

# **Adabas**

## **Release Notes**

Version 8.3.4

October 2016

This document applies to Adabas Version 8.3.4 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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## Table of Contents

1 Adabas 8.3 Release Notes .....	1
2 About this Documentation .....	3
Document Conventions .....	4
Online Information and Support .....	4
Data Protection .....	5
3 Supported Operating System Platforms .....	7
4 Enhancements .....	9
ADASVC Installation Enhancements .....	10
Adabas 8.3 SP4 Utility Enhancements .....	10
Adabas 8.3 SP3 Utility Enhancements .....	11
Adabas 8.3 SP2 Utility Enhancements .....	13
Adabas 8.3 SP2 Operator Command Enhancements .....	13
Performance Enhancements .....	13
Space Usage Enhancements .....	15
Security-Related Enhancements .....	18
Adabas 8.3 SP1 Miscellaneous Changes and Enhancements .....	23
ADARUN Parameter Enhancements .....	25
Adabas 8.3 SP1 Utility Enhancements .....	32
Adabas 8.3 SP1 Operator Command Enhancements .....	44
Direct Call Command Enhancements .....	51
5 Dropped Features .....	53
6 Future Plans .....	55
7 Limitations and Restrictions .....	57
8 Adabas Data Set Compatibility .....	59
Importing Files .....	60
Save Data Sets .....	60
Unload Data Sets .....	61
ADAORD DD/FILEA Data Sets .....	61
Sequential Protection Logs .....	61
9 Applying Zaps .....	63
10 Software AG Mainframe Product Compatibility .....	65
11 Using 8.2 COR-based Add-ons with Adabas 8.3 .....	69
Introduction .....	70
Restrictions .....	70
Implementation Steps .....	70
12 AFPLOOK /AVILOOK Considerations .....	73
13 End of Maintenance .....	75
14 Documentation and Other Online Information .....	77
Software AG Documentation Website .....	78
Software AG TECHcommunity .....	78
Software AG Empower Product Support Website .....	78
Index .....	79



# 1 Adabas 8.3 Release Notes

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This document provides a brief summary of the new and changed features included in Adabas 8.3, with links for more information to other areas of the Adabas documentation set.



**Important:** Be sure that you apply all supplied Adabas 8 maintenance and concatenate Adabas 8 patch-level libraries (L00*n*), as they are delivered to you. This will ensure that your Adabas 8 code remains up-to-date, supporting all Adabas 8 features as they are enhanced and maintained.

If you are upgrading to this Adabas release from a release prior to the most recent Adabas release (for example, if you are upgrading from Adabas 8.1 SP4 to Adabas 8.3 and skipping the intermediate upgrade to Adabas 8.2), please read the Release Notes for the releases you are skipping to get a complete understanding of all of the changes implemented in Adabas since you last updated your software.

This document covers the following topics:

<i>Supported Operating System Platforms</i>	Describes the currently supported operating environments for this version of Adabas.
<i>Enhancements</i>	Describes the new and changed features in Adabas 8.3.
<i>Dropped Features</i>	Describes features that are no longer supported in this version.
<i>Future Plans</i>	Describes future plans of Adabas, such as any plans for Adabas to stop supporting specific features.
<i>Limitations and Restrictions</i>	Lists the limitations and restrictions currently existing in this version of Adabas.
<i>Adabas Data Set Compatibility</i>	Describes the compatibility of Adabas data sets across Adabas releases.
<i>Applying Zaps</i>	Describes general information on where to locate and how to apply Adabas zaps.
<i>Software AG Mainframe Product Compatibility</i>	Describes the compatibility of this version of Adabas with other Software AG mainframe products.

<a href="#"><i>Using 8.2 COR-based Add-ons with Adabas 8.3</i></a>	Describes using version 8.2 SP2 of the COR-based add-on products Adabas System Coordinator (COR), Adabas SAF Security (AAF), Adabas Fastpath (AFP), Adabas Transaction Manager (ATM), and Adabas Vista (AVI) with Adabas version 8.3 SP1 and later.
<a href="#"><i>AFPLOOK /AVILOOK Considerations</i></a>	Describes considerations regarding the demo programs AFPLOOK and AVILOOK.
<a href="#"><i>End of Maintenance</i></a>	Describes how you can determine the end-of-support dates for your Software AG products.
<a href="#"><i>Documentation and Other Online Information</i></a>	Describes the documentation and other online information you can obtain for this release of Adabas.

# 2 About this Documentation

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- Document Conventions ..... 4
- Online Information and Support ..... 4
- Data Protection ..... 5

## Document Conventions

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Convention	Description
<b>Bold</b>	Identifies elements on a screen.
Monospace font	Identifies service names and locations in the format <code>folder.subfolder.service</code> , 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

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### Software AG Documentation Website

You can find documentation on the Software AG Documentation website at <http://documentation.softwareag.com>. The site requires credentials for Software AG's Product Support site Empower. If you do not have Empower credentials, you must use the TECHcommunity website.

### Software AG Empower Product Support Website

If you do not yet have an account for Empower, send an email to [empower@softwareag.com](mailto: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.asp](https://empower.softwareag.com/public_directory.asp) and give us a call.

### **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.
- 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**

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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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# 3

## Supported Operating System Platforms

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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** in the left menu of the web page and select **Product Version Availability** to access the Product Version Availability screen.

Home > Products > Product Version Availability

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- Order Products/Licenses
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EMPOWER

KNOWLEDGE CENTER PRODUCTS CONTACT SUPPORT INFO PARTNERS PREFERENCES COMMUNITIES

**Product Version Availability**

General Availability (GA), Platform retirement, End of Maintenance (EOM), and End of Sustained Support (EOSS) dates for your products. [View a description of these terms in our Maintenance Policy.](#)

Product Line: - OR Product Family: -

Product Name: -

Product Version: -

Operating System: - Operating System Version: -

Show prior Product Versions:

Sort by Product Version:  Descending  Ascending

Rows per Page: 100

SEARCH CANCEL

Rows 1 - 100 of 6035 | Rows per page: 100 | Click for Printable Version of below Table:

Product Line	Product - Product Version	Version Lifecycle Milestone			
		GA	OS Retirement	EOM	EOSS
Operating System and Hardware *					
Product Line: ARIS	ARIS MashZone [YCZ] 9.0.0				
	Windows 7 Professional Editions - x86-64	2013-04-29	-	2015-03-31	2016-03-31

3. Use the fields on this 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.

# 4 Enhancements

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▪ ADASVC Installation Enhancements .....	10
▪ Adabas 8.3 SP4 Utility Enhancements .....	10
▪ Adabas 8.3 SP3 Utility Enhancements .....	11
▪ Adabas 8.3 SP2 Utility Enhancements .....	13
▪ Adabas 8.3 SP2 Operator Command Enhancements .....	13
▪ Performance Enhancements .....	13
▪ Space Usage Enhancements .....	15
▪ Security-Related Enhancements .....	18
▪ Adabas 8.3 SP1 Miscellaneous Changes and Enhancements .....	23
▪ ADARUN Parameter Enhancements .....	25
▪ Adabas 8.3 SP1 Utility Enhancements .....	32
▪ Adabas 8.3 SP1 Operator Command Enhancements .....	44
▪ Direct Call Command Enhancements .....	51

This chapter lists the Adabas 8.3 enhancements.

Category	Enhancements
Adabas 8.3 SP4 Enhancements	<a href="#"><i>ADASVC Installation Enhancements</i></a>
	<a href="#"><i>Adabas 8.3 SP4 Utility Enhancements</i></a>
Adabas 8.3 SP3 Enhancements	<a href="#"><i>Adabas 8.3 SP3 Utility Enhancements</i></a>
Adabas 8.3 SP2 Enhancements	<a href="#"><i>Adabas 8.3 SP2 Utility Enhancements</i></a>
	<a href="#"><i>Adabas 8.3 SP2 Operator Command Enhancements</i></a>
Adabas 8.3 SP1 Enhancements	<a href="#"><i>Performance Enhancements</i></a>
	<a href="#"><i>Space Usage Enhancements</i></a>
	<a href="#"><i>Security-Related Enhancements</i></a>
	<a href="#"><i>Adabas 8.3 SP1 Miscellaneous Changes and Enhancements</i></a>
	<a href="#"><i>ADARUN Parameter Enhancements</i></a>
	<a href="#"><i>Adabas 8.3 SP1 Utility Enhancements</i></a>
	<a href="#"><i>Adabas 8.3 SP1 Operator Command Enhancements</i></a>
<a href="#"><i>Direct Call Command Enhancements</i></a>	

## ADASVC Installation Enhancements

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ADASVC installation is simplified for Adabas Version 8.3.4. It is no longer necessary to relink ADASVC, ADASIP and ADASIR. Instead, sample jobs are provided that use z/OS utility IEBCOPY to copy and optionally rename load modules. This preserves all load module attributes.

## Adabas 8.3 SP4 Utility Enhancements

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This section describes the utility enhancements made in Adabas version 8.3 SP4. These include:

- [\*ADADBS Enhancements\*](#)

- [ADADBS Utility Functions DELETE and REFRESH Changes Available With Zap AN834010 Applied](#)

## ADADBS Enhancements

The ADADBS `ISNREUSE,MODE=ON,RESET` option now allows a specific ISN to be specified. For customers knowing where their reusable ISNs (ISNs previously deleted) reside, they can now quickly set the rotating ISN pointer to the specific ISN. For more information, read about the *ADADBS RESETISN* utility, in the *Adabas Utilities Manual*.

## ADADBS Utility Functions DELETE and REFRESH Changes Available With Zap AN834010 Applied

### ■ Without zap AN834010 applied

When the DELETE or REFRESH function completes successfully, any locks previously set automatically or with the operator commands LOCKU or LOCKF are reset.

### ■ With zap AN834010 applied

When the DELETE or REFRESH function completes successfully, if the file was previously locked automatically by Adabas, the automatic lock is reset. Any locks previously set with the operator commands LOCKU or LOCKF remain set.

## Adabas 8.3 SP3 Utility Enhancements

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This section describes the utility enhancements made in Adabas version 8.3 SP3. These include:

- [ADAZIN Enhancements](#)
- [ADAMLF Enhancements](#)
- [ADASEL Enhancements to Recognize Split Updates on PLOGs](#)
- [RSP21 Subcodes](#)
- [User Exit 11 Enhancements](#)
- [SYSACF Messages](#)

## ADAZIN Enhancements

Adabas 8.3 SP3 allows z/VSE users to print Adabas SVC information via utility ADAZIN. This functionality is similar to that already available for z/OS users. For more information, read about the *ADAZIN* utility, in the *Adabas Utilities Manual*.

### **ADAMLF Enhancements**

The multi fetch statistics have been enhanced to provide informative statistics that can be used to help tune the multi fetch parameters.

Multi fetch has also been enhanced to full support ACBX calls and buffers that exceed 32K. For more information please refer to the description of the multi fetch parameters.

### **ADASEL Enhancements to Recognize Split Updates on PLOGs**

ADASEL has been enhanced to now recognize all updates.

ADASEL can now recognize deletes and inserts that resulted from a split update command and also reports these as "updates" instead of "delete" or "insert". This enhancement has been provided with new parameters, SPECUPD and RECSYNC, so that customers can choose whether to use this new behavior or the original one.

For more information, read about the *ADASEL* utility, in the *Adabas Utilities Manual*.

### **RSP21 Subcodes**

The RSP21 subcodes have been enhanced to provide unique subcodes in an effort to make debugging easier.

### **User Exit 11 Enhancements**

User exit 11 now has the capability to set user-specified response codes in the user-defined range 231 - 239 in field ACBXRSP of the exit's ADACBX copy.

For more information, read about *user exit 11*, in the *Adabas User, Hyperdescriptor, Collation Descriptor, and SMF Exits Manual*.

### **SYSACF Messages**

ADACSH in conjunction with SYSACF messages have been enhanced to provide more informative messages.



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## Adabas 8.3 SP2 Utility Enhancements

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This section describes the utility enhancements made in Adabas version 8.3 SP2.

- Adabas 8.3 SP2 introduces the ability to specify file number ranges in the ADADBS OPERCOM DXFILE command. A maximum of only five file numbers can be specified, but you can use file number ranges to see results for more than five files. This functionality is not available for the DXFILE console command. For more information, read about the ADADBS OPERCOM DXFILE command, in the *Adabas Utilities Manual*.
- Extended checkpoint information is now reported in ADAREP reports for ADARES CLCOPY and ADARES MERGE CLOG processing.

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## Adabas 8.3 SP2 Operator Command Enhancements

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This section describes the operator command enhancements made in Adabas version 8.3 SP2.

With Adabas 8.3 SP2, the DLOCKF operator command now shows the lock type in its output. (This functionality is also supplied if you apply zaps AU831050 and AN831034 to your Adabas 8.3 SP1 code. Zaps are available via [Empower](#).) This is true whether the DLOCKF command is issued from the console or in an ADADBS OPERCOM utility run. In addition, if a file is locked using the Adabas Online System, this information is also displayed in the AOSLOG message.

For more information, read *DLOCKF Command*, in the *Adabas Operations Manual* or read about the DLOCKF command in the ADADBS OPERCOM section *Operator Commands*, in the *Adabas Utilities Manual*

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## Performance Enhancements

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Adabas 8.3 SP1 provides several performance enhancements. These include:

- [WORK and PLOG I/O Efficiency Enhancements](#)
- [ARNWORKBUFFERS: Autorestart Work Buffer Controls](#)
- [Enhanced ADAFRM Utility Data Set Formatting](#)
- [ADAREP Performance Enhancements](#)
- [ADACHK Utility: Database Consistency Check Utility](#)

- [CL Command Processing for Remote Users in Adabas Cluster Services](#)

## **WORK and PLOG I/O Efficiency Enhancements**

In Adabas 8.3 SP1, WORK and PLOG write I/Os may be more efficient by writing more blocks with each I/O operation. This may reduce the number of write I/Os to WORK and PLOG (and the CPU time for issuing these I/Os), especially for update-intensive workloads. To exploit this improvement, the asynchronous buffer flush must be enabled (ADARUN LFIOP>0) and ADARUN parameters NWORK1BUFFERS and NPLOGBUFFERS must each be set to a number greater than 2.

## **ARNWORKBUFFERS: Autorestart Work Buffer Controls**

Adabas 8.3 SP1 introduces the ability to specify the number of WORK I/O buffers allocated during autorestart processing after a failure, by using a new ADARUN parameter, ARNWORKBUFFERS. When multiple WORK I/O buffers are allocated and used during autorestart processing, multiple WORK blocks may be read in each I/O. The use of multiple WORK buffers during autorestart processing may reduce the elapsed time needed to complete autorestart processing.

For complete information about the ARNWORKBUFFERS parameter, read *ARNWORKBUFFERS Parameter: Autorestart Work Buffer Controls*, in the *Adabas Operations Manual*.

## **Enhanced ADAFRM Utility Data Set Formatting**

Effective with Adabas 8.3, data sets are formatted by the ADAFRM utility using an enhanced, quicker method. If you want to use the original (older) data set formatting technique, you can specify a new NOTENH (not enhanced) parameter. In addition, a new VOLIOCOUNT parameter has been introduced. Use the VOLIOCOUNT parameter to specify the number of concurrent I/Os per volume to process for a data set; the value of this parameter can also affect the processing speed of the ADAFRM utility.

For complete information, read *ADAFRM Utility: Format Adabas Database Components* and specifically the section *Enhanced Formatting*, in the *Adabas Utilities Manual*.

## **ADAREP Performance Enhancements**

In Adabas 8.3 SP1, the ADAREP utility performance has been improved by reducing the number of I/Os used to count the number of records loaded for each file. For a database with large files, this enhancement can significantly reduce the run time of the ADAREP utility.

For more information about the ADAREP utility, read *ADAREP Utility: Database Status Report*, in the *Adabas Utilities Manual*.

## ADACHK Utility: Database Consistency Check Utility

This release introduces the ADACHK, or Adabas common check, utility. ADACHK performs a variety of functions and is intended to replace the ADAACK, ADADCK, ADAICK, ADAVAL, and ADAPRI utilities. ADACHK provides the existing functionality provided by these utilities as well as additional features. It also includes the integrity checks that the ADAREP utility currently performs and checks all persistent data structures on disk with minimal impact to the production environment while database updates run concurrently. In addition, all ADACHK utility functions can be run online concurrently with normal database operations; consequently, it can be run 24x7, without the need to shut down the database.

Compared to the ADAACK ACCHECK, ADADCK DSCHECK, and ADAVAL VALIDATE functions, the corresponding ADACHK functions, and especially their combination in the CHECK function, perform significantly faster.

For more information about the ADACHK utility, read [New ADACHK Utility: Database Consistency Check Utility that Runs Concurrently with Normal Database Operations](#), elsewhere in this guide and [ADACHK Utility: Database Consistency Check Utility that Runs Concurrently with Normal Database Operations](#), in the *Adabas Utilities Manual*

## CL Command Processing for Remote Users in Adabas Cluster Services

In Adabas Cluster Services 8.3 SP1, Adabas CL direct call commands by users from other systems in the parallel sysplex are now processed more efficiently, causing less intersystem message traffic and consuming less CPU time. A user is assigned to a cluster nucleus on another system if no nucleus is active and open for new users on the local system.

## Space Usage Enhancements

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Adabas 8.3 SP1 introduces a variety of enhancements directed at managing your Associator (ASSO) and Data Storage (DATA) space usage. These include the following updates:

- [Determining Defined Associator and Data Storage Space](#)
- [Receiving Associator and Data Storage Space Usage Notifications](#)
- [Increasing Associator and Data Storage Space Dynamically \(z/OS Only\)](#)

- [Increasing Associator and Data Storage Space Automatically \(z/OS Only\)](#)

## Determining Defined Associator and Data Storage Space

Adabas 8.3 SP1 introduces the ability to determine how much space is defined for and used in the Associator (ASSO) and Data Storage (DATA) components of your databases. A new command, `DSPACE`, has been introduced. When you issue this command on the console, ADANS5 messages appear providing ASSO and DATA space information.

This command is also available for use in the ADADBS OPERCOM utility function. For more information, read about the `DSPACE` command in the ADADBS OPERCOM documentation (located in the ).

## Receiving Associator and Data Storage Space Usage Notifications

Adabas 8.3 SP1 introduces the ability to receive space usage messages as Associator (ASSO) and Data Storage (DATA) space use exceeds or falls below set thresholds. With this information, you can adjust the use or size of your database as needed.

Two new ADARUN parameters are provided to specify ASSO and DATA space threshold levels. When free space becomes critically low, space usage messages can be useful triggers for operators to determine the cause of the limited space. If the cause is a rogue application, you can cancel the rogue application. If the cause is insufficient database space allocations, you can provide additional space while the database remains active (as described in this document).

- `ASSOSPACEWARN` can be used to specify the space usage thresholds and the increments above the thresholds at which warning messages should be triggered for Associator space.
- `DATASPACEWARN` can be used to specify the space usage thresholds and the increments above the thresholds at which warning messages should be triggered for Data Storage space.

When space use exceeds the specified thresholds, space usage messages are issued. Thereafter, when space use increases or decreases by the specified increments, additional space usage messages are issued. When space use drops below the lowest threshold specification, a space usage message is issued when it first falls below the threshold, but incremental space usage messages are no longer issued unless space use increases above the lowest threshold again.

In addition, the following additional features are provided to support database space notifications:

- Two new operator commands, `ASSOSPACEWARN` and `DATASPACEWARN`, can be used to alter the comparable ADARUN parameter settings while the nucleus is active. These commands can be entered on the console as well as with the ADADBS OPERCOM utility function.
- Several new console messages are provided that indicate when the threshold levels are exceeded.

## Increasing Associator and Data Storage Space Dynamically (z/OS Only)

This version of Adabas introduces the ability to dynamically (manually) increase the size of your Associator (ASSO) or Data Storage (DATA) space on z/OS systems. This makes it possible to increase the size of the database without incurring a database outage, which can be critical if your database needs to run 24x7 (24 hours a day, 7 days a week). You can do this in one of two ways:

1. You can have Adabas increase the size of the last existing ASSO or DATA data set for the database.
2. You can add a new ASSO or DATA data set to the database by allocating the data set to the operating system, formatting the data set, and then allocating it to the database.

Both of these methods can be accomplished without restarting the Adabas nucleus or nucleus cluster.

To support this new functionality, the following Adabas utility enhancements are provided in this version:

- The new ADADBS ONLINCREASE utility function allows you to dynamically increase the size of the last existing ASSO or DATA data set for the database. Running this utility function will trigger Adabas to extend the data set, format the appended space, and allocate the space to the database. For complete information about the ADADBS ONLINCREASE utility function, read *ONLINCREASE: Allocating Appended ASSO or DATA Space Dynamically*, in the *Adabas Utilities Manual*.
- The new ADADBS ONLADD utility function allows you to dynamically allocate a new Associator or Data Storage data set to the database without restarting the Adabas nucleus. The new data set must have previously been allocated to the operating system and formatted for the Associator or Data Storage area using the ADAFRM ASSOFRM or ADAFRM DATAFRM utility functions. For complete information about the ADADBS ONLADD utility function, read *ONLADD: Allocating New ASSO or DATA Space Dynamically*, in the *Adabas Utilities Manual*.

For general information about dynamic increases to Associator and Data Storage spaces, read *Increasing Associator and Data Storage Space*, in the *Adabas DBA Tasks Manual*.

## Increasing Associator and Data Storage Space Automatically (z/OS Only)

This version of Adabas also introduces the ability to have Adabas automatically increase the size of your Associator (ASSO) or Data Storage (DATA) space. This makes it possible to increase the size of the database when necessary and without manual intervention. This support is implemented using the following new ADARUN parameters:

- The `AUTOINCASSOSIZE` and `AUTOINCDATASIZE` parameters can be used to specify the size, in cylinders or blocks, by which the highest-numbered (last-defined) Associator (ASSO) and Data Storage (DATA) data sets (respectively) will be increased by an automatic database increase process.

- The `AUTOINCASSOTHRESHOLD` and `AUTOINCDATATHRESHOLD` parameters can be used to specify the Associator or Data Storage (respectively) space thresholds at which Adabas automatically initiates a database increase process. These thresholds are expressed as the percentage of used Associator or Data Storage space to total Associator or Data Storage space available in the database.
- The `AUTOINCASSOTOTAL` and `AUTOINCDATATOTAL` parameters can be used to specify the maximum total size, in cylinders or blocks, of the entire Associator or Data Storage space (respectively) of the database that is not to be exceeded by automatic database increase processes.

These parameters can also be altered dynamically by operator command, using the ADADBS OPERCOM utility function, and using the Adabas Online System's Modify Parameters screen.

- The `AUTOINCASSOSIZE` and `AUTOINCDATASIZE` commands can be used to specify the size, in cylinders or blocks, by which the highest-numbered (last-defined) Associator (ASSO) and Data Storage (DATA) data sets (respectively) will be increased by an automatic database increase process.
- The `AUTOINCASSOTHRESHOLD` and `AUTOINCDATATHRESHOLD` commands can be used to specify the Associator or Data Storage (respectively) space thresholds at which Adabas automatically initiates a database increase process. These thresholds are expressed as the percentage of used Associator or Data Storage space to total Associator or Data Storage space available in the database.
- The `AUTOINCASSOTOTAL` and `AUTOINCDATATOTAL` commands can be used to specify the maximum total size, in cylinders or blocks, of the entire Associator or Data Storage space (respectively) of the database that is not to be exceeded by automatic database increase processes.

For general information about automatic increases to Associator and Data Storage spaces, read *Increasing Associator and Data Storage Space*, in the *Adabas DBA Tasks Manual*.

## Security-Related Enhancements

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Adabas 8.3 SP1 provides a wide variety of security enhancements. These include:

- [Security System User ID Support](#)
- [LOREX DSECT Security Updates](#)

- [ADASCR Enhancements](#)

## Security System User ID Support

This release introduces support for security system user IDs. Security system user IDs are the sign-on user IDs provided by security software such as RACF, ACF2, or Top Secret. Using security system user IDs, you can track user activity in Adabas databases based on how your users authenticated themselves to your security software. To support security system user IDs, the following specific enhancements have been made to Adabas:

- [System Field Support for Security System User IDs](#)
- [SECUID Field Included in Command and Protection Logs](#)
- [CICS Link Globals Table \(LGBLSET Parameter\) Security Requirements](#)
- [New SECUID ADARUN Parameter](#)
- [New SECUID Operator Command](#)
- [New STOPSU and STOPSUR Operator Commands](#)
- [Operator Command Output Display Changes](#)
- [PRILOG Display Changes](#)
- [Adabas Utility Changes](#)
- [Adabas Session Statistic Changes](#)

Support for security system user IDs is available in z/OS and z/VSE environments only.

### System Field Support for Security System User IDs

Security system user IDs (SSIDs) can now be stored in system fields in an Adabas file. A new value, SECUID, has been added for field definitions that include the SY field option. This SY=SECUID value indicates that the system field contains an SSID.

For complete information read *System Fields* in the *Adabas Concepts Manual* and *SY: System Field* in the *Adabas Utilities Manual*.

### SECUID Field Included in Command and Protection Logs

The SECUID field is now included in Adabas command logs (CLOGs) and protection logs (PLOGs).

### **CICS Link Globals Table (LGBLSET Parameter) Security Requirements**

In CICS environments only, if you want your security system user IDs to be stored in Adabas user queue elements (making them available for display and review as well as preventing response code 200, (ADARSP200), subcode 21 when ADARUN SECUID=REQUIRE is in effect for Adabas), you must code the SAF parameter as YES. This is only required in CICS environments; in other environments, the security system user IDs are automatically stored.

For more information, read *Step 6. Prepare the CICS Link Globals Table -- CICSGBL and SAF: Adabas Security Interface Flag*, in the *Adabas z/OS Installation Guide*.

### **New SECUID ADARUN Parameter**

A new SECUID ADARUN parameter has been introduced. You can use this parameter to specify the requirement level of security system user IDs for a database. Using it you can indicate how Adabas handles calls from users without a security system user ID or with a security system user ID that changed during the Adabas session. Valid values are ALLOW, REQUIRE, and WARN. ALLOW indicates that a user can continue working with the database when they have no security system user ID or when their security system user ID changes during their Adabas session; REQUIRE indicates that a valid security system user ID is required for every user working with the database during their Adabas session and that security system user ID must remain unchanged during their Adabas session; WARN indicates that a warning message should be issued but that a user can continue working with the database when they have no security system user ID or when their security system user ID changes during their Adabas session.

For complete information about the SECUID ADARUN parameter, read *SECUID Parameter: Security System User ID Requirement Level*, in the *Adabas Operations Manual*.

### **New SECUID Operator Command**

A new SECUID operator command has been introduced. You can use this operator command to alter the setting of the ADARUN SECUID parameter while the nucleus is active. This operator command is valid for use both on the console and in the ADADBS OPERCOM utility function.

For more information about the SECUID operator command, read *SECUID Command*, in the *Adabas Operations Manual*; for more information about use of the SECUID operator command in the ADADBS OPERCOM utility function, read about the SECUID operator command, in the *Adabas Utilities Manual*. For complete information about the SECUID ADARUN parameter, read *SECUID Parameter: Security System User ID Requirement Level*, in the *Adabas Operations Manual*.



## New STOPSU and STOPSUR Operator Commands

Two new operator commands, STOPSU and STOPSUR, have been introduced.

- You can use the STOPSU operator command to stop and delete a user with the specified security user ID. Any open transactions of the stopped user are backed out. No response code is issued; the next time the stopped user issues a command, a new user queue element (UQE) is created. For more information about the STOPSU operator command, read *STOPSU Command*, in the *Adabas Operations Manual*; for more information about use of the STOPSU operator command in the ADADBS OPERCOM utility function, read about the STOPSU operator command, in the *Adabas Utilities Manual*.
- You can use the STOPSUR operator command to stop a user with a specified security user ID, but the stopped user is not immediately deleted. Any open transactions of the stopped user are backed out. The stopped user is only deleted after he or she has issued a subsequent command and response code 22 (ADARSP022), subcode 54 has been issued in response to that command. This response code-subcode combination is used to notify users that their Adabas activity has been halted and their user session resources have been freed. Only after the response code-subcode combination has been issued is the user queue element (UQE) of the stopped user deleted. For more information about the STOPSUR operator command, read *STOPSUR Command*, in the *Adabas Operations Manual*; for more information about use of the STOPSUR operator command in the ADADBS OPERCOM utility function, read about the STOPSUR operator command, in the *Adabas Utilities Manual*.

## Operator Command Output Display Changes

Output reports from various operator commands (such as the DPARM, DCQ, DFILES, DUQ, or DHQA operator commands) have been significantly altered to include the current SECUID setting of the user's actual security system user ID.

## PRILOG Display Changes

Because the SECUID is now included in Adabas command logs, this version of the PRILOG print program displays the SECUID when CLOGLAYOUT=8 is used. All of the reports produced by the PRILOG print program have been updated to include this new field. The PRILOG print program, as in past releases, is delivered in source as well as object form; if you have used and customized the source form at your site, you may need to recustomize it using the newer source form of PRILOG provided in this release.



**Note:** There were no changes made to the PRILOG parameters.

## Adabas Utility Changes

The following Adabas utilities have been altered to support the security system user ID:

- The ADACDC utility has been updated to support the security system user ID. The security system user ID will appear in the extract file and the primary output file. If the security system user ID is not known, blanks are stored in the extract file. For more information, read *ADACDC Utility: Changed-Data Capture*, in the *Adabas Utilities Manual*.
- The ADASEL utility has been updated to support the security system user ID. This support is provided in three places in the SELECT parameter of the ADASEL utility:
  1. A new SECUID parameter can now be used to specify a security system user ID or range of security system user IDs in the value-criterion of the WITH clause or the IF statement.
  2. A new SECUID [HEX] parameter can now be used in the DISPLAY instruction to indicate that the security system user ID of the user who added, updated, or deleted the record should be displayed.
  3. The security system user ID will appear in the output log data set if the new EXTRACT keyword is specified in the output instruction of the ADASEL utility. If the security system user ID is not known, "UNKNOWN" displays.

For more information, read *ADASEL Utility: Select Protection Data*, in the *Adabas Utilities Manual*.

- The ADAWRK utility has been updated to include a new SECUID parameter. You can use this parameter to specify up to 24 security system user IDs (SECUIDs) in character format. Each SECUID must be one to eight bytes long. When SECUIDs are specified, only Work part 1 autorestart area records for those SECUIDs are processed by the ADAWRK utility and printed on its reports. For more information, read *ADAWRK Utility: Work Area Recovery Reports*, in the *Adabas Utilities Manual*.

## Adabas Session Statistic Changes

The high usage session statistics produced for a nucleus session have been altered to include the user's security system user ID, if it is known. For more information, read *High Usage Session Statistics*, in the *Adabas DBA Tasks Manual*.

## LORECX DSECT Security Updates

In Adabas 8.3 SP1, an eight-byte field called LOX1SAFU, used to store the security user ID, was added in the LORECX DSECT after the LOX1RSV field. In addition, 24 bytes of reserved space was added for future use. To determine whether you are looking at the new layout, review the contents of the field LOX1OFF.

## ADASCR Enhancements

Adabas 8.3 SP1 includes Adabas Security support for more than 191 files defined in one password. In addition, more security-by-value information than before may be defined for one password.

Adabas Security is described in *Adabas Security and ADASCR* in the *Adabas Concepts Manual*. For complete information about Adabas Security, contact your Software AG representative.

## Adabas 8.3 SP1 Miscellaneous Changes and Enhancements

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Adabas 8.3 SP1 provides the following miscellaneous changes and enhancements:

- [LOREC and LORECX DSECTs Updated](#)
- [ADASVC Loaded Into 31-Bit Storage](#)
- [Statistic Enhancements](#)
- [Universal Encoding Support \(UES\) changes for APS 3.3 Support on z/OS and z/VSE](#)

### LOREC and LORECX DSECTs Updated

In Adabas 8.3 SP1, the following updates have been made to the LOREC and LORECX DSECTs:

- The fields LOX1STYP and LORSTYPE in the LOREC and LORECX DSECTs (distributed in the Adabas source library) have been altered so that the CLOGs reflect accurate information describing which search algorithm was used.
- The search algorithms in LOREC and LORECX have been updated.
- In the LORECX DSECT, an eight-byte field LOX1SAFU, used to store the security user ID, was added after the LOX1RSV field. In addition, 24 bytes of reserved space was added for future use. To determine whether you are looking at the new layout, review the contents of the field LOX1OFF.

### ADASVC Loaded Into 31-Bit Storage



**Note:** This enhancement applies to z/OS environments only.

Effective with Adabas 8.3 SP1, the Adabas router module, ADASVC, can now be loaded into 31-bit storage. This provides virtual storage constraint relief for the 24-bit common service area (CSA) and the link pack area (LPA). The ADASVC module is now delivered with the RMODE(ANY) attribute; in previous versions of Adabas, it was delivered with the RMODE(24) attribute. The RMODE(ANY) attribute causes z/OS to place the ADASVC module in the extended link pack area at IPL.

Module ADASIP has also been enhanced to support the RMODE(ANY) attribute and acquire storage in either CSA or extended CSA (ECSA). In addition, the ADASIR module will now initialize

the ADASVC loaded either above or below the 16 MB line. The Adabas version 8.3 ADASIP and ADASIR modules can also be used to load and initialize older versions of ADASVC.

These changes should be transparent to programs invoking ADALNK to issue commands to the Adabas database. One exception is AMODE(24) applications that use an Adabas version 7 or earlier ADALNK module. Such applications will likely incur a S0C4 or S0C1 abend. You will need to adjust these programs to use a version 8 ADALNK module. Alternatively, you can relink the ADASVC module to use the RMODE(24) attribute. Contact your Software AG technical support representative for assistance.

### Statistic Enhancements

Adabas 8.3 introduces enhancements to Adabas nucleus statistics. These enhancements include:

- Size increases for some statistic counters to prevent possible overflows of Adabas nucleus statistic values (for example, commands by file or commands by thread);
- Changes in the display of the statistics produced by some operator commands (such as **DSTAT** and **DPARAM**);
- Changes in the layout of lock statistics in cluster nucleus session end statistics;
- Changes in the display of the statistics shown on some Adabas Online System screens; and
- The introduction of some new statistics-producing commands (such as **DVOLIO**, **DCMDSTAT**, and **DFILESTAT**).

### Universal Encoding Support (UES) changes for APS 3.3 Support on z/OS and z/VSE

Effective with Adabas Version 8.3, only APS version 3.3.1 fix pack 12 and above is supported on z/OS and only APS version 3.3.1 fix pack 19 and above is supported on z/VSE.

In z/OS and z/VSE environments, Universal Encoding Support (UES) has been upgraded to use APS version 3.3.1. APS version 2.7.2 is no longer supported on these platforms with Adabas version 8.3. UES users therefore need to replace all JCL references for APS version 2.7.2 libraries to APS version 3.3.1 libraries. Any attempt to use APS version 2.7.2 libraries with Adabas version 8.3 in z/OS and z/VSE environments will result in an abend during nucleus initialization.

z/VSE users should note that, with APS version 3.3.1 fix pack 19, a new system parameter TCPIP has been introduced. Users should add parameter TCPIP=NO to the APS reader files in use for all UES-enabled Adabas nucleus and utility jobs. The following z/VSE members contain sample jobs which set the TCPIP=NO parameter:

- ADACMPU.X
- ADADRUU.X
- ADALODP.X
- ADANUCT.X

- ADANUCU.X
- ADAREPX.X

In BS2000 environments, UES continues to use APS version 2.7.2.

## ADARUN Parameter Enhancements

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This section describes the ADARUN Parameter enhancements made in Adabas version 8.3.

- ALLOW8F: BS2000 8F Device Control
- ARNWORKBUFFERS: Autorestart Work Buffer Controls
- AUTOCQENV and AUTOCQTIME: Monitoring the Command Queue
- INDEXCROSSCHECK: Data Storage Record Validation
- IOMAX32K: BS2000 PAM I/O Error Control
- LTZ: Time Zone Pool Size
- NISNHQ ADARUN Parameter Maximum Changed
- REFSTPRT: Print Statistics before Refresh Statistics
- REVLOGMAX Maximum Setting Changed
- RIAFTERUPDATE: Allow RI Command after Update
- TCPURL: Logging Activation and IPv6 Support
- UTCTIMEL: BS2000 Local Time Control
- ADARUN Parameter Change Summary

For more information about any ADARUN parameter, read *Adabas Initialization (ADARUN Statement)*, in the *Adabas Operations Manual*.

### **ALLOW8F: BS2000 8F Device Control**

This release introduces a new ADARUN parameter called `ALLOW8F`. This parameter allows you to specify whether 8F devices can be used with devices other than as UNIX shared disks. This parameter allows you to control the use of 8F devices in your BS2000 Adabas session. Valid values are Y or N; N is the default.

For complete information about the `ALLOW8F` parameter, read *ALLOW8F Parameter: BS2000 8F Device Control*, in the *Adabas Operations Manual*.

### **ARNWORKBUFFERS: Autorestart Work Buffer Controls**

Adabas 8.3 SP1 introduces the ability to specify the number of WORK I/O buffers allocated during autorestart processing after a failure, by using a new ADARUN parameter, ARNWORKBUFFERS. When multiple WORK I/O buffers are allocated and used during autorestart processing, multiple WORK blocks may be read in each I/O. The use of multiple WORK buffers during autorestart processing may reduce the elapsed time needed to complete autorestart processing.

For complete information about the ARNWORKBUFFERS parameter, read *ARNWORKBUFFERS Parameter: Autorestart Work Buffer Controls*, in the *Adabas Operations Manual*.

### **AUTOQCENV and AUTOQCETIME: Monitoring the Command Queue**

Two new ADARUN parameters, AUTOQCENV and AUTOQCETIME, have been added to Adabas Cluster Services and Adabas Parallel Services to allow you to request special command queue monitoring during an online recovery process after the failure of a nucleus in the cluster. Adabas will then regularly review the command queue for unprocessed commands that meet the AUTOQCENV and AUTOQCETIME parameter criteria. Eligible unprocessed commands will be automatically returned (after a period of elapsed time) with response code 22 (ADARSP022), subcode 55.

During an online recovery process, the surviving Adabas cluster nuclei stop selecting user commands from the command queue. During this time, new commands issued by users accumulate in the command queue and wait to be processed. The AUTOQCENV and AUTOQCETIME parameters can be used to avoid that too many commands wait for too long.

The AUTOQCENV parameter can be used to identify the type of user affected by the AUTOQCETIME parameter setting. Only commands from users in the specified environment (e.g., CICS) will be returned from the command queue if they meet the AUTOQCETIME criteria. The AUTOQCETIME parameter can be used to specify the timeout period, in seconds, after which an eligible unprocessed command in the command queue during online recovery will be returned to the user with response code 22 (ADARSP022), subcode 55.

For more information, read *AUTOQCENV Parameter: Environment Affected by Command Return from the Command Queue* and *AUTOQCETIME Parameter: Wait Time Threshold for Commands in Command Queue during Online Recovery* in the *Adabas Operations Manual*.

## INDEXCROSSCHECK: Data Storage Record Validation

This release introduces a new ADARUN parameter and a new operator command called INDEXCROSSCHECK. These allow you to turn index cross-checking on and off. Index cross-checking is a process Adabas uses to ensure that a data storage record it is reading actually matches the descriptor value in the index by which the record was found. When index cross-checking is turned on, Adabas extracts the descriptor value from the record being read and compares it to the value used for positioning in the index. If there is a mismatch, Adabas returns response code 175 (ADARSP175).



**Note:** Attempts to change the INDEXCROSSCHECK setting (via the INDEXCROSSCHECK command) in a cluster environment will be rejected. In a cluster nucleus (CLUSTER=SYSPLEX or CLUSTER=LOCAL), Adabas sets INDEXCROSSCHECK to "YES", overriding any user-specified INDEXCROSSCHECK value, and validates the descriptor value from the index against the corresponding value from the data storage.

For complete information about the INDEXCROSSCHECK parameter, read *INDEXCROSSCHECK Parameter: Data Storage Record Validation*, in the *Adabas Utilities Manual*. For complete information about the INDEXCROSSCHECK command, read *INDEXCROSSCHECK Command*, in the *Adabas Operations Manual*.

## IOMAX32K: BS2000 PAM I/O Error Control

This release introduces a new ADARUN parameter called IOMAX32K. This parameter allows you to specify whether sporadic PAM I/O ADAI51 and ADAI52 error messages with DMS error code 00 should be removed on old disk devices. This parameter is for BS2000 environments only. Valid values are Y or N; N is the default.

For complete information about the IOMAX32K parameter, read *IOMAX32K Parameter: BS2000 PAM I/O Error Control*, in the *Adabas Operations Manual*.

## LTZ: Time Zone Pool Size

This release introduces a new ADARUN parameter called LTZ. This parameter allows you to specify the size of the time zone pool (in bytes) where time zone information is kept for each time zone used in a user session. Valid values are "0" (no time zone pool is allocated, disabling the use of time zones for user sessions) or range from 12288 bytes (12K) to 2147483647 bytes, although only 491520 bytes (480K) is required to load all available time zones. The default is 32768 (32K).



**Note:** The default of 32K is the same value that was defined for the time zone pool in Adabas time zone logic in earlier Adabas releases, when you could only adjust this setting via a zap. With the introduction of this new LTZ parameter, the zap is no longer necessary.

For complete information about the LTZ parameter, read *LTZ Parameter: Time Zone Pool Size*, in the *Adabas Operations Manual*.

### **NISNHQ ADARUN Parameter Maximum Changed**

The maximum value that can be specified for the NISNHQ ADARUN parameter has been changed in Adabas 8.3 SP1. This parameter allows you to specify the maximum number of records that can be placed in hold status (hold queues) at the same time by a single user.

The new maximum value that can be specified is the value set for the NH ADARUN parameter (which has a maximum value of 16777215).

For complete information about the NISNHQ parameter, read *NISNHQ Parameter: Number of ISNs in Hold Queue per User*, in the *Adabas Operations Manual*.

### **REFSTPRT: Print Statistics before Refresh Statistics**

This release introduces a new ADARUN parameter and a new operator command called REFSTPRT. These allow you to indicate whether statistics should be printed before they are refreshed. Valid values are YES or NO; YES is the default.

When set to "YES", Adabas prints statistics before an ADADBS REFRESHSTATS utility function run or before interval statistics have been refreshed using Adabas Online System (option **R** in **Session Monitoring**).

The REFSTPRT operator command can be issued on the console as well as via the ADADBS OPERCOM function.

For complete information about the REFSTPRT parameter, read *REFSTPRT Parameter: Print Statistics before Refresh Statistics*, in the *Adabas Utilities Manual*. For complete information about the REFSTPRT command, read *REFSTPRT Command*, in the *Adabas Operations Manual*.

### **REVLOGMAX Maximum Setting Changed**

The maximum value that can be specified for the ADARUN parameter REVLOGMAX has been changed from 32768 (32K) to 32764 (32K - 4). Be sure to correct this parameter setting accordingly in any of your nuclei before you attempt to start them.

For more information about the REVLOGMAX parameter, read *REVLOGMAX Parameter: Total Logged Buffer Size Limit for a Review Command*, in the *Adabas Operations Manual*.



## **RIAFTERUPDATE: Allow RI Command after Update**

This release introduces a new ADARUN parameter called RIAFTERUPDATE. This parameter allows you to indicate whether Adabas should suppress the response code 113 (ADARSP113) subcode 5 and response code 2 (ADARSP002) subcode 5 that are returned when an application issues an RI command for a record that has been updated in the current transaction. The RI command returns response code 0 instead, but does not release any updated records from hold.

Normally, the RI command releases ISNs for records being held by the issuing user. The selected ISN for a single database file, or all ISNs held by the issuing user in all files can be released. However, the records are not released unconditionally. If your application issues an RI command for a record that has been updated in the current transaction, Adabas normally returns response code 113 (ADARSP113), or if ISN=0 was specified, response code 2 (ADARSP002). With the RIAFTERUPDATE parameter set to "YES", these response codes are suppressed. Instead, a response code of zero (0) is returned, and only records that have not been updated in the current transaction are released from hold. Updated records continue to be protected from concurrent updates by other users that might otherwise introduce inconsistencies.

This logic is made configurable for customers with old COBOL applications that are exposed to response code 113 (subcode 5) responses.

For complete information about the RIAFTERUPDATE parameter, read *RIAFTERUPDATE Parameter: Controlling RI Command Behavior*, in the *Adabas Utilities Manual*.

## **TCPURL: Logging Activation and IPv6 Support**

The ADARUN TCPURL parameter now allows you to indicate whether logging should be turned on and whether IPv6 addresses can be used. This update was made to the option to access your Adabas databases directly through TCP/IP, which runs as a subtask and uses the TCP/IP line driver logic provided by Entire Net-Work, which includes support of IPv6 addressing. For more information, read *TCPURL Parameter: TCP/IP Universal Resource Locator*, in the *Adabas Operations Manual*.

## **UTCTIMEL: BS2000 Local Time Control**

This release introduces a new ADARUN parameter called UTCTIMEL. This parameter allows you to specify whether this machine has been started in local time or not. This parameter is valid only in BS2000 environments and allows time derived from the store clock (STCK) to be output correctly when the machine has been started on local time. Valid values are Y or N; N is the default.

For complete information about the UTCTIMEL parameter, read *UTCTIMEL Parameter: BS2000 Local Time Control*, in the *Adabas Operations Manual*.

## ADARUN Parameter Change Summary

The following table summarizes the ADARUN parameter changes in Adabas 8.3.

Parameter	New or Changed	Enhancement Description
ALLOW8F	New	This parameter new allows you to specify whether 8F devices can be used with devices other than as UNIX shared disks. This parameter allows you to control the use of 8F devices in your BS2000 Adabas session. Valid values are Y or N; N is the default.
ARNWORKBUFFERS	New	This new parameter allows you to specify the number of WORK I/O buffers allocated during autorestart processing after a failure. When multiple WORK I/O buffers are allocated and used during autorestart processing, multiple WORK blocks may be read in each I/O. The use of multiple WORK buffers during autorestart processing may reduce the elapsed time needed to complete autorestart processing.
ASSOCACHE	Changed	With the introduction of the ASSOSPACEWARN parameter, this ADARUN parameter can no longer be specified in the shortened form "ASSO". Its shortened form must now be specified as "ASSOC".
ASSOSPACEWARN	New	This new parameter can be used to specify the space usage thresholds and the increment above the thresholds at which warning messages should be triggered for Associator space.
AUTOQCQENV	New	This new parameter can be used to identify the type of user affected by the AUTOCQTIME parameter setting during an online recovery process. Only commands from users in the specified environment will be returned from the command queue if they meet the AUTOCQTIME criteria.
AUTOCQTIME	New	This new parameter can be used to specify the timeout period, in seconds, after which an eligible unprocessed command in the command queue during online recovery will be returned to the user with response code 22 (ADARSP022), subcode 55.
AUTOINCASSOSIZE	New	This new parameter can be used to specify the size, in cylinders or blocks, by which the highest-numbered (last-defined) Associator (ASSO) data set will be increased by an automatic database increase process.
AUTOINCASSOTHRESHOLD	New	This new parameter can be used to specify the threshold, as a percentage of the used Associator space in the database, at which Adabas automatically initiates a database increase process.
AUTOINCASSOTOTAL	New	This new parameter can be used to specify the maximum total size, in cylinders or blocks, of the entire Associator space of the database that is not to be exceeded by automatic database increase processes.
AUTOINCDATASIZE	New	This new parameter can be used to specify the size, in cylinders or blocks, by which the highest-numbered (last-defined) Data Storage (DATA) data set will be increased by an automatic database increase process.

Parameter	New or Changed	Enhancement Description
AUTOINCDATATHRESHOLD	New	This new parameter can be used to specify the threshold, as a percentage of the used Data Storage space in the database, at which Adabas automatically initiates a database increase process.
AUTOINCDATATOTAL	New	This new parameter can be used to specify the maximum total size, in cylinders or blocks, of the entire Data Storage space of the database that is not to be exceeded by automatic database increase processes.
DATACACHE	Changed	With the introduction of the DATASPACEWARN parameter, this ADARUN parameter can no longer be specified in the shortened form "DA". Its shortened form must now be specified as "DATAC".
DATASPACEWARN	New	This new parameter can be used to specify the space usage thresholds and the increment above the thresholds at which warning messages should be triggered for Data Storage space.
INDEXCROSSCHECK	New	This new parameter can be used to specify whether index cross-checking should be turned on or off. Index cross-checking is a process Adabas uses to ensure that a data storage record it is reading actually matches the descriptor value in the index by which the record was found. When index cross-checking is turned on, Adabas extracts the descriptor value from the record being read and compares it to the value used for positioning in the index. If there is a mismatch, Adabas returns response code 175 (ADARSP175).
IOMAX32K	New	This new parameter can be used to specify whether sporadic PAM I/O ADAI51 and ADAI52 error messages with DMS error code 00 should be removed on old disk devices. This parameter is for BS2000 environments only.
LTZ	New	This new parameter can be used to specify the size of the time zone pool (in bytes) where time zone information is kept for each time zone used in a user session.
NISNHQ	Changed	The maximum value allowed for this parameter has been changed to the value set for the NH ADARUN parameter (which has a maximum value of 16777215).
REFSTPRT	New	This new parameter can be used to indicate whether statistics should be printed after a REFRESH STATISTICS command is issued.
REVLOGMAX	Changed	The maximum value allowed for this parameter has been changed to 32764 (32K - 4).
RIAFTERUPDATE	New	This new parameter can be used to indicate whether Adabas should suppress the response code 113 (ADARSP113) subcode 5 and response code 2 (ADARSP002) subcode 5 that are returned when an application issues an RI command for a record that has been updated in the current transaction and should not release the record.
SECUID	New	This new parameter can be used to specify the requirement level of security system user IDs for a database. Using it you can indicate how Adabas handles calls from a user without a security system user

Parameter	New or Changed	Enhancement Description
		ID or with a security system user ID that changed during the Adabas session.
TCPURL	Changed	You can now indicate whether logging should be turned on and whether IPv6 addresses can be used in this parameter.
UTCTIMEL	New	This new parameter can be used to specify whether this machine has been started in local time or not. This allows time derived from the store clock (STCK) to be output correctly when the machine has been started on local time. This parameter is valid only in BS2000 environments.

## Adabas 8.3 SP1 Utility Enhancements

This section describes the utility enhancements made in Adabas version 8.3 SP1.

- [New ADACHK Utility: Database Consistency Check Utility that Runs Concurrently with Normal Database Operations](#)
- [ADACMP Utility Enhancements](#)
- [ADADBS Utility Enhancements](#)
- [Enhanced ADAFRM Utility Data Set Formatting](#)
- [New ADADRU Utility: the Database Storage Usage Utility](#)
- [ADARES Utility Enhancement](#)
- [ADASAV Utility Enhancement](#)
- [ADASEL Utility Enhancements](#)
- [ADAREP Performance Enhancements](#)
- [Utility Change Summary](#)

### **New ADACHK Utility: Database Consistency Check Utility that Runs Concurrently with Normal Database Operations**

This release introduces the ADACHK, or Adabas common check, utility. ADACHK performs a variety of functions and is intended to replace the ADAACK, ADADCK, ADAICK, ADAVAL, and ADAPRI utilities. ADACHK provides the existing functionality provided by these utilities as well as additional features. It also includes the integrity checks that the ADAREP utility currently performs and checks all persistent data structures on disk with minimal impact to the production environment while database updates run concurrently. In addition, all ADACHK utility functions can be run online concurrently with normal database operations; consequently, it can be run 24x7, without the need to shut down the database.

You can use the ADACHK utility to:

- Perform all integrity checks and print functions that ADAPRI, ADAACK, ADAICK, ADADCK, ADAVAL, and ADAREP currently perform;
- Check the address converter against data storage (ADACHK ACCHECK utility function);
- Check Data Storage and the Data Storage space table (DSST) (ADACHK DSCHECK utility function);
- Check the physical structure of the index (ADACHK ICHECK utility function).
- Validate any or all files within an Adabas database, except the checkpoint and security files (VALIDATE utility function).
- Print or dump Associator blocks, command log blocks, Data Storage blocks, the File Control Block, the field definition table, the free space table, the general control block, the normal index, the upper index, protection log blocks, recovery log blocks, sort data set blocks, temporary data set blocks, and work data set blocks.

In addition, the ADACHK CHECK utility function performs a combination of the ACCHECK, DSCHECK, ICHECK, and VALIDATE utility functions as well as the gap and overlap checks provided in the ADAREP utility. Note that the physical layout check of the entire database, including checks for overlaps, gaps, and the integrity of expanded file chains, is only performed once per ADACHK execution to reduce overhead.

It is possible to run ADACHK against the entire database, just one file, or a range of files. Processing occurs on a file by file basis rather than trying to process multiple files in parallel. Processing multiple files at once may hinder performance, particularly during the sort functions.

Anytime ADACHK reads a block it verifies the consistency of the block on its own and reports any inconsistencies that it detects. ADACHK has been designed in such a manner that each record (Data Storage, address converter, index) is only read once. This is a substantial performance improvement from the existing check utilities. A further performance enhancement is that ADACHK functions (including ADACHK VALIDATE) can check the entire database on their own, without making nucleus calls (the ADAVAL utility must make nucleus calls when it runs). It only makes nucleus calls if it encounters an error that may be transient (caused by a concurrent update), in which case ADACHK must confirm whether the block in question is currently being updated.

In addition, the ADACHK utility allows you to indicate the level of data produced for the report or dump using a new parameter called LAYOUT, with valid values of SHORT, MEDIUM, or LONG. For example, a table showing the expanded file chains is provided by the ADACHK CHECK utility function when LAYOUT=LONG.

The ADACHK utility does not require that its SORT data set be preformatted and in z/OS and BS2000 environments, it can dynamically increase the size of the SORT data set. If a single SORT data set (DDSORTR1) is in use, ADACHK can dynamically extend it if it fills up. If two SORT data sets are in use (DDSORTR1 and DDSORTR2), ADACHK can dynamically extend the DDSORTR2 data set if it fills up. Finally, instead of using its own, internal sorter, ADACHK can also be configured to use an external sorter -- that is, the sorter (if any) provided by your installation -- by

specifying SORTTYPE=EXTERNAL. In this configuration, DDSORTR1 and/or DDSORTR2 need not be specified and any sorter-related specifications must be done for the external sorter.

The following table matches ADACHK utility functions with existing equivalent utility functions. All ADACHK utility functions can be run online with concurrent updates running. Support for the ADAACK, ADADCK, ADAICK, ADAPRI, and ADAVAL utilities will be dropped in a future release of Adabas, so we encourage you to start using the ADACHK utility now.



**Note:** The LAYOUT=SHORT (the default) parameter setting is used for each of these ADACHK functions to minimize output when all structures are correct. LAYOUT=LONG can be used if the additional output is desired.

ADACHK Utility Function	Equivalent Other Utility Function	Comments
ACCHECK	ADAACK ACCHECK ADAICK ACCHECK	ACCHECK can also be run online while concurrent updates are running. This utility function includes expanded file chain and gap/overlap checks similar to those provided by the ADAREP utility.
ASSOPRINT	ADAICK ASSOPRINT ADAPRI ASSOPRI	The results from the ADACHK ASSOPRINT LAYOUT=LONG setting are what you get when you run the equivalent ADAICK or ADAPRI utility function.
CHECK	none	The CHECK utility function performs a combination of the ACCHECK, DSCHECK, ICHECK, and a VALIDATE utility functions as well as the gap and overlap checks provided in the ADAREP utility. CHECK can also be run online while concurrent updates are running.
CLOGPRINT	ADAPRI CLOGPRI	
DATAPRINT	ADAICK DATAPRINT ADAPRI DATAPRI	The results from the ADACHK DATAPRINT LAYOUT=LONG setting are what you get when you run the equivalent ADAICK or ADAPRI utility function.
DSCHECK	ADADCK DSCHECK ADAICK DSCHECK	DSCHECK can also be run online while concurrent updates are running. This utility function includes expanded file chain and gap/overlap checks similar to those provided by the ADAREP utility.
DSIMPRINT	ADAPRI DSIMPRI	
DSSTPRINT	none	---
FCBPRINT	ADAICK FCBPRINT ADAPRI	The results from the ADACHK FCBPRINT LAYOUT=LONG setting are what you get when you run the equivalent ADAICK or ADAPRI utility function.
FDTPRINT	ADAICK FDTPRINT ADAPRI	The results from the ADACHK FDTPRINT LAYOUT=LONG setting are what you get when you run the equivalent ADAICK or ADAPRI utility function.
FSTPRINT	none	---

ADACHK Utility Function	Equivalent Other Utility Function	Comments
GCBPRINT	ADAICK GCBPRINT ADAPRI	The results from the ADACHK GCBPRINT LAYOUT=LONG setting are what you get when you run the equivalent ADAICK or ADAPRI utility function.
ICHECK	ADAICK ICHECK	ICHECK can also be run online while concurrent updates are running. This utility function includes expanded file chain and gap/overlap checks similar to those provided by the ADAREP utility.
NIPRINT	ADAICK NIPRINT ADAPRI	The results from the ADACHK NIPRINT LAYOUT=LONG setting are what you get when you run the equivalent ADAICK or ADAPRI utility function.
PLOGPRINT	ADAPRI PLOGPRI	
PPTPRINT	ADAICK PPTPRINT ADAPRI	The results from the ADACHK PPTPRINT LAYOUT=LONG setting are what you get when you run the equivalent ADAICK or ADAPRI utility function.
RLOGPRINT	ADAPRI RLOGPRI	
SORTPRINT	ADAPRI SORTPRI	
TEMPPRINT	ADAPRI TEMPPRI	
UIPRINT	ADAICK UIPRINT ADAPRI	The results from the ADACHK UIPRINT LAYOUT=LONG setting are what you get when you run the equivalent ADAICK or ADAPRI utility function.
VALIDATE	ADAVAL VALIDATE	VALIDATE can also be run online while concurrent updates are running. This utility function includes expanded file chain and gap/overlap checks similar to those provided by the ADAREP utility.
WORKPRINT	ADAPRI WORKPRI	

For complete information about the ADACHK utility, read *ADACHK Utility: Database Consistency Check Utility that Runs Concurrently with Normal Database Operations*, in the *Adabas Utilities Manual*.

### ADACMP Utility Enhancements

In Adabas 8.3 SP1, the ADACMP utility has been updated to include limited support for LB (LOB) field specification in the FORMAT parameter if the LOBVALUES parameter is set to NO. This functionality is most useful for changing the FDT of a base file in a LOB file group. For complete information, read about the FORMAT parameter in *COMPRESS: Compress an Adabas File* and *DECOMPRESS: Decompress an Adabas File*, in the *Adabas Utilities Manual*.



**Caution:** Care must be taken when specifying LB fields in a FORMAT parameter if the LOBVALUES parameter is set to NO. Failure to specify all LB fields could lead to LB values existing in the LOB file without a corresponding LB value reference in the base file.

## ADADBS Utility Enhancements

The following changes have been made to ADADBS utility functions in Adabas 8.3:

1. Effective as of Adabas 8.3 SP1, the ADADBS REFRESHSTATS utility function no longer completely forgets statistical values maintained by the Adabas nucleus for its current session, although it does reset them. All operator commands, ADADBS OPERCOM commands, and AOS commands issued during the session will display nucleus statistics since the last reset. However, the nucleus shutdown statistics now show nucleus statistics for the entire nucleus session.

In addition, two new categories of statistics can now be reset.

- Use ADADBS REFRESHSTATS IOS to reset all I/O statistics, including all read/write I/O statistics for the Associator, Data Storage, Work data sets, PLOG, and CLOG, as well as all I/O distribution statistics by volume serial number (VOLSER).
- Use ADADBS REFRESHSTATS TIMES to reset time statistics, including duration, wait time, and CPU time statistics.

For more information, read *REFRESHSTATS: Reset Statistical Values*, in the *Adabas Utilities Manual*.

2. Adabas 8.3 SP1 introduces support for the RPLCHECK operator command in ADADBS OPERCOM utility runs. This operator command performs the replication cross-check function for all active databases known (defined in one or more subscriptions) to the Event Replicator Server.



**Note:** This operator command is not valid for use with an Adabas nucleus; it is only valid for use against an Event Replicator Server.

For more information, read *OPERCOM: Issue Adabas Operator Commands*, in the *Adabas Utilities Manual*.

3. The following Adabas cluster operator commands can now be issued to a cluster nucleus (CLUSTER=SYSPLEX or CLUSTER=LOCAL) using the ADADBS OPERCOM utility function: DXCACHE, DXFILE, DXLOCK, DXMSG, DXSTAT, MXCANCEL, MXCANCELWARN, MXMSG, MXMSGWARN, MXSTATUS and MXWTOR.

For more information about the console operator commands read *Nucleus Commands*, in the *Adabas Operations Manual*. For more information about the operator commands you can issue using the ADADBS OPERCOM utility function, read *Operator Commands*, in the *Adabas Utilities Manual*.



## Enhanced ADAFRM Utility Data Set Formatting

Effective with Adabas 8.3, data sets are formatted by the ADAFRM utility using an enhanced, quicker method. If you want to use the original (older) data set formatting technique, you can specify a new NOTENH (not enhanced) parameter. In addition, a new VOLIOCOUNT parameter has been introduced. Use the VOLIOCOUNT parameter to specify the number of concurrent I/Os per volume to process for a data set; the value of this parameter can also affect the processing speed of the ADAFRM utility.

For complete information, read *ADAFRM Utility: Format Adabas Database Components* and specifically the section *Enhanced Formatting*, in the *Adabas Utilities Manual*.

## New ADADRU Utility: the Database Storage Usage Utility

This release introduces the ADADRU utility, or the Adabas database storage usage utility. This utility can be used to produce summary and detail reports about database storage usage. At this time it includes a single utility function, ADADRU SPACEUSAGE, that you can use to produce summarized and detailed reports about database file space usage.

For complete information about the ADADRU utility, read *ADADRU Utility: Database Storage Usage Reports*, in the *Adabas Utilities Manual*.

## ADARES Utility Enhancement

When the ADARES utility detects that more CLOG or PLOG data sets need to be copied at the end of an ADARES CLCOPY or ADARES PLCOPY function, it invokes user exit 12. Effective with Adabas 8.3 SP1, a new flag "F" has been introduced to identify this type of call and is processed as a new EX12TYPE value, "F", in user exit 12. For more information about user exit 12, read *User Exit 12 (Multiple Data Set Log Processing)*, in the *Adabas User, Hyperdescriptor, Collation Descriptor, and SMF Exits Manual*.

For more information about the ADARES CLCOPY and ADARES PLCOPY utility functions, read *ADARES Utility: Database Recovery*, in the *Adabas Utilities Manual*.

## ADASAV Utility Enhancement

When a ADAU85 REPLICATION FOR FILE file-number IS SWITCHED OFF BECAUSE REPLICATION IS NOT ACTIVE is returned, a CC=4 will now be returned to alert the customer that the Replication status has changed.

## ADASEL Utility Enhancements

The ADASEL utility has been updated significantly in Adabas 8.3. Its storage and selection capabilities have been expanded. This support is provided in many places in the SELECT parameter of the ADASEL utility:

1. A new SECUID parameter can now be used to specify a security system user ID or range of security system user IDs in the value-criterion of the WITH clause or the IF statement.
2. A new SECUID [HEX] parameter can now be used in the DISPLAY instruction to indicate that the security system user ID of the user who added, updated, or deleted the record should be displayed.
3. A new ETCMD keyword has been added to the syntax that allows you to select end transaction (ET) information from the PLOG.
4. A new CMDCOUNT keyword has been added to the syntax that allows you to select data by command sequence number. This keyword can be used in the WITH clause or the IF statement as well as in DISPLAY statements.
5. A new SESSNUM keyword has been added to the syntax that allows you to select data by Adabas session number. This keyword can be used in the WITH clause or the IF statement as well as in DISPLAY statements.
6. You can now select fields from the PLOG for the EXPAN data set and you can obtain counts for the MU, PE, and MU/PE fields written to the EXPAN data set.
7. The EXTENDED output format has changed.
8. A new EXTRACT output format can be requested using a new EXTRACT keyword on the output instruction. The EXTRACT format stores the same data as the EXTENDED output, in a slightly different format, but is larger, more flexible, and allows for future expansion by Software AG with minimal impact to the customer.
9. The security system user ID will appear in the output log data set if the EXTRACT keyword is specified in the output instruction of the ADASEL utility.
10. With both LOGINFORM and EXTENDED output, the ID of the user (ETID) who added, deleted, or updated the record will now always be displayed. In prior versions if the ID started with a blank, all blanks were displayed.

For more information, read *ADASEL Utility: Select Protection Data*, in the *Adabas Utilities Manual*.

## ADAREP Performance Enhancements

In Adabas 8.3 SP1, the ADAREP utility performance has been improved by reducing the number of I/Os used to count the number of records loaded for each file. For a database with large files, this enhancement can significantly reduce the run time of the ADAREP utility.

For more information about the ADAREP utility, read *ADAREP Utility: Database Status Report*, in the *Adabas Utilities Manual*.

## Utility Change Summary

Adabas 8.3 SP1 introduces the following utility enhancements:

Utility Function	New or Changed?	Enhancement Description
ADACDC	Changed	The ADACDC utility has been updated to support the security system user ID. The security system user ID will appear in the extract file and the primary output file. For more information, read <i>ADACDC Utility: Changed-Data Capture</i> , in the <i>Adabas Utilities Manual</i> .
ADACHK ACCHECK	New	This new utility function allows you to check the address converter against Data Storage while concurrent updates are running. For complete information about the ADACHK ACCHECK utility function, read <i>ACCHECK: Check Address Converter against Data Storage</i> , in the <i>Adabas Utilities Manual</i> .
ADACHK ASSOPRINT	New	This new utility function allows you to dump or print the contents of any Associator (ASSO) block in the database. For complete information about the ADACHK ASSOPRINT utility function, read <i>ASSOPRINT: Print/Dump Associator Blocks</i> , in the <i>Adabas Utilities Manual</i> .
ADACHK CHECK	New	This new utility function allows you to perform all of the ADACHK utility check functions, which includes the ACCHECK, DSCHECK, ICHECK, and VALIDATE functions. It can be run while concurrent updates are running. For complete information about the ADACHK CHECK utility function, read <i>CHECK: Perform all ADACHK Checks</i> , in the <i>Adabas Utilities Manual</i> .
ADACHK CLOGPRINT	New	This new utility function allows you to dump or print the contents of any block or range of blocks in the command log (CLOG) data set. For complete information about the ADACHK CLOGPRINT utility function, read <i>CLOGPRINT: Print/Dump Command Log Blocks</i> , in the <i>Adabas Utilities Manual</i> .
ADACHK DATAPRINT	New	This new utility function allows you to dump or print the contents of any block or range of blocks in Data Storage. For complete information about the ADACHK DATAPRINT utility function, read <i>DATAPRINT: Print/Dump Data Storage Blocks</i> , in the <i>Adabas Utilities Manual</i> .
ADACHK DSCHECK	New	This new utility function allows you to check Data Storage and the Data Storage space table (DSST) of a specific file (or files) in the database. It can be run while concurrent updates are running. For complete information about the ADACHK DSCHECK utility function, read <i>DSCHECK: Check Data Storage</i> , in the <i>Adabas Utilities Manual</i> .

Utility Function	New or Changed?	Enhancement Description
ADACHK DSIMPRINT	New	This new utility function allows you to print the contents of any block or range of blocks in the Delta Save image (DSIM) data set. For complete information about the ADACHK DSIMPRINT utility function, read <i>DSIMPRINT: Print Delta Save Image Data Set Blocks</i> , in the <i>Adabas Utilities Manual</i> .
ADACHK DSSTPRINT	New	This new utility function allows you to print the contents of the Data Storage Space Table (DSST). For complete information about the ADACHK DSSTPRINT utility function, read <i>DSSTPRINT: Print Data Storage Space Table</i> , in the <i>Adabas Utilities Manual</i> .
ADACHK FCBPRINT	New	This new utility function allows you to dump or print the contents of the File Control Block (FCB) for any file in the database. For complete information about the ADACHK FCBPRINT utility function, read <i>FCBPRINT: Print/Dump File Control Block (FCB)</i> , in the <i>Adabas Utilities Manual</i> .
ADACHK FDTPRINT	New	This new utility function allows you to dump or print the contents of the File Definition Table (FDT) for any file in the database. For complete information about the ADACHK FDTPRINT utility function, read <i>FDTPRINT: Print/Dump Field Definition Table (FDT)</i> , in the <i>Adabas Utilities Manual</i> .
ADACHK FSTPRINT	New	This new utility function allows you to dump or print the contents of the free space table (FST) for the database. For complete information about the ADACHK FSTPRINT utility function, read <i>FSTPRINT: Print/Dump Free Space Table (FST)</i> , in the <i>Adabas Utilities Manual</i> .
ADACHK GCBPRINT	New	This new utility function allows you to dump or print the contents of the general control blocks (GCBs) for the database. For complete information about the ADACHK GCBPRINT utility function, read <i>GCBPRINT: Print/Dump General Control Blocks (GCBs)</i> , in the <i>Adabas Utilities Manual</i> .
ADACHK ICHECK	New	This new utility function allows you to check the physical structure of the index. For complete information about the ADACHK ICHECK utility function, read <i>ICHECK: Check Index Physical Structure</i> , in the <i>Adabas Utilities Manual</i> .
ADACHK NIPRINT	New	This new utility function allows you to dump or print the contents of the normal index of files or ranges of files in the database. For complete information about the ADACHK NIPRINT utility function, read <i>NIPRINT: Print/Dump Normal Index</i> , in the <i>Adabas Utilities Manual</i> .
ADACHK PLOGPRINT	New	This new utility function allows you to dump or print the contents of any block or range of blocks in the protection log (PLOG) data set. For complete information about the ADACHK PLOGPRINT utility function, read <i>PLOGPRINT: Print/Dump Protection Log Blocks</i> , in the <i>Adabas Utilities Manual</i> .
ADACHK PPTPRINT	New	This new utility function allows you to dump or print the contents of the parallel participant table (PPT) for the database. For complete information about the ADACHK PPTPRINT utility function, read <i>PPTPRINT: Print/Dump Parallel Participant Table (PPT)</i> , in the <i>Adabas Utilities Manual</i> .
ADACHK RLOGPRINT	New	This new utility function allows you to dump or print the contents of any block or range of blocks in the recovery log (RLOG) data set. For complete information about the ADACHK RLOGPRINT utility function, read <i>RLOGPRINT: Print/Dump Recovery Log</i> , in the <i>Adabas Utilities Manual</i> .

Utility Function	New or Changed?	Enhancement Description
ADACHK SORTPRINT	New	This new utility function allows you to dump or print the contents of any block or range of blocks in the sort (SORT) data set. For complete information about the ADACHK SORTPRINT utility function, read <i>SORTPRINT: Print/Dump Sort Data Set</i> , in the <i>Adabas Utilities Manual</i> .
ADACHK TEMPPRINT	New	This new utility function allows you to dump or print the contents of any block or range of blocks in the temporary (TEMP) data set. For complete information about the ADACHK TEMPPRINT utility function, read <i>TEMPPRINT: Print/Dump Temporary Data Set</i> , in the <i>Adabas Utilities Manual</i> .
ADACHK UIPRINT	New	This new utility function allows you to dump or print the contents of the upper index of files or ranges of files in the database. For complete information about the ADACHK UIPRINT utility function, read <i>UIPRINT: Print/Dump Upper Index</i> , in the <i>Adabas Utilities Manual</i> .
ADACHK VALIDATE	New	This new utility function allows you to validate any or all files within an Adabas database, except the checkpoint and security files. It can be run while concurrent updates are running. For complete information about the ADACHK VALIDATE utility function, read <i>VALIDATE: Validate All Database Files</i> , in the <i>Adabas Utilities Manual</i> .
ADACHK WORKPRINT	New	This new utility function allows you to dump or print the contents of any block or range of blocks in the work (WORK) data set. For complete information about the ADACHK WORKPRINT utility function, read <i>WORKPRINT: Print/Dump Work Data Set</i> , in the <i>Adabas Utilities Manual</i> .
ADACMP COMPRESS	Changed	<p>The ADACMP COMPRESS utility function has been updated to include limited support for LB (LOB) field specification in the FORMAT parameter if the LOBVALUES parameter is set to NO. This functionality is most useful for changing the FDT of a base file in a LOB file group. For complete information, read about the FORMAT parameter in <i>COMPRESS: Compress an Adabas File</i>, in the <i>Adabas Utilities Manual</i>.</p> <p><b>Caution:</b> Care must be taken when specifying LB fields in a FORMAT parameter if the LOBVALUES parameter is set to NO. Failure to specify all LB fields could lead to LB values existing in the LOB file without a corresponding LB value reference in the base file.</p>
ADACMP DECOMPRESS	Changed	<p>The ADACMP DECOMPRESS utility function has been updated to include limited support for LB (LOB) field specification in the FORMAT parameter if the LOBVALUES parameter is set to NO. This functionality is most useful for changing the FDT of a base file in a LOB file group. For complete information, read about the FORMAT parameter in <i>DECOMPRESS: Decompress an Adabas File</i>, in the <i>Adabas Utilities Manual</i>.</p> <p><b>Caution:</b> Care must be taken when specifying LB fields in a FORMAT parameter if the LOBVALUES parameter is set to NO. Failure to specify all LB fields could lead to LB values existing in the LOB file without a corresponding LB value reference in the base file.</p>

Utility Function	New or Changed?	Enhancement Description
ADADBS ONLADD	New	This utility function allows you to dynamically allocate a new Associator or Data Storage data set to the database without restarting the Adabas nucleus. The new data set must have previously been allocated to the operating system and formatted for the Associator or Data Storage area using the ADAFRM ASSOFRM or ADAFRM DATAFRM utility functions. For complete information about the ADADBS ONLADD utility function, read <i>ONLADD: Allocating New ASSO or DATA Space Dynamically</i> , in the <i>Adabas Utilities Manual</i> .
ADADBS ONLINCREASE	New	This utility function allows you to dynamically allocate appended Associator or Data Storage space to the database without restarting the Adabas nucleus. For complete information about the ADADBS ONLINCREASE utility function, read <i>ONLINCREASE: Allocating Appended ASSO or DATA Space Dynamically</i> , in the <i>Adabas Utilities Manual</i> .
ADADBS OPERCOM	New	<p>This utility function now supports the use of the :</p> <ul style="list-style-type: none"> <li>■ RPLCHECK operator command against an Event Replicator Server; it is not valid when used against an Adabas nucleus.</li> <li>■ DCMDSTAT, DFILESTAT, DSPACE, DVOLIO, STOPSU, STOPSUR, and STOPUR operator commands against an Adabas nucleus.</li> <li>■ Cluster operator commands DXMSG, MXCANCEL, MXCANCELWARN, MXMSG, MXMSGWARN, MXSTATUS and MXWTOR issued to a cluster nucleus (CLUSTER=SYSPLEX or CLUSTER=LOCAL).</li> </ul> <p>For more information, read <i>OPERCOM: Issue Adabas Operator Commands</i>, in the <i>Adabas Utilities Manual</i>.</p>
ADADBS REFRESHSTATS	New	<p>Effective as of Adabas 8.3 SP1, the ADADBS REFRESHSTATS utility function no longer completely forgets statistical values maintained by the Adabas nucleus for its current session, although it does reset them. In addition, two new categories of statistics can now be reset.</p> <ul style="list-style-type: none"> <li>■ Use ADADBS REFRESHSTATS IOS to reset all I/O statistics, including all read/write I/O statistics for the Associator, Data Storage, Work data sets, PLOG, and CLOG, as well as all I/O distribution statistics by volume serial number (VOLSER).</li> <li>■ Use ADADBS REFRESHSTATS TIMES to reset time statistics, including duration, wait time, and CPU time statistics.</li> </ul> <p>For more information, read <i>REFRESHSTATS: Reset Statistical Values</i>, in the <i>Adabas Utilities Manual</i>.</p>
ADADRU SPACEUSAGE	New	This utility function allows you to produce summarized and detailed reports about database file space usage. For complete information about the ADADBS ONLINCREASE utility function, read <i>SPACEUSAGE: Database File Space Usage</i> , in the <i>Adabas Utilities Manual</i> .
ADAFRM (all functions)	Changed	Data sets are now formatted using an enhanced, quicker method. If you want to use the original (older) data set formatting technique, you can specify a new NOTENH parameter. In addition, a new VOLIOCOUNT parameter has been

Utility Function	New or Changed?	Enhancement Description
		introduced. Use the VOLIOCOUNT parameter to specify the number of concurrent I/Os per volume to process for a data set; the value of this parameter can also affect the processing speed of the ADAFRM utility. For complete information, read <i>ADAFRM Utility: Format Adabas Database Components</i> , in the <i>Adabas Utilities Manual</i> .
ADAREP	Changed	ADAREP utility performance has been enhanced to reduce the amount of I/O activity required to read the address converter. This was done to determine the number of records loaded for a file. For a database with large files, this enhancement can significantly reduce the run time of the ADAREP utility.
ADARES CLCOPY and ADARES PLCOPY	Changed	<p>When the ADARES utility detects that more CLOG or PLOG data sets need to be copied at the end of an ADARES CLCOPY or ADARES PLCOPY function, it invokes user exit 12. Effective with Adabas 8.3 SP1, a new flag "F" has been introduced to identify this type of call and is processed as a new EX12TYPE value in user exit 12. For more information about user exit 12, read <i>User Exit 12 (Multiple Data Set Log Processing)</i>, in the <i>Adabas User, Hyperdescriptor, Collation Descriptor, and SMF Exits Manual</i>.</p> <p>For more information about the ADARES CLCOPY and ADARES PLCOPY utility functions, read <i>ADARES Utility: Database Recovery</i>, in the <i>Adabas Utilities Manual</i>.</p>
ADASEL	Changed	<p>The ADASEL utility has been updated significantly. Its storage and selection capabilities have been expanded. This support is provided in many places in the SELECT parameter of the ADASEL utility:</p> <ol style="list-style-type: none"> <li>1. A new SECUID parameter can now be used to specify a security system user ID or range of security system user IDs in the value-criterion of the WITH clause or the IF statement.</li> <li>2. A new SECUID [HEX] parameter can now be used in the DISPLAY instruction to indicate that the security system user ID of the user who added, updated, or deleted the record should be displayed.</li> <li>3. A new ETCMD keyword has been added to the syntax that allows you to select end transaction (ET) information from the PLOG.</li> <li>4. A new CMDCOUNT keyword has been added to the syntax that allows you to select data by command sequence number. This keyword can be used in the WITH clause or the IF statement as well as in DISPLAY statements.</li> <li>5. A new SESSNUM keyword has been added to the syntax that allows you to select data by Adabas session number. This keyword can be used in the WITH clause or the IF statement as well as in DISPLAY statements.</li> <li>6. You can now select fields from the PLOG for the EXPAn data set and you can obtain counts for the MU, PE, and MU/PE fields written to the EXPAn data set.</li> <li>7. The EXTENDED output format has changed.</li> </ol>

Utility Function	New or Changed?	Enhancement Description
		<p>8. A new EXTRACT output format can be requested using a new EXTRACT keyword on the output instruction. The EXTRACT format stores the same data as the EXTENDED output, in a slightly different format, but is larger, more flexible, and allows for future expansion by Software AG with minimal impact to the customer.</p> <p>9. The security system user ID will appear in the output log data set if the EXTRACT keyword is specified in the output instruction of the ADASEL utility.</p> <p>For more information, read <i>ADASEL Utility: Select Protection Data</i>, in the <i>Adabas Utilities Manual</i>.</p>
ADAWRK	Changed	<p>A new SECUID parameter allows you to specify up to 24 security system user IDs (SECUIDs) in character format. Each SECUIDs must be one to eight bytes long. When SECUIDs are specified, only Work part 1 autorestart area records for those SECUIDs are processed by the ADAWRK utility and printed on its reports. For more information, read <i>ADAWRK Utility: Work Area Recovery Reports</i>, in the <i>Adabas Utilities Manual</i>.</p>

## Adabas 8.3 SP1 Operator Command Enhancements

This section describes the operator command enhancements made in Adabas version 8.3 SP1.

- [Comments Allowed in Operator Commands](#)
- [Command Output Changes Due to ADADBS REFRESHSTATS Utility Changes](#)
- [Cluster Operator Commands Added to ADADBS OPERCOM Utility Function](#)
- [DELCQ: Reviewing Command Queue for Unprocessed Commands](#)
- [DFILESTAT: Displaying Command Count Statistics by File](#)
- [New DCMDSTAT Command to Display Command Distribution Statistics](#)
- [Enhanced DPARM Command Output](#)
- [DSTAT Command Update to Display Buffer Flush Statistics](#)
- [DVOLIO: Displaying ASSO and DATA I/O Statistics by VOLSER](#)
- [RPLCHECK: Support for Replication Cross-Checking using the ADADBS OPERCOM Utility](#)
- [STOPSU, STOPSUR, and STOPUR: Stopping, Notifying, and Deleting Users by Adabas-Assigned User ID, Job Name, or Security User ID](#)
- [TCPIP Command Allows Specification of Any Entire Net-Work Command](#)



- [Operator Command Change Summary](#)

### Comments Allowed in Operator Commands

Adabas version 8.3 SP1 introduces the ability to add comments to operator commands issued in z/OS environments. They can be added using either of the following methods.

- After the command, specify the comment within a slash-asterisk (/\*) and asterisk-slash (\*/) pair.  
For example: `F jobname,DUQ /*comment*/`
- After the command, specify a blank, then a comma, then another blank and then the comment.  
For example: `F jobname,DUQ , comment`

The comment is included when the operator command is written to DDPRINT in message ADAI29.

For more information about operator commands, read *Operator Commands*, in the *Adabas Operations Manual*.

### Command Output Changes Due to ADADBS REFRESHSTATS Utility Changes

Effective as of Adabas 8.3 SP1, the ADADBS REFRESHSTATS utility function no longer completely forgets statistical values maintained by the Adabas nucleus for its current session, although it does reset them. All operator commands, ADADBS OPERCOM commands, and AOS commands issued during the session will display nucleus statistics since the last reset. However, the nucleus shutdown statistics now show nucleus statistics for the entire nucleus session.

### Cluster Operator Commands Added to ADADBS OPERCOM Utility Function

The following Adabas cluster operator commands can now be issued to a cluster nucleus (CLUSTER=SYSPLEX or CLUSTER=LOCAL) using the ADADBS OPERCOM utility function: DXCACHE, DXFILE, DXLOCK, DXMSG, DXSTAT, MXCANCEL, MXCANCELWARN, MXMSG, MXMSGWARN, MXSTATUS and MXWTOR.

For more information about these operator commands read *Nucleus Commands*, in the *Adabas Operations Manual*. For more information about the ADADBS OPERCOM utility function, read *OPERCOM: Issue Adabas Operator Commands*, in the *Adabas Utilities Manual*.

### **DELCQ: Reviewing Command Queue for Unprocessed Commands**

A new DELCQ operator command has been added to Adabas 8.3 SP1 that allows you to explicitly request that the command queue be reviewed for unprocessed commands that have been waiting in the command queue for a specified period of time (or longer). The DELCQ command can be issued any time during a nucleus session; it is not limited to instances when an online recovery process is ongoing. A one-time pass is made through the command queue once the DELCQ command is issued. When unprocessed commands in the Adabas command queue are found, they are returned to the issuing user.

For more information, read *DELCQ Command*, in the *Adabas Operations Manual*.

### **DFILESTAT: Displaying Command Count Statistics by File**

A new operator command, DFILESTAT, is introduced in Adabas 8.3 SP1 to provide you with a method of displaying statistics about the number of commands by file. Message ADAN1B is issued to display the statistics. For more information, read *DFILESTAT Command*, in the *Adabas Operations Manual*.

This command can also be issued using the ADADBS OPERCOM utility function. For more information, read about the ADADBS OPERCOM utility function, in the *Adabas Utilities Manual*.

### **New DCMDSTAT Command to Display Command Distribution Statistics**

Using Adabas 8.3 SP1, a new operator command, DCMDSTAT, has been added to display statistics about the distribution of command usage by command type. It can be used on the console and in an ADADBS OPERCOM utility function run. When run on the console, messages ADAN1C is used to display the statistics; when using the ADADBS OPERCOM utility function, a short report is produced. For more information about the DCMDSTAT console command, read *DCMDSTAT Command*, in the *Adabas Operations Manual*; for more information about the ADADBS OPERCOM DCMDSTAT command, read *DCMDSTAT Command*, in the *Adabas Utilities Manual*.

### **Enhanced DPARM Command Output**

Adabas 8.3 SP1 provides enhanced output for the DPARM command, whether it is run as an operator command from the command line or run as part of an ADADBS OPERCOM utility function process. The parameter settings listed in the DPARM output are now listed alphabetically by parameter name. If the ADADBS OPERCOM DPARM utility function is run against a cluster database, the parameters are listed alphabetically by name and grouped by nucleus ID (NUCID).

For more information about the DPARM command, read about the DPARM operator command, in the *Adabas Operations Manual* or about the ADADBS OPERCOM utility function DPARM command, in the *Adabas Utilities Manual*.

## DSTAT Command Update to Display Buffer Flush Statistics

Using Adabas 8.3 SP1, you can now use the DSTAT operator command to display buffer flush statistics on the console and in an ADADBS OPERCOM utility function run. For more information about the DSTAT command, read about the DSTAT operator command, in the *Adabas Operations Manual* or about the ADADBS OPERCOM utility function DSTAT command, in the *Adabas Utilities Manual*.

You can also enter the DSTAT operator command against the ADACHK utility to display the current operating status of the ADACHK run. For more information, read *Adabas Utility Operator Command DSTAT*, in the *Adabas Operations Manual*.

## DVOLIO: Displaying ASSO and DATA I/O Statistics by VOLSER

A new operator command, DVOLIO, is introduced in Adabas 8.3 SP1 to provide you with a method of displaying statistics about ASSO and DATA I/Os by volume serial (VOLSER) number. The number of reads and writes to each volume is displayed. Message ADAN1A is issued with these statistics. For more information, read *DVOLIO Command*, in the *Adabas Operations Manual*.

This command can also be issued using the ADADBS OPERCOM utility function. For more information, read about the ADADBS OPERCOM utility function, in the *Adabas Utilities Manual*.

## RPLCHECK: Support for Replication Cross-Checking using the ADADBS OPERCOM Utility

Adabas 8.3 supports use of the RPLCHECK operator command in ADADBS OPERCOM utility runs. This operator command performs the replication cross-check function for all active databases known (defined in one or more subscriptions) to the Event Replicator Server.



**Note:** This operator command is not valid for use with an Adabas nucleus; it is only valid for use against an Event Replicator Server.

For more information, read *OPERCOM: Issue Adabas Operator Commands*, in the *Adabas Utilities Manual*.

## STOPSU, STOPSUR, and STOPUR: Stopping, Notifying, and Deleting Users by Adabas-Assigned User ID, Job Name, or Security User ID

Three new operator commands have been introduced in Adabas 8.3 to stop, notify, and delete users by Adabas-assigned user ID, job name, or security user ID.

- The STOPSU operator command can be used to stop a user with a specified security user ID. It is similar to the STOPU operator command, but the security user ID must be specified instead of a user ID or job name. Any open transactions of the stopped user are backed out. No response code is issued; the next time the stopped user issues a command, a new user queue element (UQE) is created. For more information about the STOPSU operator command, read *STOPSU Command*, in the *Adabas Operations Manual*; for more information about use of the STOPSU op-

erator command in the ADADBS OPERCOM utility function, read about the STOPSU operator command, in the *Adabas Utilities Manual*.

- The STOPSUR operator command can be used to stop a user with a specified security user ID. This command stops users, but does not delete their user queue elements (UQEs) until response code 22 (ADARSP022), subcode 54 has been issued. This response code-subcode combination is used to notify users that their Adabas activity has been halted and their user session resources have been freed. Stopped users are only deleted after they have issued a subsequent command and response code 22 (ADARSP022), subcode 54 has been issued in response to that command.

For more information about the STOPSUR operator command, read *STOPSUR Command*, in the *Adabas Operations Manual*; for more information about use of the STOPSUR operator command in the ADADBS OPERCOM utility function, read about the STOPSUR operator command, in the *Adabas Utilities Manual*.

- The STOPUR operator command can be used to stop a user with the Adabas-assigned user ID (in the form shown in the display command) or to stop a user with the specified job name. This command stops users, but does not delete their user queue elements (UQEs) until response code 22 (ADARSP022), subcode 54 has been issued. This response code-subcode combination is used to notify users that their Adabas activity has been halted and their user session resources have been freed. Stopped users are only deleted after they have issued a subsequent command and response code 22 (ADARSP022), subcode 54 has been issued in response to that command.

For more information about the STOPUR operator command, read *STOPUR Command*, in the *Adabas Operations Manual*; for more information about use of the STOPUR operator command in the ADADBS OPERCOM utility function, read about the STOPUR operator command, in the *Adabas Utilities Manual*.

### TCPIP Command Allows Specification of Any Entire Net-Work Command

You can now specify any Entire Net-Work command using the TCPIP command. This update was made to the option to access your Adabas databases directly through TCP/IP, which runs as a subtask and uses the TCP/IP line driver logic provided by Entire Net-Work, which includes support of IPv6 addressing. For more information, read *TCPIP Command*, in the *Adabas Operations Manual*.

### Operator Command Change Summary

The following table lists new and changed operator commands in Adabas 8.3.

Command	New or Changed	Enhancement Description
ASSOSPACEWARN	New	This new command can be used to alter the setting of the ADARUN ASSOSPACEWARN parameter while the nucleus is active, allowing you to dynamically specify the space usage thresholds and the increment above the thresholds at which notification warning messages should be triggered for Associator space.

Command	New or Changed	Enhancement Description
DATASPACEWARN	New	This new command can be used to alter the setting of the ADARUN DATASPACEWARN parameter while the nucleus is active, allowing you to dynamically specify the space usage thresholds and the increment above the thresholds at which notification warning messages should be triggered for Data Storage space.
DCMDSTAT	New	This new command can be used to display statistics about the usage distribution of commands, by type.
DELCQ	New	This new command can be used to explicitly request that the command queue be reviewed for unprocessed commands that have been waiting in the command queue for a specified period of time (or longer). This command can be issued any time during a nucleus session; it is not limited to instances when an online recovery process is ongoing. A one-time pass is made through the command queue once the DELCQ command is issued.
DFILESTAT	New	This new command can be used to display statistics for the number of commands by file. Message ADAN1B is issued to display the statistics.
DLOCKF	Changed	In Adabas 8.3 SP2 or if you apply zaps AU831050 and AN831034 (available via <a href="#">Empower</a> ) to your Adabas 8.3 SP1 code, the DLOCKF operator command now shows the lock type in its output. This is true whether the DLOCKF command is issued from the console or in an ADADBS OPERCOM utility run.
DPARM	Changed	The parameter settings listed in the output of this command have now been alphabetized when DPARM is run as an operator command as well as when it is run in an ADADBS OPERCOM function. If the ADADBS OPERCOM DPARM utility function is run against a cluster database, the parameters are listed alphabetically by name and grouped by nucleus ID (NUCID).
DSPACE	New	This new command can be used to determine how much space is defined and used for the Associator (ASSO) and Data Storage (DATA) areas of your databases.
DSTAT	Changed	This command can now be used to display buffer flush statistics on the console and in an ADADBS OPERCOM utility function run.  You can also enter the DSTAT operator command against the ADACHK utility to display the current operating status of the ADACHK run.
DVOLIO	New	This new command can be used to display ASSO and DATA I/Os by volume serial (VOLSER) number. The number of reads and writes to each volume is displayed. Message ADAN1A is issued with these statistics.
DXMSG	Changed	This cluster command can now be issued to a cluster nucleus (CLUSTER=SYSPLEX or CLUSTER=LOCAL) using the ADADBS OPERCOM utility function.
INDEXCROSSCHECK	New	This new command can be used to alter the setting of the ADARUN INDEXCROSSCHECK parameter while the nucleus is active, allowing you to dynamically turn index cross-checking on and off.

Command	New or Changed	Enhancement Description
MXCANCEL	Changed	This cluster command can now be issued to a cluster nucleus (CLUSTER=SYSPLEX or CLUSTER=LOCAL) using the ADADBS OPERCOM utility function.
MXCANCELWARN	Changed	This cluster command can now be issued to a cluster nucleus (CLUSTER=SYSPLEX or CLUSTER=LOCAL) using the ADADBS OPERCOM utility function.
MXMSG	Changed	This cluster command can now be issued to a cluster nucleus (CLUSTER=SYSPLEX or CLUSTER=LOCAL) using the ADADBS OPERCOM utility function.
MXMSGWARN	Changed	This cluster command can now be issued to a cluster nucleus (CLUSTER=SYSPLEX or CLUSTER=LOCAL) using the ADADBS OPERCOM utility function.
MXSTATUS	Changed	This cluster command can now be issued to a cluster nucleus (CLUSTER=SYSPLEX or CLUSTER=LOCAL) using the ADADBS OPERCOM utility function.
MXWTOR	Changed	This cluster command can now be issued to a cluster nucleus (CLUSTER=SYSPLEX or CLUSTER=LOCAL) using the ADADBS OPERCOM utility function.
REFSTPRT	New	This new command can be used to indicate whether statistics should be printed after an ADADBS REFRESHSTATS utility function run or after interval statistics have been refreshed using Adabas Online System (option <b>R</b> in <b>Session Monitoring</b> ).
RPLCHECK	Changed	This command can now be used in ADADBS OPERCOM utility runs against the Event Replicator Server. This operator command performs the replication cross-check function for all active databases known (defined in one or more subscriptions) to the Event Replicator Server.
SECUID	New	This new command can be used to alter the setting of the ADARUN SECUID parameter while the nucleus is active. This operator command is valid for use both on the console and in the ADADBS OPERCOM utility function.
STOPSU	New	This new command can be used to stop and delete a user with the specified security user ID. Any open transactions of the stopped user are backed out. No response code is issued; the next time the stopped user issues a command, a new user queue element (UQE) is created.
STOPSUR	New	This new command can be used to stop a user with a specified security user ID. Any open transactions of the stopped user are backed out. The stopped user is only deleted after they have issued their next command and response code 22 (ADARSP022), subcode 54 has been issued. This response code-subcode combination is used to notify users that their Adabas activity has been halted. Only after the response code-subcode combination has been issued is the user queue element (UQE) of the stopped user deleted.

Command	New or Changed	Enhancement Description
STOPUR	New	This new command can be used to stop a user with the Adabas-assigned user ID (in the form shown in the display command) or to stop a user with the specified job name. Any open transactions of the stopped user are backed out. The stopped user is only deleted after they have issued their next command and response code 22 (ADARSP022), subcode 54 has been issued. This response code-subcode combination is used to notify users that their Adabas activity has been halted. Only after the response code-subcode combination has been issued is the user queue element (UQE) of the stopped user deleted.
TCPIP	Changed	You can now specify any Entire Net-Work command using the TCPIP command.

For more information about any Adabas operator command, read *Operator Commands*, in the *Adabas Operations Manual*.

## Direct Call Command Enhancements

The following changes have been made in Adabas 8.3 SP1 to the functionality of direct calls or to other Adabas parameters and commands in support of direct call commands:

1. The maximum number of records that a user may have in hold status at the same time can be specified in the Additions 4 control block field of the OP command. With this release, the maximum value you can specify for this in the OP command has been changed. It is now the value set by the ADARUN<sup>NH</sup> parameter (which has a maximum value of 16777215). For more information, read about the Additions 4 control block field in either *ACB Control Block Field Descriptions* or *ACBX Control Block Field Descriptions*, in the *Adabas Command Reference Guide*.
2. In prior versions of Adabas 8, the Adabas buffer description (ABD) field ABDXSEND (the length of the data sent to Adabas, in bytes) was required to be the same as was specified for the ABDXSIZE field (the maximum buffer size). With Adabas 8.3, this restriction has been lifted. The ABDXSEND value no longer needs to match the ABDXSIZE value. For more information, read about ABD fields in *ABD Field Descriptions*, in the *Adabas Command Reference Guide*.

For more information about direct call commands, read *Commands*, in the *Adabas Command Reference Guide*.





# 5 Dropped Features

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With Adabas 8.3 SP2, the ADARUN parameter setting CLOGLAYOUT=5 has been dropped. Only CLOGLAYOUT=8 can be specified (and is the default).



## 6 Future Plans

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The follow plans are in place for a future release of Adabas.

- Support for the ADAACK, ADADCK, ADAICK, ADAPRI, and ADAVAL utilities will be dropped. You will be required to use the new ADACHK utility instead. To determine which ADACHK utility function to use for one of these utilities, read *ADACHK Function Equivalences with Other Utility Functions*, in the *Adabas Utilities Manual*.



# 7

## Limitations and Restrictions

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The following limitations and restrictions exist in this version of Adabas. Enhancements to resolve these limitations may be considered in a future release.

1. The following restrictions and limitations apply to large object (LB) fields in this release:
  - At this time, character conversion of LB field values from one code page to another is not supported. This functionality may be considered in a future release.
  - Some utility parameters are not supported for files containing LB fields. For more information, refer to the documentation for the utility in *Adabas Utilities Manual* and to the utility limitations and restrictions, provided later in this chapter.
  - At this time, large object (LB) fields can be define only with format A.
2. The new format buffer length indicator is only supported for LA and LB fields. Future versions of Adabas will consider supporting the specification of the length indicator for other fields too. For more information about the format buffer length indicator, read *Length Indicator (L)*, in the *Adabas Command Reference Guide*.
3. The prefetch feature is not supported in ACBX interface direct calls -- it will not support ACBX calls with multiple buffers; you should use the multifetch feature instead. However, the prefetch feature still supports ACB interface direct calls.
4. At this time, system files do not support spanned records or the extended MU and PE field counts.
5. At this time, fields defined with the NB option must also be defined with either the NU or NC option.
6. The following restrictions and limitations apply to spanned records in this release:
  - The ADAULD utility does not support spanned records on ADAULD SAVETAPE runs.
  - At this time, ADAM files do not support spanned records.
  - System files do not support spanned records at this time.

- The number of records that comprise a spanned record is limited. The Adabas nucleus allows up to five physical records (one primary record and four secondary records) in a spanned record. If you need more space, try relocating the Data Storage of the file to a different device type with a larger block size.

For more information about spanned record support in Adabas, read *Spanned Record Support*, in the *Adabas Concepts Manual*.

7. At this time, Adabas Review Pulse reports do not support ADARUN CLOGLAYOUT=8.
8. The following table lists restrictions and limitations of the Adabas utilities:

Utility	Restrictions or Limitations
ADACMP	At this time, LB fields cannot be specified in the FORMAT parameter for either ADACMP COMPRESS or ADACMP DECOMPRESS if the LOBVALUES parameter is set to YES.
ADACNV	<p>ADACNV will not allow you to REVERT the database to Adabas 8.2 if any of the following apply:</p> <ul style="list-style-type: none"> <li>■ The database contains a Security file in which a password is or was defined that applies to more than 191 files or relates to more security-by-value criteria than fit into a single data storage record. (This condition persists even if that password is deleted.)</li> <li>■ The database contains a file in which a system field of type SECUID is defined.</li> </ul> <p>For information about reverting back to versions prior to Adabas 8.2, refer to the <i>Adabas 8.2 Release Notes</i>. To access a copy of these, read <a href="#">Documentation and Other Online Information</a>, elsewhere in this guide.</p>
ADALOD	<p>The MIXDSDEV parameter is not supported in an ADALOD LOAD run if the file you are loading is a LOB file or may contain spanned records.</p> <p>You cannot use the DDISN or DELISN parameters in an ADALOD UPDATE function to delete records in a <i>LOB file</i>. Furthermore, you can only use these parameters to delete records in a <i>base file</i> of a <i>LOB group</i> if the records to be deleted contain no references to LOB values longer than 253 bytes which are stored in the LOB file. (ADALOD will terminate with an error if such a LOB value is encountered.)</p>

9. BS2000 database communication can support a maximum of 32,767 buffers in the ABD list. Read *Adabas Buffer Descriptions (ABDs)*, in the *Adabas Command Reference Guide* for more information. ABD lists with more than 32,767 buffers will result in a response code 152.
10. A mixed cluster with nuclei of both Adabas 8.3 SP1 and 8.3 SP2 is not supported.

# 8

## Adabas Data Set Compatibility

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■ Importing Files .....	60
■ Save Data Sets .....	60
■ Unload Data Sets .....	61
■ ADAORD DD/FILEA Data Sets .....	61
■ Sequential Protection Logs .....	61

Generally, Adabas utilities accept sequential input data sets that were produced as output data sets by utilities of the same version. Utilities of Adabas 8.3 also accept input data sets produced by utilities of versions prior to Adabas 8.3. However, utilities for versions prior to Adabas 8.3 cannot generally work with input data sets produced by Adabas 8.3 utilities.

## Importing Files

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A file cannot be imported (loaded, stored, or restored) into a database running with an earlier Adabas version if it uses features that are supported only in a later Adabas version.

## Save Data Sets

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Generally, restoring a whole database is possible only with the same Adabas release used for creating the save data set. Restoring individual files is possible with the same or any later Adabas release used for creating the save data set.

Using the ADASAV utility of Adabas 8.3, you can restore files into an Adabas 8.3 database from a database save or file save data set created with the ADASAV utility from any prior Adabas version. Likewise, using the ADAREP or ADAULD utilities of Adabas 8.3, you can print a report or unload a file from a database save or file save data set created with the ADASAV utility from any prior Adabas version.

However, you can only restore files from an Adabas 8.3 database save or file save data set into a database running with Adabas 8.2 if you have applied one of the following zaps to your Adabas 8.2 installation, as appropriate:

- For Adabas 8.2.6 installations, apply zap AU826038.
- For Adabas 8.2.5 installations, apply zap AU825068.
- For Adabas 8.2.4 installations, apply zap AU824092.

Using the ADASAV utility of Adabas 8.3 for Delta SAVE MERGE, at least one DELTA save must be created by Adabas 8.3 for the MERGE to work correctly.

You cannot use an ADAREP or ADAULD utility from an Adabas version prior to Adabas 8.3 to print a report or unload a file from a save data set created by the ADASAV utility of Adabas 8.3.



## Unload Data Sets

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Using the ADALOD utility of Adabas 8.3, you can load a file from an unload data set created using the ADAULD or ADACMP utilities from any prior Adabas version.

Using the ADALOD utility of Adabas 8.2, you can load a file that was unloaded from an Adabas 8.3 database into a database running with Adabas 8.2, as long as the file does not use features supported only in version 8.3.

## ADAORD DD/FILEA Data Sets

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Using the ADAORD utility of Adabas 8.3, you can store files (STORE function) from a DD/FILEA data set created using the ADAORD REDB or REF functions from any prior Adabas version.

Using the ADAORD utility of Adabas 8.2, you can store files (STORE function) from a DD/FILEA data set created using the ADAORD REDB or REF functions in Adabas 8.3 into a database running with Adabas 8.2, as long as the files do not use features supported only in version 8.3.

## Sequential Protection Logs

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Any sequential protection log (PLOG) used for the ADARES utility (REGENERATE, BACKOUT, or COPY function) or ADASEL utility in Adabas 8.3 must have been created with Adabas 8.3. Using a sequential PLOG created with one Adabas version for an ADARES or ADASEL function in a different Adabas version is not supported.

However, the PLOG written during an online save operation in a version prior to Adabas 8.3 may be used, together with the save data set, for an ADASAV RESTONL FILE or FMOVE operation in Adabas 8.3 (see [Save Data Sets](#), earlier in this section).



## 9 Applying Zaps

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 **Important:** Be sure that you apply all supplied Adabas maintenance and concatenate Adabas patch-level libraries (L00*n*), as they are delivered to you. This will ensure that your Adabas code remains up-to-date, supporting all Adabas features as they are enhanced and maintained. The latest zaps for this product are available in the Knowledge Center in Software AG's Empower (<https://empower.softwareag.com>) web site.

In general, zaps for Adabas components (such as Adabas nuclei, the Adabas router, Adabas utilities) can be applied and made active one component at a time.

- Adabas utility zaps should be applied to the load library. The utility can then be run or rerun to make use of the zap.
- Adabas nucleus zaps should first be applied to the load library. Then the nucleus should be stopped and restarted to activate the zap.
- Adabas router (on z/OS, ADASVC) zaps should first be applied to the load library. Then all Adabas nuclei and other MPM servers running on the router should be stopped and the router should be reinstalled to activate the zap. Finally, the Adabas nuclei and MPM servers should be restarted.

Finally, the distributed source library contains member ZAPOPT, which lists some optional zaps that you may choose to apply for the activation or deactivation of various features and optional user settings of Adabas. A ZAPOPT member will be included with each SM level distribution.



# 10 Software AG Mainframe Product Compatibility

The following table describes Adabas 8.3 compatibility with other Software AG mainframe products, including prior releases of Adabas itself. You may need to upgrade your installation of the software if your existing release is not listed.



**Note:** Any exceptions to the product compatibility described here will be covered in the documentation for the specific product.

Product	Compatible Version Levels and Notes
Adabas (ADA) 8.3	<p>The version used of the Adabas SVC or router (BS2000) must be the same as or greater than the version of any Adabas database used in your Adabas environment. For example, the Adabas 8.3 SVC/router can be run in the same environment with Adabas 8.1, 8.2, or 8.3 databases. However, an Adabas 8.3 database cannot run in the same environment with an Adabas 8.2 SVC/router.</p> <p>For any given database (on disk), the Adabas nucleus and utilities of the same version and release level as the database must be used. If you need to convert a database to a higher version or release level, or revert it to a lower version or release level, the ADACNV utility of the higher level must be used.</p> <p>The Adabas link (ADALNK) routines can be used across versions. For example, Adabas 8.3 link routines can be used to issue calls to Adabas 8.2 databases. Software AG recommends that you use the Adabas 8 link routines for all programs that issue Adabas direct calls.</p>
Adabas Bridge for DL/I (ADL)	Version 2.3 SP2 supports Adabas 8.
Adabas Bridge for VSAM (AVB)	Version 5.1 SP1 releases support Adabas 8.3 databases that do not make use of the expanded features (for example, spanned records, increased limits, or large object fields) available in Adabas 8.3.
Adabas Caching Facility (ACF)	Version 8.3 supports Adabas 8.3 databases and requires the Adabas 8.3 load library, with appropriate Adabas 8.3 zaps applied.

Product	Compatible Version Levels and Notes
Adabas CICS Interface (ACI)	Version 8.3 supports Adabas 8.3 databases, with appropriate Adabas 8.3 zaps applied.
Adabas Cluster Services (ALS)	Version 8.3 supports Adabas 8.3 databases and requires the Adabas 8.3 load library, with appropriate Adabas 8.3 zaps applied.
Adabas Delta Save Facility (ADE)	Version 8.3 supports Adabas 8.3 databases and requires the Adabas 8.3 load library, with appropriate Adabas 8.3 zaps applied.
Adabas Fastpath (AFP)	The minimum supported level of Adabas Fastpath for use with Adabas 8.3 is version 8.2 SP2. To run Adabas Fastpath 8.2 SP2 with Adabas 8.3 databases requires additional installation steps and maintenance. For more information, read <a href="#">Using 8.2 COR-based Add-ons with Adabas 8.3</a> , elsewhere in this guide.
Adabas IMS Interface (AII)	Version 8.3 supports Adabas 8.3 databases, with appropriate Adabas 8.3 zaps applied.
Adabas Native SQL (SQL)	Version 2.4 SP1 supports Adabas 8 databases that do not make use of the expanded features (for example, spanned records, increased limits, or large object fields) available in Adabas 8.
Adabas Online System (AOS)	Version 8.3 supports Adabas 8.3 databases, with appropriate Adabas 8.3 zaps applied.
Adabas Parallel Services (ASM)	Version 8.3 supports Adabas 8.3 databases and requires the Adabas 8.3 load library, with appropriate Adabas 8.3 zaps applied.
Adabas Review (REV)	Version 4.7 requires Adabas 8.2 SP5 or later Adabas releases (including Adabas 8.3); it does not support earlier versions of Adabas. Version 4.6 supports Adabas 8.2 SP5 or later Adabas 8.2 releases; it does not support Adabas 8.3.  For a complete description of the compatibility between Adabas Review and Adabas 8, read the section entitled <i>Adabas Review Version Compatibility</i> in the Adabas Review Release Notes.
Adabas SAF Security z/OS (AAF)	The minimum supported level of Adabas SAF Security for use with Adabas 8.3 is version 8.2 SP2. To run Adabas SAF Security 8.2 SP2 with Adabas 8.3 databases requires additional installation steps and maintenance. For more information, read <a href="#">Using 8.2 COR-based Add-ons with Adabas 8.3</a> , elsewhere in this guide.
Adabas Statistics Facility (ASF)	Version 8 fully supports all Adabas 8 databases and expanded features.
Adabas SQL Gateway (ACE)	All currently supported versions of ACE support Adabas 8 databases. Please check the individual release notes for further information on which databases features are supported
Adabas System Coordinator (COR)	The minimum supported level of Adabas System Coordinator for use with Adabas 8.3 is version 8.2 SP2. To run Adabas System Coordinator 8.2 SP2 with Adabas 8.3 databases requires additional installation steps and maintenance. For more information, read <a href="#">Using 8.2 COR-based Add-ons with Adabas 8.3</a> , elsewhere in this guide.
Adabas Text Retrieval (TRS)	Version 2.1 SP4 works with Adabas 8.3 SP1 when the Adabas Text Retrieval 2.1 SP4 hyperdescriptor exit TRSHEX12 is enabled to run with the Version 8 interface by applying zaps TR21454 and TR21455. This hyperdescriptor exit

Product	Compatible Version Levels and Notes
	<p>will then only operate with Adabas Version 8. If you then want to run Adabas Text Retrieval 2.1 SP4 with an older Adabas version, you must either undo the zaps or use a copy of the hyperdescriptor exit where zaps TR21454 and TR21455 are not applied. If you do use TR21454 and TR21455, the following additional Adabas Text Retrieval fixes must be applied as prerequisite zaps: TR21420, TR21421, TR21422, TR21423 and TR21424. These zaps can be found in Empower.</p> <p>It is not necessary to use the Adabas Hyperdescriptor Exit Stub in conjunction with Adabas Text Retrieval.</p>
Adabas Transaction Manager (ATM)	The minimum supported level of Adabas Transaction Manager for use with Adabas 8.3 is version 8.2 SP2. To run Adabas Transaction Manager 8.2 SP2 with Adabas 8.3 databases requires additional installation steps and maintenance. For more information, read <a href="#">Using 8.2 COR-based Add-ons with Adabas 8.3</a> , elsewhere in this guide.
Adabas Vista (AVI)	The minimum supported level of Adabas Vista for use with Adabas 8.3 is version 8.2 SP2. To run Adabas Vista 8.2 SP2 with Adabas 8.3 databases requires additional installation steps and maintenance. For more information, read <a href="#">Using 8.2 COR-based Add-ons with Adabas 8.3</a> , elsewhere in this guide.
Data Archiving for Adabas (ADR)	Data Archiving for Adabas is compatible with all supported versions of Adabas in z/OS environments.
Entire Net-Work (WCP)	Version 6.3 and above fully support Adabas 8 databases and expanded features, as well as ACBX interface direct calls.
Entire System Server (NPR)	Entire System Server Version 3.5 and later versions fully support Adabas 8 databases and expanded features.
Event Replicator for Adabas (ARK)	Version 3.4 SP1 with additional library ARF341.L001 supports Adabas 8.3. For more information, refer to your Event Replicator for Adabas documentation.
Natural (NAT)	Version 8.2 SP4 fully supports Adabas 8.3 databases and expanded features.
Predict (PRD)	Version 8.2 SP2 and 8.2 SP3 fully support Adabas 8.3 databases and expanded features.
EntireX/webMethods EntireX (EXX)	All currently supported versions of EntireX support Adabas 8 databases. Please check the individual release notes for further information.





# 11 Using 8.2 COR-based Add-ons with Adabas 8.3

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■ Introduction .....	70
■ Restrictions .....	70
■ Implementation Steps .....	70

This chapter describes using version 8.2 SP2 of the COR-based add-on products System Coordinator (COR), SAF Security (AAF), Fastpath (AFP), Transaction Manager (ATM) and Vista (AVI) with Adabas 8.3 SP1 and later. It covers the following topics:

## Introduction

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You can use the following Adabas COR-based add-on products in conjunction with Adabas 8.3 SP1 or later:

- Adabas SAF Security (AAF) 8.2 SP2
- Adabas Fastpath (AFP) 8.2 SP2
- Adabas Transaction Manage (ATM) 8.2 SP2
- Adabas Vista (AVI) 8.2 SP2
- Adabas System Coordinator(COR) 8.2 SP2



**Note:** These 8.2 SP2 products do not support any new Adabas 8.3 features.

## Restrictions

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All COR-based products in use by a client job must be of the same version, release and maintenance level.

## Implementation Steps

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➤ **To implement support for Adabas 8.3 SP1 and later with the Adabas 8.2 COR-based add-on products, complete the following steps:**

- 1 Ensure all necessary maintenance is applied to Adabas 8.3.
- 2 Ensure all necessary maintenance is applied to the COR-based add-ons. We always recommend that the latest maintenance for each product is applied. To take advantage of the recent developments you should definitely apply the following:
  - For Adabas SAF Security 8.2 SP2: AX822003;
  - For Adabas Fastpath 8.2 SP2: AW822027;
  - For Adabas Transaction Manager 8.2 SP2: AT822010;
  - For Adabas Vista 8.2 SP2: AVI822P001 AVI Patch level 1;

- For Adabas System Coordinator 8.2 SP2: COR822P002 COR Patch level 2, MI822107

Please read the COR Patch level 2 Readme carefully, applying all co-reqs and performing all necessary actions.

- 3 Concatenate COR822.LX02 (or above) in the Adabas 8.3 nucleus job as the first library so its alternative modules are used by Adabas 8.3.

#### **Notes for users of Adabas SAF Security**



##### **Notes:**

1. COR822.LX02 (or above) must also be the first library in the STEPLIB chain for any Adabas utility jobs.
2. Adabas SAF Security uses the common SAF components supplied on the Adabas Limited Library; widely known as the WAL libraries. Adabas SAF Security Version 8.2 2 requires WAL 8.2.5 or above. Refer to the *Adabas SAF Security installation* documentation for more information on the usage of WAL.
- 4 Make sure the libraries for the relevant 8.2 SP2 COR-based add-on products that you use (AAF, AFP, ATM, AVI, COR) are also available to Adabas too.
- 5 Relink your LNKGBLS modules to include the zapped COR stubs. You will also need to relink any Adabas link modules that include a LNKGBLS module.



# 12

## AFPLOOK /AVILOOK Considerations

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Note that due to a consolidation between the demonstration and full versions of the Adabas Fastpath (AFP) and Adabas Vista(AVI) products, the memory requirement of the database has increased by approximately 500K when running with ADARUN FASTPATH=YES or ADARUN VISTA=YES.



# 13

## End of Maintenance

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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.





# 14 Documentation and Other Online Information

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- Software AG Documentation Website ..... 78
- Software AG TECHcommunity ..... 78
- Software AG Empower Product Support Website ..... 78

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

## Software AG Documentation Website

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You can find documentation for all Software AG products on the Software AG Documentation website at <http://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

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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

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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.

# Index

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## A

AFPLOOK considerations, 73  
applying zaps, 63  
AVILOOK considerations, 73

## D

dates, end-of-maintenance, 75  
documentation  
    in TECHcommunity website, 78  
    obtaining updates, 77  
    on Documentation website, 78  
Documentation website  
    documentation, 78

## E

Empower  
    end-of-maintenance dates, 75  
    platform support, 7  
Empower website  
    product support, 78  
end-of-maintenance dates, 75

## M

Microsoft Windows support, 7

## O

operating system coverage, 7

## P

platform support, 7  
product support  
    end-of-maintenance dates, 75  
    obtaining in Empower, 78  
    obtaining updated documentation, 77  
    supported platforms, 7

## R

requirements  
    operating system coverage, 7

## S

support  
    end-of-maintenance dates, 75  
    obtaining updated documentation, 77  
    platforms supported, 7  
support dates, 75  
support for prior versions, 75  
supported operating systems, 7  
supported platforms, 7

## T

TECHcommunity website, 78

## U

UNIX  
    supported platforms, 7

## Z

zaps, 63

