Update of SD Sales Extractor Data for BW (Application 11)

Cause

You are facing incorrect values in DataProvider of your SAP BW system. The InfoSources in charge are using DataSources getting their data from SD Sales documents of your SAP ERP system (Application 11). You need guidance how to analyze the single steps of data update.

Resolution

ANALYSIS QUESTIONS

1. Which DataSource am I using? Did I consult the corresponding FAQ Notes?
2. Which field, key figure contains the incorrect values?
3. At which stage does the incorrectness occur?
4. How can I check the data at the single steps of the update stages?
5. How can I find custom code potentially causing the incorrectness?
6. How can I proceed if incorrectness is not reproducible?

1. Which DataSource am I using? Did I consult the corresponding FAQ Notes?

Sales Document Item Data
DataSource 2LIS_11_VAHDR
FAQ Note 1353486

Sales Document Header Data
The SD Sales Documents offer several DataSources. For each DataSource a FAQ Note exits.

Sales Document Condition
DataSource 2LIS_11_VAITM
FAQ Note 1353487

Sales Document Schedule Line
DataSource 2LIS_11_VAKON
FAQ Note 1353489

Sales Document Header Status
DataSource 2LIS_11_VASCL
FAQ Notes 1353492

Sales Document Item Status
DataSource 2LIS_11_VASTH
FAQ Note 1353490

Sales-Shipping Allocation Item Data
DataSource 2LIS_11_VASTI
FAQ Note 1301009

Sales-Shipping Allocation Schedule Line
DataSource 2LIS_11_V_ITM
FAQ Note 1353563
2. Which field, key figure contains the incorrect values?

The Extractor data are flat structures. In Logistics Customizing Cockpit you define the fields of an Extractor.

Transaction LBWE

**DataSources and assigned Extract Structures**

<table>
<thead>
<tr>
<th>DataSource</th>
<th>Extract Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2LIS_11_VAHDR</td>
<td>MC11VA0HDR</td>
</tr>
<tr>
<td>2LIS_11_VAITM</td>
<td>MC11VA0ITM</td>
</tr>
<tr>
<td>2LIS_11_VAKON</td>
<td>MC11VA0KON</td>
</tr>
<tr>
<td>2LIS_11_VASCL</td>
<td>MC11VA0SCL</td>
</tr>
<tr>
<td>2LIS_11_VASTH</td>
<td>MC11VA0STH</td>
</tr>
<tr>
<td>2LIS_11_VASTI</td>
<td>MC11VA0STI</td>
</tr>
<tr>
<td>2LIS_11_V_ITM</td>
<td>MC11V_0ITM</td>
</tr>
<tr>
<td>2LIS_11_V_SCL</td>
<td>MC11V_0SCL</td>
</tr>
<tr>
<td>2LIS_11_V_SSL</td>
<td>MC11V_0SSL</td>
</tr>
</tbody>
</table>

Activating an extract structure the system creates and activates the corresponding Data Dictionary structure. This one contains all fields that an Extractor updates.

View the extract structure with all fields in Data Dictionary:

Transaction SE11

View further settings of extract structure:

Transaction RSA6

3. At which stage does the incorrectness occur?

The update mode for application 11 defines the way of update to BW Delta Queue.

Saving a Sales document the system updates the document data to the data base. At the same time the extractor data are saved to RFC queues.
The data are updated via several stages up to the InfoSources in the SAP BW system.

DataSources of SD Sales Documents

Queued Delta

Using periodical report RMBWV311 the extractor data from the RFC queues are taken, are sorted by DataSource and Target system and are written to BW Delta Queue.

Direct Delta

With Direct delta the update to RFC queue is dropped. Saving a sales document the extractor data are written directly to BW Delta Queue.

Transaction LBWE: Update mode for Application 11

Load to BW via InfoPackage

Running an InfoPackage in BW system a job is started that pulls the extractor data from BW Delta Queue of the ERP system. This data are written to the PSA table. (Update without using of PSA table are possible, refer InfoPackage settings).

Userexit

Transaction SE37: EXIT_SAPLRSAP_001 – search for DataSource (e.g. "2LIS_11_VAITM")

Transaction SE18: BAdI RSU5_SAPI_BADI – display active implementations and search in method DATA_TRANSFORM for DataSource (e.g. "2LIS_11_VAITM")

Update InfoProvider

Transaction RSA1* *

Transaction VA03

Display the data base content for single Sales document tables, e.g. VBAK for header data

Transaction SE16

Check RFC Queues (ERP System)

Display the RFC queues for the extractor data with queue name MCEX11

Logging of extractor data update

Transaction LBWQ (Parameter transaction of SMQ1 with Queue name MCEX*)

4. How to check the data at the single steps of the update stages?

Activate the logging of the last sales document update and view the results with report RMCEX000.

2LIS_11_VAITM_QJ  " – ODSNAME_TECH = "BIC/B0002858000")

Transaction RSA7: select line of interest and press "Display Data Entries" (F2)

The PSA tables are transparent tables. The table name is dynamically defined by the BW system. The PSA table name is stored in table RSTSODS.

Transaction SE16: RSTSODS with ODSNAME = "<DataSource>" (e.g. "2LIS_11_VAITM")

ODSNAME has added a suffix to the DataSource name. The suffix identifies the source system. The suffix is stored in table RSBASIDOC, where it is assigned to the destination name of the source system.

Get the table name of the PSA table

Transaction SE18: RSBASIDOC (e.g. SLOGSYS = Q63CLNT002 with TSPREFIX = QJ)

Check PSA Tables (BW System)
In table RSTSODS you'll find the PSA table name in field ODSNAME_TECH.

Transaction SE16: RSTSODS with full ODSNAME (e.g. “

Display the PSA table content

Display the PSA table content in the BW Workbench.
Check BW Delta Queue (ERP System)

Transaction RSA1

Display the PSA table content with help of the identified PSA table name in the Data Browser

Transaction SE16: Table name = ”/BiC/B000...“ (e.g. ”/BiC/B0002858000“)

Attention:

VBELN has always to be entered with leading zeros! (e.g. VBELN = ”000001234“)

Check DataStore Object (formerly ODS) Content (BW System)

Transaction RSA1

Navigate to the DataStore Object – click right mouse on the DataStore Object and select ”Manage“ – Change to Tab Strip ”Contents“ and use Buttons ”Active Data“, ”New Data“ and ”Change Log“

Find at note 874986 how to activate log files and how to list the log file results.
Note 874986– Activate log file for delta extraction, appl 11,12,13

Prepare reproducible example

Try to reproduce the incorrect update to extractor data.

With help of the log files identifying affected sales documents and create or change them again with same data and same processing steps. Describe the used data and steps in a test case. Use the tools of previous chapter to check the data at every stage.

5. How to find custom code potentially causin the incorrectness?

A frequent root cause for incorrect update of extractor data is custom code in userexits and modifications. Find in the listed notes instructions how to correct affected custom code.

Right programming in SD userexits and modifications

Note 757361 - Addiional data records in BW when documents changed
Note 216448 - BW/SIS: Incorrect Update / SD user exit
Note 178328 - Problems due to incorrect user exits in SD
Note 415716- User exits in delivery processing
Note 208010- Update termination in VERKBELEG_WRITE_DOCUMENT
6. What can I do if issue is not reproducible?

For a final analysis the issue must be reproducible. Refer note 9.

**Note 9 – Error cannot be reproduced**

That means you need a test case that can be repeated and that repeatedly gives the incorrectness. Data that are already incorrect are not sufficient for final analysis.

To get an idea about incorrect update the update data can be persisted in log files. After an affected document is identified the log files can be used to check the updated data afterwards.

Log Files for Delta extraction of Sales documents

Display the content of the BW Delta Queues.
Display the Sales document to check the document data.
At every stage the data are persistently or temporary persistently saved to data base. Additional tools are available to check the data.

Check Sales Document Data (ERP System)