Adabas System Coordinator

Adabas System Coordinator Installation

Version 7.4.2

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Adabas System Coordinator

This document applies to Adabas System Coordinator Version 7.4.2 and to all subsequent releases.

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

Table of Contents

1 Adabas System Coordinator Installation

This document describes how to install Adabas System Coordinator using installation jobs that are:

- generated by the Software AG System Maintenance Aid (SMA), or
- taken from the job library on the installation tape and manually customized.

In either case, the relevant job numbers (prefixed by the Adabas System Coordinator product code COR) are the same and are referenced at the appropriate step of the installation procedure.

For information about using SMA, refer to the *System Maintenance Aid* documentation.

Note: The Adabas System Coordinator installation tape contains several files. Always refer to the Report of Tape Creation and Release Notes that accompany the tape for specific information that may modify the general installation procedures described here.

2 Installation Prerequisites

Operating Systems

Adabas System Coordinator can be used with the following operating systems:

- OS/390 version 2, release 10
- z/OS version 1, releases 1-4
- z/OS.e, releases 3-4 *
- VSE/ESA version 2, releases 5, 6, and 7
- z/VM versions 4.2, 4.3, and 4.4
- BS2000 OSD 2.0 and above

* Support for z/OS.e is currently restricted to client programs executing in batch, or under TSO or Com-plete.

For more information about supported operating systems, refer to the *Adabas Installation* documentation.

Software Prerequisites

Adabas System Coordinator version 7.4.2 currently supports Adabas version 7.1.3 or above; Adabas Cluster Services version 7.2.2 or above; and Adabas Parallel Services version 7.4.2 or above.

The Adabas System Coordinator online services application (SYSCOR) requires Natural version 3.1 or above.

3 Before You Install

This section describes actions which must be taken prior to performing Adabas System Coordinator installation.

Configuration File

Adabas System Coordinator operates correctly only if the configuration file is continuously available while the client is active. Operational procedures are necessary to ensure that the database where the configuration file resides is active

- before any application opens to clients; and
- before any TP initialization processing that involves pseudo- or real database communication.

Prior to beginning with the installation, allocate a database number and file number for the configuration file that is shared by Adabas System Coordinator, Adabas Fastpath, Adabas Vista, and Adabas Transaction Manager. This configuration file must be available for system and user initialization.

Adabas System Coordinator Daemon

Prior to beginning with the installation, a Node ID for each Adabas System Coordinator daemon must be allocated.

Mandatory Use of Unmodified ADALNK

The installation procedure adds the Adabas System Coordinator's client component to the Adabas client (link module). It is imperative that this modified link module is only used in the client.

The link module used by the Adabas databases and the Adabas System Coordinator daemons must not contain the Adabas System Coordinator client component.

Caution: Failure to follow these instructions can cause unpredictable results.

4 Installation Procedure

This section describes the procedure for Adabas System Coordinator installation:

- **OS/390, z/OS, and z/OS.e Installation**
- **VSE/ESA Installation**
- **z/VM Installation**
- **BS2000 Installation**

5 OS/390, z/OS, and z/OS.e Systems Installation

The Installation Tape

Review the *Report of Tape Creation* that accompanies the release package before restoring the release data to disk. Information in this report supersedes the information in this documentation.

The installation tape contains the following datasets in the sequence indicated in the report:

Dataset	Contents
COR*vrs*.LOAD	COR load modules
COR*vrs*.INPL	SYSCOR INPL file
COR*vrs*.ERRN	SYSCOR error messages file
COR*vrs*.SRCE	Source modules
COR*vrs*.JOBS	Installation jobs
COR*vrs*.SYSF	Base configuration file

where *vrs* in dataset names represents the version, revision, and system maintenance level of the product.

Installation Overview

The steps needed for a successful installation are as follows:

Step	Description	Job Name
1	Restore the libraries from the installation tape	
2	Load (INPL) the SYSCOR application	CORI061
3	Load the configuration file and prepare SYSCOR	CORI050
4	Assemble the configuration module	CORI055
5	Add the System Coordinator to the Adabas clients	CORI060, CORI080x
6	Define the System Coordinator group and members	
7	Install the CICS node error program (optional)	
8	Add cache structure(s) to the CFRM policy	
9	Create startup procedures for the Adabas System Coordinator members	

System Programming Considerations

If the coordination group contains more than one member, the members use the IBM XCF facility to communicate. The coordination group name is used as the XCF group name.

The coupling facility cache structure must be used to support dynamic transaction routing in an IBM parallel sysplex. The cache structure name is defined in the coordination group definition as well as in the CFRM policy of the sysplex environment.

The Adabas System Coordinator daemon must execute:

- from an authorized load library; and
- at a higher priority than the TP monitors, databases, and jobs it is used to coordinate.

Installation Procedure

Following is the general Adabas System Coordinator 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.

Step 1: Restore Libraries from the Installation Tape

Use IEBCOPY to unload the libraries. Modify the following variables to reflect the standards at your site:

Variable	Is the...
vrs	version, revision, and system maintenance level
tttttt	volume serial number of the installation tape
vvvvvv	volume serial number for the target disk

```
//CORLOAD JOB (site-dependent data)
//* -------------------------------------------------------------
//*---COPY THE LOAD LIBRARY
//* -------------------------------------------------------------
//LOADLIB EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=*
//IN DD DSN=COR vrs .LOAD,DISP=OLD,
// VOL=(,RETAIN,SER= tttttt ),UNIT=TAPE,LABEL=(1,SL)
```

```
//OUT DD DSN=SAG.ADAvrs.LOAD,DISP=(,CATLG,DELETE),
// UNIT=SYSDA,VOL=SER=vvvvvv,SPACE=(CYL,(10,1,20),RLSE)
//SYSIN DD *
COPY INDD=IN,OUTDD=OUT
//* ------------------------------------------------------------
//*---COPY THE SOURCE LIBRARY
//* ------------------------------------------------------------
//SRCELIB EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=*
//IN DD DSN=CORvrs.SRCE,DISP=OLD,
// VOL=(,RETAIN,SER=tttttt),UNIT=TAPE,LABEL=(3,SL)
//OUT DD DSN=SAG.CORvrs.SRCE,DISP=(,CATLG,DELETE),
// UNIT=SYSDA,VOL=SER=vvvvvv,SPACE=(TRK,(10,5,5),RLSE)
//SYSIN DD *
COPY INDD=IN,OUTDD=OUT
/*
//* ------------------------------------------------------------
//*---COPY THE JCL LIBRARY
//* ------------------------------------------------------------
//JOBSLIB EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=*
//IN DD DSN=CORvrs.JOBS,DISP=OLD,
// VOL=(,RETAIN,SER=tttttt),UNIT=TAPE,LABEL=(4,SL)
//OUT DD DSN=SAG.CORvrs.JOBS,DISP=(,CATLG,DELETE),
// UNIT=SYSDA,VOL=SER=vvvvvv,SPACE=(TRK,(15,5,15),RLSE)
//SYSIN DD *
COPY INDD=IN,OUTDD=OUT
/*
```

Notes:

1. The load library contains the kernel module CORKRN, which must be available to the various databases, TP monitors, and batch jobs that will use the Adabas System Coordinator.
2. If you intend to run the Adabas System Coordinator daemon to manage clustered applications, you must APF-authorize the load library.
3. If you are installing under CICS, the Coordinator modules can be loaded either from the DFHRPL or the STEPLIB libraries. Software AG recommends that you use DFHRPL. If you are not using the CICS program autoinstall feature, you will need to define the Coordinator Client modules (CORKRN, CASPXY, CASKRN), and the configuration module (CORCFG) to CICS. All of the modules should be defined with the following characteristics: Language: Assembler ; RELoad :No ; DAtalocation: Any ; EXECKey : User.

Step 2: Load (INPL) the SYSCOR Application (Job I061)

Use sample job CORI061 to load the SYSCOR online administration and error messages file into Natural.

Step 3: Load the Configuration File and Prepare SYSCOR (Job I050)

Note: If you are upgrading from version 7.1 of Adabas Vista or Adabas Fastpath, you can omit substep 1 below and use the existing configuration file. You must run the conversion program U1JPARM, located in the INPL file, to convert your existing job parameters.

Note: If you are upgrading from version 7.3 of Adabas Vista or Adabas Fastpath, you can omit substep 1 below and use the existing job parameters.

To load the configuration file

1 Load the Adabas System Coordinator configuration file from the distribution tape using the standard Adabas load utility ADALOD. Use sample job CORI050.

2 If you are using Natural Security, define SYSCOR and SYSMP*vrs* to Natural Security with MENU as the start-up program name. Restrict the application to authorized personnel.

3 Use the following parameter to define the Natural session where SYSCOR is to be used:

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

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

Alternatively, assemble the Natural parameter module with:

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

Step 4: Assemble the Configuration Module (Job I055)

Adabas System Coordinator parameters are located in the configuration file. At job start, the Adabas System Coordinator needs to know the location of this file. This information is kept in the configuration module.

Create the configuration module by assembling the CORMCFG parameters defining the SVC, database, and file number of the Adabas System Coordinator configuration file.

Keyword	Description
SVC=	Your installation's Adabas SVC number
DBID=	Database number for the System Coordinator configuration file
FNR=	File number for the System Coordinator configuration file
SF148=WAIT	Use this keyword if you want client jobs to wait when the specified configuration file is not active. If you omit this keyword, default job parameters will be assumed for the job when the configuration file is not active.

Name the resulting load module CORCFG (this is required).

Use sample job CORI055.

Step 5: Add the System Coordinator to the Adabas Client (Jobs I060, I080x)

Link the appropriate Adabas System Coordinator client component with your Adabas link modules.

The stub modules are called CORS0*n* where *n* is a subsystem suffix.

The modified link module is for use by client jobs only. Refer to the section **Mandatory Use of Unmodified ADALNK**.

Job Type	Stub Module	Sample Job
Batch/TSO	CORS01	CORI060
Com-plete	CORS02	CORI080C
CICS command level	CORS03	CORI080B
IMS	CORS05	CORI080G

Note: For CICS, ensure that the `LUSAVE` parameter in the Adabas link module is set to at least 72. Software AG recommends that you also use the `XWAIT=YES` parameter.

Note: For a multitasking batch job, the client component (CORS01) must be linked with the reentrant link module (ADALNKR).

Step 6: Define a System Coordinator Group

Define your System Coordinator group and member(s). This is required if you intend to use:

- Adabas Fastpath
- clustered applications with dynamic transaction routing.

Job parameters for each product also contain settings that are relevant to the operation of the Adabas System Coordinator. For more information, see SYSCOR Administration.

Step 7: Install the CICS Node Error Program (Optional)

The node error program CORNEP is used by sites running CICS command-level applications in CICS/ESA or CICS Transaction Server for OS/390. It is not an essential component, but it does improve efficiency when reclaiming user memory after user sessions terminate.

CORNEP must be called as a started task (with Transaction ID ANEP) from the real CICS node error program DFHZNEP. If you do not use DFHZNEP, a sample is provided on the source library. If you do use DFHZNEP, you will need to implement the code for starting CORNEP into your own DFHZNEP as shown in the provided sample source.

Following are the required CICS resource definition parameters for CORNEP:

```
Language: Assembler
RESident: No
Datalocation: Any
EXECKey: User
```

Note: To use CORNEP, assemble your Adabas link module with `PARMTYP=ALL` on the ADAGSET macro.

Step 8: Add the Cache Structure(s) to the CFRM Policy

Note: This step is required if you intend to run clustered applications with dynamic transaction routing in an IBM sysplex environment.

Run a job similar to the following example to update the CFRM administrative policy data in the COUPLE dataset:

```
//STEP20 EXEC PGM=IXCMIAPU
//SYSPRINT DD SYSOUT=A
//SYSABEND DD SYSOUT=A
//SYSIN DD *
 DATA TYPE(CFRM) REPORT(YES)
 DEFINE POLICY NAME(POLICY1) REPLACE(YES)
 CF NAME(CF)
 TYPE(009674)
 MFG(IBM)
 PLANT(02)
 SEQUENCE(000000040101)
 PARTITION(1)
 CPCID(00)
 DUMPSPACE(2000)
 .
 .
 STRUCTURE NAME(xxxxxxxxx)
 SIZE(500)
 INITSIZE(10)
 PREFLIST(
```

—where

Parameter	Is the . . .
STRUCTURE NAME	Cache structure name, which must match the name specified in the the Adabas System Coordinator group definition.
SIZE	Maximum size for the cache structure in the coupling facility. Calculate this by determining the maximum number of concurrent users of the clustered applications (CICS, IMS, etc) that will use this coupling facility. Each user will require approximately 256 bytes of cache memory.
INITSIZE	Initial size for the cache structure in the coupling facility. Use this together with the SIZE parameter to manage the difference between the average and maximum user sessions to be supported in coupling facility memory.

Step 9: Create Startup Procedures for the System Coordinator Daemon(s)

The following is a job example for running a Adabas System Coordinator daemon:

```
//SYSCO1 PROC
//*-------------------------------------------------------------------*
//* System Coordinator SYSCO Vv.r.s. STARTUP *
//*-------------------------------------------------------------------*
//SYSCO1 EXEC PGM=SYSCO,REGION=0M,TIME=1440
//STEPLIB DD DISP=SHR,DSN=SAG.CORvrs.LOAD
// DD DISP=SHR,DSN=ADABAS.Vvrs.LOAD
//SYSUDUMP DD SYSOUT=*
//CORDUMP DD SYSOUT=*
//SYSPRINT DD SYSOUT=*
//DDPRINT DD SYSOUT=*
//DDCARD DD DISP=SHR,DSN=SAG.CORvrs.SRCE(CORCNTL)
//*
```

The file referenced by the DDCARD statement should contain the following control statements:

```
PRODUCT=CAS
```

```
PRODUCT=AFP (If FASTABM is to be run)
```

```
FORCE=NO
```

If SYSCO terminates abnormally, it may be necessary to specify `FORCE=YES` on restart.

6 VSE/ESA Installation

The Installation Tape

Review the *Report of Tape Creation* that accompanies the release package before restoring the release data to disk. Information in this report supersedes the information in this documentation.

The installation tape contains the following datasets in the sequence indicated in the report:

Dataset	Contents
COR*vrs*.LIBR	Source, macro, object, and load modules
COR*vrs*.INPL	SYSCOR INPL file
COR*vrs*.ERRN	SYSCOR error messages file
COR*vrs*.SYSF	Base configuration file

where *vrs* in dataset names represents the version, revision, and system maintenance level of the product.

Installation Overview

The steps needed for a successful installation are as follows:

Step	Description	Job Name
1	Restore the libraries from the installation tape	
2	Load (INPL) the SYSCOR application	CORI061
3	Load the configuration file and prepare SYSCOR	CORI050
4	Assemble the configuration module	CORI055
5	Add the Adabas System Coordinator to the Adabas clients	CORI060, CORI080x
6	Define the Adabas System Coordinator group and members	
7	Install the CICS node error program (optional)	
8	Create startup procedures for the Adabas System Coordinator member(s)	

System Programming Considerations

The Adabas System Coordinator daemon must execute at a higher priority than the TP monitors and jobs it coordinates.

Corrections for the Adabas System Coordinator will be distributed as zaps which are applied using the MSHP CORRECT facility. Before applying corrections you must define Adabas System Coordinator to MSHP with the `MSHP ARCHIVE`command. Here is a sample job to do this:

```
// JOB ARCHIVE ARCHIVE COORDINATOR
// OPTION LOG
// EXEC MSHP
ARCHIVE CORvrs
COMPRISES 9001-COR-00
RESOLVES 'SOFTWARE AG - SYSTEM CORDINATOR Vv.r'
ARCHIVE 9001-COR-00-vrs
RESIDENCE PRODUCT=CORvrs -
PRODUCTION=saglib.CORvrs -
GENERATION=saglib.CORvrs
/*
/&
```

Installation Procedure

Following is the general Adabas System Coordinator 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.

Step 1: Restore Libraries from the Installation Tape

Use the following sample JCS to restore the Adabas System Coordinator library. Modify the following variables to reflect the standards at your site:

Variable	Is the...
cuu	tape unit number
tttttt	volume serial number of the installation tape
vrs	version, revision, and system maintenance level
xx	file spacing information; see the Report of Tape Creation

```
* $$ JOB JNM=LIBREST,CLASS=O,DISP=D
* $$ LST CLASS=A,DISP=H
// JOB LIBREST
// ASSGN SYS006,cuu,VOL=tttttt
// ASSGN SYS005,IGN
// MTC REW,SYS006
// MTC FSF,SYS006,xx
// EXEC LIBR
RESTORE S=SAGLIB.CORvrs:SAGLIB.CORvrs -
TAPE=SYS006 TL=tttttt LIST=Y
/*
// MTC REW,SYS006
/&
* $$ EOJ
```

Note: The library contains the kernel phase CORKRN, which must be available to the various databases, TP monitors, and batch jobs that will use Adabas System Coordinator.

Step 2: Load (INPL) the SYSCOR Application (Job I061)

Use sample job CORI061 to load the SYSCOR online administration and error messages file into Natural.

Step 3: Load the Configuration File and Prepare SYSCOR (Job I050)

Note: If you are upgrading from version 7.1 of Adabas Vista or Adabas Fastpath, you can omit substep 1 below and use the existing configuration file. You must run the conversion program U1JPARM, located in the INPL file, to convert your existing job parameters.

To load the configuration file

1 Load the Adabas System Coordinator configuration file from the distribution tape using the standard Adabas load utility ADALOD. Use sample job CORI050.

2 If you are using Natural Security, define SYSCOR and SYSMP*vrs* to Natural Security with MENU as the startup program name. Restrict the application to authorized personnel.

3 Use the following parameter to define the Natural session where SYSCOR is to be used:

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

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

Alternatively, assemble the Natural parameter module with:

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

Step 4: Assemble the Configuration Module (Job I055)

Adabas System Coordinator parameters are located in the configuration file. At job start, the Adabas System Coordinator needs to know the location of this file. This information is kept in the configuration module.

Create the configuration module by assembling the CORMCFG parameters defining the SVC, database, and file number of the Adabas System Coordinator configuration file.

Keyword	Description
SVC=	Your installation's Adabas SVC number
DBID=	Database number for the System Coordinator configuration file
FNR=	File number for the System Coordinator configuration file
SF148=WAIT	Use this keyword if you want client jobs to wait when the specified configuration file is not active. If you omit this keyword, default job parameters will be assumed for the job when the configuration file is not active.

Name the resulting load module CORCFG (this is required).

Use sample job CORI055.

Step 5: Add the System Coordinator to the Adabas Client (Jobs I060, I080x)

The Adabas System Coordinator client components are supplied as object files and are called CORS1*n* where *n* is a subsystem suffix.

The modified Adabas client (link module) is for use by client jobs only. Refer to the section **Mandatory Use of Unmodified ADALNK**.

Job Type	Stub Module	Sample Job
Batch/TSO	CORS11	CORI060
Com-plete	CORS12	CORI080C
CICS command level	CORS13	CORI080B

Step 6: Define a System Coordinator Group

Define a System Coordinator group and member(s). This is required if you intend to use:

- Adabas Fastpath
- clustered applications with dynamic transaction routing.

Job parameters for each product also contain settings that are relevant to the operation of the Adabas System Coordinator. For more information, see SYSCOR Administration.

Step 7: Install the CICS Node Error Program (Optional)

The node error program CORNEP is used by sites running CICS command-level applications in CICS for VSE/ESA or CICS Transaction Server for VSE/ESA. It is not an essential component, but it does improve efficiency when reclaiming memory after user sessions terminate.

CORNEP is started (with Transaction ID ANEP) from the real CICS node error program DFHZNEP. The source for DFHZNEP is supplied on the installation tape and can be installed without change. If you have your own DFHZNEP program already installed, you will need to implement the code for starting CORNEP into your own DFHZNEP.

Following are the required CICS resource definition parameters for CORNEP:

```
Language: Assembler
RESident: No
Datalocation: Any
EXECKey: User
```

Note: To use CORNEP, assemble your Adabas link module with `PARMTYP=ALL` on the ADAGSET macro.

Step 8: Create Startup Procedures for the Adabas System Coordinator Daemon(s)

The following is a job example for running a Adabas System Coordinator daemon:

```
* ¢¢ JOB JNM=SYSCO1,CLASS=5,DISP=D
* ¢¢ LST CLASS=A,DISP=D
* ******************************************************
// JOB SYSCO1
* ******************************************************
* JOB TO RUN SYSCO: THE SYSTEM COORDINATOR *
* ******************************************************
// OPTION NOSYSDUMP
// EXEC PROC=ADAVvLIB
// LIBDEF PHASE,SEARCH=(SAGLIB.CORvrs,SAGLIB.ADAvrs)
// EXEC SYSCO,SIZE=AUTO
PRODUCT=CAS
FORCE=NO
/*
* ********** JOB END SYSCO1
/&
* ¢¢ EOJ
```

If SYSCO terminates abnormally, it may be necessary to specify `FORCE=YES` on restart.

7 z/VM Installation

Note: Clustered applications are not supported in z/VM, so it is not necessary to configure an Adabas System Coordinator daemon to manage them. However, a daemon is required to run the Adabas Fastpath Asynchronous Buffer Manager (ABM). A sample EXEC procedure (SYSCO EXEC) is supplied on the installation tape. Please see the *Adabas Fastpath Installation* documentation for further advice on installing the daemon for Adabas Fastpath.

The Installation Tape

Review the *Report of Tape Creation* that accompanies the release package before restoring the release data to disk. Information in this report supersedes the information in this documentation.

The installation tape contains the following datasets in the sequence indicated in the report:

Dataset	Contents
COR*vrs*.TAPE	Source, macro, object, load, and INPL modules
COR*vrs*.SYSF	Base configuration file

where *vrs* in dataset names represents the version, revision, and system maintenance level of the product.

Installation Overview

The steps needed for a successful installation are as follows:

Step	Description	Job Name
1	Restore the libraries from the installation tape	
2	Load (INPL) the SYSCOR application	CORI061
3	Load the configuration file and prepare SYSCOR	CORI050
4	Assemble the configuration module	CORI055
5	Add the System Coordinator to the Adabas clients	CORI060

Installation Procedure

Following is the general Adabas System Coordinator 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.

Step 1: Restore Libraries from the Installation Tape

Use TAPE LOAD to unload the product files.

Note: The library contains the kernel module CORKRN, which must be available to the various databases, user virtual machines, and batch jobs that will use Adabas System Coordinator.

Step 2: Load (INPL) the SYSCOR Application (Job I061)

Use sample job CORI061 to load the SYSCOR online administration and error messages file into Natural.

Step 3: Load the Configuration File and Prepare SYSCOR (Job I050)

Note: If you have installed an earlier version of Adabas Vista or Adabas Fastpath and have created a configuration file, you can omit substep 1 below and use the existing configuration file. In this case, you must run the conversion program U1JPARM located in the INPL file to convert your existing job parameters.

To load the configuration file

1 Load the Adabas System Coordinator configuration file from the distribution tape using the standard Adabas load utility ADALOD. Use sample job CORI050.

2 If you are using Natural Security, define SYSCOR and SYSMPvrs to Natural Security with MENU as the start-up program name. Restrict the application to authorized personnel.

3 Use the following parameter to define the Natural session where SYSCOR is to be used:

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

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

Alternatively, assemble the Natural parameter module with:

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

Step 4: Assemble the Configuration Module (Job I055)

Adabas System Coordinator parameters are located in the configuration file. At job start, the Adabas System Coordinator needs to know the location of this file. This information is kept in the configuration module.

Create the configuration module by assembling the CORMCFG parameters defining the database and file number of the Adabas System Coordinator configuration file.

Keyword	Description
DBID=	Database number for the System Coordinator configuration file
FNR=	File number for the System Coordinator configuration file
SF148=WAIT	Use this keyword if you want client jobs to wait when the specified configuration file is not active. If you omit this keyword, default job parameters will be assumed for the job when the configuration file is not active.

Name the resulting load module CORCFG (this is required).

Use sample job CORI055.

Step 5: Add the System Coordinator to the Adabas Client (Job I060)

The Adabas System Coordinator client component is supplied as a TEXT file and is called CORS31.

The modified Adabas client (link module) is for use by client jobs only. Refer to the section **Mandatory Use of Unmodified ADALNK**.

8 BS2000 Installation

The Installation Tape

Review the *Report of Tape Creation* that accompanies the release package before restoring the release data to disk. Information in this report supersedes the information in this documentation.

The installation tape contains the following datasets in the sequence indicated in the report:

Dataset	Contents
COR*vrs*.SRC	Source modules
COR*vrs*.JOBS	Installation jobs
COR*vrs*.MOD	Load modules
COR*vrs*.INPL	SYSCOR INPL file
COR*vrs*.ERRN	SYSCOR error messages file
COR*vrs*.SYSF	Base configuration file

where *vrs* in dataset names represents the version, revision, and system maintenance level of the product.

Installation Overview

The steps needed for a successful installation are as follows:

Step	Description	Job Name
1	Copy SRVnnn.LIBR from tape to disk	
2	Copy the procedure COPY.PROC from tape to disk	
3	Copy all product files from tape to disk	
4	Load (INPL) the SYSCOR application	CORI061
5	Load the configuration file and prepare SYSCOR	CORI050
6	Assemble the configuration module	CORI055
7	Add the Adabas System Coordinator to the Adabas clients	CORI060, CORI080x
8	Define a System Coordinator group and member(s)	
9	Create startup procedures for the Adabas System Coordinator member(s)	

System Programming Considerations

The Adabas System Coordinator daemon must execute at a higher task priority than the TP monitors and jobs it coordinates. The daemon requires system administrator (TSOS) privileges because it uses a JOBINFO macro to monitor job activity.

Multiple jobs (UTM jobs, for example) defined in the Adabas System Coordinator groups use subpools allocated from a shared memory pool. For BS2000, Adabas System Coordinator requires that you specify the virtual start address and size of the shared pool. This is done when the Coordinator Group is set up in the SYSCOR administration application. The start address selected must be valid in all UTM jobs that will use Adabas System Coordinator, and also in the Adabas System Coordinator daemon task. Ensure that the address spaces defined are large enough to accommodate the defined memory pool.

Adabas System Coordinator requires approximately 256 bytes of shared memory for each user session active in a Client job. Additional memory will be required, depending on the options that have been installed. For more information, refer to the installation documentation for the Adabas options.

If you are installing Adabas System Coordinator for use with Adabas version 7.1.3, you must execute ADARUN from the ADA713.LX01 load library, and ensure other load libraries are concatenated in the correct sequence, as follows:

```
/ ADD-FILE-LINK DDLIB , $SAG.ADA713.LX01
/ ADD-FILE-LINK BLSLIB00, $SAG.COR742.LX01
/ ADD-FILE-LINK BLSLIB01, $SAG.COR742.MOD
/ ADD-FILE-LINK BLSLIB02, $SAG.ppp742.MOD
(ppp=AFP, AVI)
/ START-PROG *MOD($SAG.ADA713.LX01,ADARUN, -
/ RUN-MODE=*ADVANCED(ALT-LIB=*YES))
```

Installation Procedure

Following is the general Adabas System Coordinator 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.

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

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

The library SRV*nnn*.LIB is stored on the tape as the sequential file SRV*nnn*.LIBS containing LMS commands. The current version nnn can be obtained of the Report of Tape Creation. To convert this sequential file into a 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, e.g. 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 SRVnnn.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 is written to the file L.REPORT.SRV.

Step 4: Load (INPL) the SYSCOR Application (Job I061)

Use sample job CORI061 to load the SYSCOR online administration and error messages file into Natural.

Step 5: Load the Configuration File and Prepare SYSCOR (Job I050)

Note: If you are upgrading from version 7.1 of Adabas Vista or Adabas Fastpath, you can omit substep 1 below and use the existing configuration file. You must run the conversion program U1JPARM, located in the INPL file, to convert your existing job parameters.

To load the configuration file

1 Load the Adabas System Coordinator configuration file from the distribution tape using the standard Adabas load utility ADALOD. Use sample job CORI050.

2 If you are using Natural Security, define SYSCOR and SYSMPvrs to Natural Security with MENU as the startup program name. Restrict the application to authorized personnel.

3 Use the following parameter to define the Natural session where SYSCOR is to be used:

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

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

Alternatively, assemble the Natural parameter module with:

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

Step 6: Assemble the Configuration Module (Job I055)

Adabas System Coordinator parameters are located in the configuration file. At job start, the Adabas System Coordinator needs to know the location of this file. This information is kept in the configuration module.

Create the configuration module by assembling the CORMCFG parameters defining the database and file number of the Adabas System Coordinator configuration file.

Keyword	Description
DBID=	Database number for the System Coordinator configuration file
FNR=	File number for the System Coordinator configuration file
SF148=WAIT	Use this keyword if you want client jobs to wait when the specified configuration file is not active. If you omit this keyword, default job parameters will be assumed for the job when the configuration file is not active.

Name the resulting load module CORCFG (this is required).

Use sample job CORI055.

Step 7: Add the Adabas System Coordinator to the Adabas Clients (Jobs I060, I080x)

The Adabas System Coordinator client components are supplied as object files and are called CORS1*n* where *n* is a subsystem suffix.

The modified Adabas client (link module) is for use by client jobs only. Refer to the section **Mandatory Use of Unmodified ADALNK**.

Job Type	Stub Module	Sample Job	Natural Link Job
Batch	CORS21	CORI060	LNATBAT
TIAM	CORS21	CORI060	LNRTFRNT
UTM with Natural	CORS26	CORI080A	LNRTFRNT
UTM without Natural	CORS26	CORI080B	

Note: The stub module can be added directly to the Natural link job (see the appropriate name in above table,) instead of creating an additional link job.

Step 8: Define an Adabas System Coordinator Group

Define an Adabas System Coordinator group and members. This is required if you intend to use:

- Adabas Fastpath
- Adabas Vista or Adabas Fastpath with UTM with dynamic transaction routing.

For more information, refer the section SYSCOR Administration.

Step 9: Create Startup Procedures for the System Coordinator Servers

The following is a job example for running a Adabas System Coordinator daemon:

```
/.SYSCO LOGON
/ ASSIGN-SYSLST L.SYSCO
/ ASSIGN-SYSOUT O.SYSCO
/ MOD-JOB-OPT LOG=(LIST=*YES)
/ SHOW-JOB-STATUS
/ REMARK +-----------------------------------------------------+
/ REMARK I CREATE SYSCO PARAMETER FILE (SYSCO.DDCARD) I
/ REMARK +-----------------------------------------------------+
/ MOD-JOB-SW ON=(4,5)
/ DELETE-FILE SYSCO.DDCARD,SUPPRESS-ERRORS=DMS0533
/ START-EDT
@ CR 1'MPMWTO=YES'
@ CR 2'PRODUCT=CAS'
@ CR 3'TIMER=10'
@ WR 'SYSCO.DDCARD'
@ HALT
/ REMARK +-----------------------------------------------------+
/ REMARK I CREATE ADALNK PARAMETER FILE (SYSCO.DDLNKPAR) I
/ REMARK +-----------------------------------------------------+
/ DELETE-FILE SYSCO.DDLNKPAR,SUPPRESS-ERRORS=DMS0533
/ START-EDT
@ CR 1'ADALNK IDTNAME=idtname'
@ CR 2'ADALNK DBID=dbid'
@ WR 'SYSCO.DDLNKPAR'
@ HALT
/ MOD-JOB-SW OFF=(4,5)
/ REMARK +-----------------------------------------------------+
/ ADD-FILE-LINK DDLIB, $SAG.ADAvrs.MOD
/ ADD-FILE-LINK BLSLIB01, $SAG.ADAvrs.MOD
/ ADD-FILE-LINK BLSLIB02, $SAG.CORvrs.MOD
/ ADD-FILE-LINK DDCARD, SYSCO.DDCARD
/ ADD-FILE-LINK DDLNKPAR, SYSCO.DDLNKPAR
/ REMARK +-----------------------------------------------------+
/ REMARK I START-PROG SYSCO I
/ REMARK +-----------------------------------------------------+
```

```
/ START-PROG *MOD($SAG.CORvrs.MOD,ELEM=SYSCO,PROG-MODE=ANY)
/LOGOFF
```

If SYSCO terminates abnormally, it may be necessary to specify `FORCE=YES` on restart.

9 Verifying the Installation

At the end of the installation process, you can use Adabas System Coordinator Online Services (SYSCOR) to check for successful initialization.

Verify Client Component

Client component installation can be verified by performing the following steps:

to verify client component installation:

1 Log on to SYSCOR and select option 3 from the main menu.

2 From the Special Services menu, select option 1 to verify that the Adabas System Coordinator is correctly installed.

A message is displayed confirming successful verification.

If an error occurs, various messages may be displayed; for more information, see the section Messages and Codes. The following are the most likely causes of an error:

- The Adabas client (link module) in use does not include the Adabas System Coordinator client component CORS*nn*.
- The Adabas System Coordinator kernel phase (module) CORKRN is not available to the job.

Verify Adabas System Coordinator Daemon Communication

This step is only required if you intend to use the Adabas System Coordinator daemon to manage clustered applications.

to verify Adabas System Coordinator communication:

1 Define the System Coordinator group and member(s) for the daemon(s) you are running. For more information, refer to the section SYSCOR Administration.

2 Define a job parameter for the clustered application, specifying the group name defined in step (1).

3 Start the required Adabas System Coordinator daemon(s).

4 Start, or restart, the clustered TP application.

5 Log on to SYSCOR and select option 2 from the Special Services menu to verify that a clustered TP application can communicate with its Adabas System Coordinator daemon.

A message is displayed confirming successful communication.

Verify the Database Component

to verify the database component:

1 Modify the database startup job control to include the load library containing the Adabas System Coordinator kernel module CORKRN.

2 Modify the database startup parameters to include `FASTPATH=YES, VISTA=YES`, or both.

3 Start the database.

The following message is displayed on startup:

POP000I ADAPOP INITIALIZED

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