

# Admin table archiving

- [Introduction](#)
- [Prerequisites](#)
  - [Logical file names](#)
  - [Background Jobs](#)
  - [Others!?](#)
  - [Capture before image of the admin tables](#)
  - [Capture before image of DB02](#)
- [Step by step process](#)
  - [1. Write data to archived files](#)
  - [2. Delete the archived data from the respective tables](#)
  - [3. Reload archive file](#)
- [How to archive by process chain](#)
- [Reference SAP Notes](#)
- [Reference Links](#)

## Introduction

Admin tables archiving is a process to archive the data from admin and log tables to improve the system performance.

We should not delete the data from certain admin and log tables as it could lead to irreversible issues, dumps and lead to unstable system. So to free up the disk space it is only possible to archive the data which is still accessible by the system and then delete the data from the system. The archived files should never be deleted and should always remain in the system.

Performing this activity **manually** by process chain or tcode SARA periodically (yearly or half yearly) allows up to save space on the database and also improves the system performance. **It can't be automatically because** we need to:

1. Change variants
2. Make sure that there is **no job running to update admin tables during archive data**

The below mentioned tables are part of the admin archiving process. This information can be found in transaction 'AOBJ' for the archiving object 'BWREQARCH'

| Table          | Description                                                 |
|----------------|-------------------------------------------------------------|
| RSBMLOGPAR     | Hierarchical Log: Field/Value Pair                          |
| RSBMLOGPAR_DTP | DTP Log: Field/Value Pairs                                  |
| RSBMNODES      | Hierarchical Log: Nodes                                     |
| RSBMONMESS     | Hierarchical Log: Table with Messages                       |
| RSBMONMESS_DTP | DTP Log: Table With Messages                                |
| RSBMREQ_DTP    | DTP Log: Status of Header Table                             |
| RSCRTDONE      | CRT Packages Enhancements for Apollo                        |
| RSDELDONE      | BW: Selection Table for Deletion with Full Update Scheduler |
| RSHIEDONE      | Selection table for Fields Scheduler                        |
| RSLDTDONE      | Texts on the requested InfoPackages and groups              |
| RSMONFACT      | Fact table monitor                                          |
| RSMONICTAB     | Monitor IC table                                            |
| RSMONIPTAB     | InfoPackage for the monitor                                 |
| RSMONMESS      | Messages for the monitor                                    |
| RSMONRQTAB     | Monitor table for request IDocs                             |
| RSREQDONE      | Monitor: Saving of the QM entries                           |
| RSRULEDONE     | ABAP Code for Scheduler Selections                          |
| RSSELDONE      | Monitor: Selections for executed request                    |
| RSTCPDONE      | Selection table for 3rd party; Scheduler                    |

|           |                                                    |
|-----------|----------------------------------------------------|
| RSUICDONE | BIW: Selection table for user-selection update ICs |
|-----------|----------------------------------------------------|

The size of the following SAP Tables cannot be reduced as they contain important information for the smooth operation of the BW System

| Table            | Description                                     |
|------------------|-------------------------------------------------|
| RSBKREQUEST      | (SAP Table - DTP Request)                       |
| RSPCCHAIN        | (SAP Table - Table for Process Chain details)   |
| RSREQDONE        | (SAP Table - Monitor: Saving of the QM entries) |
| RSMONICDP        | (SAP Table – Monitor Request Data Packet Table) |
| RSPMREQUEST<br>T | (SAP Table – RSPM Request Status)               |

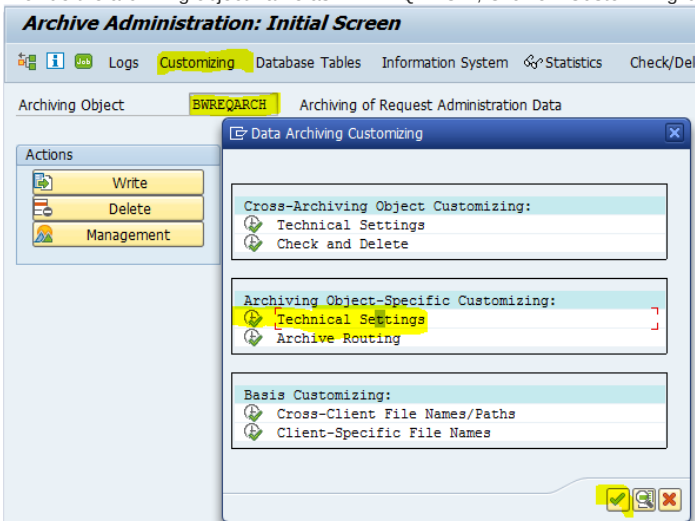
## Prerequisites

### Logical file names

- Z\_ARCH\_BW\_TECH\_FILENAME

In SARA t-code as shown in the below screen shot.

Provide the archiving object name as 'BWREQARCH', Click on 'Customizing' and then double click on the 'Technical Settings'.



Check if the logical file name is maintained or not.

**Data Archiving Customizing**

Object Name: BWREQARCH Archiving of Request Administration Data

Logical File Name: Z\_ARCH\_BW\_TECH\_FILENAME

Archive File Size

Maximum Size in MB:

Maximum Number of Data Objects:

Settings for Delete Program

Test Mode Variant: SAP&TEST Variant

Live Mode Variant: SAP&PROD Variant

Delete Jobs

☐ Not Scheduled

☒ Start Automatically

☐ After Event

Event:

Parameter:

Place File in Storage System

Content Repository:

☐ Start Automatically

Sequence

☒ Delete Before Storing

☐ Store Before Deleting

☐ Delete Program Reads from Storage System

We can check the physical file path in 'FILE' transaction or using the FM 'FILE\_GET\_NAME'. Execute the FM and provide the file path to get the physical file paths.

**Test Function Module: Result Screen**

Test for function group: SFIL

Function module: FILE\_GET\_NAME

Uppercase/Lowercase: ☐

Runtime: 2.270 Microseconds

| Import parameters       | Value                   |
|-------------------------|-------------------------|
| CLIENT                  | 400                     |
| LOGICAL_FILENAME        | Z_ARCH_BW_TECH_FILENAME |
| OPERATING_SYSTEM        | AIX                     |
| PARAMETER_1             |                         |
| PARAMETER_2             |                         |
| PARAMETER_3             |                         |
| USE_PRESENTATION_SERVER |                         |
| WITH_FILE_EXTENSION     |                         |
| USE_BUFFER              |                         |
| ELEMINATE_BLANKS        | X                       |
| INCLUDING_DIR           |                         |

| Export parameters | Value                                        |
|-------------------|----------------------------------------------|
| EMERGENCY_FLAG    |                                              |
| FILE_FORMAT       | ASC                                          |
| FILE_NAME         | /saparchive/WBQ/archive_0717_134507.INAT1258 |

File name = [Folder]/"archive\_"[MMDD]"\_"[HHMMSS].[UserID]

[Folder] = /saparchive/technical in WBP

## Background Jobs

Ensure the background jobs stopped (including process chains) before the archiving process gets started

Others!?

Is the Central Repository for storage maintained using the SAP Content Management Infrastructure? Need to check on this aspect.

Are the deletion program variants maintained?

Is the maximum archive file size correctly set?

Is the deletion program to run automatically?

Have authorization to archive data?

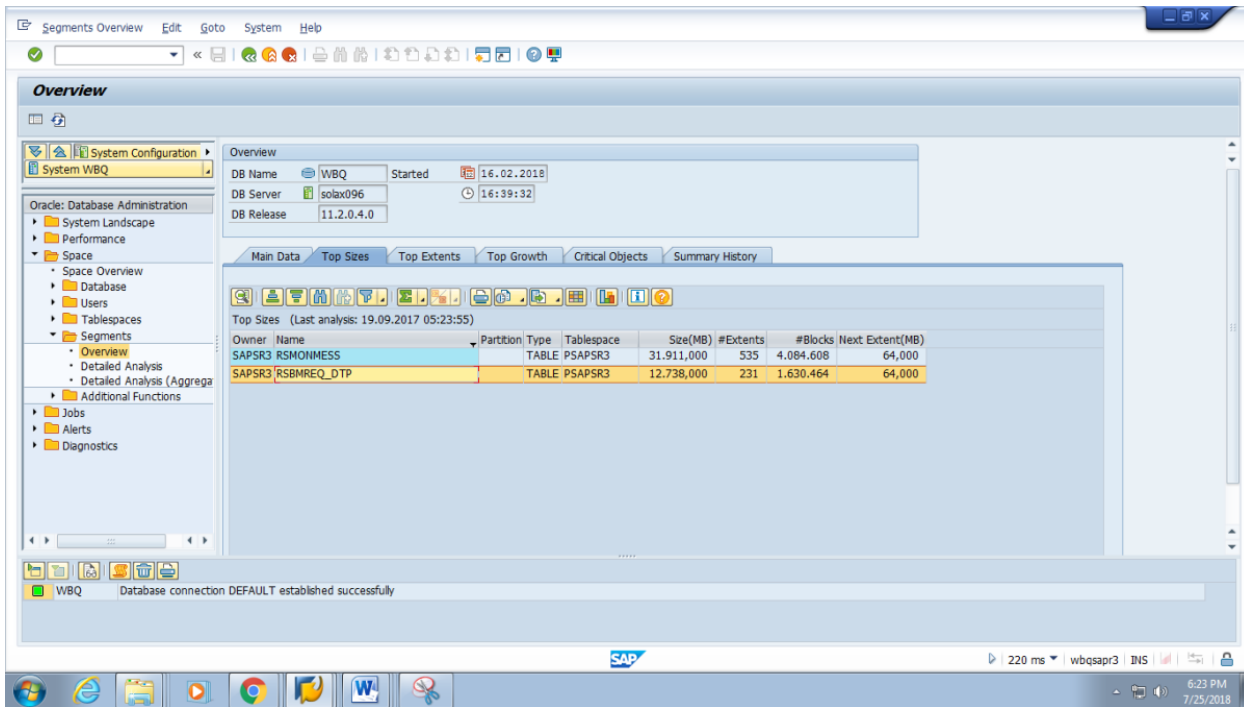
Are enough locks exists in the system?

## Capture before image of the admin tables

Execute the program ZTECH\_TABLES\_REC\_CNT to get the before image of the admin tables i.e. get the record count of the admin tables.

| <b>Admin tables record count - Archiving Object 'BWREQARCH'</b>                     |      |                   |
|-------------------------------------------------------------------------------------|------|-------------------|
| Records count of admin tables in system <b>WBQ</b> as on <b>25.07.2018 13:23:17</b> |      |                   |
| Total no of records in the table RSBMONMESS                                         |      | <b>27.330.128</b> |
| Record count of table RSBMONMESS based on year                                      |      |                   |
|                                                                                     | 2001 | 0                 |
|                                                                                     | 2002 | 0                 |
|                                                                                     | 2003 | 0                 |
|                                                                                     | 2004 | 0                 |
|                                                                                     | 2005 | 0                 |
|                                                                                     | 2006 | 0                 |
|                                                                                     | 2007 | 0                 |
|                                                                                     | 2008 | 52.987            |
|                                                                                     | 2009 | 580.680           |
|                                                                                     | 2010 | 1.209.361         |
|                                                                                     | 2011 | 4.495.345         |
|                                                                                     | 2012 | 6.099.038         |
|                                                                                     | 2013 | 7.386.203         |
|                                                                                     | 2014 | 4.597.628         |
|                                                                                     | 2015 | 687.013           |
|                                                                                     | 2016 | 1.177.118         |
|                                                                                     | 2017 | 903.347           |
|                                                                                     | 2018 | 141.408           |
| Total no of records in the table RSREQDONE                                          |      |                   |
|                                                                                     |      | 5.590.404         |
| Total no of records in the table RSSELDONE                                          |      |                   |
|                                                                                     |      | 4.079.436         |
| Total no of records in the table RSLDIDONE                                          |      |                   |
|                                                                                     |      | 14.458.378        |
| Total no of records in the table RSCRIDONE                                          |      |                   |
|                                                                                     |      | 0                 |
| Total no of records in the table RSDELDONE                                          |      |                   |
|                                                                                     |      | 65.361            |
| Total no of records in the table RSHIEDONE                                          |      |                   |
|                                                                                     |      | 146.604           |
| Total no of records in the table RSRULEDONE                                         |      |                   |
|                                                                                     |      | 10.911.299        |
| Total no of records in the table RSMONMESS                                          |      |                   |
|                                                                                     |      | 205847.541        |
| Total no of records in the table RSMONFACT                                          |      |                   |
|                                                                                     |      | 20.991.090        |
| Total no of records in the table RSUICDONE                                          |      |                   |
|                                                                                     |      | 3.376.113         |
| Total no of records in the table RSTCPDONE                                          |      |                   |
|                                                                                     |      | 0                 |
| Total no of records in the table RSMONICTAB                                         |      |                   |
|                                                                                     |      | 2.751.499         |
| Total no of records in the table RSMONIPTAB                                         |      |                   |
|                                                                                     |      | 31.570.259        |
| Total no of records in the table RSMONRQTAB                                         |      |                   |
|                                                                                     |      | 2.110.529         |
| Total no of records in the table RSBMLOGPAR                                         |      |                   |
|                                                                                     |      | 25.663.477        |
| Total no of records in the table RSBMNODES                                          |      |                   |
|                                                                                     |      | 76.553.457        |
| Total no of records in the table RSBMONMESS_DTP                                     |      |                   |
|                                                                                     |      | 80.132.068        |
| Total no of records in the table RSBMLOGPAR_DTP                                     |      |                   |
|                                                                                     |      | 69.090.977        |
| Total no of records in the table RSBMREQ_DTP                                        |      |                   |
|                                                                                     |      | 211752.043        |
| The admin tables records count recorded successfully                                |      |                   |

## Capture before image of DB02



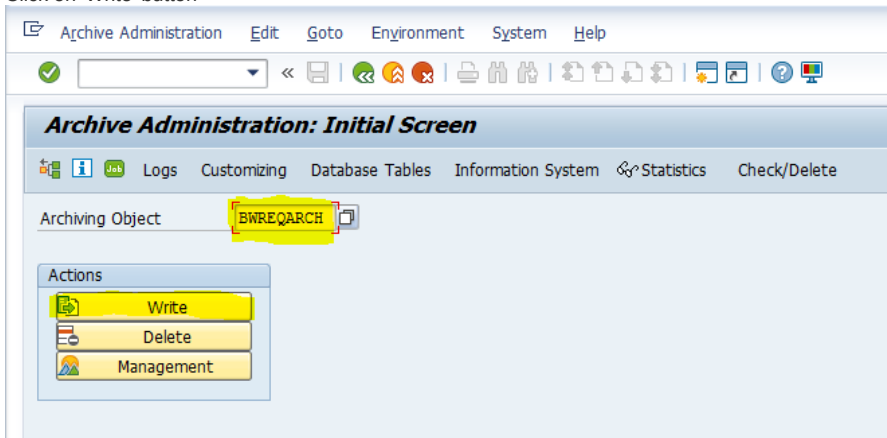
## Step by step process

There are two steps involved while performing the archiving.

1. Write data to archive files
2. Delete the archived data from the respective tables

### 1. Write data to archived files

Go to T-code 'SARA' and provide the archiving object name as 'BWREQARCH'  
Click on 'Write' button



We need to create a variant for the data archival process i.e. selection parameters which specifies what data to be written on files.  
Click on the 'Maintain' button then provide the new variant name and click on 'Create' button

**Archive Administration: Create Archive Files**

Archive Directory Customizing Management

Archiving of Request Administration Data

Variant:  Maintain

User Name: INAT1258

Start Date:  Not Maintained

Spool Params.:  Not Maintained

ABAP: Variants

Create variant: ZV\_2008\_Q1

Create

As shown below check the option and click 'Continue' button

Variants: Change Screen Assignment

☐ For All Selection Screens

☒ For Indiv. Selection Screens

| Created for Selection Screens       |        |             |
|-------------------------------------|--------|-------------|
| Created                             | Number | Ty.         |
| <input checked="" type="checkbox"/> | 1000   | Full screen |
| <input type="checkbox"/>            |        |             |
| <input type="checkbox"/>            |        |             |
| <input type="checkbox"/>            |        |             |
| <input type="checkbox"/>            |        |             |

Continue

Provide the date range if a specific period of data to archive else just provide the value in the field 'Request Older than (months)'. Choose the radio button 'Only Archive New Requests' if we want to archive the new data (which was not archived before); Choose 'Only Reloaded Requests' if we want to archive the reloaded requests (i.e. Archived data which was reloaded); Choose 'Archive All Requests' if we want to archive both the new and reloaded data.

Let the Min. Number Requests remain '1000' i.e. If the no requests to be archived be more than 1000 else the archiving won't start.

Check the button 'With DTP Requests' as we also archive the DTP requests.

For a simulation run then select the radio button 'Test Run' and select 'Production Mode' for the archiving the data

**Edit Variants: Variant ZV\_2008\_Q1**

**Restrictions**

Selection Date of Request 01.01.2008 to 31.03.2008
Requests Older than (Months) 3
☒ Only Archive New Requests
☐ Only Reloaded Requests
☐ Archive All Requests
Min. Number Requests 1000
☒ With DTP Requests
Exclude DataSources

For more information, see SAP Note 950612 or here:

**Processing Options**

☐ Test Mode
☒ Production Mode
☒ Delete with Test Variant

Detail Log No Detail Log
Log Output List
Archiving Session Note

### Restriction (Note 950612)

**Selection Date of Request:** The program for choosing the requests in ascending order, it selects from the most recent request to all requests in the field "Selection date of requests" that have not yet been archived (if this selection remains empty, all requests are selected). It is better to identify each year to identify the log file later when we want to reload.

**Requests Older than:** This field must contain at least a "1" for a month. Months are always calculated with 31 days.

If the button "Only Archive New Requests" is set, requests that were archived once before but were then reloaded from the archive are not archived again. If the button "Only Archive Reloaded Requests" is set, ONLY those requests that have already been archived once and reloaded again are archived. The button set to "Archive All Requests" archives all the requests that are not currently archived, regardless of whether these were already archived once and were reloaded again or not.

We recommend that you set the button "Only Archive New Requests" for initial archiving because after several months you can check whether archived requests had to be reloaded again.

**Min. Number Requests:** An archive is only created if the report finds at least this number of requests that it can archive.

The report collects the first 10,000 requests that meet the criteria and archives them. The report then stops.

This guarantees that an archive does not have too many requests. We do NOT recommend that you set the parameter "Min. Number Requests" to a value lower than 1,000. If you have too many requests, you should set the parameter to 9,999.

 **Caution:** You must save all requests that you want to archive in transaction SM12. This means that an enqueue lock is set for each request before it can be written to the archive.

Therefore, you must set the BW so that at least 12000 enqueues can be set or created at the same time.

If there is not enough memory for the enqueues (not enough can be allocated), then the process hangs.

## Delete with Test Variant

If this indicator is set, the delete program of the archiving object will be started with the test mode variant that was specified in the archiving-object-specific customizing. You can set the customizing of the variant so that the delete program will be run in the test mode. No data will be deleted from the database, because deletion is only simulated. The program will generate statistics about the table entries that would be deleted from the database in the production mode.

If the indicator is not set, the delete program will be started with the production mode variant that was specified in the archiving-object-specific customizing. You can set the customizing of the variant so that the delete program will be run in the production mode and the program will delete the archived data from the database. It will also generate statistics about the table entries that were deleted.





The spool output will give the detail how many records and size to be written and deleted.

## 2. Delete the archived data from the respective tables

Go to t-code 'SARA' and click on 'Delete' button (Do not do if uncheck on option "Delete with Test Variant"), The deletion job will start after write job complete)

**Archive Administration: Initial Screen**

Customizing | Job | Logs | Customizing | Database Tables | Information System | Statistics | Check/Delete

Archiving Object: **BNREQARCH** Archiving of Request Administration Data

Actions

- Write
- Delete
- Management

Maintain the Archive Selections, Start Date & Spool Parameters.

**Archive Administration: Execute Delete Program**

Customizing | Management | Database Tables | Information System

Archiving of Request Administration Data

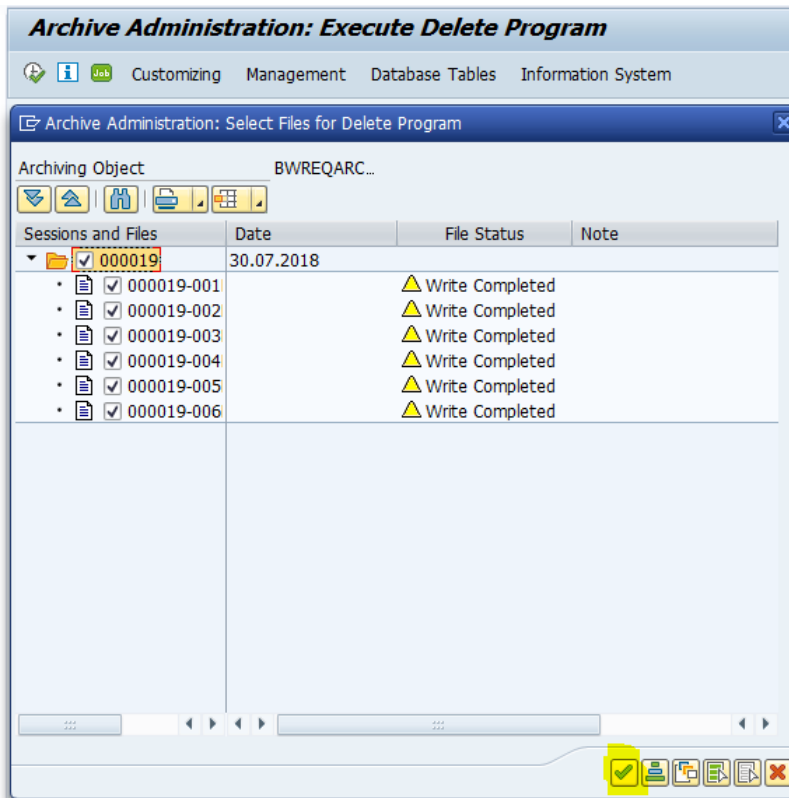
User Name: **INAT1258**

☐ Test Mode

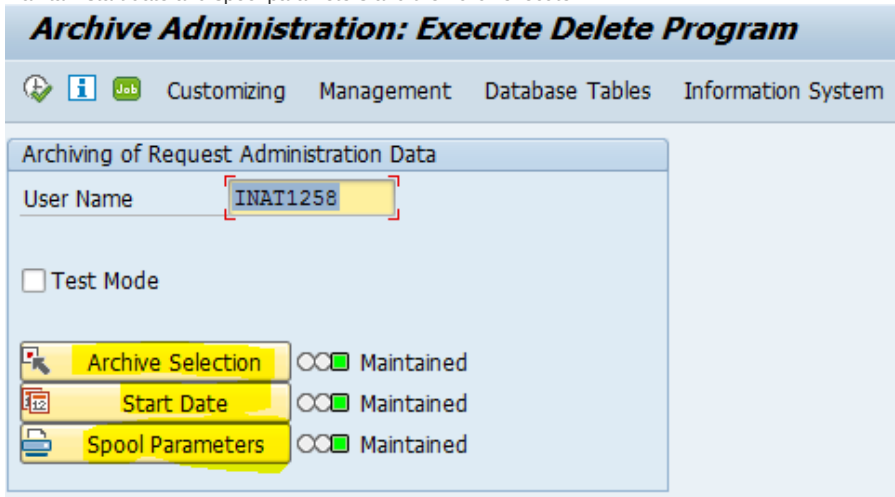
Archive Selection ☒ Not Maintained

Start Date ☐ Preset

Spool Parameters ☐ Preset



Maintain start date and spool parameters and then click execute.



Check logs

## Job Overview

Refresh Release Spool Job log Step Application servers

Job overview from: 30.07.2018 at: : :

to: 30.07.2018 at: : :

Selected job names: ARV\_BWREQARCH\_\*

Selected user names: INAT1258

☐ Scheduled ☒ Released ☒ Ready ☒ Active ☒ Finished ☒ Canceled

☐ Event controlled Event ID:

☐ ABAP program Program name :

| JobName                                                  | Spool | Job doc | Job CreatedB | Status   | Start date | Start time | Duration(sec.) | Delay (sec.) |
|----------------------------------------------------------|-------|---------|--------------|----------|------------|------------|----------------|--------------|
| <input type="checkbox"/> ARV_BWREQARCH_SUB20180730140758 |       |         | INAT1258     | Finished | 30.07.2018 | 14:07:58   | 0              | 0            |
| <input type="checkbox"/> ARV_BWREQARCH_WRI20180730140758 |       |         | INAT1258     | Finished | 30.07.2018 | 14:07:58   | 402            | 0            |
| <input type="checkbox"/> ARV_BWREQARCH_DEL20180730141438 |       |         | INAT1258     | Finished | 30.07.2018 | 14:14:38   | 78             | 0            |
| <input type="checkbox"/> ARV_BWREQARCH_DEL20180730141438 |       |         | INAT1258     | Finished | 30.07.2018 | 14:14:38   | 52             | 0            |
| <input type="checkbox"/> ARV_BWREQARCH_DEL20180730141438 |       |         | INAT1258     | Finished | 30.07.2018 | 14:14:38   | 29             | 0            |
| <input type="checkbox"/> ARV_BWREQARCH_DEL20180730141438 |       |         | INAT1258     | Finished | 30.07.2018 | 14:14:39   | 101            | 0            |
| <input type="checkbox"/> ARV_BWREQARCH_DEL20180730141439 |       |         | INAT1258     | Finished | 30.07.2018 | 14:14:39   | 72             | 0            |
| <input type="checkbox"/> ARV_BWREQARCH_DEL20180730141439 |       |         | INAT1258     | Finished | 30.07.2018 | 14:14:39   | 3              | 0            |
| <input type="checkbox"/> ARV_BWREQARCH_DEL20180730142840 |       |         | INAT1258     | Finished | 30.07.2018 | 14:28:40   | 261            | 0            |
| <input type="checkbox"/> ARV_BWREQARCH_DEL20180730142840 |       |         | INAT1258     | Finished | 30.07.2018 | 14:28:40   | 116            | 0            |
| <input type="checkbox"/> ARV_BWREQARCH_DEL20180730142840 |       |         | INAT1258     | Finished | 30.07.2018 | 14:28:40   | 244            | 0            |
| <input type="checkbox"/> ARV_BWREQARCH_DEL20180730142840 |       |         | INAT1258     | Finished | 30.07.2018 | 14:28:40   | 315            | 0            |
| <input type="checkbox"/> ARV_BWREQARCH_DEL20180730142840 |       |         | INAT1258     | Finished | 30.07.2018 | 14:28:40   | 177            | 0            |
| <input type="checkbox"/> ARV_BWREQARCH_DEL20180730142840 |       |         | INAT1258     | Finished | 30.07.2018 | 14:28:40   | 6              | 0            |
| *Summary                                                 |       |         |              |          |            |            | 1.856          | 0            |

Click on management & Statistics to check the load status & overall statistics.

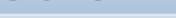
## Archive Administration: Overview of Archiving Sessions

Job Logs Spool List Storage System Customizing Database Tables Information System Statistics

Archiving object BWREQARCH... Archiving of Request Administration Data

| Sessions and Files for Archiving Object | Note |
|-----------------------------------------|------|
| ▼  Archiving Sessions with Errors       |      |
| ▶ 18 (30.07.2018)                       |      |
| ▼  Complete Archiving Sessions          |      |
| ▼ 12 - 19 (20.02.2009 - 30.07.2018)     |      |
| ▼ 19 - 30.07.2018                       |      |
| •  000019-001BWREQARCH                  |      |
| •  000019-002BWREQARCH                  |      |
| •  000019-003BWREQARCH                  |      |
| •  000019-004BWREQARCH                  |      |
| •  000019-005BWREQARCH                  |      |
| •  000019-006BWREQARCH                  |      |
| ▶ 15 - 26.02.2009                       |      |
| ▶ 14 - 26.02.2009                       |      |
| ▶ 13 - 23.02.2009                       |      |
| ▶ 12 - 20.02.2009                       |      |
| ▼  Invalid Archiving Sessions           |      |
| ▶ 16 - 17 (25.07.2018 - 25.07.2018)     |      |

Check the files on AL11.

| Directory: /saparchive/technical                                                  |         |          |                |        |            |            |                                   |
|-----------------------------------------------------------------------------------|---------|----------|----------------|--------|------------|------------|-----------------------------------|
|  |         |          |                |        |            |            |                                   |
| Useable                                                                           | View... | Chang... | Length of file | Owner  | Lastchange | Lastchange | File Name                         |
|                                                                                   |         |          | 4096           | wbqadm | 30.07.2018 | 14:14:37   | .                                 |
|                                                                                   |         |          | 256            | wbqadm | 12.06.2018 | 09:39:03   | ..                                |
| X                                                                                 |         |          | 1987307        | wbqadm | 30.07.2018 | 14:09:25   | archive_BW_0730_0.140828.INAT1258 |
| X                                                                                 |         |          | 12069075       | wbqadm | 30.07.2018 | 14:11:03   | archive_BW_0730_0.140927.INAT1258 |
| X                                                                                 |         |          | 10937104       | wbqadm | 30.07.2018 | 14:12:15   | archive_BW_0730_0.141103.INAT1258 |
| X                                                                                 |         |          | 11792670       | wbqadm | 30.07.2018 | 14:13:32   | archive_BW_0730_0.141215.INAT1258 |
| X                                                                                 |         |          | 10241501       | wbqadm | 30.07.2018 | 14:14:37   | archive_BW_0730_0.141332.INAT1258 |
| X                                                                                 |         |          | 26641          | wbqadm | 30.07.2018 | 14:14:38   | archive_BW_0730_0.141437.INAT1258 |

### 3. Reload archive file

1. Run program RSREQARCH\_RELOAD (or manage files by tcode RSREQARCH)
2. Select Test or Production mode
3. Select the archive files that want to reload (only the file available to be reloaded)

Archive Administration: Select Files for Reload Program

Archiving Object: BWREQARC...

Sessions and Files

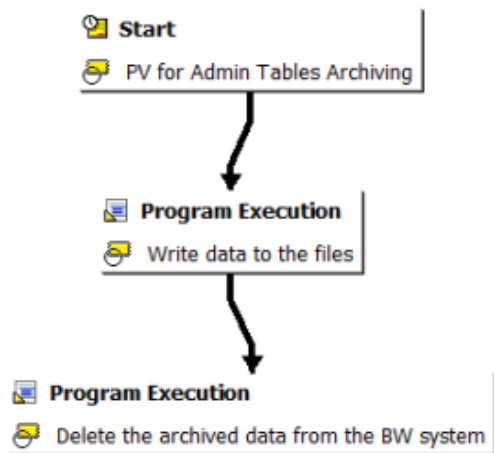
| Sessions and Files                | Date       |
|-----------------------------------|------------|
| • <input type="checkbox"/> 001785 | 03.02.2021 |
| • <input type="checkbox"/> 001784 | 03.02.2021 |
| • <input type="checkbox"/> 001783 | 02.02.2021 |
| • <input type="checkbox"/> 001782 | 02.02.2021 |
| • <input type="checkbox"/> 000028 | 05.02.2009 |
| •   000026                        | 04.02.2009 |

⚠ It is important to archive files with variants to be clear of the period of archive since the file can't identify the data inside. We must record the session ID + archive date in order to identify the date of the log by file name.

For example, archive session file 26-18 is the 2008 log and 1782-1785 is 2013 log

## How to archive by process chain

Process chain PC AAT 01 (Admin Tables Archiving) includes 2 programs that are the same as tcode SARA.



1. To archive data, which use program RSREQARCH\_WRITE with variant ZV\_2014\_ALL (it must be changed the date before run the PC)
2. To delete data, which use program RSREQARCH\_DELETE with variant SAP&PROD (no need to change - only mark production mode)However, we need change variant manually.

## Reference SAP Notes

| SAP NOTE    | SHORT TEXT – remark                                                                                                                                                                                                    |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1812<br>238 | Archive File Not Accessible" in SARA (no backup available)                                                                                                                                                             |
| 9506<br>12  | P9; request archiving: Archiving multiple requests as initial                                                                                                                                                          |
| 2177<br>801 | provides report RSREQARCH_DTP_CONDENSE_LOGS in order to delete after the 'normal' archiving, more records of table RSBMONMESS_DTP, RSBMREQ_DTP, and RSBMLOGPAR_DTP, correction of SAP Note 2239379 should be available |
| 2346<br>654 | report RSREQARCH_CHECK_DEL_OBS_MESS                                                                                                                                                                                    |

## Reference Links

[https://help.sap.com/saphelp\\_erp60\\_sp/helpdata/en/42/ea99e6b2161bc9e10000000a11466f/content.htm?no\\_cache=true](https://help.sap.com/saphelp_erp60_sp/helpdata/en/42/ea99e6b2161bc9e10000000a11466f/content.htm?no_cache=true)  
[https://help.sap.com/saphelp\\_erp60\\_sp/helpdata/en/4d/8c8487910b154ee10000000a42189e/frameset.htm](https://help.sap.com/saphelp_erp60_sp/helpdata/en/4d/8c8487910b154ee10000000a42189e/frameset.htm)  
<https://wiki.scn.sap.com/wiki/display/BI/Reduce+BW+Request+Administration+Tables>
<https://wiki.scn.sap.com/wiki/display/BI/Archiving+Request+Information+in+BW>