Adabas Review

Installation and Operations for z/OS

Version 5.2.2

October 2022

ADABAS & NATURAL

This document applies to Adabas Review Version 5.2.2 and 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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Preface

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 document provides information for installing and maintaining Adabas Review in either of the following modes:

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

This document is organized as follows:

Preparing for the Installation	Describes installation prerequisites, installation tape information and how to copy the tape contents, and provides an overview of the Adabas Review installation process for z/OS systems.
Installation Phase 1	Describes the first phase of the Adabas Review installation process. Phase 1 comprises all the steps that are independent of any particular TP monitor environment.
Installation Phase 2	Describes the second phase of the Adabas Review installation process. Phase 2 installs the components that are specific to the particular TP monitor in use at your site.
Installing Adabas Review for zIIP	Describes how to install Adabas Review for zIIP.
Starting Adabas Review	Describes how to set up and get started using Adabas Review after the installation has been completed.
Operations	Describes operational procedures and processes for Adabas Review.
Operator Commands (Hub Mode Only)	Describes the commands used to control Adabas Review in hub mode.

1 Conventions

In the product documentation, the notation *vrs*, *vr*, or simply *v* is often used as a placeholder for the current product version, for example, in data set or module names.

Placeholder	Meaning	Definition
v	version	**Major Version** The first digit of the product version number indicates major architecture and functionality implementation or enhancement that adds value to the product.
r	release	**Minor Version** The second digit of the version number indicates functionality addition or enhancement that adds value to the product.
s	system maintenance level	**Correction Level** Correction levels contain error corrections only, without new functionality, including documentation of all modifications and repairs. In case it is necessary to include functional changes into a correction level, an exception handling process ensures that corresponding quality assurance activities are triggered. These functional changes are documented. The main target is to avoid impacts when you install such a correction level. The third number of an Adabas version denotes the system maintenance level. On certain platforms supported by Adabas, additional levels may exist, such as update package, patch level, service pack and hot fix.

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Document Conventions

Convention	Description
Bold	Identifies elements on a screen.
`Monospace font`	Identifies service names and locations in the format *`folder.subfolder.service`*, APIs, Java classes, methods, properties.
`Italic`	Identifies: Variables for which you must supply values specific to your own situation or environment. New terms the first time they occur in the text. References to other documentation sources.
`Monospace font`	Identifies: Text you must type in. Messages displayed by the system. Program code.
{ }	Indicates a set of choices from which you must choose one. Type only the information inside the curly braces. Do not type the { } symbols.
|	Separates two mutually exclusive choices in a syntax line. Type one of these choices. Do not type the | symbol.
[ ]	Indicates one or more options. Type only the information inside the square brackets. Do not type the [ ] symbols.
...	Indicates that you can type multiple options of the same type. Type only the information. Do not type the ellipsis (...).

Online Information and Support

Product Documentation

You can find the product documentation on our documentation website at **https://documentation.softwareag.com**.

In addition, you can also access the cloud product documentation via **https://www.softwareag.cloud**. Navigate to the desired product and then, depending on your solution, go to “Developer Center”, “User Center” or “Documentation”.

Product Training

You can find helpful product training material on our Learning Portal at **https://knowledge.softwareag.com**.

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You can collaborate with Software AG experts on our Tech Community website at **https://tech-community.softwareag.com**. From here you can, for example:

- Browse through our vast knowledge base.
- Ask questions and find answers in our discussion forums.
- Get the latest Software AG news and announcements.
- Explore our communities.
- Go to our public GitHub and Docker repositories at **https://github.com/softwareag** and **https://hub.docker.com/publishers/softwareag** and discover additional Software AG resources.

Product Support

Support for Software AG products is provided to licensed customers via our Empower Portal at **https://empower.softwareag.com**. Many services on this portal require that you have an account. If you do not yet have one, you can request it at **https://empower.softwareag.com/register**. Once you have an account, you can, for example:

- Download products, updates and fixes.
- Search the Knowledge Center for technical information and tips.
- Subscribe to early warnings and critical alerts.
- Open and update support incidents.
- Add product feature requests.

Data Protection

Software AG products provide functionality with respect to processing of personal data according to the EU General Data Protection Regulation (GDPR). Where applicable, appropriate steps are documented in the respective administration documentation.

3 Preparing for the Installation

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This chapter provides installation preparation information for Adabas Review under z/OS operating system environments.

For information regarding Software AG product compatibility with IBM platforms and any IBM requirements for Software AG products, please review the ***Product Compatibility for IBM Platforms*** web page.

Prerequisites for Adabas Review are described in *Software AG Product Support and Requirements*, in the *Adabas Review Release Notes*.

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

About the Adabas Review Installation Tape

This section describes the contents of the Adabas Review installation tape and the space requirements for each data set. Sample JCL to accomplish the transfer is also included.

Refer to the *Software AG Product Delivery Report* for the volume serial number, density, media type, data set names, and data set sequence numbers for the SP level being installed.

- Copying the Tape Contents
- Installation Tape Description
- Size of Adabas Review (Local Mode Only)
- Space Requirements
- Source Library Members
- Jobs Library Members

Copying the Tape Contents

Copy the data sets from the supplied installation medium to your disk before you perform the individual installation procedure for each component to be installed.

The way you copy the data sets depends on the installation method and the medium used:

- If you use System Maintenance Aid (SMA), refer to the copy job instructions provided in the *System Maintenance Aid* documentation.
- If you are not using SMA and want to copy the data sets from CD-ROM, refer to the README.TXT file on the CD-ROM.
- If you are not using SMA and want to copy the data sets from tape, follow the instructions in this section.

This section explains how to copy all data sets from tape to disk.

- Step 1: Copy Data Set COPY.JOB from Tape to Disk
- Step 2: Modify hilev.COPY.JOB on Your Disk
- Step 3: Submit COPY.JOB

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

- Modify the following sample job according to your requirements:

```
//SAGTAPE JOB SAG,CLASS=1,MSGCLASS=X
//* ---------------------------------
//COPY EXEC PGM=IEBGENER
//SYSUT1 DD DSN=COPY.JOB,
// DISP=(OLD,PASS),
// UNIT=(CASS,,DEFER),
// VOL=(,RETAIN,SER=tape-volser),
// LABEL=(2,SL)
//SYSUT2 DD DSN=hilev.COPY.JOB,
// DISP=(NEW,CATLG,DELETE),
// UNIT=3390,VOL=SER=disk-volser,
// SPACE=(TRK,(1,1),RLSE),
// DCB=*.SYSUT1
//SYSPRINT DD SYSOUT=*
//SYSIN DD DUMMY
//
```

  where:

  tape-volser is the VOLSER of the tape, for example: `T12345`,
  hilev is a valid high-level qualifier, and
  disk-volser is the VOLSER of the disk.

- Execute the job to copy the data set `COPY.JOB` to your disk.

Step 2: Modify hilev.COPY.JOB on Your Disk

- Modify *hilev*`.COPY.JOB` according to your requirements:

  Set `EXPDT` to a valid expiration date, for example, `99365`.

  Set `HILEV` to a valid high-level qualifier, for example, `USERLIB`.

  Set `LOCATION` to a storage location, for example, `STORCLAS=ABC` or `UNIT=3390,VOL=SER=USR123`.

Step 3: Submit COPY.JOB

- Execute `hilev.COPY.JOB` to copy single, multiple, or all data sets to your disk.

Installation Tape Description

The Adabas Review installation tape contains the following data sets:

Data Set	Created Using...	DCB=	Description
REV*vrs*.INPL	IEBGENER	(RECFM=VB,LRECL=4624,BLKSIZE=4628)	Adabas Review Natural objects.
REV*vrs*.SYSF	IEBGENER	(RECFM=VB,LRECL=9996,BLKSIZE=1000)	Adabas Review repository file.
REV*vrs*.SRCE	IEBCOPY	(RECFM=FB,LRECL=80,BLKSIZE=23440)	Adabas Review source modules and more installation jobs.
REV*vrs*.JOBS	IEBCOPY	(RECFM=FB,LRECL=80,BLKSIZE=23440)	Adabas Review installation jobs.
REV*vrs*.LOAD	IEBCOPY	(RECFM=U,BLKSIZE=6447)	Adabas Review load library.

Size of Adabas Review (Local Mode Only)

The REGION parameter for the Adabas nucleus job step may need to be increased to accommodate Adabas Review. Make sure there is enough space in the REGION for the buffer, allocated with the BUFFMB parameter.

Space Requirements

The space requirements for each data set on the installation tape are given in the following table:

Data Set Type	Directory Blocks	Cylinders (3390)
INPL	---	8
SYSF	---	1
SOURCE	10	1
JOBS	10	1
LOAD	10	1

In addition, the alternate history file for Adabas Review and the CICS-dependent load library for CICS installations require additional space as follows:

Data Set Type	Directory Blocks	Cylinders (3390)
Alternate history file	---	2
CICS-dependent load library	5	1

Source Library Members

Source library members for Adabas Review are as follows:

Member	Description
CLEXRUBX	Part of LORECR macro used in REVUXDET
FILETAB	Part of LORECR macro used in REVUXDET
LORECR	Macro of LORECR used in REVUXDET
REVCOST	Sample Adabas Review parameters used to produce an Adabas cost accounting report
REVUEX1	Sample user exit 1 (User field exit) program
REVUEX1C	Sample user exit 1 (User field exit) program for CICS environment
REVUEX5	Sample user exit 5 program
REVUXDET	Sample detail report user exit for writing SMF records
REVUXLOG	Sample Assembler source code for an Adabas Review command logging user exit
REVUXSUM	Sample summary report user exit
RVCLCOB	Sample COBOL copybook for parameter area for REVCLRP
RVUAUT1	Sample startup parameters for Adabas Review
RVUAUT2	Sample startup parameters for Adabas Review
RVUCARD	Sample parameters for running a batch job
RVUEXI	Sample operating environment control parameters for Adabas Review
RVUPARM	Internal use only
RVUFLD	Sample parameters for user-defined fields
SUMRECD	DSECT for the summary record layout data portion
SUMRECH	DSECT for the summary record layout header portion
SUMRECS	DSECT for the summary record layout schema portion
UEX5PARM	Macro used in REVUEX5
ZAPOPT	Contains optional zaps for installing Adabas Review

Caution: Sample user exits and programs and are not supported under any maintenance contract agreement.

Jobs Library Members

Jobs library members for Adabas Review are as follows:

Member	Description
AREVUEX1	Sample job for assembling the REVUEX1 (User field exit) for batch and TSO environment.
ASMUEX1C	Sample job for assembling and linking the REVUEX1C for CICS environment (User field exit).
ASMUXLOG	Sample job for assembling and linking the REVUXLOG.
BATCHRPT	Sample job to create batch reports with online administration tool SYSREVDB.
EXPANDxx	Sample jobs to upgrade an Adabas Review version repository. For the details please refer to *Migration from Previous Versions* in the *Release Notes*.
HISTCOMP	Sample job to compress history data from a batch Natural execution.
HISTDEL	Sample job to delete history data from a batch Natural execution.
HISTVIEW	Sample job to view history data from a batch Natural execution.
HUBJCL	Sample job to start the Adabas Review hub (not used in local mode).
LREVLCIC	For CICS installations; sample job used to link the Adabas Review link routine exit with the CICS Adabas command-level link routine; used when reporting in CICS.
LREVLCO	For Com-plete installations; sample job used to link the Adabas Review link routine exit with the Com-plete Adabas link routine; used when reporting in Com-plete.
LREVLNI	For IMS installations; sample job used to link the Adabas Review link routine exit with the IMS Adabas link routine; used when reporting in IMS.
LREVLNK/ LREVLKNR	For TSO installations; sample jobs used to link the Adabas Review link routine exit with the TSO/batch Adabas link routine (reentrant link routine) ; used when reporting in TSO or batch jobs.
LREVUEX1	Sample job for binding the ADALNK REVEXIT modules (RDBLX*sys*) together with the user exit REVUEX1 (User field exit).
MAKEALT	Sample JCL to create the RVUALT data set.
REVCLCOP	Sample JCL to copy and set end-of-file for a sequential command log created by Adabas Review.
REVIEWB	Sample JCL to process a sequential command log by the batch component of Adabas Review.
REVINPL	Sample job used to INPL the Adabas Review programs and DDMs from the INPL data set to the Natural system files.
REVLOAD	Sample job used to load the Adabas Review repository file.

Caution: Sample user exits and programs and are not supported under any maintenance contract agreement.

Installation Overview

Adabas Review is installed in two phases:

1. Phase 1: Install non-TP-specific components. All steps in this phase are identical regardless of the TP monitor in use:
   - Install Adabas Review under Natural;
   - Install the Adabas Review repository;
   - Install Adabas Review under Adabas;
   - Install the Adabas Review hub (hub mode only);
   - Optional installation procedures.
2. Phase 2: Install TP-specific components. Separate procedures are used to install Adabas Review under each of the supported TP monitors: Com-plete; CICS; TSO or TSS; and IMS/DC.

Phase one procedures are described in ***Installation: Phase 1***, elsewhere in this guide; phase two procedures in ***Installation: Phase 2***, elsewhere in this guide.

Before you install the product, be sure you have read the *Release Notes*, paying special attention to the supported platform list, the description of Software AG product support, enhancements, restrictions, and any migration considerations pertinent for this release of Adabas Review.

4 Installation: Phase 1

- Install Adabas Review under Natural 16
- Install the Adabas Review Repository 19
- Install Adabas Review under Adabas 20
- Install the Adabas Review Hub 23
- Optional Installation Procedures 24

Adabas Review can be installed in local mode in the Adabas address space, or as a hub (server) in its own address space with an interface (client) located in the address space of the Adabas being monitored. The procedures are the same except as noted.

Adabas Review is installed in two phases. This chapter describes Phase 1, which comprises all the steps that are independent of any particular TP monitor environment.

To complete Phase 1 of the installation, read the sections in Phase 1 that apply to the type of installation you have chosen and follow the steps described in those sections in order they are described in this chapter.

Note: Instructions for copying the tape contents to disk are provided in *Copying the Tape Contents*, elsewhere in this guide.

Phase 2, which comprises the steps that are specific to the TP monitor being used, is described in *Installation: Phase 2*, elsewhere in this guide.

Install Adabas Review under Natural

This section applies to both local and hub mode installations. It includes the following steps:

- Step 1. INPL Adabas Review
- Step 2. Create a Natural profile using the SYSPARM facility
- Step 3. Define Adabas Review libraries to Natural Security
- Step 4. Make AOSASM available to the Natural Nucleus

Step 1. INPL Adabas Review

Note: The entire Adabas Review application is stored in the SYSREVDB library. User profiles are stored in the SYSREVDU library.

INPL the Adabas Review programs and DDMs from the INPL data set to your Natural system files.

You may use any of your site-dependent Natural INPL JCL. Sample job REVINPL is provided in the Adabas Review jobs library.

Note: If you want to use Adabas Review together with Predict, your DDMs should be stored in a valid FDIC system file. For detailed information please refer to the relevant sections concerning DDMs in the *Predict* documentation and the *Natural* documentation.

Step 2. Create a Natural profile using the SYSPARM facility

1. Include the following parameter settings in the Natural profile:

Parameter	Requirement
LS=250	minimum
PS=80	minimum
MADIO=5000	minimum
MAXCL=0	minimum
ESIZE=64	minimum
ADAPRM=ON	required. ADAPRM=ON must be specified in order to use Adabas Review to report on Natural information.
NTWORK(nn),,AM=STD,DEST='WORK**'	Optional. May be used as download target when working with DISPLAY=EDITOR. The number of the work file is taken from the setting of PC-FILE in CONFIGDB.
NTWORK(7),AM=PC,OPEN=ACC	required for PC downloads. NTWORK is a Natural macro used to define the work file(s) to be used; AM is the access method. OPEN=ACC specifies that the work file will be opened when it is first accessed by a statement. For more information, see the Natural documentation. **Note:** Work file 7 is the default specified in the PC-FILE parameter of the CONFIGDB text member in SYSREVDB. The work file number specified in NTWORK and PC-FILE parameter must be the same.
NTPRINT(1)	Review uses Natural printer 1 to generate report display programs in the Natural source area. Working with DISPLAY=EDITOR respectively, the new Editor display programs you may enter a printer name, used in the DEFINE PRINTER OUTPUT syntax element. For more information see the Natural documentation.
COMP	Parameters for Com-plete. Set the value for NTHSIZE greater than 2400.

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

```
NTLFILE 241,dbid,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.

3. Reassemble and link the NATPARM module to your Natural nucleus.
4. To use the Software AG Editor display programs (DISPLAY=EDITOR in CONFIGDB), make sure the Software AG Editor is active and setup properly. Either setup a work file for the Software AG Editor, or set the EDPSIZE. For more information see section *Operating the Software AG Editor* in the *Natural for Mainframes* documentation.

Step 3. Define Adabas Review libraries to Natural Security

If Natural Security is installed, complete the following steps:

1 Define the SYSREVDB library for the Adabas Review system and the SYSREVDU library for the Adabas Review user profiles to Natural Security. Verify that the LIST command is allowed in the SYSREVDU library and that the READ command is allowed for the SYSREVDB library.

Note: If the Adabas Review application SYSREVDB is made private (i.e., the parameter People-protected=Y is specified), each user of Adabas Review must be linked to the SYSREVDB application.

2 Define Adabas Review files to Natural Security as public DDMs:

```
REVIEW-ADABAS-CLOG
REVIEW-ADABAS-SYSTEM
```

Step 4. Make AOSASM available to the Natural Nucleus

Note: AOSASM is delivered in the Adabas load library. If Adabas Online Services (AOS) are installed, AOSASM is already available.

To make AOSASM available to the Natural nucleus

- For a Com-plete or CICS environment, link the correct object module with the Natural TP nucleus.

  If a split Natural nucleus is to be installed, the AOSASM module must be linked to the shared portion of the nucleus and not to the thread portion.

Install the Adabas Review Repository

This section applies to both local and hub mode installations.

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

Hub mode only: 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.

This step includes the following substeps:

- Step 1. Modify the JCL for loading the Adabas Review repository
- Step 2. Load the Adabas Review repository file
- Step 3. Convert your repository and history file

Important: Users loading a new Adabas Review repository should run Steps 1 and 2 only and omit Step 3. Users converting the Adabas Review repository from a previous release should omit Steps 1 and 2 and run Step 3 only.

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

Before submitting the job REVLOAD provided in the Adabas Review jobs library, change:

- the DBID=*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.

- the SVC=*svc* parameter of the same two ADARUN statements to reflect the number of the SVC used for the database defined in the above step; and
- the ADALOD LOAD FILE=*fnr* statement to reflect the number of the file that will contain the Adabas Review file.

Step 2. Load the Adabas Review repository file

Load the Adabas Review repository file using the job REVLOAD modified in step 1.

Step 3. Convert your repository and history file

If you used the same repository file for a version of Adabas Review older than this release, Adabas Review requires that you convert your repository file and history data prior to running any new reports in this release of Adabas Review. For complete information on doing this, read *Migration from Previous Versions* , in the *Adabas Review Release Notes*.

Install Adabas Review under Adabas

This section includes the following steps:

- Step 1. Modify the Adabas initialization parameters
- Step 2. Modify the Adabas Startup JCL

Step 1. Modify the Adabas initialization parameters

For information about the relevant ADARUN parameters, read *ADARUN Parameters for Adabas Review*, in the *Adabas Review Reference Guide*. Then modify the Adabas ADARUN parameters to include the following:

- local mode only:

```
ADARUN PROGRAM=ADANUC
ADARUN REVIEW=LOCAL
ADARUN CLOGLAYOUT=8
```

- hub mode only for each database to be monitored by Adabas Review:

```
ADARUN PROGRAM=ADANUC
ADARUN REVIEW=hubid
ADARUN UEX5=user-exit  (optional)
```

where `hubid` is the Adabas Review hub ID and UEX5 is optional (see ***Operations***, elsewhere in this guide).

Note: For running the Review processor in local or hub mode the ADARUN parameter LOGGING can be set to NO, only if the command log will be used later as input for Review batch it is necessary together with the appropriate other parameters such as ADARUN LOGCB=YES, LOGCLEX=YES etc.

Step 2. Modify the Adabas Startup JCL

Perform one of the sets of steps below, depending on whether you are installing Adabas Review in local mode or in hub mode:

- Local Mode
- Hub Mode: Client Interface Installation for a Database

Local Mode

Before you modify the Adabas startup JCL, you may need to increase the REGION parameter for the Adabas nucleus job step to accommodate Adabas Review. Make sure the buffer allocated by BUFFMB fits into the REGION.

This section covers the following topics:

- RVUALT Considerations
- RVUAUT1 and RVUAUT2 Considerations

RVUALT Considerations

- The RVUALT DD statement refers to the data set that contains the alternate history file. You may use the same data set you used for earlier versions.
- The MAKEALT member of the jobs library contains sample JCL to create a RVUALT data set.
- If Adabas Review is installed on multiple databases, a RVUALT data set must be allocated for each database.
- Refer to the *Operations*, elsewhere in this guide for RVUALT guidelines.

RVUAUT1 and RVUAUT2 Considerations

- The RVUAUT1 and RVUAUT2 DD statements refer to the data sets that contain the report definitions for autostarted reports. These statements point to members of a PDS; however, they may be defined to point to sequential data sets if desired.
- You can use the distributed RVUAUT1 and RVUAUT2 files from earlier versions.

Note: In a future release of Adabas Review, RVUAUT2 will no longer be supported. RVUAUT1 only will be used for autostarted reports.

To modify the Adabas startup JCL for local mode:

1 Add the following DD statements to the Adabas startup JCL, replacing the `vrs` with the current version, revision, and system maintenance level number for Adabas Review:

```
//RVUEXI   DD DISP=SHR,DSN=REVvrs.SRCE(RVUEXI)
//RVUEXP   DD SYSOUT=X,LRECL=80
//RVUALT   DD DISP=SHR,DSN=REVvrs.ALTHIST
//RVUAUT1  DD DISP=SHR,DSN=REVvrs.SRCE(RVUAUT1)
//RVUAUT2  DD DISP=SHR,DSN=REVvrs.SRCE(RVUAUT2)
//RVUCARD  DD DISP=SHR,DSN=REVvrs.SRCE(RVUCARD)
//RVUFLD   DD DISP=SHR,DSN=REVvrs.SRCE(RVUFLD)
//RVUPARM  DD DUMMY
//RVUPRT00 DD SYSOUT=X,LRECL=80
//RVUPRT01 DD SYSOUT=X,LRECL=160
//RVUPRT02 DD SYSOUT=X,LRECL=160
//RVUPRT03 DD SYSOUT=X,LRECL=160
```

2 Add the Adabas Review load library to the Adabas STEPLIB concatenation.

Note: To retain APF authorization for Adabas, you must authorize the Adabas Review load library as well when it is added to the Adabas STEPLIB concatenation.

Hub Mode: Client Interface Installation for a Database

To install the Adabas Review client interface, repeat the following instructions for each database to be monitored. Note that each database to be monitored must use the same SVC as the Adabas Review hub.

1 Apply the required zaps.

2 Ensure that an unmodified ADALNK is available to Adabas in the Adabas load library or in a library concatenated before the Adabas load library.

ADALNK is loaded by Adabas to send information to the Adabas Review hub. Link routine exits such as RDBLXMVS or UEXB are not useful for the process of sending data to the hub and create unnecessary overhead when included in the ADALNK.

Put ADALNKs that include exits into another library.

Important: If an ADALNK batch link routine has been linked or modified by Software AG product modules or user exits, it cannot be used in any application startups of Adabas utility jobs or Adabas, Entire System Server, Adabas Review Hub, or Entire Net-Work nuclei.

3 Modify the ADARUN parameters of the database.

4 If the Adabas ADARUN parameter LOGCLEX=Y is specified to write the Review specific Command Log Extension (CLEX) to the command log, the Adabas Review library must be available in the client address space. If Review modules are not available, the warning message ARVU20 is issued.

5 Restart Adabas.

Install the Adabas Review Hub

To install the Adabas Review Hub, complete the steps described in this section:

- Step 1. Create a RVUALT data set
- Step 2. Modify the sample JCL member HUBJCL
- Step 3. Start the HUBJCL job

Step 1. Create a RVUALT data set

Use the sample JCL member MAKEALT.

This *alternate history* file is used to contain history information if Adabas Review is unable to access the Adabas Review repository. You may use the same data set you used for earlier versions. Refer to ***Operations***, elsewhere in this guide, for RVUALT guidelines.

Step 2. Modify the sample JCL member HUBJCL

- Correct any library names or file names.
- Modify the ADARUN parameter REVIEW=*hubid* to reflect the target ID you plan to use for the Adabas Review hub.
- Modify the ADARUN parameter SVC to reflect the correct SVC number. This SVC 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. For more information about these ADARUN parameters, read *ADARUN Parameters for Adabas Review*, in the *Adabas Review Reference Guide*.

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

- The RVUALT DD statement refers to the data set that contains the alternate history file.
- The RVUAUT1 and RVUAUT2 DD statements refer to the data sets that contain the report definitions for autostarted reports. These statements point to members of a PDS; however, they may be defined to point to sequential data sets if desired.

  You can use the RVUAUT1 and RVUAUT2 files distributed with Adabas Review.

  Note: The reports contained in the RVUAUTn files have a TARGET= parameter that specifies the database that the report will monitor. The default setting is TARGET=001. You may wish to change this setting.

Step 3. Start the HUBJCL job

Note: The STEPLIB needs to be APF-authorized.

Optional Installation Procedures

The following optional installation procedures may be completed as part of Phase 1 of the Adabas Review installation:

- Implement Support for Adabas Native SQL
- Implement Support for Reporting from Batch Natural

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.

Implement Support for Reporting from Batch Natural

This (optional) step applies both to local and hub mode installations.

To report on Natural activity from a batch Natural job:

- Modify and relink the Adabas link routine for batch/TSO as described in ***Install Adabas Review under Batch/TSO*** , elsewhere in this guide.

5 Installation: Phase 2

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- Install Adabas Review under CICS 30
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- Install Adabas Review under IMS/DC 35

The second phase installs the components that are specific to the particular TP monitor in use at your site. Separate procedures are used to install Adabas Review under each of the supported TP monitors:

- Com-plete
- CICS
- TSO or TSS (batch)
- IMS/DC

Install Adabas Review under Com-plete

This section describes the installation of Adabas Review under Com-plete, as well as tailoring and other recommendations for Adabas Review client reporting support under Com-plete.

- Basic Installation Steps for Adabas Review under Com-plete
- Client Reporting Support under Com-plete

Basic Installation Steps for Adabas Review under Com-plete

To install the Com-plete components of Adabas Review for use with the Adabas 8 Com-plete link routine:

1 Modify the member LCOGBL found in the ADA*vrs*.MVSSRCE library, and set the following LGBLSET parameters according to your requirements:

Parameter	Description	Syntax
REVHID	Specifies the preferred Adabas Review hub ID. This value can be checked during the Adabas TP monitoring installation or during the monitor activate process. If REVHID is set to zero (0), the preferred Adabas Review hub ID is dynamic. When the hub ID is dynamic, it cannot be checked during the Adabas TP monitoring installation and the call to turn on client reporting must supply the correct Adabas Review hub ID to use. If REVHID is specified, REVIEW=YES must also be specified. If REVHID is specified and REVIEW=NO is also specified, the assembly of the globals table will abort with condition code 16 and the following message is given:	`REVHID=hubid`

Parameter	Description	Syntax
	`REVHID requires REVIEW=YES` This parameter is not valid in VSE environments. The parameter exists in VSE environments, but should be set to "0".	
REVIEW	Indicates whether or not Software AG's Adabas Review performance monitor is installed and active. REVIEW=YES will automatically activate the Adabas Review performance monitor for all clients. REVIEW=COR requires COR=YES and indicates that client activation of the Adabas Review performance monitor will be deferred to the setting of the Adabas System Coordinator's client runtime control "Review". Refer to the *Adabas System Coordinator* documentation for more information on this client runtime control.	`REVIEW={NO ↩ | YES | COR}`
REVREL	This parameter is redundant and will be dropped in a future Adabas version. Please remove any use of this parameter from your LGBLSET input. Continued use of this parameter will result in the following informational MNOTE message: `REVREL= is redundant and is no longer required.` The assembly of the globals table is unaffected.	`REVREL={ }`
RVCLNT	Indicates whether Adabas Review client reporting should be allowed. When client reporting is allowed, it can be activated by the ADARUN RVCLIENT parameter in a batch environment (ADARUN PROGRAM=USER). The default is NO. If RVCLNT=YES is specified, REVIEW=YES must also be specified. If RVCLNT=YES is specified and REVIEW=NO is also specified, the assembly of the globals table will abort with condition code 16 and the following message is given: `RVCLNT=YES requires REVIEW=YES` This parameter is not valid in VSE environments. The parameter exists in VSE environments, but should be set to "NO".	`RVCLNT={YES|NO}`

For example, the following keywords indicate that Adabas Review support should be installed and, specifically, support for Adabas Review 4.6 and later.

```
REVIEW=YES
REVREL=46
```

2 Assemble and link the modified LCOGBL member into a load library and make it available for the next step.

3 Re-link the Adabas Version 8 Com-plete link routine using sample job LREVLCO in the Review JOBS data set, replacing the LCOGBL module with the one prepared in steps 1 and 2 and including the RDBLXCOM Review module for Com-plete.

4 Restart Adabas and Com-plete, and verify that an Adabas or WAL load library with the modules ADATMZ, ADALNKR, and CCSTCK is specified for the Com-plete startup job.

5 Initialize and test Adabas Review.

See **Starting Adabas Review** for information about initializing and verifying the installation of the online portion of Adabas Review.

Client Reporting Support under Com-plete

Support for client reporting is provided when you follow the **basic installation steps for Adabas Review under Com-plete** (described in the previous section). This section repeats those instructions and provides additional input specific to client monitoring support.

To install the Adabas Review client reporting components for use with the Adabas 8 Com-plete link routine:

1 Edit the LCOGBL link globals member found in the ADA*vrs*.MVSSRCE library. For client monitoring support, we recommend that you set the following LGBLSET keywords in this way:

Keyword	Recommended Setting	Discussion
OPSYS	ZOS	Specifies z/OS as the operating system.
TPMON	COM	Specifies Com-plete as the TP monitoring environment.
GEN	CSECT	Specifies that a CSECT should be generated for processing.
RENT	YES	Indicates that the globals module is reentrant.
GBLNAME	LCOGBL	Indicates that the name of the link globals module is LCOGBL.
REVIEW	YES	Indicates that Adabas Review is installed and active.
REVREL	-/-	This parameter is redundant and will be dropped in a future Adabas version. Please remove any use of this parameter from your LGBLSET input. Continued use of this parameter will result in the following informational MNOTE message:

Keyword	Recommended Setting	Discussion
		`REVREL= is redundant and is no longer required.` The assembly of the globals table is unaffected.
RVCLNT	YES	Indicates whether Adabas Review client reporting should be allowed. When client reporting is allowed, it can be activated by the ADARUN RVCLIENT parameter in a batch environment (ADARUN PROGRAM=USER).
REVHID	default hub ID or zero	Identifies the preferred Adabas Review hub ID.

2 Assemble and link the modified LCOGBL member into a load library and make it available for the next step.

3 Re-link the Adabas Version 8 Com-plete link routine using sample job LREVLCO in the Review JOBS data set, replacing the LCOGBL module with the one prepared in steps 1 and 2 and including the RDBLXCOM Review module for Com-plete.

Note: The REVEXIT2 code that handles Adabas Review client reporting is distributed with the RDBLXCOM load module.

4 Restart Adabas and Com-plete, and verify that an Adabas or WAL load library with the modules ADATMZ, ADALNKR, and CCSTCK is specified for the Com-plete startup job.

Client reporting support is installed.

When client reporting is installed, it is not automatically activated. Instead, you must manually activate it in one of the following ways.

- Use the Client Management screen in SYSREVDB to activate it online.
- Set the ADARUN RVCLIENT parameter to "ACTIVE" to activate it when you want to run client reports in batch environments.
- Call the batch module REVCLRP, specifying its RVCLFUNC parameter as "ON" to activate it within your own application program.

Once client reporting for Review is activated, storage for client reporting data is obtained from the client thread. To reduce the number of invocations of the Adabas Review Trans-port facility, the data is buffered. An additional 32K of storage from each active thread is required to support the buffered client data.

We also recommend that you run with Com-plete threads in key 08. Mixed thread keys may be used but there will be a performance penalty on every Adabas call as the Adabas Review exit switches between storage keys for the Com-plete kernel, key 08, and the key of the thread where the client reporting data is stored and back to Com-plete's key again before returning control to

ADALCO. Com-plete will use key 08 for threads when the THREAD-GROUP keyword is set as follows:

```
THREAD-GROUP=(DEFAULT,(DEF04,004,14,10,20,8))
```

Specifying "8" or "N" in the last subparameter indicates that Com-plete should obtain and run all thread storage in key 8. For more information, consult the Com-plete documentation.

If only Natural application programs are run under Com-plete, these will usually run in key 8 if the SKEY=ON Natural parameter is specified. This parameter causes Natural to switch into key 8 even if the thread itself was not defined to run key 8. SKEY=ON is the recommended setting for Natural running under Com-plete if Review client reporting is used.

Install Adabas Review under CICS

This section provides instructions for installing the CICS components of Adabas Review with the Adabas 8 CICS link routine.

The ACITMZ module is required to execute the target discovery process in a CICS environment. This module is invoked from Natural Review code to assist in the location of Adabas Review hubs.

To install the CICS components of Adabas Review for use with the Adabas Version 8 CICS link routine:

1 Modify the member CICSGBL found in the ACI*vrs*.MVSSRCE library, and set the following LGBLSET parameters according to your requirements:

Parameter	Description	Syntax
REVHID	Specifies the preferred Adabas Review hub ID. This value can be checked during the Adabas TP monitoring installation or during the monitor activate process. If REVHID is set to zero (0), the preferred Adabas Review hub ID is dynamic. When the hub ID is dynamic, it cannot be checked during the Adabas TP monitoring installation and the call to turn on client reporting must supply the correct Adabas Review hub ID to use. If REVHID is specified, REVIEW=YES must also be specified. If REVHID is specified and REVIEW=NO is also specified, the assembly of the globals table will abort with condition code 16 and the following message is given:	`REVHID=hubid`

Parameter	Description	Syntax
	`REVHID requires REVIEW=YES` This parameter is not valid in VSE environments. The parameter exists in VSE environments, but should be set to "0".	
REVIEW	Indicates whether or not Software AG's Adabas Review performance monitor is installed and active. REVIEW=YES will automatically activate the Adabas Review performance monitor for all clients. REVIEW=COR requires COR=YES and indicates that client activation of the Adabas Review performance monitor will be deferred to the setting of the Adabas System Coordinator's client runtime control "Review". Refer to the *Adabas System Coordinator* documentation for more information on this client runtime control.	`REVIEW={NO | YES | ↩ COR}`
REVREL	This parameter is redundant and will be dropped in a future Adabas version. Please remove any use of this parameter from your LGBLSET input. Continued use of this parameter will result in the following informational MNOTE message: `REVREL= is redundant and is no longer required.` The assembly of the globals table is unaffected.	`REVREL={ }`
RVCLNT	Indicates whether Adabas Review client reporting should be allowed and available for activation. RVCLNT=YES requires REVIEW=YES and indicates Adabas Review client reporting is allowed and available for the manual activation of all clients. Refer to the Adabas Review documentation for the means of activation. RVCLNT=COR requires REVIEW=YES or COR and indicates Adabas Review client reporting is allowed and activation is deferred to the setting of the Adabas System Coordinator's client runtime control "Client Monitor". Refer to the *Adabas System Coordinator* documentation for more information on this client runtime control.	`RVCLNT={NO|YES|COR}`

For example, the following keywords indicate that Adabas Review support should be installed and, specifically, support for Adabas Review 4.6 and later.

```
REVIEW=YES
REVREL=46
```

2 Assemble and link-edit the CICSGBL member. Be sure to include the Adabas Review exits in the link-edit with CICSGBL. In addition, be sure to include CICS module DFHEAI. A sample job, LREVLCIC, is provided in the Review JOBS data set to assist you.

Note: The RDBLXCIC module contains the REVEXIT2 program necessary to support Adabas Review client reporting. Consequently, when the globals table is relinked, the necessary program is present to support Adabas Review client reporting.

The Adabas Review exits include REVEXIT1 and REVEXIT2. To obtain data for all Adabas Review fields (TP monitor-specific and Natural-specific fields) that are obtained in the Adabas client address space (ADALNK), the REVEXIT1 entry point of the Adabas Review exit REVEXIT and the ADALNK routines from Adabas are used. To obtain data for all client reporting fields, the REVEXIT2 entry point of REVEXIT and the ADALNK routines must also be used.

These exits should be linked with ADALNK during installation, with the appropriate Adabas link globals table parameters (LGBLSET). The link globals table parameters specified via LGBLSET identify which exit entry points (REVEXIT1 or REVEXIT2) are called. If the LGBLSET parameter REVIEW=YES is set, then the exit is called by ADALNK before the Adabas call as entry point REVEXIT1; if the LGBLSET parameters RVCLNT and REVHID are also specified, then the exit is also called after the Adabas call as entry point REVEXIT2.

The modules used to perform the linkage between REVEXIT and ADALNK are provided with your Adabas Review installation with names in the format RDBLX*sys*, where *sys* is a three-character code representing the link environment (for example, MVS for z/OS environments, COM for Com-plete environments, IMS for IMS environments. For more information about performing this linkage, read the appropriate Adabas Review installation documentation.

3 Install ACITMZ.

To install ACITMZ, complete the following steps:

1. Copy the ACITMZ load module from the distribution library to a library in the CICS DFHRPL concatenation.
2. Using the DFHCSDUP utility or the CICS CEDA transaction, install the program definition for ACITMZ. A sample definition, DEFCTMZ, is provided in the ACI*vrs*.MVSSRCE data set to assist you.

4 Follow the instructions in the *Installing the Version 8 CICS Link Routines* in the Adabas Installation Manual if this is the first time the CICS link routines are being installed in this CICS system.

5 Restart Adabas and CICS.

6 Initialize and test Adabas and Review.

Read *Starting Adabas Review*, elsewhere in this guide, for information about initializing and verifying the installation of the online portion of Adabas Review.

Install Adabas Review under Batch/TSO

This section provides instructions for installing the TSO components of Adabas Review with the Adabas 8 TSO/batch link routine.

Important: If an ADALNK batch routine has been linked or modified by Adabas Review modules, it cannot be used in any application startups of Adabas utility jobs or Adabas, Entire System Server, Adabas Review Hub, or Entire Net-Work nuclei.

To install the batch/TSO components of Adabas Review for the Adabas 8 TSO/batch link routine:

1 Modify the member LNKGBLS found in the ADA*vrs*.MVSSRCE library, and set the following LGBLSET parameters according to your requirements:

Parameter	Description	Syntax
REVHID	Specifies the preferred Adabas Review hub ID. This value can be checked during the Adabas TP monitoring installation or during the monitor activate process. If REVHID is set to zero (0), the preferred Adabas Review hub ID is dynamic. When the hub ID is dynamic, it cannot be checked during the Adabas TP monitoring installation and the call to turn on client reporting must supply the correct Adabas Review hub ID to use. If REVHID is specified, REVIEW=YES must also be specified. If REVHID is specified and REVIEW=NO is also specified, the assembly of the globals table will abort with condition code 16 and the following message is given: `REVHID requires REVIEW=YES` This parameter is not valid in VSE environments. The parameter exists in VSE environments, but should be set to "0".	`REVHID=hubid`
REVIEW	Indicates whether or not Software AG's Adabas Review performance monitor is installed and active. REVIEW=YES will automatically activate the Adabas Review performance monitor for all clients. REVIEW=COR requires COR=YES and indicates that client activation of the Adabas Review performance monitor will be	`REVIEW={NO | YES | ↩ COR}`

Parameter	Description	Syntax
	deferred to the setting of the Adabas System Coordinator's client runtime control "Review". Refer to the *Adabas System Coordinator* documentation for more information on this client runtime control.	
REVREL	This parameter is redundant and will be dropped in a future Adabas version. Please remove any use of this parameter from your LGBLSET input. Continued use of this parameter will result in the following informational MNOTE message: `REVREL= is redundant and is no longer required.` The assembly of the globals table is unaffected.	`REVREL={ }`
RVCLNT	Indicates whether Adabas Review client reporting should be allowed and available for activation. RVCLNT=YES requires REVIEW=YES and indicates Adabas Review client reporting is allowed and available for the manual activation of all clients. Refer to the Adabas Review documentation for the means of activation. RVCLNT=COR requires REVIEW=YES or COR and indicates Adabas Review client reporting is allowed and activation is deferred to the setting of the Adabas System Coordinator's client runtime control "Client Monitor". Refer to the *Adabas System Coordinator* documentation for more information on this client runtime control.	`RVCLNT={NO|YES|COR}`

For example, the following keywords indicate that Adabas Review support should be installed and, specifically, support for Adabas Review 4.6 and later.

```
REVIEW=YES
REVREL=46
```

2 Assemble and link-edit the modified LNKGBLS member into a load library and make it available for the next step.

Note: Note: The RDBLXMVS module contains the REVEXIT2 program necessary to support Adabas Review client reporting. Consequently, when the globals table is re-linked, the necessary program is present to support Adabas Review client reporting.

3 Relink the Adabas Version 8 TSO/batch link routine using sample job LREVLNK in the Review JOBS data set, replacing the LNKGBLS module with the one prepared in steps 1 and 2 and including the RDBLXMVS Review module for TSO.

Note: If you elect to use the link routine ADALNKR, link the batch Review routine RDBLXMVS to ADALNKR using sample job LREVLNKR in the Review JOBS data set. The RDBLXMVS module contains the REVEXIT2 program necessary to support Adabas Review client reporting. Consequently, when the globals table is relinked, the necessary program is present to support Adabas Review client reporting.

The Adabas Review exits include REVEXIT1 and REVEXIT2. To obtain data for all Adabas Review fields (TP monitor-specific and Natural-specific fields) that are obtained in the Adabas client address space (ADALNK), the REVEXIT1 entry point of the Adabas Review exit REVEXIT and the ADALNK routines from Adabas are used. To obtain data for all client reporting fields, the REVEXIT2 entry point of REVEXIT and the ADALNK routines must also be used.

These exits should be linked with ADALNK during installation, with the appropriate Adabas link globals table parameters (LGBLSET). The link globals table parameters specified via LGBLSET identify which exit entry points (REVEXIT1 or REVEXIT2) are called. If the LGBLSET parameter REVIEW=YES is set, then the exit is called by ADALNK before the Adabas call as entry point REVEXIT1; if the LGBLSET parameters RVCLNT and REVHID are also specified, then the exit is also called after the Adabas call as entry point REVEXIT2.

The modules used to perform the linkage between REVEXIT and ADALNK are provided with your Adabas Review installation with names in the format RDBLX*sys*, where *sys* is a three-character code representing the link environment (for example, MVS for z/OS environments, COM for Com-plete environments, IMS for IMS environments. For more information about performing this linkage, read the appropriate Adabas Review installation documentation.

4 Restart Adabas and TSO, and verify that an Adabas or WAL load library with the modules ADATMZ, ADALNKR, and CCSTCK is specified for the batch/TSO startup job.

5 Initialize and test Adabas Review.

Read ***Starting Adabas Review***, elsewhere in this guide, for information about initializing and verifying the installation of the online portion of Adabas Review.

Install Adabas Review under IMS/DC

This section provides instructions for installing the IMS/DC components of Adabas Review for the Adabas 8 IMS/DC link routine.

To install the IMS/DC components of Adabas Review for the Adabas 8 IMS/DC link routine:

1 Modify the LNIGBL member found in AII*vrs*.MVSSRCE, setting the following LGBLSET keywords:

Parameter	Description	Syntax
REVHID	Specifies the preferred Adabas Review hub ID. This value can be checked during the Adabas TP monitoring installation or during the monitor activate process. If REVHID is set to zero (0), the preferred Adabas Review hub ID is dynamic. When the hub ID is dynamic, it cannot be checked during the Adabas TP monitoring installation and the call to turn on client reporting must supply the correct Adabas Review hub ID to use. If REVHID is specified, REVIEW=YES must also be specified. If REVHID is specified and REVIEW=NO is also specified, the assembly of the globals table will abort with condition code 16 and the following message is given: `REVHID requires REVIEW=YES` This parameter is not valid in VSE environments. The parameter exists in VSE environments, but should be set to "0".	`REVHID=hubid`
REVIEW	Indicates whether or not Software AG's Adabas Review performance monitor is installed and active.	`REVIEW={NO ↩ | YES}`
REVREL	This parameter is redundant and will be dropped in a future Adabas version. Please remove any use of this parameter from your LGBLSET input. Continued use of this parameter will result in the following informational MNOTE message: `REVREL= is redundant and is no longer required.` The assembly of the globals table is unaffected.	`REVREL={ }`
RVCLNT	Indicates whether Adabas Review client reporting should be allowed. When client reporting is allowed, it can be activated by the ADARUN RVCLIENT parameter in a batch environment (ADARUN PROGRAM=USER). The default is NO. If RVCLNT=YES is specified, REVIEW=YES must also be specified. If RVCLNT=YES is specified and REVIEW=NO is also specified, the assembly of the globals table will abort with condition code 16 and the following message is given:	`RVCLNT={YES|NO}`

Parameter	Description	Syntax
	`RVCLNT=YES requires REVIEW=YES` This parameter is not valid in VSE environments. The parameter exists in VSE environments, but should be set to "NO".	

For example, the following keywords indicate that Adabas Review support should be installed and, specifically, support for Adabas Review 4.6 and later.

```
REVIEW=YES
REVREL=46
```

2 Assemble and link-edit the modified LNIGBL member into a load library and make it available for the next step.

3 Modify and link the Natural IMS/DC interface using sample job LREVLNI in the Review JOBS data set. Include the following in the link of the Natural IMS interface modules:

- ADALNI and ADALNK

  Note: Do not link any Adabas Review link routine exits to ADALNI and ADALNK prior to this step. Also, do not code REVIEW=YES in the LNKGBLS table linked with ADALNK for the Natural IMS module.

- RDBLXIMS, the Adabas Review IMS/DC link routine exit.

  The Adabas Review exits include REVEXIT1 and REVEXIT2. To obtain data for all Adabas Review fields (TP monitor-specific and Natural-specific fields) that are obtained in the Adabas client address space (ADALNK), the REVEXIT1 entry point of the Adabas Review exit REVEXIT and the ADALNK routines from Adabas are used. To obtain data for all client reporting fields, the REVEXIT2 entry point of REVEXIT and the ADALNK routines must also be used.

  These exits should be linked with ADALNK during installation, with the appropriate Adabas link globals table parameters (LGBLSET). The link globals table parameters specified via LGBLSET identify which exit entry points (REVEXIT1 or REVEXIT2) are called. If the LGBLSET parameter REVIEW=YES is set, then the exit is called by ADALNK before the Adabas call as entry point REVEXIT1; if the LGBLSET parameters RVCLNT and REVHID are also specified, then the exit is also called after the Adabas call as entry point REVEXIT2.

  The modules used to perform the linkage between REVEXIT and ADALNK are provided with your Adabas Review installation with names in the format RDBLX*sys*, where *sys* is a three-character code representing the link environment (for example, MVS for z/OS environments, COM for Com-plete environments, IMS for IMS environments. For more information about performing this linkage, read the appropriate Adabas Review installation documentation.

Read ***Starting Adabas Review***, elsewhere in this guide, for information about initializing and verifying the installation of the online portion of Adabas Review.

6 Installing Adabas Review for zIIP

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- License 40
- Installation Steps 40

The installation of Adabas Review for zIIP is basically the same as for Adabas Review. All ADARUN parameters that are available with Adabas Version 8.4 SP2 are valid except for those mentioned in *Current Limitations* in the *Adabas for zIIP* documentation. The only additional parameter provided for the support of Adabas for zIIP is the `ZIIP` parameter of the Adabas Review INPUT statement, which is described in detail in the Adabas Operations Manual.

Prerequisites

Prerequisite for Adabas Review for zIIP is a z13 or z14 mainframe with one or more zIIP engines, running z/OS 2.1 or above. Adabas Review for zIIP needs one zIIP engine to perform effectively.

License

Adabas Review that is to run zIIP-enabled requires an associated license file for zIIP support. This is the same license file required by the Adabas for zIIP (AZPAD) selectable unit for Adabas. If the AZPAD license is not provided or erroneous, the Adabas Review hub will run, but with the zIIP support deactivated (ZIIP=NO).

Alternatively or in addition, the license file can be referred to by a 'DDLAZPAD' DD statement in the Review Hub job or started task. This may be used as a fallback for the case that the AZPADLIC module cannot be loaded.

Installation Steps

Perform the following steps to install Adabas Review for zIIP

1. Set up one or more load libraries for your Adabas nuclei and utilities that are to be run with Adabas Review for zIIP.
2. Set up the required license modules or datasets.
3. Install the Adabas SVC from the AZP843.LOAD library.
4. Specify parameter `ZIIP=YES` in the RVUAUT1/RVUAUT2 data set in the INPUT statement.
5. Start the REVIEW.

7 Starting Adabas Review

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- Verifying the Installation 47

This chapter describes the procedures for setting up and using Adabas Review after the installation has been completed.

Starting Adabas Review for the First Time

If this is the first time you have installed Adabas Review, or you have loaded a new Adabas Review repository file, Adabas Review will automatically initialize:

- the user profile system for controlling user access to Adabas Review; and
- the Adabas Review data file, which designates a DBID and SVC for the Adabas Review repository, and installs the supplied Adabas Review reports.

The following describes Adabas Review's basic processing steps and any input you need to provide:

1. The first time you start SYSREVDB and enter MENU, Adabas Review will detect whether the profiling system has been installed.
   - If it has been installed and you have user profiles already defined, Adabas Review will use those.
   - If it has not been installed, Adabas Review will install it automatically. It installs two profiles: one profile named DEFAULT and a profile with the same name as the user ID of the user initializing the system (the user who entered MENU). Both profiles have administrator privileges.
2. Immediately after Adabas Review addresses the installation and initialization of the user profile system, the following message appears before it starts initializing the Adabas Review data file.

   ```
   Default user profiles were installed.

         Press ENTER to continue. ↩
   ```

   Once you press ENTER, Adabas Review will automatically evaluate the Adabas Review user exits and RVCALL* programs on your current system.
3. If any Adabas Review user exits or RVCALL* programs are found in your environment, Adabas Review will recompile them so they work in the current release.

   If they do not exist on your system, Adabas Review will install them automatically. While Adabas Review addresses the installation and initialization of the user exits, the following message appears:

```
Installing Sample User Exits ↩
```

4 When user exit initialization is finished, Adabas Review will automatically detect if the repository is empty.

- If it is not empty, continue with Step 7 (REGEN ALL).
- If it is empty, Adabas Review displays the Initialization Process screen and waits for your input. The remainder of the processing steps involve initializing the Adabas Review data file and installing the supplied Adabas Review reports.

```
            Initialization Process

Review has not yet been initialized.

The following process will initialize the
Review file and create sample reports and
target definitions.

You are about to save information into the
REVIEW repository.

The DBID/FNR of the REVIEW repository is
currently set to: DBID: 221
                  FNR: 50

If this is correct enter 'YES' to continue,
else press enter to cancel: ___
```

Confirm or cancel the initialization on this screen.

5 Confirm or cancel the initialization on the Initialization Process screen.

- If the database ID (DBID) and file number (FNR) listed on this screen are correct for the Adabas Review repository, enter "YES" in the prompt to confirm the initialization.
- To cancel the initialization, press ENTER (without "YES" specified).

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

```
09:46:43                  A D A B A S  -  R E V I E W                2020-02-10
REVIEW-DB (10,252)                 Main Menu                  Hub Target: 296

               +-----------------------------------------------+
               +-----------------------------------------------+
               |          Default Target Definition            |
               |                                               |
               | Please enter the appropriate SVC and Version  |
               | for Adabas DBID 221:                          |
               |                                               |
               |            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.

6 Type in the SVC and Adabas version number in the appropriate fields on the Default Target Definition screen and press ENTER. Based on the information you provide, Adabas Review creates the default target definition and displays a message.

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

```
09:50:25                 *****   R E V I E W   *****                2020-02-10
                            Initialization Process
     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 reports supplied with Adabas Review 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
```

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

7 When the display program SR/X-00001 does not exist or is not executable, the installation process in SYSREVDB automatically triggers a `REGEN ALL`. Thus the display programs for the system reports and for all other existing report definitions will be (re-)generated. For more information on the `REGEN ALL` procress, see the description of the *REGEN ALL* command in the section *Command Reference*, in the *Adabas Review Reference Guide*.

Two windows will open that display the progress of the `REGEN ALL` command:

```
+-----------------------------------------------------+
| Display program source is now being generated       |
|                                                     |
| Report Name:  SUMMARY REPORT BY FILE                |
| Program Name: SR-00001                              |
|                                                     |
| <<<  DO NOT PRESS ANY KEYS  >>>                     |
|                                                     |
+-----------------------------------------------------+
```

```
+-----------------------------------------------------+
| Display programs will now be cataloged.             |
| This may take a while.                              |
|                                                     |
| For error log enter CATALL/<ENTR> on NEXT prompt    |
| in library SYSREVDB (or list member OCATALL).       |
| <<<  DO NOT PRESS ANY KEYS  >>>                     |
|                                                     |
+-----------------------------------------------------+
```

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

Note: When you install into an existing Adabas Review Version 4.9. environment, with an existing SYSREVDB and Adabas Review repository, a RECAT ALL will be performed instead of a REGEN ALL.

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).

Notes:

1. Wherever the NEXT prompt is specified, the command can also be issued from the Natural main menu command line.
2. SYSREVDB checks at its start, if user exits need to be generated or cataloged (e.g. because the GDA may have changed). In this case a RECAT ALL will be triggered, to avoid a GDA timestamp conflict using the display programs.

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

```
09:52:31                    A D A B A S  -  R E V I E W                2020-02-10
REVIEW-DB (10,252)                  Main Menu                   Hub Target: 296

                  Code                Description
                  ----      ---------------------------------
                   AA            Available ADABAS Nuclei
                   AH            Available Review Hubs
                   AO            ADABAS Online System
                   ER            Edit Report Definition
                   ES            Edit Specialty Reports
                   ET            Edit Target Definition
                   LC            List Scheduled Reports
                   LH            List History Reports
                   LR            List Report Definitions
                   LS            List Started Reports
                   LT            List Target Definitions
                   UP            User Profiles
                  ----      ---------------------------------



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

Verifying the Installation

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

- Errors That May Be Detected Under Com-plete
- Errors That May Be Detected Under TSO/Batch
- Errors That May Be Detected Under CICS

Errors That May Be Detected Under Com-plete

The following errors may be detected under Com-plete:

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 documentation to correctly add ADAPRM=ON to the Natural NATPARM parameter module.

USER BUFFER EXTENSION 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 Adabas/Com-plete link routine
Action	Use the procedure in the installation documentation to correctly install the Adabas Review link routine exit in the Adabas/Com-plete link routine.

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 documentation to correctly install the Adabas 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 *Starting Adabas Review for the First Time* to correctly initialize the repository file. If the problem persists, contact your Software AG technical support representative.

Errors That May Be Detected Under TSO/Batch

The following errors may be detected under TSO/Batch:

USER BUFFER NOT LARGE ENOUGH

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

Action Use the procedure in the installation documentation to correctly install the Adabas Review link routine exit in the Adabas/batch 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 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 Adabas/batch link routine currently being executed.

Action Use the procedure in the installation documentation to correctly install the Adabas Review link routine exit in the Adabas/batch 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 *Starting Adabas Review for the First Time* to correctly initialize the repository file. If the problem persists, contact your Software AG technical support representative.

Errors That May Be Detected Under CICS

The following errors may be detected under CICS:

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 Adabas/CICS link routine.

Action Use the procedure in the installation documentation to correctly install the Adabas Review link routine exit in the Adabas/CICS 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 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 Adabas/CICS link routine currently being executed.

Action Use the procedure in the installation documentation to correctly install the Adabas Review link routine exit in the Adabas/CICS 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 ***Starting Adabas Review for the First Time*** to correctly initialize the repository file. If the problem persists, contact your Software AG technical support representative.

8 Operations

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This chapter describes operational procedures and processes for Adabas Review after it has been installed and initialized.

Processing Abends

The Adabas Review main task in both local and hub modes is protected by an ESTAE. In local mode, the ESTAE protects the Adabas nucleus; in hub mode, it protects the Adabas Review clients (also Adabas nuclei).

In local mode, if Adabas Review processing terminates abnormally (abends) in the Adabas main task, the Adabas Review ESTAE routine is given control.

The ESTAE routine traps the abend and disables Adabas Review processing for the remainder of the Adabas nucleus session.

If you need help resolving the abend, contact your Software AG technical support representative with the printed information.

- Abend Protection for Adabas
- Message to Adabas Review users
- Messages to the Console

Abend Protection for Adabas

Adabas is protected from termination if Adabas Review abends. Adabas processing continues without interruption.

Note: Although Adabas will be temporarily unavailable during dump processing, it will continue processing as usual once the dump has completed.

Message to Adabas Review users

Users attempting to access Adabas Review following a trapped abend receive the following message:

```
Review not installed on database
```

Messages to the Console

The progress of the error handling routine is reported by messages written to the console. For z/OS, the following are example sequences of console messages sent during abend processing:

```
REV20122 - REVIEW ESTAE EXIT DRIVEN
REV20122 - REVIEW NOW DISABLED
REV20122 - ABEND 000C1000 PSW 078D2000 80129E98
REV20122 - R0  00000002 - R1  0D652DD0 - R2  000FD240 - R3  000FBCC0
REV20122 - R4  00129C48 - R5  0D50AFA8 - R6  0D6E8000 - R7  001331F8
REV20122 - R8  0D50B0E8 - R9  800E93E0 - R10 00042000 - R11 0D5007E0
REV20122 - R12 80128C48 - R13 00128D68 - R14 001294BA - R15 8000DD10
REV20122 - DUMP HAS BEEN TAKEN
REV20126 - REVIEW SUB-TASK DETACHED
REV20129 - HISTORY SUB-TASK DETACHED
```

Adding Adabas Startup Statements at Installation

Note: This section applies only when using Adabas Review in local mode.

Statements must be added to the Adabas startup job to accommodate Adabas Review. These statements are added during the installation of Adabas Review.

The added statements control many of the operating features of Adabas Review. Some identify parameter files that may be edited by the Review administrator.

The startup statements may be edited, or additional statements may be needed, depending upon the needs of your site. However, deleting any of these statements affects the functioning of Adabas Review and is, therefore, not recommended.

Adabas Startup Statements

The following is a listing of the statements added to the Adabas startup job during Adabas Review installation.

For z/OS, the following statements are added to the Adabas startup JCL:

```
//RVUEXI   DD DISP=SHR,DSN=REVvrs.SRCE(RVUEXI)
//RVUEXP   DD SYSOUT=X,LRECL=80,RECFM=FBA
//RVUALT   DD DISP=SHR,DSN=REVvrs.ALTHIST
//RVUAUT1  DD DISP=SHR,DSN=REVvrs.SRCE(RVUAUT1)
//RVUAUT2  DD DISP=SHR,DSN=REVvrs.SRCE(RVUAUT2)
//RVUCARD  DD DISP=SHR,DSN=REVvrs.SRCE(RVUCARD)
//RVUFLD   DD DISP=SHR,DSN=REVvrs.SRCE(RVUFLD)
//RVUPARM  DD DUMMY
//RVUPRT00 DD SYSOUT=X,LRECL=80,RECFM=FBA
```

```
//RVUPRT01 DD SYSOUT=X,LRECL=160,RECFM=FBA
//RVUPRT02 DD SYSOUT=X,LRECL=160,RECFM=FBA
//RVUPRT03 DD SYSOUT=X,LRECL=160,RECFM=FBA
//ADASNAP  DD SYSOUT=X
```

, where *vrs* is the current version, revision, and system maintenance level of Adabas Review.

The Adabas startup statements listed above identify files that are used by Adabas Review. Each of these files is described in the following section, ***Files Used by Adabas Review***.

Files Used by Adabas Review

This section describes the files used by Adabas Review:

- Logging Files
- RVUALT History File
- RVUAUT1 and RVUAUT2 Report Definition Data Sets
- RVUCARD Data Set for the GENCARD Command
- RVUEXI Parameter File
- RVUEXP Companion Output File
- RVUFLD User Field Parameter Data Set
- RVUPARM Dummy Data Set
- RVUPRTnn Logical Printer Files
- RVUSEQ Input file for Review Batch Processor

Note: The RVUPRT00 data set is mandatory for the Adabas Review processor. Omitting this data set prohibits the start of the subtask and affects the subsequent use of SYSREVDB for Adabas Review administration. For example, the TECH command within SYSREVDB can yield unpredictable results when Adabas Review is started without the RVUPRT00 data set. Other files described in this section can be omitted if not needed.

Logging Files

The following are the default names for sequential logging files:

- RVLOG for sequential command logging files.
- RVSUM for sequential summary logging files.
- RAWSM or RAWDT for Raw logging files.

Each report performing command logging or Raw logging must reference a unique file name prefix and a number of command log files associated with that file name prefix.

Only summary reports performing summary logging can use an existing file name prefix from a different report. The parameter definitions of the report which is started first will be used for all reports which are started afterwards.

Note: All log data sets for a particular report must be the same size.

Adabas Review allows each report to have up to 99 log files and writes to these files in sequential order. A DD statement must be added to the JCL for each log file. The names of these log files are made up of the file name prefix and a sequential number. The data sets for these log files may be allocated using IEFBR14 with the following DCB attributes:

```
RECFM=VB,BLKSIZE=10000,LRECL=9996,DSORG=PS
```

Note: While RECFM and DSORG cannot be altered, the combination of LRECL and BLKSIZE can be altered (for example, BLKSIZE=27998,LRECL=27994) to make better use of disk storage.

Refer to the section *Logging Considerations*, elsewhere in this guide, for more information.

RVUALT History File

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.

A RVUALT job control statement can identify an alternate sequential file to which historical data may be written when it cannot be written to the Adabas Review repository.

- In hub mode, the Adabas Review hub startup JCL contains a RVUALT statement.
- In local mode, the Adabas startup JCL must be modified to include a RVUALT statement during the Adabas Review installation procedure.

RVUALT data sets must be allocated:

- In hub mode, a separate RVUALT data set must be allocated for each Adabas Review hub.
- In local mode, if Adabas Review is installed on multiple databases, an RVUALT data set must be allocated for each database.

Note: Ensure that the RVUALT data set is large enough to store all the data Adabas Review writes to it. Monitor the RVUALT data set and take appropriate action if the data set becomes full.

The RVUALT history file is allocated using the following DCB attributes:

```
RECFM=VB,BLKSIZE=10000,LRECL=9996,DSORG=PS
```

Adabas Review receives a response code 148 (Adabas not active) and writes the data to the file specified by the RVUALT job control statement (if it has been assigned in the job stream) in situations where the Adabas Review repository is:

- unavailable (in hub mode).
- on the same database that is being monitored (in local mode). The response code is returned when the database is brought down and Adabas Review tries to write the historical data.

The next time the Adabas Review hub is started, another subtask is started to copy the historical data from the RVUALT file to the Adabas Review repository.

RVUAUT1 and RVUAUT2 Report Definition Data Sets

RVUAUT1 and RVUAUT2 are data sets that contain the report definition control statements for autostarted reports and also some system relevant session parameters such as buffer sizes (for more information, read *INPUT Statement*, in the *Adabas Review User Guide*. Adabas Review generates the statements and writes them to these files whenever online the target definition parameters are changed (read *Displaying SVC Lists and Target Objects* in the *Adabas Review Administration Guide*) or an autostarted report is created or changed.

When Adabas is initialized, the reports are started automatically.

The installation procedure for z/OS defines DD statements RVUAUT1 and RVUAUT2 so that they point to members of a partitioned data set (PDS). To avoid constant compression of these data sets, the DD statements may be modified to point to sequential data sets.

Note: In a future release of Adabas Review, RVUAUT2 will no longer be supported. RVUAUT1 only will be used for autostarted reports.

RVUCARD Data Set for the GENCARD Command

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

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 the section ***Editing the RVUEXI Parameter File***, elsewhere in this guide, 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 Data Set

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

RVUPARM Dummy Data Set

The recommended procedure is to set RVUPARM to "dummy". 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 data set if desired, and Adabas Review will access this data set prior to accessing data sets specified by RVUAUT1 and RVUAUT2.

When RVUPARM has been "dummied", the following message is displayed:

```
REV20164 - Open failed for RVUPARM
```

In this case, the message is normal and should be ignored. The message does not occur if instead you create a RVUPARM data set that contains only an asterisk.

RVUPRTnn Logical Printer Files

The following logical printer files are used by Adabas Review:

- RVUPRT00 for Adabas Review Statistics
- RVUPRTnn Files for Reports

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.

Note: The RVUPRT00 data set is mandatory for the Adabas Review processor. Omitting this data set prohibits the start of the subtask and affects the subsequent use of SYSREVDB for Adabas Review administration. For example, the TECH command within SYSREVDB can yield unpredictable results when Adabas Review is started without the RVUPRT00 data set. Other files described in this section can be omitted if not needed.

RVUPRTnn Files for Reports

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 (in local mode, to the Adabas) startup job control (JCL).

Assignment of reports to logical printers is as follows:

- Review statistics are written to RVUPRT00.
- Summary reports are written to RVUPRT01.
- The first detail report is written to RVUPRT02
- Additional detail reports begin at RVUPRT03 and increment the printer number for each additional report. When a detail report is purged, the corresponding printer number is freed. The next detail report started will reuse the lowest available printer number.

RVUSEQ Input file for Review Batch Processor

RVUSEQ specifies a sequential input file that contains Adabas command log records. This file is either created by Adabas or by Adabas Review. If you use Adabas dual command logging, you must first use the Adabas utility function ADARES CLCOPY to generate a sequential command log data set suitable for input into Adabas Review.

Editing the RVUEXI Parameter File

The RVUEXI file 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.

This section covers the following topics:

- RVUEXI User-Specified Parameter
- RVUEXI Timeout Parameters

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 eight-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.

Logging Considerations

This section discusses administrative considerations when performing Adabas Review command logging, summary logging or Raw logging.

- Setting Up Logging
- Using the Logging User Exit

Setting Up Logging

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

1. Allocate log data sets. Log data sets must be allocated for reports.
2. Add job control statements to the Adabas Review hub startup JCL (hub mode) or to the Adabas nucleus startup JCL (local mode).

   Each report that performs logging must have a log file assigned to it. For each log file, there must be a corresponding job control statement in the startup JCL.

   Only summary log files can be shared amongst more than one report. For command log data sets or Raw log data sets, they have to be defined uniquely. If this is not the case an appropriate error message will be printed and the report will be started without logging.

   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 data sets to be defined, two statements are required with names as follows: CMLOG01 and CMLOG02. The five-character name is referenced by the report in the File command logging report option. The total number of data sets is referenced by the report in the Num of Logs command logging report option. For more information about these logging options, read *Logging Options*, in the *Adabas Review User Guide*.

Refer to the section *Logging Files*, elsewhere in this guide, for more information.

Using the Logging User Exit

Adabas Review writes to log files in sequential order. When a log file is filled, Adabas Review closes the file, switches to the next sequential file, and continues writing. When all files have been filled, Adabas Review switches back to the oldest file to write data. If a logging user exit is *not* specified, Adabas Review will write over the log data in the file containing the oldest data.

A command logging user exit can be specified so that the data contained in the command log file can be copied to a new file before the command log file is overwritten with new command log data. This user exit will be called each time a file is closed or opened, but it is only called if you reference it in the User Exit report logging option. For more information about this logging option, read *Logging Options*, in the *Adabas Review User Guide*.

For complete information about the command logging user exit, read *REVUXLOG: Command or Summary Logging User Exit*, in the *Adabas Review Reference Guide*

Modifying Configuration Parameters

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

To access and modify these parameters:

1. At the Natural NEXT prompt, type LOGON SYSREVDB and press ENTER.
2. Type EDIT CONFIGDB and press ENTER.
3. After modifying the parameters, type SAVE and press ENTER to save the changes.
4. Type MENU at the prompt to return to Adabas Review.

The rest of this section describes the CONFIGDB file parameters.

CONFIGDB File Parameter Description

The CONFIGDB file contains parameters that affect Adabas Review. It is saved in the Natural library SYSREVDB.

Parameter	Possible Values	Default	Description
AVG-MEAN	AVG | MEAN	AVG	Specifies whether the term "AVG" or "MEAN" appears on reports and SYSREVDB screens where average (mean) values are displayed.
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.
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).
DECIMAL-CHAR	NAT|*char*	NAT	Specifies the decimal character to use when generating Review reports. The value specified overrides the value specified for the NATPARM DC parameter. If the value specified is NAT then the value specified in the NATPARM DC parameter is used. To determine the current setting of the NATPARM DC parameter, issue GLOBALS at the NEXT prompt.
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 4 or greater for z/OS.
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.
PC-FILE	'*text*'	'DOWNLOAD-PC-FILE-7'	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. This work file must be defined at Natural start.

Parameter	Possible Values	Default	Description
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.
RVBX-MESSAGE	YES | NO	YES	Specifies whether to display error messages about the incorrect installation of the Adabas Review link routine exits during installation verification.
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 "|".
DISPLAY	BASIC | EDITOR	BASIC	Specifies whether the traditional method for generating display programs will be used (value "BASIC", default) or if display programs will be generated using the Software AG Editor (value "EDITOR").
HDR-LINE-COUNT	-1 | 0 | nnnn	-1	Specifies after how many data lines header lines will be inserted. When set to -1, a header will be inserted in every page, depending on the page size. When set to 0, one header will be inserted at the top of the data.
FIXED-CHARS	-1 | 0 | nnnn	-1	Specifies the number of fixed bytes in the editor area when scrolling left/right. When set to -1, FIXED-CHARS will be set to the length of the first column.
MAX-NO-OF-LINES	-1 | 0 | nnnnn	3000	Specifies the maximum number of lines loaded into the editor buffer pool. With a limit of 3000 long loading times or overflow of the Editor buffer pool shall be avoided. For higher numbers make sure the work file for the Editor buffer pool or the EDPSIZE is big enough. A value of -1 or 0 means “no limit”. In this case the size of the Editor buffer pool is the limit.

Adabas Review Natural User Exits

Adabas Review has two Natural user exits. These exits are located in the Adabas Review system library in Natural, and may be modified by using the Natural editor.

For more information about these exits, read *P-UEXIT1 and P-UEXIT2: Review Natural User Exits*, in the *Adabas Review Reference Guide*.

9 Operator Commands (Hub Mode Only)

- Entering Operator Commands 66
- Operator Command Overview 66

Note: The commands described in this chapter are used only in hub mode.

The commands in this chapter are used to control Adabas Review (ADAREV) in hub mode. 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.

In this chapter, the commands are listed alphabetically.

Entering Operator Commands

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

To enter operator commands in z/OS environments:

- Use the OS MODIFY (F) command as shown below:

  ```
  F jobname,command
  ```

  Substitute the name specified by the EXEC job control statement (usually "ADARUN") for *jobname*.

Operator Command Overview

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

- ADAEND Operator Command
- CANCEL Operator Command
- DCLIENT Operator Command
- DCQ Operator Command
- DNC Operator Command
- STARTCLIENT Operator Command (also called STARTDB)
- STOPCLIENT Operator Command (also called STOPDB)

- Adabas Operator Commands

ADAEND Operator Command

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

CANCEL Operator Command

Use the CANCEL operator command to terminate ADAREV immediately; the Adabas Review nucleus is abnormally terminated and the job aborts with a user completion code of 253.

DCLIENT Operator Command

DCLIENT = { *dbid* | ALL}

Use the DCLIENT operator command to display information about the specified client or about all (ALL) clients. DCLIENT displays the number of clients currently registered with the hub and the individual status of each client, including the client's DBID, the associated nucleus IDs (for cluster databases), the time of last activity, the number of DBID=ALL reports, the number of database reports, any buffers required by the client, and the total number of monitoring data records received from the client. The following is an example of the message output:

```
REVH13 11135 Dbid Nucid Last-act Rpts Buffers Log-records
REVH13 11135 00001       22:15:18 01/01 FRSVIM 2222
REVH13 11135 00002       --:--:-- 01/00 ------ 0
REVH13 11135 00129       --:--:-- 01/02 -R---- 0
REVH13 11135 00129-00120 22:15:18 00/00 ------ 1
REVH13 11135 00129-00177 22:15:20 00/00 ------ 170
REVH13 11135 00129-00230 --:--:-- 00/00 ------ 0
```

In this example:

- Database 001 has one DBID=ALL report and one database-specific report running (01/01) and six specific buffers requested: the format buffer (F), the record buffer (R), the search buffer (S), the value buffer (V), the ISN buffer (I), and the multifetch buffer (M). This database sent 2222 log records to the hub.
- Database 002 has only one DBID=ALL report running (01/00) and no specific buffers are requested. This database has not yet sent any log records to the hub.
- Finally, database 129 is a cluster database with three nucleus IDs (00120, 00177, and 00230). It has one DBID=ALL report running and two database-specific reports (01/02). A record buffer only is requested. This report and buffer information is not repeated for each nucleus in the cluster, but the individual values for last activity time and the number of log records submitted to the hub for each nucleus is shown.

DCQ Operator Command

Use the DCQ command 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 Adabas 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 hubid  0000000013 NEXT EXPECTED SEQUENCE NUMBER
AREV07 hubid  0000000011 ADASMP    ARVU D   (C1D9E5E400C40000)  PC 2800
AREV07 hubid  0000000012 ADASMP    ARVU D   (C1D9E5E400C40000)  PC 2800
```

DNC Operator Command

Use the DNC operator command to display the number of queued requests currently in the command queue.

STARTCLIENT Operator Command (also called STARTDB)

STARTCLIENT = { *dbid* | ALL }

Use the STARTCLIENT operator command (also called the STARTDB operator command) to initiate a change order command to the specified client or to all (ALL) clients informing them 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 Operator Command (also called STOPDB)

STOPCLIENT = { *dbid* | ALL }

Use the STOPCLIENT operator command (also called the STOPDB operator command) to initiate a change order command to the specified client or to all (ALL) clients informing them 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
- CANCEL

ADAEND

Terminates the Adabas session normally. No new users are accepted after this command has been issued. ET logic updating continues 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

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

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