

Installation Notes

This section describes the contents of the distribution tape and the Software AG product prerequisites.

This chapter covers the following topics:

- Distribution of ASF
 - Contents of the Distribution Tape
 - Installing the Release Tape
 - Software AG Product Prerequisites
 - Environment Planning
 - Disk Space Requirements for the System Files
-

Distribution of ASF

This document refers only to dataset names, so the information presented here is applicable to each type of tape.

Note:

Most parts of the ASF installation can be performed with Software AG's System Maintenance Aid (SMA). Refer to the SMA documentation for more details.

Contents of the Distribution Tape

Data Set Name	Contents	Format
ASFvrs.INPL	ASF programs and messages.	INPL/OBJH
ASFvrs.SYS1	ASF-DATA	ADALOD
ASFvrs.SYS2	ASF-PROFILES (Profiles and Help Texts)	ADALOD
ASFvrs.HELP	ASF-PROFILES (Help Texts for upgrade installation only.)	ADALOD
ASFvrs.JOBS	ASF Installation Jobs (z/OS and BS2000/OSD only)	SOURCE
ASFvrs.LIBJ	ASF Installation Jobs (z/VSE only)	SOURCE
ASFvrs.TAPE	ASF Installation Jobs (z/VM only)	SOURCE

(v = version, r = release, s = SM level)

Installing the Release Tape

Following operating systems are supported:

- Installing the Release Tape on z/OS
- Installing the Release Tape on z/VM
- Installing the Release Tape on z/VSE
- Installing the Release Tape on BS2000/OSD

Installing the Release Tape on z/OS

This section explains how to:

- Copy data set COPY.JOB from tape to disk.
- Modify the data set according to your local naming conventions.

You can use the modified data set to copy all data sets from tape to disk. You will then need to perform the individual install procedure for each component.

Note:

If you are using SMA, please refer to the chapter Installing Software AG Products with SMA in the System Maintenance Aid documentation. If you are not using SMA, please follow the instructions below.

- Step 1a: Copy Data Set COPY.JOB from Tape to Disk (SMA Job Number Tnnn).
- Step 1b: Modify COPY.JOB to Local Naming Conventions.
- Step 1c: Submit COPY.JOB.

Step 1a: Copy Data Set COPY.JOB from Tape to Disk (SMA Job Number Tnnn)

The data set COPY.JOB (label 2) contains the JCL to unload all other existing data sets from tape to disk. To unload COPY.JOB, use the following sample JCL:

```
//SAGTAPE JOB SAG,CLASS=1,MSGCLASS=X
//* - - - - -
//COPY EXEC PGM=IEBGENER
//SYSUT1 DD DSN=COPY.JOB,
// DISP=(OLD,PASS),
// UNIT=(CASS,,DEFER),
// VOL=(,RETAIN,SER=<Tnnnnn>),
// LABEL=(2,SL)
//SYSUT2 DD DSN=<hilev>.COPY.JOB,
// DISP=(NEW,CATLG,DELETE),
// UNIT=3390,VOL=SER=<vvvvvv>,
// SPACE=(TRK,(1,1),RLSE),
// DCB=*.SYSUT1
//SYSPRINT DD SYSOUT=*
//SYSIN DD DUMMY
//
```

where

- *<hilev>* is a valid high level qualifier.
- *<Tnnnnn>* is the tape number.
- *<vvvvvv>* is the desired volser.

Step 1b: Modify COPY.JOB to Local Naming Conventions

There are three parameters to set before you can submit this job:

- Set HILEV to a valid high level qualifier.
- Set LOCATION to a storage location.
- Set EXPDT to a valid expiration date.

Step 1c: Submit COPY.JOB

Submit COPY.JOB to unload all other data sets from tape to your disk.

Installing the Release Tape on z/VM

To position the tape for the TAPE LOAD command, calculate the number of tape marks as follows:

1. If the sequence number of ASFnnn.TAPE, as shown by the Report of Tape Creation, is n, you must position over $3n - 2$ tape marks (that is, FSF 1 for the first dataset, FSF 4 for the second, etc.).
2. Access the disk that is to contain the ASF installation files as disk "A" or use the Shared File System (SFS).
3. Ask the system operator to attach a tape drive to your virtual machine at address X'181' and mount the ASFnnn installation tape.
4. Position the tape by issuing the CMS command:

```
TAPE FSF fsfs
```

where fsfs is the number of tape marks and is calculated as described above.

5. Load the ASF installation material by issuing the CMS command:

```
TAPE LOAD * * A
```

6. Keep the tape drive attached to your virtual machine, because the tape is still needed during the installation procedure.

Installing the Release Tape on z/VSE

This section explains how to:

- Copy data set COPY.JOB from tape to disk.
- Modify this member according to your local naming conventions.

The JCL in this member is then used to copy all data sets from the tape to disk.

If the data sets for more than one product are delivered on the tape, the member COPYTAPE.JOB contains JCL to unload the data sets for all delivered products from the tape to your disk, except the data sets that you can directly install from tape, for example, INPL objects.

You can use the modified data set to copy all data sets from tape to disk. You will then need to perform the individual install procedure for each component.

Note:

If you are using SMA, please refer to Installing Software AG Products with SMA in the System Maintenance Aid documentation. If you are not using SMA, please follow the instructions below.

- Step 1: Copy Data Set COPYTAPE.JOB from Tape to Disk.
- Step 2: Modify COPYTAPE.JOB.
- Step 3: Submit COPYTAPE.JOB.

Step 1: Copy Data Set COPYTAPE.JOB from Tape to Disk

The data set COPYTAPE.JOB (file 5) contains the JCL to unload all other existing data sets from tape to disk. To unload COPYTAPE.JOB, use the following sample JCL:

```
* $$ JOB JNM=LIBRCAT,CLASS=0, +
* $$ DISP=D,LDEST=(*,UID),SYSID=1
* $$ LST CLASS=A,DISP=D
// JOB LIBRCAT
* *****
* CATALOG COPYTAPE.JOB TO LIBRARY
* *****
// ASSGN SYS004,nnn <----- tape address
// MTC REW,SYS004
// MTC FSF,SYS004,4
ASSGN SYSIPT,SYS004
// TLBL IJSYSIN,'COPYTAPE.JOB'
// EXEC LIBR,PARM='MSHP; ACC S=lib.sublib' <----- for catalog
/*
// MTC REW,SYS004
ASSGN SYSIPT,FEC
/*
/&
* $$ EOJ
```

where *nnn* is the tape address, and *lib.sublib* is the library and sublibrary of the catalog.

Step 2: Modify COPYTAPE.JOB

Modify COPYTAPE.JOB to conform with your local naming conventions and set the disk space parameters before submitting this job.

Step 3: Submit COPYTAPE.JOB

Submit COPYTAPE.JOB to unload all other data sets from the tape to your disk.

Installing the Release Tape on BS2000/OSD

Release tapes available to Software AG affiliates contain all Adabas product options. The affiliates use these release tapes to create custom installation tapes for customers according to contract agreements.

For specific information about your particular release tape, refer to the Installation Notes delivered with the installation tape.

- Installation Using SMA
- Installation Not Using SMA

Installation Using SMA

If you are installing Adabas using the Software AG System Maintenance Aid (SMA), refer to the *System Maintenance Aid* documentation and to the information provided with the installation tape for specific installation instructions.

Installation Not Using SMA

If you are not using SMA, copy the data sets from tape to disk using the procedure described below:

- Step 1: Copy the Library SRVnnn.LIB from Tape to Disk.
- Step 2: Copy the Procedure COPY.PROC from Tape to Disk.
- Step 3: Copy all Product Files from Tape to Disk.

Step 1: Copy the Library SRVnnn.LIB from Tape to Disk

Note:

This step is not necessary if you have already copied the library SRVnnn.LIB from another Software AG tape. For more information, refer to the element #READ-ME in this library.

The library SRVnnn.LIB is stored on the tape as the sequential file SRVnnn.LIBS containing LMS commands. The current version *nnn* can be obtained from the Report of Tape Creation. To convert this sequential file into an LMS library, execute the following commands:

```
/IMPORT-FILE SUPPORT=*TAPE(FILE-NAME=SRVnnn.LIBS, -
/ VOLUME=<volser>, DEV-TYPE=<tape-device>)
/ADD-FILE-LINK LINK-NAME=EDTSAM, FILE-NAME=SRVnnn.LIBS, -
/ SUPPORT=*TAPE(FILE-SEQ=3), ACC-METH=*BY-CAT, -
/ BUF-LEN=*BY-CAT, REC-FORM=*BY-CAT, REC-SIZE=*BY-CAT
/START-EDT
@READ '/'
@SYSTEM 'REMOVE-FILE-LINK EDTSAM'
@SYSTEM 'EXPORT-FILE FILE-NAME=SRVnnn.LIBS'
@WRITE 'SRVnnn.LIBS'
@HALT
/ASS-SYSDTA SRVnnn.LIBS
```

```
/MOD-JOB-SW ON=1
/START-PROG $LMS
/MOD-JOB-SW OFF=1
/ASS-SYSDTA *PRIMARY
```

<*tape-device*> = device type of the tape, for example, TAPE-C4.

<*volser*> = VOLSER of tape (see Report of Tape Creation).

Step 2: Copy the Procedure COPY.PROC from Tape to Disk

Call the procedure P.COPYTAPE in the library SRV*nnn*.LIB to copy the procedure COPY.PROC to disk:

```
/CALL-PROCEDURE (SRVnnn.LIB,P.COPYTAPE), -
/ (VSNT=<volser>, DEVT=<tape-device>)
```

If you use a TAPE-C4 device, you can omit the parameter DEVT.

Step 3: Copy all Product Files from Tape to Disk

Enter the procedure COPY.PROC to copy all Software AG product files from tape to disk:

```
/ENTER-PROCEDURE COPY.PROC, DEVT=<tape-device>
```

If you use a TAPE-C4 device, you can omit the parameter DEVT. The results of this procedure are written to the file L.REPORT.SRV.

Software AG Product Prerequisites

The following environment is required to install ASF:

- Adabas Version 7 or above.
- Natural Version 4.2 or above.
- Adabas Online Services.

Environment Planning

We recommend you to install ASF in a central service database containing service programs for the whole Adabas environment.

Disk Space Requirements for the System Files

The following examples show the calculation of disk requirements for ASF-DATA and ASF-PROFILES. Also the minimum disk requirements for the Natural system file are listed.

The values shown are for a 3390 disk, on which the DATA block size is 4820 bytes and the ASSO block size is 2004 bytes. The RABNSIZE is 3. The block sizes of DATA and ASSO on all supported disks, as well as the cylinder size of the disks, are listed in Appendix A of the *Adabas Operations* documentation.

You can use the AOS "space calculation" function for the calculation of your own disk requirements.

This section covers the following topics:

- ASF-DATA:
- ASF-PROFILES:
- Natural System File: Minimum Requirements

ASF-DATA:

For the calculation of MAXISN and the required disk space, it is important to note that the following Nucleus information is stored in ASF-DATA:

- A record is created for every database
- An additional record is created for every file

Example 1: One database with 50 files, data is stored once per day over a period of 1 year:

The number of records created is $(1 \text{ database} + 50 \text{ files}) * 365 \text{ days} = 18615 \text{ records}$. Therefore MAXISN can be set to 18615. The average compressed record length is 400 bytes, and the padding factor is 3%. The number of different values per record is 1, so the number of different values in the file is 18615. The average length of the descriptor value is 84 bytes.

Area	Size (blocks)	Size (cylinders)
AC	28	1
NI	853	3
UI	42	1
DS	1693	11

Example 2: Ten databases, each with 50 files, data is stored 3 times per day over a period of 1 year:

The number of records created is $(10 \text{ databases} + 10 * 50 \text{ files}) * 3 \text{ stores per day} * 365 \text{ days} = 558450 \text{ records}$. Therefore MAXISN can be set to 558450. The average compressed record length is 400 bytes, and the padding factor is 3%. The number of different values per record is 1, so the number of different values in the file is 558450. The average length of the descriptor value is 84 bytes.

Area	Size (blocks)	Size (cylinders)
AC	837	3
NI	25569	74
UI	1209	5
DS	50769	309

ASF-PROFILES:

This file is used for storing profile information. For each profile, 10 records are generated. The maximum length of a record before compression is 3600 bytes.

Example 1: Ten profiles, each referencing 10 databases:

There are 10 profiles, so MAXISN is $10 * 10 = 100$. The average compressed record length is 100 bytes, and the padding factor is 3%. The number of different values in the file is 400. The average length of the descriptor value is 38 bytes.

Area	Size (blocks)	Size (cylinders)
AC	1	1
NI	9	1
UI	2	1
DS	1	1

Example 2: One hundred profiles, each referencing 10 databases:

There are 100 profiles, so MAXISN is $100 * 10 = 1000$. The average compressed record length is 100 bytes, and the padding factor is 3%. The number of different values in the file is 4000. The average length of the descriptor value is 38 bytes.

Area	Size (blocks)	Size (cylinders)
AC	2	1
NI	84	1
UI	3	1
DS	1	1

Natural System File: Minimum Requirements

ASF requires the following additional disk space in the Natural System File:

Area	Size (blocks)
UI	15
NI	280
DS	2000

The value of TOPISN must also be increased by 8500.