

Automatic Deletion of Similar/Identical Requests from InfoCube after Update



Applies to:

SAP BW 3.5/Business Intelligence 7.0

Summary

This document explains the concept of automatic deletion of the overlapping requests from an InfoCube after update with a step by step solution.

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Overview

We come across some situations where we need to load data using data sources which doesn't support delta mechanism and every time we end up in doing a full load with some selection conditions. Sometimes this data load will be on daily basis; this happens mostly in FI and CO data loads. Due to these full loads we would need to manually delete the previous requests to remove the redundant data from the InfoCube. For Example; Take a financial planning scenario where the actual data is being updated using delta mechanism and plan data being updated using full load, in case there are some changes in the plan version and a second full load is done then we would need to delete the previous request to avoid duplicate data.

In order to avoid manual intervention in deleting the previous requests from the data targets every time we can use the option "Automatic Loading of Similar/Identical Requests from InfoCube" available at InfoPackage level or a process variant "Delete Overlapping Requests from InfoCube" available in Process Chains. (For BI 7.0 this is achievable only through DTPs using Process Chains)

This document explains the concept of automatically deleting the overlapping requests from InfoCube with a step by step solution.

Scenario

Let us take a scenario where you will get data (Say employee time booking) in a flat file every day and the probability of changing the Time booking records which are older than 6 months (Last 5 months and current month as of today) is very low. Thus, the Time booking records more than 6 months old can be assumed as frozen and those records need not be loaded into BW. i.e. we need to load the data for last 6 months (for e.g. On 02 Aug 2009 we need to load data from 01 March 2009 till 01 Aug 2009) every day.

This can be achieved by the using "Automation Loading of Similar/Identical Request from the InfoCube" option in the 'Data Target' tab of InfoPackage.

Step by Step solution for the above mentioned scenario

Following is snapshot of the data loads for cube. Request1, Request2 and Request3 are loaded on 31st July, 1st August and 2nd August respectively for the above scenario:

		Data in YTST_C01						
Request1	31-Jul-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	
Request2	1-Aug-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	
Request3	2-Aug-09		Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09
		History						
Request 1 for YTST_C01 extract as of 30-Jul-2009								
Infopackage Setting	Delete Data from the Data Target for the same selection loaded from same Infosource							
Load Date								31-Jul-09
Selection on Calday	CM-5	CM-4	CM-3	CM-2	CM-1	CM		
	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09		
Request 2 for YTST_C01 extract as of 31-Jul-2009								
Infopackage Setting	Delete Data from the Data Target for the same selection loaded from same Infosource							
Load Date								1-Aug-09
Selection on Calday	CM-5	CM-4	CM-3	CM-2	CM-1	CM		
	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09		
Request 2 for YTST_C01 extract as of 1-Aug-2009								
Infopackage Setting	Delete Data from the Data Target for the same selection loaded from same Infosource							
Load Date								2-Aug-09
Selection on Calday		CM-5	CM-4	CM-3	CM-2	CM-1	CM	
		Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	

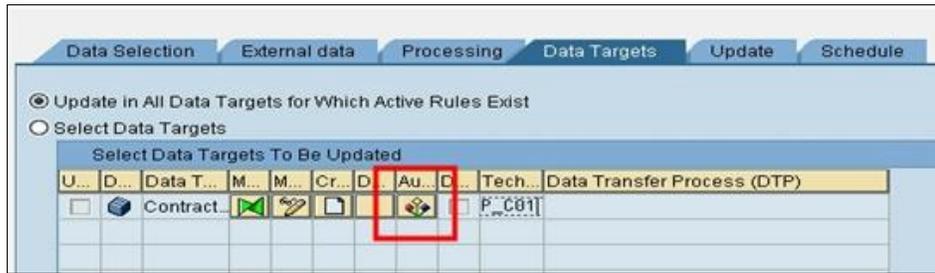
Step1: Create an InfoPackage for loading the data target. You can define a routine under 'Data Selection' tab to automatically set the selection for last 6 months.

You can use the following link as reference for writing a routine to define selection conditions in InfoPackage.

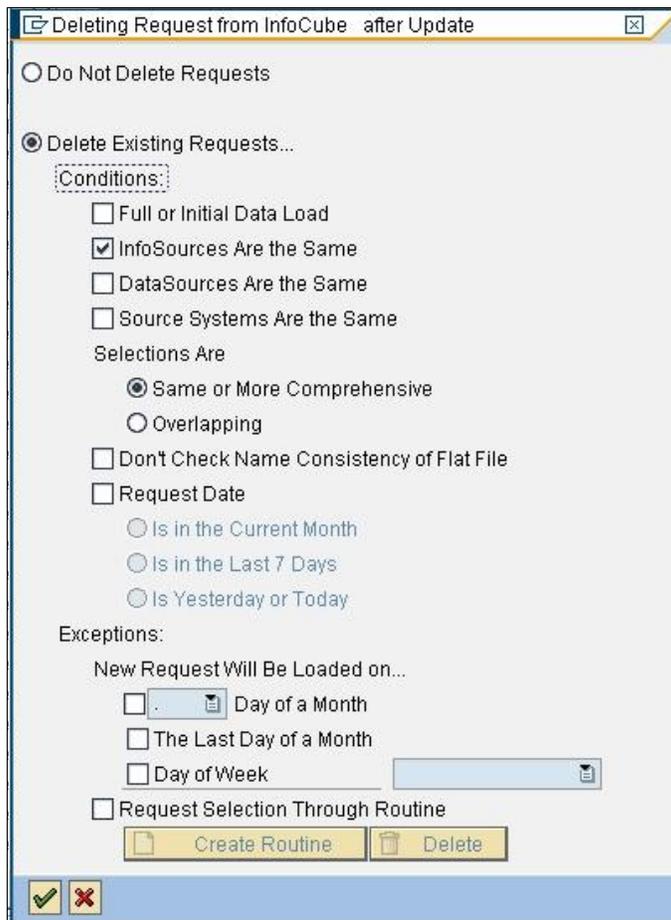
[Data Selection Types In InfoPackage](#)

Data Selection	External data	Processing	Data Targets	Update	Schedule				
Load transaction data from the source system									
Enter Selections (Optional):									
InfoObject	Technical ...	Description	From Value	To Val...	Ty...	Det...	Type (Varia...	R Data...	Field ...
@CALDAY	CALDAY	Calendar Day			6		ABAP Routu...	CHAR	8

Step2: Under Data Targets Tab click the push button under "Automation Loading of Similar/Identical Request from the InfoCube" column. This will pop up a dialog box where you can define the conditions and exceptions to delete the existing requests from the cube.



Step 3: Make the settings in the popup screen as shown in the following screenshot.



Once you have configured the above setting you can manually load the data into InfoCube and see the automatic deletion happening based on the selection in InfoPackage.

If you want to use this option while loading the data through process chains, you would need to make the following settings in the process chain.

Add a Process Variant **"Delete Overlapping Request From InfoCube"** to the process chain, position of this variant will be after the data load (Execute InfoPackage).

To Select, Press F4 On The Object Type, Then F4 on the Name

Selections		
Obj...	Object Type	Object Name
	Data Transfer Process	
	Data Transfer Process	
	Execute InfoPackage	

In the similar way we can use the following options to automatically delete the similar/Identical requests from the Infocube.

List of Conditions & Exceptions available for deleting the overlapping requests from an InfoCube

As mentioned in the step by step solution there are other conditions and exception which you can use for automatic deletion of overlapping requests from an Infocube. Following is the detail explanation of all the conditions and exceptions.

Do not delete existing requests:

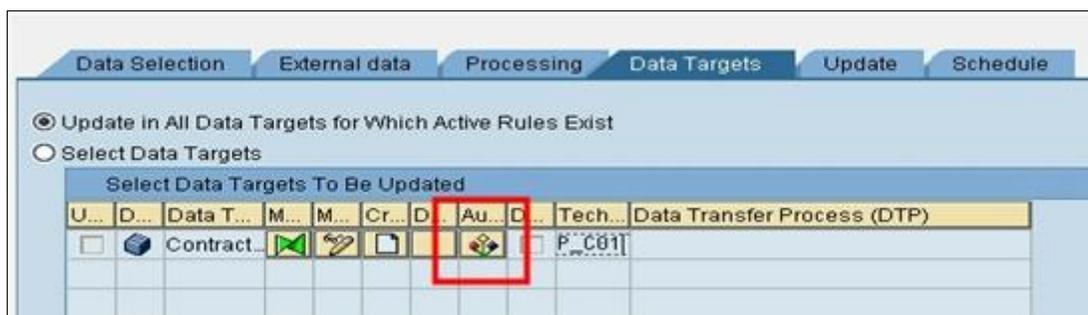
This is the default setting for the Automatic deletion of requests in cube after update. This setting would not delete any request from the cube even though there is an Overlapping requests or the requests with same selection criteria in the InfoCube.

Delete Existing Requests:

This setting is used to delete the overlapping request or the requests with the same selection criteria from the Infocube based on certain conditions and selections defined under this section.

In order to use this functionality open the InfoPackage on the Data Target tab, click the push button under "Automatic Deletion of Similar/Same Requests from InfoCube" column. This will pop up a dialog box where you can define the conditions and exceptions to delete the existing requests from the cube.

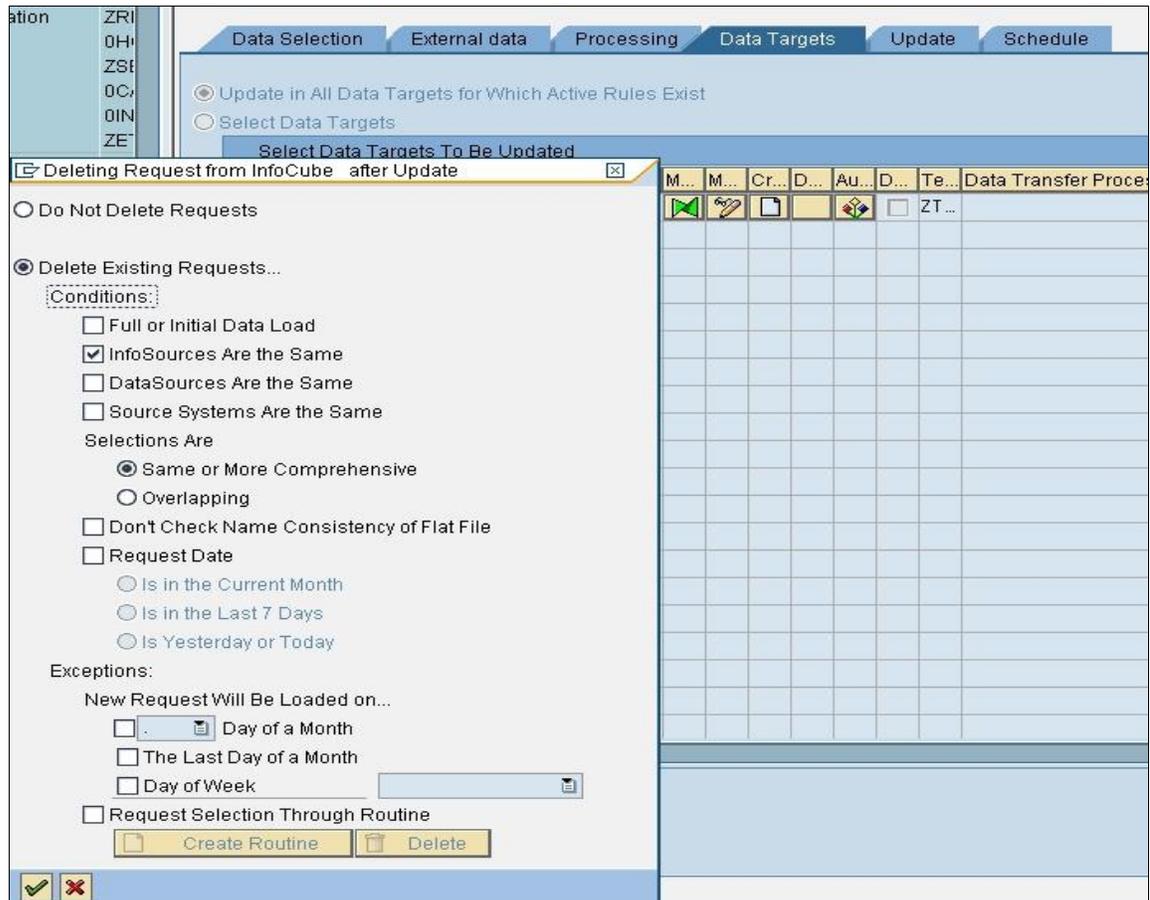
Following is the screenshot of the InfoPackage where you can make these settings.



Dependencies:

1. This setting will delete the delta and repeat requests from the InfoCube. Therefore, this mode is not suitable for delta InfoSources.
2. The Automatic deletion and cancellation processes will take place only after the new request has been loaded to the InfoCube.

3. Automatic deletion of the request will happen only if the previous requests are not compressed; deletion of a compressed request is not possible as the compressed request is no longer a transparent request.
 4. Cancellation of a request will happen if all the InfoObjects in the InfoCube are updated with summation and no exception aggregation has been defined in the InfoCube or in the update rules.
- **Conditions & Exceptions available for deleting the overlapping requests from the InfoCube:**



Conditions

Existing requests are deleted from Infocube based on the conditions defined under this section if the selection criterion of the new and existing requests overlaps.

Full or Initial Data Load: Deletes existing requests with full and initial runs.

Selection of this check box will enable the deletion of existing requests from the InfoCube if the selection criterion of the request overlap during a full update or when the delta process is initialized to the InfoCube.

InfoSources are the Same: Deletes existing requests if the new request is loaded from the same InfoSource.

This condition should be set if you want to delete the existing requests from InfoCube if the new request and the request to be deleted were loaded using the same InfoSource.

DataSources are the Same: Deletes existing requests if the new request is loaded from the same DataSource.

This check box will enable deletion of the existing requests from InfoCube if the new request and the existing request were loaded using the same DataSource.

Source Systems are the Same: Deletes existing requests if the new request is loaded from the same Source System.

This condition should be set if you want to delete the existing requests from InfoCube if the new request and the request to be deleted were loaded from the same Source System.

Selections Are:

1. **Same or More Comprehensive:** Deletes existing requests if the selection conditions of the new requests are same or more comprehensive.

This radio button is to be marked if you want to delete the previous request when the selection criteria of the new request is the same or "bigger" than the previous request.

2. **Overlapping:** Deletes existing requests even if the selection conditions are partially or fully overlapping.

If this radio button is marked, existing requests are deleted from the InfoCube when the selection criteria of the new request and request to be deleted overlap partially or fully.

Don't Check Name Consistency of Flat File: Deletes the existing requests even though the name of the flat files for old and new requests doesn't match.

This indicator is considered only for the data loads taking place from flat file.

This should be used when you want to delete the existing requests from InfoCube and you don't want the system to do the comparison of the file names for new and existing requests.

Request Date:

This option can be used to delete the existing requests from the InfoCube based on the date the request to be deleted was loaded. You can select the exact time period from the three available indicators viz. current month, the last seven days, yesterday or today.

1. **Is In the Current Month:** Only those requests are deleted that were loaded in the current month.

If you set this indicator, existing requests are deleted from the InfoCube if the new request and the request to be deleted were loaded to the cube in the same month.

2. **Is in the Last 7 Days:** Only the requests that were loaded in the last seven days are deleted.

If you set this indicator, existing requests are deleted from the InfoCube if the new request and the request to be deleted were loaded to the cube in the last seven days.

3. Is Yesterday or Today: Only delete requests from yesterday and today.

If you set this indicator, existing requests are deleted from the InfoCube if the new request and the request to be deleted were loaded to the cube either Yesterday or Today.

With this setting, the system takes the date the request was loaded to the InfoCube (table RSMONICDP) into account and not the date the request was first loaded to the BI system (table RSSELDONE).

The RSSELDONE date is only used as a comparison, if the request to be checked in the InfoCube does not have a closing valuation in data package 999999 in table RSMONICDP.

Therefore, if you delete a request from the InfoCube and then load the PSA to the InfoCube again, the loading date used for the comparison changes.

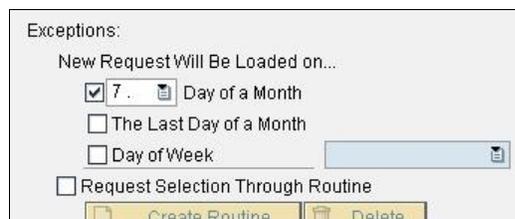
Exceptions

New Request Will be Loaded on..

An Exception can be used to specify the situations in which you don't want to delete the existing request even if the appropriate deletion conditions are in place. On using one of the options mentioned below we can cancel the automatic deletion of requests.

1. Day of Month:

If you set this indicator, existing request are deleted from the InfoCube except for the day selected in the dropdown box.



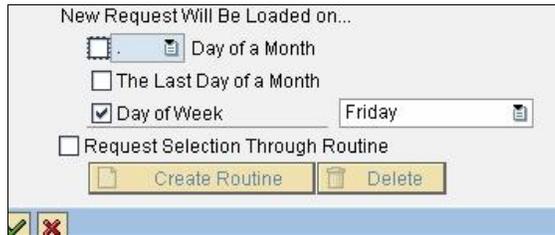
i.e. for the option used in above screenshot, no requests are deleted on every 7th (date) day of a month.

2. The Last Day of a Month:

No requests will be deleted on the last day of a month if this option is checked.

3. Day of Week:

No requests will be deleted if you load the data on a weekday specified in the drop down.



I.e. for the option used in above screenshot, no requests are deleted on every Friday of the week.

Request Selection through Routine:

With this option we can select the requests to be deleted through a routine. Using a routine we select the InfoPackage and the Infocube for deletion of requests, we can also exclude or include additional requests for deletion in a deletion process.

The routine is the last coding route before deletion (it only checks whether the request cannot be deleted because it is aggregated or compressed).

Related Content

[Data Selection Types In InfoPackage](#)

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