

Deleting the Requests from the PSA and Change Log Tables in Business Intelligence



Applies to:

SAP BI 7.0. For more information, visit the [Business Intelligence homepage](#)

Summary

This paper discusses how to delete the requests from the PSA and Change Log tables by using the Process Chain and manually in order to increase the desk space and performance of the loading process in BI System.

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Created on: 17 August 2009

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Introduction:

If we do not regularly delete data from the PSA and Change Log tables, the PSA and Change Log tables can grow to an unlimited size. This increasing the data in the tables will also increase the costs of data retention, the downtime for maintenance tasks and the performance of the loading process. So we need to delete the data regularly from the PSA and Change Log tables.

Examples of applications are deleting incorrect requests or deleting delta requests that have been updated successfully in an Info Provider and that no further deltas should be loaded for.

In SAP-BW 3.5 version, there is only one process type 'Deleting Requests from the PSA' is available to do this activity. This process type can delete the requests from the PSA and Change Log tables in all three BW Systems.

But in SAP-BI 7.0 version, there are two separate process types 'Deleting Requests from the PSA' and 'Deleting Requests from the Change Log' are available to do these activities. These process types can delete the requests from the PSA and Change Log tables in all three BI Systems separately.

Deleting the Requests from the PSA:

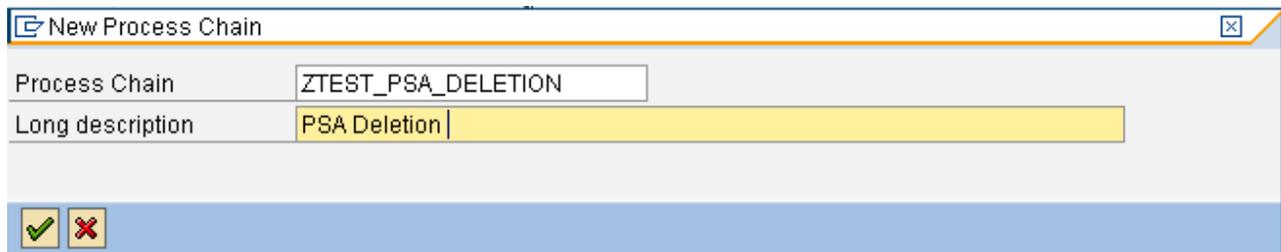
This function allows you to delete requests from the PSA/Data Source tables. This reduces the volume of data in the PSA. We can create the selection patterns in the process variant **Deleting Requests from the PSA** and thus delete requests flexibly.

Procedure:

Including the deletion of requests from the PSA in process chain:

We are in the plan view of the process chain where we want to create a process chain for deleting the requests from PSA and insert this process type in to that process chain.

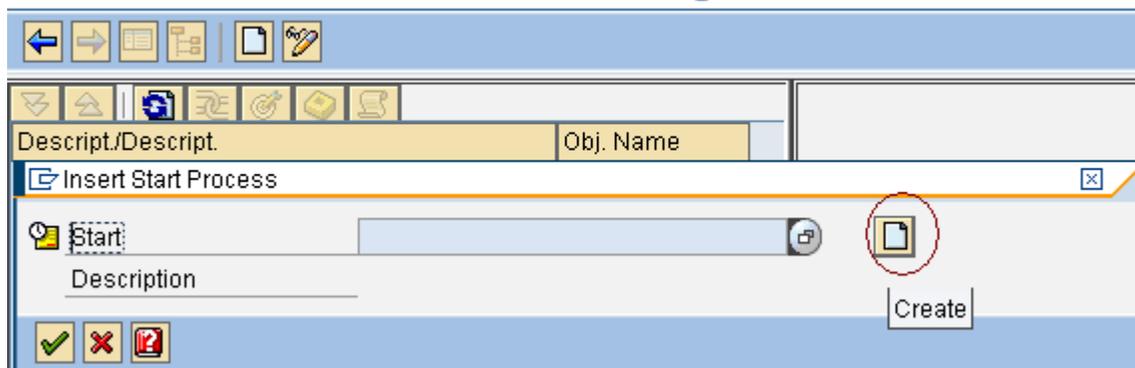
Go to RSPC in Data Warehouse Work bench and press 'create' icon in planning view. In the following pop-up window we have to enter a technical name and a description of your new process chain.



Process Chain	ZTEST_PSA_DELETION
Long description	PSA Deletion

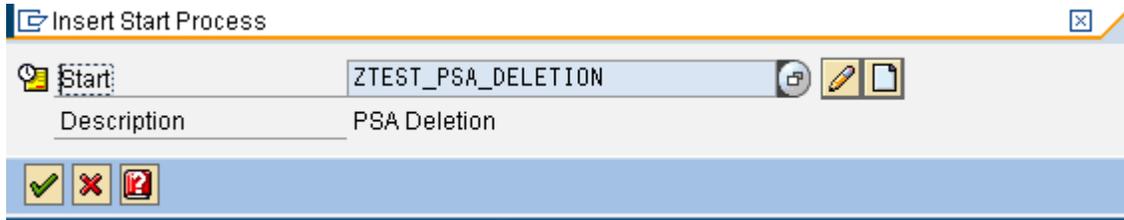
Now we need to define the start process for this process chain. Each process chain does have one and only one starting step. Once we enter the technical name and description for the process chain, we will get the Start Process. For this process type define the process variant by pressing the Create icon.

Process Chain Maintenance Planning View



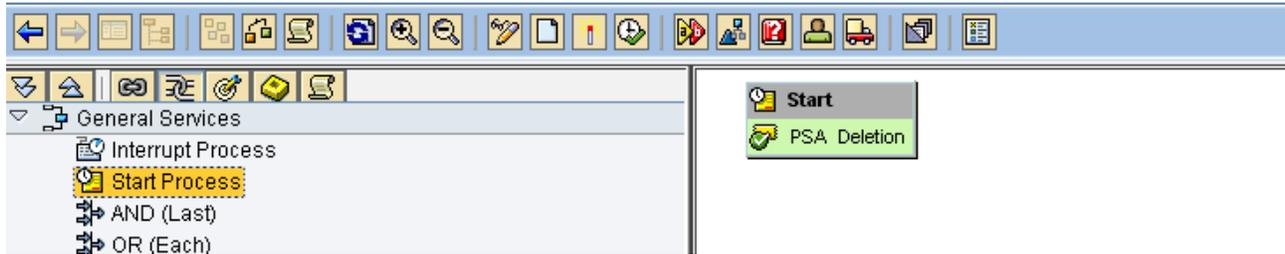
Descript./Descript.	Obj. Name
Start	
Description	

Then define the settings for the scheduling of the *Start Process* of the process chain in the Maintain Start Process. Let's say scheduling immediately. Save and come back to the planning view of the process chain. It looks like below figure

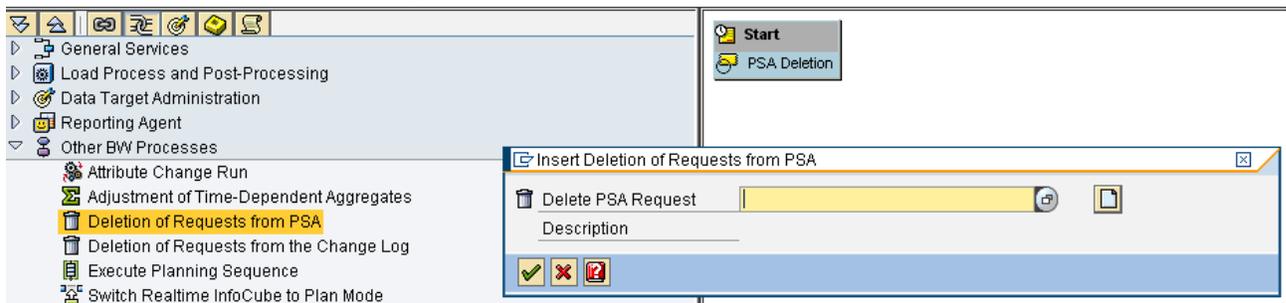


Press enter on the *Start Process* of the process chain in the planning view. Now we completed the defining of the Initial Process Type (*Start*) for the process chain

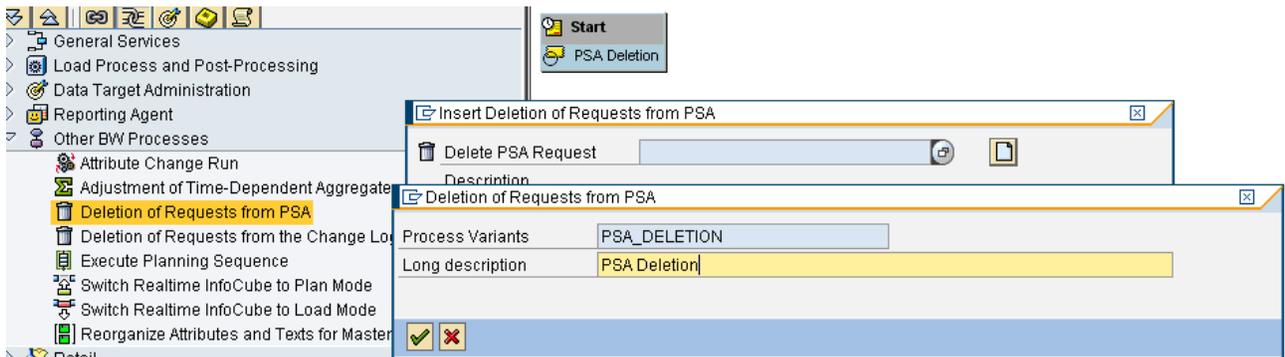
Process Chain Maintenance Modified Version: PSA and ChangeLog Deletion



Now in order to insert the process type for deleting the requests from the PSA in this process chain, go to all process types () and select the process type *Deletion of Requests from the PSA* from process category *Other BW Processes* by double-clicking.



In the next dialog box, select the *Create* () for entering the technical name and description for the process variant of *Deletion of Requests from the PSA* process type.

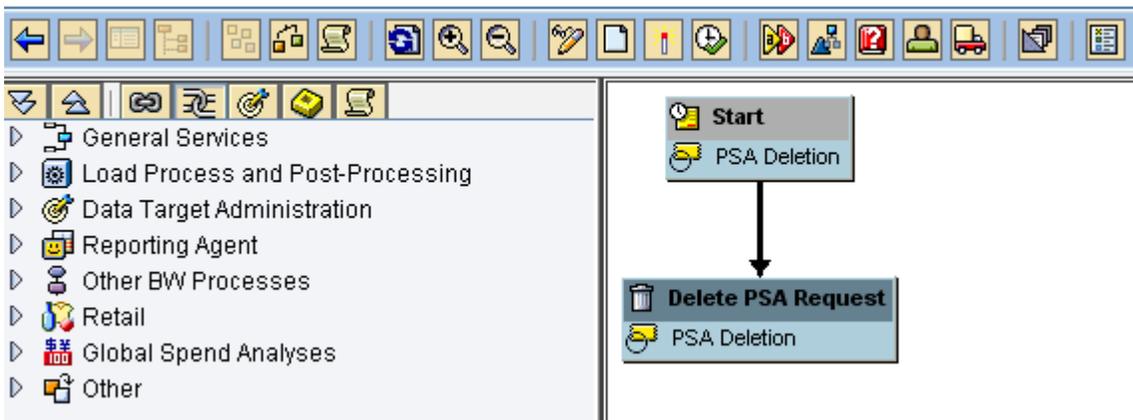


Note: - We can do the following activities in the above screen,

- 1) If we set the indicator  *Exclude Selection Pattern*, then this pattern will ignore in the selection. That means deletion of requests from that PSA will be ignored. For example, if we don't want to delete the requests from the data sources which starts with **ZBWDSQME**, create a second selection pattern for the data sources **ZBWDSQME*** and set the indicator *Exclude Selection Pattern*. Then it won't delete the PSA requests from all the data sources starting with **ZBWDSQME**.
- 2) We can delete the requests which are *Older than* N-number of days (or) date in the above screen. For this one, enter the number of days (or) date in the field *Older than* .
- 3) If we want to select the requests with a certain status then we can also do in the above screen. We can select the following status indicators in the above screen.
 -  *Delete Successfully Updated Requests Only* – This status will delete only requests which are successfully updated into corresponding Info Providers
 -  *Delete Incorrect Requests that were not Updated* – This status will delete only incorrect requests which are not successfully updated into the corresponding Info Providers
- 4) If we want to Copy the settings (age and status) of a particular selection pattern (request selections) to any other selection pattern then we can do this one by selecting the choose  *Copy Request Selections*

Now save your entries and return to the previous screen . Then on the next screen, confirm the Insertion of process type 'deletion of requests from PSA' and join the 'Start' and 'Delete PSA Request' process types

Process Chain Maintenance Modified Version: PSA Deletion

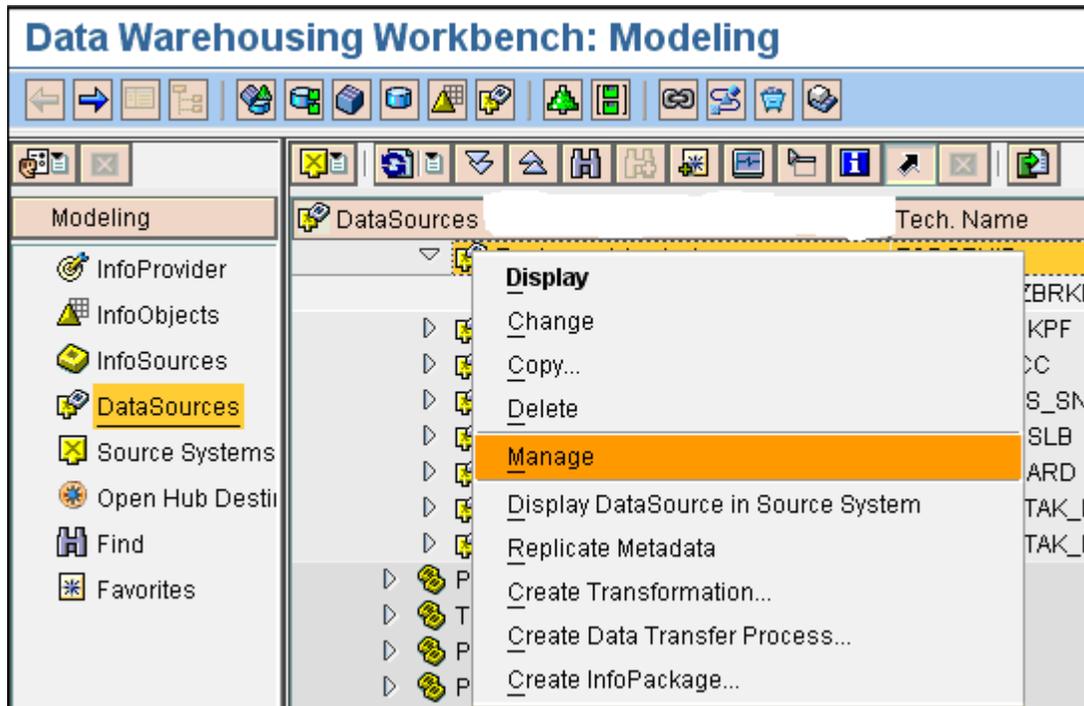


Once the PSA Deletion process chain is created, activate and schedule it according to your requirements.

Manually Deleting requests for a Data Source from PSA in RSA1

We can also delete the requests from a particular data source manually in the Data Warehousing Workbench screen.

Select the Data Source for which we want to delete requests from the PSA of a particular data source and choose Manage by right click on that data source



On the next screen, select one or more requests from the list and choose  *Delete Request from DB* for deleting the requests from the PSA.

Data Warehousing Workbench: Modeling

R	W	Mo	SID of the ...	InfoPackage	Request	Loading date	Loading	Te
			593085	Equipment Analysis-Full Load	REQU_4ESP3IWXVZDT36NJLB1HN20N8	2009.08.11 18:47:35	Zf	

We can also delete requests in Data Source maintenance screen. Choose *Go to* → *Manage PSA* (pushbutton ) . Then Delete the requests from the Data Source.

Result

If we delete requests from the PSA, they remain physically in a partitioned PSA table for the time being. The requests are first deleted logically (from table RSTSODSREQUEST) and are given a deletion flag in PSA partitioning administration (table RSTSODSPART). But we can no longer access these requests.

The requests are not deleted physically from the PSA table until all requests in a partition have been logically deleted and have thus been given the deletion flag in PSA partitioning administration

Deleting Requests from the Change Log:

SAP recommends that we need to delete data from the change log table of a Data Store object as well if several requests that are no longer needed for the delta update and are no longer used for an initialization from the change log table and have already been loaded into the Data Store object. If a delta initialization is available for updates to connected Info Providers, requests have to be updated before the corresponding data can be deleted from the change log.

In some cases the change log table becomes so large, in that case it is advisable to reduce the volume of data and delete data from a specific time period.

If we have deleted requests from the change log, and the requests can still be seen in the Data Store object administration screen on the Requests tab, this means that these requests cannot be deleted again on the Data Store object administration screen. This is because the requests have already been deleted from the change log, which means that it is no longer possible to perform a rollback.

Procedure:

Including the deletion of requests from the change log into the process chain:

We are in the plan view of the process chain where we want to create a process chain for deleting the requests from Change Log table and insert this process type in to that process chain.

Go to RSPC in Data warehouse work bench and press 'create' icon in planning view. In the following pop-Up window we have to enter a technical name and a description of your new process chain.

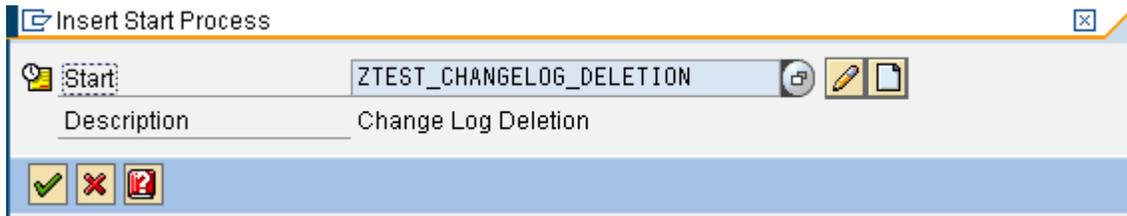
The screenshot shows a 'New Process Chain' dialog box. It has two input fields: 'Process Chain' with the value 'ZTEST_CHANGELOG_DELETIO' and 'Long description' with the value 'ChangeLog Deletion'. At the bottom, there are two icons: a green checkmark and a red 'X'.

Now we need to define the start process for this process chain. Each process chain does have one and only one starting step. Once we enter the technical name and description for the process chain, we will get the Start Process. For this process type define the process variant by pressing the Create icon.

Process Chain Maintenance Planning View

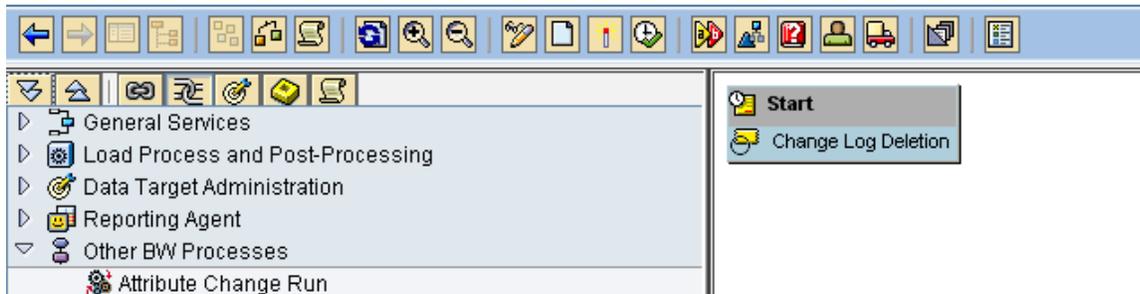
The screenshot shows the 'Process Chain Maintenance Planning View' interface. At the top, there are navigation icons. Below that, there are two columns: 'Descript./Descript.' and 'Obj. Name'. A dialog box titled 'Insert Start Process' is open, showing a 'Start' field with a clock icon and a 'Description' field. A red circle highlights a document icon in the top right corner of the dialog box, and a 'Create' button is visible at the bottom right. At the bottom of the dialog box, there are three icons: a green checkmark, a red 'X', and a red question mark.

Then define the settings for the scheduling of the *Start Process* of the process chain in the Maintain Start Process. Let's say scheduling immediately. Save and come back to the planning view of the process chain. It looks like below figure.

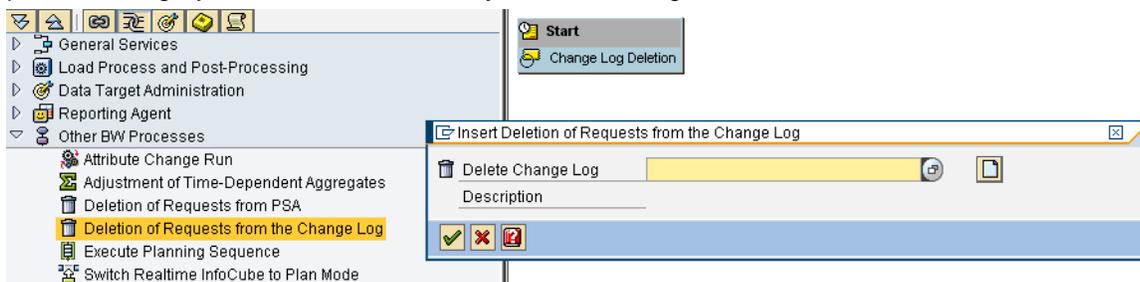


Press enter on the *Start Process* of the process chain in the planning view. Now we completed the defining of Initial Process Type (Start) for the process chain

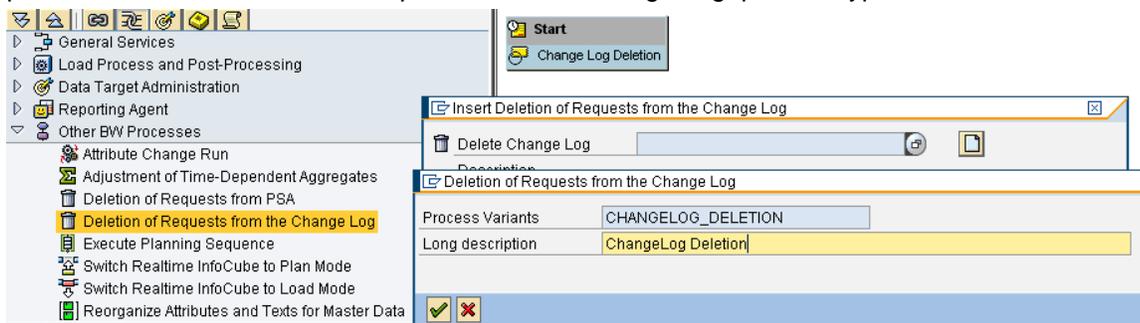
Process Chain Maintenance Modified Version: ChangeLog Deletion



Now in order to insert the process type for deleting the requests from the Change Log in the process chain, go to all process types () and select the process type *Deletion of Requests from the Change Log* from process category *Other BW Processes* by double-clicking.



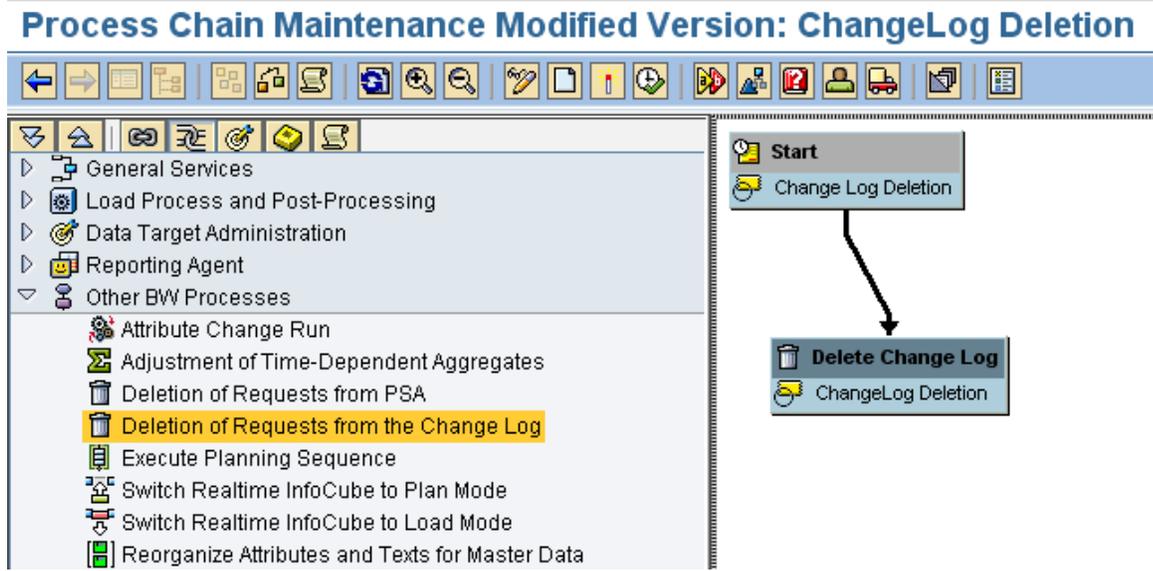
In the next dialog box, select the *Create* () for entering the technical name and description for the process variant of *Deletion of Requests from the Change Log* process type.



Once we enter the technical name and description for the process variant of *Deletion of Requests from the Change Log* process type, select the *Continue*. Then we get the maintenance screen for the deleting the requests from the Change Log table in RSPC. Here, we can enter the selection patterns to which requests should be deleted from the Change Log.

In the maintenance screen, select one or more Data Store objects for which requests are to be deleted from the relevant change log tables under *Data Store Object* column and select the Info Area of the corresponding Data Store Objects under *Info Area*

Now save your entries and return to the previous screen. Then on the next screen, confirm the Insertion of process type 'deletion of requests from Change Log' and join the 'Start' and 'Delete Change Log Request' process types



Once the Change Log Deletion process chain is created, activate and schedule it according to your requirements.

Manually Deleting requests from the Change Log table of the Data Store object in RSA1 :

In the main menu of Data Store Object administration, choose Environment → Delete Change Log Data.

The screenshot shows the SAP RSA1 interface. The menu path is Environment → Delete Change Log Data. Below the menu, there is a table titled 'Selectable Data Targets for Administration'.

Name	ID	Technical Name	Table Type
Equipment Analysis		ZPM_EQUP	DataStore Object

Below the table, there are tabs for 'Contents', 'Requests', and 'Reconstruction'. The 'Requests' tab is active, showing a table of requests from the DataStore Object 'Equipment Analysis (ZPM_EQUP)'.

Request ID	R	D	ID of Requ	Re	Loa	Log	DTP/InfoPackage	Request D	Update Date	Selection Conditions	Transferred	Added Rec.	Type of Data Update	Source/In
593083			593084				ZWM_TO -> ZPM_EQUP	(2009.08.11)	2009.08.11		37537	37537	Delta update	0080

Now specify the requests which needs to be deleted by determining the number of days *Older Than* or *Before* for a particular date. If we look in the below screen, here I want to delete the requests which are older than 30 days.

Deleting Change Log Data

The screenshot shows the 'Deleting Change Log Data' dialog box. The 'Change Log of DataStore Object' is set to 'ZPM_EQUP'. The 'Number of Requests in Change Log DB Table' is set to 1. Under 'Deletion of All Requests', the 'Older than' radio button is selected with a value of 30 Days. The 'Before' radio button is unselected with a date of 2009.07.01 (Date). There are two checkboxes: 'Only Successfully Booked/Updated Requests' (checked) and 'Only those requests with errors that are not posted to a data target' (unchecked). Below these are buttons for 'Start Conditions' and 'Subsequent Processing'. The 'Job Name' is set to 'BI_PSAD'. At the bottom, there are buttons for 'Start', 'Jobs', 'Logs', 'Refresh', and 'Stop'. A checkbox for 'All PSA Deletion Jobs' is also present.

In the above screen, define the start date values under *Start Conditions* button and press the *Start* (🕒) button for scheduling the deletion of change log requests in the background.

We can also display a request list for the change log table. In that list, we can mark requests and then delete them directly.

Conclusion:

Finally, so we need to delete the requests from the PSA and Change Log tables regularly by using the process types 'Deleting Requests from the PSA' and 'Deleting Requests from the Change Log' in all BI Systems in order to increase the desk space, costs of data retention, the downtime for maintenance tasks and the performance of the loading process.

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