

Adabas System Coordinator

Adabas System Coordinator 7.4.2 Release Notes

Version 7.4.2

September 2009

Adabas System Coordinator

This document applies to Adabas System Coordinator Version 7.4.2 and to all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

Copyright © Software AG 2009. All rights reserved.

The name Software AG, webMethods and all Software AG product names are either trademarks or registered trademarks of Software AG and/or Software AG USA, Inc. Other company and product names mentioned herein may be trademarks of their respective owners.

Table of Contents

1	Adabas System Coordinator 7.4.2 Release Notes	1
2	Prerequisites	3
	Supported Operating Systems	4
	Sysplex System Prerequisites	4
	Prerequisite Software	4
	Required Maintenance When Using Adabas Version 7.1.3	5
3	New Features	7
	Support for Adabas Transaction Manager Versions 7.4 and 7.5	8
	Support for Adabas Version 7.4 and Adabas Parallel Services Version 7.4	13
	Timeout	8
	Memory Pool Recovery	9
	Command Retry	9
	Command Debug Settings	9
	Wait for Configuration File Activation	10
	SYSCO File Facility	10
4	Enhancements	11
	Reduced Path Length for Multiuser Clients	12
	Improvements to Dynamic Transaction Routing (DTR)	12
	Mixed Case Messages	12
	SYSCOR Administration Application	12
5	Memory Requirements	15
6	Installation	17
	Index	19

1 Adabas System Coordinator 7.4.2 Release Notes

This document describes the changes and enhancements provided with Adabas System Coordinator version 7.4.2.



Note: Adabas System Coordinator was formerly known as System Coordinator for Adabas Options.

Adabas System Coordinator is the required interface for the following Adabas products:

- Adabas Fastpath version 7.4.2
- Adabas Vista version 7.4.2
- Adabas SAF Security version 7.4.2
- Adabas Transaction Manager version 7.4.2 and 7.5.2

Adabas System Coordinator was first introduced as the System Coordinator for Adabas Options version 7.3.1, replacing and extending the common client stub (ADACCS) that was previously delivered with Adabas version 7.1. See the *Version 7.3.1 Release Notes* for information on the differences between ADACCS and Adabas System Coordinator.

- [Prerequisites](#)
- [New Features](#)
- [Enhancements](#)
- [Memory Requirements](#)
- [Installation](#)

2 Prerequisites

- Supported Operating Systems 4
- Sysplex System Prerequisites 4
- Prerequisite Software 4
- Required Maintenance When Using Adabas Version 7.1.3 5

This section provides an overview of the Adabas System Coordinator version 7.4.2 prerequisites.

Supported Operating Systems

Adabas System Coordinator version 7.4.2 is compatible with the following operating system environments:

- OS/390 version 2, release 10
- z/OS version 1, releases 1-4
- z/OS.e, releases 3-4 *
- VSE/ESA version 2, releases 5, 6, and 7
- z/VM versions 4.2, 4.3, and 4.4
- BS2000 OSD 2.0 and above

* Support for z/OS.e is currently restricted to client programs executing in batch, or under TSO or Com-plete.

Sysplex System Prerequisites

When used to manage clustered applications across multiple systems, an operational IBM parallel Sysplex environment is required.

When used to support dynamic transaction routing across multiple systems, Adabas System Coordinator uses a Coupling Facility cache structure.

Prerequisite Software

Adabas System Coordinator version 7.4.2 requires the prior installation of

- Adabas version 7.1.3 (or above); or Adabas Cluster Services version 7.2.2 (or above); or Adabas Parallel Services version 7.4.2 (or above)
- If a System Coordinator group is to be implemented over more than one system image (LPAR), Entire Net-Work version 5.7.1 (or above) is required.
- Natural version 3.1 (or above)

Required Maintenance When Using Adabas Version 7.1.3

To successfully operate the Adabs System Coordinator version 7.4 with Adabas version 7.1.3 databases, the following are required:

- fixes AN713038, AN713129, and AN713144
- the ADA713.LX01 load library update
- the COR742.LX01 load library update. This contains the database components of the Adabas System Coordinator version 7.4. If you are upgrading from Adabas System Coordinator version 7.3, this library must replace the COR731 load library in the database load library concatenation.
- if you are using the Adabas Caching Facility Version 7.4, you also need the ADA731.L001 load library update. This must be concatenated after the ADA713.LX01 library.

3 New Features

- Support for Adabas Transaction Manager Versions 7.4 and 7.5 8
- Support for Adabas Version 7.4 and Adabas Parallel Services Version 7.4 13
- Timeout 8
- Memory Pool Recovery 9
- Command Retry 9
- Command Debug Settings 9
- Wait for Configuration File Activation 10
- SYSCO File Facility 10

The following features are new for version 7.4.2.

Support for Adabas Transaction Manager Versions 7.4 and 7.5

Adabas System Coordinator version 7.4.2 includes additional services and is a prerequisite for Adabas Transaction Manager versions 7.4 and 7.5.

Support for Adabas Version 7.4 and Adabas Parallel Services Version 7.4

Adabas System Coordinator manages the interface between the add-on products and Adabas. It supports the latest versions of Adabas, including the new Parallel Services (CLUSTER=LOCAL) nucleus type.

Timeout

An inactivity timeout limit can now be specified in the job parameter definition for a job. When any user becomes inactive for longer than the limit, Adabas System Coordinator will perform garbage collection for the session. User session memory will be reclaimed. If the same user subsequently re-activates, the next Adabas command sent by the user session will be rejected with a timeout response (response code 9, subcode 79). If desired, a time limit can be specified, after which the response 9 will be discarded, and any terminal re-activation will be handled as a new session. Also, the response 9 can be completely suppressed, if desired.

For multiuser TP jobs (CICS, IMS/DC, etc.), separate inactivity timeout limits can be specified for terminal users and background tasks. Normally, timeout is not required for background tasks because they are of short duration, but a timeout value can be specified for long-running background tasks if required.

Initial timeout limits can be dynamically changed for a running job. This new feature is provided from the Adabas System Coordinator Online Services (SYSCOR) Special Services menu.

Memory Pool Recovery

One of the functions of the Adabas System Coordinator daemon is to maintain shared memory pools for client jobs that require the dynamic transaction routing (DTR) capability. When DTR occurs the client session information must be located in shared memory to make it available to the target region or system.

Adabas System Coordinator has been enhanced to preserve current shared pools on a daemon failure, and automatically recover them to the daemon when it is restarted.

The pool recovery feature can be selected with the `Automatic Pool Recovery` parameter in the Coordinator Group definition. By default the feature is active.

Command Retry

This feature provides automatic retry of Adabas commands that complete with a specified response and subresponse code. The command is retried a specified number of times, until a zero response code is received. The calling application will receive only the successful response.

Up to five response codes can be specified for a job in the configuration file job parameters. The number of retries can be limited and/or restricted to a specific database and file number. A time delay between retries can also be specified.

This feature can be used, for example, to retry a command when a database is inactive (response 148). The calling application could be made to wait for the database to be activated, instead of failing the request. It can also be requested that an operator message is to be issued whenever a retry is attempted. The message is issued once for each command that is retried.

This feature can be activated using the Adabas System Coordinator Online Services (SYSCOR) Add Job Parameters function.

Command Debug Settings

This feature can be used to diagnose problems with Adabas commands. It provides a dump of memory areas when a command ends with a specific response code and subcode. Adabas System Coordinator will dump the Adabas control blocks for the command. The debug request can also be restricted to a specific database and file number.

This feature can be activated using the Adabas System Coordinator Online Services (SYSCOR) Add Job Parameters function.

Wait for Configuration File Activation

Parameters for client jobs are saved in the configuration file. If the file is not active when the job starts, the job will run with default parameters. If this is not appropriate for your requirements, you can specify that jobs must wait for system file activation. This is done by specifying the parameter `SFERR=WAIT` in the assembly of the configuration module (CORCFG).

Adabas System coordinator daemon tasks also need to read the configuration file. Previously, the daemon task would terminate if the file was not active. This has been changed; the daemon will now issue a message (CORD46I), and wait for activation. Activation is attempted every 60 seconds. If the file is still unavailable after 60 attempts, the daemon task is terminated.

SYSCO File Facility

The System Coordinator Daemon (SYSCO) now provides a central file store facility. This is used by add-on products as a central file store that is related to a System Coordinator Group. For example, Adabas Transaction Manager (ATM) uses a SYSCO file to hold Migrated Transaction Records (MTRs) for global transactions whose owners migrate across different system images.

4 Enhancements

- Reduced Path Length for Multiuser Clients 12
- Improvements to Dynamic Transaction Routing (DTR) 12
- Mixed Case Messages 12
- SYSCOR Administration Application 12

The following features have been enhanced for version 7.4.2.

Reduced Path Length for Multiuser Clients

Internal improvements have resulted in reduced processor path length in Adabas System Coordinator, particularly in heavily loaded, multiuser TP systems.

Improvements to Dynamic Transaction Routing (DTR)

When Adabas System Coordinator detects a client that has been dynamically routed across a Sysplex, it manages the move of client session context to the new system. Previously this was done separately for each Adabas session (UB) that has been routed. Clients using Adabas X48 communications (Natural with ADAMODE=2 or 3) create at least two Adabas sessions. If 3GL programs are also used, further sessions can be created. Adabas System Coordinator now identifies all of these sessions as belonging to the same dynamic transaction, and moves them at the same time, thereby becoming more tolerant of outages of parts of the TP service.

Mixed Case Messages

Messages displayed by the Adabas System Coordinator daemon, as well as exception messages displayed by the client and server components, are now displayed in mixed case.

SYSCOR Administration Application

The following enhancements have been made to the SYSCOR administration application.

- The run mode will be displayed on an Environment Information screen at logon. This screen also shows information about the current Coordinator daemon, if one is used.

The run mode can be:

- Coordinator not installed. The Adabas link module does not contain the Coordinator stub. Local session information will not be available but all other functions will work.
- Local. The TP system is running in local (non-daemon) mode. By default, session information will be obtained locally.
- Daemon/nnn. The TP system is running with a Adabas System Coordinator daemon. The daemon Node ID is displayed. By default, session information will be obtained from the daemon.

The run mode is also displayed at the top of all SYSCOR screens.

- A new option on the Session Monitoring menu can be used to change the source of session information. For example, you can be running in local run mode, but you can still obtain information from an active Coordinator daemon, by changing the information source to the daemon Node ID.

The current session information source is displayed at the top of all SYSCOR screens.

- Job parameters can now be defined in SYSCOR (previously SYSAVI or SYSAFP were required to define job parameters). The new Command Retry and Debug Settings options (if required) must be configured in SYSCOR job maintenance.
- There are now three system type specifications for Coordinator groups:
 - Standard (single system images) . This is the same as in the previous release.
 - Standard (multisystem images). This is new, and is used to support Coordinator daemons running Adabas Fastpath buffers across multiple system images. It does not support dynamic transaction routing (DTR) across a Parallel Sysplex.

This option was available in the previous release, by selecting type 'Sysplex' without specifying a 'Cluster Facility' name. It has been made a selectable option, for clarity.

- Sysplex (IBM Parallel Sysplex). This is the same as in the previous release.
- The limits for Fixed Memory Pool size on the job parameter have been changed for batch jobs. The minimum size is now 32K. This is to reduce unwanted virtual storage allocations in batch jobs.
- An inactivity timeout limit can now be specified in the job parameter definition for a job. Also, initial timeout limits can be changed dynamically for a running job. This new feature is provided from the Special Services menu.
- Automatic pool recovery can be selected or suppressed using a parameter on the Coordinator Group definition.
- The Session Monitoring menu has changed.
 - There is a new option 0 – Change Information Source.
 - Option 1 (Active Nodes) is now called Daemon Group Information.
 - Option 2 (Active Jobs) is now called Adabas Client Jobs.
 - Option 3 (User Information) has been deleted. This information is now available from the Adabas Client Jobs display. Later menu option are re-numbered.
- The Session Monitoring Jobs display has changed:
 - The display now shows the service name as well as the job name.
 - The columns User Size and Thread Size have been deleted.
 - The column Tput (throughput) has been renamed Maximum Concurrent.
- The Session Monitoring Client Session (User) display has changed:

- When running in DTR mode, all client sessions in the service are displayed. In the previous version, only the sessions attached to the selected Job were displayed. The session display shows the service name as well as the current job name.
- There is a new option to sort the client list into name order.
- The Session Monitoring Network Display has been changed to identify Adabas Parallel Services nuclei. These are shown as type 'ADA Cluster(L)'. Also, Adabas (Sysplex) Cluster nuclei are now shown as 'ADA Cluster(S)'.

5

Memory Requirements

If you are upgrading from Adabas System Coordinator for Adabas Options version 7.3, you may see an increase in virtual memory requirements for batch jobs and local mode TP jobs. This is due to a change in the way the user session memory pool size is calculated. The size is based on the estimated number of client sessions as defined in the job parameter record for the job. The reason for this change is to improve performance - a correctly sized memory pool is more efficient than one that has multiple extents. Any over-allocation of virtual memory can be rectified by reducing the value of job parameter Client Session.

Adabas System Coordinator requires approximately 256 bytes per client session. Additional memory per session is required. This varies according to which product options are installed and how they are used. Refer to the product documentation for further information.

6 Installation

Install Adabas System Coordinator before any Adabas add-on options are installed. Refer to the section Adabas System Coordinator Installation for more information.

The Adabas System Coordinator product supplied with Adabas is in demonstration mode. In this mode, the only components installed are those required to support the Adabas Fastpath AFPLOOK tool and the Adabas Vista AVILOOK tool. The full product is supplied when any add-on product is purchased, and Adabas System Coordinator switches automatically to full execution mode.

Index
