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Archive and Delete Messages in SAP XI: A Step-by-Step Guide

Applies To:

SAP NW 04 – XI 3.0

Summary

This document was written primarily for archiving of messages in SAP XI 3.0, but it can also be used in any SAP system to archive messages.

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Introduction

In XI All the data are transferred in form of messages and it may necessary to Archive data for future references .When we do the Archiving all the processed messages will be out of system and also it improves the performance. In General Rule the messages are multiplied into 10 times when compared to data which is sent,(Ex. If the data is 1 MB, the size of the message will be 10 MB.

Prerequisites

SAP XI 3.0 SP 9 or above

File system to store the messages

Limitations

The below configuration will be used only if the company planning to Archive messages from the day of go live.

Step by Step Procedure

Transaction Used

SXMB_ADM

SARA

SPRO

XMS_SARA

SARI

Above are the different transactions used in XI for configuring archiving.

First we need to create a file system in XI to store the data .The default settings are in point to the SAP Global Directory and it is not advised to store the archived messages. Usually the size will also be less.

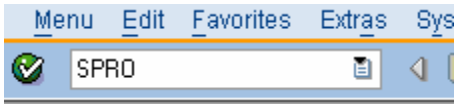
The file system should be in directory of XI system.

Before defining interfaces and retention periods for archiving, we have to do the below configuration in SPRO and also in SXMB_ADM.

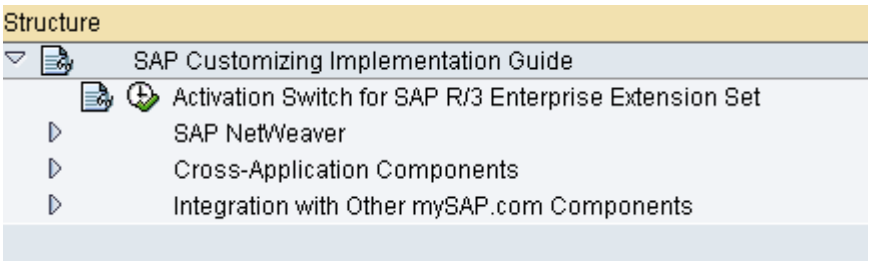
Set up Cross-Archiving Object Customizing, Create logical File Path, and Archiving Specific Customizing

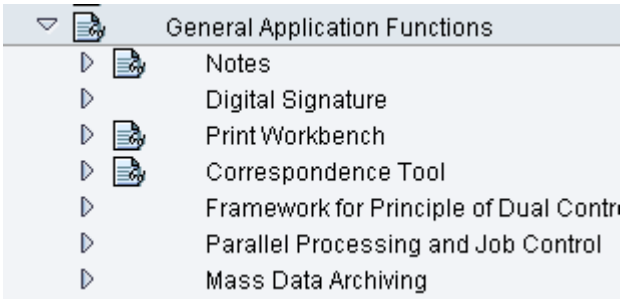
Cross-Archiving Object Customizing

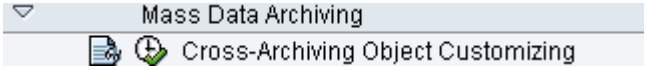
Enter SPRO - > F5 or SAP Reference IMG .



Once you are in Display IMG Select Cross Application Components -> Expand General Application Functions - > Mass Data Archiving - > Cross-Archiving Object Customizing

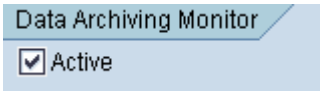






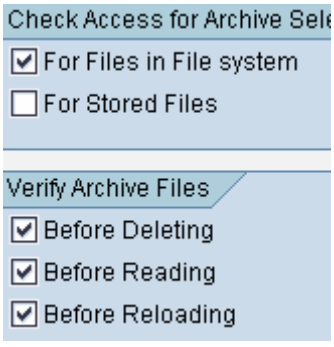
Use : The main use this config is for Data Archiving Monitor

(Use This indicator to activate or deactivate the data archiving monitor (transaction SAR_SHOW_MONITOR).



Check Access for Archive Selection

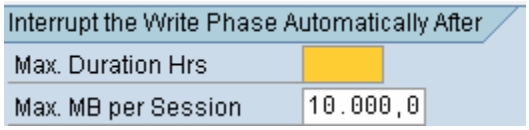
(Depends whether you want to access File System or Stored Files, by default check File System).



Verification of Archive File

Maximum Number of Hours: Leave Blank .

Maximum MB Per session: Enter Maximum value in this .We need to specify value in MB .This value may vary from company to Company .The above both settings are mainly used for interruption criteria.



Once you have done the above settings, save the settings and Create Transport Proposal to Move it to Quality and Production.

Create Logical File Path

SPRO - > F5 or SAP Reference IMG

General Application Functions - > Mass Data Archiving - > Create Logical File Path

Use : In this activity we define Logical Path and Filenames. Archive files are stored in the file system under a Physical Path and File name is derived from Logical File Name.

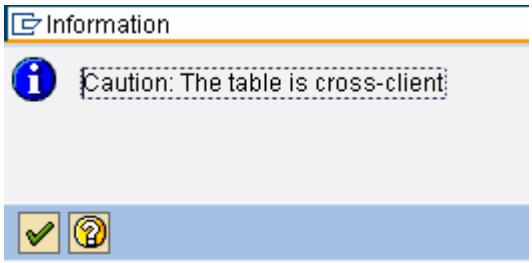
This step has mainly three categories:

Defining logical path Name

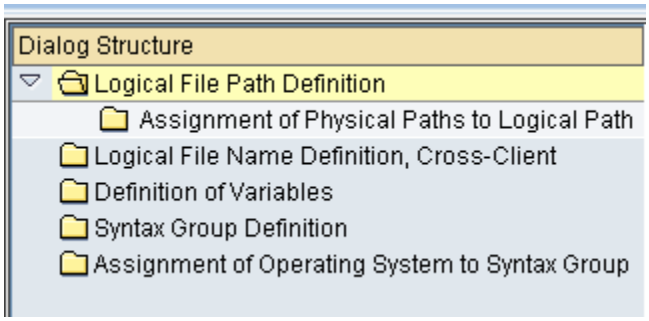
Defining logical File Name

Assignment of Logical File name to Archiving Object.

When you click Create Logical Path, you will get warning and enter to proceed. 



You can see the following when you press enter and proceed.



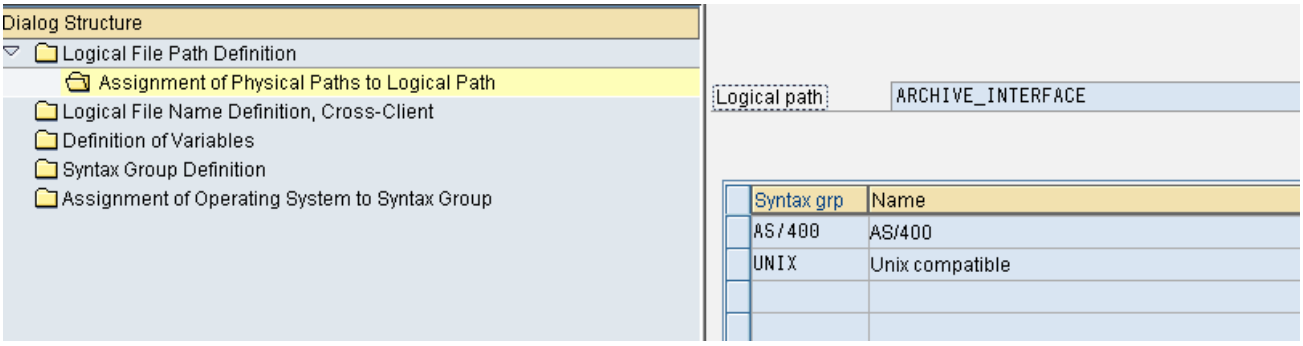
Create Logical File Path

Double Click Logical Path Definition and click New Entries .Enter Some Meaning full Logical File Path and Name .Below is the Example.

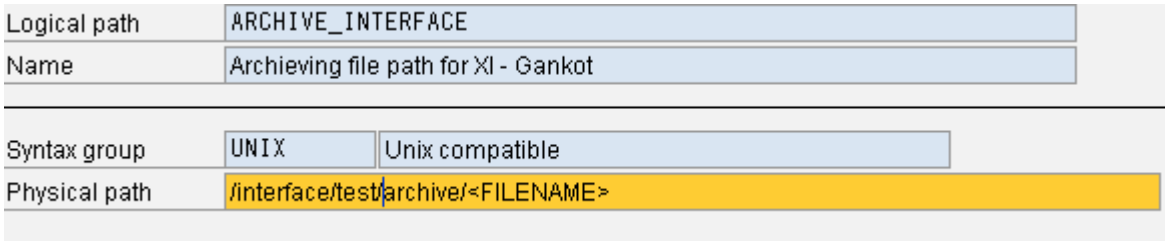
Assign Physical Path to Logical File Path

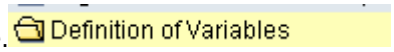
Select the Logical File Path and Select Assignment of Physical Paths to Logical path

Double Click on the Above step, you will get a screen as below

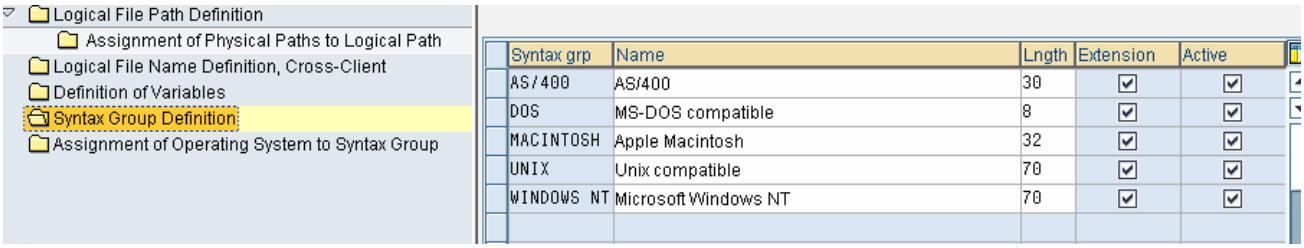


Select the system Unix or AS/400 and click Details Button  . I am choosing Unix as my Syntax Group where I am assigning Physical Path where my File System was located and also File Name .Physical Path is the location of my File System.

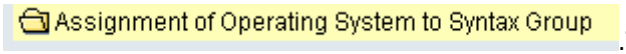


File name of the Variable where we can define Definition of Variables. File name <FILENAME> as a place holder for the same file name. 

The Syntax Groups are defined in Syntax Group Definition. It varies from Company to Company.



Once we created syntax Group we have to assign this to Operating System



.These settings normally SAP will provide us. Based on the requirements we can change the settings.

Defining Logical File Names

1. Select an existing file name, such as ARCHIVE_INTERFACE, or choose *New Entries* to enter a new file name. This must be as descriptive as possible.

2. Double-click on the dialog structure *Logical File Name Definition, Cross-Client.*
You can access the screen change view "Logical File Name Definition, Cross-Client": Overview.

3. Maintain the *Physical File* and *Logical Path* fields.

Logical file	ARCHIVE_DATA_FILE
Name	Archive file for archiving application data
Physical file	<PARAM_1>_<PARAM_3>_<DATE>_<TIME>_<PARAM_2>.ARCHIVE
Data format	
Applicat.area	BC
Logical path	ARCHIVE_GLOBAL_PATH

PARAM1 : Two-character application abbreviation (such as HR; CO, MM) for classifying the archive files in the system. In our case BC.

,PARAM2 : Single-character alphanumeric code (0-9, A-Z).

PARAM3 : This parameter is filled with the name of the archiving object at runtime. In our Case BC_XMB.

DATE : Date in SY-DATUM.

TIME : Time in SY-UZEIT.

There are lot of parameters are available in the system.

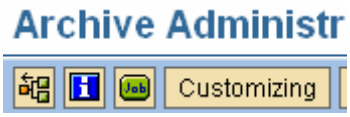
Once you did the Setting click and save the settings  .

Archiving Object-Specific Customizing

SPRO - > F5 or SAP Reference IMG

General Application Functions - > Mass Data Archiving - > Archiving Object-Specific Customizing

Or you can also this configuration using Transaction XMS_SARA - >



USE : You can set parameters that apply only to a specific archiving object

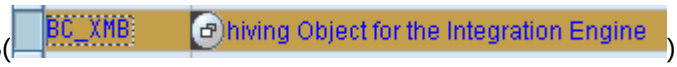
All parameters can be set using the *Customizing* function. You can set the following parameters.

- Logical File Name

- Archive File Size
- Delete Program Settings
- File System to Storage System

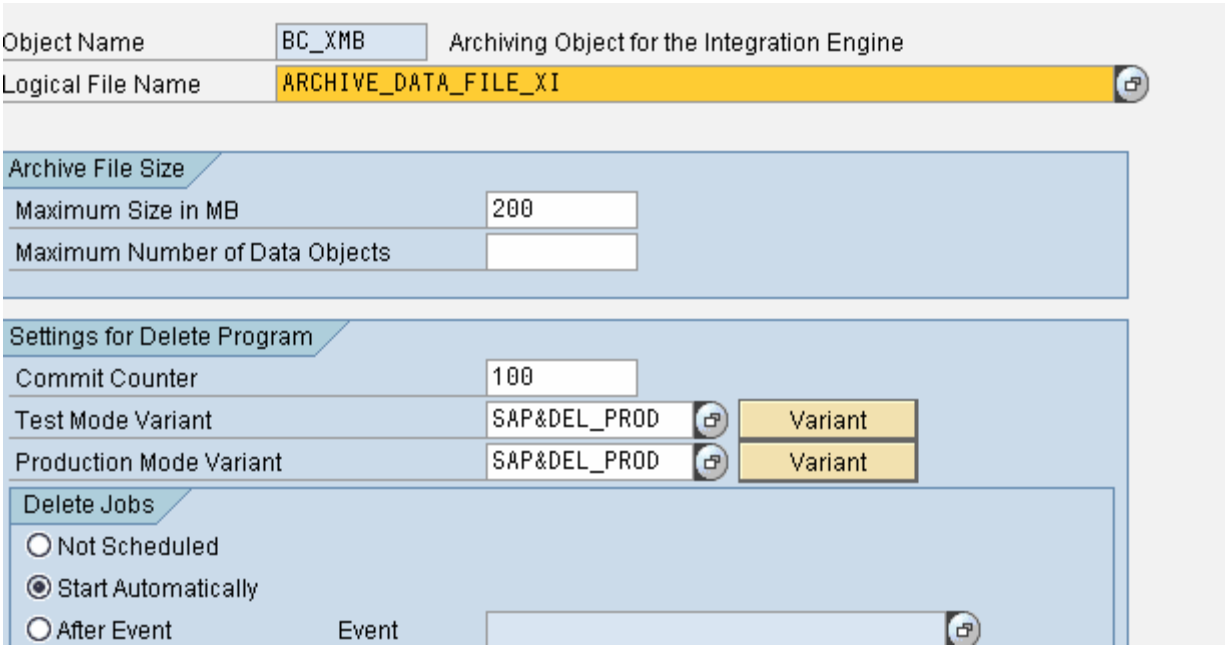
Click 

and enter to ignore warning. The object for XI Archiving is BC_XMB or you can create New One. System Defined is BC_XMB.

Select BC_XMB(

) and press Details  .

Assign our logical file which was created in last step. Enter Max size in MB in Archive File Size. The below screen will give you configuration to be made in this step.



Press save  to store the Configuration.

Once you did the above configuration there is no need to do the configuration in XMS_SARA - > Customizing.

Defining Interfaces and Retention Periods for Archiving

You also specify for how long XML messages are retained in the database before they are deleted or archived, and how long history entries for deleted XML messages are retained in the database.

Before Defining Interfaces in integration engine we have to Decide retention period .It vary company to company based on the decision .

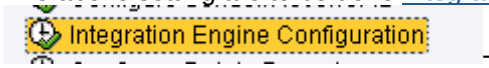
To define retention periods for messages and history entries for messages in the database, proceed as follows:

On the Define Interfaces for Archiving screen, choose *Retention Periods* and enter in the corresponding fields the number of days that history entries marked for deletion or XML messages marked for deletion or archiving are to be retained in the database.

If you want processed synchronous XML messages without errors to be deleted immediately, enter 0.

Save your changes.

The above setting are to be done Integration Engine Configuration .Use Transaction SXMB_ADM - >



- > Specific Configuration .

The system navigates to a screen were the retention periods you specified are represented by the corresponding configuration data according to the following table:

Retention Periods

Message Type	Category	Parameter	Subparameter
Asynchronous messages without errors to be deleted	DELETION	PERSIST_DURATION	ASYNC
Asynchronous messages without errors to be archived	ARCHIVE	PERSIST_DURATION	ASYNC
Synchronous messages with errors to be deleted	DELETION	PERSIST_DURATION	SYNC
Synchronous messages without errors to be deleted	DELETION	PERSIST_DURATION	SYNC
History entries to be deleted	DELETION	PERSIST_DURATION	HISTORY

Below is sample example of defining Retention Period.

Do...	Category	Parameters	Subparameter	Prefix	Current Value	Default Value
	ARCHIVE	PERSIST_DURATION	ASYNC		1	1
	DELETION	PERSIST_DURATION	ASYNC		1	1
	DELETION	PERSIST_DURATION	HISTORY		7	30
	DELETION	PERSIST_DURATION	SYNC		0	0
	DELETION	PERSIST_DURATION_ERR	SYNC		1	1

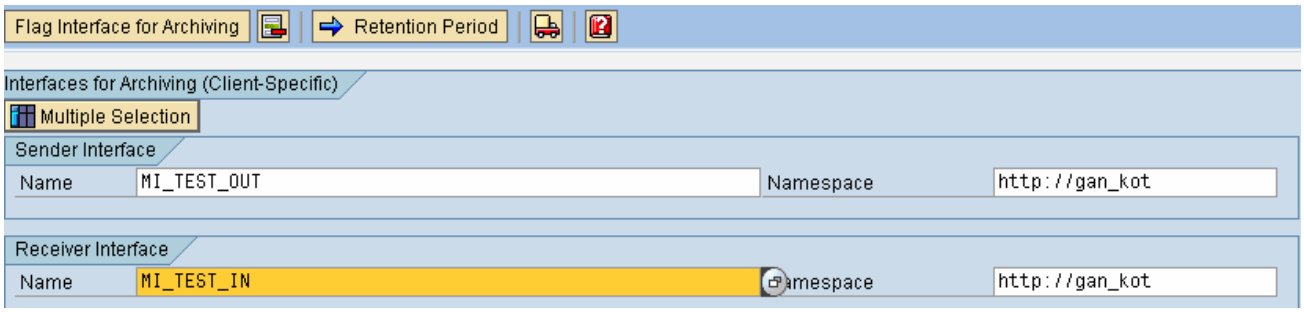
XML messages that do not have the status *Processed Successfully* remain in the database and I will address later how to archive failed messages.

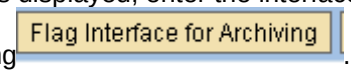
Defining Interfaces

This is where you define interfaces so that you can archive their XML messages

a) SXMB_ADM - > 

.The system differentiates between sender and receiver interfaces at this point.



To include an interface in the list of interfaces displayed, enter the interface in the Name and Namespace fields, and choose Flag Interface for Archiving 

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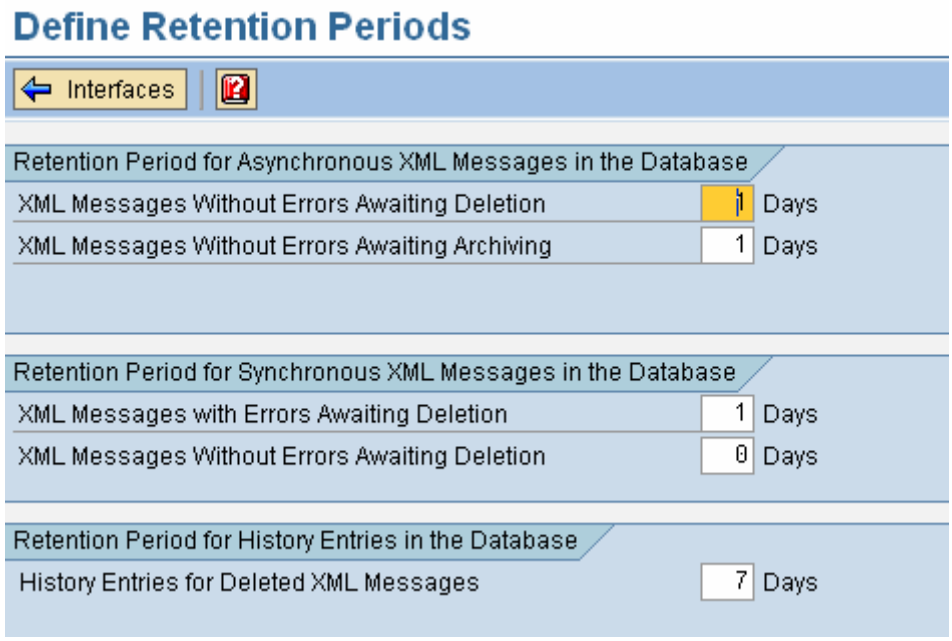
When you choose Flag for Archiving you can see your interface.

I	MI_TEST_IN	http://gan_kot
O	MI_TEST_OUT	http://gan_kot

Choose your Interface and press Retention Period.

You can Retention Periods defined in Integration Engine:



The configuration pertains to Archiving are done and now we have to schedule job archiving ,Read ,write and Monitor the Archived Messages.

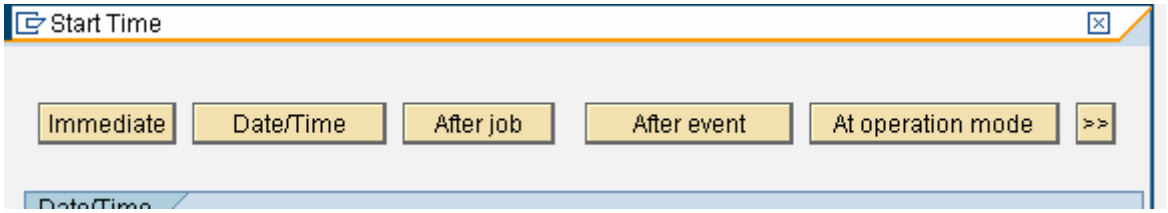
Schedule Archiving

To schedule Archiving follow this path.

SXMB_ADM - > Schedule Archiving 

-> Intergration Engine – Archiving .

Start Date : The start time of the archiving action. The system displays a dialog box like below , where you define the start time and maintain the parameters in the corresponding fields. If jobs are to be executed periodically, choose *Period Values* to enter the start values..



The above screen is same as scheduling Background job in any R/3 System.

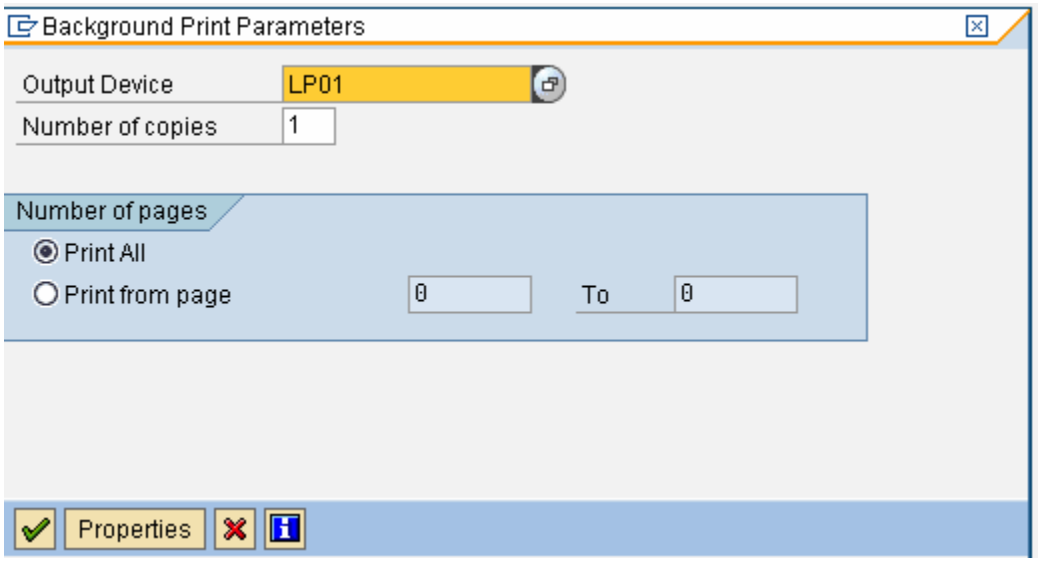
Spool Parameter: Controls the print output of the generated archiving log

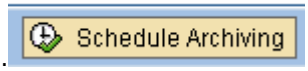
The system displays a dialog box like below in which you maintain the general parameters Output Device, Number of copies and Number of pages.

You can choose Properties to maintain additional properties of the spool request. You do not generally change these properties for each spool request.

If you have not configured any printer Enter LP01 or LOCL .These output types comes with the system and just create spool and the spool will be deleted based on the Basis Configiration .

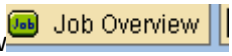
Spool parameters that are already specified in the user defaults or in the user-specific print parameters are automatically applied. Otherwise, you only have to specify the spool parameters for the execution of the first action in an archiving session. They are retained until the end of the archiving session.



Schedule Archiving. Once you are done with Scheduling and defining printer you can Schedule Archiving. 

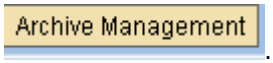
or F8.

Job Overview

To display the scheduled job in the job overview, choose Job Overview 

Archiving Administration

The Archive Administration is used for Reading, Writing Deleting and Management of Archived Messages,. There are couple of ways to go this transaction.

Transaction SXMB_ADM - > Schedule Archiving Job - > 

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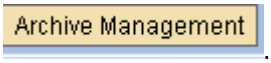
Enter transaction XMS_SARA will go directly.

Transaction SXMB_ADMIN - > Schedule Archiving Job - > 

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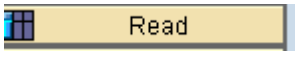
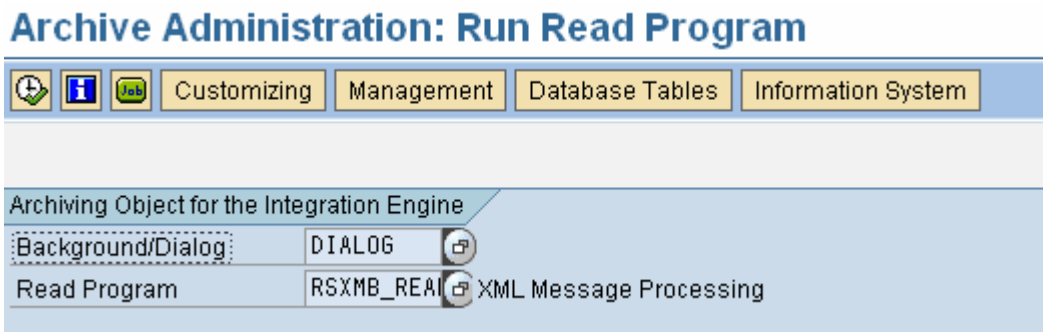
Reading of Archived Messages

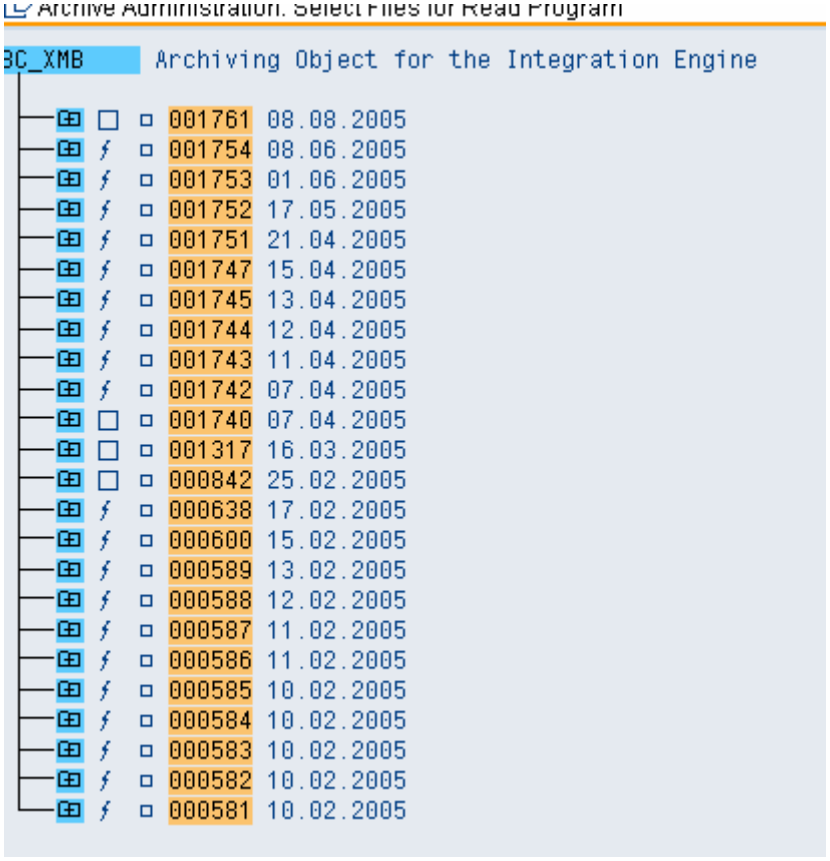
From Archive Administration - > Read 

- > Archive Administration: Run Read Program .



- > Execute  .

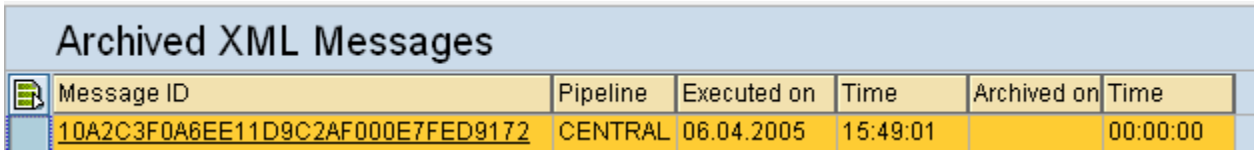
When we execute you will get a screen like below.



Expand any one and press enter. You will see the messages that are archived and Deleted on that particular date.

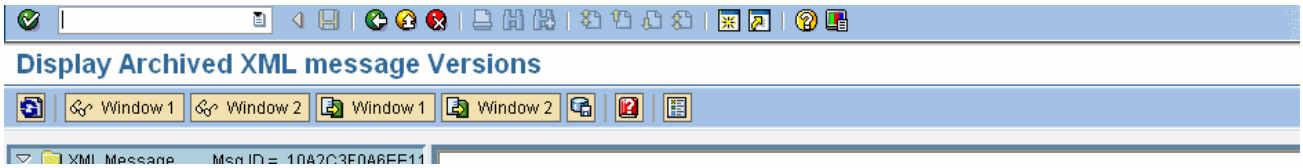
To see the messages follow the step like below.

Select Messages



and Press 

.It will take XML Message Versions.



Management

From Archive Administration - 

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When you explore Management you can see Sessions, Files Archiving Objects, Job details, Physical File Name, Logical Path, File Name, size and the status .

Statistics

From Archive Administration - > 

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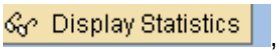
When you press statistics and then 

, you can statistics about space saved in MB.

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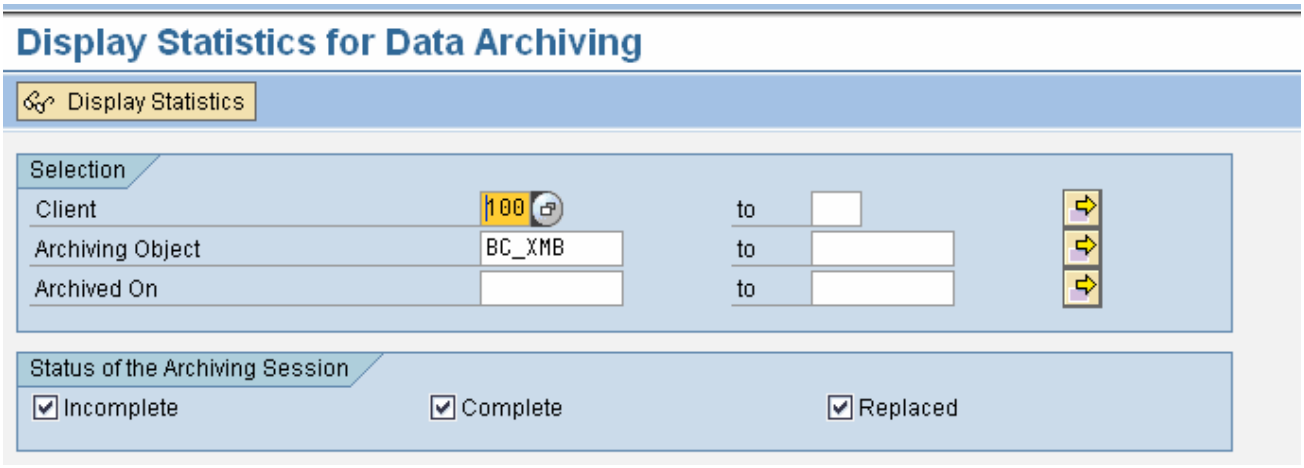

Author Bio

Ganesh Kotti has got around 8 years of experience in SAP and has worked as Technical as well as Techno Functional Consultant.. He has been with Seal Consulting Inc and is a senior Member in Seal Consulting Net weaver Competency group, and has been working in SAP XI more than year.