

Installing Adabas Transaction Manager for z/OS

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The Installation Medium

Review the *Software AG Product Delivery Report* that accompanies the release package before restoring the release data to disk.

The installation medium contains the following data sets in the sequence indicated in the report:

Data Set	Contents
ATM vrs .JOBS	Installation jobs, utility jobs
ATM vrs .LOAD	Executable modules
ATM vrs .INPL	Online Services application
ATM vrs .ERRN	Online Services messages

where vrs is the version, revision, and system maintenance level of the product.

Installation Checklist

The Adabas System Coordinator must be installed prior to the installation of Adabas Transaction Manager. See the Adabas System Coordinator documentation for detailed information.

Once the required System Coordinator components have been installed, you can proceed to install Adabas Transaction Manager. The following checklist identifies the steps necessary to complete the installation:

Step	Description
1	Restore the Adabas Transaction Manager libraries from the installation medium
2	Prepare SYSATM
3	Enable the client process
4	Enable the database process for two-phase commit
5	Prepare the recovery file
6	Enable the Transaction Manager to run as a Service within Adabas System Coordinator daemons
7	Verify the installation

Installation Procedure

Following is the general Adabas Transaction Manager installation procedure. The actual installation depends on your particular requirements and the specific contents of the release package provided by Software AG for your site. Information in the release package is intended for your system. If that information differs from the information in this section, use the release package information or contact Software AG technical support for assistance.

Step1: Copying the Medium Contents to Disk

If you are using System Maintenance Aid (SMA), refer to the SMA documentation (included on the current edition of the Natural documentation CD). If you are not using SMA, perform steps 1a, 1b and 1c as described in this section:

- Step 1a: Copy Data Set COPY.JOB from Medium to Disk
- Step 1b: Modify COPY.JOB
- Step 1c: Submit COPY.JOB

Note:

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

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

The data set COPY.JOB (label 2) contains the JCL to unload all other existing data sets from medium 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=<vvvvvvv>,
// 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
<vvvvvvv> is the desired volser
```

Step 1b: Modify COPY.JOB

Modify 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 1c: Submit COPY.JOB

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

Step 2: Prepare SYSATM

The Adabas Transaction Manager Online Services (SYSATM) objects are delivered on the Adabas Transaction Manager distribution medium.

To prepare SYSATM:

1. Use your everyday Natural INPL job to load the administration tool (Natural application SYSATM) and associated message texts into your Natural system. For reference a sample Natural INPL job called CORI061 can be found with the sibling System Coordinator product in the jobs distribution file. The INPL job's work file 1 must reference the distribution file ATMvrs.INPL and work file 2 must reference ATMvrs.ERRN.

Note:

If you use Natural Security in this system, define the libraries SYSATM and SYSMTvrs (where vrs is the level you are installing, for example 821) and protect as you require. You may define MENU as the startup transaction for SYSATM. However, you must not define a startup transaction for SYSMTvrs.

2. Use the following parameter to define the Natural session where SYSATM is to be used:

```
LFILE=(152,dbid,fnr<,passw><,ciph>)
```

where *dbid* and *fnr* define the location of the Adabas System Coordinator configuration file.

Alternatively, assemble the Natural parameter module with

```
NTFILE, ID=152, DBID=dbid, FNR=fnr
```

Step 3: Enable the Client Process

▶ **To enable the Adabas Transaction Manager client process:**

1. For the Adabas System Coordinator:
 - make the modified Adabas link module available (COMPLIB for Com-plete, DFHRPL for CICS, STEPLIB for all other client systems);
 - make the generated configuration module CORCFG available (COMPLIB for Com-plete, STEPLIB for all other client systems); and
 - make the Adabas System Coordinator load library available (COMPLIB for Com-plete, STEPLIB for all other client systems).
2. For Adabas Transaction Manager:
 - make the Adabas Transaction Manager load library available (COMPLIB for Com-plete, STEPLIB for all other client systems).
3. For each Client:
 - refer to the section Client Runtime Controls for details on how to define the necessary runtime controls to enable a client for transaction management.

Step 4: Enable the Database Process for Two-Phase Commit

▶ **To enable the Adabas Transaction Manager database process for two-phase commit:**

1. For the Adabas System Coordinator:
 - make the Adabas System Coordinator load library available.
2. For Adabas Transaction Manager:
 - set the Adabas parameter ADARUN DTP=RM.
 - include a DD statement for DDWORKR4.

Ensure this identifies a suitable WORK dataset which is allocated and formatted in the same way as the main WORK data set. In the case of a Cluster Services or Parallel Services database, the WORK 4 dataset is shared by all members of the cluster.

Important:

For details about the WORK4 dataset, including information about sizing, please refer to the Adabas documentation, under *Defining an Adabas Database*, which is part of *Database Maintenance Tasks* in the section *DBA Tasks*.

- make the Adabas Transaction Manager load library available.

Note:

An unmodified ADALNK must be available to the database in preference to the ADALNK created during the installation of the Adabas System Coordinator.

Step 5: Prepare the recovery file

All recovery information is maintained in a single direct access file defined to the Adabas System Coordinator daemon where the transaction manager service runs. The recovery file is shared by all transaction managers operating in the same Adabas System Coordinator group. For reference a sample formatting job called CORI040 can be found with the sibling System Coordinator product in the jobs distribution file. Change the parameters in this sample job with the following considerations:

"dsname" (file name)

Specify the file name, for example SAG.ATMvrs.cor-group-name.TMRFI


"nn" (file size in cylinders) and "@@@" (device type)

The minimum block size of the file must be 4096 bytes, and we recommend a minimum size of 13,500 blocks for each transaction manager sharing the file. With reference to the Adabas Device Types and Block sizes section of the DBA Reference Summary, calculate how many cylinders are required for this many blocks based on the device type(s) available at your site. For example, when formatting a file assigned as a WORK component (as defined in the sample job), 13,500 blocks equates to 100 cylinders (*nn*) when using a 3390 device type ("@@@").

Note:

It is very important that all transaction managers operating within the same Adabas System Coordinator group **share the same recovery file**.

Step 6: Enable the Transaction Manager to run as a Service within Adabas System Coordinator Daemons

 **To enable the Transaction Manager to run as a service within Adabas System Coordinator daemons:**

1. set PRODUCT=ATM in the parameter input of each System Coordinator daemon within which you wish to run the Transaction Manager.
2. ensure the TM controls are correctly defined for each System Coordinator daemon within which you wish to run the Transaction Manager. See the section Parameters for a description of all TM controls which affect Transaction Manager operation. These TM controls are maintained using an Adabas Transaction Manager administrative function within Adabas System Coordinator online administration.
3. Make the Adabas Transaction Manager load library available.
4. refer to the section Prerequisites...Adabas System Coordinator for information on the System Coordinator daemon dataset definitions necessary for the correct operation of the Transaction Manager.

Note:

An Adabas Transaction Manager must be run in each operating system image that will participate in distributed transaction processing (DTP). If more than one Adabas SVC is used in the same system image, an Adabas Transaction Manager must be run under each Adabas SVC that will participate in DTP.

Step 7: Verify the Installation

Use the procedure described in section Verifying the Installation to ensure that the installation has been successful.