Update Types IN SAP BI

Applies to:
SAP NetWeaver BW. For more information, visit the EDW homepage

Summary
Detailed documentation on update types in SAP BI

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Introduction
The update type is set in the Update Parameters tab page of InfoPackage.
The following update functions are available in the InfoPackage scheduler:
1. Full update
2. Delta update
3. Initialization of the Delta Process
4. Early Delta Initialization
5. Build Initial Non-Cumulative

You can select Full update, Initialization or Delta Update.
You can also check this in the RSA3. If you say ‘F’ in update mode of RSA3, it means full update which is
same as InfoPackage full update. If you select ‘C’ in RSA3, it means Initialization in InfoPackage and ‘D’ in
RSA3 means Delta update in InfoPackage

Full Update
When you run the using Full Upload, what ever data is there in source everything will be pulled to BW. If you
use this, you can't run the Delta. If you want to run the Delta further, you need to run the Init without Data
then next time onwards it will allow you to run the Delta upload.

A full update requests all data that corresponds to the selection criteria you determined in the scheduler.
In a certain period of time specified in the scheduler, 100,000 data records are accumulated. With a full
update, all 100,000 data records are requested.

Using the Scheduler menu, you can indicate a request with full-update mode as Repair Full Request. This
request can be updated into every data target, even if the data target already contains data from an
initialization run or delta for this DataSource/source system combination, and has overlapping selection
criteria.

Using the full repair request to reload the data into the DataStore object after selectively deleting data from
the DataStore object can result in inconsistencies in the data target. Updating this request can lead to
duplicate data records in the data record when the repair request selections do not agree with the selections
from selectively deleting from the DataStore object.

Delta Update
• A delta update only requests data which has appeared since the last delta.
• Before you can request a delta update, you must first initialize the delta process.
• A delta update is only possible for loading from SAP source systems.
• If a delta fails (status ‘red’ in the monitor) or the overall status of the delta request has been set to
  red manually, the next data request will be performed in repeat mode.
• Repeat request extracts the incorrect or incompletely loaded data from the failed delta request, along
  with any new data since the original request. A repeat can only be requested in the dialog.
• If data from the failed delta request has already been updated to the data targets, delete the data
  from the data targets affected. If you cannot delete the data from the data targets, duplicate data
  records may be produced when the repeat request is performed.
• Delta type is one of the key property for SAP Data Source. there are four types of delta types.
  
  F, A, D, E
  
  F: FlatFileProvidesDelta
  A: UseALEChange log delta
  D: Application determines the delta Ex: LO, FI-AR/AP
  E: Extractor determines the delta Ex: LIS, CO-PA, CUBE

Initialization of the Delta Process

Init is nothing with Full upload + Delta Enables. Once you run this it will fetch entire records from the Source, delta will be automatically enables, so next time onwards only delta will be coming to BW.

To request deltas, you need to have initialized the delta process.

For selection criteria that do not overlap, several initialization criteria are possible for initializing the delta process when scheduling InfoPackages for data from an SAP system. This gives you the option of loading the relevant data for the delta process, step by step into the Business Information Warehouse.

A delta requested after several initializations, contains the super set of all the successful initial selections as a selection condition. This selection condition can then no longer be changed for the delta.

The selections for initialization are made in the scheduler of Infopackage on the Select Data tab page.

You can display all initializations for a DataSource in the scheduler by choosing Scheduler à Initialization Selection for Source System.

You can see whether an initialization selection has been executed and what the status of the initialization request is. From this dialog box, you can also transfer initialization selections into the scheduler, and delete selected initializations again.

Choosing the pushbutton Initialization Request Status brings you to the monitor, where you can check the data request.

Delta initialization can only be simulated for DataSources from SAP source systems if the DataSource supports this.

Generic DataSources, for which you have set a generic delta, also support the simulation of delta initialization.

The option of simulating delta initialization is generally offered for loading processes from other source systems (for example, file or non-SAP systems).

Early Delta Initialization

With early delta initialization, you have the option of writing the data into the delta queue or into the delta tables for the application during the initialization request in the source system.

This means that you are able to execute the initialization of the delta process (the init request), without having to stop the updating of data in the source system.

You can only execute an early delta initialization if the DataSource extractor called in the source system with this data request supports this.

Extractors that support early delta initialization were delivered with Plug-Ins as of Plug-In (-A) 2002.1

You cannot run an initialization simulation together with an early delta initialization

Build Initial Non-Cumulative

This update method is only available when you want to load data into a data target that contains a non-cumulative key figure.
Related Content

https://forums.sdn.sap.com/thread.jspa?threadID=697239
Difference between full, initial and delta update modes
https://forums.sdn.sap.com/thread.jspa?threadID=1059678&tstart=38861

For more information, visit the EDW homepage
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