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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.

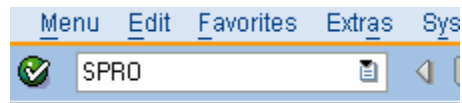
Before defining interfaces and retention periods for archiving, we have to do the below configuration in SPRO and also in SXMB_ADM.

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

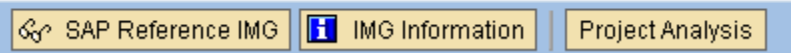
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Cross-Archiving Object Customizing

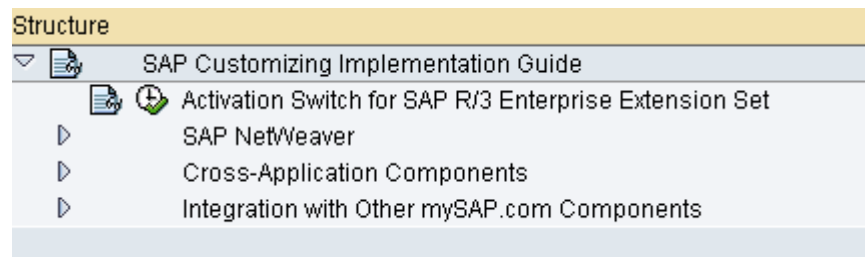
Enter SPRO - > F5 or SAP Reference IMG .



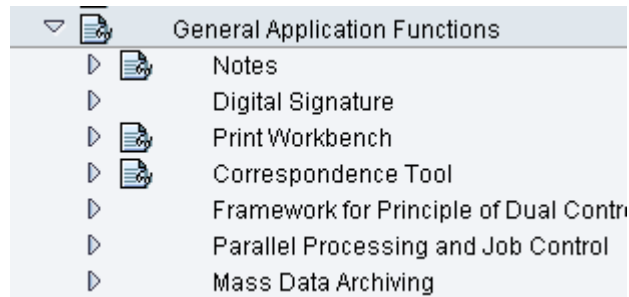
Customizing: Execute Project



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

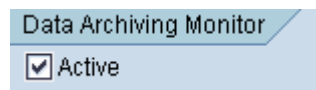


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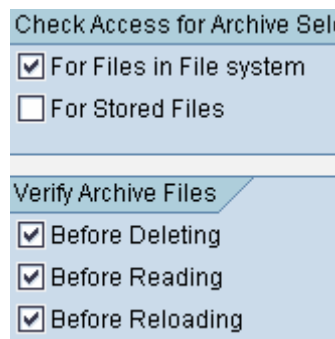
Use : The main use this config is for Data Archiving Monitor

(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 .

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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.

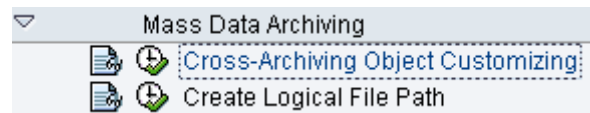
Interrupt the Write Phase Automatically After	
Max. Duration Hrs	
Max. MB per Session	10.000,0

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.

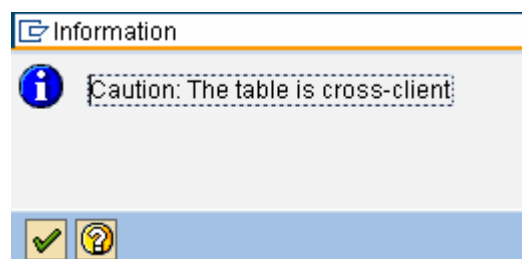
This step has mainly three categories:

Defining logical path Name

Defining logical File Name

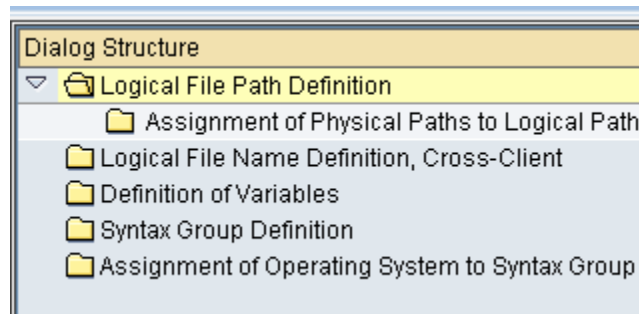
Assignment of Logical File name to Archiving Object.

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.

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



Create Logical File Path

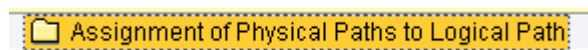
Double Click Logical Path Definition and click New Entries .Enter Some Meaning full Logical File Path and Name .Below is the Example.

ARCHIVE_INTERFACE	Archiving file path for XI - Gankot
-------------------	-------------------------------------

Assign Physical Path to Logical File Path

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

ARCHIVE_INTERFACE	Archiving file path for XI - Gankot
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Double Click on the Above step, you will get a screen as below

Dialog Structure	
Logical File Path Definition	
Assignment of Physical Paths to Logical Path	
Logical File Name Definition, Cross-Client	
Definition of Variables	
Syntax Group Definition	
Assignment of Operating System to Syntax Group	


Logical path	
Logical path	ARCHIVE_INTERFACE

Syntax grp	Name
AS/400	AS/400
UNIX	Unix compatible

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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.

Logical path	ARCHIVE_INTERFACE	
Name	Archiving file path for XI - Gankot	
Syntax group	UNIX	Unix compatible
Physical path	/interface/test/archive/<FILENAME>	

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


FILENAME	Blablabla
----------	-----------

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

Logical File Path Definition	
Assignment of Physical Paths to Logical Path	
Logical File Name Definition, Cross-Client	
Definition of Variables	
Syntax Group Definition	
Assignment of Operating System to Syntax Group	

Syntax grp	Name	Length	Extension	Active
AS/400	AS/400	30	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DOS	MS-DOS compatible	8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MACINTOSH	Apple Macintosh	32	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
UNIX	Unix compatible	70	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
WINDOWS NT	Microsoft Windows NT	70	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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

 Assignment of Operating System to Syntax Group .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.

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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 .

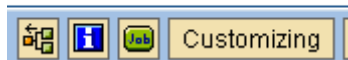
Archiving Object-Specific Customizing

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 - >

Archive Adminstr




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




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

Click  **Archiving Object-Specific Customizing** 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( **Archiving Object for the Integration Engine**) 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.

Object Name	BC_XMB	Archiving Object for the Integration Engine	
Logical File Name	ARCHIVE_DATA_FILE_XI		
Archive File Size			
Maximum Size in MB	200		
Maximum Number of Data Objects			
Settings for Delete Program			
Commit Counter	100		
Test Mode Variant	SAP&DEL_PROD		Variant
Production Mode Variant	SAP&DEL_PROD		Variant
Delete Jobs			
<input type="radio"/> Not Scheduled			
<input checked="" type="radio"/> Start Automatically			
<input type="radio"/> After Event	Event		

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 .

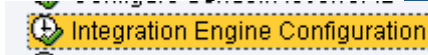
To define retention periods for messages and history entries for messages in the database, proceed as follows:

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 where 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.

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Do...	Category	Parameters	Subparameter	Prefix	Current Value	Default Value
	ARCHIVE	PERSIST_DURATION	ASYN	<input type="checkbox"/>	1	1
	DELETION	PERSIST_DURATION	ASYN	<input type="checkbox"/>	1	1
	DELETION	PERSIST_DURATION	HISTORY	<input type="checkbox"/>	7	30
	DELETION	PERSIST_DURATION	SYN	<input type="checkbox"/>	0	0
	DELETION	PERSIST_DURATION_ERR	SYN	<input type="checkbox"/>	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 -> Define Interfaces for Archiving and Retention Periods . The system differentiates between sender and receiver interfaces at this point.

Flag Interface for Archiving Retention Period

Interfaces for Archiving (Client-Specific)

Multiple Selection

Sender Interface

Name Namespace

Receiver Interface

Name Namespace

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 .

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

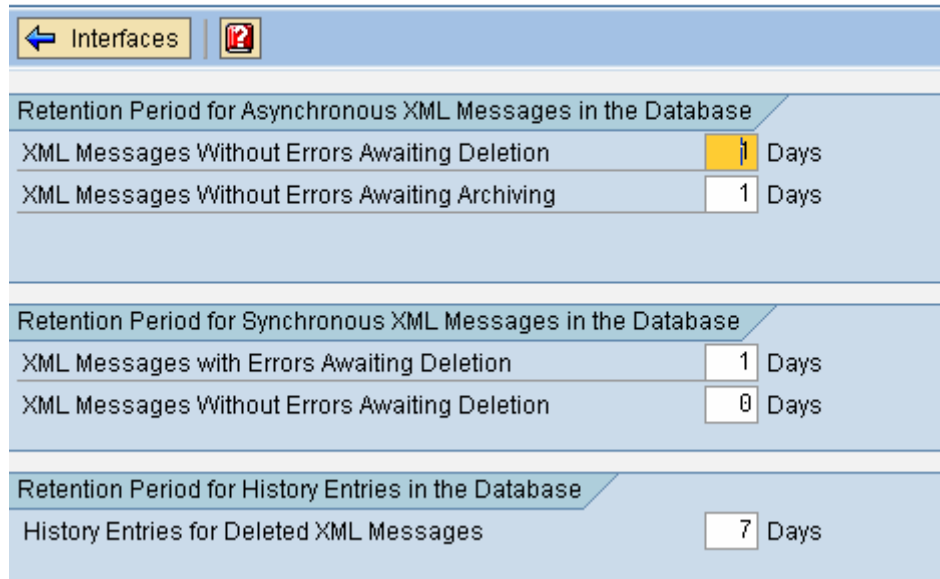
I MI_TEST_IN	http://gan_kot
O MI_TEST_OUT	http://gan_kot

Choose your Interface and press Retention Period.

MI_TEST_IN http://gan_kot

You can Retention Periods defined in Integration Engine:

Define Retention Periods



Retention Period for Asynchronous XML Messages in the Database	
XML Messages Without Errors Awaiting Deletion	1 Days
XML Messages Without Errors Awaiting Archiving	1 Days

Retention Period for Synchronous XML Messages in the Database	
XML Messages with Errors Awaiting Deletion	1 Days
XML Messages Without Errors Awaiting Deletion	0 Days

Retention Period for History Entries in the Database	
History Entries for Deleted XML Messages	7 Days

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  Schedule Archiving Job -> Intergration Engine – Archiving .

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Integration Engine: Archiving

Schedule Archiving Archive Management Job Overview Documentation

Client 100
Fork 01
User Name GKOTTI

Start Date Daten sind nicht gepflegt
Spool Param. Daten sind nicht gepflegt

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..

Start Time

Immediate Date/Time After job After event At operation mode

Date/Time

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

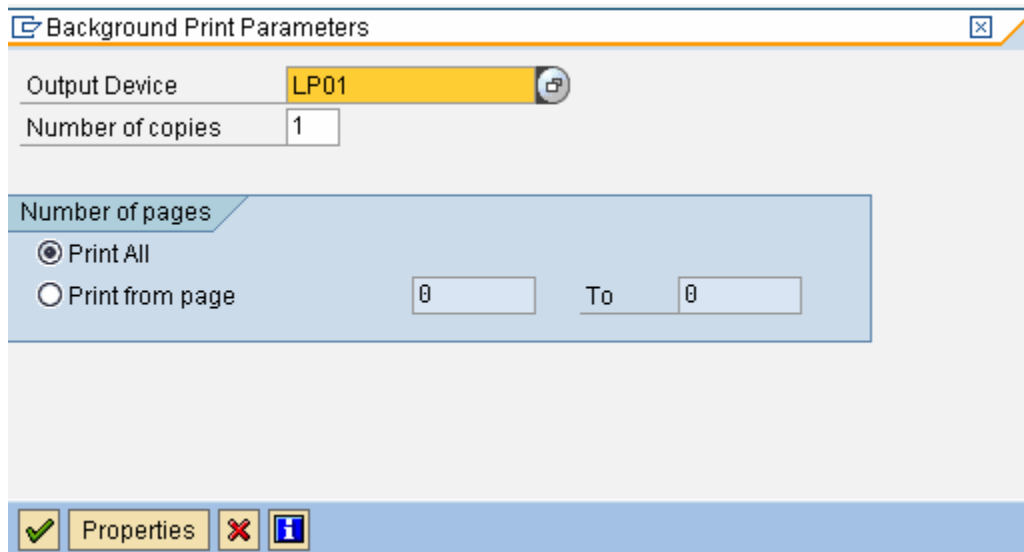
The system displays a dialog box like below in which you maintain the general parameters Output Device, Number of copies and Number of pages.

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 Configuration .

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.

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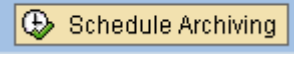


The image shows a SAP dialog box titled "Background Print Parameters". It contains the following fields and options:


- Output Device:** A dropdown menu showing "LP01".
- Number of copies:** A text input field containing the value "1".
- Number of pages:** A section with two radio buttons:
 - Print All:** Selected (indicated by a filled circle).
 - Print from page:** Unselected, followed by two text input fields labeled "From" and "To", both containing the value "0".

At the bottom of the dialog, there is a toolbar with four icons: a green checkmark, a button labeled "Properties", a red 'X' icon, and an information icon (i).

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

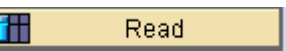
The Archive Administration is used for Reading, Writing Deleting and Management of Archived Messages,. There are couple of ways to go this transaction.

Transaction SXMB_ADM - > Schedule Archiving Job - > .

Enter transaction XMS_SARA will go directly.

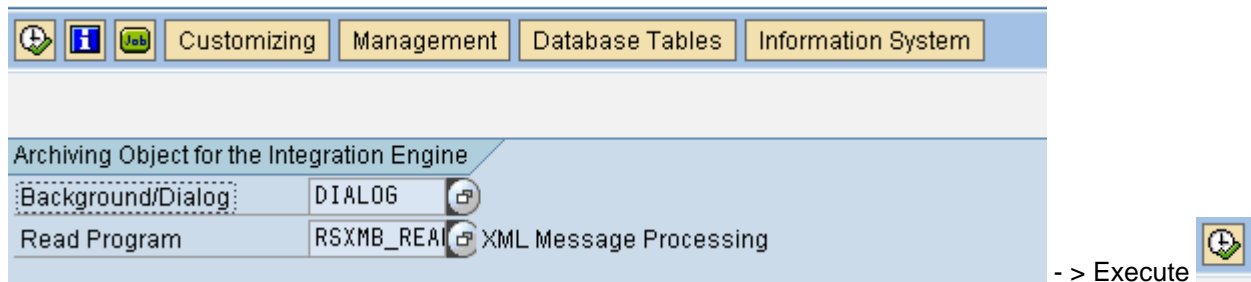
Transaction SXMB_ADMIN - > Schedule Archiving Job - > .

Reading of Archived Messages

From Archive Administration - > Read  - > Archive Administration: Run Read Program .

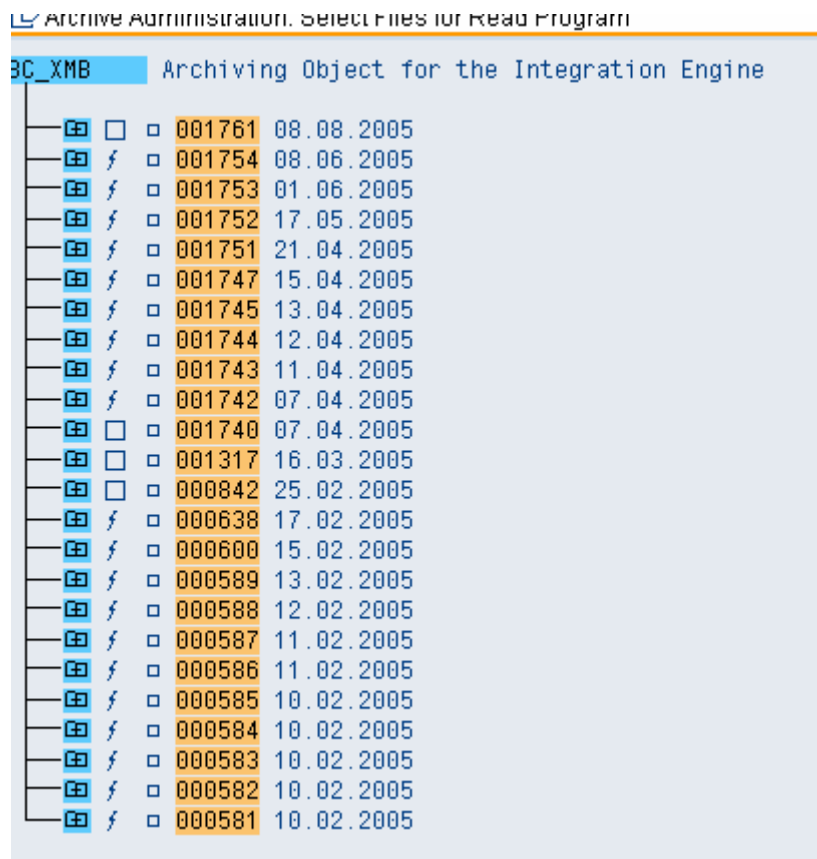
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Archive Administration: Run Read Program



The screenshot shows the 'Archive Administration: Run Read Program' dialog box. It has a top bar with icons for a clock, a folder, a job, and tabs for 'Customizing', 'Management', 'Database Tables', and 'Information System'. Below the tabs, the title is 'Archiving Object for the Integration Engine'. There are two input fields: 'Background/Dialog' with the value 'DIALOG' and 'Read Program' with the value 'RSXMB_READ'. To the right of the 'Read Program' field is a button labeled 'XML Message Processing'. At the bottom right, there is a green checkmark icon and the text '-> Execute'.

When we execute you will get a screen like below.



The screenshot shows the 'Archive Administration: Select Files for Read Program' screen. It has a title bar with a folder icon and the text 'Archive Administration: Select Files for Read Program'. Below the title bar, there is a tab labeled 'BC_XMB' and a subtitle 'Archiving Object for the Integration Engine'. The main area is a list of files with columns for file name, status, and date. The files are listed in a tree structure with expand/collapse icons.

File Name	Status	Date
001761	08.08.2005	
001754	08.06.2005	
001753	01.06.2005	
001752	17.05.2005	
001751	21.04.2005	
001747	15.04.2005	
001745	13.04.2005	
001744	12.04.2005	
001743	11.04.2005	
001742	07.04.2005	
001740	07.04.2005	
001317	16.03.2005	
000842	25.02.2005	
000638	17.02.2005	
000600	15.02.2005	
000589	13.02.2005	
000588	12.02.2005	
000587	11.02.2005	
000586	11.02.2005	
000585	10.02.2005	
000584	10.02.2005	
000583	10.02.2005	
000582	10.02.2005	
000581	10.02.2005	

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

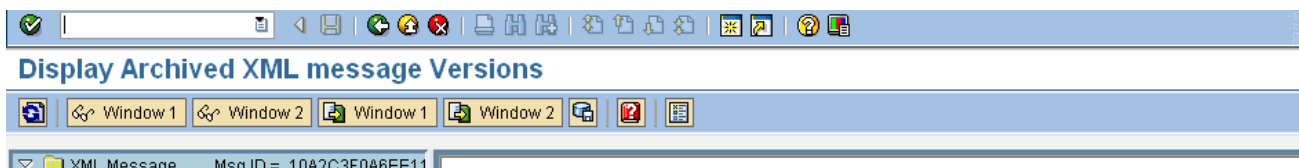
To see the messages follow the step like below.

Select Messages


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Archived XML Messages					
Message ID	Pipeline	Executed on	Time	Archived on	Time
10A2C3F0A8EE11D9C2AF000E7FED9172	CENTRAL	06.04.2005	15:49:01		00:00:00

and Press . It will take XML Message Versions.



Management

From Archive Administration -  -.


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 - >  .

When you press statistics and then  , you can statistics about space saved in MB.

Display Statistics for Data Archiving

 Display Statistics

Selection

Client	100 	to		
Archiving Object	BC_XMB	to		
Archived On		to		

Status of the Archiving Session

<input checked="" type="checkbox"/> Incomplete	<input checked="" type="checkbox"/> Complete	<input checked="" type="checkbox"/> Replaced
--	--	--

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.