessary settings for message determination in Purchasing. It also discusses printer determination for purchasing documents.



Lesson Objectives

After completing this lesson, you will be able to:

- Describe the message determination process for purchase transactions



When dealing with the output process, it is a good idea to ask participants for an example, too, and then go through it together. The instructor should also point out that further settings are necessary for EDI scenarios.

Business Example

You are asked to give an overview of the current configuration for purchasing document output and create the necessary condition records for your new document type.

Output of Messages in Purchasing

Messages are an important means of communication with vendors in connection with purchase transactions.

Messages can be sent via the regular postal service or electronically. A message control facility that is dependent on a number of different criteria enables you to process and send these messages subject to certain conditions and with predefined restrictions.

The message determination process enables you to output messages on a variable and differentiated basis. Message determination is a variant of the condition technique.

For information on the general process flow of the message determination, the explanation of the terms, and the menu path for a detailed description of message determination in the SAP Library, see Appendix 1.



Message determination in purchasing

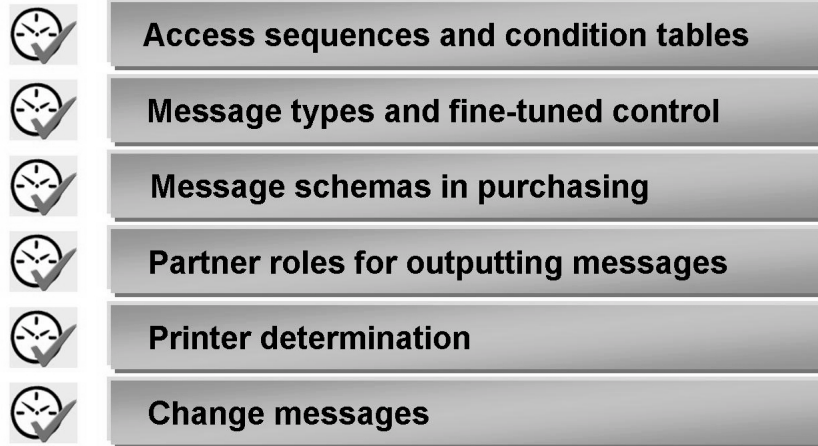


Figure 122: Message Determination in Purchasing

In addition to the settings for message determination, a key prerequisite for successful print output is the assignment of a printer.

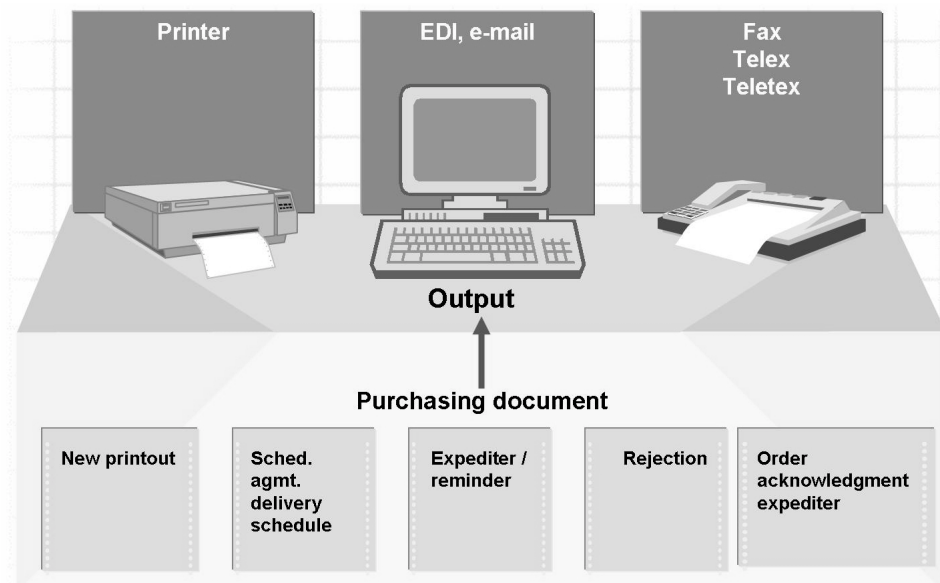


Figure 123: Message Output

When you create or change a purchasing document (for example, a request for a quotation, a purchase order, or an outline agreement), the system checks whether an output format has to be created for this document. A document in output format represents a message.

This message can be printed on a printer or sent directly in electronic form via e-mail, EDI, or fax.

You can use condition records to specify the conditions for output, the output medium used, and the time of output of a document.

When creating or changing any document, you can change the default value from a condition record at any time.

You will decide whether to use message determination for the output of purchasing documents after considering the specific conditions in your company.



No message schema is assigned.

Only the message types defined in the standard system can be output (e.g. NEU).

Messages are only generated with the standard parameters (output medium PRINT, time-spot 1, and IMMEDIATE OUTPUT). The default values cannot be changed.

The printer is determined in the following sequence:

- Printer of purchasing group
- Printer of USER parameter PRI
- Printer of USER defaults

Figure 124: Message Output Without Message Determination

You can specify whether or not message determination is to be used for each purchase transaction (document category) separately. If you wish to use message determination, you must assign a message schema to each document category.

If you work without message determination, messages are always generated with the standard parameters (output medium PRINT). In the process, the printers assigned to the relevant purchasing group or specified in the relevant user data are taken into account.

You can send messages per fax only if you change the output medium in the document header.

Condition records are not taken into account if message determination is used without a schema.

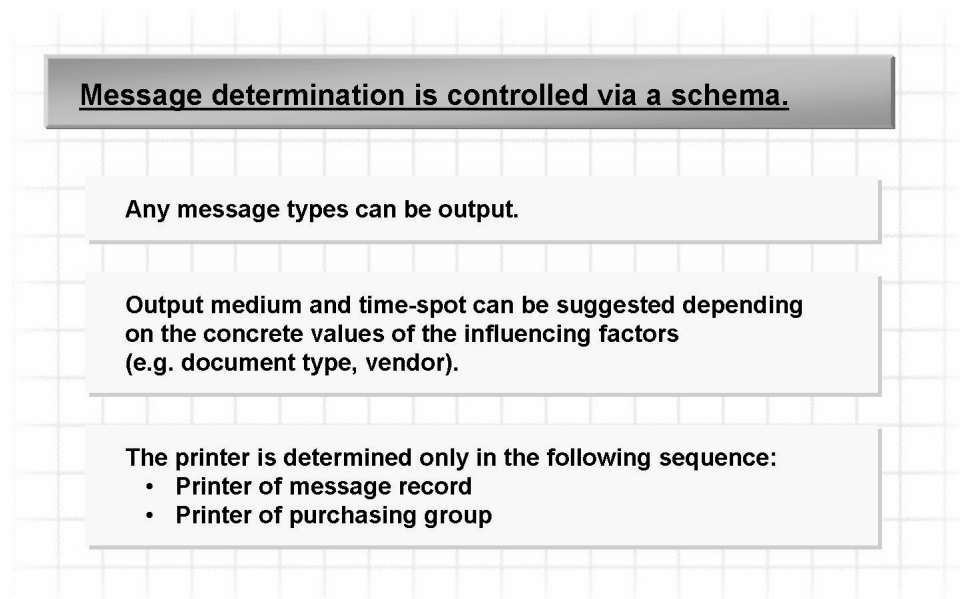


Figure 125: Message Output with Message Determination

The purpose of message determination is the management of messages in accordance with predefined criteria. Message determination in the SAP system is controlled via a **message schema**.

During message determination, the system checks whether **condition records** exist for the application data that has been maintained in Customizing, for example. If so, one or more messages can be processed (sent electronically, for instance). Without a valid condition record, the system **cannot find** a message.

During the message determination process, the condition records are searched in a predefined order (known as the **access sequence**).

Message determination enables you to control the document output process for each vendor on an individual basis, for example. You can specify which schema controls message determination for each separate purchase transaction.

You can specify for each message type that the document is to be optically archived at the time of output. To do so, use the archive mode *Print and Archive* for the relevant message type.

In the standard SAP system, the printer name for the output of purchasing documents using the message determination facility is determined **only** from the table “*Assign Output Devices to Purchasing Groups*” - not from the USER parameter PRI or from the USER default values. This is controlled via the print parameter for the message type (see “Printer Determination”).

The Condition Technique for Message Determination

Message determination in Purchasing enables the system to find the valid messages for a purchase transaction and suggest suitable ones.

You can define the output medium, the device, time of output, and number of copies, for example, dependent on certain criteria.

Message determination is automatically activated at the time of installation in the standard SAP client.

Message Determination Process

- You specify the combination of fields for which you wish to create message records in a **condition table**.
- The **access sequence** is a search strategy with which the SAP system looks for valid message records.
- The **message type** classifies different kinds of message in the system, such as purchase order printouts, reminders, and so on.
- The permissible message types per message application (such as expediting, new printout and so on) are specified in a **message schema**.

You can assign separate message schemas to the individual purchasing document categories (RFQ, purchase order, contract, and so on).

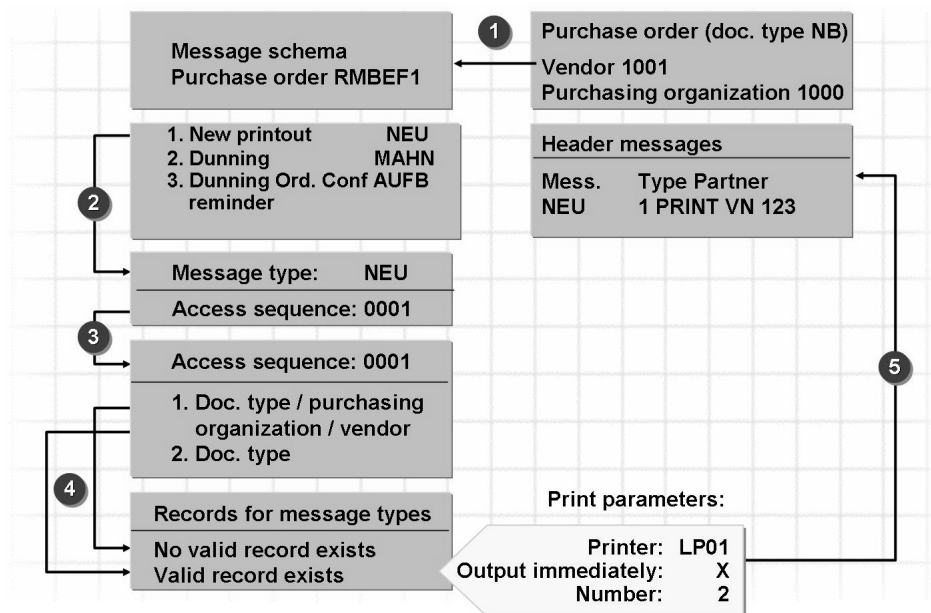


Figure 126: Message Determination Process (Document Type NB)

Example of the message determination process:

You create a PO of document type NB for vendor 1001 and purchasing organization 1000.

As a result, the SAP system determines the message schema RMBEF1.

In the next step, the SAP system determines which message types from the message schema are valid for the current transaction. It does this by reference to requirements assigned to the message types. In our example, the SAP system has determined the message type NEU.

It now checks which access sequence has been defined for the message type NEU. In our case, this is access sequence 0001, in which two condition tables have been entered. The first table has the keys (influencing factors) *document type*, *purchasing organization*, and *vendor*; the second table has only the key (influencing factor) *document type*.

The SAP system now searches for valid condition records. In the example, no condition record has been defined for the combination of document type, purchasing organization, and vendor. There is a condition record for the document type NB, however.

The data from this condition record (send medium, printer, time-spot, and so on) is adopted in the purchase order and displayed there.

In purchasing, message determination takes place only at header level. You can therefore only output a document in its entirety.

In the case of message determination with a schema, too, you can change the message parameters determined by the system or delete the message.

Message Types

Standard message types (such as NEU, the message type for new PO printouts and PO change notices) are supplied for each purchasing document.

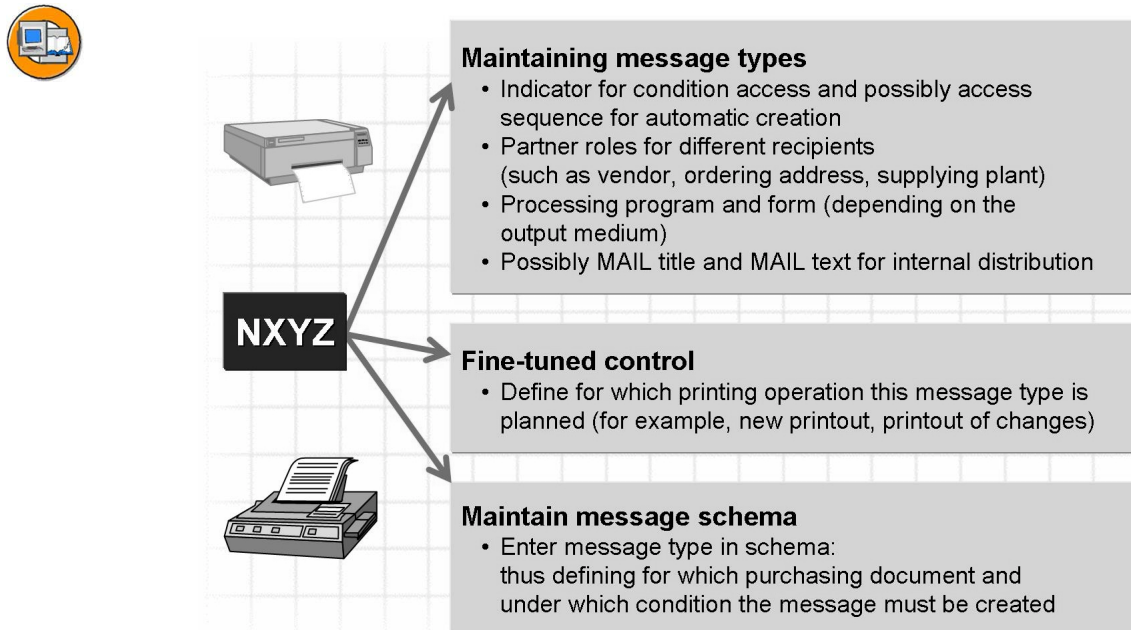


Figure 127: Message types

You can define further message types for each purchasing document category separately.

The following excerpt from the SAP system Customizing shows details of the message type NEU for purchase orders.

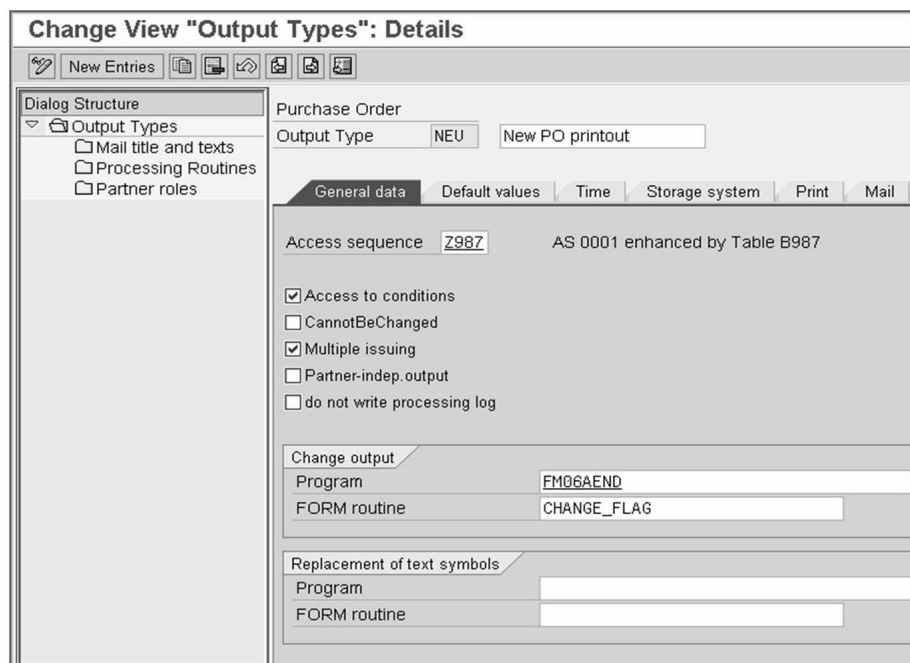


Figure 128: Details of Message Type NEU

The next excerpt from the SAP system Customizing shows you the fine-tuned control function with which you can specify different message types for a document category depending on the relevant transaction.

Change View "Fine-Tuned Message Control, Purchasing":

New Entries

Usage: B
Application: EF

Assignment of print operations to message types

	Operat.	CType	Name	Short text	U
	1	NEU	New PO printout	New	<input type="checkbox"/>
	2	NEU	New PO printout	Change	<input type="checkbox"/>

Figure 129: Fine-Tuned Message Control

Condition Records

Message records (condition records) must be created for the individual message types that you wish to use. These are data records whose key fields represent the requirement (= condition) under which a message is found. The other fields contain the message details, such as the output medium and the time. Thus, if a data record passed on by the application matches these key fields, the message is found and can then be processed (output as a printed form or sent as an electronic message).

The following excerpt from the Purchasing menu shows the initial screen for maintaining message condition records. A dialog box prompts you to select one of several condition tables for maintaining condition records. With this selection, you decide which dependencies/conditions you want to use.

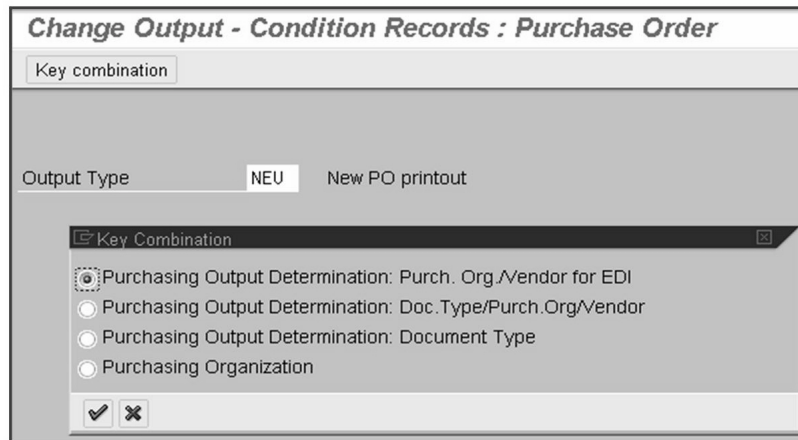


Figure 130: Creating Message Condition Records

Condition Tables

You can use different dependencies for the condition records for message determination. To do this, you create different condition tables. This means, for example, that you can use the document type of the purchasing document, the purchasing organization, and the vendor as key for these condition tables.

You can also define other criteria for message determination (such as the purchasing group) via Customizing. When creating condition tables, you select these influencing factors from a field catalog.

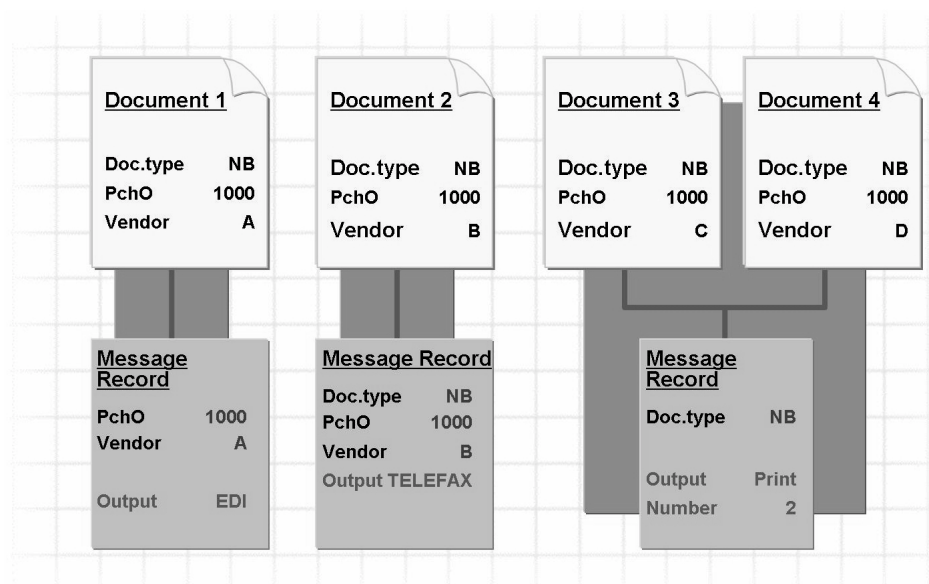


Figure 131: Factors Influencing Message Determination

Because message determination takes place at header level, you can take only document header fields into account in the condition records. Message determination based on the document item fields (for example, the plant) is not possible in the standard system.

Condition tables contain the link to the specific message records in which you specify output details such as time and number of outputs. These tables contain, as key fields, the data constellations according to which messages are found (and proposed for processing). Each such data constellation corresponds to a condition record in the table. The data part contains the number of a condition record. The actual message is described in the condition record itself.

Access Sequences

You can create condition tables with different key combinations. In the access sequence, you define the condition tables the system is to read and the sequence in which the tables are to be read.

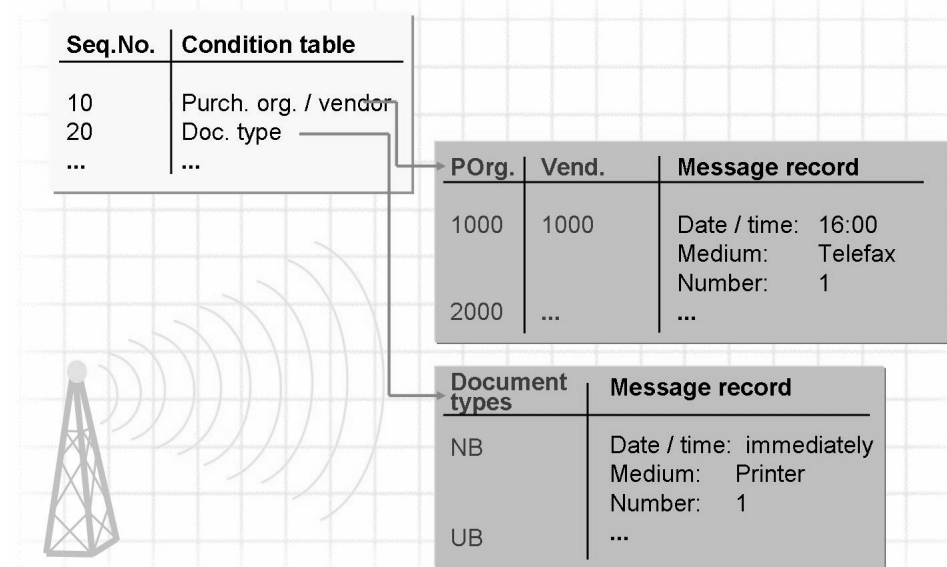


Figure 132: Condition Tables and Access Sequences

The following excerpt from the SAP system Customizing shows an access sequence for purchase orders.

Change View "Accesses": Overview

Access sequence: Z987 AS 0001 enhanced by Table B987

AcNo	Tab	Description	Requiremnt	Exclusive
10	27	Purchasing Output Determination: Purch. Org./Vendor for EDI		<input checked="" type="checkbox"/>
20	25	Purchasing Output Determination: Doc.Type/Purch.Org/Vendor		<input type="checkbox"/>
30	26	Purchasing Output Determination: Document Type		<input type="checkbox"/>
40	987	Purchasing Organization		<input type="checkbox"/>

Change View "Fields": Overview

Access: Z987 20 AS 0001 enhanced by Table B987
 Table: 25 Purchasing Output Determination: Doc.Type/Purch.Org/Vendor

Condition	I/O	Doc.struc.	Doc.field	Long field label	Source of constant	Init
BSART	◀	KOMKBEA	BSART	Purchasing Doc. Type		<input type="checkbox"/>
EKORG	◀	KOMKBEA	EKORG	Purch. Organization		<input type="checkbox"/>
LIFNR	◀	KOMKBEA	LIFNR	Vendor		<input type="checkbox"/>

Figure 133: Access Sequences for Purchase Orders

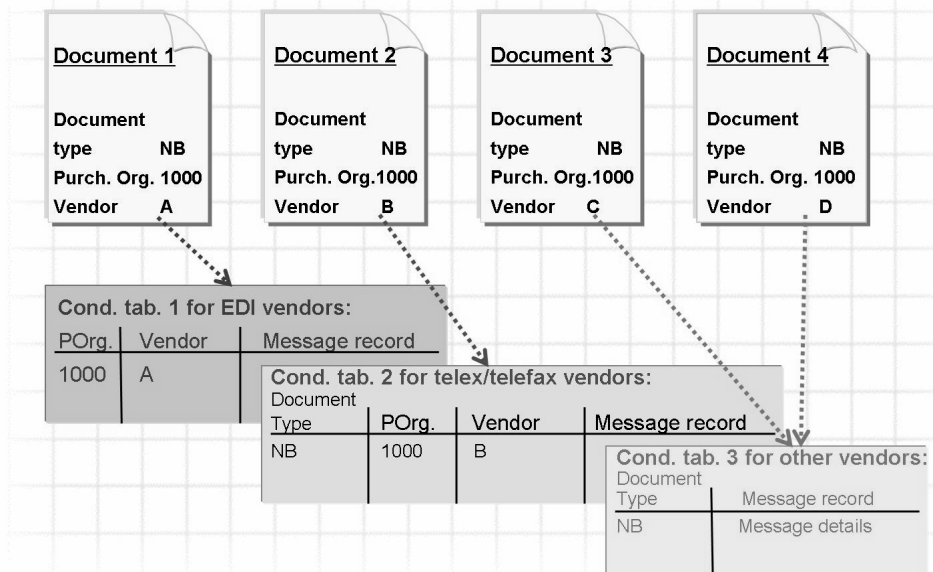


Figure 134: Example: Message Determination Process

Determination analysis

You can use determination analysis to check the result of message determination. To do so, choose the menu path *Goto* → *Determination Analysis* on the message determination screen.

You then get an overview of all defined message types for your purchasing document. You also see the values for the key fields of the condition tables in the details of the message types whose requirement is satisfied.

Printer Determination

If a condition record containing an output device is found for a message type with the medium *print output*, the message is output on this device.

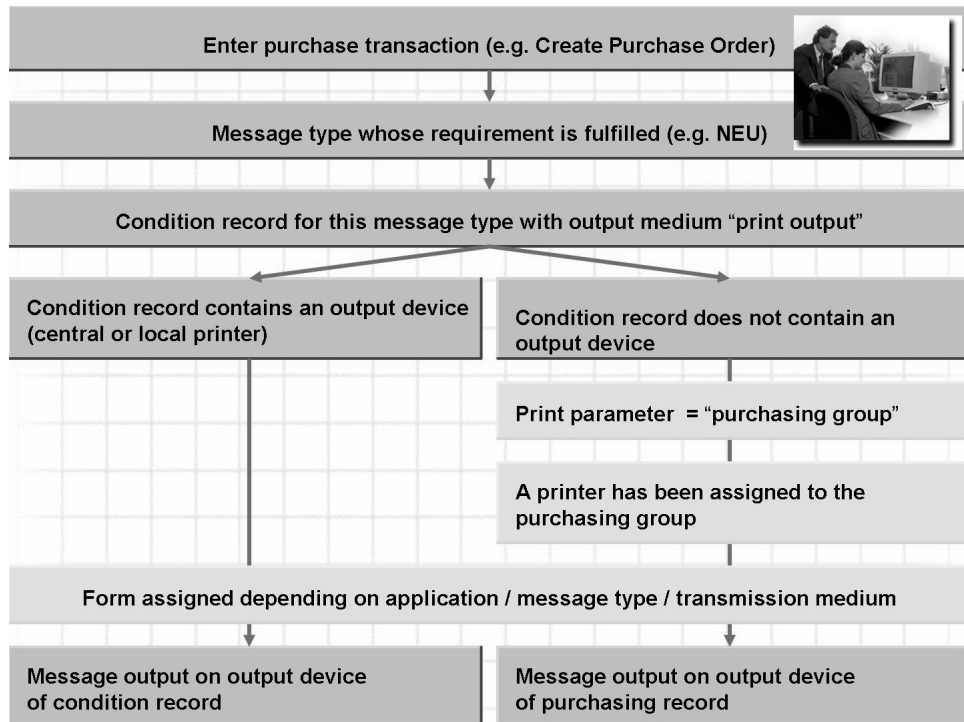


Figure 135: Printer Determination in Purchasing

If the condition record does not contain an output device, the system checks whether the **purchasing group** parameter has been entered for this message type on the **Print** tab page. In this case, the system uses the printer entered for the purchasing group in the IMG activity **Materials Management** → **Purchasing** → **Messages** → **Assign Output Devices to Purchasing Groups**.

If this has not been maintained either, the system cannot generate a message.

Once the output medium and the message type are known, the system can determine the print form. This can be decided only when the medium is known, because the information for the layout in an EDI transmission differs significantly from the printing of a purchase order.

Displaying Changes to a Purchasing Document

If you change fields relevant to printouts of changes (change notices) in a purchasing document whose messages have already been output (see graphic “Settings for Printout of Changes”), a new message is generated in order to convey the changes to the business partner.

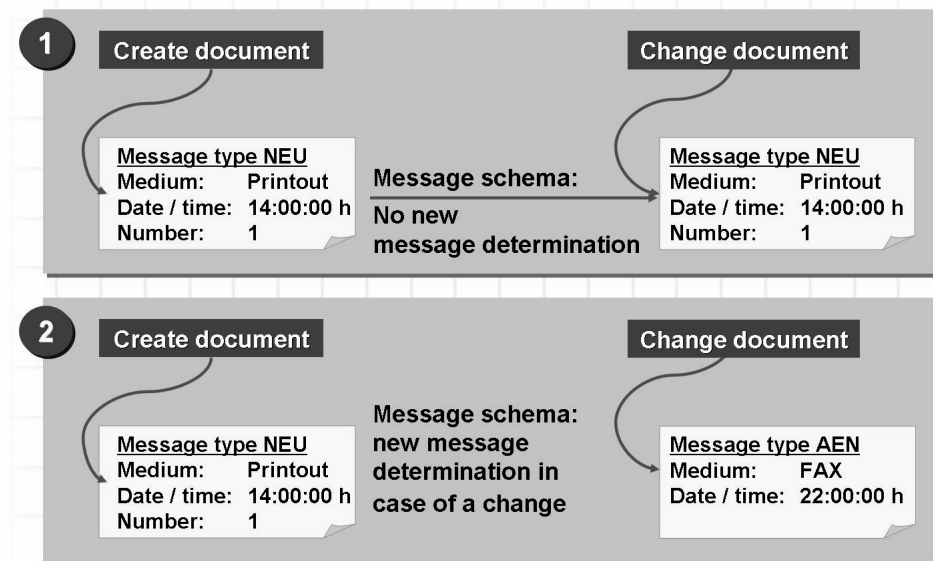


Figure 136: New Printout and Printout of Changes

The activity *Assign Message Schema* enables you to specify separately for each purchase transaction that a new message determination process is to be triggered for printouts of changes (also referred to as change notices/messages).

As a result, you can specify that new documents are generally to be printed out (due to the need for them to be signed) whereas changes are to be transmitted per fax, for example.

Case 1: No New Message Determination

You cannot use different message types for the print operations *new* and *change*. You must define the message type *NEU* for the print operations 1 and 2 (*new* and *change*) in the activity *Maintain Message Types* → *Fine-Tuned Control*.

Once you have manually changed the output parameters for new printouts determined by the message determination facility, the changed values will also be used for printouts of changes.

Case 2: New Message Determination Process in Case of Changes

You can use different message types for the print operations *new* and *change* (the indicator for multiple printout must be set for the message type *AEN*).

In the activity *Maintain Message Types* → *Fine-Tuned Control*, you can specify that the message type *NEU* is to be used for the print operation *Neu* and the message type *AEN* is to be used for the *Change* print operation.

For the message types *NEU* and *AEN*, you can then enter different mediums, times for output, and so on, in the condition records.



Hint: If the printout gets lost or has to be repeated for any other reason, you must select the message that is to be repeated in the message details and then choose **Repeat Output**. You can now output the document as usual.

However, the printout contains no indication that it is a repeat message.

Note, however, that the output of a change message cannot be “repeated”. The new change message created by the function *Repeat message* does not contain any data.



Demonstration: Message Determination in Purchasing

Purpose

This demonstration shows how to make Customizing settings and thus introduces the options customers have for adjusting the SAP system to their specific company requirements.

System Data

System:	Training system
Client:	Training client
User ID:	Own user ID
Password:	User password
Set up instructions:	No additional setup instructions

1. Show the most important Customizing settings for the individual slides and associated details in the application. In doing so, use the exercises as a guide.



Exercise 28: Message Determination and Output Control

Exercise Duration: 45 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Check the settings for message determination in Purchasing
- Define a new message type and make the further necessary settings

Business Example

Your company has decided on its policy for the output of purchase orders. Either two copies of each PO will be printed on a printer (one each for the vendor and the buyer) or, in certain “special” cases, one copy of the PO will be faxed directly to the vendor and (only in this case) another copy printed on a printer for the buyer.

In your project team, you have been assigned the task of testing message determination and making the settings for the desired changes.

System Data

System:	Training system
Client:	Training client
User ID:	SCM550-##
Password:	User password
Set up instructions:	IDES

Task 1:

Message schema

1. Which message schema has been assigned to the purchasing document category “purchase order”?

2. Is a new message determination process triggered for the printing of change messages (you will find the relevant switch on the message schema assignment screen)?

3. Which message types does the schema determined in task 1 contain? Which requirements are checked in the case of these message types?

Continued on next page

Message Type	Requirement

Task 2:

Message types

1. Take a look at the details for message type **NEU**. Which access sequence is used for this message type?

Are conditions accessed for this message type? _____

Which indicator controls printer determination? _____

2. For which output operations is this message type used (fine-tuned control)?

Task 3:

Access sequences and condition records

1. Take a look at the detail screen for the **access sequence** for message type **NEU**. In which order are message records accessed in the case of this access sequence (= order of condition tables)?

2. In the Purchasing application menu, call up the function for changing message records for purchase orders under **Master Data**.

For which **key combinations** can you maintain message records for the message type **NEU**? Compare the key combinations with the access sequence.

Continued on next page

3. Choose the third condition table (Purchasing Message Determination: Document Type) and display the message record (condition record) for message type **NEU** and document type **NB**. Make a note of the following data of this message record:

Transmission medium: _____
 Date/time: _____
 Output device: _____
 Indicator for immediate output: _____

4. Create a new purchase order with document type **NB**. Only enter the data at header level (Vendor **T-K500C##**, Purchasing Organization **1000**, Buyer Group **L##**).

For which message types were messages created? Which medium and time are proposed for the output? Which information do you get on the detail screen for the communication data for this message?

Transmission medium: _____
 Date/time: _____
 Output device: _____

Why was a message generated for this purchase order? From which message record (condition record) does this information originate?



Hint: You can check this information using the determination analysis function.

Save your data with the function *Hold*.

Purchase order number 1:

5. Create a new purchase order with document type **Y##**. Only enter the data at header level (Vendor **T-K500C##**, Purchasing Organization **1000**, Buyer Group **L##**).

For which message types were messages created? Which medium and time are proposed for the output? Which information do you get on the detail screen for the communication data for this message?

Continued on next page

Transmission medium: _____
Date/time: _____
Output device: _____

Save your data with the function *Hold*.

Purchase order number 2:

6. Is there a message record for document type **Y##** in the third condition table (Message/Output Determination for Purchasing: Document Type) under master data for message type **NEU**?

7. Specify for your document type **Y##** that two copies are to be printed on the “buyer's printer” at the explicit request of the buyer.

Create a condition record for your document type **Y##** without maintaining the printer. Instead, use the relevant IMG activity to assign the printer to the **purchasing group**. Use the printer **A000** or ask the instructor for a valid printer.

8. Take another look at the message output for the purchase order 2 from subtask 5. Choose the PO change function again. Which information do you now get on the detail screen for the communication data for this message?

Transmission medium: _____
Date/time: _____
Output device: _____

From which message record (condition record) does this information originate?

Task 4:

New message type (optional exercise)

1. You need copies of POs sent by fax for your own files. Therefore, you use message type **NEU** to carry out the fax transmission to the vendor, plus a **new message type** to print out the PO in each case.

You must enter two condition records: One for the fax transmission and one for the printout.

Continued on next page

Outline the procedure for adding this new message type for purchase orders. Alternatively realize the scenario on the basis of the steps described in the following (if there is enough time).

Step 1

To have copies of fax messages printed out, you define the new message type **ZP##**. Create this message type by copying **NEU**. When copying the message type, select *Copy All* when asked to do so.

Which **transmission medium** must you define for message type **ZP##**?

Step 2

Add an entry for this message type in the **Table for Fine-Tuned Control**. Add an entry for **print operation 1** and your **message type ZP##**.

Step 3

Maintain **message schema RMBEF1** to include your **message type**. Use step **50** and counter **##** (or **step 50+##** and **counter 0**). Use **requirement 101**.

Step 4

Check the allowed partner roles for message type **ZP##**. The allowed partner roles should already have been copied when your new message type was created. If necessary, add at least one new entry for **partner role LF** and **medium 1**.

Step 5

Check that an **output program** and a **form** have been assigned to message type **ZP##** for print output. This should have happened as a result of the copying of **NEU**. If not, maintain this data (as for **NEU**).

Continued on next page

2. Message type **ZP##** is only to lead to a print output if the **original purchase order** is sent as a fax. You achieve this by creating **two** condition records for **each vendor** who is to receive a fax, one with the message type **NEU** for fax transmission to the vendor and one with the message type **ZP##** for the printout.

Can you use the same access sequence as for message type NEU to localize this condition record?

With which key combinations can or must you maintain the individual message records (condition records)?

Maintain the necessary condition records for **vendor T-K500A##**. Use the condition table containing the **vendor, purchasing organization, and document type** for both message types **NEU** and **ZP##**.

3. Test your settings.

First enter any fax number in the master data for vendor **T-K500A##**.

Then create a new purchase order for vendor **T-K500A##** with document type **Y##**. Check that the correct message types are displayed.

Purchase order number:

Solution 28: Message Determination and Output Control

Task 1:

Message schema

1. Which message schema has been assigned to the purchasing document category “purchase order”?

-
- a) *IMG → Materials Management → Purchasing → Messages → Output Control → Message Determination Schemas → Define Message Schema for Purchase Order*

Choose *Assign Schema to Purchase Order*.

Schema **RMBEF1** has been assigned.

2. Is a new message determination process triggered for the printing of change messages (you will find the relevant switch on the message schema assignment screen)?

-
- a) No, the indicator **N** for new message determination for change messages has not been set for message schema RMBEF1.

3. Which message types does the schema determined in task 1 contain? Which requirements are checked in the case of these message types?

Continued on next page

Message Type	Requirement

- a) Choose **Maintain Message Determination Schema: Purchase Order**

Select the schema **RMBEF1**.

Choose **Control data**.

Schema RMBEF1 contains the following message types:

Message Type	Requirement
NEU (new printout of purchase order)	101
MAHN (Dunning)	103
AUFB (Dunning Ord Conf)	107



Hint: The schema may contain other message types in addition to the above three.

Task 2:

Message types

1. Take a look at the details for message type **NEU**. Which access sequence is used for this message type?

Are conditions accessed for this message type? _____

Which indicator controls printer determination? _____

Continued on next page

- a) *IMG → Materials Management → Purchasing → Messages → Output Control → Message Types → Define Message Types for Purchase Order*

Choose *Maintain Message Types for PO*.

Select message type **NEU** and choose *Details*.

General Data tab page.

Access sequence: **Z987**.

Condition access: **Yes**.

Print tab page:

The printer is determined by reference to the **purchasing group**.

2. For which output operations is this message type used (fine-tuned control)?

-
- a) Choose *Fine-Tuned Control: Purchase Order*.

The message type NEU is used for the print operations 1 (new) and 2 (change).

Task 3:

Access sequences and condition records

1. Take a look at the detail screen for the **access sequence** for message type **NEU**. In which order are message records accessed in the case of this access sequence (= order of condition tables)?

Continued on next page

- a) *IMG* → *Materials Management* → *Purchasing* → *Messages* → *Output Control* → *Access Sequences* → *Define Access Sequence for Purchase Order*

Select access sequence **Z987**.

Choose *Accesses*.

The message records are determined in the following order:

- Purchasing Output Determination: Purchasing Org./Vendor for EDI
- Purchasing Output Determination: Document Type/Purchasing Org./Vendor
- Purchasing Output Determination: Document Type
- Purchasing Output Determination: Purchasing Organization

(Reading from top to bottom.)

2. In the Purchasing application menu, call up the function for changing message records for purchase orders under **Master Data**.

For which **key combinations** can you maintain message records for the message type **NEU**? Compare the key combinations with the access sequence.

-
-
- a) On the *SAP Easy Access* screen, choose:

Logistics → *Materials Management* → *Purchasing* → *Master Data* → *Messages* → *Purchase Order* → *Change (transaction code MN05)*

Enter the message type **NEU** and choose *Continue*.

You can maintain message records that satisfy the criteria of the condition tables of access sequence **Z987** for message type **NEU**:

- Purchasing org./vendor for EDI
- Document type/purchasing org./vendor
- Document type
- Purchasing organization

Continued on next page

3. Choose the third condition table (Purchasing Message Determination: Document Type) and display the message record (condition record) for message type **NEU** and document type **NB**. Make a note of the following data of this message record:

Transmission medium: _____
 Date/time: _____
 Output device: _____
 Indicator for immediate output: _____

- a) On the *SAP Easy Access* screen, choose:

Logistics → **Materials Management** → **Purchasing** → **Master Data**
 → **Messages** → **Purchase Order** → **Display (transaction code MN06)**

Enter message type **NEU**.

Choose **Message/Output Determination for Purchasing: Document Type**.

Press **Choose**.

Enter document type **NB** and then choose **Execute**.

Transmission medium: **1 (print output)**.

Date/time: **3 (via application-specific transaction)**.

To determine the output device and the indicator for immediate output, choose **Communication**.

Output device: **LP01**

Indicator **Print Immediately** : No.

4. Create a new purchase order with document type **NB**. Only enter the data at header level (Vendor **T-K500C##**, Purchasing Organization **1000**, Buyer Group **L##**).

For which message types were messages created? Which medium and time are proposed for the output? Which information do you get on the detail screen for the communication data for this message?

Transmission medium: _____
 Date/time: _____
 Output device: _____

Continued on next page

Why was a message generated for this purchase order? From which message record (condition record) does this information originate?



Hint: You can check this information using the determination analysis function.

Save your data with the function *Hold*.

Purchase order number 1:

a) On the *SAP Easy Access* screen, choose:

Logistics* → *Materials Management* → *Purchasing* → *Purchase Order* → *Create (Transaction code ME21N)

Enter the data specified at header level.

Choose ***Messages***.

The message output is displayed.

Transmission medium: 1

Date/time: 3

Select the message type **NEU**.

Choose **Communication Method** to display the printer.

Logical destination: **LP01**.

To display the determination analysis, choose ***Goto* → *Determination Analysis***.

In both overviews, you see that a message has been found for the condition type **NEU**.

By double clicking the line with the message type **NEU** (*Expand*) in the overview on the left, you can see that the message with access 30 was found in the third **condition table**.

By clicking on the line with the access 30 (select it by placing the cursor on it), on the right side of the screen you see that a condition record was found for **document type NB**.

Choose *Hold*.

Continued on next page

5. Create a new purchase order with document type **Y##**. Only enter the data at header level (Vendor **T-K500C##**, Purchasing Organization **1000**, Buyer Group **L##**).

For which message types were messages created? Which medium and time are proposed for the output? Which information do you get on the detail screen for the communication data for this message?

Transmission medium: _____
 Date/time: _____
 Output device: _____

Save your data with the function *Hold*.

Purchase order number 2:

- a) On the *SAP Easy Access* screen, choose:

Logistics → Materials Management → Purchasing → Purchase Order → Create (Transaction code ME21N)

Enter the data specified at header level.

Choose ***Messages***.

The message output is displayed:

Transmission medium: 1
 Date/time: 3
 Output device: LP01



Hint: This message record was created based on the condition record for purchasing organization 1000.

6. Is there a message record for document type **Y##** in the third condition table (Message/Output Determination for Purchasing: Document Type) under master data for message type **NEU**?

Continued on next page

-
- a) On the *SAP Easy Access* screen, choose:
- Logistics* → *Materials Management* → *Purchasing* → *Master Data*
→ *Messages* → *Purchase Order* → *Display (transaction code MN06)*
- Enter message type **NEU**.
- Choose **Key Combination** or choose **Continue**.
- Choose the key combination **Purchasing Output Determination:
Document Type**.
- Confirm your entries.
- Enter document type **Y##** and then choose **Execute**.
- Message: "There are **no** condition records for this selection"
7. Specify for your document type **Y##** that two copies are to be printed on the "buyer's printer" at the explicit request of the buyer.

Continued on next page

Create a condition record for your document type **Y##** without maintaining the printer. Instead, use the relevant IMG activity to assign the printer to the **purchasing group**. Use the printer **A000** or ask the instructor for a valid printer.

a) On the *SAP Easy Access* screen, choose:

Logistics → Materials Management → Purchasing → Master Data → Messages → Purchase Order → Create (transaction code MN04)

Enter message type **NEU**.

Choose **Key Combination** or choose **Continue**.

Choose the key combination **Purchasing Output Determination: Document Type**.

Enter document type **Y##** and then choose **Execute**.

Transmission medium: 1

Date/time: 3

Choose **Continue**.

Select the entry and choose **Communication**.

Output device: No entry.

Number of messages: 2

Save your entries.

b) The printer must be assigned to the purchasing group. Enter the printer in the IMG:

IMG → Materials Management → Purchasing → Messages → Assign Output Devices to Purchasing Groups

Assign the printer **A000** to your purchasing group **L##**.

8. Take another look at the message output for the purchase order 2 from subtask 5. Choose the PO change function again. Which information do you now get on the detail screen for the communication data for this message?

Transmission medium: _____

Date/time: _____

Output device: _____

From which message record (condition record) does this information originate?

Continued on next page

-
- a) On the *SAP Easy Access* screen, choose:

Logistics → Materials Management → Purchasing → Purchase Order → Change (Transaction code ME22N)

Choose ***Purchase Order → Other Purchase Order***

Enter the **PO number** and choose ***Other Document***.

Choose ***Messages***.

Transmission medium: **1**

Date/time: **3**

Choose ***Communication Method***.

Output device: **A000**

Number: **2**

The data on transmission medium, time-spot, and number originate from the **condition record** that you created in task 7; the printer from the table ***Output Devices for Purchasing Group***.

Task 4:

New message type (optional exercise)

1. You need copies of POs sent by fax for your own files. Therefore, you use message type **NEU** to carry out the fax transmission to the vendor, plus a **new message type** to print out the PO in each case.

You must enter two condition records: One for the fax transmission and one for the printout.

Outline the procedure for adding this new message type for purchase orders. Alternatively realize the scenario on the basis of the steps described in the following (if there is enough time).

Continued on next page

Step 1

To have copies of fax messages printed out, you define the new message type **ZP##**. Create this message type by copying **NEU**. When copying the message type, select **Copy All** when asked to do so.

Which **transmission medium** must you define for message type **ZP##**?

Step 2

Add an entry for this message type in the **Table for Fine-Tuned Control**. Add an entry for **print operation 1** and your **message type ZP##**.

Step 3

Maintain **message schema RMBEF1** to include your **message type**. Use step **50** and counter **##** (or step **50+##** and counter **0**). Use **requirement 101**.

Step 4

Check the allowed partner roles for message type **ZP##**. The allowed partner roles should already have been copied when your new message type was created. If necessary, add at least one new entry for **partner role LF** and **medium 1**.

Step 5

Check that an **output program** and a **form** have been assigned to message type **ZP##** for print output. This should have happened as a result of the copying of **NEU**. If not, maintain this data (as for **NEU**).

a) Procedure:

- Create new message type.
- Maintain fine-tuned control.
- Extend message schema.
- Check partner roles.
- Create condition record.

Step 1:

IMG → **Materials Management** → **Purchasing** → **Messages** → **Output Control** → **Message Types** → **Define Message Types for Purchase Order**

Choose **Maintain Message Types for PO**.

Select **NEU**.

Choose **Copy as**.

Continued on next page

Enter your new message type **ZP##** and a name.

Specify the transmission medium **print output** as the presetting (**Default Values** tab page).

Choose *Continue*.

Choose *Copy all* if asked to do so.

Save your entries.

Step 2:

Choose *Fine-Tuned Control: Purchase Order*.

Create a *New Entry* for **print operation 1** and your **message type ZP##**.

Save your entries.

Step 3:

Maintain the message schema **RMBEF1**.

IMG → Materials Management → Purchasing → Messages → Output Control → Message Determination Schemas → Define Message Schema for Purchase Order

Choose *Maintain Message Determination Schema: Purchase Order*

Select **RMBEF1**.

Choose **Control Data**.

Add a *new entry*, for example, with **step 50** and **counter ##** (or with **step 50+##** and **counter 0**) for your **message type ZP##**. Enter **requirement 101**.

Save your entries.

Step 4:

(Due to the fact that you are copying, it is likely that no entries will be necessary.)

IMG → Materials Management → Purchasing → Messages → Output Control → Partner Roles per Message Type → Define Partner Roles for Purchase Order

Make sure there is an entry for **partner role VN** and **medium 1**. Add this entry if necessary.

Continued on next page

Save your entries.

Step 5:

(Due to the fact that you are copying, it is likely that no entries will be necessary.)

IMG → Materials Management → Purchasing → Messages → Forms (Layout Sets) for Messages → Assign Form and Output Program for Purchase Order

Select the entry for **message type NEU** and **medium 1** and choose ***Copy as***.

Enter your message type **ZP##** and choose ***Continue***.

Save your entries.

2. Message type **ZP##** is only to lead to a print output if the **original purchase order** is sent as a fax. You achieve this by creating **two** condition records for **each vendor** who is to receive a fax, one with the message type **NEU** for fax transmission to the vendor and one with the message type **ZP##** for the printout.

Can you use the same access sequence as for message type NEU to localize this condition record?

With which key combinations can or must you maintain the individual message records (condition records)?

Continued on next page

Maintain the necessary condition records for **vendor T-K500A##**. Use the condition table containing the **vendor, purchasing organization, and document type** for both message types **NEU** and **ZP##**.

- a) Since the determination process is based on the vendor, the purchasing organization, and the document type, you can use the same access sequence **Z987** as for message type **NEU**. You must maintain condition records in the second condition table (depending on vendor, purchasing organization, and document type):

On the *SAP Easy Access* screen, choose:

Logistics → **Materials Management** → **Purchasing** → **Master Data**
→ **Messages** → **Purchase Order** → **Create (transaction code MN04)**

First condition record:

Enter message type **NEU**.

Choose **Key Combination**.

Choose the key combination **Purchasing Output Determination: Document Type/Purchasing Org./Vendor**.

Enter the following:

Document type **Y##**, purchasing organization **1000**, vendor **T-K500A##**, medium **2 (fax)**.

Save your entries.

Second condition record:

Enter message type **ZP##**.

Choose **Key Combination**.

Choose the key combination **Purchasing Output Determination: Document Type/Purchasing Org./Vendor**.

Enter the following:

Document type **Y##**, purchasing organization **1000**, vendor **T-K500A##**, medium **1 (print output)**.

Save your entries.

3. Test your settings.

First enter any fax number in the master data for vendor **T-K500A##**.

Continued on next page

Then create a new purchase order for vendor **T-K500A##** with document type **Y##**. Check that the correct message types are displayed.

Purchase order number:

- a) On the *SAP Easy Access* screen, choose:

Logistics → Materials Management → Purchasing → Master Data → Vendor → Purchasing → Change (Current) (transaction code MK02)

Choose vendor **T-K500A##** and select **Address**. Enter any fax number and save.

On the *SAP Easy Access* screen, choose:

Logistics → Materials Management → Purchasing → Purchase Order → Create → Vendor/Supplying Plant Known (transaction code ME21N)

Change the document type to **Y##** and enter vendor **T-K500A##**.

Choose **Continue**.

Choose **Messages**.

Message type **NEU** with transmission medium **2** and message type **ZP##** with transmission medium **1** are displayed.



Lesson Summary

You should now be able to:

- Describe the message determination process for purchase transactions

Related Information

For a detailed description of the message determination process, refer to the documentation *CA Message Control* in the SAP Library under: *SAP Library* → *SAP ERP Central Component* → *Cross-Application Components* → *General Application Functions (CA-GTF)* → *Message Determination (CA-GTF-BS)*.

Lesson: Message Determination in Inventory Management



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Lesson Duration: 40 Minutes

Lesson Overview

This lesson describes message determination in inventory management. (Note that, in the system, message determination is sometimes also referred to as 'output determination' and messages as 'output'.) In addition to printed output, mail messages are a particular feature of this area. The lesson also gives you an overview of the missing part check.



Lesson Objectives

After completing this lesson, you will be able to:

- Specify the details relating to message (output) determination in inventory management



This is usually the last lesson in the course. Depending on the time available, you can either skim through the content or cover it at some length.

Business Example

You have been asked to give an overview of the configuration of the message determination facility in inventory management.

Missing Part Check

You can use a missing part check in the SAP System. As a result of this check, a message to a materials planner or expeditor can be triggered when the receipt of a missing part (a part you are short or out of) is posted, for example. The generation and transmission of this notification of the receipt of a missing part is accomplished via the message determination facility.

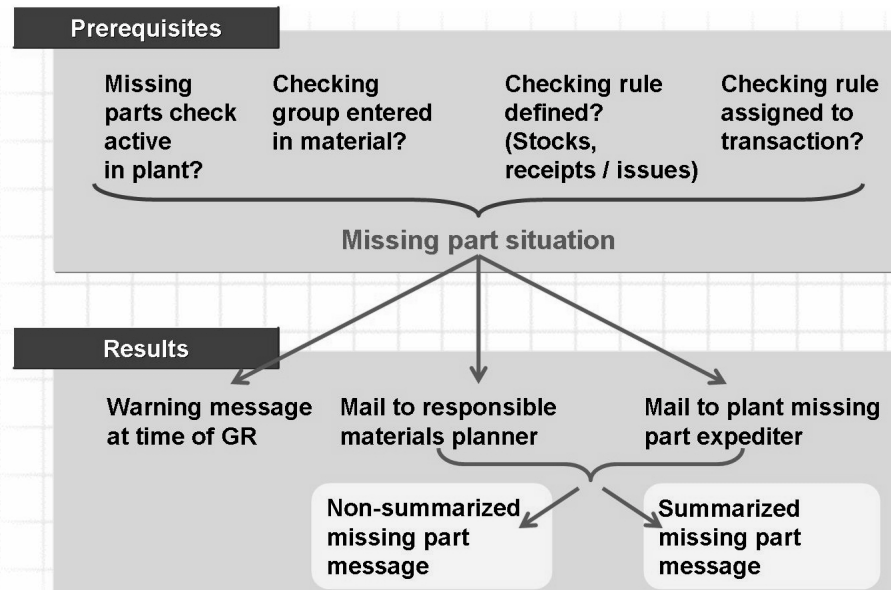


Figure 137: Information on Missing Parts

Activation of missing part check:

The missing part check is carried out only if the check has been activated in the plant, a checking rule has been defined for the transaction, and a checking group has been assigned for the availability check in the material master record.

Determination of checking rule:

Checking is carried out on the basis of checking rules (at transaction level, the same as for the availability check). The checking rule determines which stocks and requirements are to be taken into consideration.



Hint: When you post a goods receipt with transaction MIGO, transaction MIGO_GR is executed in the background. You must, therefore, enter the checking rules for goods receipts for transaction MIGO_GR.

Control of warning message:

The warning message at the time of goods receipt can be activated or deactivated depending on the user.

Determination of materials planner (MRP controller):

The system sends the responsible materials planner the missing part message only if the planner has been assigned a user ID for the electronic mail program. If this is not the case, the system searches for the central missing part expediter in the plant and sends him the message. If no office user has been assigned to this person either, no internal message can be sent.

At the time of goods receipt, the person entering the receipt receives a warning message stating that the materials planner has been notified accordingly.

Types of missing part message (output via message determination):

- Non-summarized: One internal message with a maximum of five MRP elements for each missing part material
- Summarized: One internal message per material document and plant with the list of missing part materials but without information on the MRP elements

You can define the text of the missing part message in message determination for inventory management.

Message Determination

The message (output) determination process for inventory management is similar to that for purchasing. However, in the case of inventory management, the condition records (application data!) are maintained in Customizing and not in the *inventory management* application.



Hint: Appendix 1 contains a description of the general process flow of the message determination together with an explanation of the terms.

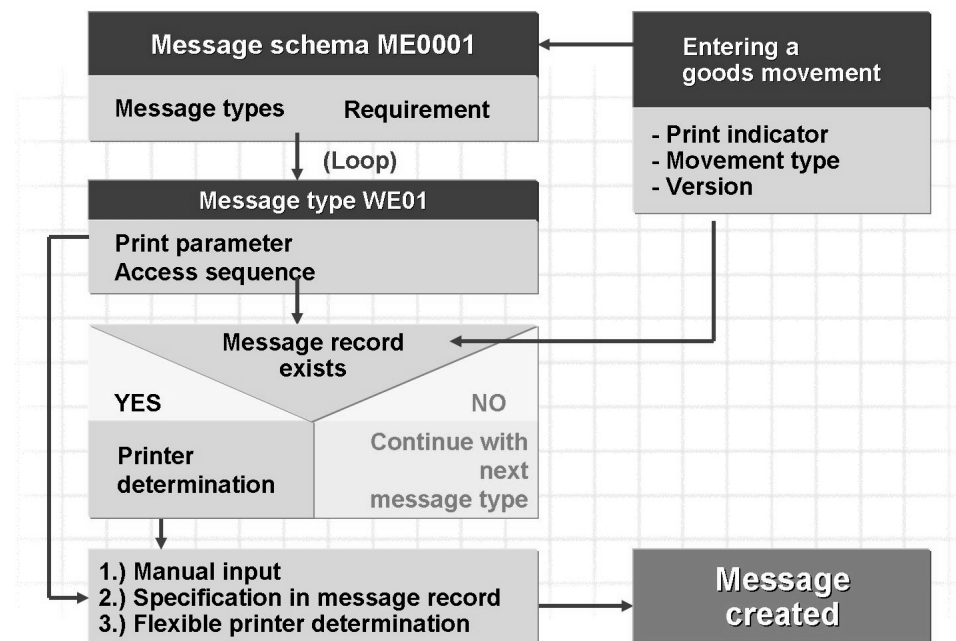


Figure 138: Generation of Messages in Inventory Management

The message schema (note that a schema is sometimes also referred to as a 'procedure') contains all defined message (output) types. Requirements are checked for some message types (for example, MLGR).

Each message type is assigned to an access sequence. The access sequences of the standard SAP system each contain a single condition table which must contain the necessary condition records for message output.

You specify which printers (logical printer names) to be used for printing goods movement documents are barcode-capable and which support multiple output. Choose: *IMG* → *Materials Management* → *Inventory Management and Physical Inventory* → *Print Control* → *General Settings*.

The following variants (which can be defined separately for each message type via the print parameter) are available for flexible determination of a printer:

- Assignment of printer per message type/plant/storage location
In this case, you specify the printer for the papers accompanying the goods for each combination of message type, plant, and storage location.
An entry with *Storage Location* = ' ' (*blank*) is necessary for printouts for goods movements without specification of a storage location (for example, with movement type 103) or goods receipt for a purchase order item with account assignment.
Entries without a message type are valid for all message types (for the same plant and the same storage location) for which no special entry exists.
- Assignment of printer per message type/plant/storage location/user group
In this case, you specify the printer for the papers accompanying the goods for each combination of message type, plant, storage location, and user group. For entries without a message type or without a storage location, the same applies as above.
The user group must be entered in the user master record with user parameter ND9.
- Assignment of printer per message type/user
For the application ME, you can assign a printer per message type and user.
- Fixed values for user
- Printer determination via USER EXIT

You can define your own item printout indicator – for a return delivery of materials to a vendor, for example – and assign this indicator to the movement type for return deliveries. You can use the various item printout indicators for selection purposes in message determination and thus indirectly for the employment of different forms.

You can either retain the form supplied in the standard system to print goods receipt/issue slips or design one of your own using SAPscript or SMARTFORMS functions.

The condition table for goods-accompanying papers such as GR or GI slips (message types WE01, WE02, WA01, ...) contains the following as the key:

- The transaction/event type, derived from the SAP transaction or event
- The print version, suggested by the system depending on the SAP transaction used
- The item printout indicator assigned to the movement type

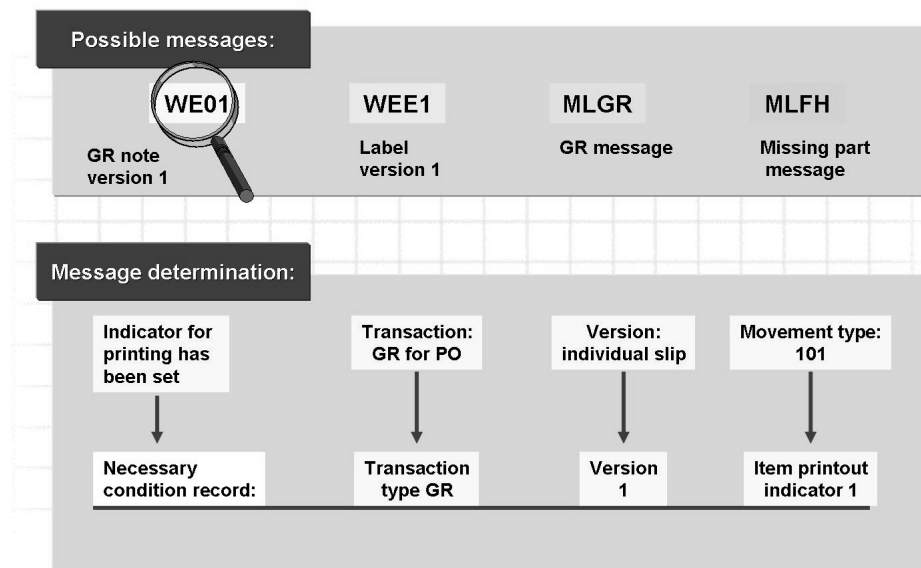


Figure 139: Example 1: Messages in the Case of GR for Purchase Order

Label Printing

There are separate settings for label printing.

For label printing, you must maintain a label text.

You can define label types and label forms any way you wish. Both values must be entered in the material master record.

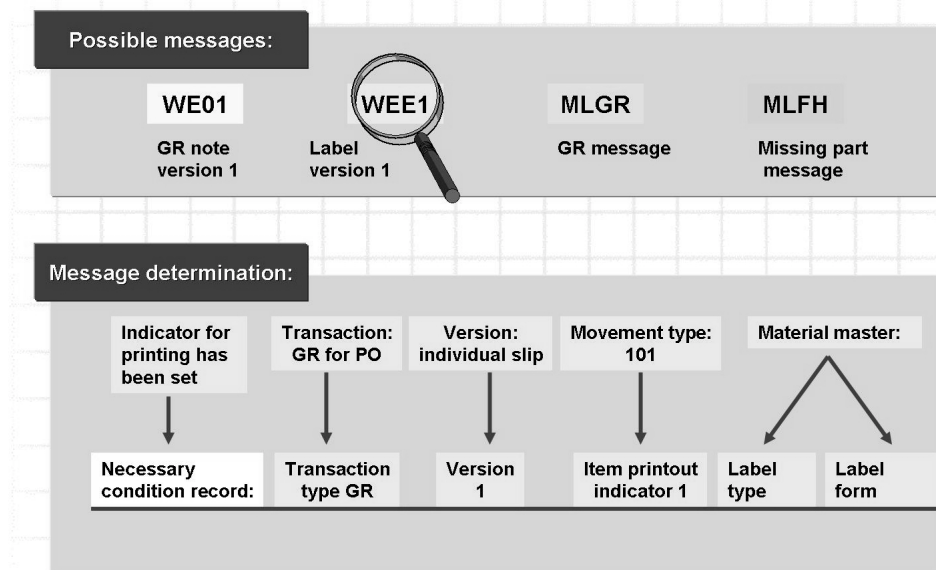


Figure 140: Example 2: Messages in the Case of GR for Purchase Order

You can specify the number of labels for every possible combination of label type and form. You can use the following variants for the number of labels:

- Quantity in the base unit of measure
- Quantity in the unit of entry
- Quantity in the purchase order price unit

Settings for System Messages

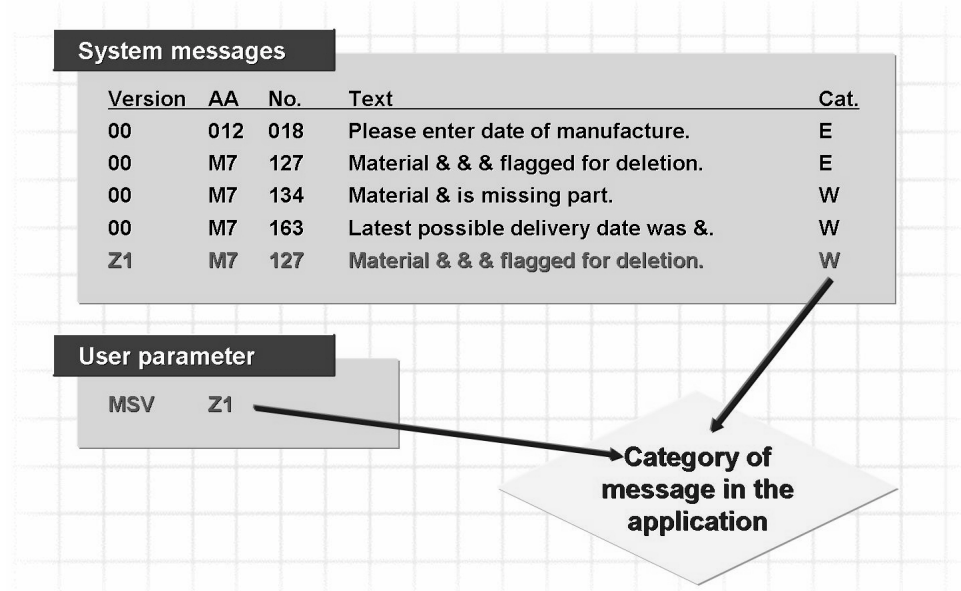


Figure 141: System Messages in Inventory Management

If you wish to determine the number of a message you have received, you can call up the long text of the message with a double-click. You see, for example, the application area, and the message number. All controllable messages have the version 00 in the standard system.

You can define the nature of the system messages (the message type) for each version:

- Warning message
- Error message
- No message

You can define your own versions (for example, Z1) to control the output of system messages on a user- or user-group-dependent basis. Each user for whom this version is to apply must have the user parameter MSV with the value of the new version entered in his or her own data.

If the parameter MSV has not been maintained for a user, the system uses version 00.

If the table does not contain an entry for a particular version for a message, such as Z1, then the message is output with the message type that is assigned to version 00 of the message.



Hint: You should not change messages defined as error messages in the basic setting into warning messages or suppress them. On the other hand, it can make sense to suppress warning messages or have them issued as error messages for certain users.

A number of messages (for example, M7 053 *posting only possible in periods YYYY/MM and YYYY/NN in the company code nnnn*) cannot be changed.

You can set up the system message in other areas (for example, purchasing) in the same way as for inventory management.



Demonstration: For Message Determination in Inventory Management

Purpose

This demonstration shows how to make Customizing settings and thus introduces the options customers have for adjusting the SAP system to their specific company requirements.

System Data

System:	Training system
Client:	Training client
User ID:	Own user ID
Password:	User password
Set up instructions:	No additional setup instructions

1. Show the most important Customizing settings for the individual slides and associated details in the application. In doing so, use the exercises as a guide.



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Exercise 29: Message Determination

Exercise Duration: 35 Minutes

Exercise Objectives

After completing this exercise, you will be able to:

- Check and adjust the message (output) determination facility in Inventory Management
- Make further settings for the output of messages in Inventory Management

Business Example

In your company, accompanying papers (such as goods issue or receipt slips) are printed for various goods movements. In addition to having such goods-accompanying papers printed out using the message (or output) determination facility, you want the responsible buyer to be informed of any return deliveries of goods he or she has ordered by means of an internal message. You are the member of the project team responsible for the settings for message determination in Inventory Management.

System Data

System:	Training system
Client:	Training client
User ID:	SCM550-##
Password:	User password
Set up instructions:	IDES

Task 1:

Message schema, message types

1. Which schema is assigned for message determination purposes in Inventory Management?

2. Which message types are provided for sending internal notifications to employees? Are these message types subject to any restrictions or conditions concerning their transmission?

3. *Optional:*

Continued on next page

What do you have to do in order to have the buyer informed by means of an internal message when materials he or she has ordered are returned to the vendor?

4. *Optional:*

Do you need your own new condition that is to be checked in the event of a return delivery?

Task 2:

Optional: Access sequences and condition tables

1. Take a look at the access sequences for message (output) determination in Inventory Management. Is there a suitable access sequence that you can assign to the new message type (output type) **RULI**? Justify your answer.

2. How can you ensure that a message of the new type is generated only in the case of the movement type for return deliveries?

3. Which other data also has to be created prior to a test?

Solution 29: Message Determination

Task 1:

Message schema, message types

1. Which schema is assigned for message determination purposes in Inventory Management?

a) *IMG → Materials Management → Inventory Management and Physical Inventory → Output Determination → Maintain Output Determination Procedures*

Choose *Conditions: Procedure*.

The message schema (output procedure) is **ME0001**.

2. Which message types are provided for sending internal notifications to employees? Are these message types subject to any restrictions or conditions concerning their transmission?

Continued on next page

-
- a) *IMG → Materials Management → Inventory Management and Physical Inventory → Output Determination → Maintain Output Types*

Select the first message (output) type in the table and choose *Processing Routines* in the dialog structure.

Only one entry for this message type is displayed. This entry contains the transmission medium 7 (**simple mail**) and a program for processing the message.

Message types with the transmission medium **simple mail** and **partner role MP** are internal messages.

The following message types are configured for sending messages internally:

MLFH, MLGR, MLMD

- b) You can see the assignment to a condition in the message schema:

IMG → Materials Management → Inventory Management and Physical Inventory → Output Determination → Maintain Output Determination Procedures

Choose *Conditions: Procedure*.

Select message schema (output procedure) **ME0001**.

Choose *Control Data* in the dialog structure.

- MLFH (no requirement)
- MLGR (requirement 171)
- MLMD (requirement 172)

The requirements indicate the preconditions under which the relevant message (output) type is generated.

3. *Optional:*

What do you have to do in order to have the buyer informed by means of an internal message when materials he or she has ordered are returned to the vendor?

Continued on next page

-
- a) You need a new message (output) type, such as **RULI**, to which the partner role **ZP** (mail partner) is to be assigned together with transmission medium **simple mail**, a **processing program**, and a form routine (**SAPOFFICE_AUFRUF**).

The message type must be included in the schema (procedure) **ME0001** and at least one condition record must be created.

The condition record must contain the **item printout indicator** for **movement type 122**.



Hint: You control the dependency of the transmission of this message via a separate item printout indicator for movement type 122.

4. *Optional:*

Do you need your own new condition that is to be checked in the event of a return delivery?

-
- a) No, no further query is necessary because of a new item printout indicator that is assigned to movement type 122. The movement type alone can represent the dependency.

Task 2:

Optional: Access sequences and condition tables

1. Take a look at the access sequences for message (output) determination in Inventory Management. Is there a suitable access sequence that you can assign to the new message type (output type) **RULI**? Justify your answer.

- a) **IMG** → **Materials Management** → **Inventory Management and Physical Inventory** → **Output Determination** → **Maintain Access Sequences**

An existing access sequence (**such as 0003**) can be used because it contains the **item printout indicator** as one of the keys.

Continued on next page

2. How can you ensure that a message of the new type is generated only in the case of the movement type for return deliveries?

- a) ***IMG → Materials Management → Inventory Management and Physical Inventory → Print Control → Maintain Print Indicator for Goods Receipt Documents***

You must use a separate item printout indicator for movement type 122. This indicator must not be assigned to any other movement type.

Since the indicator 2 for return deliveries is also used for movement type 161, you must first create a new indicator under

IMG → Materials Management → Inventory Management and Physical Inventory → Print Control → General Settings

(for example, 7). You then assign this to movement type 122.

3. Which other data also has to be created prior to a test?

- a) ***IMG → Materials Management → Inventory Management and Physical Inventory → Output Determination → Maintain Conditions***

Condition records must be created for the new message type.



Hint: In Inventory Management, the condition records are maintained in Customizing (IMG).

In Purchasing, on the other hand, the condition records are maintained via the SAP menu under master data for Purchasing.



Lesson Summary

You should now be able to:

- Specify the details relating to message (output) determination in inventory management

Related Information

For a detailed description of the message determination process, refer to the documentation *CA Message Control* in the SAP Library under: *SAP Library* → *SAP ERP Central Component* → *Cross-Application Components* → *General Application Functions (CA-GTF)* → *Message Determination (CA-GTF-BS)*.

- Using a URL or CrossReference tag, point out additional information that may be useful to participants in certain circumstances. For example, websites or white papers. Delete if not applicable.



Unit Summary

You should now be able to:

- Describe the message determination process for purchase transactions
- Specify the details relating to message (output) determination in inventory management



Course Summary

You should now be able to:

- Enter goods movements, including goods receipts, transfer postings, and goods issues
- Process reservations
- Execute the inventory
- Analyze stocks and transactions for Inventory Management and physical inventory
- Make the Customizing settings for inventory management and physical inventory
- Make Customizing settings for purchasing
- Make simple settings for message (output) determination in purchasing and inventory management

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Feedback

SAP AG has made every effort in the preparation of this course to ensure the accuracy and completeness of the materials. If you have any corrections or suggestions for improvement, please record them in the appropriate place in the course evaluation.