Adabas Review

Installation and Operations for BS2000

Version 4.3.2

September 2009

Adabas Review

This document applies to Adabas Review Version 4.3.2 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.

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1 Installation and Operations for BS2000

Adabas Review is a set of tools for monitoring the performance of Adabas environments and the applications executing within them. Information retrieved about Adabas usage helps you tune application programs to achieve maximum performance with minimal resources.

This part of the Adabas Review documentation provides information for installing and maintaining Adabas Review

- in local mode in the Adabas address space; or
- in hub mode as a hub (server) in its own address space with only interface (client) modules in the Adabas address space.

The Review installation documentation for BS2000 is organized as follows:

Preparing for the Installation	Provides the information needed to prepare for the installation of Adabas Review under BS2000 operating system environments under the teleprocessing monitors TIAM/batch or UTM.
Installation	Provides instructions for installing the Adabas Review components.
Starting Adabas Review	Discusses the initialization procedures performed by Adabas Review during startup.
Operations	Describes operation procedures for Adabas Review.
ADARUN Parameters	Discusses the Adabas ADARUN initialization parameters, most for use with the hub only.
Operator Commands	Describes operator commands for use with the hub only.

2 Preparing for the Installation

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This section of the documentation provides installation preparation information for Adabas Review 4.3.2 or above under BS2000 operating system environments.

The installation of Software AG products is performed by installation *jobs*, which are either created *manually* or generated by System Maintenance Aid (SMA).

For each step of the installation procedure described below, the job number of a job performing the respective task is indicated. This job number refers to an installation job generated by SMA. If you are not using SMA, a sample installation job of the same number is provided in the job library on the Natural installation tape; you must adapt this example job to your requirements.

For information about using Software AG's System Maintenance Aid (SMA) for the installation process, refer to the *System Maintenance Aid* documentation.

For installation with SMA please read #READ-ME.REV.

This chapter covers the following topics:

Prerequisites

Operating System Level

Before installing Adabas Review 4.3.2 or above, ensure that you are running BS2000 OSD 2.0 and above.

Adabas Version Requirements

There are specific version requirements for Review 4.3.2 in both local and hub mode. See section *Review 4.3 Version Compatibility* in the *Review 4.3.2 Release Notes* for a detailed matrix of these version requirements.

Natural Version Requirements

Adabas Review version 4.3.2 supports Natural version 2.3.4 and above.

TP Monitor Support

Adabas Review version 4.3.2 requires one of the following TP monitors:

- TIAM
- UTM

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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.

a 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 ASSOPFAC=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 ac-

cessed in local or hub mode. However, a database with a DBID of 255 can send data to a hub.

b 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 SYSREVDB library in your FNAT file.

Step 3: Modify the Natural parameter file

(Job I060 batch; Job I080 online)

a 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
NTWORK(7),AM=PC
```

NTWORK 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.

b 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
```

c 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.

d 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:

a Define the SYSREVDB library for the Adabas Review system.

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

Step 8: Apply Adabas ZAPs

a Upgrade the Adabas Review module libraries with Adabas fixes.

b Adapt and run the procedure REVvrs.JOBS(ADA*vrs*.Z000) where *vrs* is the version of Adabas under which Adabas Review is being installed.

Adapt and run the procedure REVvrs.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.

- 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

Item	P.GENERATE Parameter	Description
	&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 version, revision, 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>.RAO-SAUTO.<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):

a 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.

b 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.

c 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,<ddlnkpar_file_name>
```

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

d 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,<ddlnkpar_file_name>
```

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

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
```

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):

a Correct any library names or file names.

b 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.

c 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.

d 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,<ddlnkpar_file_name>
```

where <ddlnkpar_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,<ddlnkpar_file_name>
```

where *<ddlnkpar_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.

a Use the following BLSLIB structure:

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

b 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.

c 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)
```

d 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=FH
/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*.

4 Starting Adabas Review

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- Accessing Adabas Review 30
- Verifying the Installation Under TIAM/Batch or UTM 31

This section of the documentation describes the procedures for setting up and using Adabas Review after the installation has been completed:

- Initializing Adabas Review for the first time;
- Accessing Adabas Review;
- Verifying the Adabas Review installation.

This chapter covers the following topics:

Starting Adabas Review for the First Time

If this is the first time you have installed Adabas Review 4.3, or you have loaded a new Adabas Review repository file, you must initialize

- the user profile subsystem, which allows you to give users access to Adabas Review; and
- the Adabas Review data file, which designates a DBID for the Adabas Review repository, and installs the Review-supplied reports.

Initializing the Review User Profile Subsystem

To initialize the Review user profile subsystem

1 Access Natural as you normally do.

2 At the NEXT prompt, log on to the library SYSREVDB.

> **Note:** Wherever the NEXT prompt is specified, the command can also be issued from the Natural main menu command line.

3 At the NEXT prompt, type `INSTALL UP` and press ENTER.

This initializes the Review user profile subsystem and adds one default user record to the system. You must have this initial user defined in order to enter Review.

The following message appears when the user profile subsystem has been successfully installed:

```
Default user profile installed
```

Note: The Adabas Review default user profile is delivered with the HUB / DBID set to zero. When running Adabas Review in local mode, this setting causes the initial HUB / DBID to be set to the same value as the LFILE. However, when starting Adabas Review in hub mode, you need to modify the default user profile and reset the zero to the ADARUN REVIEW=*hubid value*. You can also manually override the default user profile HUB / DBID value by issuing HUB=*hubid* from the command line after you log on to Adabas Review.

4 At the NEXT prompt, type `MENU` and press ENTER to display the main menu:

```
14:20:20                A D A B A S  -  R E V I E W              2003-03-10
                                Main Menu                        LOCL=00222

                 Code               Description
                 ----     ---------------------------------
                  AA           Available ADABAS Nuclei
                  AO           ADABAS Online System
                  EB           Edit Buffer Pool Report
                  EL           Edit Pulse Report
                  ER           Edit Report Definition
                  ET           Edit Target Definition
                  EX           Edit Cluster Services Report
                  LH           List History Reports
                  LR           List Report Definitions
                  LS           List Started Reports
                  LT           List Target Definitions
                  SV           SVCs for AA
                  UP           User Profiles
                 ----     ---------------------------------

Command: ____________________________________________________________________


Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit                                                 Fin
```

Initializing the Adabas Review Data File

To initialize the Adabas Review data file

1 At the Review main menu command line, type `INSTALL DB` and press ENTER.

The Initialization Process window appears:

```
15:46:10                A D A B A S  -  R E V I E W              2003-03-10
                              Main Menu                          LOCL=00222


              +-------------------------------------------------+
              |            Initialization Process               |
              |                                                 |
              | You are about to save information into the      |
              | Review repository.                              |
              |                                                 |
              | The DBID/FNR of the Review repository is        |
              | currently set to: DBID: 221                     |
              |                    FNR:  12                     |
              |                                                 |
              | If this is correct enter 'YES' to continue,     |
              | else press enter to cancel: ___                 |
              |                                                 |
              +-------------------------------------------------+



Command: install db_____________________________________________________________
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9--PF10--PF11--PF12---
      Help        Exit                                                 Fin
```

2 Confirm or cancel the initialization.

You are prompted to confirm the DBID and FNR of the Adabas Review repository. If the DBID or FNR are not correct, you may cancel the initialization.

- To confirm the initialization, enter `YES` at the prompt.
- To cancel the initialization, press ENTER.

If the initialization is confirmed, the Default Target Definition screen appears.

```
15:46:47                A D A B A S  -  R E V I E W               2003-03-10
                              Main Menu                           LOCL=00222


             +-----------------------------------------------+
             +-----------------------------------------------+
             |          Default Target Definition            |
             |                                               |
             | Please enter the appropriate SVC and Version  |
             | for ADABAS DBID 222:                          |
             |                                               |
             |            ADABAS SVC ..... ___               |
             |            ADABAS Version .. ___              |
             |                                               |
             |                                               |
             +-----------------------------------------------+
             |                                               |
             +-----------------------------------------------+



Command: install db_____________________________________________________________
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help        Exit                                                   Fin
```

You are prompted to enter the Adabas SVC number and the Adabas version number of the database designated as the Adabas Review repository.

3 Type any number in the SVC field (an Adabas SVC is not used in BS2000). Type the Adabas version number in the Version field, and press ENTER.

Based on the information you provide, Review creates the default target definition and displays a message. A *target* is a database monitored by Review. For more information about target objects, refer to the *Adabas Review User Documentation*.

The Initialization Process screen appears as shown in the following example:

```
15:47:10                A D A B A S  -  R E V I E W               2003-03-10
                           Initialization Process                 LOCL=00222


    REV00104 - NOW CREATING DEFAULT TARGET DEFINITION
    REV00054 - NOW CREATING SAMPLE REPORT SUMMARY REPORT BY FILE
    REV00054 - NOW CREATING SAMPLE REPORT EXCEPTIONAL RESPONSE CODES
    REV00054 - NOW CREATING SAMPLE REPORT LONG RUNNING COMMANDS
    REV00054 - NOW CREATING SAMPLE REPORT COMMANDS BY HOUR
    REV00054 - NOW CREATING SAMPLE REPORT RATE OF COMMANDS AND IOS BY HOUR
    REV00054 - NOW CREATING SAMPLE REPORT RATE OF COMMANDS AND IOS BY DATE
```

```
     REV00054 - NOW CREATING SAMPLE REPORT NATURAL SUMMARY
     REV00054 - NOW CREATING SAMPLE REPORT WHO IS USING NATURAL
     REV00054 - NOW CREATING SAMPLE REPORT NATURAL PROGRAM TRACE
     REV00054 - NOW CREATING SAMPLE REPORT WHO USES SYSMAIN
     REV00054 - NOW CREATING SAMPLE REPORT TRANSACTION COUNT BY JOB
     REV00054 - NOW CREATING SAMPLE REPORT TRANSACTION COUNT BY JOB-NATAPPL
     REV00054 - NOW CREATING SAMPLE REPORT TRANSACTION COUNT BY JOB-USER
     REV00054 - NOW CREATING SAMPLE REPORT TRANSACTION COUNT BY NATURAL

 REV00006 - PRESS 'ENTER' TO CONTINUE INITIALIZATION PROCESS

 Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
```

The Adabas Review supplied reports are automatically added to the Adabas Review repository. As each report is added, a line is added to the Initialization Process screen. Each time the screen fills, you receive the following prompt:

```
Press ENTER to continue the initialization process.
```

4 Press ENTER as requested; continue until all Adabas Review supplied reports are initialized.

After all the reports are initialized, you are returned to the Review main menu.

Accessing Adabas Review

To access Adabas Review

1 Access Natural as you normally do.

2 At the NEXT prompt, log on to the library SYSREVDB (type `LOGON SYSREVDB`).

Note: Wherever the NEXT prompt is specified, the command can also be issued from the Natural main menu command line.

3 At the NEXT prompt, type `MENU` and press ENTER to access the Review main menu:

```
14:20:20                A D A B A S  -  R E V I E W              2003-03-10
                              Main Menu                          LOCL=00222

                Code              Description
                ----     --------------------------------
                 AA           Available ADABAS Nuclei
                 AO           ADABAS Online System
                 EB           Edit Buffer Pool Report
                 EL           Edit Pulse Report
                 ER           Edit Report Definition
```

```
                    ET           Edit Target Definition
                    EX           Edit Cluster Services Report
                    LH           List History Reports
                    LR           List Report Definitions
                    LS           List Started Reports
                    LT           List Target Definitions
                    SV           SVCs for AA
                    UP           User Profiles
                   ----     --------------------------------

Command: _____________________________________________________________________


Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit                                                  Fin
```

Verifying the Installation Under TIAM/Batch or UTM

To confirm that Adabas Review is correctly installed, the installation is verified each time you enter the Adabas Review online subsystem.

The following errors may be detected during processing:

USER BUFFER NOT LARGE ENOUGH

Explanation The user buffer extension is not large enough for Adabas Review to pass data to Adabas. The parameter LRVINFO was not set correctly in the link routine.

Action Use the procedure in the installation section of the documentation to correctly install the Adabas Review link routine exit in the link routine.

ADAPRM IS MISSING FROM THE PARAMETER LIST

Explanation The Natural ADAPRM area was not passed in the parameter list for the Adabas call. The value ADAPRM=ON was not set correctly in the parameter module (NATPARM) for the Natural nucleus currently executing.

Action Use the procedure in the installation section of the documentation to correctly add ADAPRM=ON to the Natural NATPARM parameter module.

THE ADABAS REVIEW LINK ROUTINE IS NOT CORRECTLY INSTALLED

Explanation The Adabas Review link routine exit is not installed in the copy of the link routine currently being executed.

Action Use the procedure in the installation section of the documentation to correctly install the Review link routine exit in the link routine.

THE ADABAS REVIEW REPOSITORY HAS NOT BEEN INITIALIZED

Explanation Adabas Review could not initialize because the repository file has not been initialized.

Action Use the procedure described in section ***Initializing the Adabas Review Data File*** to correctly initialize the repository file.

5 Operations

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- Files Used by Adabas Review 35
- Editing the RVUEXI Parameter File 37
- Command Logging Considerations 39
- Modifying Configuration Parameters 40
- User Exit 5 (Adabas Review Hub Event Handler) 43
- Review Natural User Exits 44

This section of the documentation describes operational procedures and processes for Adabas Review after it has been installed and initialized.

This chapter covers the following topics:

SYSOUT and a Subtask List Files

Adabas Review spawns the following subtask jobs:

- In local mode, the Review database and in hub mode, the Review hub spawns a job where the Review subtask REVIEWB runs.
- When an autogenerated report is started, a job running REVAUTO is started.
- When a history report is started, a job running RAOSHIST is started.

Each of these jobs generates a SYSLST file with the following file name structure:

```
L.<L/O>.<task_number>,<subtask>,<timestamp>
```

where

L	is for SYSLST
O	is for SYSOUT
task_number	is the task number of the Review database or Review hub
subtask	is one of the following:
	REVIEWB# for the Review subtask RAOSAUTO for the autogenerated report subtask RAOSHIST for the history report subtask
timestamp	is the STCK value (in hexadecimal) when the subtask was started

The files provide important diagnostic information when errors occur within the system. They may, however, accumulate in number over time so that it becomes necessary to delete them.

To delete all accumulated Review subtask listings

- Use the commands

```
/DELETE-FILE L.*REVIEWB#*
/DELETE-FILE L.*RAOSAUTO*
/DELETE-FILE L.*RAOSHIST*
```

Files Used by Adabas Review

RVLOG01 and RVLOG02 Command Logging Files

RVLOG01 and RVLOG02 are sequential command logging files. Each report performing command logging must reference a unique file name prefix and the number of command log files associated with that file name prefix.

Note: All command log datasets for a particular report must be the same size.

Adabas Review command logging under BS2000 is an optional feature. BS2000 uses its own command logging files.

Refer to the section *Command Logging Considerations* for more information.

RVUALT History File

RVUALT is an alternate sequential file used to save history data.

Adabas Review reports may specify whether the data accumulated by the report will also be written to the Adabas Review repository. Historical data is useful for monitoring database performance and for performing trend analysis.

The parameters that determine whether Adabas Review writes historical data are set when a user creates or edits a report definition. These history parameters appear on the Report Options screen of the Edit Report (ER) function.

If historical data is to be written by a report running in batch mode, the history parameters make up the COPY statement.

The Adabas Review hub start-up JCL contains a RVUALT job control statement. This statement identifies an alternate file to which historical data may be written.

In situations where the Adabas Review repository is unavailable, Adabas Review receives a response code 148.

In this case, Adabas Review writes the data to the file specified by the RVUALT job control statement, if it has been assigned in the job stream. The next time the Adabas Review hub is started, another subtask is started to copy the historical data to the Adabas Review repository.

Note: A separate RVUALT dataset must be allocated for each Adabas Review hub.

For BS2000 systems, allocate this file using P.GENERATE.

RVUAUT1 and RVUAUT2 Report Definition Datasets

RVUAUT1 and RVUAUT2 are datasets that contain the report definition control statements for autostarted reports. Adabas Review generates the statements and writes them to these files. When Adabas is initialized, the reports are started automatically.

For BS2000 systems, generate these files using P.GENERATE.

RVUCARD Dataset for GENCARD Command

RVUCARD is a dataset used by the `GENCARD` command. The `GENCARD` command creates batch parameter statements from report definitions created online.

For BS2000 systems, the command requires the user to supply a DDNAME, and the generated statements are written to the corresponding file.

RVUEXI Parameter File

RVUEXI is a parameter file that contains parameters to control the Adabas Review operating environment. The Adabas Review administrator may edit the RVUEXI parameters according to the specific needs of the site.

Refer to section ***Editing the RVUEXI Parameter File*** for more information.

RVUEXP Companion Output File

RVUEXP is a companion file to RVUEXI and if specified, any parameter processing errors encountered in RVUEXI will be written to the RVUEXP output file.

RVUFLD User Field Parameter Dataset

The RVUFLD dataset contains parameter control statements for creating user-defined fields. Parameters in this dataset define the length, type, and location of reporting fields to be determined by the user.

RVUPARM Dummy Dataset

Software AG recommends that you set RVUPARM as a dummy dataset. In previous releases, batch parameter statements were read from this file. Because these statements may now be generated using the `GENCARD` command, you no longer need to code batch parameters manually. Parameters may be coded in this dataset if desired, and Adabas Review will access this dataset prior to accessing datasets specified by RVUAUT1 and RVUAUT2.

For BS2000 systems, use the dataset *DUMMY.

Notes:

1. When RVUPARM is "dummied", the following message displays: **REV20164 - OPEN FAILED FOR RVUPARM**. When RVUPARM has been dummied, this message is normal and should be ignored.
2. The above error message can be avoided by creating a RVUPARM dataset that contains only an asterisk.

RVUPRTnn Logical Printer Files

RVUPRT00 for Adabas Review Statistics

RVUPRT00 is the Adabas Review logical printer for statistics about Adabas Review operations, such as number of reports, number of records processed, etc.

RVUPRTnn Files for Reports

```
RVUPRT01, 02,...nn
```

RVUPRT01 and above are Adabas Review logical printers used for reports. One logical printer is shared by all summary reports; each detail report requires its own logical printer. A job control statement corresponding to each logical printer must be added to the Adabas Review hub start-up job control (JCL).

Assignment of logical printers to reports depends on the order in which the reports are started:

- If the first report started is a *summary* report, RVUPRT01 is used for all summary reports.
- If the first report is a *detailed* report, RVUPRT01 is assigned to the detailed report, and another logical printer is used for summary reports. When a detail report is purged, the corresponding printer number is freed. The next detail report started will reuse the lowest available printer number.

Editing the RVUEXI Parameter File

RVUEXI is a parameter file that contains parameters which control the Adabas Review operating environment. The Adabas Review administrator may edit the following RVUEXI parameters according to the specific needs of the site:

Note: Default values are underlined in the following tables.

RVUEXI User-Specified Parameter

Parameter	Possible Values	Default
UIDT-CELLS	100-10000	1000

The user ID table is managed using a hashing algorithm. This value is numeric and specifies the number of 8-byte cells that should be allocated to the user ID table manager.

RVUEXI Timeout Parameters

Parameter	Possible Values	Default
UCMD-TIMEOUT	0-999	60

A small reentrant storage area is allocated for each active user of the Adabas Review online system (LIST, VIEW, START, PURGE reports functions). This area is deallocated when the user finishes each online request.

However, if the user's Natural session terminates abnormally during an Adabas Review operation, the Adabas Review nucleus may not have the opportunity to deallocate the reentrant area.

Specifying the UCMD-TIMEOUT parameter gives the Adabas Review nucleus a timeout value after which these inactive areas are deallocated. The timeout value is numeric and is specified in minutes.

Parameter	Possible Values	Default
UIDT-TIMEOUT	1-999	60

To report on the field `TPTRANCT`, Adabas Review must maintain a work area for each user that accesses Adabas. This area is called the user ID table.

If this field is specified in a report, the facility is activated and an area is allocated when Review receives the first call from each user. The area is deallocated when Review receives an Adabas CLOSE (`CL`) command for that user.

However, if the user's application does not issue a CL during termination, Review is unaware that the session has terminated.

The UIDT-TIMEOUT parameter is used to expire inactive user ID table elements. If the field `TPTRANCT` is *not* specified in any active reports, Review will *not* maintain user ID table elements for each user. This value is numeric and specifies the timeout value in minutes.

Command Logging Considerations

This section discusses administrative considerations when performing Adabas Review command logging.

Setting Up Command Logging

The user has options for determining how command logging is processed for reports. However, the Adabas Review administrator must complete the following tasks to set up the Adabas Review environment so that command logging can take place:

1. Allocate command log datasets

   Command log datasets must be allocated for reports.

2. Add job control statements to the Adabas Review hub start-up JCL

   Each report that performs command logging must have a command log file assigned to it. For each command log file, there must be a corresponding job control statement in the Adabas Review hub start-up JCL.

   The name must be a five-character name followed by a sequential number (01, 02, etc.) corresponding to the number of command logs.

   For example, if the name is CMLOG and there are two datasets to be defined, two statements are required with names as follows:

```
CMLOG01
CMLOG02
```

   The five-character name is referenced by the report in the command logging report option FILE. The total number of datasets is referenced by the report in the command logging report option NUM OF LOGS.

   Refer to the section ***RVLOG01 and RVLOG02 Command Logging Files*** for more information.

Using the Command Logging User Exit

Adabas Review writes to command log files in sequential order. When a command log file is filled, Adabas Review closes the file and switches to the next sequential file. If all files have been filled, Adabas Review switches back to the oldest file and begins again.

If a command logging user exit is *not* specified, Adabas Review simply closes a filled command log file and opens the next file. When all files are filled, Adabas Review writes over the file containing the oldest data.

LOGUEXIT

A user exit is provided so that the data contained in the command log file may be copied to a new file before the command log file is overwritten with new command log data. This user exit is called each time a command log file is closed or opened.

The source library member LOGUEXIT contains sample code for the user exit that processes command logs. You may modify this exit so that it conforms to your site requirements, and users may include the exit name on the Report Options screen of their report definition.

End-of-File Marker Position

When a command log file is opened, the user exit checks the position of the end-of-file marker to determine if there is any data in the command log file.

- If the position indicates that there is *no* data in the file, Adabas Review writes command log data to the file.
- If the position indicates that there *is* data in the file, Adabas Review sends a message to the operator asking whether Review should wait until the copying of the command log is completed, or begin writing to the command log file and overwrite the existing data.

Modifying Configuration Parameters

The Adabas Review administrator can modify configuration parameter values in the Natural text member CONFIGDB.

To access and modify the CONFIGDB parameters

1 At the Natural NEXT prompt, type `LOGON SYSREVDB` and press ENTER.

2 Type the command `EDIT CONFIGDB` and press ENTER.

3 Type `SAVE` and press ENTER to save the changes.

4 Type `MENU` at the prompt to return to Adabas Review.

CONFIGDB File Parameter Description

CONFIGDB contains parameters that affect Adabas Review.

CONFIGDB is saved in the Natural library SYSREVDB.

Parameter	Possible Values	Default
CURSOR-POSITION	BOT | TOP	BOT

Specifies whether the cursor is placed on the command line (BOT) in list displays, or on the SEL field (TOP).

Parameter	Possible Values	Default
DECIMAL-CHAR	NAPARM DC=*value*	.

Specifies the decimal character to use when generating Review reports. The value specified should match the value specified for the NATPARM DC parameter. To determine the current setting of the NATPARM DC parameter, issue `GLOBALS` at the NEXT prompt. The Review default value for `DECIMAL-CHAR` is a period ('.').

Parameter	Possible Values	Default
PC-FILE	'text'	'DOWNLOAD-PC-FILE-5'

Specifies the value to be used in the DOWNLOAD statement in the Review-generated programs. The value specified must be delimited with single apostrophes. The field is alphanumeric, maximum 20 characters.

Parameter	Possible Values	Default
RVXB-MESSAGE	YES | NO	YES

Specifies whether to display error messages about the incorrect installation of the Adabas Review link routine exits during installation verification.

Parameter	Possible Values	Default
UBAR	any valid character	|

Specifies the character to be used in maps as the vertical border. Any character recognized by your system is valid; the default value is '|'.

Parameter	Possible Values	Default
CLOSE-DBID	YES | NO	NO

Specifies whether to issue a close (CL) command to the old Adabas Review database when a new database is accessed with the HUB= (DBID=) command.

Parameter	Possible Values	Default
REVIEWDB-UEX	name	exit not enabled

Specifies the name of the site-dependent Natural routine to be called for validation of a user's access to an Adabas Review function.

Refer to Natural source member N-USEXIT for more information on the calling and processing conventions for this exit.

Parameter	Possible Values	Default
MAXIMUM-MAXK	0 | *nnnn*	0

Specifies the maximum value that can be specified for the report option, Max K. The Max K value determines the maximum amount of storage available for a specific report.

A value of 0 (the default) indicates that the Max K option is not restricted.

When specifying a value, MAXIMUM-MAXK must be 8 or greater.

Parameter	Possible Values	Default
OPEN-DBID	YES | NO	NO

Specifies whether an open (OP) command is issued to the new Adabas Review database when a new database is accessed with the HUB= (DBID=) command.

User Exit 5 (Adabas Review Hub Event Handler)

User exit 5 is called by the Adabas nucleus when an *event* occurs with the Adabas Review hub.

An event is defined as

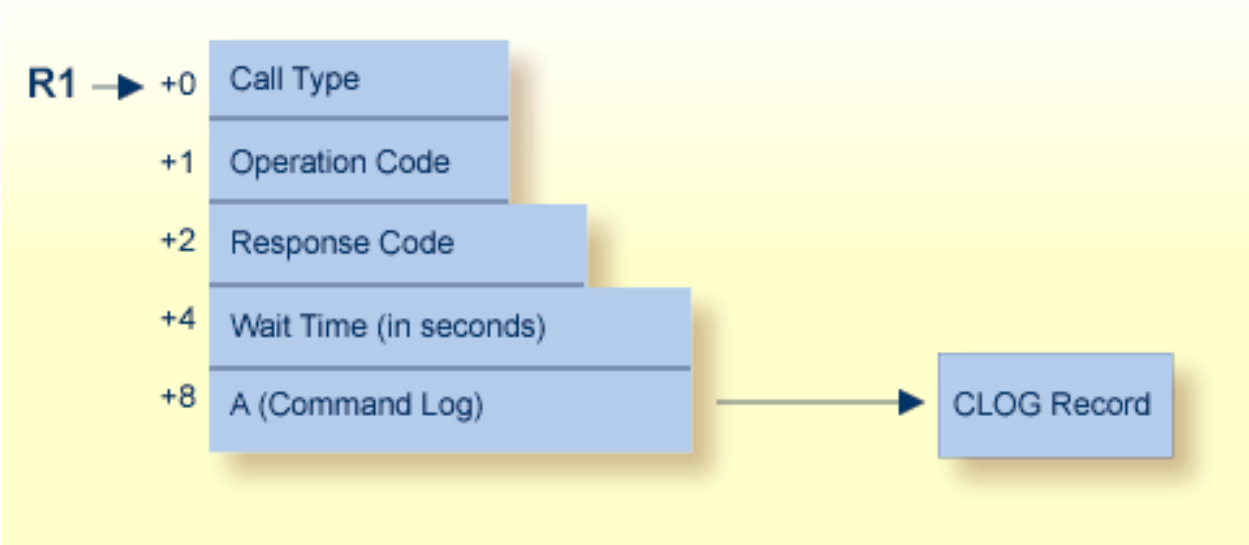
- a connection made with the Adabas Review hub during Adabas session open;
- a connection broken with the Adabas Review hub during Adabas session close; or
- a non-zero return code received from the send operation for a command log record.

The exit is invoked with AMODE=31 and should return control in the same state.

The exit is required to process logging errors. It determines how the failure is handled. The record that was not logged and the response code received from the Adabas Review hub logging request are provided to assist in making the determination.

Input Parameters

On entry, the register 1 points to the following parameter list:



Parameter	Header
0(R1)	Exit call indication. The value of this byte can be:
	O connection with Adabas Review hub opened; C connection with Adabas Review hub closed; or L sending logging error to Adabas Review hub.
1(R1)	Action to handle a logging error (ignored for open and close). The exit must provide one of the following values for this field in the parameter list for a logging error:
	W wait a specified time and then retry; R retry logging operation immediately; or I ignore the logging failure and continue without consequence.
2(R1)	Response code for logging errors. This response code is the same as the Adabas response code found in the *Adabas Messages and Codes* documentation.
4(R1)	Fullword where the exit must provide a wait time (in seconds) for the logging failures that are to be retried after waiting.
8(R1)	Address of the command log record that the Adabas nucleus was attempting to send to the Adabas Review hub.

Other Register Values at Entry

R13	save area of calling Adabas nucleus routine
R14	return address in Adabas nucleus
R15	entry point address for exit

Output Parameters

- For logging errors, the exit is required to set a value in the 'operation' field. If the wait value (W) is chosen, the exit is also required to provide a non-zero time value.
- Register 15 should be set to zero. All other registers should be returned intact.

Review Natural User Exits

Review has two Natural user exits. These exits are found in the Review system library in Natural, and may be modified by using the Natural editor. They are applicable to both the Adabas Review and Review Data Communication systems.

P-UEXIT1

Use:	You may place coding in this program to allow for site-specific needs.
Invoked:	This program is invoked when the online portion of Review is entered.
Example 1:	Setting colors on (`SET CONTROL` 'T3279').
Example 2:	Turning the PC mode on or off.
Remark:	This program must *not* alter the Natural stack, and it must end with a `STOP` command.

P-UEXIT2

Use:	You may place coding in this program to alter the processing that occurs when terminating Review.
Invoked:	This program is invoked when the online portion of Review is terminated.
Example 1:	Returning to Natural rather than terminating your session.
Example 2:	Logging on to another Natural application.
Example 3:	Returning to a previous Natural application (using `SETUP/RETURN`).

6 ADARUN Parameters

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- ADARUN Parameters 48

The ADARUN control statement defines and starts the Adabas operating environment. The ADARUN control statement also starts Adabas utilities.

The ADARUN parameters described in this section of the documentation apply to Adabas Review.

This chapter covers the following topics:

ADARUN Functions

ADARUN performs the following functions:

- Loads the ADAIOR module, which performs all database I/O and other functions that depend on the operating system.
- Interprets the ADARUN parameter statements; then loads and modifies the appropriate Adabas nucleus or utility modules according to the ADARUN parameter settings.
- Transfers control to Adabas.

The ADARUN statement, normally a series of entries each specifying one or more ADARUN parameter settings, is specified in the DDCARD dataset. For more specific job information, refer to the appropriate section of this documentation.

ADARUN Parameters

ADARUN Parameter Syntax

The syntax for the ADARUN statement and parameters is:

```
ADARUN {parameter=value},...
```

where *parameter=value* is one or more of the ADARUN parameters described in this section. The literal "ADARUN" must be entered in positions 1-6 of each ADARUN statement.

Any number of blanks is permitted between "ADARUN" and the first parameter, but no blanks are permitted within the *parameter=value* string. Commas (,) must be used as separators. A blank following a *parameter=value* entry indicates the end of the statement.

All *parameter=value* entries must end before position 73. If an entry would extend beyond position 72, it must be coded on a new statement as shown below. The comma following the last *parameter=value* entry of a statement is optional, and is not interpreted as a continuation character. Positions 73-80 are ignored. An asterisk (*) in position 1 indicates a user comment line.

The following example summarizes the ADARUN statement format. The first statement cannot continue beyond position 72. The second statement represents a continuation of the first statement. All ADARUN continuation statements have the same format and restrictions as the first statement.

Positions 1-6	Positions 8-72
"ADARUN"	*parameter=value*,*parameter=value*,...
"ADARUN"	*parameter=value*,...

The ADARUN parameters are summarized in the following table, and described in detail in the section following the table.

Unless noted otherwise, each parameter has a default value that ADARUN uses if the parameter is not specified.

Some parameter names can be abbreviated. The minimum acceptable abbreviation for a given parameter is shown in the following table by the underlined part of the parameter name. Parameter names shown without underlining cannot be abbreviated.

PROGRAM: Program to Be Executed

Parameter	Use	Possible Values	Default
PROGRAM	Specify the program to be executed.	ADANUC | ADAREV	USER

This parameter specifies what to execute: the Adabas nucleus for the interface installation or Adabas Review for the hub installation.

- For the Interface (client) installation, specify PROGRAM=ADANUC to start the Adabas nucleus that will log to Adabas Review hub 27:

  ```
  ADARUN  PROGRAM=ADANUC,REVIEW=27
  ```

  See the *Adabas Documentation* for more information about executing an Adabas nucleus.
- For the hub (server) installation, specify PROGRAM=ADAREV to start Adabas Review hub 27:

  ```
  ADARUN  PROGRAM=ADAREV,REVIEW=27
  ```

REVIEW: Adabas Review Control

Parameter	Use	Possible Values	Default
REVIEW	Enable Adabas Review in local or hub mode specifying the hub ID, if applicable.	NO | LOCAL | *dbid*	NO

Note: `REVIEW` replaces the ADARUN parameter `REVIEWHUBID` introduced in Adabas version 6; however, `REVIEWHUBID` remains a synonym for `REVIEW`.

`REVIEW` controls the use of the Adabas Review product:

Value	Meaning
NO	The default setting. Adabas Review is not started.
LOCAL	Adabas Review is started in local mode running in the Adabas address space as an extension of ADALOG. **Note:** Adabas Review no longer runs as a user exit 4.
dbid	Adabas Review is started in hub mode. The physical database ID that you specify for the hub identifies ■ the hub (server) itself (with PROGRAM=ADAREV) that is being started; or ■ from an Adabas nucleus (client), the hub that is the target for Adabas Review processing for that nucleus (with PROGRAM=ADANUC).

Note: Adabas Review version 4.2 supports 2-byte DBIDs for all databases being monitored and for the hub ID itself.

Example

For the Adabas Review hub (server) installation, start hub 202.

```
ADARUN PROGRAM=ADAREV,REVIEW=202
```

For the Adabas Review (client) installation, start the Adabas nucleus that will log to Adabas Review hub 202.

```
ADARUN PROGRAM=ADANUC,REVIEW=202
```

CMDQMODE: Command Queue Mode

Parameter	Use	Possible Values	Default
CMDQMODE	Specify whether to allocate the command queue memory pool below or above the 16-MB line.	BELOW | ABOVE	BELOW

`CMDQMODE` specifies whether to allocate the BS2000 memory pool for the Adabas command queue below or above the 16-MB line.

Value	Meaning
BELOW	The default setting. Places the BS2000 memory pool for the Adabas command queue below the 16-MB line in one or more 64-kilobyte segments.
ABOVE	Places the BS2000 memory pool for the Adabas command queue above the 16-MB line in one or more 1-MB segments.

Note: If ABOVE is specified, all Adabas communication components must be at level 5.2.6 or above. When ABOVE is specified, no participating tasks (user or nucleus) should specify AMODE=24; otherwise, space saturation can occur.

Example

Place the Adabas command queue memory pool above the 16-MB line in 1-MB segments.

```
ADARUN PROG=ADANUC,CMDQMODE=ABOVE
```

FORCE: Allow Database ID Table Entry Overwrite

Parameter	Use	Possible Values	Default
FORCE	Specify whether an Adabas Review hub can overwrite an existing ID table entry.	YES | NO	NO

A hub is not allowed to start if an ID table entry already exists for it. When an Adabas Review hub starts up, ADARUN scans the ID table to ensure that no entry exists.

The ID table entry is derived from the Review hub ID and the job name. Normally, the ID table entry is deleted when the hub terminates.

The `FORCE` parameter allows the hub to overwrite the existing ID table entry and start. FORCE=YES is required when restarting a session that terminated abnormally with an ADAM98 message. In this case, the ID table still contains an active entry for the hub.

Value	Meaning
YES	The hub that is starting can overwrite an existing ID table entry.
NO	The default setting. If the ID table contains an entry for the hub that is starting, the hub is not allowed to start.

Overwriting the existing entry by specifying FORCE=YES

- prevents further communication to the overwritten entry;
- causes loss of cross-memory environment resources, which cannot be restored until the next IPL.

Caution: Do not use the FORCE parameter unless absolutely necessary. Ensure that no hub is active for the ID table entry being overwritten.

Example

If the ID table contains an active entry for Review hub ID 27, overwrite the entry.

```
ADARUN PROG=ADAREV,FORCE=YES,REVIEW=27
```

NAB: Number of Attached Buffers

Parameter	Use	Minimum	Maximum	Default
NAB	Specify the number of attached buffers to be used.	0	500,000	16

An attached buffer is an internal buffer used for interregion communication. An attached buffer is required in all Adabas Review hub environments.

The Adabas Review hub allocates an attached buffer pool with a size equal to the value of NAB multiplied by 4096 bytes. You may specify as many attached buffers as fit into the available virtual storage.

In environments running in 31-bit addressing mode, the attached buffer pool space is allocated above the 16-MB line.

Example

Run the Adabas Review hub with 10,000 attached buffers.

```
ADARUN PROG=ADAREV,NAB=10000
```

NC: Number of Command Queue Elements

Parameter	Use	Minimum	Maximum	Default
NC	Set the maximum number of command queue elements.	20	32 767	200

The number of command queue elements to be established for the Adabas Review hub. This number determines the maximum number of command logs that may be queued and/or be in process at any one time in the Adabas Review hub.

Each command log is assigned a command queue element. The command queue element is released when the log record has been processed.

192 bytes are required for each command queue element.

Example

Run the Adabas Review hub with a maximum of 5000 command queue elements in the command queue.

```
ADARUN PROG=ADAREV,NC=5000
```

7 Operator Commands

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The commands in this section of the documentation are used to control the Adabas Review (ADAREV).

The operator commands perform the following general types of operations:

- Terminate an Adabas or user session;
- Display nucleus or utility information;
- Log commands into CLOG;
- Change Adabas operating parameters or conditions.

The commands are listed alphabetically.

This chapter covers the following topics:

Entering Operator Commands

The ADAREV operator commands are entered the same way as other Adabas operator commands.

In BS2000 environments, enter each command at the operator console by addressing the Adabas nucleus with its task sequence number (TSN) in the following form:

```
/INTR  TSN,command
```

For testing purposes, the nucleus may be run as a dialog process. The nucleus may be interrupted by pressing the K2 key, after which the prompt "/" appears. Now an operator command can be sent to the nucleus in the following form:

```
/INTR  command
```

Note: In the dialog mode, the nucleus stops as long as the INTR message is not sent back. The resume statement /RESUME causes the nucleus to resume where it was interrupted when no operator command is issued.

Operator commands are processed by a STXIT routine.

Operator Command Overview

The remainder of this section of the documentation describes the commands that an Adabas Review operator can enter from the console.

ADAEND

Used to terminate an ADAREV session normally; the Review nucleus is terminated normally. No new monitoring commands are accepted and all currently queued requests are dropped.

CANCEL

Used to terminate ADAREV immediately; the Review nucleus is abnormally terminated and the job aborts with a user completion code of 253.

DCLIENT

```
DCLIENT={dbid | ALL}
```

Displays information on the specified client or "ALL" clients. The DCLIENT displays the number of clients currently registered with the hub plus the individual status of each client, including the client's DBID, time of last activity, whether the client has any active reports and if buffers are required from the client, the number of reports (and of these, how many reports require buffer information), and the total number of monitoring data records received from the client. The following is an example of the message output:

```
REVH13 hub-id  001 CLIENT(S)  LAST-ACT RPT BUF PRTS WBUF LOG-RECORDS
REVH13 hub-id      196        03:22:48 Y   N   003  000  10,323
```

DCQ

Used to display the entire list of queued requests. The DCQ displays the sequence number, client's job name, client's user ID, request code, and status flags for each queued request.

Note: If a large value was set for NC (as is recommended), the DCQ request may incur delays in the Review hub processing if a large number of queue elements must be displayed. Also, the display on the operator console may fill the console's buffers causing further system delays.

The following is an example of the message output:

```
AREV07 hub-id  0000000013 NEXT EXPECTED SEQUENCE NUMBER
AREV07 hub-id  0000000011 ADASMP   ARVU D (C1D9E5E400C40000) PC 2800
AREV07 hub-id  0000000012 ADASMP   ARVU D (C1D9E5E400C40000) PC 2800
```

DNC

Used to display the number of queued requests currently in the command queue.

STARTCLIENT

```
STARTCLIENT={dbid | ALL}
```

Used to initiate a change order command to the specified client or "ALL" clients informing the client(s) to begin sending monitoring data to the hub. The change order is only sent to registered clients (clients that appear on the `DCLIENT` operator command display).

Note: A change order changes a client's operation only if the monitoring status has been changed. This occurs only in cases where a previous `STOPCLIENT` operator command had been issued.

STOPCLIENT

```
STOPCLIENT={dbid | ALL}
```

Initiate a change order command to the specified client or "ALL" clients informing the client(s) to stop sending monitoring data. The change order is only sent to registered clients (clients that appear on the `DCLIENT` operator command display).

Adabas Operator Commands

The following operator commands can be entered to monitor and control Adabas nucleus operation.

ADAEND

Terminate Adabas session normally. No new users are accepted after this command has been issued. ET logic updating is continued until the end of the current logical transaction for each user. After all activity has been completed as described above, the Adabas session is terminated.

CANCEL

Cancel Adabas session immediately. All command processing is immediately suspended. A pending AUTORESTART will be in effect which in turn will cause the AUTORESTART routine to be executed during the initialization of the next Adabas session.

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