

Installation

This section of the documentation provides installation procedures for Adabas Review in a BS2000 operating system environment. These procedures must be completed by all BS2000 sites installing Adabas Review 4.3.2 or above

- in local mode as an extension of ADALOG;
- in hub mode as a server in its own address space with client interface modules in the address space of all Adabas databases to be monitored.

Adabas Review version 4.3.2 or above is required to monitor Adabas version 7.4 and above databases.

This document covers the following topics:

- The Installation Tape
- Installation Procedure
- Using Adabas Review Batch Facilities
- Adabas Review's Command Logging User Exit Example

The Installation Tape

Tape Contents

The Review installation tape is a standard label tape with the volume serial number *REVvrs*, where the notation *vrs* represents the version, revision, and SM level of the product.

The installation tape contains the files listed below. The sequence of the files is shown in the *Report of Tape Creation* delivered with the installation tape.

File Name	Contents
REVvrs.INPL	Adabas Review Natural objects
REVvrs.PAMS	Adabas Review module library
REVvrs.JOBS	Adabas Review installation jobs
REVvrs.SRCE	Adabas Review source modules and more installation jobs
REVvrs.SYSF	Empty Adabas Review system file

Note:

Throughout this documentation, the notation *vrs* stands for the version, revision, and system maintenance level of the Adabas Review being installed.

Copying Contents of the Tape to Disk

The Adabas Review installation tape can be unloaded to disk by using the procedure described below. In this procedure, the following values must be supplied:

- In the file names, replace *vrs* with the current version, revision, and system maintenance level of the product;
- Replace *xxxxxx* with the volume serial number of the tape.

Step 1: Copy job file REVvrs.JOBS from Tape to Disk

- Copy the job file REVvrs.JOBS from tape to disk using the BS2000 utility EDT, issuing the following commands:

```
/DELETE-FILE REVvrs.JOBS
/SET-JOB-STEP
/IMPORT-FILE SUP=TAPE(F-NAME=REVvrs.JOBS,DEV-TYPE=T9G,-
/ VOL=xxxxxx)
/SET-FILE-LINK PCIN,REVvrs.JOBS,SUP=TAPE(FILE-SEQUENCE=1)
/ASS-SYSDTA *SYSCMD
/SET-FILE-LINK PCOUT,P.REVvrs
/EXEC PERCON
END
```

In ISP format:

```
/FILE REVvrs.JOBS,VOL=xxxxxx,DEV=T9G -
/      ,STATE=FOREIGN,FSEQ=UNK,LINK=EDTSAM -
/      ,BLKSIZE=,RECSIZE=,RECFORM=
/EXEC EDT
@ READ '/'
@ SY '/REL EDTSAM'
@ WRITE 'P.REVvrs'
@ HALT
```

Step 2: Create the Example Job Library LIB.REVvrs

- Issue the following command:

```
/CALL-PROCEDURE P.REVvrs,(PRODUCT=REVvrs)
```

In ISP format:

```
/CALL P.REVvrs,PRODUCT=REVvrs
```

An example job library LIB.REVvrs is created from the procedure file.

Step 3: Adapt job E.REVTAPE from the Example Job Library

- Adapt the job E.REVTAPE from the example job library.

Then issue the following command to run the job, which copies all files from tape to disk:

```
/ENTER-JOB(LIB.REVvrs,E.REVTAPE)
```

In ISP format:

```
/E LIB.REVvrs(E.REVTAPE)
```

Installation Procedure

Step 1: Load the Adabas Review repository file

(JOB 1050, step 2600)

The Adabas Review repository is a system file used for storing user profiles and descriptions of interactive reports, target definitions, and for saving historical data accumulated by Adabas Review reports.

Any file may be used to contain the Adabas Review repository. The corresponding file number should also be reflected in the NATPARMs used to invoke Adabas Review.

In hub mode, the Adabas Review repository can be created on any database accessible to Natural. It does not need to be on a database that is monitored by the Adabas Review hub.

1. Modify the sample JCL for loading the Adabas Review repository.

You can use any of your site-dependent ADALOD JCL to load the FDT from the file REVvrs.SYSF using the following ADALOD parameters:

```
ADALOD LOAD FILE=fnr
ADALOD NAME=REVvrs-DBFILE
ADALOD VERSION=5
ADALOD ASSOFPAC=10
ADALOD DATAPFAC=10
ADALOD DSSIZE=5
ADALOD NISIZE=500B
ADALOD MAXISN=10000
ADALOD NUMREC=3000
ADALOD SORTSIZE=5
ADALOD TEMPSIZE=5
```

Before submitting the job, change

- the ADALOD LOAD FILE=fnr statement to reflect the number of the file that will contain the Adabas Review repository.
- (hub mode) the DATABASE=dbid parameter in the two ADARUN statements to reflect the DBID number of the database that will contain this file.

Note:

The Adabas Review repository may not reside on a database with a database ID (DBID) of 255. If the database ID is 255, Adabas Review cannot be accessed in local or hub mode. However, a database with a DBID of 255 can send data to a hub.

2. Use the modified job to load the Adabas Review repository file, JOB I050, step 2600.

Use the modified job to load the Adabas Review repository file, JOB I050, step 2600.

Step 2: INPL Adabas Review

(JOB 1061, step 2600)

- INPL the Adabas Review programs and DDMs from the REVvrs.INPL file to your Natural system files.

You can use any of your site-dependent Natural INPL JCL.

The Natural programs are copied into the SYSREVDDB library in your FNAT file.

Step 3: Modify the Natural parameter file

(Job I060 batch; Job I080 online)

1. Include the minimum following parameter settings in the Natural parameter module that will be used when accessing Adabas Review:

```
LS=250
PS=80
MADIO=5000
MAXCL=0
ESIZE=40
NETWORK(7),AM=PC
```

NETWORK is a Natural macro used to define the work file(s) to be used; AM is the access method. For more information, see the Natural documentation.

2. Include the following parameter in *all* your installation Natural parameter modules: (If this is not done, *no* data relating to Natural will be reported on.)

```
ADAPRM=ON
```

3. Add a Natural NTFILE definition for the physical database ID and file number of the Adabas Review repository file as follows:

```
NTFILE ID=241,DBID=dbid,FNR=fnr
```

Replace *dbid* and *fnr* with the database ID and file number, respectively, of the Adabas Review repository.

Note:

The Adabas Review repository may not reside on a database with a database ID (DBID) of 255. If the database ID is 255, Adabas Review cannot be accessed in local or hub mode. However, a database with a DBID of 255 can send data to a hub.

4. Reassemble and link the *NATPARM* module to your Natural nucleus.

Include the following parameter in *all* your installation Natural parameter modules: (If this is not done, *no* data relating to Natural will be reported on.)

```
ADAPRM=ON
```

Add a Natural NTFILE definition for the physical database ID and file number of the Adabas Review repository file as follows:

```
NTFILE ID=241,DBID=dbid,FNR=fnr
```

Replace *dbid* and *fnr* with the database ID and file number, respectively, of the Adabas Review repository.

Note:

The Adabas Review repository may not reside on a database with a database ID (DBID) of 255. If the database ID is 255, Adabas Review cannot be accessed in local or hub mode. However, a database with a DBID of 255 can send data to a hub.

Reassemble and link the *NATPARM* module to your Natural nucleus.

Step 4: Install REVEXITB for the Adabas link routines

REVEXITB for BS2000 is supplied in the module RDBLXBS2 for TIAM, batch, and UTM applications. This module should be linked to ADALNK. A sample job is provided in REVvrs.JOBS(P.ADALNK).

If you are using a version of Adabas prior to Adabas 7.4, specify the ADALNK parameter LRVINFO=256 using one of the options described in this section. Otherwise, if you are using Adabas 7.4 or later, it is no longer necessary to include this LRVINFO setting.

Note:

If you elect to use the link routine ADALNKX, link the batch Review routine RDBLXBS2 and RDBLKIND to ADALNK ensuring that the symbols ADALNKDA, SSFB2C and ADAL2P are not hidden.



Option 1:

If you use ADAUSER to load ADALNK, generate a file with the following structure:

```
ADALNK IDTNAME=database_IDT
ADALNK LRVINFO=256
```

where *database_IDT* is the IDT name where the database being monitored by Adabas Review is registered.

Also, place the following card in your job:

```
/SET-FILE-LINK DDLNKPAR,adalink_file_name
```

Or:

Option 2:

Option 2 If you use ADARUN to load ADALNK, add the following fields to the DDCARD file:

```
ADARUN  PROG=USER, . . . . IDTNAME=database_IDT, LRVINFO=256
```

where *database_IDT* is the IDT name where the database being monitored by Adabas Review is registered.

Step 5: Relink the Natural nucleus

(JOB 1070)

- Relink the Natural nucleus with the ADAUSER module.

Step 6: Modify the Natural start-up procedure, if applicable

- Modify your existing Natural start-up procedure by including the following /SET-FILE-LINK statement pointing to the Adabas library where your ADALNK module is located:

```
/SET-FILE-LINK DDLIB,ADABAS.MOD
```

Note:

If you are *not* using a procedure, the above /SET-FILE-LINK statement must be supplied before calling Natural online.

Step 7: Define Adabas Review to Natural Security, if applicable

If Natural Security is installed:

1. Define the SYSREVDDB library for the Adabas Review system.
2. Define the following Adabas Review DDMs to Natural Security as public DDMs:

```
REVIEW-ADABAS-V431-CLOG  
REVIEW-FNAT  
REVIEW-ADABAS-V431-SYSTEM
```

Note:

If the Adabas Review application SYSREVDDB is made private (i.e. the parameter PEOPLE=Y is specified), each user of Adabas Review must be linked to the SYSREVDDB application.

Define the following Adabas Review DDMs to Natural Security as public DDMs:

```
REVIEW-ADABAS-V431-CLOG  
REVIEW-FNAT  
REVIEW-ADABAS-V431-SYSTEM
```

Note:

If the Adabas Review application SYSREVDDB is made private (i.e. the parameter PEOPLE=Y is specified), each user of Adabas Review must be linked to the SYSREVDDB application.

Step 8: Apply Adabas ZAPs

1. Upgrade the Adabas Review module libraries with Adabas fixes.
2. Adapt and run the procedure REV_{vrs}.JOBS(ADA_{vrs}.Z000) where *vrs* is the version of Adabas under which Adabas Review is being installed.

Adapt and run the procedure REV_{vrs}.JOBS(ADA_{vrs}.Z000) where *vrs* is the version of Adabas under which Adabas Review is being installed.

Step 9: Modify the Adabas initialization parameters

- Modify your existing Adabas ADARUN parameters to include the following (these ADARUN cards are generated by SMA):

For local mode only:

```
ADARUN REVIEW=LOCAL
```

For hub mode only:

The Adabas Review hub ID value is set using the ADARUN parameter REVIEW.

```
ADARUN REVIEW=hubid
ADARUN UEX5=user-exit
```

where *hubid* is the Adabas Review hub ID (version 4.2 and above support two-byte DBIDs) and UEX5 is optional as described in the section *User Exit 5 (Adabas Review Hub Event Handler)* in section *Operations*.

Notes:

1. Adabas Review does not require you to log all Adabas buffers. You can select options to meet site-specific needs.
2. In local mode, physical command logging can be suppressed by specifying the LOGGING=NO option on the Adabas Review INPUT statement or target definition for the file. The default value for the LOGGING parameter is LOGGING=NO.
3. CLOGLAYOUT=5 is the default; Adabas Review does not support CLOGLAYOUT=4.

Step 10: Modify the Adabas Review AUTO-START generator job**Note:**

This step is not supported by the automated SMA installation.

1. The base P.GENERATE job is located in the REVvrs.SRCE dataset. Each database running with Adabas Review and the hub needs a set of files and jobs for itself. P.GENERATE generates the files to satisfy this need:

Data files:

```
prefix.REVvrs.RVUALT
prefix.REVvrs.RVUAUT1
prefix.REVvrs.RVUAUT2
prefix.REVvrs.RVUPARM
prefix.REVvrs.RVLOG01
prefix.REVvrs.RVLOG02
prefix.REVvrs.RVUPRT00
prefix.REVvrs.RVUPRT01
prefix.REVvrs.RVUPRT02
prefix.REVvrs.RVUPRT03
prefix.REVvrs.RVUPRT04
prefix.REVvrs.RVUPRT05
prefix.REVvrs.RVUEXP
prefix.REVvrs.RVUEXI
prefix.REVvrs.RVUCARD
```

Editor copy files:

```
REVvrs.COPY.db
```

Call/enter procedures:

REVvrs.E.COPYLOG1.db
 REVvrs.E.COPYLOG2.db
 REVvrs.P.COPYALT.db

where

Item	P.GENERATE Parameter	Description
	&ADAL	the name of the Adabas module library
db	&DB	Adabas Review database number (local or hub: 5 digits with leading zeros)
	&FUNC	<blank> - help information: CRE create files DEL delete files
	&IDTNAME	8-character IDT name where the Adabas Review database or hub is to run (must begin with "ADA").
	&REPDB	database number (5 digits with leading zeros) of the Adabas Review repository file where the REVvrs.SYSF file was loaded.
prefix	&PREFIX	a prefix to the files for easy maintenance (in this documentation, the example prefix is DB099)
REVvrs	&REV	the current Adabas Review <u>version</u> , <u>revision</u> , and system maintenance level
	&REVL	the name of the Adabas Review module library

About the Adabas Review AUTO-START Generator Job

The generator job is started automatically by Adabas Review when

- the target definition for the relevant database changes;
- the AUTOSTART option in an existing report definition changes;
- a new report is defined with the option AUTOSTART=Y;
- the GENAUTO or GA command is entered by the user; or
- the GENCARD or GC command is entered by the user.

Note:

The AUTO-START Generate process is a BS2000 subtask. This is a spawned task on BS2000. The output for this task is found in the files L.O.<tttt>.RAOSAUTO.<hex_timestamp> where

<tttt>	is the task number of the Review nucleus or hub;
<hex_timestamp>	is the STCK value of the clock in hex when the subtask was spawned.

About the Adabas Review History File Population Job

Adabas Review report definitions specify whether the data accumulated by the report is also written to the Adabas Review repository. The reports can then be viewed again or combined with previous occurrences of the same report to produce a combined summary report.

Because Adabas Review cannot write to the Adabas Review repository directly when running in local mode, it writes an intermediate history file either at intervals or at Adabas termination. At the next Adabas startup, Adabas Review reads the file with the link name RVUALT and populates its system file with history data.

Note:

The Review history file population process is a BS2000 subtask. This is a spawned task on BS2000. The output for this task is found in the files L.O.<tttt>.RAOSHIST.<hex_timestamp> where

<tttt>	is the task number of the Review nucleus or hub;
<hex_timestamp>	is the STCK value of the clock in hex when the subtask was spawned.

Step 11: Modify the Adabas start-up JCL (Local Mode Database)

An example Adabas Review local mode start-up job is provided in REVvrs.SRCE(LOCAL).

Modify the Adabas start-up JCL as follows (these modifications are generated by SMA):

1. Add the following step after the nucleus has been terminated to copy the RVUALT file to a back-up file that is read by RAOSHIST:

```
/SET-JOB-STEP
/CALL-PROC REVvrs.P.COPYALT.db
```

where REVvrs.P.COPYALT.db was generated by P.GENERATE above.

2. Add the FILE/LINK statements required for Adabas Review. Use the file REVvrs.COPY.db that was generated by P.GENERATE above.

If for some reason you do not want to use the generated file, you can add the following cards to the deck instead:

```

/SET-FILE-LINK RVUALT,DB099.REVvrs.RVUALT
/SET-FILE-LINK RVUAUT1,DB099.REVvrs.RVUAUT1
/SET-FILE-LINK RVUAUT2,DB099.REVvrs.RVUAUT2
/SET-FILE-LINK RVUPARM,*DUMMY
/SET-FILE-LINK RVLOG01,DB099.REVvrs.RVLOG01
/SET-FILE-LINK RVLOG02,DB099.REVvrs.RVLOG02
/SET-FILE-LINK RVUPRT00,DB099.REVvrs.RVUPRT00
/SET-FILE-LINK RVUPRT01,DB099.REVvrs.RVUPRT01
/SET-FILE-LINK RVUPRT02,DB099.REVvrs.RVUPRT02
/SET-FILE-LINK RVUPRT03,DB099.REVvrs.RVUPRT03
/SET-FILE-LINK RVUPRT04,DB099.REVvrs.RVUPRT04
/SET-FILE-LINK RVUPRT05,DB099.REVvrs.RVUPRT05
/SET-FILE-LINK RVUEXP,DB099.REVvrs.RVUEXP
/SET-FILE-LINK RVUEXI,DB099.REVvrs.RVUEXI
/SET-FILE-LINK RVUCARD,DB099.REVvrs.RVUCARD

```

Notes:

1. Use the supplied procedure REVvrs.SRCE(P.GENERATE) to generate the required files for each database where Adabas Review (local or hub) is to be installed. Otherwise, I/O errors will be returned during Adabas Review initialization.
 2. All databases that have Adabas Review (local or hub) installed must be assigned their own set of Adabas Review files.
 3. DB099 is the &PREFIX parameter of the P.GENERATE procedure above.
3. Set up a sequential file with the following contents:

```

ADALNK IDTNAME=<idtname>
ADALNK LRVINFO=256

```

where <idtname> is an 8-character IDT name where the Adabas Review is running, the same as in the ADARUN cards. The file *must* be a permanent file because it supplies routing and buffer information to the subtask.

Note:

LRVINFO=256 is no longer necessary for Adabas 7.4 and above ADALNKs.

Then set the following link card in the nucleus start-up job

```

/SET-FILE-LINK DDLNKPAR,<ddlknkpar_file_name>

```

where <ddlknkpar_file_name> is the filename of the permanent sequential file above.

4. Ensure that the REVBvrs.MOD library is accessible from the executed ADARUN job by declaring the following BLSLIB card:

```

/START-PROGRAM (ADABAS.MOD,ADARUN),RUN-MODE=ADV (ALT-LIB=YES)

```

Ensure that Adabas can access alternative libraries as declared by BLSLIB above by

```
/SET-FILE-LINK BLSLIB00,REVvrs.MOD
```

Add the FILE/LINK statements required for Adabas Review. Use the file REVvrs.COPY.db that was generated by P.GENERATE above.

If for some reason you do not want to use the generated file, you can add the following cards to the deck instead:

```
/SET-FILE-LINK RVUALT,DB099.REVvrs.RVUALT
/SET-FILE-LINK RVUAUT1,DB099.REVvrs.RVUAUT1
/SET-FILE-LINK RVUAUT2,DB099.REVvrs.RVUAUT2
/SET-FILE-LINK RVUPARM,*DUMMY
/SET-FILE-LINK RVLOG01,DB099.REVvrs.RVLOG01
/SET-FILE-LINK RVLOG02,DB099.REVvrs.RVLOG02
/SET-FILE-LINK RVUPRT00,DB099.REVvrs.RVUPRT00
/SET-FILE-LINK RVUPRT01,DB099.REVvrs.RVUPRT01
/SET-FILE-LINK RVUPRT02,DB099.REVvrs.RVUPRT02
/SET-FILE-LINK RVUPRT03,DB099.REVvrs.RVUPRT03
/SET-FILE-LINK RVUPRT04,DB099.REVvrs.RVUPRT04
/SET-FILE-LINK RVUPRT05,DB099.REVvrs.RVUPRT05
/SET-FILE-LINK RVUEXP,DB099.REVvrs.RVUEXP
/SET-FILE-LINK RVUEXI,DB099.REVvrs.RVUEXI
/SET-FILE-LINK RVUCARD,DB099.REVvrs.RVUCARD
```

Notes:

1. Use the supplied procedure REVvrs.SRCE(P.GENERATE) to generate the required files for each database where Adabas Review (local or hub) is to be installed. Otherwise, I/O errors will be returned during Adabas Review initialization.
2. All databases that have Adabas Review (local or hub) installed must be assigned their own set of Adabas Review files.
3. DB099 is the &PREFIX parameter of the P.GENERATE procedure above.

Set up a sequential file with the following contents:

```
ADALNK IDTNAME=<idtname>
ADALNK LRVINFO=256
```

where <idtname> is an 8-character IDT name where the Adabas Review is running, the same as in the ADARUN cards. The file *must* be a permanent file because it supplies routing and buffer information to the subtask.

Note:

LRVINFO=256 is no longer necessary for Adabas 7.4 and above ADALNKs.

Then set the following link card in the nucleus start-up job

```
/SET-FILE-LINK DDLNKPAR,<ddlknkpar_file_name>
```

where <ddlknkpar_file_name> is the filename of the permanent sequential file above.

Ensure that the REVvrs.MOD library is accessible from the executed ADARUN job by declaring the following BLSLIB card:

```
/START-PROGRAM (ADABAS.MOD,ADARUN),RUN-MODE=ADV (ALT-LIB=YES)
```

Ensure that Adabas can access alternative libraries as declared by BLSLIB above by

```
/SET-FILE-LINK BLSLIB00,REVvrs.MOD
```

Step 12: Modify the Adabas start-up JCL (Hub Mode Server Database)

An example Adabas Review hub mode start-up job is provided in REVvrs.SRCE(HUBJCL).

Modify the Adabas start-up JCL as follows (these modifications are generated by SMA):

1. Correct any library names or file names.
2. Modify the ADARUN parameter REVIEW to reflect the target ID you will use for the Adabas Review hub. Adabas Review version 4.2 supports two-byte DBIDs.
3. Specify the ADARUN parameter IDTNAME, if necessary. This value must be the same as that used by the sending Adabas nuclei.

The ADARUN parameters supplied in the sample JCL member HUBJCL are the only ones recognized for setting up the hub nucleus. See the section *ADARUN Parameters* for information about these ADARUN parameters.

Software AG recommends that you set the dispatching priority of the Adabas Review hub higher than that used by the sending Adabas nuclei.

4. Set up a sequential file with the following contents:

```
ADALNK IDTNAME=<idtname>
ADALNK LRVINFO=256
```

where <idtname> is an 8-character IDT name where the Adabas Review is running, the same as in the ADARUN cards. The file *must* be a permanent file because it supplies routing and buffer information to the subtask.

Note:

LRVINFO=256 is not longer necessary for Adabas 7.4 and above ADALNKs.

Then set the following link card in the nucleus start-up job

```
/SET-FILE-LINK DDLNKPAR,<ddlknkpar_file_name>
```

where <ddlknkpar_file_name> is the filename of the permanent sequential file above

Modify the ADARUN parameter REVIEW to reflect the target ID you will use for the Adabas Review hub. Adabas Review version 4.2 supports two-byte DBIDs.

Specify the ADARUN parameter IDTNAME, if necessary. This value must be the same as that used by the sending Adabas nuclei.

The ADARUN parameters supplied in the sample JCL member HUBJCL are the only ones recognized for setting up the hub nucleus. See the section *ADARUN Parameters* for information about these ADARUN parameters.

Software AG recommends that you set the dispatching priority of the Adabas Review hub higher than that used by the sending Adabas nuclei.

Set up a sequential file with the following contents:

```
ADALNK IDTNAME=<idtname>
ADALNK LRVINFO=256
```

where <idtname> is an 8-character IDT name where the Adabas Review is running, the same as in the ADARUN cards. The file *must* be a permanent file because it supplies routing and buffer information to the subtask.

Note:

LRVINFO=256 is not longer necessary for Adabas 7.4 and above ADALNKs.

Then set the following link card in the nucleus start-up job

```
/SET-FILE-LINK DDLNKPAR,<ddlknkpar_file_name>
```

where <ddlknkpar_file_name> is the filename of the permanent sequential file above

Step 13: Modify the Adabas start-up JCL (Hub Mode Client Interface)

Repeat the following four substeps for each database to be monitored.

Important: If you are currently running Review DB 3.4 or below, you must completely deinstall it from the Adabas start-up JCL.

1. Use the following BLSLIB structure:

```

/SET-FILE-LINK   DDLIB,ADABAS.MOD
/SET-FILE-LINK   BLSLIB00,REVvrs.MOD

```

2. Add a DDLOG or DDCLOGR1/DDCLOGR2 file.

This DDLOG FILE card *must* point to a physical output file and *must not* be coded as DUMMY and *not* be allocated as a temporary file.

Note:

If Adabas command logging (single or dual) is already being used, this portion of this step can be omitted.

3. Use the following to ensure that Adabas can access alternative libraries as declared by BLSLIB above:

```

START-PROGRAM (ADABAS.MOD,ADARUN),RUN-MODE=ADV (ALT-LIB=YES)

```

4. Restart Adabas.

Add a DDLOG or DDCLOGR1/DDCLOGR2 file.

This DDLOG FILE card *must* point to a physical output file and *must not* be coded as DUMMY and *not* be allocated as a temporary file.

Note:

If Adabas command logging (single or dual) is already being used, this portion of this step can be omitted.

Use the following to ensure that Adabas can access alternative libraries as declared by BLSLIB above:

```

START-PROGRAM (ADABAS.MOD,ADARUN),RUN-MODE=ADV (ALT-LIB=YES)

```

Restart Adabas.

Step 14: (Optional) Implement support for Adabas Native SQL

- From within Adabas Native SQL, use the global ADACALL statement with the LAST parameter to specify that the Adabas call will use the seventh parameter.

Refer to the Adabas Native SQL documentation.

Step 15: Start the Adabas Review hub for the first time

- See the section *Starting Adabas Review*.

Using Adabas Review Batch Facilities

Sample JCL to execute Adabas Review as a batch processor is provided in the file REVvrs.SRCE(P.REVBATCH) as follows:

```

/BEGIN-PROC C,PROC-PAR=( -
/ &ADAL=$SAG.ADABAS.MOD,-
/ &BATCH=BATCH,-
/ &CLOG=$SAG.DB00099.CLOGR1,-
/ &DB=00099,-
/ &DUMP=YES,-
/ &REVL=$SAG.REVIEW.MOD -
/ ),ESC-CHAR='&'
/REMARK
/REMARK *****
/REMARK * START REVIEW BATCH *
/REMARK *****
/REMARK
/MOD-TEST DUMP=&DUMP
/OPTION MSG=FB
/DEL-F #RVUPARM
/SET-JOB-STEP
/SET-FILE-LINK EDTSAM,#RVUPARM,REC-FORM=F(REC-SIZE=80)
/MOD-J-SW ON=(4,5)
/ASS-SYSDTA *SYSCMD
/STA-PROG EDT
@PROC 01
@1.00
@@CR 1 : 'INPUT FILETYPE=SEQUENTIAL,LIMIT=1000'
@@CR 2 : 'REPORT TYPE=SUMMARY,TITLE=' 'SAMPLE REPORT' ' '
@@CR 3 : 'AVERAGE DURATION,ASSO-IO,DATA-IO,CMDRESP'
@@CR 4 : 'MINIMUM DURATION,ASSO-IO,DATA-IO,CMDRESP'
@@CR 5 : 'MAXIMUM DURATION,ASSO-IO,DATA-IO,CMDRESP'
@@CR 6 : 'DISPLAY JOB'
@@W '#RVUPARM' O
@END
@DO 01
@H
/SET-JOB-STEP
/MOD-J-SW OFF=(4,5)
/SET-JOB-STEP
/ASS-SYSLST L.REV&DB..BAT.L
/ASS-SYSDTA *SYSCMD
/SET-FILE-LINK RVUAUT1,*DUMMY
/SET-FILE-LINK RVUAUT2,*DUMMY
/SET-FILE-LINK RVUPRT00,&BATCH..RVUPRT00
/SET-FILE-LINK RVUPRT01,&BATCH..RVUPRT01
/SET-FILE-LINK RVUPRT02,&BATCH..RVUPRT02
/SET-FILE-LINK RVUSEQ,&CLOG
/SET-FILE-LINK RVUPARM,#RVUPARM
/REMA
/SET-FILE-LINK DDLIB,&ADAL
/SET-FILE-LINK BLSLIB00,&REVL
/SET-JOB-STEP
/STA-PROGRAM (&REVL,REVBATCH),RUN-MODE=ADV(ALT-LIB=YES)
/ASS-SYSLST *PRIM
/ASS-SYSDTA *PRIM
/END-PROC

```


Notes:

1. The input control statements to Adabas Review's batch processor are provided via the file addressed by link name RVUPARM. This file can be generated online by executing the function GENCARD as described in section *Using Batch Facilities* of the *Adabas Review User Documentation*.
2. The input physical command log file to be processed is addressed by link name RVUSEQ. This command log file can be generated directly by Adabas (LOGGING=YES) or by using Adabas Review's physical logging facility as described in section *Command Logging in Report Option Parameters* in the *Adabas Review User Documentation*.
3. Command log files generated by Adabas must be in sequential (DDLOG) format. You **must not** use a dual command log file directly as input to Adabas Review. If you are using Adabas dual command logging, the command log file must first be copied out to a sequential file using the Adabas utility ADARES function CLCOPY.

Adabas Review's Command Logging User Exit Example

Sample user exit code is provided in the file REVvrs.SRCE(LOGUEXIT).

For more information, see section *Command Logging in Report Option Parameters* in the *Adabas Review User Documentation*.