Encountering Stock Inconsistencies: An Approach towards Solution

Applies to:
The Contents of this Article applies to SAP ERP products of releases from 4.6c onwards.

Summary
This Article briefly explains about the inconsistencies that happen in stocks during the inventory transactions and their possible causes, and the programs to find out the inconsistency and their rectification.

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**Introduction:**

Most often we get issues like stock is not matching with the stock available at MMBE, and the stock which shows in the material master record. At the same time valuated stock will not match with various transaction codes /reports like MCBE, MC.9, or at MB53 etc.

As it is very much important in the Inventory Management to see that the stocks are properly maintained for their correctness in terms of its quantity and value. These types of inconsistencies cause instability in the system as well for the reporting, there by the false stock statements and incorrect decisions. As the Business needs correctness of the data, looking into the stock inconsistencies in the system will reduce the burden of taking wrong decisions.

This document deals with possible causes for the stock inconsistencies and the analysis required for finding out the inconsistency and their correcting.

The possible reasons could be after prolonged usage of Inventory Management transactions like MIGO,MB1B etc for stock posting, and their arching of the documents or wrong postings with negative stocks, system will not update the info structures like S031,S032 etc or the history tables like MBEWH ,MARDH ,MSEG,MKPF etc.

**Errors during Inventory Transactions:**

What ever may be the reason system will become inconsistent with stocks and which may provide the error message from any of the following, for goods issue at any of the inventory transactions like MIGO, MB1A, PGI at VL02N.

- M7 308 'Stock value and qty are unrealistic: & / &
- M7 309 'Stock value is negative: &
- M7 310 'Valuated stock is negative: &
- M7 314 Valuated stock becomes negative: &

The possible reason is there exist no actual stocks in the system, though MMBE shows some stock .Most of the times this could be the reason for the error messages.

**Transactions where we can check the stocks:**

Various areas where we can find the stock in SAP are ,
1. MMBE: Stock overview report.
2. MM03 accounting view which will fetch the data from the table MBEW: Table for valuated stock.
3. MB53 plant stock availability
4. MB52 ware house stock.
5. Inventory Information reports like MC.9, MCHE etc.

**Possible Causes of Inconsistency And their solution:**

This section deals with the various causes for the inconsistency and the solutions with regard to the inconsistency and various reports which can be used for analysis to find out the inconsistency where it caused.

1. **Due to a difference between storage location stock and batch stock:**

Some times the sum of all batch stocks from the table MCHB for a material differs from the storage location stock MARD. This does not apply to special stock like sale order stock or project stock.

The possible reason for this inconsistency could be when you use a modification for batch number assignment. One batch is assigned several times (for example, use of a dummy batch or the actual date).
Solution

Check your modification in batch number assignment, in particular in the function module VB_NEXT_BATCH_NUMBER.

A second option to find out whether the inconsistency is a result of such a modification to a call transaction MSC3N for the relevant batch and to display the change documents, if there are several change documents with the content "Batch created", this usually hints to a modification in batch number assignment.

To avoid further inconsistencies, delete your modifications. Implement the Notes 1035372 and 1062164 and set the parameter ALLOW_EXISTING_BATCH in the existing user exit EXIT_SAPLV01Z_002 to make postings to the existing batch.

If the system now issues the error message M3 204 "Batch & already exists in plant &" or M3 556 "Batch & already exists for material &", you must repopulate the batch number in the user exit EXIT_SAPMM07M_010.

2. Wrong Goods Receipt:

In your system, there is a goods receipt for a purchase order in which an item in the material document contains the material number of the previous purchase order item.

3. A material has inconsistent data:

The stock in the accounting view (table MBEW) does not correspond to the stock in the stock overview. You have own programs, which carry out an update for MBEW.

Cause and prerequisites

Table MBEW contains the valuation data of the material, for example the total stock and the total value. These fields are updated with every goods movement. With these frequent changes in the table, each update, which does not lock the table correctly, can cause a data inconsistency. In particular the following scenario can cause differences:

- Program ZXXXXXXXX reads the entry from MBEW
- Because of a goods movement MBEW is changed
- Program ZXXXXXXXX writes the entire Work area in table MBEW. As a result, the changes are overwritten with the goods movement.

Solution

Do not use your own programs, to change fields LBKUM, SALK3, SALKV, VKSAL, STPRS, VERPR or VPRSV of table MBEW. If you use own programs which change other fields of table MBEW, for the update on table MBEW always use the addition SET. Thus on the database only the fields specified with command SET are changed. Stock postings which may be carried out at the same time are not affected.

If you report an inconsistency and we find customer-specific programs with an update to table MBEW without addition SET, we must assume that these programs caused the inconsistency. Therefore, we ask for you understanding that this inconsistency must be regarded as modification damage. The correction will then be charged as remote consulting.

V1. Non generation of accounting document at MIGO:

When goods movement is posted, a material document is generated. However, no update of the dependent stock tables such as MARD and MBEW is carried out. In addition, no accounting document is generated. Also characteristic of the affected material documents is that fields MENGE and ERFMG are filled as follows:
MSEG-ERFMG = entered quantity (for example, 10 pieces)
MSEG-MENGE = 0

Cause and prerequisites

The following procedure causes the incorrect update:

1. You post goods movement with Transaction MB11 or MB1A.
2. You enter the movement type, the plant and the storage location in the initial screen (screen 400). You then choose 'Enter'.
3. You enter a material number in the following overview screen (screen 421) and confirm your entry by choosing 'Enter'.
4. Since you did not fill the field quantity, you reach the detail screen (screen 410) automatically. You system generates warning message M7129 'Enter a quantity'.
5. You press the key combination SHIFT + F5. Then dialog box 'Display movable quantity' is displayed.
6. Exit this dialog box with the F12 key (Cancel).
7. Enter an entry quantity in the following detail screen (screen 410) and confirm it by choosing 'Enter'.
8. Then press the F12 key (Cancel) afterwards.
9. You reach the overview screen (screen 420) and post goods movement (F11 key).

V. Due to Period Closing Issues:

In period closing for the material master (transaction MMPV), periods are closed during the interval between the last day of the old period and the first day of the new period.

Example

Date July 30, 2005, time 23:59
- You begin processing MM document 1, an Idoc consisting of 1200 items.
- Its posting date is July 30, 2005 and posting should occur in the current period.

Date July 31:.2005, time 00:00 - 00:01
- The period closing program runs a day before the current period 07 is finished and changes the current period from 07 to 08.
- Therefore, all future goods movements and price changes with a posting date of July 31, 2005 are posted in the previous period.

Date 31.07.2005, time 00:02 - 00:03
- The system processes and updates the next MM document (2), an IDoc with 100 items.
- MM document 2 contains goods movements that have combinations of material and plant that are the same as for MM document 1.
- The posting date is to 31.07.2005, that is, MM document 2 is posted in the previous period 07.
- The posting of MM document 2 causes the system to create history tables of the material masters that are to be posted for period 07.
- During the posting of the previous period, the quantities and values are updated simultaneously in the history tables of period 07 and the tables of the current period 08.

Date July 31,.2005, time 00:04
- MM document 1 is posted and its processing is complete.
- At the start of processing, the system determined that this document, with a posting date of July 30, 2005, is to be posted into the current period.
- During the processing of this document the period is closed, but the posting program does not know this.
- MM document 2 has updated the entries for the current period, however this is now 08.
- The data in the history table of period 07 is now inconsistent as is the data for all the combinations of material and plant that are contained in MM documents 1 and 2.
To avoid this constellation, do not allow any postings to occur whilst the period closing programs is running. Before the period closing program runs, check in transaction SM13 whether outstanding update terminations of goods movements are still displayed. These must be cleared and closed before the period closing program runs.

**Useful Reports to analyze the inconsistency.**

**Reports:**

**RM07SHUP** Shows updates recorded in table mminkon_up

**MBANEKBE**: Display of a purchase order history. Cumulation of quantities And values. The output list contains for each history item the current Movement data (quantities, values) in PO unit and PO price unit, And the cumulated data for goods receipts and invoices.

**MBCKBSEG**: This report checks whether there exists
- Materials with a balance in FI (not equal zero), but there are no entries in table MBEW (material deleted while being inconsistent) (table itabm)
- Materials with a wrong valuation class in table MBEW, account determination get different account as in BSEG, (table itabw) if FI summarization is active, no evaluation against changed account possible
- Materials which have a different actual value in MBEW as in BSEG (table t_wrong_value), see MBVALUE
- Manual postings or postings with posting key <> 'BSX' on stock accounts (table t_non_bsx)

**MBCKBSIM**: This report checks if for all BSEG entries a BSIM entry exists.

**MBTRAMEW**: This report will try to find inconsistencies caused by Stock transfer orders with active ingredient batches according note 212532

And also this report will allow posting the correction using transaction MWBE from line selection + PF key to adjust the PO histories.

**RM07HIST**: routine to read history stock from history tables.

**MBLABST**: Shows general information and stocks from a specified material in a specified plant.

**MBMSSQCR**: with this report the user may change the content of field MSS-QZBWS special stock valuation indicator when the special stock is zero.

**MBUPDATE**: This report allows modification of MM-IM table fields. Updated values are stored in table MMINKON_UP.

**Some Other Useful reports which can be used for the inconsistency analysis are**

**MBCKMACI, MBCKMD01, MBCKMD02, MBCKMDFI, MBCKMDLI, MBCKMDOC, MBCKMDTY, MBCKMK1, MBCKMQCI, MBCKMSSA, MBCKMSQQ, MBENOMAT, MBFIRST, MBHIST, MBINKON, MBINKON2, MBMENU, MBMISSFI, MBMSSACO, MBMSSAPRO, MBMSSATY, MBMSSI01, MBMSSQCO, MBMSSQTY, MBMSSQUA, MBMSSVALID, MSPSTCRC, MBQUANT, MBSEGBSX, MBSHOWUP, MBSTOCK, MBTRAME, MB_MRMI, RM07APP1, RM07AUTH, RM07COMP, RM07MB51, RM07MR51, RM07REUS, MBVALUE, MBCKT030, MBMSSSTO.
Conclusion:

Though there are many reasons for a stock inconsistency, some of the possible issues and their solutions are discussed here. As the very purpose of Inventory Management is to maintain the stocks perfectly, finding out the inconsistency and their correction will improve the stock management thereby reducing the inventory costs. The programs which are discussed above are extremely useful in finding out the inconsistency.
Related Content

Reference 1 Parent SAP Note 32236
Reference 2 Site for reference Service Market Place
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