## **9** software AG

## **Adabas Online System**

### Installation

Version 8.1.4

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# Adabas Online System

This document applies to Adabas Online System Version 8.1.4.

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

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#### Installation

This documentation describes the installation process for Adabas Online System (AOS).

This document tells you how to install Adabas Online System (AOS) manually. Installation on systems using Software AG's System Maintenance Aid (SMA) is described in the *Adabas Installation* documentation.

For information about SMA, see the *System Maintenance Aid* documentation.



**Note:** Depending on the platforms supported, demo versions of Adabas Vista (AVI), Adabas Fastpath (AFP), Adabas SAF Security (AAF), and Adabas Transaction Manager (ATM) are automatically installed when you install either the demo or full version of AOS.

AOS version 8.1 requires Natural version 4.1 or above.

If you do not upgrade or install Natural with the Adabas version 8.1 release, you will need to relink the Adabas version 8.1 AOSASM module with your Natural in order for AOS 8.1 to function correctly. This AOSASM module is downward compatible with previous versions.

Natural Security is a prerequisite for AOS Security. See the *Adabas Security* documentation for more information.

Notation *vrs*, *vr*, or *v*: When used in this documentation, the notation *vrs* or *vr* stands for the relevant version of a product.

The Adabas Online System Installation documentation is organized in the following topics:

Installation Requirement
Installing on z/OS or z/VSE
Installing on z/VM
Installing on BS2000
Installing with Natural Security
Setting the Adabas Online System Defaults

## 1 Installation Requirement

The delivered *ALLINPL* file, *ADAvrs.ALLINPL* (where *vrs* is a number representing the version of Adabas), contains the Adabas Online System (AOS) base and also functions as a demo.

To use the full version of AOS, you must copy the contents of the AOS version 8.1 load library to the base Adabas version 8.1 (or Adabas 7.4) load library with the REPLACE option to make AOS licensed (otherwise AOS will execute in 'Demo Mode'). This library must be available to the Adabas nucleus. To make it available, restart the Adabas nucleus. When allocated to the running Adabas environment, this completes the AOS to make it a licensed copy.



**Note:** The AOS load modules can also be made available to Adabas by concatenating the AOS load library to the Adabas load library in the Adabas startup JCL.

Finally, execute AOS by logging on to the application library SYSAOS and entering the command MENU."

The distributed INPL jobs (both the sample jobs and the SMA-generated jobs) that you use to load the Adabas INPL library load it in a date-sensitive manner. In other words, the load process will now check the dates of your existing INPL library and will not allow older members to overwrite members with newer dates. However, if you use your own Natural batch jobs to load the Adabas INPL library, you will need to modify them to be date-sensitive. To do this, specify the following CMSYNIN primary command input in your job (this setting assumes the Natural input parameters in the job are specified in comma-delimited mode, or IM=D):

#### B,,,,,,Y

The "B" setting indicates that the INPL action should load everything; the next six fields (commadelimited) are defaults, the eighth field is specified as "Y" to indicate that dates in the INPL library should be checked, and the ninth field is not included in the specification because the default for that field will be used. For more information about Natural CMSYNIN input, refer to your Natural documentation.



**Note:** When migrating an Adabas 7.4 installation, this procedure does not apply. Instead, you should replace the 7.4 INPL library members with the latest Adabas 8 INPL library members, regardless of the dates of the members, to avoid creating a library containing members from both releases.

In general, AOS is fully backward-compatible. In other words, this version of AOS will support any supported versions of Adabas, Adabas Caching Facility, or other Adabas add-on products. However, you cannot use any AOS 8.1.3 or later withAdabas Caching Facility 8.1.2 or earler; you must migrate your Adabas Caching Facility 8.1.2 environment to Adabas Caching Facility 8.1.3 or later in order to use any version of AOS later than 8.1.2.

If you try to run AOS version 8.1 with an earlier version of Adabas 7.1 or 7.2, AOS will function as a demo unless an Adabas ZAP is applied, as follows:

Adabas Version	ZAP Number
7.1.2	A\$712099
7.1.3	A\$713099
7.2.2	AY722099

### Installing on z/OS or z/VSE

#### To install AOS on z/OS or z/VSE system:

- To use the full version of AOS, you must copy the contents of the AOS version 8.1 load library to the base Adabas version 8.1 (or Adabas 7.4) load library with the REPLACE option to make AOS licensed (otherwise AOS will execute in 'Demo Mode'). This library must be available to the Adabas nucleus. To make it available, restart the Adabas nucleus. When allocated to the running Adabas environment, this completes the AOS to make it a licensed copy.
  - **Note:** The AOS load modules can also be made available to Adabas by concatenating the AOS load library to the Adabas load library in the Adabas startup JCL.
- 2 For a Com-plete or CICS environment, link the correct object module with the Natural TP nucleus.
  - If a split Natural nucleus is to be installed, the AOSASM module *must* be linked to the shared portion of the nucleus and *not* to the thread portion.
- 3 Perform a Natural INPL.
  - The tape containing Adabas contains an INPL-formatted data set in Natural version 4.1 or above. The programs for AOS are stored in library SYSAOS. Verify you have handled the requirements regarding the INPL-formatted data set, as described in *Installation Requirement*, elsewhere in this guide.
- 4 Locate module ADAAOS in the AOS vrs load (module) library, (where vrs is a number representing the version of Adabas). Make this module available to your Adabas nucleus either by copying it to the ADA vrs load (module) library or by concatenating it with the ADA vrs load library in the nucleus startup job.
- 5 Load the AOS error messages using the Natural utility ERRLODUS.
  - The error messages are stored in an ERRN-formatted data set included on the tape.

See the Natural Utilities documentation for information about the ERRLODUS utility.

Finally, execute AOS by logging on to the application library SYSAOS and entering the command MENU.

## 3 Installing on z/VM

The Adabas TXTLIB contains the Adabas Online System member AOSASM. The Adabas Online System TXTLIB contains the member ADAAOS.

#### To install AOS on a z/VM system:

- To use the full version of AOS, you must copy the contents of the AOS version 8.1 load library to the base Adabas version 8.1 (or Adabas 7.4) load library with the REPLACE option to make AOS licensed (otherwise AOS will execute in 'Demo Mode'). This library must be available to the Adabas nucleus. To make it available, restart the Adabas nucleus. When allocated to the running Adabas environment, this completes the AOS to make it a licensed copy.
  - **Note:** The AOS load modules can also be made available to Adabas by concatenating the AOS load library to the Adabas load library in the Adabas startup JCL.
- 2 Use the EXEC called AOSINPL provided by Adabas to load the provided AOS INPL tape data set using Natural version 4.1 or above.
  - The data set itself is in Natural 4.1 format and is placed in the library SYSAOS.
  - Verify you have handled the requirements regarding the INPL-formatted data set, as described in *Installation Requirement*, elsewhere in this guide.
- 3 Before executing Natural under z/VM, issue a GLOBAL TXTLIB command for the Adabas TXTLIB library containing member AOSASM. This ensures that AOSASM is available for the Natural TXTLIB.
- 4 Load the AOS error messages using the Natural utility ERRLODUS.
  - The error messages are stored in an ERRN-formatted data set included on the tape.
  - See the Natural Utilities documentation for information about the ERRLODUS utility.

- 5 Execute AOS by logging on to the application library SYSAOS and entering the command MENU.
- 6 Before executing Adabas under z/VM, issue a GLOBAL TXTLIB command for the Adabas Online System TXTLIB library containing member ADAAOS. This ensures that ADAAOS is available for the Adabas TXTLIB.

### **Installing on BS2000**

#### To install AOS on a BS2000 system:

- To use the full version of AOS, you must copy the contents of the AOS version 8.1 load library to the base Adabas version 8.1 (or Adabas 7.4) load library with the REPLACE option to make AOS licensed (otherwise AOS will execute in 'Demo Mode'). This library must be available to the Adabas nucleus. To make it available, restart the Adabas nucleus. When allocated to the running Adabas environment, this completes the AOS to make it a licensed copy.
  - **Note:** The AOS load modules can also be made available to Adabas by concatenating the AOS load library to the Adabas load library in the Adabas startup JCL.
- 2 Link the module AOSASM to the (shared) Natural nucleus.
- 3 Perform a Natural INPL.
  - The tape containing Adabas contains an INPL-formatted data set in Natural version 4.1 or above. The programs for AOS are stored in library SYSAOS. Verify you have handled the requirements regarding the INPL-formatted data set, as described in *Installation Requirement*, elsewhere in this guide.
- 4 Locate module ADAAOS in the AOS*vrs* load (module) library, (where *vrs* is a number representing the version of Adabas). Make this module available to your Adabas nucleus either by copying it to the ADA*vrs* load (module) library or, using BLSLIBs, concatenate it with the ADA*vrs* load library in the nucleus startup job.
- 5 Load the AOS error messages using the Natural utility ERRLODUS.
  - The error messages are stored in an ERRN-formatted data set included on the tape.
  - See the Natural Utilities documentation for information about the ERRLODUS utility.
- 6 Finally, execute AOS by logging on to the application library SYSAOS and entering the command MENU.

### **Installing with Natural Security**

If Natural Security is installed, define at least the following libraries to it:

SYSAOS SYSTRG SYSAEO SYSSPT

Define the following libraries as needed:

- For Adabas Vista: SYSAVI and SYSMVvrs
- For Adabas Fastpath: SYSAFP and SYSMWvrs
- For Adabas SAF Security: SYSAAF and SYSMXvrs
- For Adabas Transaction Manager: SYSATM and SYSMTvrs

Software AG recommends you define all of these libraries as protected.

Specify the start-up program for SYSAOS as MENU. Do not specify a start-up program name for the other libraries.

Natural Security must be installed before implementing Adabas Online System Security. See the *Adabas Security* documentation for more information. For information about installing Natural Security for use with AOS Security, see the *Natural Security* documentation.

Natural Security includes the ability to automatically close all open databases when the Natural command mode's LOGON function of Adabas Online System is invoked.

## **Setting the Adabas Online System Defaults**

Parameters that control the operation of Adabas Online System can be set at installation time by changing the defaults in the Natural program AOSEX1.

The table below lists the parameters and possible values.

Parameter	Valid Values	Default	Description
ADMIN-LEVEL	0-9	6	Administration level: Allows access to certain functions that can cause error conditions in the ADABAS environment. When set to 8 or higher, it allows the "CATCH RSP-CODE" direct command to occur, and when set to 9, it allows the "ZAP" function to be issued.
AOS-END-MSG	Yes (Y) or No (N)	Y	Display AOS end-of-session message?
AOS-LOGO	Yes (Y) or No (N)	N	Display AOS logo?
BATCH-ERROR	Yes (Y) or No (N)	N	Batch job cond code: When AOS is executing from a batch job and has an error condition, and if BATCH-ERROR is set to "Y", AOS will terminate with a condition code of 8. This function will be fully implemented over time, as all AOS programs must be modified for this.
BLK-CYL	Cylinder (C) or Block (B)	В	Space control by block or cylinder
CMD-INT	Natural (N) or AOS (A)	A	Pass-through control for invalid AOS commands: "N" passes invalid commands to Natural; "A" displays an error message for invalid commands.
CPEXLIST	No (N) or Yes (Y)	N	Display extended checkpoint list? A value of "N" displays the normal list; a value of "Y" displays the extended list.
EX1-N3	1-99	50	Critical extent threshold for listing file. This parameter applies to Adabas 8 (or later) installations.

Parameter	Valid Values	Default	Description
EXF-UTI	E or U	U	UTI or EXF file lock exception. A value of E specifies an EXF exception; a value of U specifies a UTI exception.
MAX-AC-IOS	0-999999	150	AC read converter block threshold value
MAXANZ	1-99999999	100	Maximum displayed user queue elements
NR-EXT	1-5	4	Critical extent threshold for listing file. This parameter applies to Adabas 7.4 (or earlier) installations.
NR-PERCENT	1-99	89	Report function: NR-PERCENT is a threshold value for the display of critical files concerning the percentage full of the extents reached in AC/UI/NI/DS table type. A value greater than NR-PERCENT will be highlighted.
PURGE-UQE	Yes (Y) or No (N)	N	Remove user queue element?
SAVEFDT	Yes (Y) or No (N)	N	Keep deleted file's FDT?
STATINTV	1-9999 seconds	60	Statistics-gathering interval, in seconds
TID-DISPLAY	B, A, I	I	Control display for TID in "display user queue" function: "B" = binary TID display; "A" = alpha TID display; "I" = alpha for A-Z/0-9, otherwise binary.
TIMELA	0-99999999 seconds	\ \	Display user queue elements with activity during the last "n" seconds.
TIN-JOBN	T or J	J	Display either job name or time-in in "display command queue" function. A value of "T" indicates that time-in should be displayed; a value of "J" indicates that the job name should be displayed.

To change the defaults, you must edit the Natural AOSEX1 program and make the changes directly within the program listing in the defaults area, which looks as follows:

```
DEFINE DATA PARAMETER USING P-AOSEX1
END-DEFINE

*

* SET THE DEFAULTS

*

ADMIN-LEVEL = '6' (Allows access to certain functions that can cause error ↔ conditions in the ADABAS environment)

AOS-END-MSG = 'Y' (Display end-of-session message)

AOS-LOGO = 'Y' (Adabas Online System logo display-set to 'N' for no logo ↔ display)

BATCH-ERROR = 'N' (If BATCH-ERROR is set to "Y", AOS will terminate with a ↔ condition code of 8 if an error occurs.)

BLK-CYL = 'B' (Space allocation default-set to 'C' for cylinders)

CMD-INT = 'A' (Pass invalid Adabas commands to (N)atural, or intercept (A))
```

```
CPEXLIST = 'N'
                    (Checkpoint list control-set to 'Y' for extended checkpoint list)
                     (ADA V8 critical extent threshold. Range: 1-99)
EX1-N3 = '50'
EXF-UTI = 'U'
                    (File locking exception-set to 'E' to except files in EXF status)
MAXANZ = 100
                    (Maximum user queue elements displayed. range: 1 - 99,999,999 ↔
elements)
NR-EXT = 4
                     (ADA V7 critical extent threshold. Range: 1, 2, 3, 4, or 5)
NR-PERCENT = '89'
                     (NR-PERCENT is a threshold value for the display of critical \leftarrow
files)
MAX-AC-IOS = 150
                     (AC read converter block threshold)
PURGE-UQE = 'N'
                     (Remove element from user queue. Pre-5.1 default is "Y")
SAVEFDT = 'N'
                     (Keep old FDT for SAVE operation-set to 'Y' to save FDTs)
STATINTV = 60
                     (Statistic-gathering time. range: 1 - 9999)
TID-DISPLAY = 'I'
                     (TID display control: B=binary, A=alpha, I=normally alpha, ↔
special characters as binary)
TIMELA = 0
                    (Include activity in last 'n' seconds. range: "all" (0) -last ←
99,999,999 seconds)
TIN-JOBN = 'J'
                     (Command queue display-"J" for job name, "T" for "time in \leftarrow
queue" )
END
```

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