

Adabas for Linux, UNIX and Windows

Adabas Version 6.7.1 Release Notes

Version 6.7.1

October 2019

This document applies to Adabas for Linux, UNIX and Windows Version 6.7.1 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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1 Adabas Version 6.7.1 Release Notes

This document gives an overview of the features of Adabas Version 6.7.1 that have been introduced or modified since the previous release (Version 6.7). It also describes how to convert to and from previous database versions, e.g. Versions 6.1, 6.2, 6.3, 6.4, 6.5 and 6.6.

The document contains the following sections:

- **General Information**
- **New, Modified and Dropped Features**
- **Limitations and Restrictions**
- **Converting a Database from a previous version to and from version 6.7.1**
- **End of Maintenance**
- **Documentation and Other Online Information**

2 About this Documentation

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Document Conventions

Convention	Description
Bold	Identifies elements on a screen.
Monospace font	Identifies service names and locations in the format <i>folder.subfolder.service</i> , APIs, Java classes, methods, properties.
<i>Italic</i>	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

Software AG Documentation Website

You can find documentation on the Software AG Documentation website at <https://documentation.softwareag.com>.

Software AG Empower Product Support Website

If you do not yet have an account for Empower, send an email to empower@softwareag.com with your name, company, and company email address and request an account.

Once you have an account, you can open Support Incidents online via the eService section of Empower at <https://empower.softwareag.com/>.

You can find product information on the Software AG Empower Product Support website at <https://empower.softwareag.com>.

To submit feature/enhancement requests, get information about product availability, and download products, go to [Products](#).

To get information about fixes and to read early warnings, technical papers, and knowledge base articles, go to the [Knowledge Center](#).

If you have any questions, you can find a local or toll-free number for your country in our Global Support Contact Directory at https://empower.softwareag.com/public_directory.aspx and give us a call.

Software AG Tech Community

You can find documentation and other technical information on the Software AG Tech Community website at <https://techcommunity.softwareag.com>. You can:

- Access product documentation, if you have Tech Community credentials. If you do not, you will need to register and specify "Documentation" as an area of interest.
- Access articles, code samples, demos, and tutorials.
- Use the online discussion forums, moderated by Software AG professionals, to ask questions, discuss best practices, and learn how other customers are using Software AG technology.
- Link to external websites that discuss open standards and web technology.

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.

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General Information

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This chapter provides information which you should be aware of before you install and use Adabas Version 6.7.1

Supported Operating Systems

Software AG generally provides support for the operating system platform versions supported by their respective manufacturers; when an operating system platform provider stops supporting a version of an operating system, Software AG will stop supporting that version.

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.

Before attempting to install this product, ensure that your host operating system is at the minimum required level. For information on the operating system platform versions supported by Software AG products, complete the following steps.

1. Access Software AG's Empower web site at <https://empower.softwareag.com>.
2. Log into Empower. Once you have logged in, you can expand **Products & Documentation** in the left menu of the web page and select **Product Version Availability** to access the Product Version Availability screen.
3. Use the fields on the top of this screen to filter its results for your Software AG product. When you click the **Search** button, the supported Software AG products that meet the filter criteria are listed in the table below the filter criteria.

This list provides, by supported operating system platform:

- the Software AG general availability (GA) date of the Software AG product;
- the date the operating system platform is scheduled for retirement (OS Retirement);
- the Software AG end-of-maintenance (EOM) date for the product; and
- the Software AG end-of-sustained-support (EOSS) date for the product.



Note: Although it may be technically possible to run a new version of your Software AG product on an older operating system, Software AG cannot continue to support operating system versions that are no longer supported by the system's provider. If you have questions about support, or if you plan to install this product on a release, version, or type of operating system other than one listed on the Product Version Availability screen described above, consult Software AG technical support to determine whether support is possible, and under what circumstances.

Installation

System Requirements

The system requirements for the current version of Adabas are contained in the installation documentation *System Requirements* (for UNIX platforms) and *System Requirements* (for Windows platforms).

Compatibility with Previous Versions

If you are upgrading from an earlier version of Adabas to Version 6.7.1, you should first read the release notes of any intermediate or skipped versions in order to find out about any compatibility issues that might exist.

Support for Adabas Version 6.7.1

Adabas Version 6.7.1 is the official replacement for Adabas Version 6.7. Details of when support for earlier versions will cease can be found in Empower.

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New, Modified and Dropped Features

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This chapter describes the new and modified features in Adabas Version 6.7.1.

New Features

Adabas Role-Based Security

Adabas role-based security implements Role-Based Access Control (RBAC), and restricts access on the basis of the roles assigned to a user, and the permissions that are assigned to those roles.

This feature includes the following functionality:

- Authentication

This provides a means of validating credentials against an authority.

- Authorization for Direct Call Interface

This provides a means of restricting the usage of Adabas commands which access a file, by assigning users a role which represents selective access privileges.

- Authorization for Adabas Utilities

This provides a means of restricting the execution of Adabas utilities, by assigning users a role which has the execute privilege.

- Audit Trail

This provides a means of tracking access attempts and security violations.

The utility ADARBA provides the functionality required to administer security definitions.

IMPORTANT

Before securing databases with Adabas role-based security, you should familiarize yourself with the concepts and implementation of this feature.

Please note the following:

- The security mode cannot be disabled once it is enabled;
- The security mode cannot be changed from ACTIVE to WARN;
- This feature could have a detrimental influence on the overall system performance, as is described in the section *Performance Considerations*.

When introducing this feature, it is recommended to initially start with Security Mode WARN.

ADATCP

With Adabas Version 6.7, Adabas can be reached via TCP/IP directly. Further information can be found in the document *Adabas Remote Database Access*.

ADATCP now supports encrypted communication via TLS/SSL. For further details please refer to the section *Adabas TCP/IP - Encrypted Communication (TLS/SSL)* in the section *Adabas Remote Database Access*. This feature, called Adabas Encryption for Linux (AEL), must be licensed separately and is available only on Linux.

An example program, named `_c_example_adatcp.c`, that shows how to use ADATCP, can be found in the Adabas Client examples directory.

ADADBM - New Functionality

With Adabas Version 6.7, records can be spanned in a database. When record spanning is enabled, the size of compressed records in a file may exceed the maximum data storage block size of 32KB.

The ADADBM RECORDSPANNING function enables or disables record spanning for a file

Adabas RESTful Administration

Starting with Adabas Version 6.7, an Adabas RESTful server, which provides monitoring and administration tasks, is a part of the product package. The server is primarily used by Adabas Manager, but it can also be used directly. A swagger definition, which defines the REST APIs, is included in the installation.

Docker Container Creation Scripts

Starting with Adabas Version 6.7, scripts which provide Docker image creation on the basis of a current product installation, are a part of the product package. In contrast to the Adabas Docker community edition, concurrent runtime is checked inside the docker container.

Modified Features

ADAREP - FILES Function

The ADAREP FILES function now displays the files for which record spanning is enabled or disabled.

Security Configuration Files

The default settings in the configuration file *adaauth.ini* have been modified:

```
ACTION = YES  
MODE = ADABAS
```

Authorization for Adabas Utilities

With Version 6.7, the Authorization for Adabas Utilities functionality is available for the following utilities: ADABCK, ADACL, ADACMP, ADACVT, ADADBM, ADADCU, ADADEV, ADAELA, ADAELP, ADAERR, ADAFDU, ADAFIN, ADAINV, ADAMON, ADAMUP, ADANUC, ADAOPR, ADAORD, ADAPLP, ADAPRI, ADARBA, ADAREC, ADAREP, ADASCR, ADAULD, and ADA-VFY.

Audit Trail

The location and layout of the audit trail log file created by Authentication has been modified. Please refer to the section Audit of the document Adabas Role-based Security for further information

The location and configuration of the audit trail created by Authorization for Adabas Utilities has been deprecated. Both the location and the layout of the audit trail are subject to change.

Dropped Features

Security Configuration Files

The following security configuration files have been deprecated and will be removed in a future release:

- *adaauth.ini*
- *adaaudit.ini*
- *adarbac.ini*

Authorization for Adabas Utilities (MODE INI)

The functionality provided with MODE INI has been deprecated. The security definitions are now located in the RBAC system file.

You should replace the MODE INI setting with MODE ADABAS in the configuration file *adaauth.ini*. Use the ADARBA utility to define your site-specific security definitions, which you entered in *adarbac.ini* configuration file.

Deprecated Platforms

Support for HP-UX has been deprecated by Software AG. Adabas for Linux, UNIX and Windows Version 6.7 SP0 is the last version available on this platform. Newer versions of Adabas for Linux, UNIX and Windows will not be available for this platform.

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Limitations and Restrictions

The following limitations and restrictions exist in Adabas Version 6.7. Enhancements to resolve these limitations will be considered in a future update package.

- Currently, only the printout of the old CLOG layout (CLOGLAYOUT=5) is supported. All commands are logged, but the information on commands using the new ACBX interface is incomplete.

6 Converting a Database from a previous Version to Version

6.7 and vice versa

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This section describes how to convert an existing database from one version to another.

The sections below describe a conversion of databases without the security feature:

When the Adabas role-based security feature is enabled, you should proceed with the steps described in the section *Converting Databases with Adabas Role-based Security*.

Procedural Steps

Software AG strongly recommends the following steps when converting a database:

1. Create a backup of your existing database. Use the old version of ADABCK to backup the whole database.
2. Modify the security configuration files.
3. Convert the version of the database by performing the steps described below.
4. Validate the consistency of the database. Use the FIELD and INDEX functions of the *ADAVFY* utility to validate the consistency of the database.

Converting Databases from Versions 6.1 Through to Version 6.6

Modify the Security Configuration Files

The following settings in the security configuration file *adaauth.ini* are mandatory:

```
ACTION= YES  
MODE=ADABAS
```

Please refer to the section *Configuration of Adabas Role-Based Security* for further information on the file location and content.

Convert the Database Version

If you want to upgrade a database from Version 6.1, 6.2, 6.3, 6.4, 6.5 or 6.6 to Version 6.7, there are two options available to you:

1. Convert the data using either the utility *ADABCK* or *ADAORD*. This option requires that you
 - a. Create a new Version 6.7 database;
 - b. Unload the old database using *ADABCK DUMP* or *ADAORD EXPORT* with the utilities supplied for the old database version;
 - c. Load the new database using *ADABCK RESTORE* or *ADAORD IMPORT* with version 6.7 utilities.

2. Convert the data using the utility *ADACVT* of version 6.7. This utility converts an existing database in place.

Converting Databases with a Version Prior to Version 6.1

If you want to convert a database from Version 3 or Version 5, you must first upgrade the database to any of the versions Version 6.1 through 6.6, as described in the Release Notes of the version-specific documentation, and then proceed as described above.

Converting Databases with Version 6.7 to a Previous Version

Use the utility *ADACVT* to convert a database to a previous version. *ADACVT* converts the database in place to the selected target version (Version 6.3 through Version 6.6). A downgrade is not possible if features introduced with Version 6.7 were used. Furthermore, a downgrade to Version 6.5 or below will be rejected if features introduced with Version 6.6 had been used.

Alternative Method to Convert from Version 6.7 to Version 6.6, 6.5, 6.4 or 6.3

It is also possible to convert a Version 6.7 database back to Version 6.6, Version 6.5, Version 6.4 or Version 6.3 using the utility *ADABCK*. This is done by restoring a backup made with *ADABCK* Version 6.7 with the utility *ADABCK* of the respective target version. Unless the database is restored from scratch, *ADABCK*'s version and the version of target database must coincide. However, this method is not applicable if features introduced with Version 6.7 were used. On a conversion back to Version 6.5 or below, features introduced with Version 6.6 must not have been used.

Collation Descriptors Created with ICU Version 5.4

Collation descriptors created with ICU Version 5.4 are not processed correctly with Adabas Versions 6.3 to 6.4. Therefore, after the conversion to the target version with *ADACVT*/*ADABCK*, it is necessary to perform an *ADAINV REINVERT* of the collation descriptors with the *ADAINV* of the target version.

Without the *REINVERT*, you get unexpected errors or incorrect results when you try to access the collation descriptors.

Modify the Security Configuration Files

The following settings in the security configuration file *adaauth.ini* are mandatory:

```
ACTION= YES  
MODE=ADABAS
```

Please refer to the section *Configuration of Adabas Role-Based Security* for further information on the file location and content.

Converting Databases with Adabas Role-based Security

This section describes how to convert a database when the Adabas role-based security feature is enabled:

- Authentication for Adabas
- Authorization for Adabas

Procedural Steps

The procedure to convert a database with Adabas role-based security is:

1. Create a backup of your existing database, as described above;
2. Modify the security configuration files;
3. Create a backup of your existing security definitions;
4. Convert the database using ADACVT;
5. Load your security definitions;
6. Validate the consistency of the database, as described above.

Modify the Security Configuration Files

The following settings in the security configuration file *adaauth.ini* are mandatory:

```
ACTION= YES  
MODE=ADABAS
```

Please refer to the section *Configuration of Adabas Role-Based Security* for further information on the file location and content.

Authentication

When the Authentication feature is enabled for your database, please contact your nearest Adabas support center for a detailed description on how to proceed.

Authorization

Perform the following steps, when the Authorization for Adabas Utilities feature is enabled: for your database:

MODE INI

- Save the security definitions that are stored in the security configuration file *adarbac.ini*;
- Use ADADBM RBAC_FILE to load the RBAC system file;
- Use ADACVT to convert the database;
- Use ADARBA to define your site-specific security definitions that are defined in the file *adarbac.ini*.

MODE ADABAS

- Save the security definitions that are stored in the RBAC system file;
- Use ADACVT to convert the database;
- Use ADARBA to define your site-specific security definitions.

Audit Trail

The location and layout of the audit trail log file created by Authentication has been modified, please refer to the section Audit of the document *Adabas Role-based Security*.

7 End of Maintenance

For information on how long a product is supported by Software AG, access Software AG's Empower web site at <https://empower.softwareag.com>.

Log into Empower. Once you have logged in, you can expand **Products** in the left menu of the web page and select **Product Version Availability** to access the Product Version Availability application. This application allows you to review support information for specific products and releases.

8 Documentation and Other Online Information

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The following online resources are available for you to obtain up-to-date information about your Software AG products:

Software AG Documentation Website

You can find documentation for all Software AG products on the Software AG Documentation website at <https://documentation.softwareag.com>. This site requires Empower credentials. If you do not have an Empower user ID and password yet, you will find instructions for registering on this site (free for customers with maintenance contracts) or you can also use the TECHcommunity website to access the latest documentation.

Software AG TECHcommunity

You can find documentation and other technical information on the Software AG TECHcommunity website at <http://techcommunity.softwareag.com>. You can:

- Access product documentation, if you have TECHcommunity credentials. If you do not, you will need to register and specify "Documentation" as an area of interest. If you already have TECHcommunity credentials, you can adjust your areas of interest on the TECHcommunity website by editing your TECHcommunity profile. To access documentation in the TECHcommunity once you are logged in, select **Documentation** from the **Communities** menu.
- Access articles, demos, and tutorials.
- Use the online discussion forums, moderated by Software AG professionals, to ask questions, discuss best practices, and learn how other customers are using Software AG technology.
- Link to external websites that discuss open standards and web technology.

Software AG Empower Product Support Website

You can find product information on the Software AG Empower Product Support website at <https://empower.softwareag.com>. This site requires Empower credentials. If you do not have an Empower user ID and password yet, you will find instructions for registering on this site (free for customers with maintenance contracts).

To submit feature/enhancement requests, get information about product availability, and download products and certified samples, select **Products & Documentation** from the menu once you are logged in.

To get information about fixes and to read early warnings, technical papers, and knowledge base articles, select **Knowledge Center** from the menu once you are logged in.