

FUJITSU Software BS2000 DAB

Version 9.4A
April 2015

Release Notice

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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 V9.4A under the BS2000¹ operating system.

The release level is that of April 2015.

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 V9.4A 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 V9.4A files are supplied via SOLIS.

The following delivery components are required regardless of the HSI:

Delivery component	Description
SYSMES.DAB.094	Message file
SYSRMS.DAB.094	Object corrections in RMS format
SYSSDF.DAB.094	Syntax file
SYSSSC.DAB.094	Subsystem declaration
SYSSSI.DAB.094	Subsystem initialization file
SYSSII.DAB.094	IMON structure and installation information file
SYSFGM.DAB.094.D	Release Notice (German)
SYSFGM.DAB.094.E	Release Notice (English)

The following delivery component is only required on S-servers:

Delivery component	Description
SYSLNK.DAB.094	Module library (/390)

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The following delivery component is only required on SQ-servers:

Delivery component	Description
SKMLNK.DAB.094	Module library (x86)

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

1.3 Documentation

Since no new manual is published for DAB V9.4A, the manual for DAB V9.3A has to be used.

For the installation, the manuals of the BS2000 version 10.0A may be helpful, as well as that of the installation monitor IMON.

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

A description of the HIPERFILE concept is contained in the manual BS2000/OSD-BC V10.0, Introductory Guide to Systems Support.

This manual also contains information about configuring GS areas for DAB. Information about configuring a parallel HIPLEX is contained in the manual HIPLEX MSCF V6.0A, BS2000 Processor Networks.

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>

The manual for DAB V9.3 can also be ordered in printed form under

DAB V9.3 Benutzerhandbuch	U2431-J-Z125-16
DAB V9.3 User Guide	U2431-J-Z125-16-76

The handbooks may be supplemented with README files. These contain changes and extensions to the handbooks of the product concerned.

The README files are available on the SoftBooks-DVD or online at <http://manuals.ts.fujitsu.com>.

2 Software extensions

Improvement over the previous version DAB V9.3A:

The amount of system address space required by DAB was reduced by relocating potentially large slot pools to data spaces.

3 Technical information

3.1 Resource requirements

DAB requires resident main memory for storing administrative data.

The amount of memory required is mainly governed by the following factors:

1. Administrative data for the cache segments; these require
 - with 4 KB segments approx. 3.1 percent of the cache size
 - with 8 KB segments approx. 1.6 percent of the cache size,
 - with 16 KB segments approx. 0.78 percent of the cache size
 - and with 32 KB segments approx. 0.39 percent of the cache size.

The segment size is 4 KB for areas with automatic caching (the value specified with START-DAB-CACHING is ignored).

2. Key fields for files with PAMKEY and buffered in main memory. They require approx. 0.8 percent of the cache size.

Particularly when using large cache areas in the GS, ensure that the system has sufficient main memory installed. With VM2000 operation, pay attention to the corresponding domain size and the minimum domain size of the VM (MEMORY-SIZE and MIN-MEMORY-SIZE operands in the CREATE-VM command).

3.2 SW configuration

DAB V9.4A only runs on BS2000 V10.0A.

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 V9.4A is loaded automatically at the next system startup.

In order to start DAB V9.4A 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 V9.4A:

1. It is strongly recommended that write (read) caching in the cache medium main memory is not used for system files. It is also strongly recommended that cache areas in the main memory with AREA=*BY-SYSTEM are only set up with CACHING-MODE=*READ or =*BY-CACHE-MEDIUM.
2. In a parallel HIPLEX, and with the same DAB version on all systems, GS can be used on all systems (see section 'GS operation in XCS network' in the System Administrator Manual), otherwise only on the local system.

3. GS read cache areas, that buffer data areas on the home pubset, are always released at shutdown even if the setting is made in the subsystem initialization file that they should remain intact at shutdown. The same applies to GS cache areas that buffer data areas on shared volumes. These cache areas must be set up again via command in the subsequent session.
4. GS read cache areas that buffer data areas on the home pubset are not re-constructed when the system is restarted, even if the relevant parameter is set to ENABLED in the subsystem initialization file. The same applies to GS cache areas that buffer data areas on shared volumes. These cache areas must be set up again via command in the subsequent session.
5. 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 re-start after the file entry is changed.
The ON-DUAL-GS-ERROR parameter can be modified with the MODIFY-DAB-PARAMETERS command after the subsystem has been started. If this parameter is to be changed permanently, the entry in the subsystem initialization file must also be modified appropriately.

3.5 Obsolete functions (and those that are discontinued)

Does not apply.

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 private disks via USER-PFA is not possible.
4. It is not possible to cache emulated GS volumes (neither with USER-PFA nor with ADM-PFA).
5. Caching public volumes via USER-PFA and ADM-P simultaneously is not possible.
6. Caching encrypted files in write-read or in write mode is not possible.
7. In a parallel HIPLEX, support for data areas of the HOME pubset with write (read) caching in the GS cache medium is not possible.
8. A maximum of around 500 DAB caches can be set up in main memory.
9. A maximum of around 1000 DAB caches can be set up in global storage

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.094 file
- Copy or evaluation of the SERSLOG file
- Copy or evaluation of the HERSLOG file
- Possibly a GS dump if requested by the service engineer.

4 Hardware requirements

DAB V9.4A can be run on all central units supported by BS2000/OSD-BC V10.0. In addition to main memory, global storage (GS) can be also be used as the cache medium.

5 Firmware versions

Not relevant.