System Maintenance Aid

Installing System Maintenance Aid

Version 2.1.2

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This document applies to System Maintenance Aid Version 2.1.2.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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1 Installing System Maintenance Aid

This section describes how to install SMA.

SMA is an application completely written in Natural and the SMA data is stored in an Adabas database. Therefore, both Adabas and Natural must be installed prior to installing and using SMA.

If Adabas and Natural are already installed at your site, proceed to section **Install System Maintenance Aid**.

If Adabas and Natural are *not* already installed at your site, proceed to section **Install SMA Using SMA Starter System for z/OS.**

2 Install System Maintenance Aid

This section describes how to install SMA and assumes that Adabas and Natural have already been previously installed.

SMA is an application completely written in Natural. SMA data is stored in an Adabas database.

SMA can be installed easily into an existing Adabas/Natural environment.

Prerequisites

SMA requires the following Software AG products:

- Natural Version 4.1.3 or above
- Adabas Version 7.1.3 or above

Copying Data Sets from the Installation Medium

Installation Medium

The product installation medium (e.g., tape or CD-ROM) contains the data sets listed in the table below. The sequence of the data sets is shown in the *Software AG Product Delivery Report* which accompanies the installation medium.

Data Set	Description
SMA*vrs*.INPL	SMA programs
SMA*vrs*.ERRN	SMA error messages
SMA*vrs*.SYSF	SMA system file
SMA*vrs*.JOBS	Library with SMA example jobs (z/OS and BS2000/OSD)
SMA*vrs*.LIBJ	Sublibrary with SMA example jobs (z/VSE only)

The notation *vrs* in data set names represents the version number of the product.

The data set type and the space each data set requires on disk is shown in the *Software AG Product Delivery Report*.

Copying Data Sets to Disk under z/OS

Copy the data sets from the supplied installation medium to your disk before you perform the individual installation procedure for each component to be installed.

The way you copy the data sets depends on the installation method and the medium used:

- If you are already using SMA, refer to the section *Installing Software AG Products with SMA*.
- If you are not using SMA and want to copy the data sets from CD-ROM, refer to the README.TXT file on the CD-ROM.
- If you are not using SMA and want to copy the data sets from tape, follow the instructions in this section.

This section explains how to copy all data sets from tape to disk.

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

- Modify the following sample job according to your requirements:

```
//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=tape-volser),
// LABEL=(2,SL)
//SYSUT2 DD DSN=hilev.COPY.JOB,
// DISP=(NEW,CATLG,DELETE),
// UNIT=3390,VOL=SER=disk-volser,
// SPACE=(TRK,(1,1),RLSE),
// DCB=*.SYSUT1
//SYSPRINT DD SYSOUT=*
//SYSIN DD DUMMY
//
```

  where:

  tape-volser is the VOLSER of the tape, for example: `T12345`,
  hilev is a valid high-level qualifier, and
  disk-volser is the VOLSER of the disk.

- Execute the job to copy the data set `COPY.JOB` to your disk.

Step 2: Modify hilev.COPY.JOB on Your Disk

- Modify *hilev*.COPY.JOB according to your requirements:

  Set EXPDT to a valid expiration date, for example, 99365.

  Set HILEV to a valid high-level qualifier, for example, USERLIB.

  Set LOCATION to a storage location, for example, STORCLAS=ABC or UNIT=3390,VOL=SER=USR123.

Step 3: Submit COPY.JOB

- Execute *hilev*.COPY.JOB to copy single, multiple, or all data sets to your disk.

Copying Data Sets to Disk under z/VSE

Copy the data sets from the supplied installation medium to your disk before you perform the individual installation procedure for each component to be installed.

The way you copy the data sets depends on the installation method and the medium used:

- If you are already using SMA, refer to the section *Installing Software AG Products with SMA*.
- If you are not using SMA and want to copy the data sets from CD-ROM, refer to the README.TXT file on the CD-ROM.
- If you are not using SMA and want to copy the data sets from tape, follow the instructions in this section.

This section explains how to copy the data sets .LIBJ, .LIBR and .LICS from tape to disk. All other data sets can be installed directly from the tape.

Step 1: Copy Data Set COPYTAPE.JOB to Disk

- Modify the following sample job according to your requirements:

```
* $$ JOB JNM=LIBRCAT,CLASS=0,                                          +
* $$ DISP=D,LDEST=(*,UID),SYSID=1
* $$ LST CLASS=A,DISP=D
// JOB LIBRCAT
* ***************************************
*     STORE COPYTAPE.JOB IN LIBRARY
* ***************************************
// ASSGN SYS004,nnn
// MTC REW,SYS004
```

```
// MTC FSF,SYS004,4
ASSGN SYSIPT,SYS004
// TLBL IJSYSIN,'COPYTAPE.JOB'
// EXEC LIBR,PARM='MSHP; ACC S=lib.sublib'
/*
// MTC REW,SYS004                                                    ↩

ASSGN SYSIPT,FEC
/*
/&
* $$ EOJ
```

where:

nnn is the tape address, and
lib.sublib is the library and sublibrary in which the data set COPYTAPE.JOB is to be stored.

- Execute the job to copy the data set COPYTAPE.JOB to disk.

  COPYTAPE.JOB contains the JCL required to copy the data sets .LIBJ, .LIBR and .LICS from tape to disk.

Step 2: Modify COPYTAPE.JOB on Your Disk

- Modify COPYTAPE.JOB according to your requirements and set the disk space parameters as appropriate.

Step 3: Submit COPYTAPE.JOB

- Execute COPYTAPE.JOB to copy the data sets .LIBJ, .LIBR and .LICS to your disk.

Copying Data Sets to Disk under BS2000/OSD

Copy the files (data sets) from the supplied installation medium to your disk before you perform the individual installation procedure for each component to be installed.

The way you copy the files depends on the installation method and the medium used:

- If you are already using SMA, refer to the section *Installing Software AG Products with SMA*.
- If you are not using SMA and want to copy the files from CD-ROM, refer to the README.TXT file on the CD-ROM.
- If you are not using SMA and want to copy the files from tape, follow the instructions in this section.

This section explains how to copy all files from tape to disk.

- Step 3: Copy all Product Files from Tape to Disk

Step 1: Copy Library SRVvrs.LIB from Tape to Disk

This step is not necessary if you have already copied the library SRV*vrs*.LIB from another Software AG installation tape. For further information, refer to the element #READ-ME in this library. The library SRV*vrs*.LIB is stored on the tape as a sequential file named SRV*vrs*.LIBS containing LMS commands. The current version *vrs* can be obtained from the *Software AG Product Delivery Report*.

- Execute the following commands to convert SRV*vrs*.LIBS into an LMS library:

```
/IMPORT-FILE  SUPPORT=*TAPE(FILE-NAME=SRVvrs.LIBS,-
/   VOLUME=volser, DEV-TYPE=tape-device)
/ADD-FILE-LINK  LINK-NAME=EDTSAM, FILE-NAME=SRVvrs.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=SRVvrs.LIBS'
@WRITE  'SRVvrs.LIBS'
@HALT
/ASS-SYSDTA  SRVvrs.LIBS
/MOD-JOB-SW  ON=1
/START-PROG  $LMS
/MOD-JOB-SW  OFF=1
/ASS-SYSDTA  *PRIMARY
```

where:

tape-device is the device type of the tape, for example, TAPE-C4, and
volser is the VOLSER of the tape (see the *Software AG Product Delivery Report*).

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

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

```
/CALL-PROCEDURE  (SRVvrs.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 product files to disk:

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

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

The result of this procedure is written to the file `L.REPORT.SRV`.

SMA Installation

The following steps are required for installation of SMA:

Step 1: Prepare the SMA System File

Creating a New SMA System File

If you want to create a new SMA system file, you can use job I050, step 1800.

This job loads the empty SMA system file (data set SMA*vrs*.SYSF) using the ADALOD utility.

Use the following options in this ADALOD step:

```
USERISN=YES
ISNREUSE=YES
VERSION=6
MAXISN=40000, DSSIZE=300B, NISIZE=300B, UISIZE=100B
```

Note: Option `USERISN` is essential for the correct operation of SMA. For the Adabas nucleus, allow for approximately 500 ISNs to be kept in the hold queue: `NH=2000 NI=500`.

Using an Existing SMA System File

If you want to continue to use an existing SMA system file from SMA Version 1.3, you must migrate this system file to an SMA Version 2.1 system file.

Submit job I051, step 1800 to perform the migration from SMA Version 1.3 or 2.1.1.

Additionally, submit job I051, steps 1801 and 1802 to perform the migration from SMA Version 1.3.

Step 2: Load Natural Programs and Load Error Messages

Load the SMA Natural programs (SMA*vrs*.INPL) into the Natural system file using the Natural INPL utility (job I061, step 1800).

Load the SMA error messages (SMA*vrs*.ERRN) into the Natural system file using the Natural ERRLODUS utility (job I061, step 1802).

Step 3: Specify Natural Parameters

Whenever you invoke Natural to work with SMA, do either of the following:

- append the following macro definition:

  ```
  NTFILE ID=208,DBID=dbid,FNR=fnr
  ```

  in your Natural parameter module, where *dbid* is the database ID and *fnr* is the file number where you loaded the SMA data file. Then re-assemble and re-link the Natural parameter module.
- or, use the dynamic parameter

  ```
  LFILE=(208,dbid,fnr)
  ```

The following Natural parameters should be specified:

```
ESIZE=64 MADIO=0 MAXCL=0
```

The `PRINTER` parameter should allow for at least 1 printer in online mode and 3 printers in batch mode. If no physical or logical printer is available, set Printer ID to DUMMY or blank in the SMA Profile. See SMA Profile in the section Menus and Line Commands for an explanation of this parameter.

SMA uses the Software AG Editor. For more information, refer to the section *Installing the Software AG Editor* in the Natural documentation.

Depending on the Natural TP environment, the following specification may also be necessary:

```
RJESIZE=32
```

Step 4: Convert SMA Data to SMA Version 2.1 Format (Migration)

Perform this step only if you want to convert the existing SMA data to SMA Version 2.1.

Submit job I200 which contains all necessary steps.

Note: A conversion to SMA Version 2.1 format will also be performed automatically the first time you invoke SMA after a migration of the SMA system file (see step 1) has been done.

Step 5: SMA Under Natural Security

When using SMA with Natural Security, the following prerequisites must be fulfilled:

- The library SYSSMA1 must be defined in Natural Security
- SMA uses the Natural Command Processor, which must also be defined in Natural Security. This can be done by performing the following actions:
  - enter Natural Security Library Maintenance
  - modify library SYSSMA1
  - select *Additional Options*
  - select *Functional Security*
  - enter SMACPROC in the field Command Processor, and mark the *Keyword default* field. After pressing Enter, the field *Functional security defined* should be set to Yes, and *Keyword default* should be allowed.
  - exit Natural Security

Step 6: Load SMA Tables

Submit job TABLOAD to load the SMA tables from the product installation medium into the SMA system file.

Step 7: Set SMA Version 2 Parameter (Required Only for BS2000/OSD)

If SMA is to be used under BS2000/OSD, set the value for the parameter `SMA2` to Y.

For more information, see SMA Jobs and Procedures.

Installation Verification

Perform the following steps to verify correct SMA installation:

1. Invoke online Natural by entering the following command:

```
LOGON SYSSMA1
MENU
A
```

2. Adapt the `GLOBAL` parameters and the SMA profile.
3. Use function *Tabload* from the SMA administration menu to load the TABS data from the installation medium.
4. Enter the SMA *Environment* function, issue line command `CO` for your default environment, in the new environment mark the most current version of ADA to be installed.
5. Enter the SMA *Report* function, invoke report P for the newly created environment, mark for printing.
6. Submit a batch Natural job, with the following input:

```
LOGON SYSSMA1
MENU
SET ENV <your-new-environment>
GEN
FIN
```

7. Enter online Natural again, enter the *Environment* function, and issue line command `JO` to see the jobs generated to install Adabas.

Note: At this point, the generated JCL is intended only for installation verification testing.

3 Install System Maintenance Aid Using Starter System

This section describes how to install SMA using the SMA Starter System and assumes that Adabas and Natural have *not* been previously installed.

Note: The SMA Starter System is only available under z/OS.

The SMA Starter System can be used to quickly and easily install SMA in a new environment. For this purpose, Adabas und Natural under TSO are needed and will be installed. The SMA Starter System essentially consists of a CLIST which is used to generate four install jobs. These jobs must be executed in the same order as generated in order to complete the installation. Following successful installation, all subsequent Software AG products which are to be installed using SMA can be installed and configured as described in the section Installing Software AG Products with SMA.

Prerequisites

The SMA Starter System requires the following:

- TSO (including ISPF) must be installed.
- The SMA Starter System requires approximately 320 cylinders of space in the Adabas database to store the Natural and SMA objects supplied by Software AG.
- A free SVC number for the temporary Adabas SVC must be available.
- APF authorization is needed for 2 data sets (see Installation Step 4 below).

Required Products and Data Sets

The following products and data sets are needed for an SMA first time installation:

Products

Data Set Name	Contents
SMA	System Maintenance Aid
ADA	Adabas
NAT	Natural
NTI	Natural TSO Monitor Interface

Data Sets for Adabas (ADA)

Data Set Name	Contents
ADA*vrs*.LICS	Adabas license key file
ADA*vrs*.LOAD	Adabas load modules
ADA*vrs*.SRCE	Adabas source modules and macros

Data Sets for Natural (NAT)

Data Set Name	Contents
NAT*vrs*.LICS	Natural license key file
NAT*vrs*.LOAD	Natural load modules
NAT*vrs*.SRCE	Natural source modules and macros
NAT*vrs*.INPL	Natural system objects
NAT*vrs*.ERRN	Natural error messages
NAT*vrs*.SYSF	Empty Natural system file

Data Sets for the Natural TSO Monitor interface (NTI)

Data Set Name	Contents
NTI*vrs*.LOAD	TSO-dependent source programs

Data Sets for the System Maintenance Aid (SMA)

Data Set Name	Contents
SMA*vrs*.CLST	SMA clist
SMA*vrs*.SYSF	Empty SMA system file
SMA*vrs*.INPL	SMA system objects
SMA*vrs*.ERRN	SMA error messages
SMT*vrs*.TABS	SMA product tables

There are more data sets and products on the installation medium then the ones mentioned above. Please ignore these additional data sets and products. Verify the medium contents using the *Software AG Product Delivery Report* which accompanies the medium. After the data sets have been copied from the medium to disk (see Copy step described below), they will be extended with a high level qualifier (*hilev*). This high level qualifier must also be used in Step 1 of the installation described below.

Example:

If 'SAG' is used as a high-level qualifier (*hilev*) and the SMA version on medium is '211', the following libraries will be copied:

```
SAG.SMA211.CLST
SAG.SMA211.SYSF
SAG.SMA211.INPL
SAG.SMA211.ERRN
↩
```

Copying the Tape Contents to a z/OS Disk

This section explains how to:

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

The JCL in this data set is then used to copy all data sets from tape to disk (except the data set SMT*vrs*.TABS).

If the data sets for more than one product are delivered on the tape, the data set COPY.JOB contains the JCL to unload the data sets for all delivered products from the tape to your disk.

After completing the above, you will have to perform the individual install procedure for each component.

Copying the Installation Tape to Disk under z/OS

If you are already using SMA and wish to use SMA to copy the installation tape for the new SMA version, refer to the section Installing Products.

If you are not using SMA, you must perform the following as described in this section:

- Step 1: Copy Data Set COPY.JOB from Tape to Disk
- Step 2: Modify COPY.JOB for Conformance with Local Naming Conventions
- Step 3: Submit COPY.JOB to Unload Data Sets

Note: If the data sets for more than one product are delivered on the tape, the data set COPY.JOB contains the JCL to unload the data sets for all delivered products from the tape to your disk. After unloading all the data sets, you will have to perform the individual install procedure for each component.

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

The data set COPY.JOB (label 2) contains the JCL to unload all other 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 volume serial number

Step 2: Modify COPY.JOB for Conformance with Local Naming Conventions

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

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

Step 3: Submit COPY.JOB to Unload Data Sets

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

Installation Steps

Perform the following installation steps:

Step 1: Invoke the CLIST

Enter the ISPF command mode and invoke the CLIST MENU from the source library that you just copied with the command:

```
EX '<hilev>.SMAvrs.CLST(MENU)'
```

The following screen will appear:

```
================================================
============ SMA Initial Installation ==========
================================================

>> Please enter High Level Qualifier (<hilev>) or '.' to exit:
```

The CLIST requests the high level qualifier (<hilev>) of the source library from which it was called. Enter the <hilev> and press Enter. (This is necessary because in the CLIST language it is not possible to determine the library from which the CLIST was called.).

```
>> Please enter the 3 digit SMA version (i.e.211) or '.' to exit:
```

This next line asks you for the version of the SMA (for example: '211') which is used on the product installation medium. Enter the 3-digit version of SMA and press Enter.

Step 2: Enter the Parameters

A screen similar to the following will now appear:

```
********************************************************************************
Please enter the following parameters:

NATURAL Version (ie: 424): ...
ADABAS Version  (ie: 813): ...

Adabas SVC numb.(ie: 249): ...

Tape Volume  (ie: T12345): T.....

Job Line 1.. //JOB@JNR JOB ACCT,REGION=4M,MSGLEVEL=(1,1),
Job Line 2.. // CLASS=G,MSGCLASS=X
Job Line 3.. /*JOBPARM LINES=9999

Note: @JNR in Job Line 1 is used as a parameter, which will
be replaced during generation with the job number.
It is recommended to leave it untouched.
********************************************************************************
Enter '.' to exit or 'OK' to start job generation:
```

Enter the following parameters:

Parameter	Description
Natural and Adabas Version	Enter the 3-digit version of Natural and Adabas which is on the installation medium.
Adabas SVC number	Enter an SVC number as required for the Adabas installation. The SMA Starter system will generate a job to install the Adabas SVC temporarily, i.e. the SVC will be active until the next IPL.
Tape Volume Name	Enter the volume name of the delivered tape/cartridge. You can obtain this information from the *Software AG Product Delivery Report*.
Job Lines 1-3	Enter up to 3 individual joblines which you wish to use for the JCL generation. @JNR is used as a parameter which will be replaced during generation with the job number.

Example:

```
*******************************************************************************
Please enter the following parameters:

NATURAL Version (ie: 424): 424
ADABAS Version  (ie: 813): 813

Adabas SVC numb.(ie: 249): 232

Tape Volume  (ie: T12345): T23545

Job Line 1.. //SAG@JNR JOB ACCT,REGION=4M,MSGLEVEL=(1,1),
Job Line 2.. // CLASS=O,MSGCLASS=Z
Job Line 3.. //*JOBPARM LINES=9999

Note: @JNR in Job Line 1 is used as a parameter, which will
be replaced during generation with the job number.
It is recommended to leave it untouched.
*******************************************************************************
Enter '.' to exit or 'OK' to start job generation:
```

After you entered all the necessary parameters, enter 'OK' and press Enter.

The SMA Starter System for z/OS now generates the JCL (JOBI001-JOBI004) and creates the following 3 libraries:

Data Set name	Contents
<hilev>.SMAvrs.JCL	The CLIST will write the generated jobs as well as a member containing the user's parameter values to this library.
<hilev>.SMAvrs.SMASRCE	This data set is used as a work library which is used by the installation jobs to store the created source modules.
<hilev>.SMAvrs.SMALOAD	This data set is used as a work library which is used by the installation jobs to store the created load modules.

Note: These libraries will always be overwritten each time you initiate the installation process.

There will be 4 jobs generated into library <hilev>.SMAvrs.JCL:

JOBI001: Prepare the necessary license keys

Step	Description
CNVADA	Convert Adabas license file
ASMADA	Assemble Adabas license file
LKDADA	Link Adabas license file
CNVNAT	Convert Natural license file
ASMNAT	Assemble Natural license file

Step	Description
LKDNAT	Link Natural license file

JOBI002: Installs the Adabas Components

Step	Description
ADASIP	Start the temporary Adabas SVC with program ADASIR
FRMDB	Format the database
DEFDB	Define the database
ADDRUN	Add the ADARUN card member
ADDTASK	Add the member for the Adabas started task
ADDLKBA	Create global parameter member for ADALINK in batch mode
ASMLKBA	Assemble global parameter member for ADALINK in batch mode
LNKLKBA	Link global parameter member for ADALINK in batch mode
LNKFIBA	Final link of ADALNK in batch mode
ADDLKTS	Create global parameter member for ADALINK under TSO
ASMLKTS	Assemble global parameter member for ADALINK under TSO
LNKLKTS	Link global parameter member for ADALINK under TSO
LNKFITS	Final link of ADALNK under TSO
LODFNAT	Load the Natural system file with ADALOD
LODFSMA	Load the SMA system file with ADALOD

JOBI003: Installs the Natural Components

Step	Description
ADDNTOS	Create source NATOS
ASMNTOS	Assemble source NATOS
LKDNTOS	Link module NATOS
ADDPRMB	Create source for Natural batch parameter module
ASMPRMB	Assemble Natural batch parameter source
LKDPRMB	Link Natural batch parameter module
LKDNUCB	Link Natural batch nucleus NATBATCH
ADDCLST	Create source for Natural SMA clist
ADDADAR	Create source for DDCARD input file
ADDNTSO	Create source for NATTSO
ASMNTSO	Assemble source NATTSO
LKDNTSO	Link module NATTSO.
ADDPRMT	Create source for Natural online parameter module

Step	Description
ASMPRMT	Assemble Natural online parameter source
LKDPRMT	Link Natural online parameter module
LKDNUCT	Link Natural TSO nucleus NATTSORE

JOBI004: Load Data into the Adabas System Files

Step	Description
INPLNAT	Load Natural programs into Adabas system file
ERRLNAT	Load Natural error messages into Adabas system file
INPLSMA	Load SMA programs into Adabas system file
ERRLSMA	Load SMA error messages into Adabas system file
TABLOAD	Load SMA tables into SMA system file

Step 3: Check the Information Screen

After successful generation of the installation jobs into the library *hilev*.SMAvrs.JCL, the following information screen will appear:

```
Now perform the following steps to complete the installation:
-------------------------------------------------------------
(Step 4) The following libraries needs APF authorization:
         >> hilev.SMAvrs.SMALOAD
         >> hilev.ADAvrs.LOAD

(Step 5) Submit the jobs JOBI001-003 in lib hilev.SMAvrs.JCL.

(Step 6) Start ADABAS with the procedure hilev.SMAvrs.SMASRCE(ADATASK).

(Step 7) Submit the job JOBI004 in lib hilev.SMAvrs.JCL.

(Step 8) Start SMA with the CLIST hilev.SMAvrs.SMASRCE(SMA).
-------------------------------------------------------------
Enter '.' to exit:
```

This screen gives you information of what to do next (see also Steps 4-8 below).

Step 4: Give APF Authorization to Data Sets

The Adabas SVC installation requires that the data sets *hilev*.SMAvrs.SMALOAD and *hilev*.ADAvrs.LOAD are APF authorized. Please contact your system administrator to perform this step.

Step 5: Submit Jobs JOBI001, JOBI002 and JOBI003

JOBI001 will prepare the license key files for Natural and Adabas. JOBI002 will prepare the Adabas components. JOBI003 will prepare the Natural components.

Step 6: Start Adabas

Copy the procedure created as member ADATASK in library *hilev*.SMA*vers*.SMASRCE to the z/OS user proclib where started tasks reside. Then start the Adabas database from that library.

Step 7: Submit Job JOBI004

JOBI004 will load all necessary data into the SMA system files.

Step 8: Invoke SMA

Enter TSO command mode. Enter EX '*hilev*.SMA*vrs*.SMASRCE(SMA)' to start the TSO CLIST and invoke SMA. SMA is now installed and can be used to install other SAG products.