



Material Handlers MM_PM_300



Introduction



- Content
- Objectives



Course Content



- Unit 1 – Organizational Structure and Master Data
- Unit 2 – MIGO Functions and Features
- Unit 3 – Basic Inventory Concepts and Processes
- Unit 4 – Goods Receipts
- Unit 5 – Reservations & Goods Issues
- Unit 6 – Transfer Postings
- Course Summary



Learning Objectives



- At the conclusion of this course you should be able to:
 - ♦ Understand the relationship between the organizational structure and master data
 - ♦ Use the MIGO transaction to execute various goods movements in SAP
 - ♦ Create a personal favorites list of frequently used movement types
 - ♦ Understand the relationship between goods movements and movement types
 - ♦ Execute goods movements in SAP

Learning Objectives cont'd



- At the conclusion of this course you should be able to:
 - ♦ Cancel/ reverse goods movements
 - ♦ Execute a return to vendor transaction, issue goods to cost centers, work orders, reservations and scrap
 - ♦ Transfer materials from one location to another
 - ♦ Pick and issue materials
 - ♦ Differentiate between a stock and non-stock material

Unit 1



Organizational Structure and Material Master

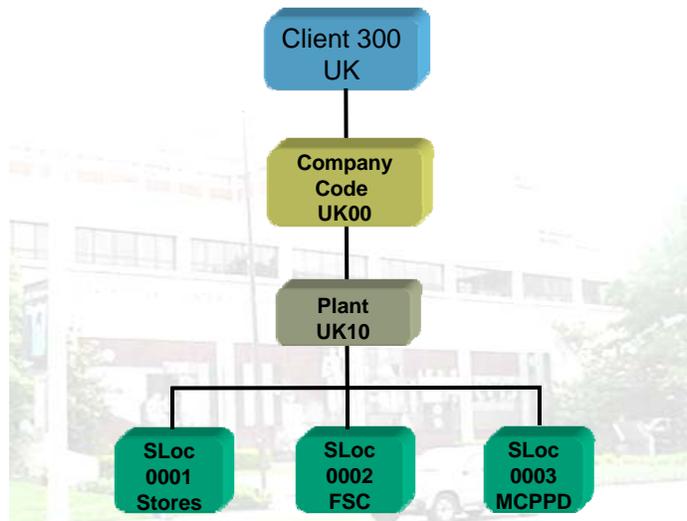
Learning Objectives



- At the conclusion of this unit you should be able to:
 - ♦ Understand the organizational structure from an inventory management viewpoint
 - ♦ Display material master by plant and storage location views



UK Enterprise Structure

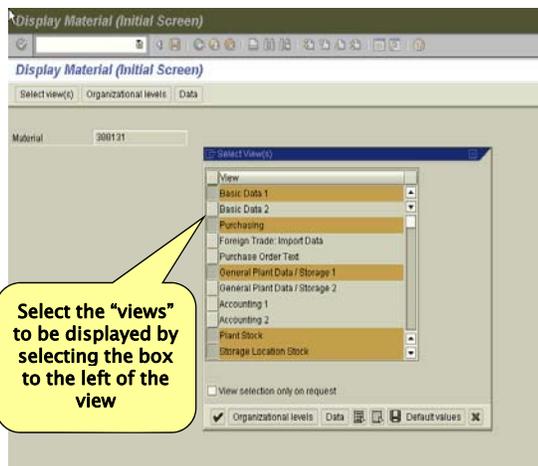


Material Master



- UK manages basic data on all its materials in the material master
- The material master stores all the relevant data needed to procure, consume and store a material
- Data in the material master is organized by levels (client, plant, storage location, etc.)
- Materials are also grouped together using material types
- Material types group together materials with similar attributes
- UK Central Stores is using two material types:
 - ♦ YIBE - Stocked facility supplies
 - ♦ YLAG - Non-stocked facility supplies

Display a Material - MM03



Based on the views selected, organizational values are required



Material Master – Basic Data 1



Change Material 300004 (Stock Facilities Supplies)

Change Material 300004 (Stock Facilities Supplies)

Additional data | Organizational levels | Check screen data

Basic data 1 | Basic data 2 | Purchasing | Foreign trade import

Material 300004 BASE SIMPLEX #4098-9792

UKY Data

CDM Relevant? Haz.Mat Latex

Materials CDM:

General data

Base Unit of Measure	EA	Each	Material Group	C1135-06
Old material number	5970-8846			
Division				
Product allocation				
X-plant matl status	02	Valid from	01/10/2007	

- General data: Information used to manage materials
- Other fields may populate based on specific information

Purchasing View



- The Mfr part number is the actual vendor part number and will be printed on the purchase order

Display Material 300004 (Stock Facilities Supplies)

Display Material 300004 (Stock Facilities Supplies)

Additional data | Organizational levels

Basic data 2 | Purchasing | Foreign trade import | Purchase order...

Material 300004 BASE SIMPLEX #4098-9792

Plant UKT0 UK Facilities

General data

Base Unit of Measure	EA	Each	Order Unit		Var. OUn
Purchasing Group	013		Material Group	C1135-06	
Plant-sp matl status			Valid from		
Tax ind. f. material			Qual.f.FreeGoodsDis.		
Material freight grp			<input type="checkbox"/> Autom. PO		
<input type="checkbox"/> Batch management					

Purchasing values

Purchasing value key	3	Shipping instructs.	
Reminder 1	1 days	Underdel. tolerance	0.0 percent
Reminder 2	3 days	Overdelv. tolerance	0.0 percent
Reminder 3	10 days	Min. del. qty in %	0.0 percent
Std del. time var.	0 days	<input type="checkbox"/> Unltd overdelivery	<input type="checkbox"/> Acknowledgment reqd

UKY Manufacturer Data

Mfr part number	4098-9792	Mfr part profile	
Orig-Mfr part number		Orig-Mfr	118472

Material Master – Plant/Storage Data 1



- The Storage bin field is used to identify the location of the material in the Storage Location (A01-01-112)

Material: 300131 TANK BALL, TRIPLE SEAL
 Plant: UK10 UK Facilities
 Stor. Loc.: 8001 Central Stores

General data

Base Unit of Measure	EA	Each	Unit of issue	
Storage bin	A01-01-112		Picking area	
Temp. conditions			Storage conditions	
Container reqmts			Haz. material number	
CC phys. inv. int.		<input type="checkbox"/> CC fixed	Number of GR slips	0
Label type		Lab. form	<input type="checkbox"/> Appr. batch rec. req.	
<input type="checkbox"/> Batch management				

Shelf life data

Max. storage period	0	Time unit	
Min. rem. shelf life	0	Total shelf life	0
Period ind. for SLED	0	Rounding rule SLED	
Storage percentage	0		

Material Master – Plant Stock



- Plant Stock displays the stock situation within the entire plant (UK10)

Material: 300131 TANK BALL, TRIPLE SEAL
 Plant: UK10 UK Facilities

General data

Base Unit of Measure	EA	Each	Inventory blocking	
Current period	08 2007		Previous period	07 2007
Invent. corr. factor	1.00000			

Plant stocks in the current period

Unrestr.-use stock	110	Unrestr. consignment	0
Restricted-use stock	0	Restr. consignment	0
In quality insp.	0	Cnsgt. in inspection	0
Blocked	0	Blocked consignment	0
Returns	0		
Stock in transfer	0		
In transfer (plant)	0	Stock in transit	0

Plant stocks in the previous period

Unrestr.-use stock	20	Blocked	0
Restricted-use stock	0	Returns	0
In quality insp.	0	Stock in transfer	0

Material Master – Storage Location Stock



Display Material 300131 (Stock Facilities Supplies)

Additional data Organizational levels

Plant stock Stor. loc. stock

Material: 300131 TANK BALL, TRIPLE SEAL
Plant: UK10 UK Facilities
Stor. Loc.: 0001 Central Stores

General data

Base Unit of Measure: EA Each Inventory blocking:
Current period: 08 2007 Previous period: 07 2007
Invent. corr. factor: 1.00000

Storage location stocks in current period			
Unrestr.-use stock	116	Unrestr. consignment	0
Restricted-use stock	0	Restr. consignment	0
In quality insp.	0	Cnsqt in inspection	0
Blocked	0	Blocked consignment	0
Returns	0		
Stock in transfer	0		

Storage location stocks in previous period			
Unrestr.-use stock	20	Blocked	0
Restricted-use stock	0	Returns	0
In quality insp.	0	Stock in transfer	0

- Storage Location Stock displays the stock available within the storage location (0001)
- Stock in transfer is also displayed

Summary



- You should now be able to:
 - ♦ Understand the organizational structure from an inventory management viewpoint
 - ♦ Display material master views
 - ♦ Determine which materials are stock and non-stock





Inventory Management Overview

Learning Objectives

- At the conclusion of this unit you should be able to:
 - ♦ Understand the high level process overview
 - ♦ Understand the goods movement concept in SAP
 - ♦ Describe different kinds of goods movements in SAP and their relationship to movement types

Key Process Changes -



Before SAP	In SAP
CTRL "O" (order)	ZMM_GI_GR - Goods Issue 201
Sales Order - receive paper copy of ZForm	MB21 - Create Reservation
CTRL "D" + ST# creates picking list ZForm	ZMM_PICKT MB26 ZMM_SHORT
Excel Sheet - Manual Data Entry	MIGO - A09 Remove from storage 313 MIGO - A10 Place in Storage 315 MIGO - A08-Transfer Posting 314
CTRL "N"	ME2M - By Material ME2L - By Vendor
CTRL "8"	MIGO - Goods Receipt

Goods Movements



- A Goods Movement is movement of inventory that changes inventory balances in a given location
- Goods movements are represented by movement types
- Movement types are 3 digit numerical codes that describe the inventory transaction
- All material movements require the use of a combination of material master data and movement types
- You will not be able to perform some movement types if there is not inventory in the plant or storage location
- Material documents and accounting documents are generated real-time providing an audit trail for the goods movement

Material Movements – Examples



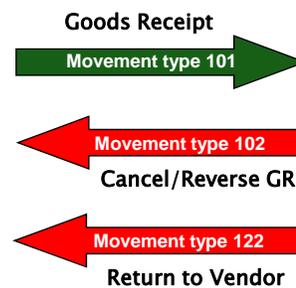
These are examples of typical material movements:

- Goods Receipts
- Goods Issues
- Stock Transfers (One Step or Two Step)
- Transfer Postings

**UK uses other movement types for Physical Inventory



Movement Types



Goods Receipts



- Goods receipts for stock material increase inventory
- A packing slip is required at time of receipt with a purchase order number on the document
- Stock/Non-Stock materials have the same movement type
- The referenced purchase order is updated to reflect the material as delivered



Stock Material (101)



Goods Issues



- Goods issues move inventory from one account to another (from an inventory stock account to a departmental account)
- Each type of goods issue is represented by a different movement type
- Examples of goods issues are:

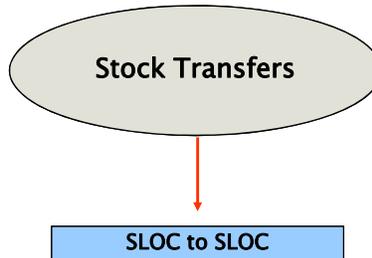


Reservation (201)

Cost center (201)

Scrap (551)

Stock Transfer Types



- Stock Transfers
 - ♦ Physical goods movement
 - ♦ Stock transfers can have one or two steps.

Material / Accounting Documents



- Material documents provide an on-line audit trail of the goods movement type executed
- Each movement type and reversal movement type will generate a material document
- An accounting document will provide an on-line audit trail of the associated dollars with the movement type
- Not all transactions generate an accounting document: for example a material is moved between storage locations

Material Document		Accounting Document	
Connor Brown Vendor 123 Main Street Lavonia, GA 30553		Connor Brown Vendor 123 Main Street Lavonia, GA 30553	
Received By: Helen Lee			
10	123-400 50 Ea Plant 1A1	10	123-400 45 Ea \$500.00
20	345-785 100 Ea Plant 1A1	20	345-785 100 Ea \$29.99
30	878-987 20 Ea Plant 1E1	30	878-987 10 Ea \$1,500.00
40	890-234 10 Car Plant 1M1	40	890-234 10 Car \$0.75
50	101-123 25 Ea Plant 1D1	50	101-123 25 Ea \$99.99

Effects of Goods Receipt

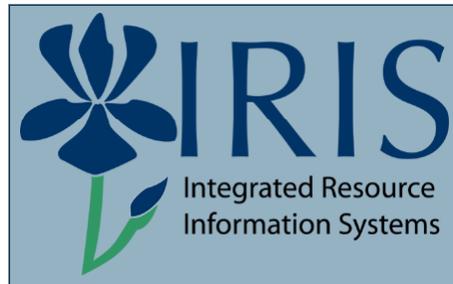


Summary



- You should now be able to:
 - ♦ Explain the use of movement types
 - ♦ Understand the relationship between transaction and reference documents
 - ♦ Understand the relationship between movement types and transaction





MIGO Features & Functions

Learning Objectives

- At the conclusion of this unit you should be able to:
 - ♦ Explain a transaction variant
 - ♦ Understand the relationship between transaction variants and reference documents
 - ♦ Understand the relationship between movement types and transaction variants
 - ♦ Create a Personal List for frequently used movement types

MIGO Structure



The screenshot displays the SAP MIGO transaction interface. On the left, a 'My Documents' tree is highlighted with a red box, showing a list of purchase orders and material documents. The main window is titled 'Goods Receipt Purchase Order - Linda Mathis'. It features a 'Header' section at the top, an 'Item Overview' table in the middle, and a 'Line Item Detail' section at the bottom. The 'Item Overview' table has columns for Line, Material ShortText, OK Qty in Line, E, Stor Loc, Batch, Valuation T, M, Stock Type, and Print. The 'Line Item Detail' section shows fields for Material, Quantity, and Where.

Transaction Variants



- Transaction variants describe the type of goods movement and must correspond to the appropriate goods movement
- SAP defaults the last transaction variant executed by the user and ***may need to be changed*** for the current goods movement
- All MIGO transaction variants can be accessed using the transaction code: MIGO-Goods Movement

The screenshot shows the SAP MIGO transaction interface with a dropdown menu open. The menu lists various transaction variants: A01 Goods Receipt, A09 Remove from Storage, A07 Goods Issue, A03 Cancellation, A04 Display, A10 Place in Storage, A05 Release GR blocked stock, A02 Return Delivery, A11 Subsequent Adjustment, and A06 Subsequent Delivery. The main window is titled 'Goods Receipt Purchase Order - Linda Mathis' and shows a table with columns for OK Qty in Line, E, Stor Loc, Batch, and Valuat.

Reference Documents



- Reference documents are linked to Transaction Variants
- Examples of reference documents are:
 - ♦ Purchase Orders
 - ♦ Reservations
- Only certain reference documents are allowed for each transaction variant
- SAP will display Error Messages in the event a user tries to use the wrong combination of Transaction Variant and Reference Document

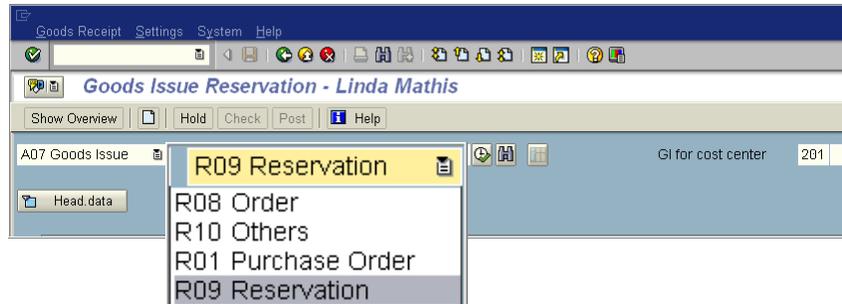
Goods Receipt Reference Documents



The screenshot shows the SAP 'Goods Receipt Reference Documents' selection screen. The title bar reads 'Goods Receipt Purchase Order - Linda Mathis'. Below the title bar, there are buttons for 'Show Overview', 'Hold', 'Check', 'Post', and 'Help'. The main area is divided into two sections: 'A01 Goods Receipt' and 'GR goods receipt 101'. The 'A01 Goods Receipt' section has a 'Head data' button and a table with columns 'Line' and 'Material S...'. The 'GR goods receipt 101' section has a table with columns 'Qty in UnE', 'E...', 'Stor.Loc', 'Batch', and 'Valuat'. A dropdown menu is open, showing a list of reference document types: R04 Inbound Delivery, R08 Order, R10 Others, R05 Outbound Delivery, R01 Purchase Order (highlighted), R09 Reservation, R06 Transport, and R07 Transport ID Code.

The goods receipt transaction variant controls what documents can be referenced (used) for the goods receipt

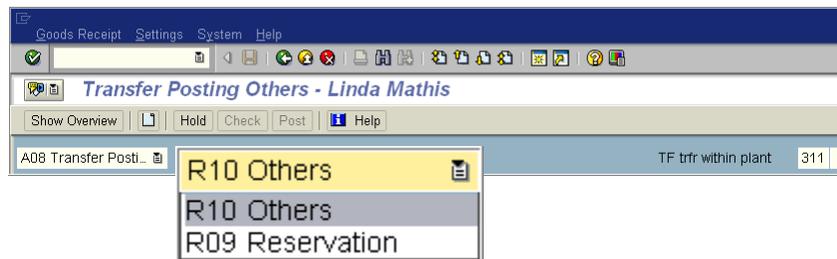
Goods Issue Reference Documents



The reference documents for a goods issue are different than those for a goods receipt

Based on the reference document selected, SAP will prompt the user for the appropriate document number

Transfer Posting Reference Documents



The combination of transaction variant and reference document also determines the appropriate movement types for the transaction

Movement Types



Movement Types:

- Represent the type of goods movement
- Control how the goods can be moved
- Determine how the screen looks and what information must be entered
- Movement types must be used **anytime** material is received, issued or transferred

MVT	S	Text
101		Goods receipt for purchase order into warehouse/stores
102		Goods receipt for purchase order into warehouse - reversal
103		Goods receipt for purchase order into GR blocked stock
104		Goods receipt for purchase order -> GR blkd stock - reversal
105		Release GR blocked stock for warehouse
106		Release GR blocked stock for warehouse - reversal
122		Return delivery to vendor
123		Reversal of ret. delivery
124		Return delivery from GR blocked stock
125		Return delivery from GR blocked stock - reversal
161		Returns for purchase order
201		Consumption for cost center from warehouse
201	K	Consumption for cost center from consignment stores
201	P	Consumption for cost center from pipeline
202		Consumption for cost center from warehouse - reversal
202	K	Consumption for cost center from consignment - reversal
202	P	Consumption for cost center from pipeline - reversal
221		Consumption for project from warehouse
221	K	Consumption for project from consignment
221	Q	Consumption for project from project
222		Consumption for project from warehouse - reversal
222	K	Consumption for project from consignment - reversal
222	Q	Consumption for project from project - reversal
231		Consumption for sales order from warehouse
231	E	Consumption for sales order from unrestrict. sales order stock
231	K	Consumption for sales order from consignment stores
231	Q	Consumption for sales order from unrestricted project stock
232		Consumption for sales order from warehouse - reversal
232	E	Consumption for sales order from unrestrict. sales order - reversal
232	K	Consumption for sales order from consignment - reversal
232	Q	Consumption for sales order from unrestrict. project - reversal
241		Consumption for asset from warehouse
241	K	Consumption for asset from consignment

Personal List Favorites



GR goods receipt 101

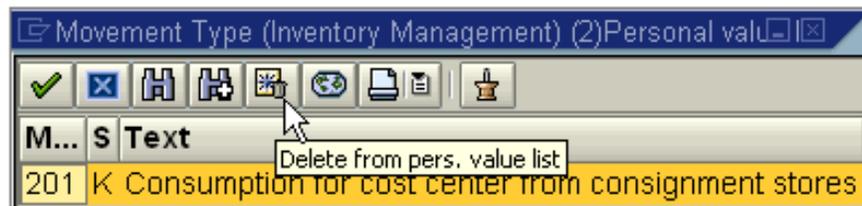


To display list of movement types click or you can press the F4 key to display

1

3

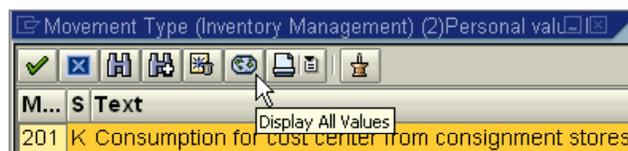
Delete Line Items From Personal List



To delete a line item from your Personal list:

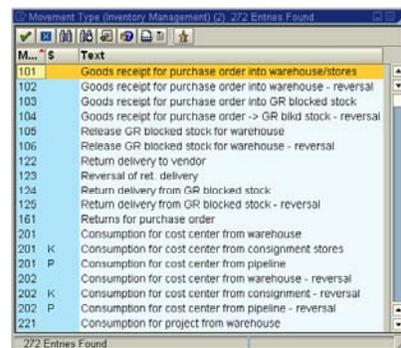
1. Select the line item
2. Click on the *Delete from pers. value list* icon

Display All Values



To display all movement types:

1. Click on the *Display All Values* icon
2. SAP will display all movement types 
3. Scroll down to display all movement types 



Exercise



Exercise 3.1

- Navigate to the MIGO
- Create a personal favorite list for movement types: 101, 102, 201, 202, 221, 222, 261, 262, 313, 314, 315
- Click on the different transaction variants
- Link transaction variants to reference documents

Summary



- You should now be able to:
 - ♦ Explain the use of transaction variants
 - ♦ Understand the relationship between transaction variants and reference documents
 - ♦ Understand the relationship between movement types and transaction variants
 - ♦ Create a Personal List for frequently used movement types
 - ♦ Post a goods movement





Goods Receipts

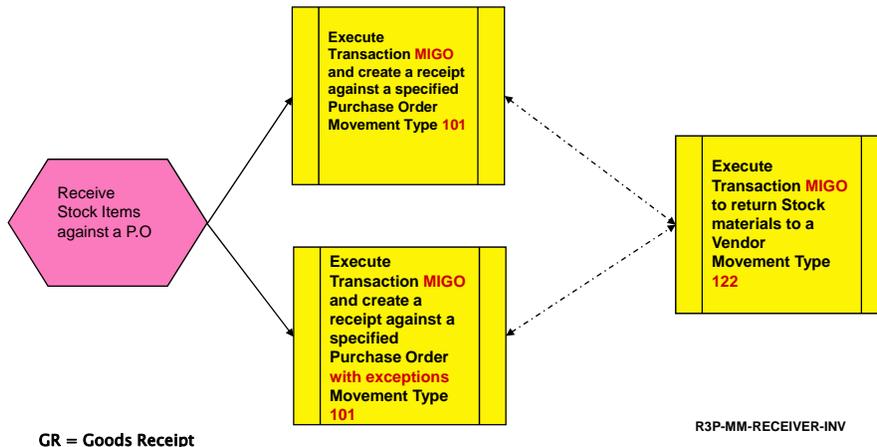
Learning Objectives

- At the conclusion of this unit you should be able to:
 - ◆ Post goods receipts for:
 - A single purchase order
 - Multiple line item purchase order
 - A partial delivery
 - ◆ Cancel / Reverse a goods receipt
 - ◆ Display the material documents
 - ◆ Understand the impact of a goods receipt
 - ◆ Return a material to a vendor

Process Flow: GR for Stock Materials



Receive Stocked Items Against a P.O



GR = Goods Receipt

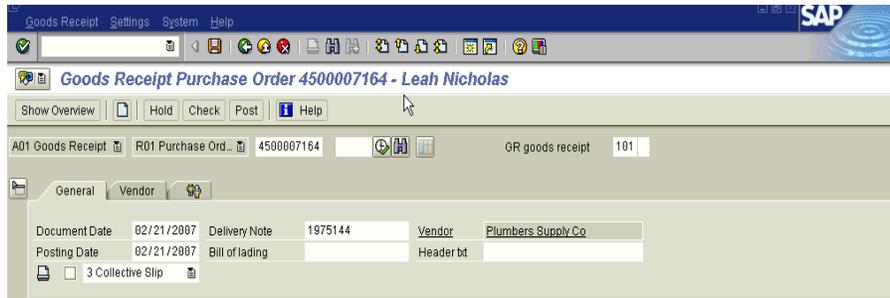
R3P-MM-RECEIVER-INV

Goods Receipt for Purchase Order

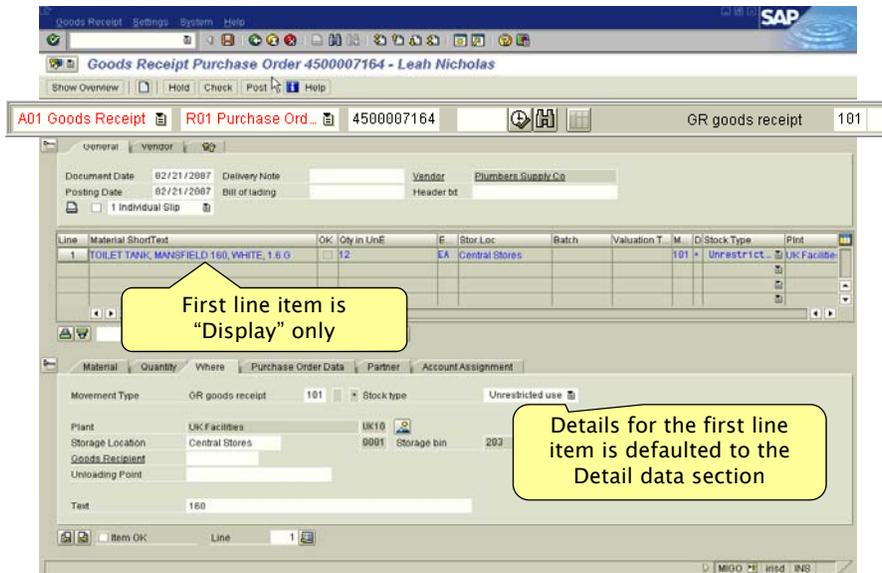


Transaction Variant = Goods Receipt
 Referencing Document = Purchase Order
 Movement Type = 101

MIGO Process - 1



MIGO Process - 2



MIGO Process – 3



Material | **Quantity** | Where | Purchase Order Data | Partner | Account Assignment

Qty in unit of entry	12	EA
Qty in SKU	12	EA

This is the Item Detail section

Quantity ordered: 12 EA

Line 1

Quantity?

How much is being received (open order qty. defaults)

Material | Quantity | **Where** | Purchase Order Data | Partner | Account Assignment

Movement Type: GR goods receipt 101 Stock type: Unrestricted use

Plant: UK Facilities UK10

Storage Location: Central Stores 0001 Storage bin: 203

Goods Recipient: [] Unloading Point: []

Text: 160

Line 1

Where?

Plant (UK10) & Central Stores Location (0001)

MIGO Process – 4



Line	Material ShortText	OK	Qty in UnE	E...	Stor.Loc
1	TOILET TANK, MANSFIELD 160, WHITE, 1.6 G	<input type="checkbox"/>	12	EA	Central Stores

Item OK Line 1

The "Item OK" indicator must be selected for each line item

Goods Receipt Purchase Order 4500007164 - Leah Nicholas

Goods Receipt Purchase Order 4500007164 - Leah Nicholas

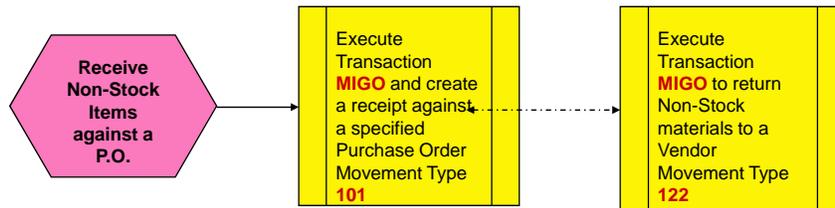
Show Overview | Hold | Check | **Post** | Help

Post the goods movement by clicking on either of the Post icons

Goods Receipt for Consumables



Receive Non-Stocked Items Against a P.O



- Non-Stocked materials are not inventory managed - they do not go into inventory upon receipt.
- Non-Stocked materials are “consumed” by a cost center, an order, or WBS element

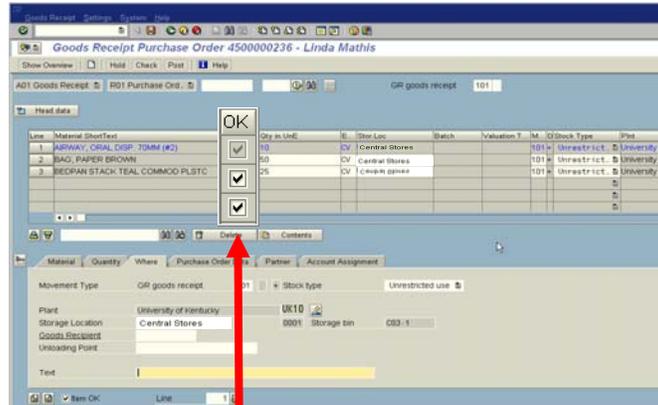
Goods Receipt for a Cost Center



Material	Quantity	Where	Purchase Order Data	Partner	Account Assignment
Movement Type	GR goods receipt	101	Stock type	Unrestricted use	
Plant	UK Facilities	UK10			
Storage Location	Central Stores	0001	Storage bin	203	
Goods Recipient	J.Hines				
Unloading Point	Office #2				
Text	100				

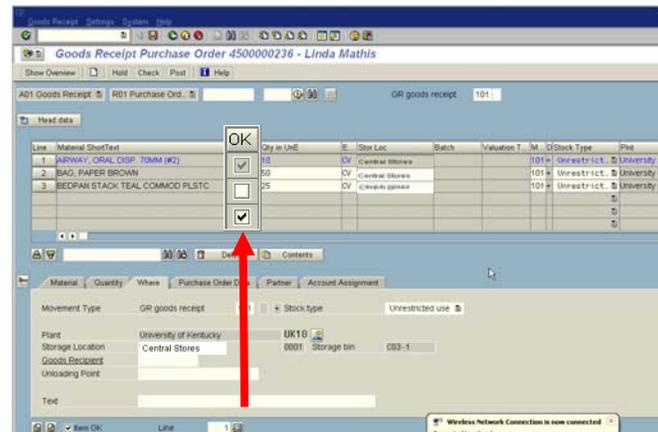
- The **Goods Recipient** and **Unloading Point** let the Material Handler know where to deliver the goods.

Goods Receipt for Multiple Line Item PO



The "Item OK" indicator ***MUST*** be selected for all line items that are part of the goods receipt

GR for Multiple Line Item PO cont'd



Item "OK"



Item OK Line 1

You have not flagged any items as OK

Item OK Line 1

Material document 4900000526 posted

All items **must** be checked "OK" to be posted in SAP

Partial Goods Receipts



Purchase Order

Connor Brown Vendor
123 Main Street
Lavonia, GA 30553

Purchase Org.: UK00
Purchase Group: 020
Company Code: UK00

Please Ship:
10 123-400 50 Ea Plant 1A1

Example:

Ordered Quantity = 50

Goods Receipt Quantity = 20

Open Order = 30

Partial goods receipts are allowed in SAP

Partial goods receipts mean that *receipt quantity is less than the ordered quantity.*

The open order quantity (quantity still to be received) is displayed on the purchase order line item

Any number of partial goods receipts can be recorded for a PO line item up to the ordered quantity.

Over deliveries are not allowed in the system!

Partial Goods Receipts cont'd



Material	Quantity	Where	Purchase Order Data
Qty in unit of entry	3		CV
Qty in SKU	1,000		EA
Quantity ordered	10		CV

Material	Quantity	Where	Purchase Order Data
Qty in unit of entry	7		CV
Qty in SKU	700		EA
Quantity ordered	10		CV
Received quantity	3		

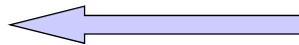
1st Receipt:

Quantity ordered = 10
1st receipt quantity = 3



2nd Receipt:

Open order qty. = 7
The open order quantity is displayed for the next receipt



GR for PO Number Unknown



- If the PO number is not on the accompanying paperwork for the goods receipt, you may search for the PO using the F4 (possible options) key

Click on the List Selection icon and SAP displays a list of all possible search criteria

Under/Over-Delivery Tolerances



- The Under- and Over-delivery tolerances are set in the purchase order.
- SAP will issue warnings and/or error messages for under- and over-deliveries
 - ♦ Under-tolerance - soft warning message
 - ♦ Over-tolerance - hard error message

Typ	Item	Message text	LText
	1	PU Ordered quantity exceeded by 5 EA : UK00	
	2	Deficit of PU Ordered quantity 2 EA : UK00	

Printing Goods Receipts Slips



- Goods receipts transactions can be printed to a pre-defined printer
- Select (3) Collective Slip - Includes all items in the goods receipt

Goods Receipt Purchase Order 4500007164 - Leah Nicholas

Show Overview | Hold | Check | Post | Help

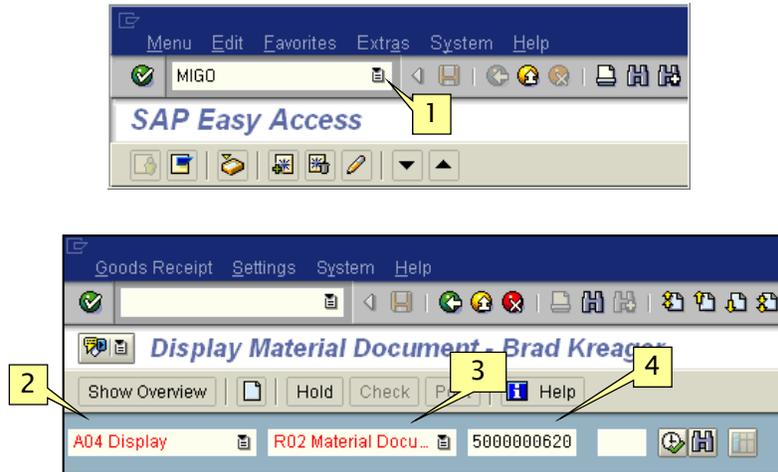
A01 Goods Receipt | R01 Purchase Ord... | GR goods receipt 101

General | Vendor

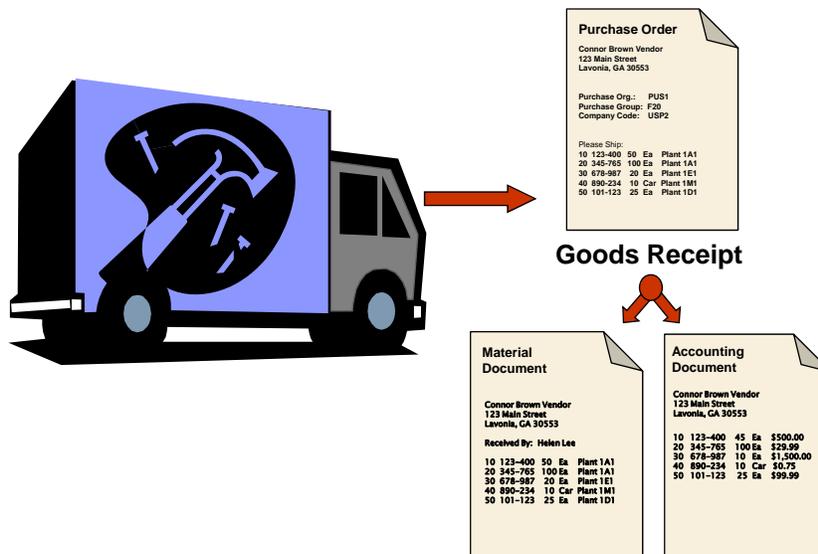
Document Date 02/21/2007 | Delivery Note | Vendor Plumbers Supply Co
 Posting Date 02/21/2007 | Bill of lading | Header bit

3 Collective Slip

Display Material Document - MIGO



Goods Receipts Documents



Exercise



Exercise 4.1

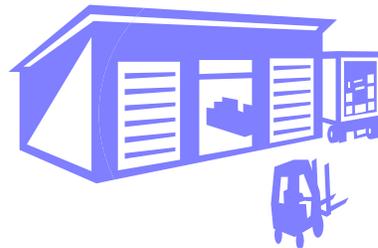
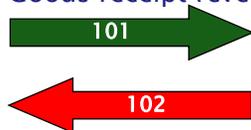
- GR for POs:
 - Single Item
 - Consumable
 - Multiple items
 - Partial receipts
- Display a material document

Cancel a Goods Receipt

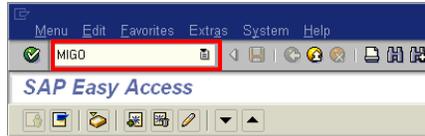


- Canceling a goods movement in SAP is very common
- Cancel is the method SAP uses to correct an incorrect goods movement
- The basic rule to cancel any goods movement in SAP is to take the originating movement type number and add "1" to equal new movement type number
- For example:

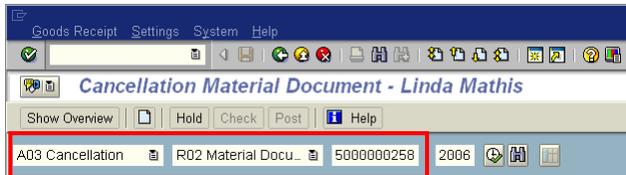
- ♦ Goods receipt : $101 + 1 =$
- ♦ Goods receipt reversal: 102



Cancel a Goods Receipt Process – 1



- From the SAP Easy Access menu, enter MIGO in the Command field and press the Enter key.
- SAP will navigate to the MIGO transaction



- Select the transaction variant (A03) “Cancellation”
- The reference document (R02) Material document defaults
- Enter the material document for the GR and press the Enter key
- SAP will display the details of the material document

Cancel a Goods Receipt Process – 2



- Click on the Where tab – The movement type is 102
- Click in Text field and type reason for cancellation
- Select the Item OK checkbox



Click on the Post button or the Post icon



Cancel a Goods Receipt Process – 3



- When the transaction is posted, SAP will update the Open Order quantity on the purchase order
- The vendor can resend the correct material

Item 1 [1] 50024 , INSTRUMENT, CVD KELLY 5 1/2															
Material data		Quantities/weights		Delivery schedule		Delivery		Invoice		Conditions		Account assignment		Purchase	
S.	C	Delivery date	Scheduled qty.	Time...	Stat. del. d...	GR qty	Purch. req.	Req...	N...	Open quantity					
	D	03/01/2006	20		03/01/2006		20								

Before cancellation

Item 1 [1] 50024 , INSTRUMENT, CVD KELLY 5 1/2															
Material data		Quantities/weights		Delivery schedule		Delivery		Invoice		Conditions		Account assignment		Purchase	
S.	C	Delivery date	Scheduled qty.	Time...	Stat. del. d...	GR qty	Purch. req.	Req...	N...	Open quantity					
	D	03/01/2006	20		03/01/2006					20					

After cancellation

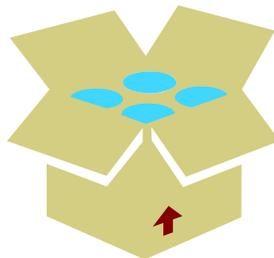
Return to Vendor



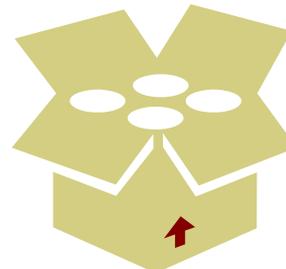
GR = 2 CV
(case)

Material	Quantity	Where	Purchase Order Data
Qty in unit of entry	2		CV
Qty in SKU	200		EA

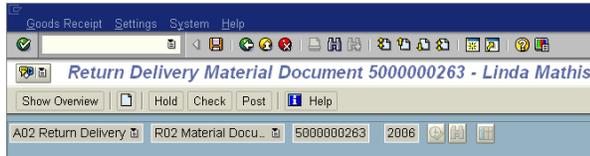
1 CV is OK – we keep it



1 CV is wrong product and we need to send back to vendor



Return to Vendor Process – 1



Transaction Variant = (A02)
Return Delivery
Reference Document = (R02)
Material Document for
original GR

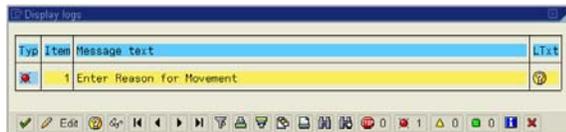
Material	Quantity	Where	Purchase Order Data
Qty in unit of entry	2		CV
Qty in SKU	200		EA

SAP defaults the GR quantity

Material	Quantity	Where	Purchase Order Data
Qty in unit of entry	1		CV
Qty in SKU	100		EA

Quantity *can be* changed to
return **ONLY** the damaged
quantity (1 CV)

Return to Vendor Process – 2



Return to Vendor
transaction require a
Reason code

Material	Quantity	Where	Purchase Order Data	Partner	Account Assignment
Movement Type	RE return to vendor	122	Stock type		Unrestricted use
Plant	UK Facilities	UK10			
Storage Location	Central Stores	0001	Storage bin	WRHS-166	
Goods Recipient					
Unloading Point					
Reason for Movement	3	Damaged			
Text					

Item OK Line 1

Click on the
Where tab

Use the F4
Possible
Options key s to
select the
appropriate
reason for the
return

***Note the movement type is a 122**

Return to Vendor Process – 3



- Select the Post button or the Post icon

Post



Return to Vendor Process – 4



- When the transaction is posted, SAP will change the Open Order quantity on the purchase order
- The vendor can resend “good” material

Item 1 | 1 | 50024 , INSTRUMENT, CVD KELLY 5 1/2

S	C	Delivery date	Scheduled qty.	Time	Stat. del. d.	GR qty	Purch. req.	Req. N.	Open quantity	Sc...	R.
		02/21/2006	10		02/21/2006	5			5		

Before Posting

Item 1 | 1 | 50024 , INSTRUMENT, CVD KELLY 5 1/2

S	C	Delivery date	Scheduled qty.	Time	Stat. del. d.	GR qty	Purch. req.	Req. N.	Open quantity	Sc...	R.
		02/21/2006	10		02/21/2006	4			6		

After Posting

Exercise



Exercise 4.2

- Cancel/Reverse a single line item GR
- Cancel/Reverse a multiple line item GR
- Return to Vendor

Summary



- You should be able to:
 - ♦ Post goods receipts for:
 - A single purchase order
 - Multiple line item purchase order
 - A partial delivery
 - ♦ Cancel / Reverse a goods receipt
 - ♦ Display the material documents
 - ♦ Understand the impact of a goods receipt
 - ♦ Return a material to a vendor





Goods Issues & Reservations

Learning Objectives

- At the conclusion of this unit you should be able to:
 - ♦ Understand the concept of goods issues in SAP
 - ♦ Understand what reservations are and why they are used
 - ♦ Understand the difference between transaction codes ZMM_GI_GR and MB1A
 - ♦ Post goods issues using MIGO and ZMM_GI_GR for:
 - Cost centers
 - Reservations
 - WBS Elements
 - To scrap

Learning Objectives cont'd



- At the conclusion of this unit you should be able to:
 - ♦ Use custom transactions to mass process reservations:
 - ZMM_PICKT
 - MB26
 - ZMM_SHORT
 - ♦ Cancel / Reverse Goods Issues
 - ♦ Print goods issues material documents

Reservations



Reservations are:

- Requests to a Storage Location to keep a material ready for issue at a future date for a certain purpose
- Placeholders in SAP used to ensure that a material is available when required
- Created manually or automatically via MRP

Reservation

Material: 300024
Req. Date: 05/01/07
Quantity: 20 ea.

Reservations



- The following movement types are used when creating a reservation:
 - 201 - Issue material to a cost center
 - 261 - Reservation to Work orders
 - 311 - Goods transfer from one storage location to another storage location. These are created automatically by MRP
- A goods issue against the reservation will relieve the inventory from one location and consume it into another



Reservation Structure



Reservation Header

Information maintained at the header applies to all line items on the reservation

Item Overview

The item overview displays all line items on the reservation

Item Detail

Item details are specific for each line item. Each line item can have a different requirements date. System will default to today's date

Reservation Header:

Base Date Check against Cal.
Movement type Plant

Item Overview:

Cost Center Material
Quantity Storage Location
Movements Allowed

Item Details:

Requirements Date Recipient
Unloading point Text

Create a Reservation Process – 1



- From the SAP Easy Access menu, enter MB21 in the Command field and press the Enter key
- SAP navigates to the transaction

Base date: The date the material is required

Movement type: The type of goods movement used to issue the reservation

Plant: UK10

Press the Enter key, or click on the New item button or the Create icon



Reservation Process – 2



Enter the Cost Center, material number, quantity and storage location

M = Movements Allowed (accept the default). Press the Enter key.

To display the details of the line item, double-click on the material number

Reservation Process – 3



Create Reservation: New Item 0001

Create Reservation: New Item 0001

Movement type 201 GI for cost center
 Plant UK10 UK Facilities
 Material 300024 SETTING TOOL FOR 1/4 DROP-IN ANCHORS, U/
 Stor. location 0001

Quantity in
 Unit of entry 1 EA Qty is Fixed
 Stockkeep unit 0 EA

Further information
 Requirments Date 02/21/2007
 Mkt allowed
 Cost Center 1033151650 THE GERMAN HOU...
 Order
 Recipient Mac Unload.Pt
 Text

SAP displays the item details for the material.

You may add or change existing information

Click on the Post icon to post the reservation 

Note: Additional line items may be added by clicking on the New item button or Overview icon 

List of Reservations– MB26



Picking List

Selection from Reservations:

Reservation Number	00
Material	00
Cost Center	00
Production order	00
WBS Element	00
Network	00
Plant	00
Receiving plant	00
Res. Stor Loc.	00
Stor. Loc.	00
Plant	00
Storage Location	00
WBS Element	00
Requirements date	00

Selection from Production Orders:

Material	00
Production order	00
WBS Element	00
Production schedule	00
WBS Element	00
Operation Number	00
Sequence	00

This transaction can be used to execute various lists to display reservations *before* posting goods movements

For the purpose of displaying a list of reservations, any combination of material(s), cost centers and requirements date can be used.

SAP displays the reservations that meet the selection criteria 

List Edit Goods Movement System Help

Picking List

Batch determination Stock determination

Goods movements overview

Material	Description	Quantity	U.	Plant	Sto.	Batch	Valuation T.	D.	M.	S.
01	PAD, DUO-THERM			7EA	UK00				H	311
04	PAD PREPPING 43.5X24IN LTX-FR			13EA	UK00				H	311
07	GOWN SURG XL DISP LTX-FR STRL			162EA	UK00				H	311
05	PAD SPNG 10X12IN #6 HVY DRNGE XTR THICK			8EA	UK00				H	311
09	PACK HD NCK IV EENT LTX-FR STRL			8EA	UK00				H	311

Exercise



Exercise 5.1

- Create a reservation for a cost center
- Use MB26 to execute a list of reservations

Goods Issues



- Goods issues typically move inventory from one G/L account to another (From Central Stores inventory stock account to Physical Plant Division)
- Each type of goods issue is represented by a different movement type in the system
- Examples of goods issues are:



Reservation (201)

Cost Center (201)

Work Order (261)

Scrap (551)

ZMM_PICKT - 1



- The first step in reservation management is to execute a pick list
- This list will print at designated locations and lists all materials and their quantities that need to be picked from the storage location

Program ZMM_PICKTICKET

Selection Criteria

Reservation Number		to		
Status of Reservation	M			
Storage Location		to		
Required Date		to		

ZMM_PICKT has two selection criteria:
Status of Reservation: M or B
Required Date: Today's date

ZMM_PICKT - 2



- After executing ZMM_PICKT, SAP creates the pick ticket that will tell the storage location what materials to pick
- The list will print at designated printers

UNIVERSITY OF KENTUCKY
PICK TICKET
Warehouse

Reservation No: 1 Receiving Loc: 0002 S40
Status Type : M

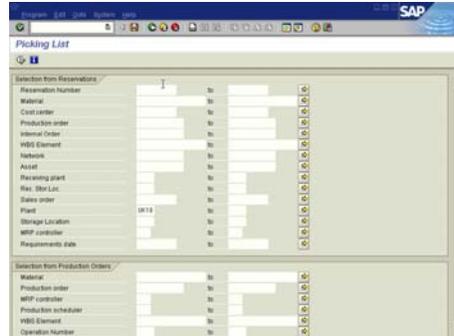
Pick Ticket Date : 02/28/2008 21:14:32 Page: 1

Hosp Num	Primary Description	Manufacturer Code	Catalog	Bin Loc	Pick Qty	Iss UM	Qty
15	INSTRUMENT, MONOPTY BIO 18GA	100022	121816	H03-3	2	EA	
18	INSTRUMENT, MONOPTY BIO 20GA	100022	122020	H03-4	2	EA	

Total Number of Pages : 1
Total Number of Item(s) : 2
Pick From Location : 0001 Warehouse

Filled By : _____ Time: _____
Received By: _____ Date Received: _____

Posting Goods Movements – MB26



From the SAP Easy Access menu, enter MB26 in the Command field and press the Enter key

SAP navigates to the Picking List screen

Enter a selection criteria such as material, reservation number, or date

Click on the Execute icon  or press the F8 key

SAP displays the reservations that meet the selection criteria

Material	Description	Quantity	U...	Plant	Sto...	M...	Compltd	Reservation	Item	Storage
300022	1/2" Rigid Coupling, Galvanized	2 EA	UK10	261				8322	1	
304725	FILTER, AIR, FIBERGLASS, 9 X 30 3/8 X 1	1 EA	UK10	261				8358	1	
300001	E M T Coupling 1 1/4" Set Screw # 2025	1 EA	UK10	261				8401	1	
300002	E M T Coupling 1 1/2" Set Screw # 2026	1 EA	UK10	261				8401	2	
300003	E M T Coupling 2" set screw type #2028	1 EA	UK10	261				8401	3	
300004	EMT Connector 1 1/4 "Insulated THROLat,	1 EA	UK10	261				8401	4	

Picking List – 2



- Select the line items to be posted
- Click on the Stock Determination button to default the storage location
- Click on the Post icon to post the goods movements

Material	Description	Quantity	U...	Plant	Sto...	M...	Compltd	Reservation	Item	Storage
300022	1/2" Rigid Coupling, Galvanized	2 EA	UK10	261				8322	1	
304725	FILTER, AIR, FIBERGLASS, 9 X 30 3/8 X 1	1 EA	UK10	261				8358	1	
300001	E M T Coupling 1 1/4" Set Screw # 2025	1 EA	UK10	261				8401	1	
300002	E M T Coupling 1 1/2" Set Screw # 2026	1 EA	UK10	261				8401	2	
300003	E M T Coupling 2" set screw type #2028	1 EA	UK10	261				8401	3	
300004	EMT Connector 1 1/4 "Insulated THROLat,	1 EA	UK10	261				8401	4	
300081	1 Pole 30 AMP, Bolt-In, Q0B130	1 EA	UK10	261				8402	1	
300477	20" Stainless Flexible Lav Supply, # 88-	1 EA	UK10	261				8442	1	

Note: As soon as the transaction is posted, the inventory for the selected line items is reduced

Completion Indicator



Picking List

Batch determination Stock determination

Material	Description	Quantity	U...
302282	WIRE, #10 STRANDED, THHN, ORANGE, 600V,	10 EA	

Reservation Qty. = 10

Compltd

Picking List

Batch determination Stock determination

Material	Description	Quantity	U...
302282	WIRE, #10 STRANDED, THHN, ORANGE, 600V,	7 EA	

Issued Qty. = 7

Scroll right to Completion Indicator column. This may or *may not* be set based on the type of order.

Confirm Picked Quantities - ZMM_SHORT



Program ZMM_SHORTSHEET

Selection Criteria

Reservation Number 400 to

Status of Reservation M to

Storage Location to

Required Date to

Multiple selections allow you to enter a list of reservation numbers instead of entering a range of reservation numbers

Multiple Selection for Reservation Number

9 Single vals Ranges Single vals Ranges

400
402
405
406
409
420
421
422
423

ZMM_SHORT



- After picking the materials from the warehouse, this transaction is printed and sent with the material
- It displays the requested quantity, the picked quantity and shortages (if applicable)
- The shortage quantity *may or may not* be filled. If it has been determined items with short quantities should be filled, the completion indicator tab must be left unchecked on the zmm_pickt transaction.

Hosp Num	Primary Description	Manufacturer Code	Catalog	Bin Loc	Reqst Qty	Iss UM	Shor Qty
50024	INSTRUMENT, CVD KELLY 5 1/2	101580	12345		12	EA	7 5

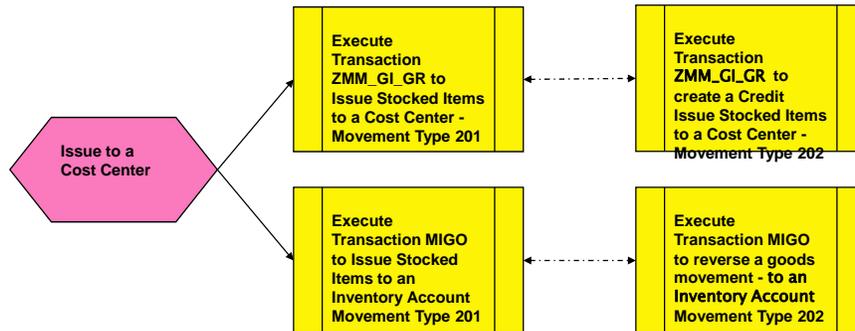
Exercise



Exercise 5.2

- Execute ZMM_PICKT
- Post goods movements using MB26
- Execute ZMM_SHORT

Process Flow: Goods Issues to a Cost Center



R3P-MM-ISSUER

ZMM_GI_GR Goods Issue to Cost Object

Inventory Management

Inventory Management Goods Issues/Returns

Plant

Storage Location

Document Date

Goods Recipient

Cost Object (account number)

Ref Doc Nr.

Description

Reversal (Check this box if it is a return) Print out is required

ZMM_GI_GR Goods Issue to Cost Object



Inventory Management

Post Movement Display Material Doc

Reset Header Inventory Management Goods Issues/Returns

Plant UK10

Storage Location

Document Date 03/14/2007

Goods Recipient

Cost Object (account number)

Ref Doc Nr.

Description

Reversal (Check this box if it is a return) Print out is required

Upload Items Item entry Display Material

Material #	Description	Quantity	Units	SLoc
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				

1. Enter the Plant
2. Enter the storage location
3. Enter the goods recipient
4. Enter the Cost Object number

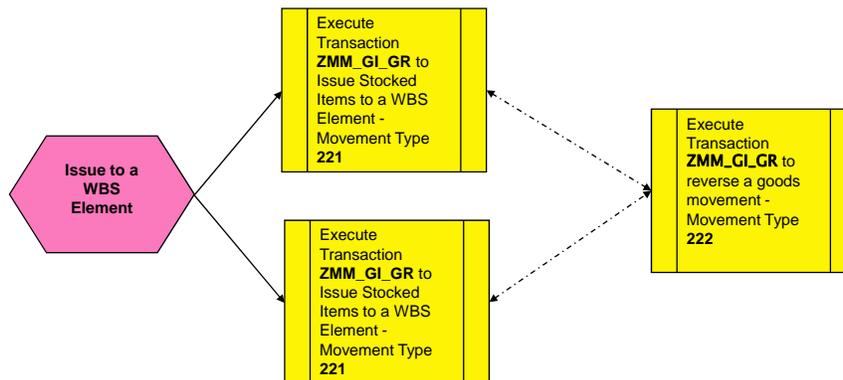
There are three ways to generate a goods issue document.

1. By Ref Doc Nr.
2. Data entry

Process Flow: GI to a WBS Element



To a WBS Element



R3P-MM-ISSUER

Goods Issue to Scrap - MB1A



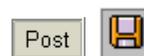
- Transaction Variant = (A07) Goods Issue
- Reference Document = (R10) Others
- Movement Type = 551*

*Must know the cost center used for scrapping.

Goods Issue to Scrap - MB1A



1. Enter the material number
2. Enter the Quantity
3. Enter the plant and storage location
4. Enter the cost center used for scrapping
5. Post the transaction



Printing Material Document



- Goods issue material documents can be printed by selecting the print out is required box.

Inventory Management

Post Movement Display Material Doc

Reset Header Inventory Management Goods Issues>Returns

Plant UK10

Storage Location

Document Date 03/14/2007

Goods Recipient

Cost Object (account number)

Ref Doc Nr.

Description

Reversal (Check this box if it is a return) Print out is required

Cancel Goods Issue - ZMM_GI_GR



- Transaction Variant = (A03) Cancellation*
- Reference Document = (R02) Material Document
- Movement Type = 202

Goods Receipt Settings System Help

Cancellation Material Document 4900000544 - Linda Mathis

Show Overview Hold Check Post Help

A03 Cancellation R02 Material Docu... 4900000544 2006

*SAP can cancel the entire line item. Changes cannot be made (i.e. change quantity)

If the material document contains multiple line items, individual line items can be selected and cancelled.

Cancel / Reverse Goods Issue – 2



Material: SETTING TOOL FOR 1/4 DROP-IN ANCHORS_U/ 300024

Quantity: 7

Where: UK Facilities, Central Stores

Movement Type: RE for cost center 202

Plant: UK Facilities, UK10

Storage Location: Central Stores, 0001

Storage bin: WRHS-166

Text:

G/L account: 540020

Cost Center: 1058714000

Fund: 0051900100

Functional Area: 1400

Funds Center: 1058714000

Grant: QNR

Commitment item: 540020

1. Enter the material number
2. Enter the Quantity
3. Enter the plant and storage location
4. See note below
5. Post the transaction



Exercise



Exercise 5.3

- Post a Goods Issue using ZMM_GI_GR
- Post Goods Issue using ZMM_GI_GR
- Cancel a Goods Issue from one cost center and issue to another
- Print material documents

Summary



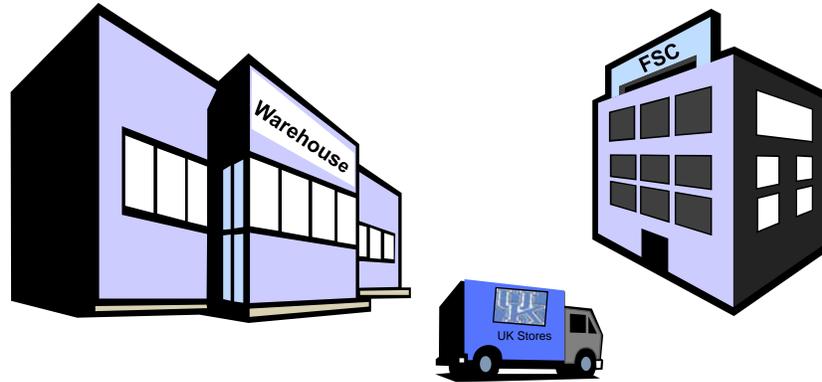
- You should now be able to:
 - ♦ Understand the concept of goods issues in SAP transaction codes
 - ZMM_GI_GR
 - MIGO
 - ♦ Understand what reservations are and why they are used
 - ♦ Post goods issues using ZMM_GI_GR and MIGO for:
 - Cost centers
 - Reservations
 - WBS Elements
 - To scrap



Summary cont'd



- You should now be able to:
 - ♦ Use custom transactions to mass process reservations:
 - ZMM_PICKT
 - MB26
 - ZMM_SHORT
 - ♦ Cancel / Reverse Goods Issues
 - ♦ Print goods issues material documents

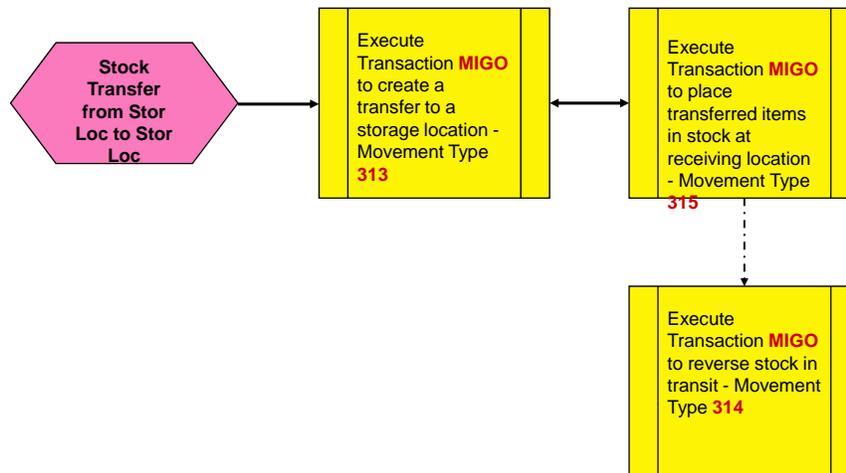


Transfer Postings

Learning Objectives

- At the conclusion of this unit you should be able to:
 - ♦ Execute a two step transfer posting
 - ♦ Display stock in transfer
 - ♦ Cancel a two step transfer posting

Stock Transfers - 2 Step



R3P-MM-ISSUER

Transfer Postings



- Goods movements do not only occur in the form of goods receipts and goods issues. Internal stock transfers might also be necessary
- A stock transfer from storage location to storage location in the same plant causes an update of the stock quantities in both storage locations
- Stock transfers can be executed using a one-step or two-step procedure
- UK will use both one-step and two-step stock transfer procedures

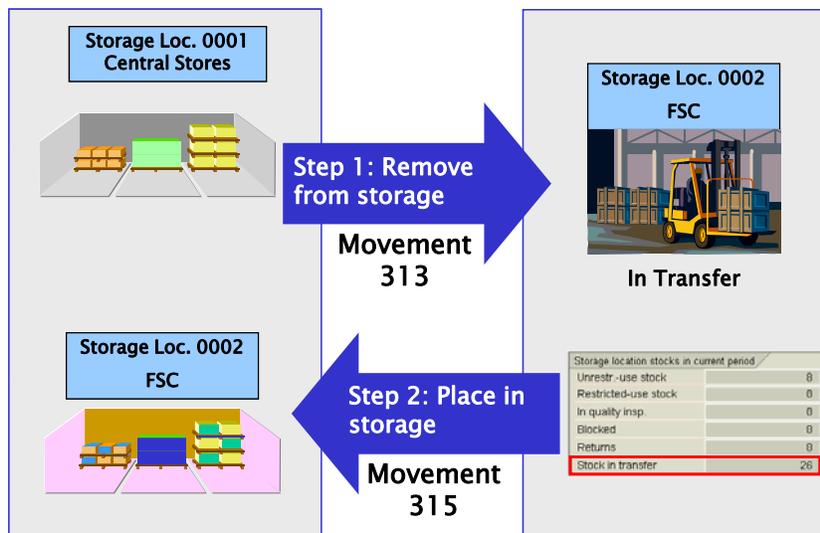
One-Step vs. Two Step-Transfer Postings



- The one-step procedure is entered in a single transaction. Material is removed from and placed in storage simultaneously
- The two-step procedure displays stock in transfer. After the goods issue is posted at the issuing point, the stock appears "in transfer" at the receiving location



Storage Loc. To Storage Loc. - Two Step



Step 1: Remove From Storage (313)



Goods Receipt Settings System Help

Remove from Storage Others - Linda Mathis

Show Overview Hold Check Post Help

A09 Remove from R10 Others TF rem.frn str.toSLoc 313

Head data

Transfer Material Quantity Where

From				Dest			
Material	INSTRUMENT_CVD KELLY 5 1/2			INSTRUMENT_CVD KELLY 5 1/2			
	300024			300024			
Plant	University of Kentucky UK10			University of Kentucky UK10			
Stor. Loc.	Central Stores	0001	StorBin WRHS - 166	FSC Peterson	0002		
Spec. Stock	<input type="checkbox"/>						
Unit of Entry	1	EA					

Stock in Transfer



Stock in Transfer is displayed in the Material Master - Storage Location Stock view

Storage location stocks in current period					
Unrestr.-use stock		34	Unrestr. consignment		0
Restricted-use stock		0	Restr. consignment		0
In quality insp.		0	Cnsgrt in inspection		0
Blocked		0	Blocked consignment		0
Returns		0			
Stock in transfer		1			

Step 2: Place in Storage (315)



Document Date: 03/01/2006
Posting Date: 03/01/2006
Material Slip: [redacted]
Doc. Header Text: [redacted]

Line	Material ShortText	Qty in UnitE	Over Loc	Batch	Valuation T.	M.	Stock Type	Plant	Customer
1	INSTRUMENT, CVD KELLY S 1/2	1	EA FBC Peterson				315+	University of	

Movement Type: TF pl.in str.in SLoc
Quantity: 315

Plant: University of Kentucky
Storage Location: FBC Peterson
Unloading Point: [redacted]
Text: [redacted]

Display Storage Location Stock



Storage location stocks in current period					
Unrestr.-use stock		35	Unrestr. consignment		0
Restricted-use stock		0	Restr. consignment		0
In quality insp.		0	Cnsgt in inspection		0
Blocked		0	Blocked consignment		0
Returns		0			
Stock in transfer		0			

Stock in Transfer is cleared and added to Unrestricted stock

Cancel / Reverse Goods Movements



- The general rule to cancel a movement is to add “1” to the movement type that created the movement
 - ♦ A 102 cancels a 101
 - ♦ A 222 cancels a 221
 - ♦ A 314 cancels a 313
 - ♦ A 316 cancels a 315
- Cancellations are generally mistakes that are easily corrected in SAP with the corresponding movement type

Cancel / Reverse 313

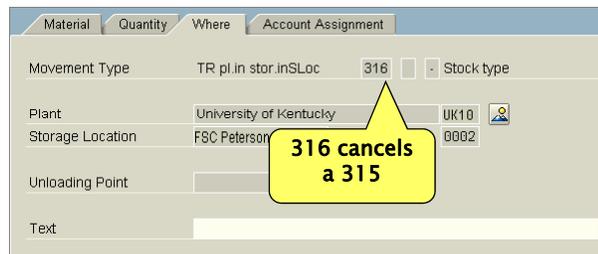


- To cancel / reverse a 313:
 - ♦ You executed a 313 to put material in transfer to FSC (0002). Before you posted the 315, you discovered that the material needs to go to Med Ctr PPD (0003) instead
 - ♦ The 313 must be cancelled (314) to put the stock back in transfer status, then transferred to the correct storage location

Cancel/Reverse a Two-Step Transfer Posting

- To cancel the entire two-step transfer posting (313 and 315) you must cancel the 315 material document first **then** cancel the 313 material document
- For example:
 - ♦ You executed a 313 to put material in transfer to FSC (0002). Then you posted the 315.
 - ♦ You discovered that the material needs to go to Med Ctr PPD (0003) instead
 - ♦ The 315 movement must be cancelled first with (316)
 - ♦ Then 313 movement can be cancelled with a with (314)
 - ♦ The material can then be transferred to the correct storage location

Cancel/Reverse: Process



Material Quantity Where Account Assignment

Movement Type TR pl.in stor.inSLoc 316 Stock type

Plant University of Kentucky UK10

Storage Location FSC Peterson 0002

Unloading Point

Text

316 cancels a 315

- 1st: Cancel the 315 material document



Transfer Material Quantity Where Account Assignment

Movement Type TR rem.fm str.toSLoc 314 +

Plant University of Kentucky UK10

Storage Location FSC Peterson 0002

Unloading Point

314 cancels a 313

- 2nd: Cancel the 313 material document

Summary



- You should be able to:
 - ♦ Execute a two step transfer posting
 - ♦ Display stock in transfer
 - ♦ Cancel / Reverse a two step transfer posting



Course Summary



- You should be able to:
 - ♦ Understand the relationship between the organizational structure and master data
 - ♦ Understand the ZMM_GI_GR transaction code
 - ♦ Use the ZMM_GI_GR and MIGO transaction to execute various goods movements in SAP
 - ♦ Create a personal favorites list of frequently used movement types
 - ♦ Execute goods movements in SAP
 - ♦ Cancel/ reverse goods movement



Course Summary cont'd



- You should now be able to:
 - ♦ Understand the relationship between goods movements and movement types
 - ♦ Execute a return to vendor transaction, issue goods to cost centers, reservations and scrap
 - ♦ Transfer materials from one location to another
 - ♦ Pick and issue materials to reservations
 - ♦ Differentiate between a stock material and non-stock material

