Adabas Caching Facility

Adabas Caching Installation

Version 8.1.2

June 2008

Adabas Caching Facility

This document applies to Adabas Caching Facility Version 8.1.2 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.

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1 Adabas Caching Installation

This document provides information for installing Adabas Caching.

Supported Environments

Adabas Caching supports the following types of cache space.

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Operating System	Cache Type: Extended Memory	Cache Type: Data Spaces	Cache Type: Hiperspace	Cache Type: 64-bit Virtual	Cache Type: 64-bit Virtual Backed by Large Page Support
z/OS [1]	Yes	Yes	Yes	Yes	No[5]
VSE/ESA	Yes	Yes	No [2]	No	No[5]
VM/ESA	No	Yes	No [2]	No	No[5]
BS2000 [3]	Yes	Yes [4]	No [2]	No	No[5]

Notes:

1. For information relevant to z/OS, refer to z/OS descriptions in this documentation.
2. This operating system does not support hiperspace.
3. File-level caching is not available under BS2000.
4. Data spaces are not available on BS2000 RISC machines.
5. This cache type is only available with Adabas Caching Version 8.1.3.

For information about setting up data spaces (or hiperspace if supported in your environment), refer to the documentation for the operating system. Specifically for 64-bit address space, refer to the IBM documentation *SA22-7614-00, MVS Programming: Extended Addressability Guide, second edition October 2001*, which applies to z/OS 1.2 and above.

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Operating System	Cache Type: Extended Memory	Cache Type: Data Spaces	Cache Type: Hiperspace	Cache Type: 64-bit Virtual	Cache Type: 64-bit Virtual Backed by Large Page Support
z/OS	Yes	Yes	Yes	Yes	Yes

Prerequisites

Prerequisites for Adabas Caching Version 8.1.2

Adabas Caching Version 8.1.2 requires Adabas Version 8.1 or above.

Prerequisites for Adabas Caching Version 8.1.3

The following prerequisites apply for Adabas Caching Version 8.1.3 only:

- Adabas Caching Version 8.1.3 requires Adabas Version 8.1.3 or above, and the following Adabas Version 8.1.3 zaps must be installed: AI813027, AI813028, AI813029.
- Virtual 64-bit storage backed by large pages can only be used on IBM z10 mainframes running z/OS Version 1.9 or above and for which IBM large page support has been enabled via IBM APAR OA20902. You must also allocate the size of the large page pool (use the `LFAREA` parameter in the IEASYSxx member of SYS1.PARMLIB). The `LFAREA` parameter allows you to specify the amount of real storage to be used for large pages; this parameter cannot be changed dynamically and, if it is not set, page frames will remain allocated at a size of 4K.

Adabas Online System (AOS)

Adabas Online System (AOS), either the demo version delivered with Adabas or full version available as a selectable unit, is a prerequisite for using Adabas Caching Online Services (Natural application SYSACF). SYSACF is the online, menu-driven application used to monitor the Adabas Caching environment. It is included as part of Adabas Version 8.1 and above. Natural Version 3.1 or above is a prerequisite for AOS.

Adabas Caching Storage Requirement

Adabas Caching requires storage for the RABN indexes to be acquired above the 16MB line (`AMODE=31`). When using Virtual 64 or Virtual 64 storage backed by large pages, the RABN indexes will be acquired in Virtual 64 storage. This may require an adjustment to the `REGION` size (machine size for VM/ESA users).

Determine the maximum available storage from your systems programming staff:

- for extended memory usage (BS2000 and all ESA environments)
- for data space (BS2000 - except RISC machines - and all ESA environments)

- for hiperspace (z/OS environments only)
- for virtual 64 storage (z/OS environments only)
- for virtual 64 storage backed by large pages enabled by IBM z/OS 1.9 Large Page Support (z/OS environments only). Refer to the Prerequisites section above regarding the use of the LFAREA parameter for setting the size of the Large Page pool.

The cache type and sizes specified for Adabas Caching may have an effect on overall computer performance.

Installation Datasets

z/OS

The installation tape for Adabas Caching contains the following dataset for z/OS:

Dataset	Description of Contents
ACF*vrs*.LOAD	A load library containing the load modules ADACSH, ADACS1, ADACS6.
ACF*vrs*.INPL	Natural objects used for Adabas Caching Online Services.

VSE/ESA

The installation tape for Adabas Caching contains the following dataset for VSE/ESA:

Dataset	Description of Contents
ACF*vrs*.LIBR	A load library that includes the phases ADACSH and ADACS1.

VM/ESA

The Adabas Caching download for VM/ESA users contains one member: ACFVvvv TXTLIB. This txtlib needs to be added to the file SETTXTLB EXEC used to set the GLOBAL TXTLIB statement for nucleus startup. In addition, Caching ADARUN parameter cards need to be added to the control file used for nucleus startup.

BS2000

The installation tape for Adabas Caching contains the following dataset for BS2000:

Dataset	Description of Contents
ACF*vrs*.MOD	A load library containing the modules ADACSH and ADACS1.

Installation Steps

Step 1: Load ACF Objects into Natural System File

Use the INPL utility to load the objects required by ACF into the Natural system file. The objects are in the dataset ACFvrs.INPL. Refer to the *Natural Administration* documentation for further information about usage of this utility and its parameters. Please check the reports produced to ensure that no errors have occurred.

Step 2: Add ACF Load Library to STEPLIB

The ACF*vrs*.LOAD library must be added to the STEPLIB concatenation chain of the database start-up JCL.

- The Adabas Caching load library must appear as the first STEPLIB DD statement if there are any concatenated load libraries.
- The ADARUN parameter `CACHE=YES` must be included in the Adabas nucleus start-up job to activate Adabas Caching. Other Adabas Caching parameter settings are described in the section Adabas Caching Parameters.

Step 3: Start Adabas Caching Online Services

to verify successful ACF installation, start Adabas Caching Online Services as follows:

1 Log on to the application SYSAOS.

2 Select Caching Facility from the main menu.

For more information on the usage of Online Services, see section Adabas Caching Online Services.

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