

How to...

Create Generic Delta

BUSINESS INFORMATION WAREHOUSE



**Applicable Releases: SAPI Release 3.0B
August 2002**

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1 Business Scenario

You want to extract data from Z tables or table that does not have any standard extractors.

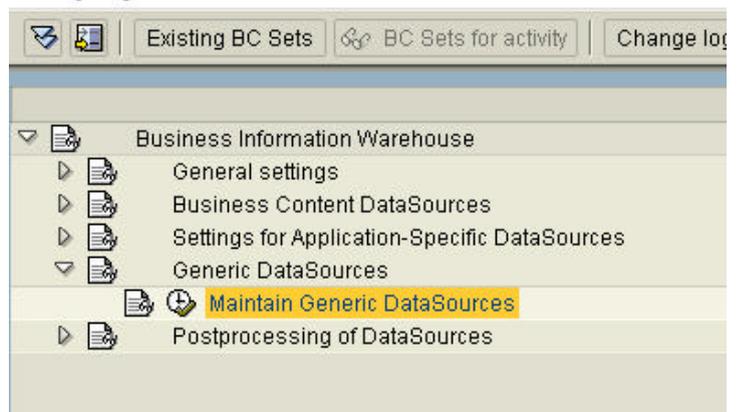
This document is written with BW 3.0B and Plug-in 2002.1. It was also tested with BW 2.1C SP15 & PI 2002.1_46C Support Package 1.

2 The Step By Step Solution

The new generic delta service supports delta extractors on monotonic 'delta attributes' like Timestamp, Calendar day, Numeric pointer (e.g. document number, counter) – must be strictly monotonic increasing with time. Only one attribute can be defined as the delta attribute.

1. **Under Transaction SBIW** - This step gives you the option of creating and maintaining generic Data Sources for transaction data, master data attributes or texts from any kind of transparent tables, database views or SAP query functional areas or via a function module, regardless of application. This enables you to use the generic extraction of data.

Display IMG



Please Note: The following example is only used to illustrate how to use the generic delta. For extracting data from the VBAK table, the Logistics Extraction Cockpit is the recommended method.

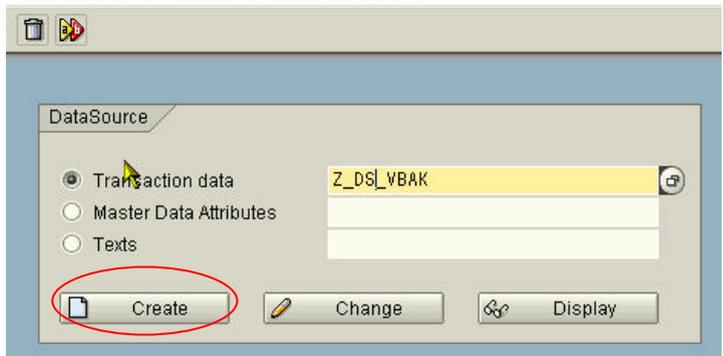
2. Create a Generic Data Source

a). Select the Data Source type and assign a technical name to it.

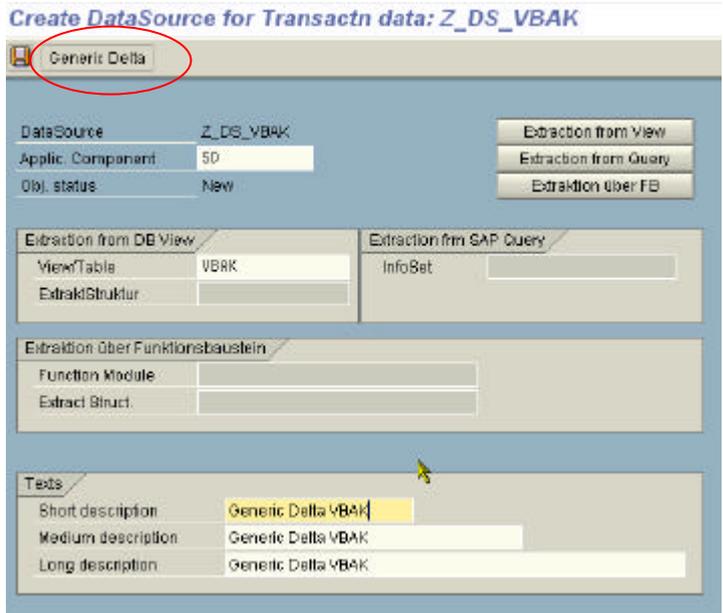
b). Choose *Create*

The screen for creating a generic Data Source appears.

Maintain Generic DataSources



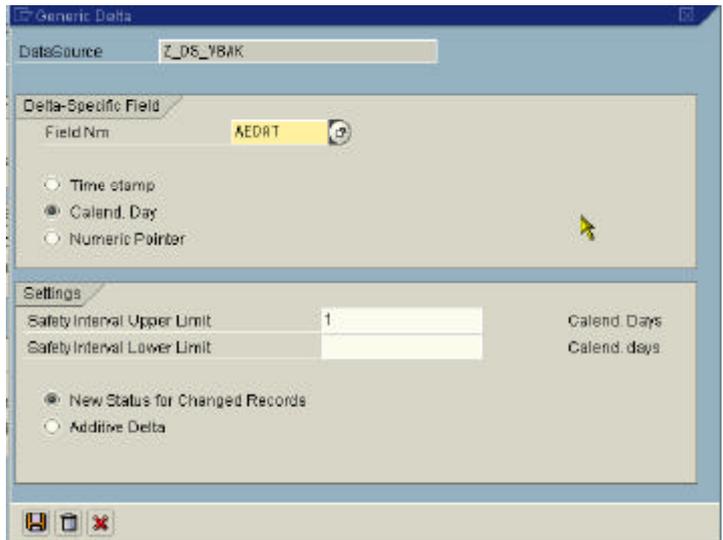
3. a) Choose an application Component to which the data source is to be assigned.
b) Enter the descriptive texts. You can choose these freely.
c) Choose **Generic Delta**.



4. Specify the delta-specific field and the type for this field. Maintain the settings for the generic delta:

Specify a safety interval.

NOTE: Safety interval should be set so that no document is missed – even if it was not stored in the DB table when the extraction took place. (More Tips at the end of this document)

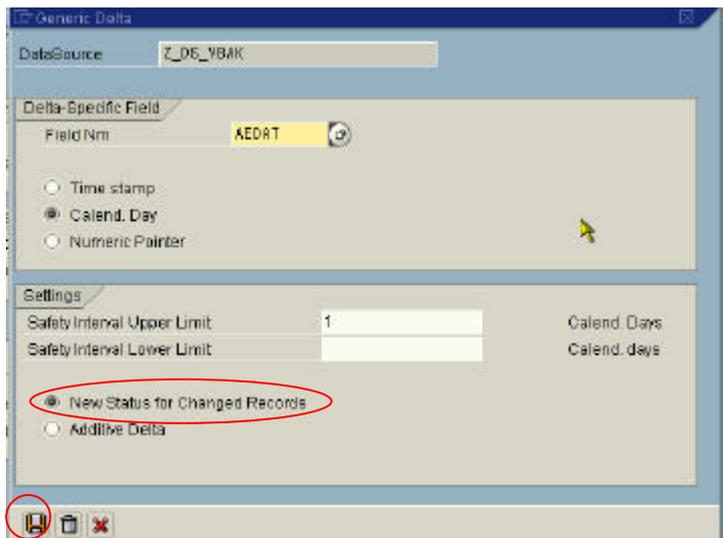


4. Select Delta type:

New status for changed records (I.e. after-image); This can be used with Data target ODS (**AIE**).

Additive Delta (I.e. aggregated data records) (**ADD**)

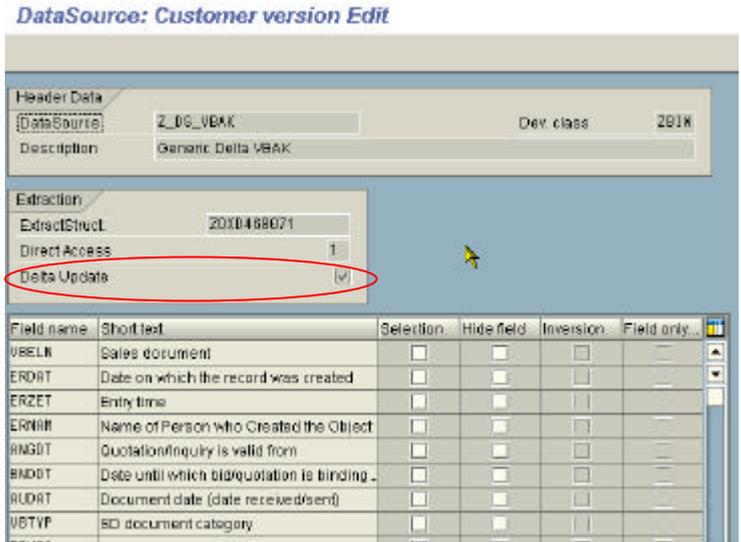
Then choose **Save**.



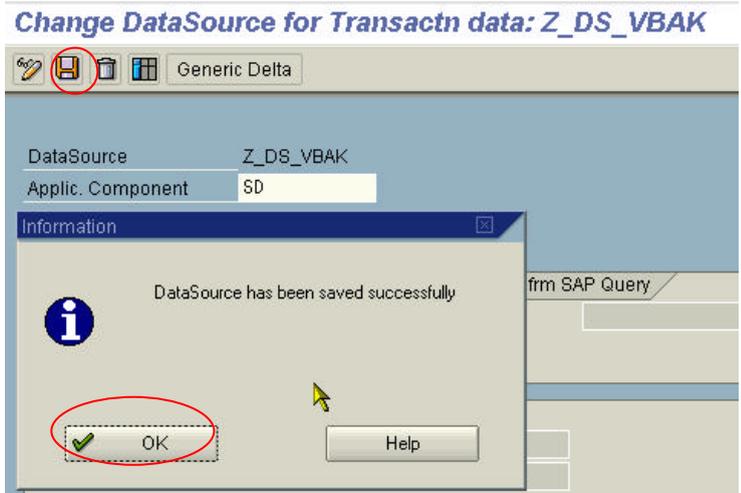
6. After step 4, the screen of step 3 comes back. Now choose **Save** again. This will generate the data source.

After generating the data source, you will see the **Delta Update** flag selected.

In systems as of basis release 4.0B, you can display the current value for the delta-relevant field in the delta queue.



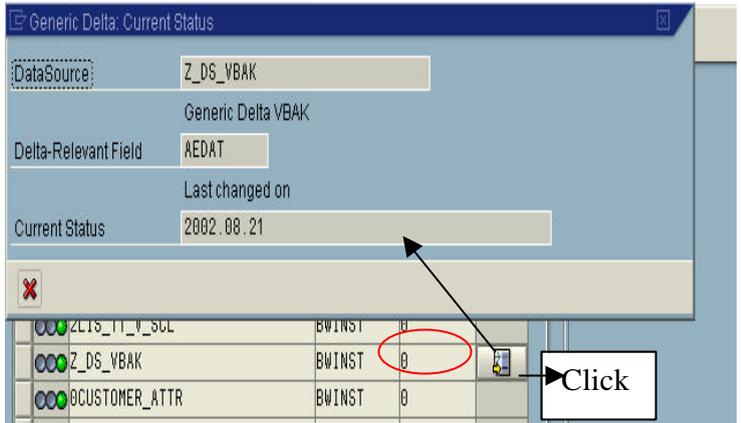
7. Choose **Save** again.



8. Delta Attributes can be monitored in delta queue (**RSA7**). Also note LUW count does not equal to the changes records in the source table. Most of the time it will be ZERO. Delta is enabled by data selection logic

LUW count can also have value 1. Whenever delta is extracted, the extracted data is stored in the delta queue tables to serve as a fallback, when an error occurs during the update of the BW system. You will see a '1' in this field (the extract counts as one LUW) and are even able to be displayed in a detail screen.

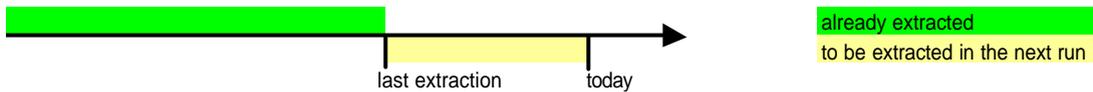
BW Delta Queue Maintenance



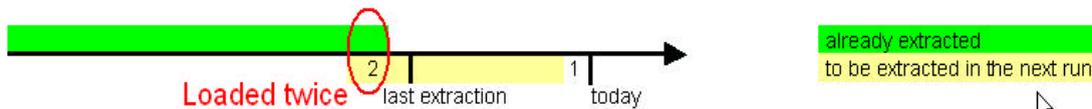
Example for Determining Selection Intervals with a Generic Delta:

1. For every delta extraction, there is a selection criteria generated: "last extraction status (RSA7)" < x <= Today.
2. Offsets for upper and lower delimiter are subtracted from the respective sides
3. Example 1 shows the normal behavior (both offsets = 0), example 2 shows both safety intervals (offset for lower delimiter = 2, offset for upper delimiter = 1)
4. Offset for lower delimiter can only be defined for delta method "new status for changed records"

Example 1 (both offsets = 0):



Example 2 (offset = 2 resp. offset = 1):



Tips:

1. If delta field is Date (Record Create Date or change date), then use **Upper Limit** of 1 day. This will load Delta in BW as of yesterday. Leave Lower limit blank.
2. If delta field is Time Stamp, then use **Upper Limit** of equal to 1800 Seconds (30 minutes). This will load Delta in BW as of 30 minutes old. Leave Lower limit blank.
3. If delta field is a Numeric Pointer i.e. generated record # like in GLPCA table, then use **Lower Limit**. Use count 10-100. Leave upper limit blank. If value 10 is used then last 10 records will be loaded again. If a record is created when load was running, those records may get lost. To prevent this situation, lower limit can be used to backup the starting sequence number. This may result in some records being processed more than once; therefore, be sure this DataSource is only feeding an ODS Object