

Inventory Management in SAP BW



Applies to:

SAP BW 3.X and BI NetWeaver 2004s. For more information, visit the [EDW homepage](#).

Summary

This document aims to explain the concept of Inventory management using non cumulative key figures in a simple and straight forward manner. The reader of this document should have a moderate knowledge of BW concepts for understanding the concept of Inventory management.

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Table of Contents

Document Objective	3
Document Detail.....	3
Why Inventory management with non-cumulative key figures.....	3
DataSources in R/3.....	3
Steps	4
Step 1: R/3	4
Step 2: R/3	4
Step 3: BW	5
Step 4: R/3	6
Step 5: R/3	7
Step 6: BW	8
Step 7: BW	9
Step 8: BW	10
How to Validate Data between R/3 and BW	11
Related Content.....	12
How to Handle Inventory Management Scenarios in BW	12
Disclaimer and Liability Notice.....	13

Document Objective

This document aims to explain the concept of Inventory management using non cumulative key figures in a simple and straight forward manner. The reader of this document should have a moderate knowledge of BW concepts for understanding the concept of Inventory management.

Document Detail

Inventory Management

SAP Inventory Management system allows to manage stocks on a quantity and value basis in order to plan, enter, check goods movements and carry out physical inventories.

Inventory management with non-cumulative key figures

The reporting requirement is to report the historical stock balances on a daily level and most of the materials were moved 1 time in the month.

The query-runtime is excellent. To reduce the data volume in the fact table, it is better to use the non-cumulative key figures.

Inventory management with SnapShots

The reporting requirement is to report the historical stock balance on a monthly level of all materials. 90 percent of all materials were moved 1 time in the month.

Due to the high amount of movements the query-runtime is bad.

Why Inventory management with non-cumulative key figures

Non-cumulative values are those key figures that are measured in relation to a period in time; that is to say they cannot be meaningfully cumulated over time. Non-cumulative values are summarized over time using so-called exception aggregation.

The reporting requirement is to report the historical stock balances on a daily level. The query-runtime is excellent. To reduce the data volume in the fact table, it is better to use the non-cumulative key figures.

DataSources in R/3

1. 2LIS_03_BX Material stock
 2. 2LIS_03_BF Material movements
 3. 2LIS_03_UM Revaluations
- **2LIS_03_BX - Material stock**

The first Data Source (2LIS_03_BX) is used to extract an opening stock balance on a detailed level (material, plant, storage location) at this moment. "At this moment" is the point in time at which the statistical setup ran for DataSource 2LIS_03_BX.

- **2LIS_03_BF - Material movements**

This datasource is used to extract the material movements into the BW system. Material movements like goods receipts and goods issues are being pulled using this extractor using MSEG table.

- **2LIS_03_UM Revaluations**

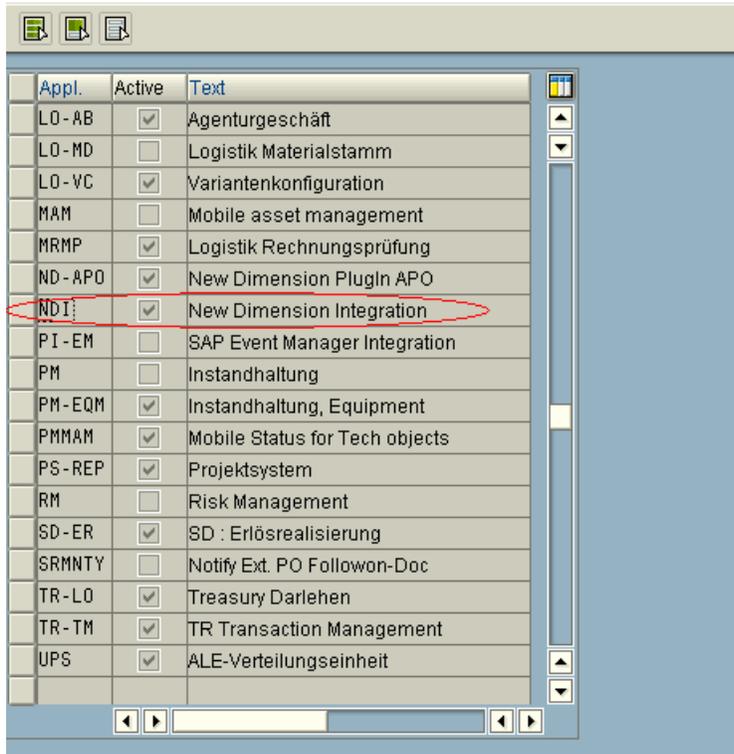
The third of the above DataSources (2LIS_03_UM) contains data from valued revaluations in Financial Accounting (BSEG Table).

Steps

Step 1: R/3

Transaction BF11: Set the flag as active for application component BW & NDI.

Display View "BTE Application Indicator": Overview



Appl.	Active	Text
LO-AB	<input checked="" type="checkbox"/>	Agenturgeschäft
LO-MD	<input type="checkbox"/>	Logistik Materialstamm
LO-VC	<input checked="" type="checkbox"/>	Variantenkonfiguration
MAM	<input type="checkbox"/>	Mobile asset management
MRMP	<input checked="" type="checkbox"/>	Logistik Rechnungsprüfung
ND-APO	<input checked="" type="checkbox"/>	New Dimension PlugIn APO
NDI	<input checked="" type="checkbox"/>	New Dimension Integration
PI-EM	<input type="checkbox"/>	SAP Event Manager Integration
PM	<input type="checkbox"/>	Instandhaltung
PM-EQM	<input checked="" type="checkbox"/>	Instandhaltung, Equipment
PMAM	<input checked="" type="checkbox"/>	Mobile Status for Tech objects
PS-REP	<input checked="" type="checkbox"/>	Projektsystem
RM	<input type="checkbox"/>	Risk Management
SD-ER	<input checked="" type="checkbox"/>	SD : Erlösrealisierung
SRMNTY	<input type="checkbox"/>	Notify Ext. PO Followon-Doc
TR-LO	<input checked="" type="checkbox"/>	Treasury Darlehen
TR-TM	<input checked="" type="checkbox"/>	TR Transaction Management
UPS	<input checked="" type="checkbox"/>	ALE-Verteilungseinheit

Step 2: R/3

Initialization of the current stock (opening balance) in the R/3 source system with DataSource 2LIS_03_BX. Enter the plant and material for which the stock initialization has to be done. It is safe to run stock initialization in background. (Transaction code: MCNB)

BW: Initialization of opening stocks in transfer structure

General control info

Name of run	STOCK_INIT	<input checked="" type="checkbox"/> New run
Termination date	20.01.2003	
Time of termination	20:00:00	5000 No. of data recs per LUW

Data destination info

Transfer structur	2LIS_03_BX
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Data source info

Plant		to		
Material		to		
Storage location		to		

only valuated stocks
 All stocks (including non-valuat)
 Zero stock to be transferd

Once the initialization job is finished, check in RSA3 to ensure data has been filled or use program **RMCEX_SETUP_ENTRIES** to find the number of entries in Setup table for application 03.

Step 3: BW

Run infopackage for data source 2LIS_03_BX. This extract will pull the stock initialization data.

InfoPackage	Stock Initialization for Inventory Management(ZPAK_D6WSBH52LJW)		
DataSource	Stock Initialization for Inventory Management(2LIS_03_BX)		
Data Type	Transaction Dat		
Source System	EC2 Client 400(EC2CLNT400)		
Last Changed By	10509412	Date	18.11.2009 Time 1

Data Selection | Extraction | Processing | **Update** | Schedule

Update Mode

Generate Initial Status

Request will be processed at once in the source system

Compress the request containing the opening stock that was just uploaded. Make sure the "No marker update" indicator is not set. This will actually update the marker. The role of the marker is a reference point.

The screenshot shows the SAP BW job compression interface. At the top, there are tabs for 'Selection' and 'SubseqProcessing'. Below them, the 'Job name' is 'BI_COMP'. The 'Compress' section contains a 'Request ID' field with the value '3848' and a 'Calculated request ID' field with a green checkmark. There are two checkboxes: 'With zero elimination' (unchecked) and 'No marker update' (unchecked). At the bottom, there are buttons for 'Release', 'Log', and 'Execute compression'.

Step 4: R/3

Fill Statistical setup for Material movements using "Transaction code - OLI1BW". Run with open selection if running for first time. It is safe to run the statistical setup for material movements in background.

Statistical Setup of Info Structures from Material Movements

The screenshot shows the 'Statistical Setup of Info Structures from Material Movements' dialog box. It is divided into three main sections:

- Specifications for the target structures:** Contains a checked checkbox for 'Extraction structures BW'.
- Document data restriction:** Includes 'Archiving run' (empty), 'Selection by posting date' (radio button), 'Posting date' (empty) to (empty), 'Selection per material doc.' (radio button), and 'Material document' (empty) to (empty).
- Control of the setup run:** Includes 'Name of run' (Test3), 'New run?' (checkbox), 'Date of termination' (16.02.2010), and 'Time of termination' (14:32:27).

Once the statistical job is finished, check in RSA3 to ensure data has been filled or use program RMCEX_SETUP_ENTRIES to find the number of entries in Setup table for application 03.

Step 5: R/3

Fill Statistical setup for Material revaluations using "Tcode - OLIZBW". It is safe to run the statistical setup for material revaluations in background.

Statistical Setup of Info Strucs from Invoice Verification/Revaluation




Specifications for the target structures

Extraction structures BW

Document data restriction

Archiving run

Company code 

Selection per doc. number

Accounting document to

Fiscal year to 

Selection by posting date

Posting date to

Control of the setup run

Name of run

New run?

Date of termination

Time of termination

Step 6: BW

Run "Init with data transfer" info package for data source 2LIS_03_BF. This extract will pull the material movements for the stocks initialized.

InfoPackage	Z_2LIS_03_BF(ZPAK_D70CXPDWUKY35RDNGZSANSR89)		
DataSource	Goods Movements From Inventory Management(2LIS_03_BF)		
Data Type	Transaction Dat		
Source System	EC2 Client 400(EC2CLNT400)		
Last Changed By		Date	Time 00:00:0

Update Mode

Full Update
 Initialize Delta Process
 Initialization with Data Transfer
 Initialize Without Data Transfer
 Early Delta Initialization

Request will be processed at once in the source system

Job name BI_COMP

Compress

Request ID 3849
 Calculated request ID
 With zero elimination
 No marker update

Note: If you have multiple application servers, make sure the tick mark is reflected in all the application servers once it has been ticked. Use transaction SM51 and login to each application server and check the same.

It's safe to compress the request only after checking the tick mark in all application servers.

Step 7: BW

Run "Init with data transfer" info package for data source 2LIS_03_UM. This extract will pull the material revaluations for the stocks initialized.

The screenshot shows the SAP BW configuration interface for an InfoPackage. The 'Update' tab is selected. The 'Update Mode' section is expanded, showing the following options:

- Full Update
- Initialize Delta Process
 - Initialization with Data Transfer
 - Initialize Without Data Transfer
 - Early Delta Initialization

Below the options, a message states: "Request will be processed at once in the source system".

After successful loading of the historical material revaluations, the associated request has to be compressed. Make sure the "No marker update" indicator is set. This is necessary because the historical material revaluations are already available in the opening stock.

The screenshot shows the 'Compress' dialog box in SAP BW. The 'Request ID' is set to 3849. The 'No marker update' checkbox is checked. Other options include 'With zero elimination' (unchecked) and 'Calculated request ID' (unchecked). The 'Release' button is highlighted.

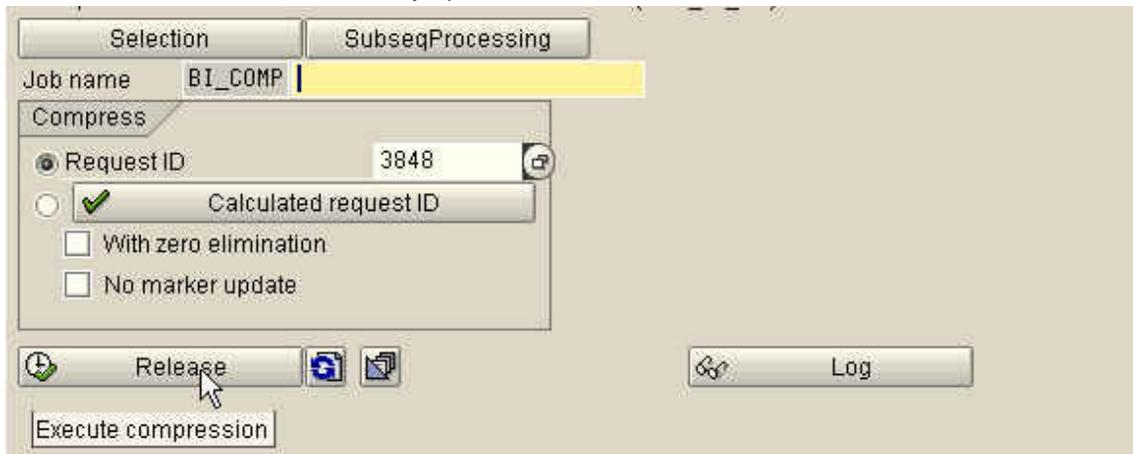
Note: If you have multiple application servers, make sure the tick mark is reflected in all the application servers once it has been ticked. Use transaction SM51 and login to each application server and check the same.

It's safe to compress the request only after checking the tick mark in all application servers.

Step 8: BW

After successful initialization, run the delta packages for 2LIS_03_BF & 2LIS_03_UM to extract the delta records.

Compress the request containing delta stock that was just uploaded. Make sure the "No marker update" indicator is not set. This will actually update the marker.



How to Validate Data between R/3 and BW

R/3: Use transaction MB5B – Stock On Posting Date to check the stock status.

Stock on Posting Date

The screenshot shows the SAP MB5B transaction interface. It is divided into three main sections:

- Database Selections:** Fields for Material number (D13291207), Company code, Plant (2280), Storage location, Batch, Valuation type, Movement type, and Special stock indicator. A 'to' field is present for each, and a vertical column of arrow buttons is on the right.
- Stock type:** Radio buttons for 'Storage loc./batch stock', 'Valuated stock' (selected), and 'Special stock'.
- ScopeOfLst:** A button labeled 'Category' with a right-pointing arrow.

R/3 – MB5B - Report output

Stock/value on	31.01.2009	811,200	KG
Total/val. of receipts		0,000	KG
Total/value of issues		0,000	KG
Stock/value on	31.01.2009	811,200	KG

BW : Execute the Bex query with the same selection as R/3

Material	Qty Val Stock	Qty Issued (Val Stock)	Qty Received (Val Stock)
D13291207	811.200 kg	0.000	0.000

Related Content

[How to Handle Inventory Management Scenarios in BW](#)

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