FUJITSU

FUJITSU Software BS2000 DAB

Version 9.5A
July 2017

Release Notice

1 General

DAB (='Disk Access Buffer') is a software product that is part of the HIPERFILE concept for improving the I/O performance of a BS2000 computer and is used specifically for CPU "software caching" of selected data volumes or areas.

This Release Notice is a summary of the major extensions, dependencies and operating information with regard to DAB V9.5A under the BS2000[1] operating system.

The release level is that of July 2017.

If one or more previous versions are skipped when using this product version, the information from the Release Notices (and README files) of the previous versions must be taken into account as well.

1.1 Ordering

DAB V9.5A can be ordered from your local distributors.

This software product is supplied subject to a single payment or payment by instalments.

1.2 Delivery

The DAB V9.5A files are supplied via SOLIS.

The following delivery components are required regardless of the HSI:

Delivery component	Description
SYSMES.DAB.095	Message file
SYSRMS.DAB.095	Object corrections in RMS format
SYSSDF.DAB.095	Syntax file
SYSSSC.DAB.095	Subsystem declaration
SYSSSI.DAB.095	Subsystem initialization file
SYSSII.DAB.095	IMON structure and installation information file
SYSFGM.DAB.095.D	Release Notice (German)
SYSFGM.DAB.095.E	Release Notice (English)

The following delivery component is only required on /390 servers:

Delivery component	Description
SYSLNK.DAB.095	Module library (/390)

[1] BS2000 is a registered trademark of Fujitsu Technology Solutions

The following delivery component is only required on x86 servers:

Delivery component	Description
SKMLNK.DAB.095	Module library (x86)

The current file and volume characteristics are listed in the SOLIS2 delivery cover letter.

1.3 Documentation

The following documentation is available for DAB V9.5A:

DAB V9.5, Order No. U2431-J-Z125-17 (German) and
DAB V9.5, Order No. U2431-J-Z125-17-76 (English)

The documentation for the BS2000 basic configuration is also required for DAB operation.

A description of the HIPERFILE concept is contained in the manual BS2000/OSD-BC V11.0, Introductory Guide to Systems Support.

The BS2000 documentation is available in German and English on DVD with the title BS2000 Softbooks.
It is also available online at http://manuals.ts.fujitsu.com
Manuals which are displayed with an order number can also be ordered in printed form.

The handbooks may be supplemented with README files. These contain changes and extensions to the manuals of the product concerned.
The README files are available on the SoftBooks-DVD or online at http://manuals.ts.fujitsu.com .

2 Software extensions

None.

3 Technical information

3.1 Resource requirements

The maximum possible size of a DAB cache depends on the memory size installed in the server, or for a VM2000 guest system, on the memory size of the VM and the minimum memory level.
In particular,

- for caches with MEMORY = *STD or *BELOW, the maximum size depends on the memory size below the minimum (MIN-MEMORY-SIZE) or the memory size of the server;
- for caches with MEMORY = *ABOVE (sensible only in VM mode), on the memory size above the minimum, that is MEM-SIZE – MIN-MEM-SIZE;
- for caches with MEMORY = *ANY, on the memory size (Native or VM).

In addition to the actual cache buffer memory, DAB requires resident memory for its administrative data. The required size is determined mainly by:

1. Administration data for the cache segments.
   These need
   - with 4 kByte segments approx. 3.1 per cent of the cache size,
   - with 8 kByte segments approx. 1.6 per cent of the cache size,
   - with 16 kByte segments approx. 0.78 per cent of the cache size,
   - with 32 kByte segments approx. 0.39 per cent of the cache size.

   The size needed for areas with automatic caching corresponds to a segment size of 4 kByte (independent of the segment size specified at START-DAB-CACHING).
2. Key fields for files with PAMKEY.
   These require approx. 0.8 per cent of the cache size.

3.2 SW configuration

DAB V9.5A only runs on BS2000 OSD/BC V11.0A.

3.3 Product installation

The product DAB must be installed using the IMON installation monitor. When installing the product, the information in the delivery cover letter and in the product manual must be followed as well as the information in this Release Notice. The procedure of installation is described in the IMON manual.
After a successful installation, DAB V9.5A is loaded automatically at the next system startup.
In order to start DAB V9.5A in the current session, the following IMON function is required:
//ACTIVATE-UNITS UNIT-NAME=*INSTALLATION-UNIT(UNIT-NAME=DAB)

3.4 Product use

The following information must be observed when using DAB V9.5A:

1. Since the data buffered in main memory are no longer available after a system crash, it is strongly recommended to support only those files by caching in write or read-write mode that can be re-created with justifiable effort after the event of a system crash.
   It is also strongly recommended to set up cache areas with AREA=*BY-SYSTEM only with CACHING-MODE=*READ or =*BY-CACHE-MEDIUM.

2. The settings stored in the subsystem initialization file are only evaluated when the DAB subsystem is started, which is normally before system ready. If a setting is to be changed during the current session, the subsystem must be restart after the file entry is changed.

3.5 Obsolete functions (and those that are discontinued)

Global Store (GS) is no longer supported as cache medium in this version. Thus, the commands or operands of commands referring to GS are no longer available, nor are functions involving GS.

This is the last version to support USER-PFA caching. It will not be available in future versions.

3.6 Incompatibilities

Does not apply.

3.7 Restrictions

In some special cases, DAB caching is not supported at all. These restrictions are functionally necessary to ensure trouble-free operation.
The cases concerned are listed below:

1. DAB caching of the HOME pubset via USER-PFA is not supported.
2. The DAB caching of the HOME pubset via ADM-PFA with AREA=*BY-SYSTEM and CACHING-MODE=*READ-WRITE or *WRITE is not supported.
3. In the USER-PFA concept, only pubsets are supported. Caching of private disks via USER-PFA is not possible.
4. Caching of public volumes via USER-PFA and ADM-PFA simultaneously is not possible.
5. Caching of encrypted files in write-read or write mode is not possible.
6. A maximum of around 500 DAB caches can be set up.

3.8 Procedure in the event of errors

In the event of an error, the following documentation is required for diagnostic purposes:

- Precise description of the error situation and information about if and how the error can be reproduced
- Log of the /START-DAB-CACHING command
- Any system dump or SLED
- Copy of the CONSLOG file
- Copy of the SYSREP.DAB.095 file
- Copy or evaluation of the SERSLOG file
- Copy or evaluation of the HERSLOG file

4 Hardware requirements

DAB V9.5A can be run on all central units supported by BS2000/OSD-BC V11.0.

5 Firmware versions

Not relevant.