



USER PROCEDURE: Goods Movement Upload

Table of Contents

Purpose	1
Input Files.....	1
Header File	1
Item File	2
Serial Number File.....	3
Transaction /COHESION/GM	5
More Information	9
Further Questions	22

Purpose

The goods movement upload can be used to post inventory transactions into SAP using an Excel spreadsheet. It is useful for situations where many material documents need to be entered into the system. The upload uses the standard SAP Goods Movement Create function and supports almost all inventory movement types.

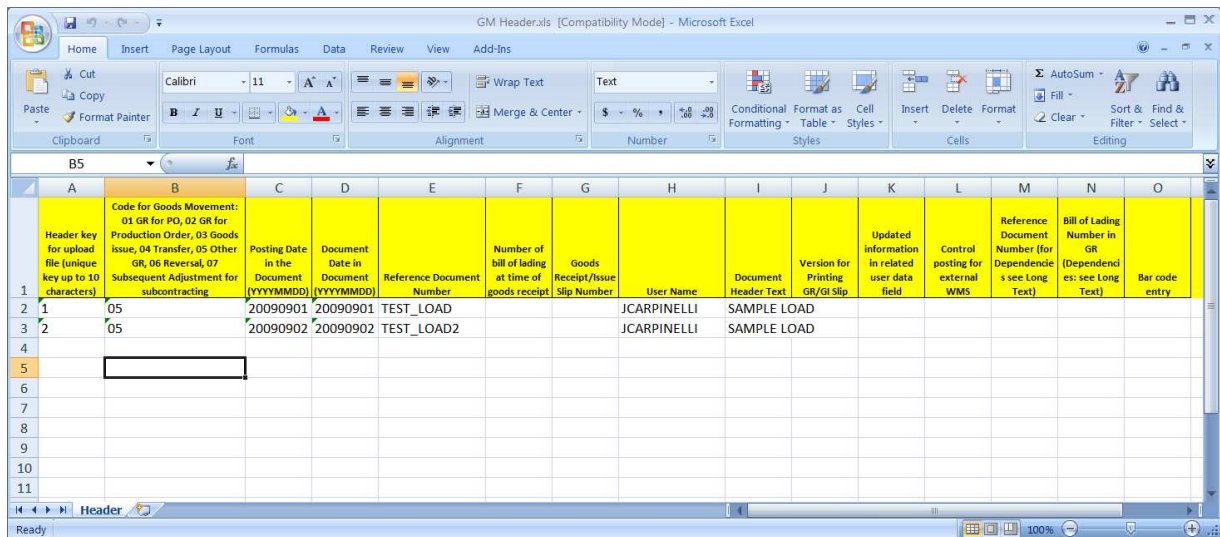
Input Files

The goods movements are represented in Excel using three separate spreadsheets. The spreadsheets have **fixed columns**. The order of the columns should not be rearranged as it will prevent the upload program from loading the transactions. The files can be uploaded in XLS or TAB delimited text format. For large files, the TAB delimited format provides better performance. To upload files in XLS format, SAP requires that the Microsoft Excel software is installed on your PC and can be remotely called by the SAP client.

Header File

The header file contains the document details for each transaction. Note that each transaction should be assigned a unique key in the first column of the file. SAP requires that a code is assigned to each transaction to identify the type of goods movement.

Cohesion Support Database



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	Header key for upload file (unique key up to 10 characters)	Code for Goods Movement: 01 GR for PO, 02 GR for Production Order, 03 Goods Issue, 04 Transfer, 05 Other GR, 06 Reversal, 07 Subsequent Adjustment for subcontracting	Posting Date in the Document (YYYYMMDD)	Document Date in Document (YYYYMMDD)	Reference Document Number	Number of bill of lading at time of goods receipt	Goods Receipt/Issue Slip Number	User Name	Document Header Text	Version for Printing GR/GI Slip	Updated information in related user data field	Control posting for external WMS	Reference Document Number (for Dependencies see Long Text)	Bill of Lading Number in GR (Dependencies: see Long Text)	Bar code entry
1	1	05	20090901	20090901	TEST_LOAD			JCARPINELLI	SAMPLE LOAD						
2	2	05	20090902	20090902	TEST_LOAD2			JCARPINELLI	SAMPLE LOAD						
3															
4															
5															
6															
7															
8															
9															
10															
11															

Figure 1 Sample header file containing two goods movements to be posted

All dates in the upload files should be represented in format YYYYMMDD. The first line of the file is reserved for column descriptions and will be ignored by the upload. The subsequent lines will be processed until a blank line is reached.

Item File

The item file contains the material, quantity and movement type fields. All fields supported by the standard SAP function BAPI_GOODSMVT_CREATE are included in the item file. Each item should be assigned to a relevant header line using the Header Key field in the first column. Each item should be assigned a unique key in the second column to allow the upload of serial numbers.

Note that fields passed to the upload should be padded with leading zeroes where appropriate. For example, if your company uses numeric material numbers such as "100000" then the values should be padded to make an eighteen digit number (e.g. "100000" should be "00000000000100000"). You can use the formatting options in Excel to automatically add the leading zeroes to the relevant fields. Similar practices apply to vendor and customer numbers and other key fields in the upload.

If you are unsure of the size of the fields to be uploaded, run transaction SE12 in SAP and view the upload structures below:

- /COHESION/GR_HEADER
- /COHESION/GR_ITEM
- /COHESION/GR_SERIAL

Cohesion Support Database

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	ISO
	Header Key - link to Header tab	Item Key - required to upload serial numbers	Material Number	Plant	Storage Location	Batch Number	Movement Type (Inventory Management)	Stock Type	Special Stock Indicator	Vendor Account Number	Account Number of Customer	Sales Order Number	Item Number in Sales Order	Delivery Schedule for Sales Order	Valuation Type	Quantity in Unit of Entry	Unit of Entry	
1																		
2	1	1	ZC-0002A	1000	1040		561									5	EA	
3	1	2	ZC-0002A	1000	1040		561									2	EA	
4	2	3	ZC-0002A	1000	1040		561									3	EA	

Figure 2 Sample item file containing three goods movement lines with two different transactions

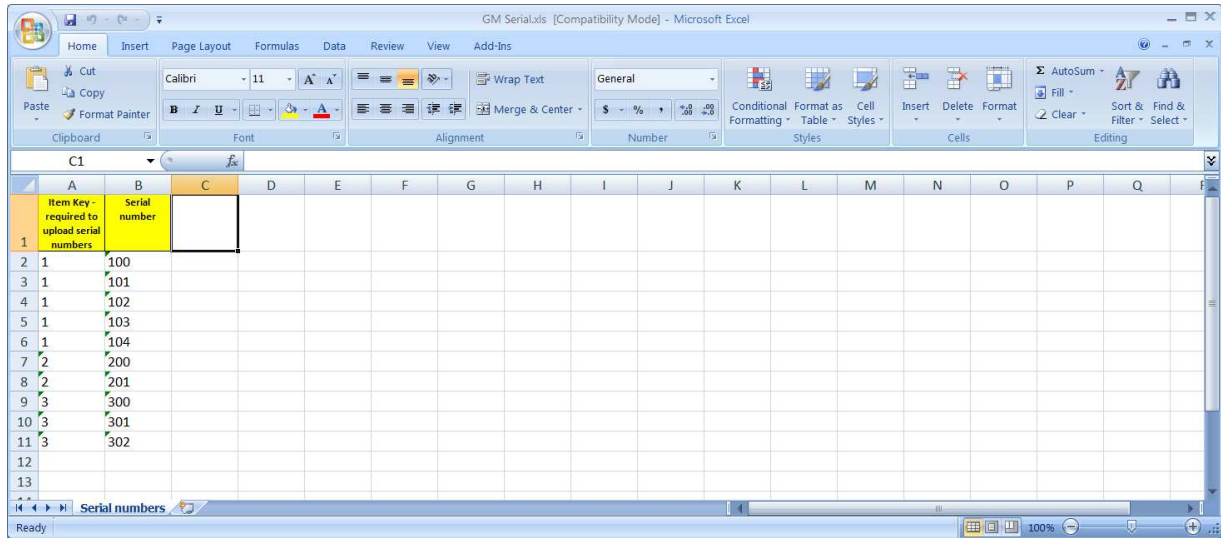
Component	RTy...	Component type	Data Type	Length	Decim...	Short Description	Group
HEADER KEY	<input type="checkbox"/>	/COHESION/HEADER CHAR	CHAR	10		Header key for upload file	
ITEM KEY	<input type="checkbox"/>	/COHESION/ITEM KEY CHAR	CHAR	10		Item key for upload file	
.INCLUDE	<input type="checkbox"/>	BAPI2017 GM_ITEM		0		BAPI Communication Structure: Create Material Document Item	
MATERIAL	<input type="checkbox"/>	MATNR	CHAR	10		Material Number	
PLANT	<input type="checkbox"/>	WERKS_D	CHAR	4		Plant	
STGE_LOC	<input type="checkbox"/>	LGORT_D	CHAR	4		Storage Location	
BATCH	<input type="checkbox"/>	CHARG_D	CHAR	10		Batch Number	
MOVE_TYPE	<input type="checkbox"/>	BWART	CHAR	3		Movement Type (Inventory Management)	
STCK_TYPE	<input type="checkbox"/>	MB_INSMK	CHAR	1		Stock Type	
SPEC_STOCK	<input type="checkbox"/>	SOBKZ	CHAR	1		Special Stock Indicator	
VENDOR	<input type="checkbox"/>	ELIFN	CHAR	10		Vendor Account Number	
CUSTOMER	<input type="checkbox"/>	EKUNN	CHAR	10		Account Number of Customer	
SALES_ORD	<input type="checkbox"/>	KDAUF	CHAR	10		Sales Order Number	

Figure 3 Upload structure /COHESION/GR_ITEM displayed with transaction SE12

Serial Number File

Serial numbers can be loaded for goods movements using an optional Excel file. For each item requiring serial numbers, the relevant item key should be specified as shown in the screenshot below.

Cohesion Support Database



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Item Key - required to upload serial numbers	Serial number															
2	1	100															
3	1	101															
4	1	102															
5	1	103															
6	1	104															
7	2	200															
8	2	201															
9	3	300															
10	3	301															
11	3	302															
12																	
13																	

Figure 4 Example serial number upload file - three items are shown with multiple serial numbers per item.

Cohesion Support Database

Transaction /COHESION/GM

The upload transaction can be started by entering "/n/cohesion/gm" into the command window as shown below. You can add this transaction to your Favorites menu to save keyboard entry.

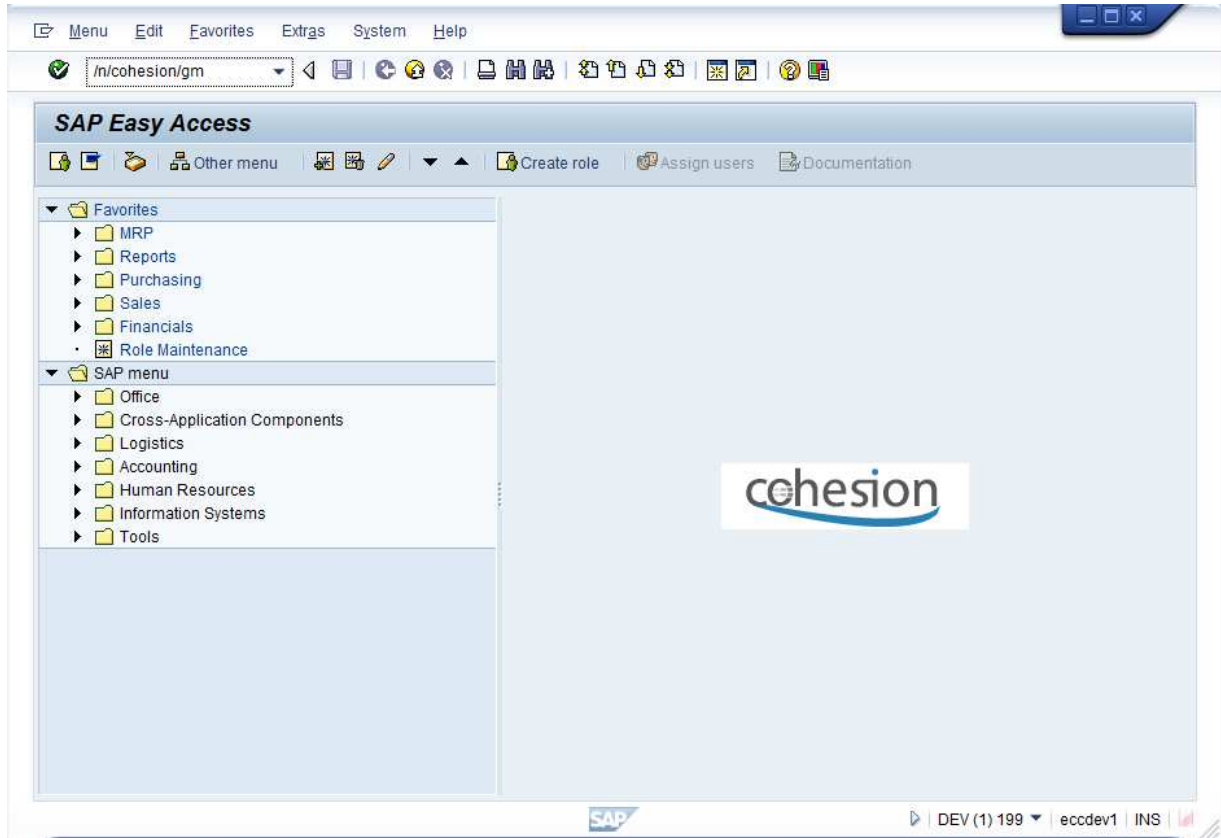


Figure 5 Launch the upload using the command "/n/cohesion/gm"

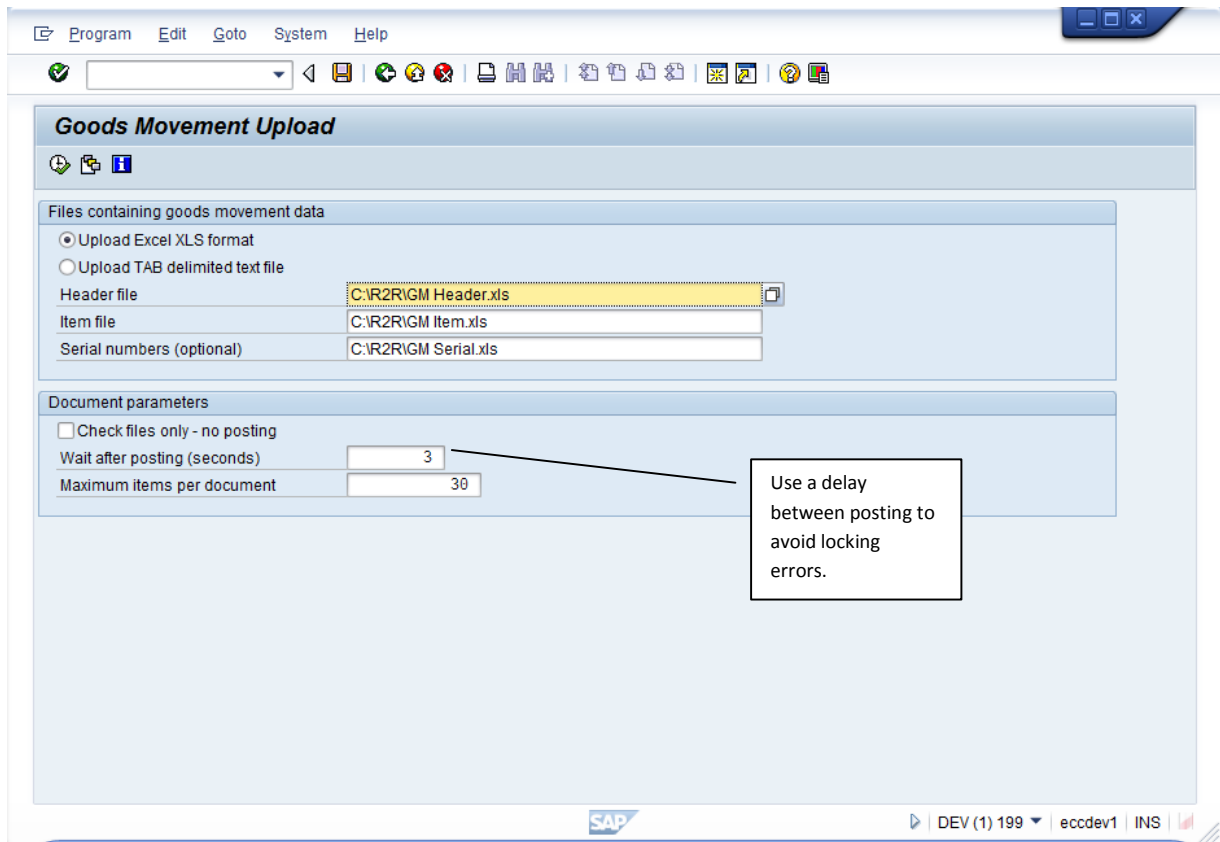


Figure 6 Enter the filenames of the header and item files. The serial number file is optional.

After executing the upload, you should receive an overview report like the example below. You can maintain display variants for this report and save your default layout. If required, you can add totals and sorting by status. Transactions with errors will include a red light in the first column. Transactions with warnings will include a yellow light.

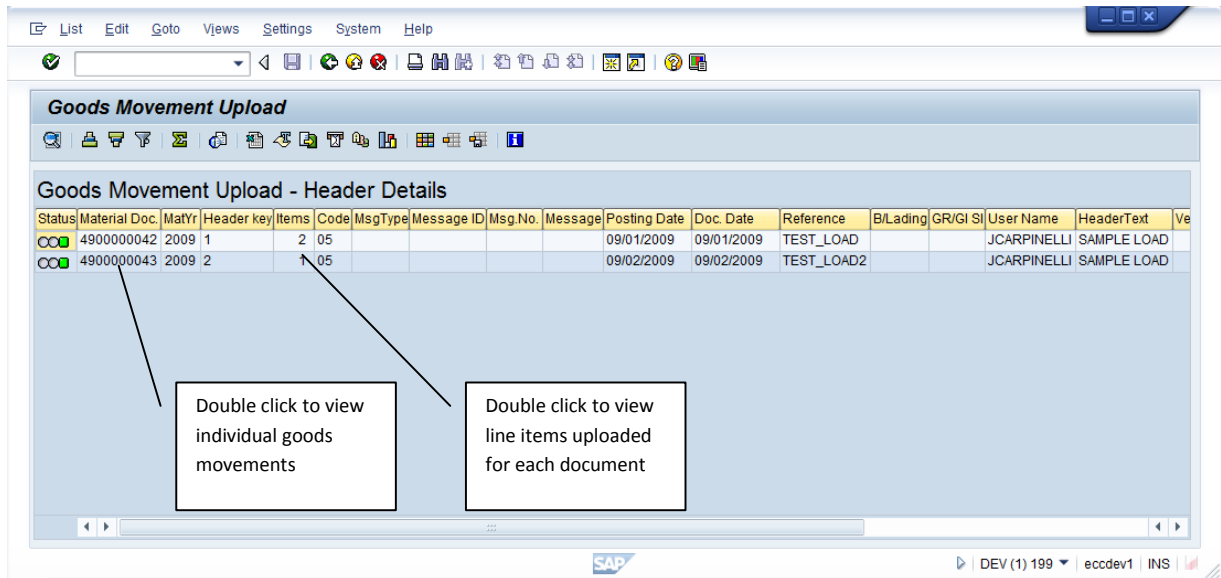


Figure 7 Sample posting report after uploading a file with two transactions

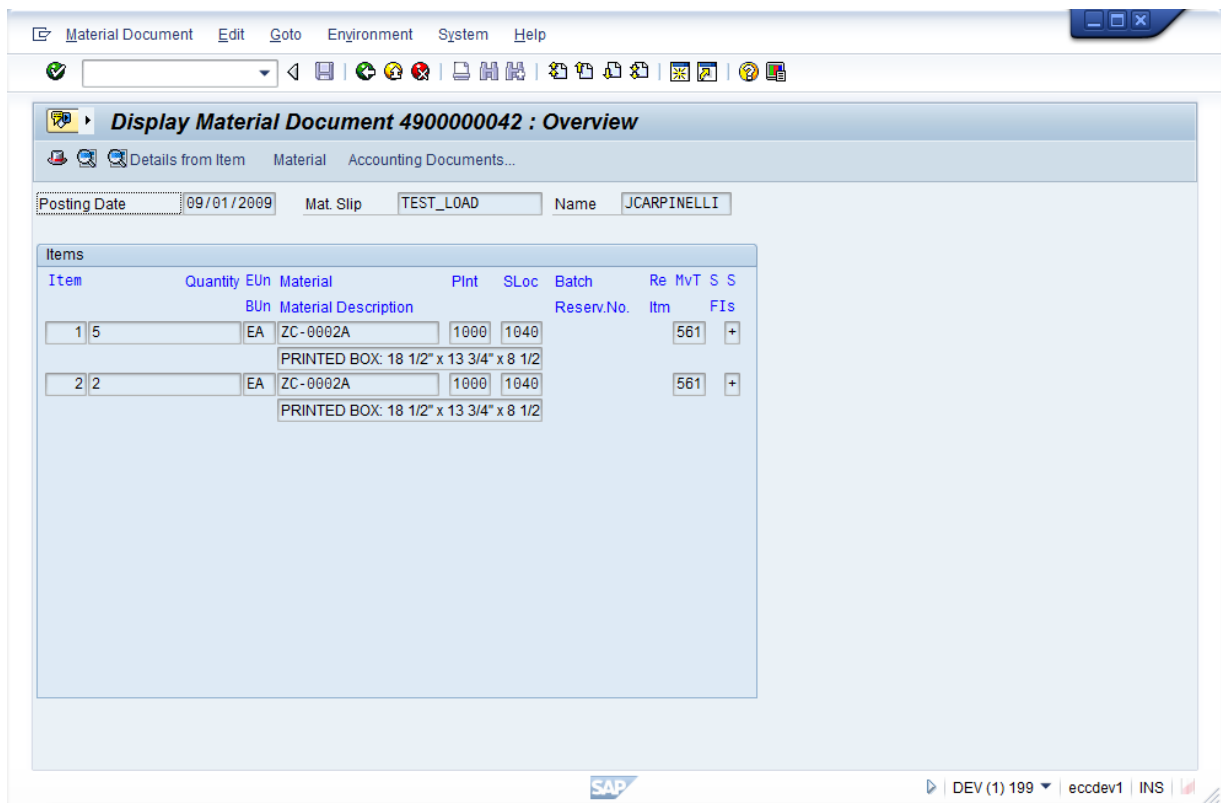


Figure 8 Material document displayed using double-click from overview report

Cohesion Support Database

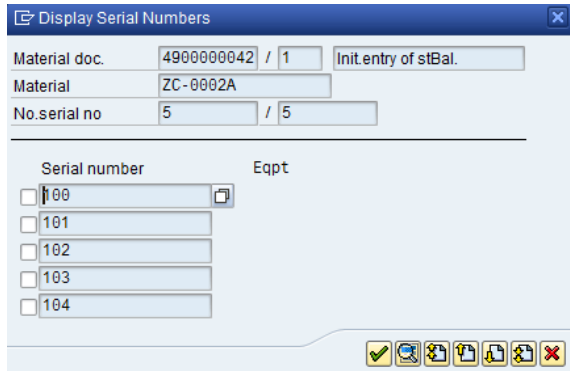


Figure 9 Example of serial numbers uploaded from Excel

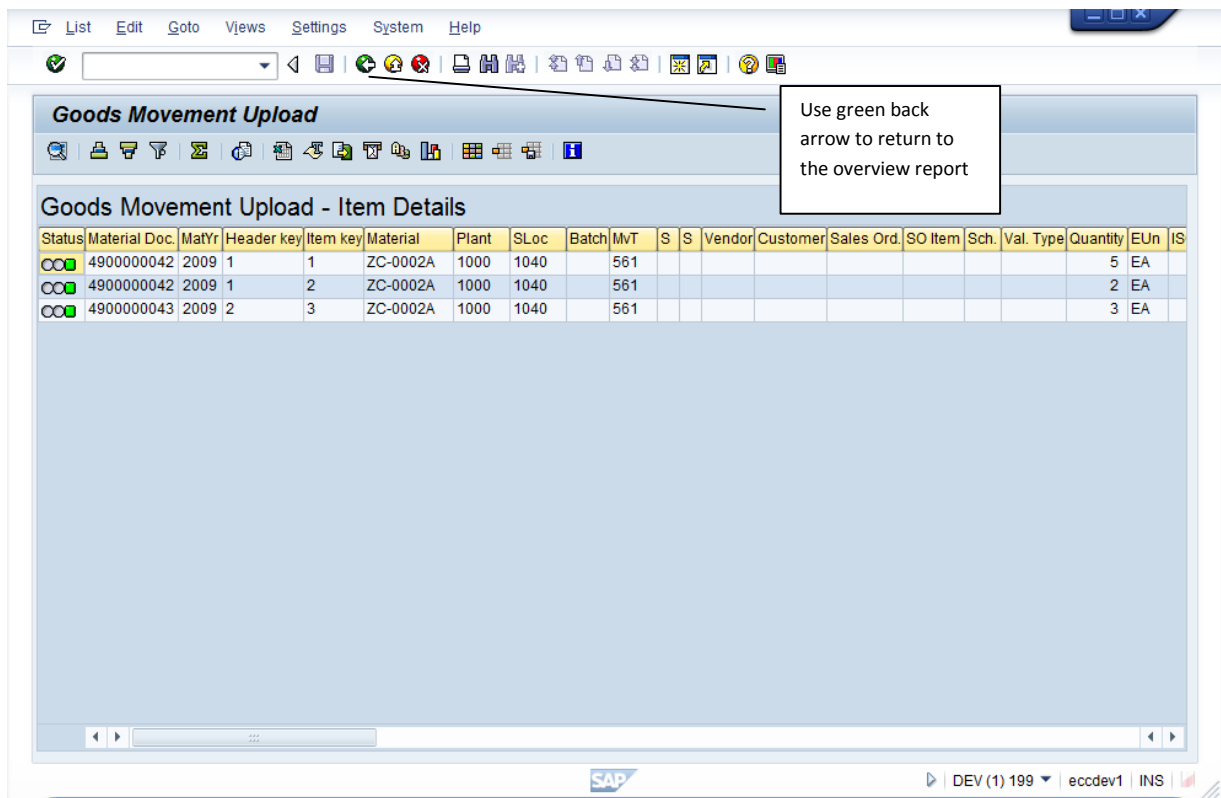


Figure 10 Item Details report shows all lines that were uploaded

The Item Details report lists all the fields in the upload structure. To make the report more compact, it is suggested that you save a display variant using the menu option Settings->Layout->Saving. You can hide the columns that are not used by your organization.

More Information

The upload program calls standard function BAPI_GOODSMVT_CREATE. You can obtain more documentation about the input fields for this function using the transaction BAPI in SAP. The relevant documentation screen is shown below.

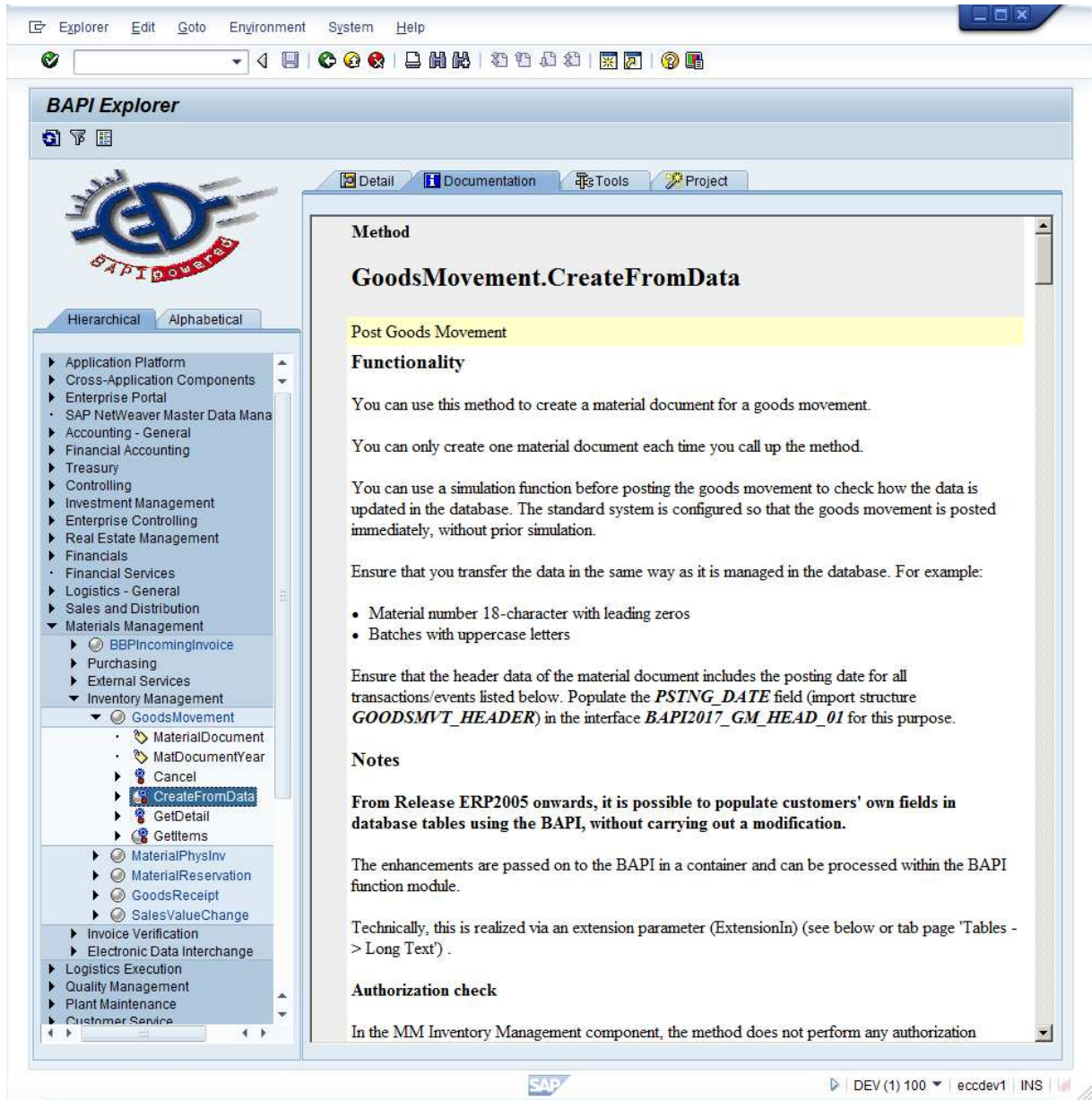


Figure 11 Documentation for the goods movement function in transaction BAPI from SAP

An extract of key information from the SAP documentation is below. This documentation lists the required fields for different posting scenarios.

Which fields must be populated during the various transactions/events?

Cohesion Support Database

The following example scenarios illustrate which fields have to be populated for which business transactions/events (code).

There are the following types of transactions/events:

- GM_Code 01: Goods receipt for purchase order
- GM_Code 02: Goods receipt for production order
- GM_Code 03: Goods issue
- GM_Code 04: Transfer posting
- GM_Code 05: Other goods receipt
- GM_Code 06: Reversal of goods movements
- GM_Code 07: Subsequent adjustment with regard to a subcontract order

Entering the movement indicator

Depending on the transaction, you must enter the following in the movement indicator field:

GM_Code 01 (Goods receipt for purchase order): B

GM_Code 02 (Goods receipt for production order): F

For all other transactions, leave the field blank.

For 1: GM_Code 01: Goods receipt for purchase order

Purchase order known

The following fields must be populated:

Purchase order

Purchase order item

Movement type

Movement indicator

Quantity in unit of entry

ISO code unit of measurement for unit of entry or

quantity proposal

Cohesion Support Database

The following fields may have to be populated (this is not a complete list):

Minimum shelf life expiration date (if set up in the system)

Reason for movement (if set up in the system)

Batch (if the material is handled in batches and no automatic batch assignment has been set up)

Storage location (if no storage location us specified in the purchase order item)

The following fields can be populated (this is not a complete list):

Stock type

Item text

Unloading point

Delivery completed indicator

The following fields must not be populated (this is not a complete list):

Account assignment fields (the account assignment is adopted from the purchase order)

Reservation

Receiving/issuing material

Receiving/issuing plant

Receiving/issuing storage location

In the case of a purchase order item with the item category "subcontracting", only the GR item is to be passed on in the interface. The GI items are determined automatically in the system.

Purchase order unknown: Shipping notification known

The following fields must be populated:

Delivery

Delivery item

Movement type

Cohesion Support Database

Other fields as under "Purchase order known". The system determines the relevant purchase order item via the delivery/delivery item.

Purchase order unknown: Purchase order is to be created automatically

The following fields must be populated:

Material number

Plant

Storage location

Vendor

Movement type

Movement indicator

Quantity in unit of entry

ISO code unit of measurement for unit of entry

The following fields may have to be populated (this is not a complete list):

Minimum shelf life expiration date (if set up in the system)

Reason for movement (if set up in the system)

Batch (if the material is handled in batches and batches are not assigned automatically)

The following fields can be populated (this is not a complete list):

Stock type

Item text

Unloading point

You cannot populate the following fields (this is not a complete list):

Account assignment fields (automatic creation of purchase order items with account assignment is not supported)

Cohesion Support Database

Reservation

Receiving/issuing material

Receiving/issuing plant

Receiving/issuing storage location

Purchase order unknown: A purchase order is not to be created

The following fields must be populated:

Material number

Plant

Storage location

Vendor

Movement type

Movement indicator

Quantity in unit of entry

ISO code unit of measurement for unit of entry

The following fields may have to be populated in some cases (this is not a complete list)

Minimum shelf life expiration date (if set up in the system)

Reason for movement (if set up in the system)

Batch (if the material is handled in batches and automatic assignment of batch numbers is not set)

The following fields can be populated (this is not a complete list)

Special stock indicator

Item text

Unloading point

Goods recipient

The following fields cannot be populated (this is not a complete list)

Account assignment fields (automatic creation of purchase order items with account assignment is not supported)

Reservation

Receiving/issuing material

Receiving/issuing plant

Receiving/issuing storage location

Receiving/issuing batch

The input combinations listed above for the GM_CODE 01 can be combined within an input table so that they can be posted in a material document. Items can also be posted for different purchase orders, provided that all the purchase orders relate to the same vendor.

Transfer of subcontracting components

When the end product (ordered material of a subcontract order) is posted using movement type 101, the populated unique identification of the document line (LINE_ID) is additionally needed for the transfer of the subcontracting components.

More information on LINE_ID and PARENT_ID

The following fields must be populated for the components:

Unique identification of the document line

Identification of the immediately superordinate line

Material number

Plant

Storage location

Quantity in unit of entry

The following fields can be filled for the components:

All other fields in the method that are included in this list.

Cohesion Support Database

The following fields cannot be populated for the components:

All fields that are not included in the list above. The movement indicator must be initial.

Additional fields in goods-receipt-based invoice verification

When you post a goods receipt to purchase order with movement type 102, an issue with reference to a previously posted goods issue, the following fields must also be transferred:

REF_DOC_IT (LFPOS): Item of a reference document

REF_DOC (LFBNR): Document number of a reference document

REF_DOC_YR (LFBJA): Fiscal year of a reference document

Only if you transfer these fields can you be sure that the link to the original goods movement is retained.

For 2 GM_Code 02: Goods receipt for production order

The following fields have to be populated:

Order

Movement type

Movement indicator

Quantity in unit of entry

ISO code unit of measurement for unit of entry or

quantity proposal

The following fields may have to be populated in some cases (this is not a complete list):

Minimum shelf life expiration date (if set up in the system)

Reason for movement (if set up in the system)

Batch (if the material is handled in batches and automatic batch number assignment is not set)

Cohesion Support Database

Storage location (if storage location has not been specified in the order)

The following fields can be populated (this is not a complete list):

Order item (co-product)

Stock type

Item text

Unloading point

"Delivery completed" indicator

The following fields cannot be populated (this is not a complete list):

Account assignment fields (the account assignments are adopted from the purchase order)

Reservation

Receiving/issuing material

Receiving/issuing plant

Receiving/issuing storage location

Receiving/issuing batch

For 3 GM_Code 03: Goods issue

Goods issue without reference to a reservation

The following fields must be populated:

Material number

Plant

Storage location

Movement type

Movement indicator

Quantity in unit of entry

Cohesion Support Database

ISO code unit of measurement for unit of entry

The following fields may have to be populated in some cases (this is not a complete list):

Special stock (e.g. sales order, project, vendor etc.)

Minimum shelf life expiration date (if set up in the system)

Reason for movement (if set up in the system)

Batch (if the material is handled in batches and automatic batch number assignment is not set)

Account assignment fields

The following fields can be populated (this is not a complete list):

Special stock indicator

Item text

Unloading point

Goods recipient

The following fields cannot be populated (this is not a complete list):

Reservation

Receiving/issuing material

Receiving/issuing plant

Receiving/issuing storage location

Receiving/issuing batch

Goods issue with reference to a reservation

The following fields must to be populated:

Reservation number

Reservation item

Record type of the reservation

Cohesion Support Database

Movement indicator

Quantity in unit of entry

ISO code unit of measurement for unit of entry

The following fields may have to be populated in some cases (this is not a complete list):

Minimum shelf life expiration date (if set up in the system)

Reason for movement (if set up in the system)

Batch (if the material is handled in batches and automatic batch number assignment is not set)

Storage location (if not planned in the reservation)

The following fields can be populated (this is not a complete list):

Special stock indicator

Item text

Unloading point

Goods recipient

The following fields cannot be populated (this is not a complete list):

Movement type

Material

Plant

Account assignment fields

For 4 GM_Code 04: Transfer posting

Transfer posting without reference to a reservation

The following fields must be populated:

Material number

Cohesion Support Database

Plant

Storage location

Movement type

Movement indicator

Quantity in unit of entry

ISO code unit of measurement for unit of entry

The following fields may have to be populated in some cases (this is not a complete list):

Receiving material

Receiving plant

Receiving storage location

Receiving batch (if material is handled in batches and you want to change batches)

Receiving/issuing special stock (e.g. sales order, project, vendor etc.)

Minimum shelf life expiration date (if set up in the system)

Reason for movement (if set up in the system)

Batch (if the material is handled in batches and automatic batch number assignment is not set)

The following fields can be populated (this is not a complete list):

Special stock indicator

Item text

Account assignment fields (for automatic posting lines: expense/income from stock transfer)

The following fields cannot be populated (this is not a complete list):

Reservation

Transfer posting with reference to a reservation

See goods issue with reference to a reservation

Cohesion Support Database

For 5 GM_Code 05: Other goods receipts

Other goods receipt without reference to a reservation

See goods issue without reference to a reservation

Other goods receipt with reference to a reservation

See goods issue with reference to a reservation

For 6 GM_Code 06: Reversal of goods movements

You can use the Cancel method to reverse goods movements. But you may also want to cancel a goods movement without referring to a material document (see the Cancel method).

If you want to work without referring to the document, you have to populate the BAPI_GM_ITEM_CREATE-XSTOB field in the interface (import table GOODSMVT_ITEM). In this case, the system converts the movement type assigned in the interface to the reversal movement type. Alternatively, you can set the reversal movement type in the interface. In this case, the BAPI_GM_ITEM_CREATE_XSTOB field must be transferred blank.

If you want to cancel a goods movement with reference to a reservation (without using the Cancel method) you can only transfer the BAPI_GM_ITEM_CREATE_XSTOB field if it is populated. Movement types are not transferred when you post with reference to a reservation, as the movement type is contained in the reservation item.

For 7. GM_Code 07: Subsequent adjustment with regard to a subcontract order

Ordered material of subcontract order

The following fields must be populated:

Unique identification of document line (can be freely assigned)

Posting date in document header

Cohesion Support Database

Document number of purchasing document

Item number of purchasing document

Material number check

Plant check

Movement type (select movement type 121)

Movement indicator (must be O)

Further entries are not allowed. The entry quantity for the ordered material of a subcontract order must be zero.

Components

The following fields must be populated:

Unique identification of document line (can be freely assigned)

Identification of the immediately superordinate line

Plant

Material number check

Quantity in unit of entry; can also be negative

The following fields can be populated:

Storage location

All other fields in the method that are included in this list.

The following fields may not be populated:

All fields that are not in the list above. The movement indicator must be blank.

More information on LINE_ID and PARENT_ID

Additional fields in goods-receipt-based invoice verification



Cohesion Support Database

When you post a subsequent adjustment, the following fields must also be transferred:

REF_DOC_IT (LFPOS): Item of a reference document

REF_DOC (LFBNR): Document number of a reference document

REF_DOC_YR (LFBJA): Fiscal year of a reference document

Only if you transfer these fields can you be sure that the link to the original goods movement is retained.

Further Questions

If you have questions about the upload or require support, please contact Cohesion via our web-site (<http://www.cohesion.biz>) or email store@cohesion.biz for more details.