Archiving Work Items Using SAP ADK

Applies to:

SAP ECC6. For more information, visit the Content Management homepage.

Summary

This article discusses about archiving work items using the SAP ADK tool. It also helps in understanding the business effects and discusses the specific case, when the work items are still retained in the database.

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Created on: 15 February 2009

Author Bio

Rahul Kavuri has been working as an SAP consultant with Intelligroup Asia since July 2006. He is good at ABAP/4, ABAP Objects and Data Archiving.

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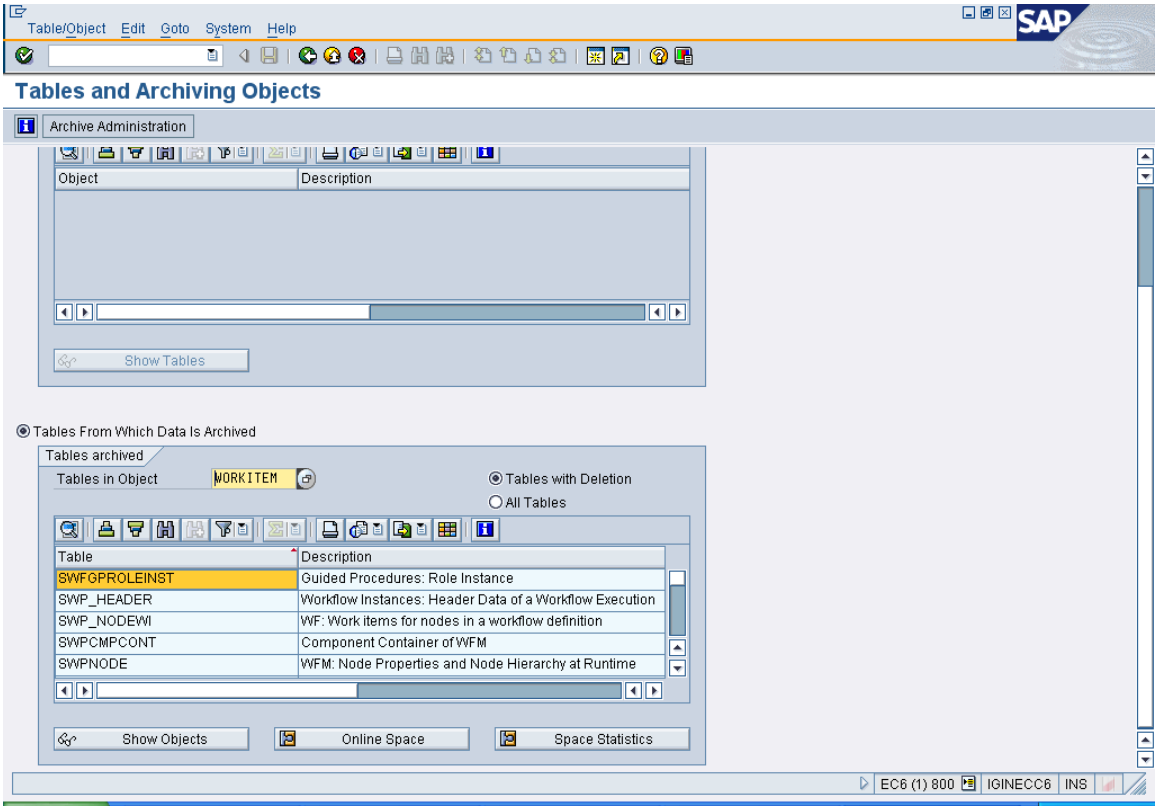
Archiving Work Items

Over course of time depending on the usage of the workflows by an organization the tables tend to grow bigger in size in a very small time frame. In such a situation the organization needs to consider the option to archive its older work items which would considerably reduce the size of the database and at the same time improve the relative performance. Archiving Development Kit (ADK), delivered by the SAP Netweaver provides us with the required tools needed for archiving.

Tables Linked to the Archiving Object

The corresponding archiving object for archiving work items is the object 'WORKITEM'. The linked tables from which data would be archived can be found using the transaction 'DB15'. The header table for this archiving object is 'SWWWIHEAD'.



The tables linked to this archiving object are

SWFGPROLEINST	SWWCNTP0
SWP_HEADER	SWWCNTPADD
SWP_NODEWI	SWWEI
SWPCMPCONT	SWWLOGHIST
SWPNODE	SWWLOGPARA
SWPNODELOG	SWWWIDEADL
SWPSTEPLOG	SWWWIHEAD

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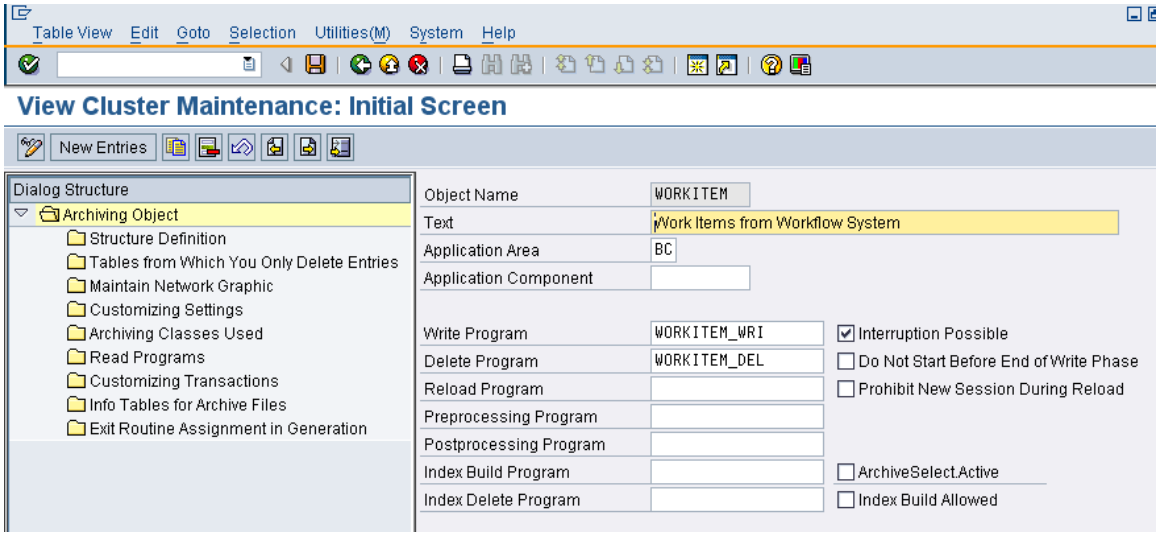
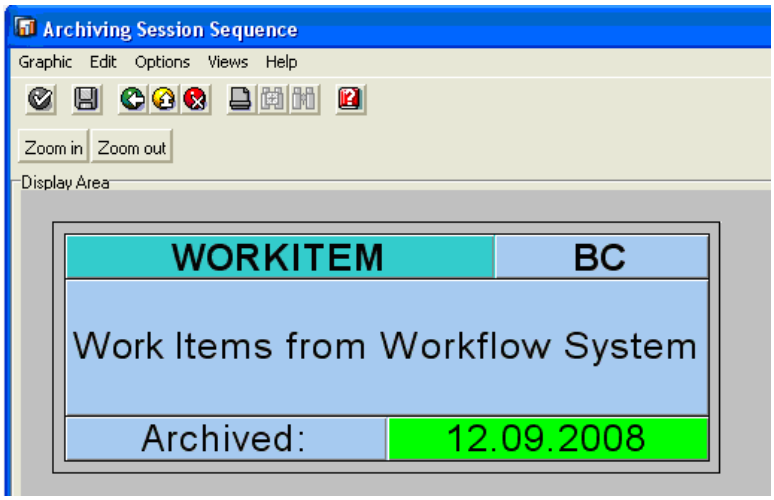
SWW_CONT	SWWWIRET
SWW_CONTOB	SWZAI
SWW_WI2OBJ	SWZAIENTRY
SWZAIRET	

Deletion and Write Program

The archiving process is considered complete when the creation of the archived files in the content server or the file system is followed by deletion of the records from the corresponding tables. The write program and the deletion program associated with an archiving object can be found using the transaction 'AOBJ'. The standard SAP programs associated with the write and the deletion process are 'WORKITEM_WRI' and 'WORKITEM_DEL'. The interruption possible option indicates that the write phase for an archiving session for this object can be interrupted and resumed.



There are no dependencies for the object 'WORKITEM' and this can be confirmed using the transaction SARA. Accessed using SARA->Ctrl+F1



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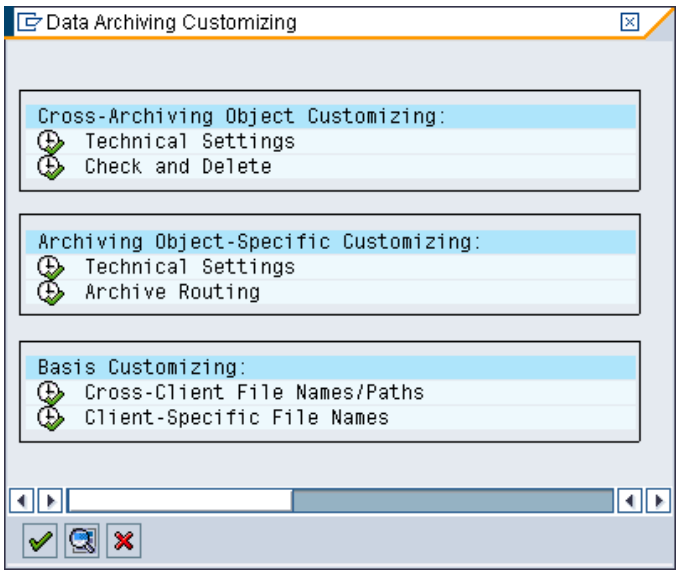
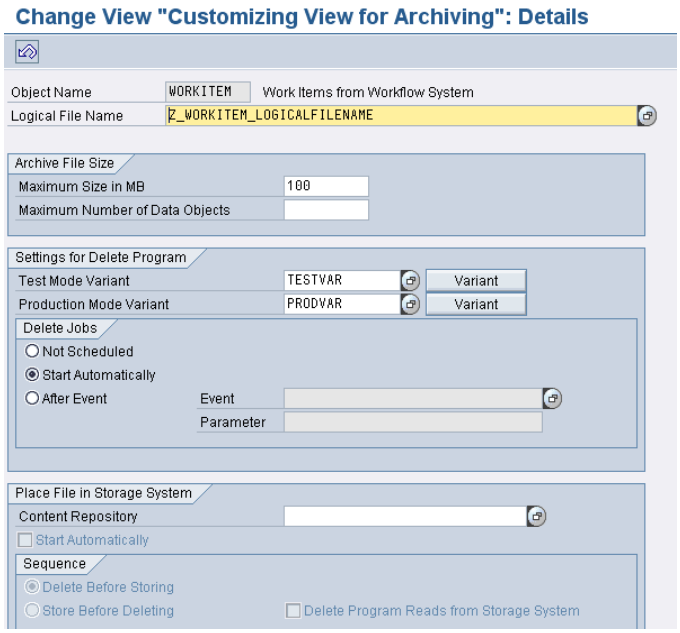
File Configuration

Before we start archiving the work items please check the path where the archived files are going to be created. This has to be maintained via the 'Customizing Settings' of the archiving object WORKITEM. The technical settings for this object 'WORKITEM' to define the logical file name where the archived files are going to be created and the archive file size are defined in the customizing view of SARA.

Accessed using transaction SARA->Shift+F1



The logical file path where the archived files are going to be stored is defined in the technical settings of Archiving Object Specific Customizing View. The variant for the deletion program has to be defined in this view. The deletion jobs will run immediately after the archiving jobs are completed, this setting can be changed in this view.



The logical file path and the logical file name for configurations should be defined using the transaction 'FILE'.

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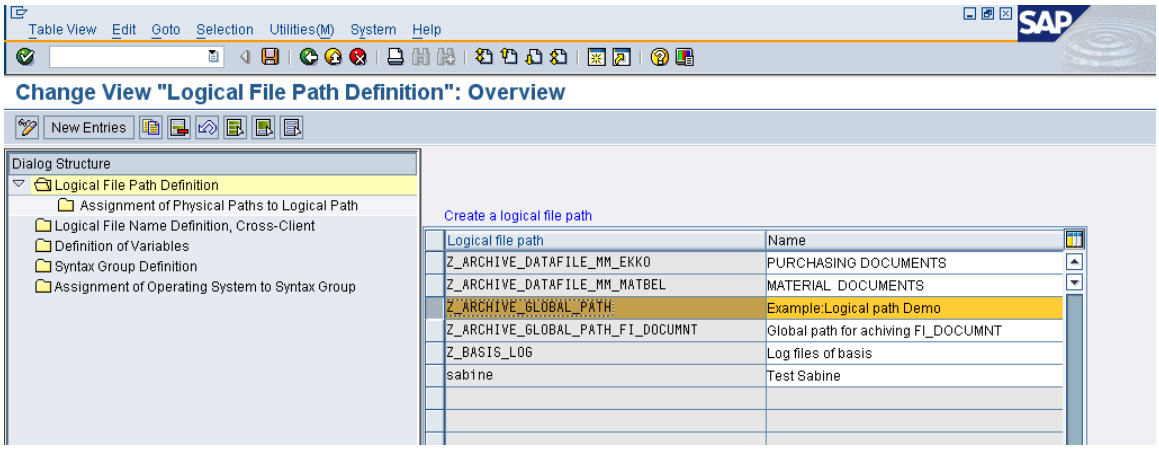
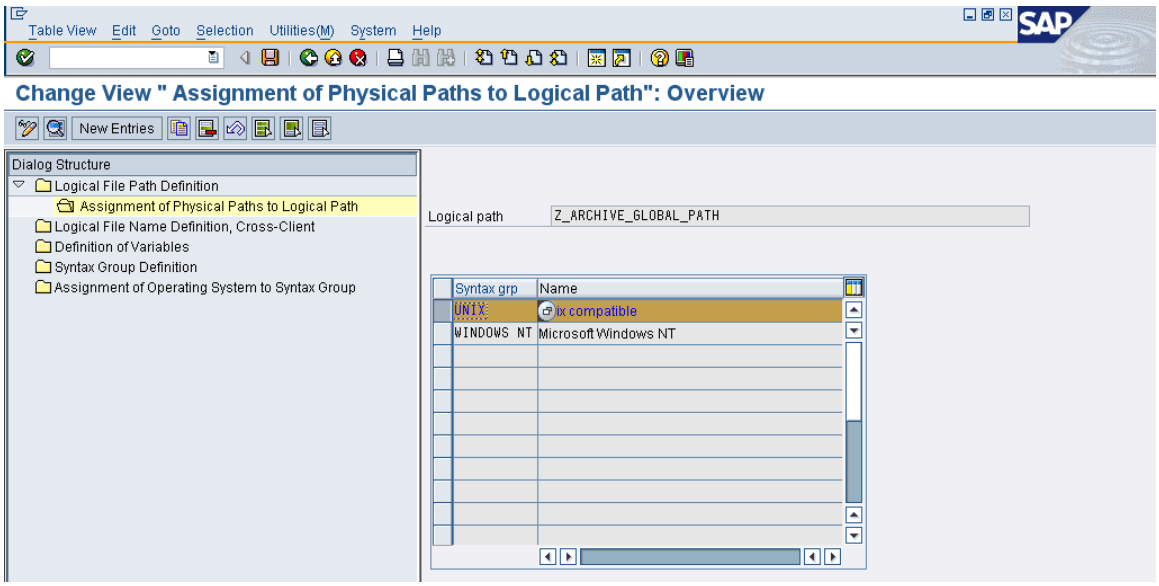
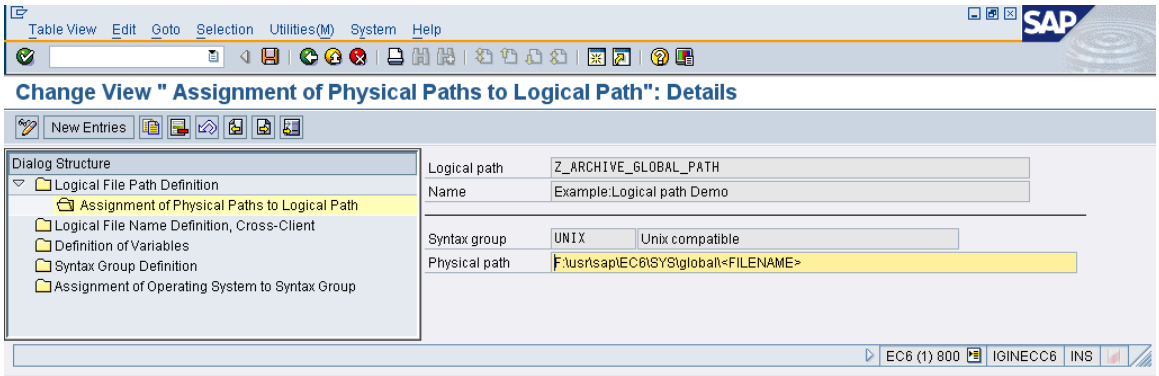
Transaction FILE-> Logical File Path Definition





Transaction FILE-> Physical file path assignment to logical path



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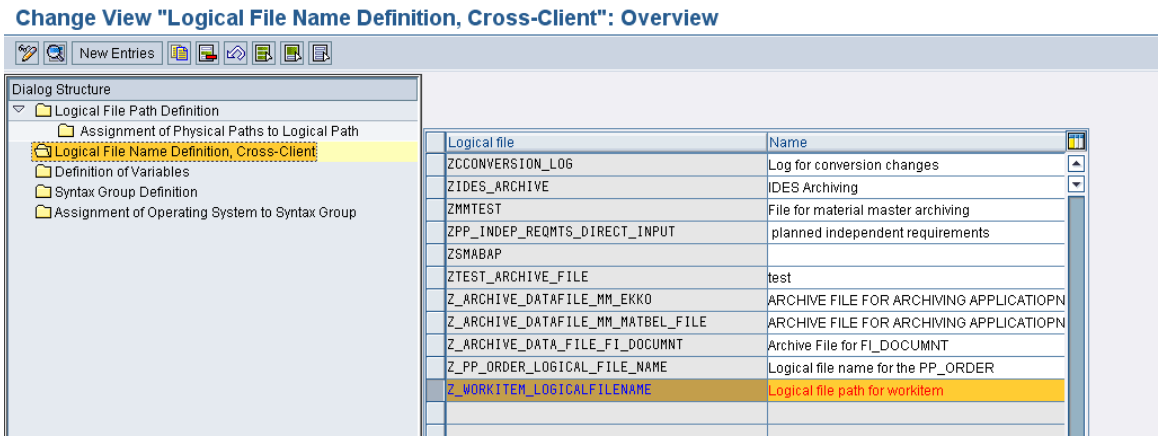
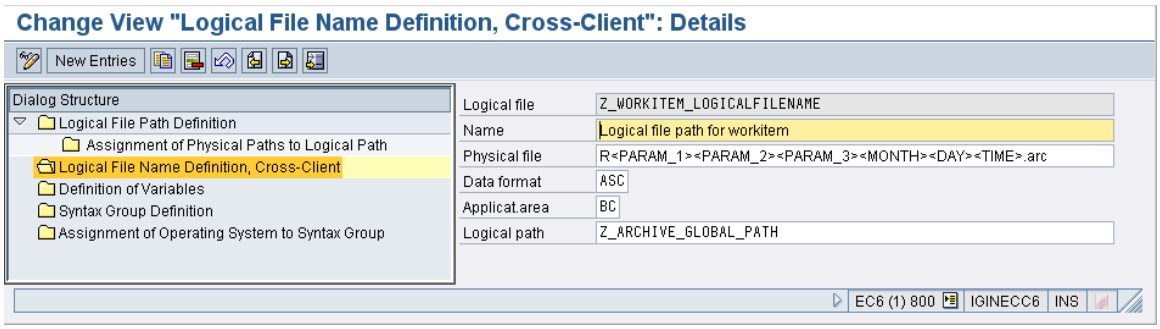
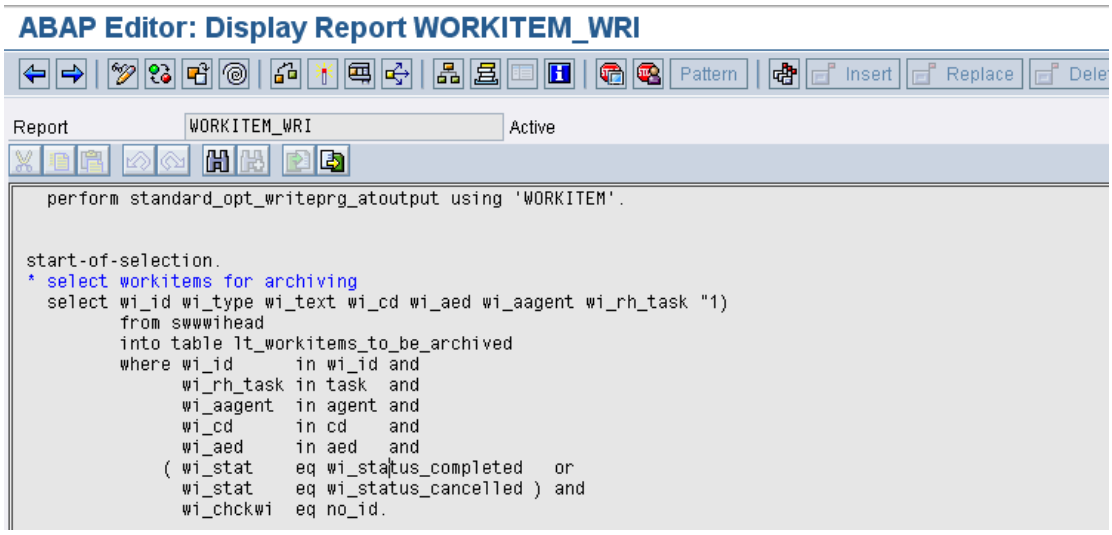


Transaction FILE->Logical File Name



Scope of Archiving

The most important factor to consider when archiving work items is to understand the basis on which write program would select the work items for archiving. By default the SAP write program selects only the work items with 'COMPLETED' or 'CANCELLED' status for archiving, so the archiving write program ensures that the organization does not risk losing any work items, which are currently under processing.



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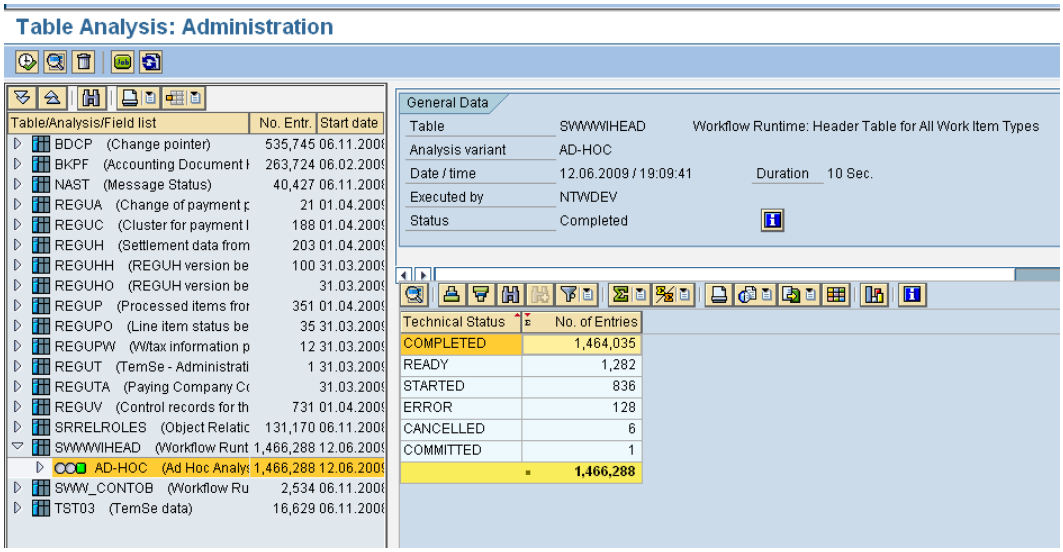
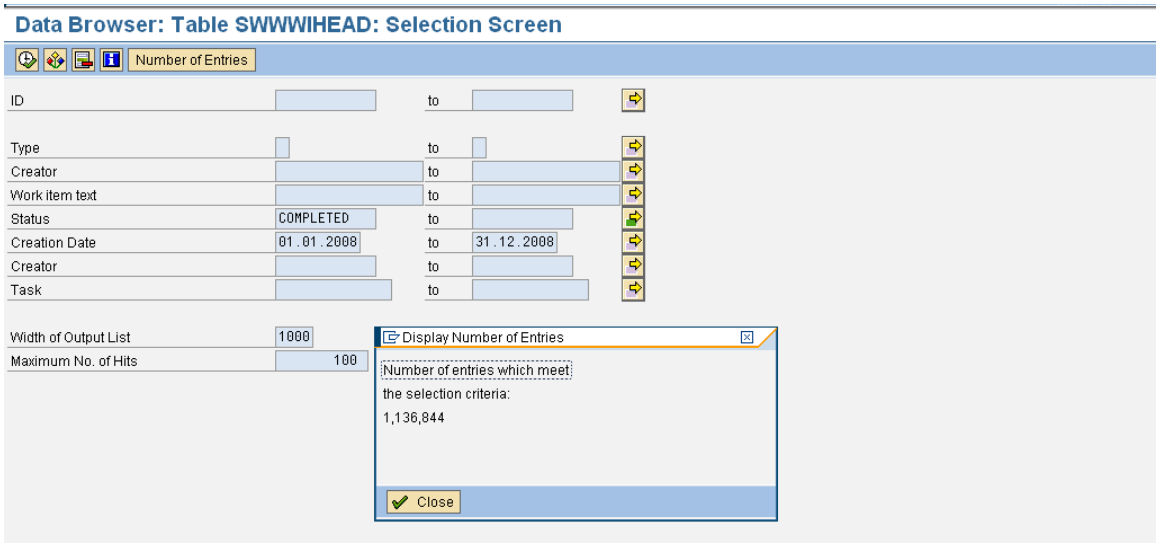
Analysis of Header Table before Archiving

The header table for the archiving object WORKITEM is SWWWIHEAD, an analysis of the table can be done using the transaction TAANA. But before deciding to delete the work items, first run an analysis on the table SWWWIHEAD using transaction TAANA to find the number of work items which are not archivable. (I.e. all work items with a status other than COMPLETED or CANCELLED).



After running an analysis based on the technical status of the work items, the total number of work items that can be archived are found to be 1,464,041.



The total no. of records that can be archived in the year 2008 is – 1,136,844.

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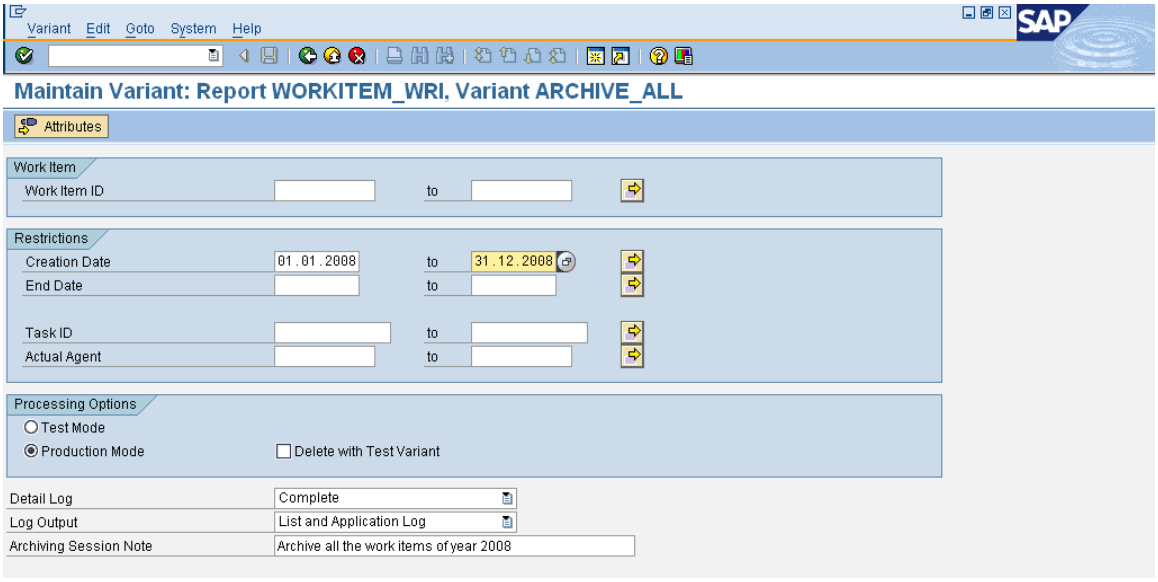
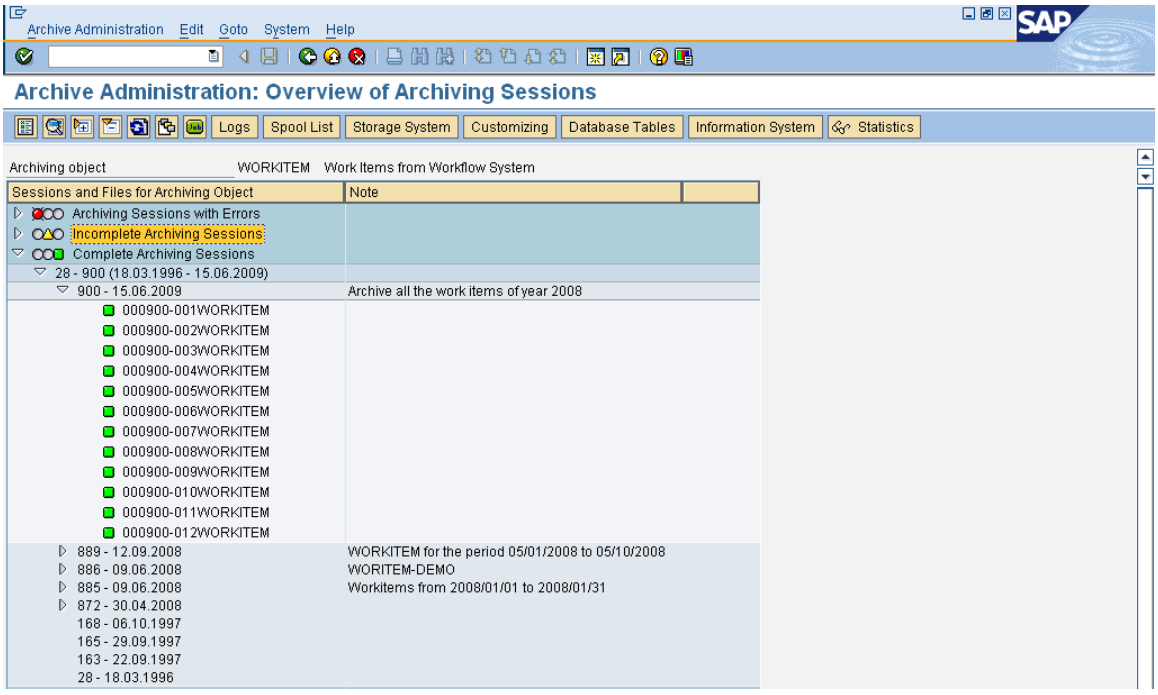
Archiving and Deletion

Go to transaction SARA and enter the object ‘WORKITEM’ and click the button ‘Write’. Give a variant name and click the ‘Maintain’ button, give the creation date range for which you want to archive the work items and select other criteria for archiving depending on the requirement and schedule the job.



The archiving sessions are listed in Management View of SARA. If the sessions are listed under the Complete Archiving Sessions, it indicates that the archiving along with the deletion has be been completed successfully, otherwise if the sessions are listed under the Incomplete Archiving Sessions then it might either imply that the deletion has not been successful or that the write process has been interrupted during the creation of the archive files.



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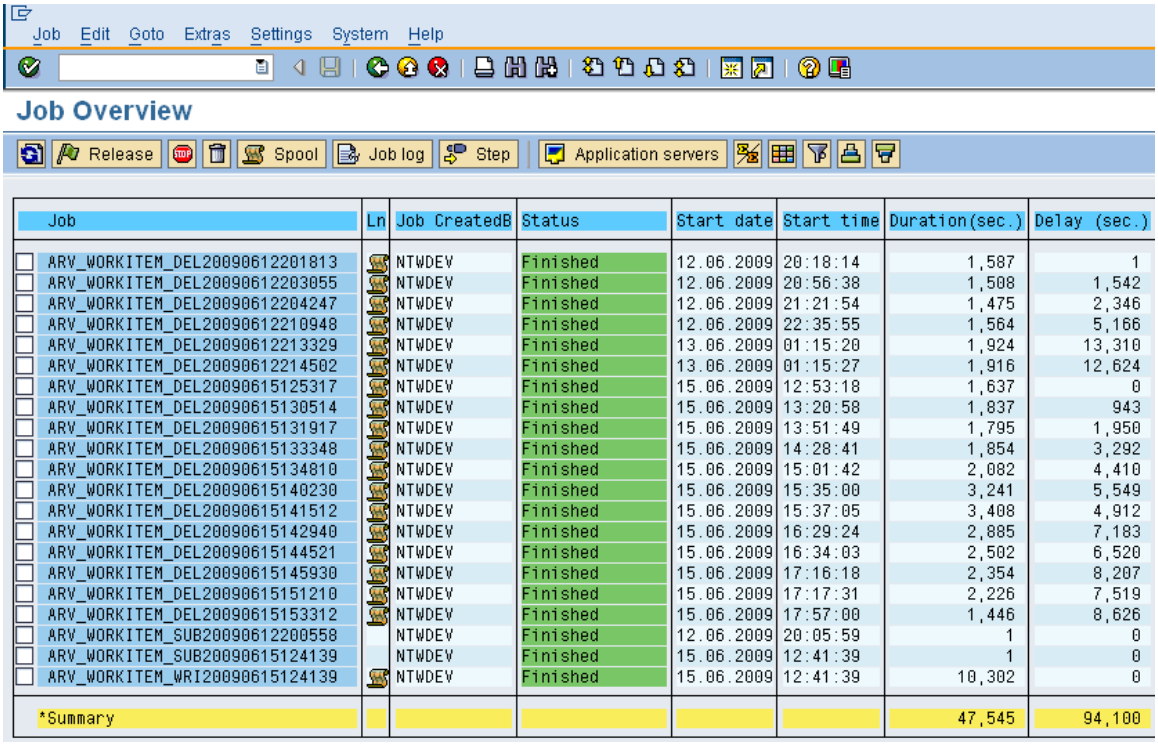
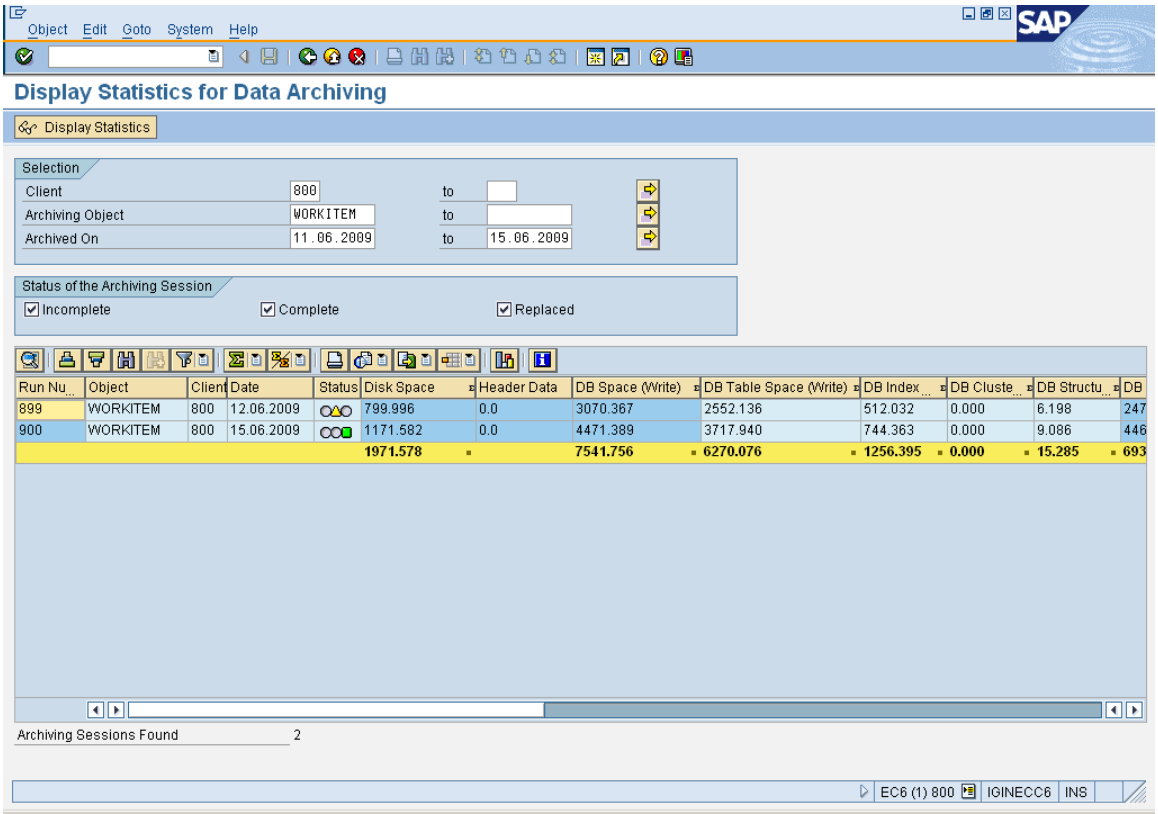


Job	Ln	Job CreatedB	Status	Start date	Start time	Duration(sec.)	Delay (sec.)
ARV_WORKITEM_DEL20090612201813		NTWDEV	Finished	12.06.2009	20:18:14	1,587	1
ARV_WORKITEM_DEL20090612203055		NTWDEV	Finished	12.06.2009	20:56:38	1,508	1,542
ARV_WORKITEM_DEL20090612204247		NTWDEV	Finished	12.06.2009	21:21:54	1,475	2,346
ARV_WORKITEM_DEL20090612210948		NTWDEV	Finished	12.06.2009	22:35:55	1,564	5,166
ARV_WORKITEM_DEL20090612213329		NTWDEV	Finished	13.06.2009	01:15:20	1,924	13,310
ARV_WORKITEM_DEL20090612214502		NTWDEV	Finished	13.06.2009	01:15:27	1,916	12,624
ARV_WORKITEM_DEL20090615125317		NTWDEV	Finished	15.06.2009	12:53:18	1,637	0
ARV_WORKITEM_DEL20090615130514		NTWDEV	Finished	15.06.2009	13:20:58	1,837	943
ARV_WORKITEM_DEL20090615131917		NTWDEV	Finished	15.06.2009	13:51:49	1,795	1,950
ARV_WORKITEM_DEL20090615133348		NTWDEV	Finished	15.06.2009	14:28:41	1,854	3,292
ARV_WORKITEM_DEL20090615134810		NTWDEV	Finished	15.06.2009	15:01:42	2,082	4,410
ARV_WORKITEM_DEL20090615140230		NTWDEV	Finished	15.06.2009	15:35:00	3,241	5,549
ARV_WORKITEM_DEL20090615141512		NTWDEV	Finished	15.06.2009	15:37:05	3,408	4,912
ARV_WORKITEM_DEL20090615142940		NTWDEV	Finished	15.06.2009	16:29:24	2,885	7,183
ARV_WORKITEM_DEL20090615144521		NTWDEV	Finished	15.06.2009	16:34:03	2,502	6,520
ARV_WORKITEM_DEL20090615145930		NTWDEV	Finished	15.06.2009	17:16:18	2,354	8,207
ARV_WORKITEM_DEL20090615151210		NTWDEV	Finished	15.06.2009	17:17:31	2,226	7,519
ARV_WORKITEM_DEL20090615153312		NTWDEV	Finished	15.06.2009	17:57:00	1,446	8,626
ARV_WORKITEM_SUB20090612200558		NTWDEV	Finished	12.06.2009	20:05:59	1	0
ARV_WORKITEM_SUB20090615124139		NTWDEV	Finished	15.06.2009	12:41:39	1	0
ARV_WORKITEM_WRI20090615124139		NTWDEV	Finished	15.06.2009	12:41:39	10,302	0
*Summary						47,545	94,100

Post Archiving Analysis

The total space conserved due to this archiving session and the size of the archive file created can be found in the statistics of the SARA transaction.



Run Nu...	Object	Client	Date	Status	Disk Space	Header Data	DB Space (Write)	DB Table Space (Write)	DB Index ...	DB Cluste...	DB Structu...	DB
899	WORKITEM	800	12.06.2009		799.996	0.0	3070.367	2552.136	512.032	0.000	6.198	247
900	WORKITEM	800	15.06.2009		1171.582	0.0	4471.389	3717.940	744.363	0.000	9.086	446
					1971.578		**7541.756**	**6270.076**	**1256.395**	**0.000**	**15.285**	**693**

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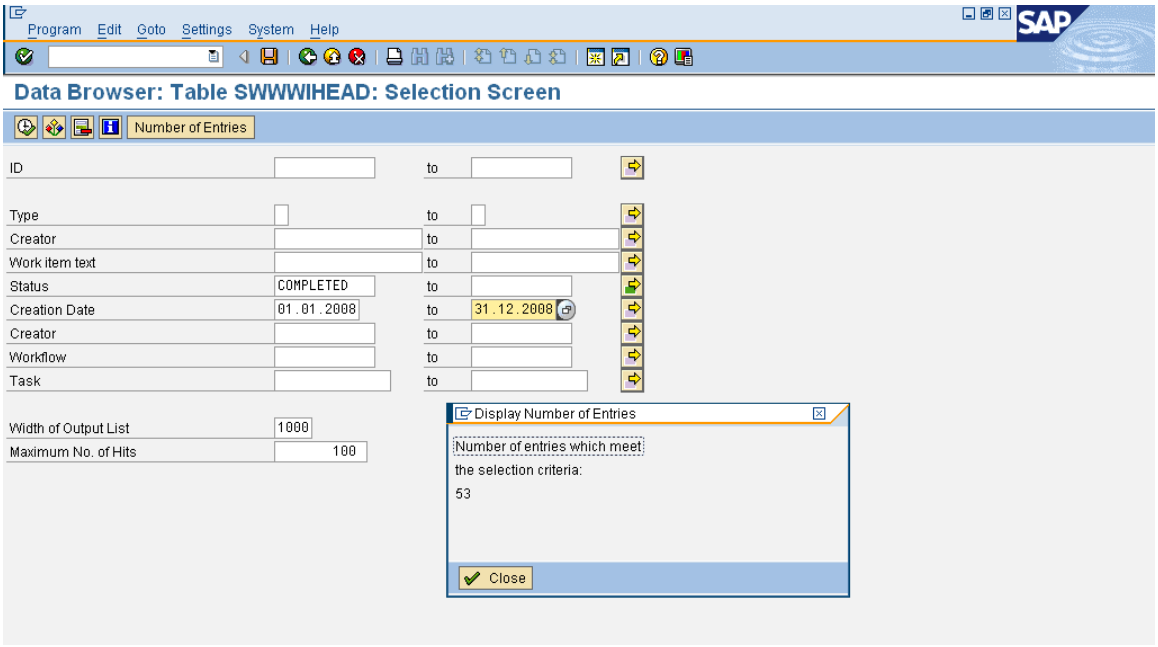
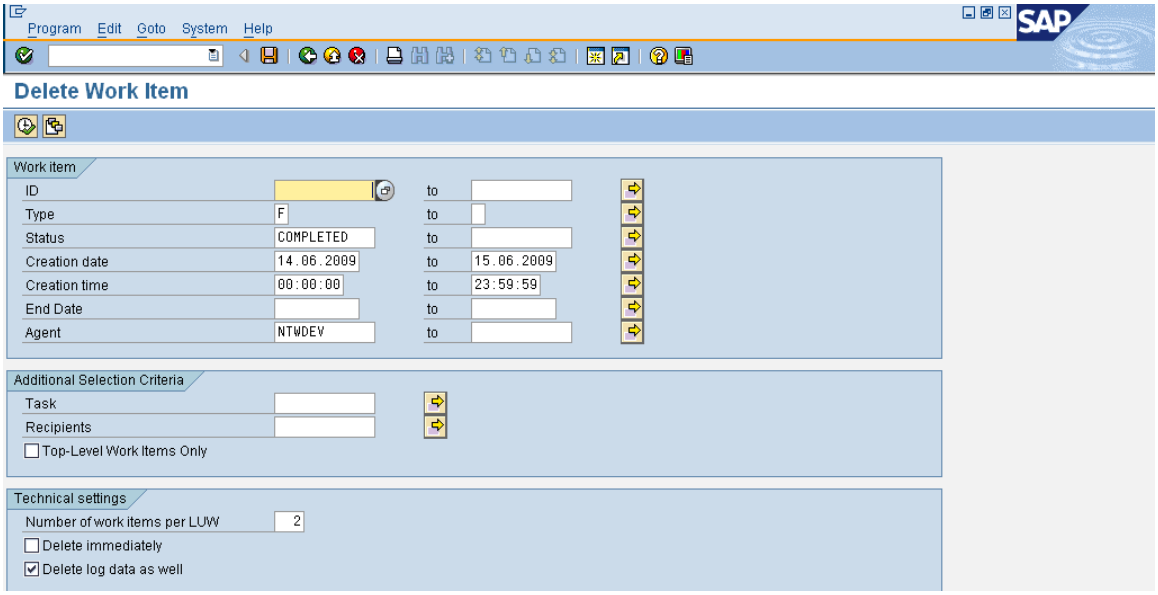
After the archiving process is complete, we may notice that there are still some records in the header table ‘SWWWIHEAD’ which are not yet deleted. Please note that the write program is programmed in such a way that it picks up the work items linked to only those workflows which have a ‘COMPLETED’ or ‘CANCELLED’ status. So all the work items linked to the workflows, which have not yet completed their processing still remain in the system.



But this is particularly annoying with the work items, which are years old, no longer used but still remain in the workflow tables. In such cases we have the option to design a custom write program, which archives all the work items irrespective of their status or use the standard SAP program to delete work items. The program RSWWWIDE can be used to delete work items based on the following criteria.



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Archive Development Kit

Developing Write Programs

Developing Read Programs

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