

# Installation Procedure

## ▶ To install Delta Save, perform the following steps:

1. Install the ADADSF load modules in the load library used for running the Adabas nucleus and utilities.
  2. If you plan to perform save operations online, allocate space for the DSIM dataset and format the dataset with the ADAFRM DSIMFRM function, as described in *Adabas Utility Functions for Delta Save*.
  3. Add the ADARUN parameter DSF=YES to the nucleus and utility jobs used to operate the database (DSF=YES is required for the nucleus and the DSF-related functions of the ADASAV, ADARES, and ADAULD utilities; it is optional for the other utilities. See the section *ADARUN Parameter DSF* for more information);
  4. To automatically submit a delta save job when the DLOG area usage exceeds a certain threshold, provide the delta save user exit along with the job control statements it requires, and specify the ADARUN DSFEX1 parameter.
  5. Start the nucleus (with DSF=YES);
  6. Using the Adabas Online System (either the demo or full version) "Install DSF" special function described in section *Special Online Functions*, allocate the DSF logging area;
  7. Perform a normal Adabas database save operation (ADASAV SAVE) to create a full save dataset and to enable Delta Save logging. If the save operation is online, merge the online full save dataset with the DSIM dataset to produce an offline full save, and to free the DSIM dataset for further use.
- 

## VSE/ESA Considerations for Installing Delta Save

- Defining the Delta Save Sublibrary
- Restoring the Delta Save Sublibrary
- Cataloging Procedures for Defining the Delta Save Libraries and Files

### Defining the Delta Save Sublibrary

Delta Save users must define an additional sublibrary in the Adabas library for the Delta Save components. A sample job to accomplish this is as follows:

```
// JOB ADEDEF          DEFINE NON-VSAM DELTA SAVE SUBLIB
// OPTION LOG
// DLBL SAGLIB,'ADABAS.Vvrs.LIBRARY',2099/365,SD
// EXTENT SYS010
// ASSGN SYS010,DISK,VOL=vvvvvv,SHR
```

```
// EXEC LIBR

    DEFINE S=SAGLIB.ADEvrs REUSE=AUTO R=Y

    LD L=SAGLIB OUTPUT=STATUS

/*

/&
```

-where

SYS010	is the logical unit for the Adabas library
vvvvvv	is the volume for the Adabas library
vrs	is the Adabas version/revision/system maintenance (SM) level

## Restoring the Delta Save Sublibrary

A sample job to restore the Delta Save components is as follows:

```
// JOB ADERST          RESTORE NON-VSAM DELTA SAVE

// OPTION LOG

// ASSGN SYS006,cuu

// PAUSE MOUNT ADABAS INSTALL TAPE cuu

// MTC REW,SYS006

// MTC FSF,SYS006,tt

// DLBL SAGLIB,'ADABAS.Vvrs.LIBRARY'

// EXTENT SYS010

// ASSGN SYS010,DISK,VOL=vvvvvv,SHR

// EXEC LIBR

    RESTORE SUB=SAGLIB.ADEvrs          -

        TAPE=SYS006 LIST=Y R=Y

    LD SUB=ADEvrs OUTPUT=NORMAL

/*

// MTC REW,SYS006

/&
```

-where

SAGLIB	is the Adabas library name
SYS010	is the logical unit for the Adabas library
SYS006	is the Adabas installation tape
cuu	is the physical unit address of the tape drive
tt	is the number of tape marks to space forward (see <i>Report of Tape Creation</i> )
vvvvvv	is the volume for the Adabas library
vrs	is the Adabas version/revision/system maintenance (SM) level

## Cataloging Procedures for Defining the Delta Save Libraries and Files

Sample JCL for cataloging the VSE/ESA procedures is available in member ADEPROC.X on the Delta Save sublibrary.

Job ADEPROC contains procedures ADAVvLIB and ADAVvFIL to define the Delta Save Adabas libraries and files.

Customize these procedures before cataloging them into the procedure library.

These procedures can then be used by Delta Save users for all subsequent Adabas jobs.