



Fujitsu Siemens Computers GmbH

AVAS (BS2000/OSD)
Version 8.0A

AVAS-SV-BS2 (BS2000/OSD)
Version 8.0A

AVAS-SV
Version 8.0A

December 2007

Release Notice

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This product includes software developed by the OpenSSL Project
for Use in the OpenSSL Toolkit. (<http://www.openssl.org/>)

This product includes cryptographic software written by Eric
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1 General

AVAS (Auftragsverwaltungs- und Abwicklungssystem) is used for automating job processing in the computer center.

AVAS helps to achieve clear structuring, high transparency and flexibility and increase productivity of job processing in the computer center.

AVAS-SV-BS2 V8.0 is an add-on product to AVAS V8.0 that receives and executes the AVAS system jobs of another BS2000 server on a remote BS2000 server. AVAS-SV-BS2 monitors the job process, reports its completion to AVAS then signals and transfers the relevant job logs to AVAS.

AVAS-SV is used to run and monitor UNIX, Linux, Windows and SAP R/3 jobs on external platforms.
"Windows" refers to Windows 2000 and later, i.e. also Windows 2000, Windows XP, Windows 2003 and Windows Vista.

This Release Notice is a summary of the major extensions, requirements and operating information with regard to AVAS V8.0A and AVAS-SV-BS2 V8.0A which run under BS2000/OSD (*) or under open Systems operating systems.

*1 The release level is that of December 2007

*1 Changes to release level October 2007 are marked with '*1'.

This Release Notice is supplied as a file in uppercase and lowercase. Customers will receive an updated version of this file should any subsequent changes be made.

To print this file, use (English version):

```
/PRINT-DOCUMENT FROM-FILE=SYSFGM.AVAS.080.D,  
DOC-FORM=*TEXT(LINE-SPACING=BY-EBCDIC-CONTR)
```

If one or more previous versions are skipped when this product version is used, the information from the Release Notices (and README files) of the previous versions must be noted.

1.1 Ordering

The delivery units AVAS V8.0A and AVAS-SV-BS2 V8.0A can be ordered from your local distributors and are subject to the general terms and conditions of the software product use and service agreement.

(*) BS2000/OSD (R) is a trademark of Fujitsu Siemens Computers GmbH.

The AVAS-SV products and AVAS-DOORS are supplied on a CD-ROM. As AVAS-DOORS is part of the AVAS (BS2000) product, AVAS (BS2000) always comes with the AVAS-SV CD-ROM, which, however, can always be ordered separately.

Using the functions of AVAS-SV requires licenses. An AVAS-SV license must be ordered for each system on which AVAS-SV is to run.

1.2 Delivery

The AVAS V8.0A and AVAS-SV-BS2 V8.0A files are supplied via SOLIS. The current file and volume characteristics are listed in the SOLIS2 delivery cover letter.

The AVAS V8.0A delivery unit comprises the delivery groups AVAS and AVAS-GEN.

The AVAS-SV-BS2 delivery unit comprises the delivery groups AVAS-SV-BS2 and AVAS-GEN.

Overview of delivery components:

AVAS delivery group:

SIPLIB.AVAS.080	Optional customizing for AVAS
SYSDAT.AVAS.080	AVAS example system
SYSENT.AVAS.080	Library of batch procedures
SYSFHS.AVAS.080	Library of AVAS masks
SYSLIB.AVAS.080	Library of macros
SYSLNK.AVAS.080	Library of AVAS modules
SYSMSH.AVAS.080	Help file
SYSPRG.AVAS.080.DIALOG	Library of dialog phases
SYSPRG.AVAS.080.SVCOMM	Library of phases for linking AVAS-SV
SYSSDF.AVAS.080	System syntax for AVAS-QUER
SYSSII.AVAS.080	Structure and installation information for IMON
SYSSRC.AVAS.080	Library with assembler source program AV03EXTV and COBOL copy elements
SYSSDF.AVAS.080.GROUP	Group syntax file for command authorizations

AVAS-GEN delivery group:

SYFSGM.AVAS.080.D	Release Notice (German)
SYFSGM.AVAS.080.E	Release Notice (English)
SYSMES.AVAS.080	Message file
SYSPRC.AVAS.080	Library of dialog procedures
SYSPRG.AVAS.080.SYSTEM	Library of system phases
SYSSII.AVAS-GEN.080	Structure and installation information for IMON

AVAS-SV-BS2 delivery group:

SYSPRG.AVAS-SV-BS2.080	Library for program avsrecv
SYSSII.AVAS-SV-BS2.080	Structure and installation information for IMON

The standard installation ID for AVAS is AVAS.

The following is delivered on CD-ROM:

AVAS-DOORS V8.0A Mask descriptions for
 FHS-DOORS

In the SYSPRG.AVAS.080.SVCCOMM library, the following programs are supplied for communication with AVAS-SV-BS2 and the AVAS-SV products for Windows, Linux and UNIX-based platforms:

AVAS.SYS.LOAD.SINCM Program for server jobs distribution
AVAS.SYS.LOAD.SVDOG Program for server monitoring

Both programs were produced with SOCKETS(BS2000) V2.0 and require SOCKETS (BS2000) as of V2.0 in the customer system (SOCKETS V2.0 is part of the product openNet Server V2.0).

AVAS-SV V8.0A is supplied with the following products on the CD-ROM.

AVAS-SV (for Solaris OS) V8.0A	Package of AVAS-SV for Solaris/Sparc *) platforms
AVAS-SV (for Windows OS) V8.0A	Package of AVAS-SV for WINDOWS*) platforms Windows 2000 and higher
AVAS-SV (for HP-UX OS) V8.0A	Package of AVAS SV for HP-UX*) platforms
AVAS-SV (for AIX OS) V8.0A	Package of AVAS SV for AIX*) platforms
AVAS-SV (for UnixWare OS) V8.0A	Package of AVAS SV for UnixWare*) platforms
AVAS-SV (for Tru64 UNIX) V8.0A	Package of AVAS SV for Tru64 UNIX *) platforms
AVAS-SV (for Linux OS) V8.0A	Package of AVAS SV for Linux*) platforms
AVAS-R3JobControl V8.0A	Package for starting SAP R/3 jobs on Windows, AIX and Solaris/Sparc

*) Names mentioned in the Release Notice may be registered trademarks the use of which by third parties may violate the owners' rights.

1.3 Documentation

The following manuals contain the descriptions of AVAS V8.0A and AVAS-SV-BS2 V8.0A:

Title	Version	Order number

AVAS Funktionen	German	U5184-J-Z125-11
AVAS Functions	English	U5184-J-Z125-11-76
AVAS Anweisungen	German	U24660-J-Z125-6
AVAS Commands	English	U24660-J-Z125-6-76
AVAS für den Administrator	German	U21462-J-Z125-8
AVAS for the Administrator	English	U21462-J-Z125-8-76
AVAS Tabellenheft	German	U5309-J-Z125-11
AVAS Ready Reference	English	U5309-J-Z125-11-76

You will find a description of AVAS-SV in chapter 11, 'AVAS-SV - Cross-platform job control' in the 'AVAS for the Administrator' manual (see above). This description is also available on the CD-ROM, in files
README.AVAS-SV.D.PDF (German) or
README.AVAS-SV.E.PDF (English).

2 Software extensions

2.1 Software product AVAS

The extensions and enhancements compared to the previous AVAS version 7.0A are described below.

2.1.1 Separate FHS mask for each command

AVAS provides a unique FHS mask for every command. This can be controlled by the new GENPAR parameter, "UNIQUE-MASKS". This feature improves the diagnosability of AVAS runs and facilitates mapping to the FHS-DOORS graphical user interface.

2.1.2 SHOW-SYSOUT command

During the active phase of an AVAS task it is possible to access its SYSOUT file: Operation OUTSYS (#79) of the NET-CONTROL command opens the file and transfers it into the EDT.

2.1.3 Access to SYSOUT/SYSLST files of the AVAS tasks

The SYSOUT and SYSLST files of running AVAS tasks can be accessed without terminating these tasks, by using the appropriate entries in the job variables of the AVAS tasks or the INFORM-PROG command.

2.1.4 Extension of AVAS-QUER

An extended information output is available; it is controlled by the value of the new TABLE-STRUCTURE parameter in statement CREATE-FORMAT.

Parameter CREATE-HEADER-LINE is used to define whether statement CREATE-FORMAT is to create a header line for tables in the LOAD2 format.

The structures of the following tables have been extended:

- nettab (allocation of PVS to nets)
- netsymtab (allocation of symdats to nets)
- ordertab (allocation of pubsets to jobs and of jobs to nets)

The following new tables are created:

- caldaytab (description of the calendar days)
- netformtab (allocation of user masks to nets)
- netpartab (allocation of the parameter file to nets)
- orderpartab (allocation of the parameter file to structure elements)

The structure of the following table was given a new order:

- ordertexttab (allocation of net description texts to the structure elements of the nets)

2.1.5 File transfer functionality through structure elements

Transfers of files to external systems using openFT (TRANSFER-FILE command) are supported with a new structure element type, FU=F, TYPE=TRA. In the AVAS run, file transfer tasks are handled as jobs.

Such tasks can be canceled by AVAS with CANCEL-NET ,KILL-JOBS=YES; in addition, access from NET-CONTROL is possible with the operations #72 and #73.

The TRANSFER-FILE tasks may generate condition descriptions of type JOB.

The following new masks have been introduced to process the new structure type:

- AVN016 (NET-DESCRIPTION, parameter description)
- AVN026 (NET-DESCRIPTION, planning date)
- AVI026 (SHOW-NET-STATUS, parameter)
- AVD026 (MODIFY-SUBMIT-NET, parameter)

This includes the new list formats L008 (NET_DESCRIPTION) and L026 (NET-STATUS).

Additions have been made to journal record S52, and a new journal record S60 has been created for MODIFY-SUBMIT-NET.

Macros AVASJRN, AVSASSAN and AVSCOBAN have been extended in line with the new structure descriptions. Application programs and ex-its that use those macros therefore have to be recompiled.

2.1.6 New PLAN-START value *BY-HYP for subnets

Using the new value *BY-HYP ("by-hypernet"), which is to be entered at subnet symdats (!symdat) in the net planning data, the start time of subnets can be synchronized with the execution of the hypernet.

2.2 AVAS-SV

2.2.1 Improved performance of the server monitor process

To ensure that server jobs are started only on active servers, AVAS offers a monitor function for the servers entered in the configuration file. This function is implemented by the server monitor process (AVSSVDOG).

In AVAS V8.0, the server monitor process can be configured so that it waits for messages from the monitored AVAS servers rather than actively polling their status. This helps to reduce the network and CPU load.

Before, depending on start parameter SV-CONTROL-TIME, a socket connection was set up from AVSSVDOG to each monitored server; this socket was then used to exchange status information. Then the socket was closed. Network resources are now saved by not having to set up a complete connection each time, but sending a connectionless UDP message instead.

2.2.2 Signaling additional log files in server jobs

Using the avalog program and the new -file operand, up to 96 log files can be signaled in server jobs for transfer to the BS2000/OSD, with the possibility of specifying file-name string patterns. (The upper limit for the CENTRAL task is 99, two files are reserved for operands -stdout and -stderr, one file name space is reserved for the log of the representative job in BS2000).

2.2.3 Thresholds for server job log files that are to be transferred

For log files that are signaled for transfer to the BS2000/OSD by calling `avslog -file`, parameter `-max-size` can be used to define up to what size (in kB) the log file is to be transferred. If the size of the log file exceeds this limit, it will be transferred in part only. Parameter `-head` is used to specify which part of the log file is transferred. `head` determines the percentage of `max-size` to be transferred from the beginning of the file; the other percents are taken from the end of the file.

2.2.4 Extensions to the Avas Server Surface (AVSSURF)

Interacting with the server monitor process (AVSSVDOG) and any type of browser, the Avas Server Surface (AVSSURF) provides a graphical user interface with an AVAS view of the server landscape. It indicates the servers and their states, the jobs on these servers that have been started by AVAS, and data about these jobs. In addition, AVAS-SV V8.0 supports, if the relevant authorization has been granted, administrative interventions (stopping/restarting job distribution, changing the configuration file, canceling jobs, changing log file attributes). The communication of the web browser with the server user interfaces process can optionally be encrypted with openSSL.

2.2.4.1 Authorization check

Up to and including V7.0, AVSSURF offered exclusively information functions without performing an authorization check. AVAS-SV V8.0 includes an authorization check implemented in AVSSURF as a prerequisite for any access to confidential information and for action functions. The new "MANAGE-SERVER" entry in the AVAS system parameters' user definitions (user definition USER in GENPAR) is used to determine whether a user is authorized to manage servers.

The initial mask (AVW001) of AVSSURF shows (as in the past) the AVAS server configuration. It has been extended to include a button to open the new AVS010 mask. This mask is used to type in the SIGNON information for an AVAS system. AVSSURF sends the SIGNON information - in encrypted form if required - to the AVSSVDOG addressed with the start parameters SVD0G-HOST/SVD0G-PORT. This AVSSVDOG connects via the AVAS batch interface the AVAS system and returns in the case of a successful SIGNON the AVAS user's function authorization table and user group. To prevent users from being assigned wrong authorizations through a different AVAS system, e.g. a test system, it can be defined at the start of AVSSVDOG for which SYSTEM id a SIGNON can be performed.

2.2.4.2 Server administration functions

If the AVAS Id has the MANAGE-SERVER privilege, the 'Status' column of the server table contains radio buttons for server states \$R (Running), \$I (Ignored) and \$T (Terminated). These can be used to change the server status values. The following status transitions are allowed:

- \$R -> \$I: AVAS will not start further jobs for this server until further notice.
- \$T -> \$I: AVAS will not start jobs for this server, even if it becomes active in the meantime.
- \$I -> \$R: Job starts on this server are permitted again.

If the AVAS Id has the privilege MANAGE-SERVER, the configuration file can be viewed in mask AVW002, and edited. New entries can be created, and existing ones can be changed or deleted.

2.2.4.3 Table output sorting

Clicking on a button with the name of a server in mask AVW001 will return mask AVW010 with a list of the jobs on this server. This list includes all currently active server jobs, as well as those server jobs which have already been completed but whose status could not yet be communicated to AVAS.

As default, the jobs are sorted as follows in screen AVW010:

- Net name
- Index level
- Job name

Sorting is therefore in line with sorting in AVAS/BS2000. A new feature is that - similar to the Windows-Explorer - the column headers in the table are clickable. Sorting then takes place primarily according to the entry in this column. Default sorting is used as a second, third and possibly fourth sorting key.

2.2.4.4 Access to confidential information and action functions on servers

After users have authenticated themselves as AVAS users and if their AVAS IDs have the function authorization CANCEL-NET, they are offered with the job list an additional 'CANCEL' button for each job. Pressing this button terminates the associated job in the background.

If a user's AVAS ID has the function authorization SHOW-PROD-JOB, the job name appears as in the form of a button. Activating the button causes a branch to mask AVW031, where the script of the job is shown.

If the AVAS ID has the function authorization SHOW-JOBLOG, the log file names appear in the form of buttons. Activating the button causes a branch to mask AVW031, where the contents of the log file are shown.

If the AVAS ID has the function authorization MODIFY-SUBMIT-JOB, the attributes of the log files (delete attribute, max. size, header) are shown in an overwritable form. These attributes can be changed here and, by pressing button 'SAVE', written back to the server.

2.2.4.5 Automated status updating

AVSSURF gets from AVSSVDOG in addition to the data for the server table also information as to when AVSSVDOG plans the next server monitoring cycle (according to parameter SV-CONTROL-TIME). This point in time (plus a safety margin of one minute) is integrated in the web page, causing the browser to automatically refresh the page after this time.

3 Technical information

3.1 Resource requirements

AVAS V8.0A:

Virtual address space: approx. 2.7 MB static
static disk storage space: approx. 12.8 MB

AVAS-DOORS V8.0A:

static disk storage space: approx. 3.8 MB

3.2 Software configurations

3.2.1 AVAS and AVAS-SV-BS2

The following software products are required for running AVAS V8.0A and AVAS-SV-BS2 V8.0:

BS2000/OSD-BC as of V5.0 or OSD/XC as of V1.0 with
TIAM
JV

EDT as of V16.6A

OpenNet Server as of V2.0 (with Sockets V2.0)

Optional software to be used with AVAS V8.0:

HIPLEX-MSCF as of V3.0 (for the multiple computer network and
the

'Batch load distribution in
HIPLEX' function (HOST=*ANY)

MAREN as of V9.0 (for the AVAS-MAREN link)

openFT as of V9.0 for the support of file transfer tasks
in AVAS job nets

Version V8.0A of AVAS can be coupled with AVAS-SV V6.0A and higher. The communication interfaces are compatible.

3.2.2 AVAS-DOORS

Running AVAS-DOORS V8.0A requires the following software:

- Windows OS (Windows2000, Windows XP, Windows Server 2003)
- FHS-DOORS (MS-WIN) V3.1 (DESK2000 component)
- Emulation for BS2000 (a mini emulation is included in FHS-DOORS)

3.2.3 AVAS-QUER

Running AVAS-QUER requires the following software products:

Program used to transfer files from BS2000 to the target system.
(E.g. openFT(BS2000/OSD))

The target system must have a file transfer program and a database system (e.g. MS-ACCESS or INFORMIX).

3.2.4 AVAS-SV

Running AVAS-SV V8.0A requires the following software products:

AVAS-SV (for Solaris OS) V8.0A	Solaris as of V8.0A
AVAS-SV (for Windows OS) V8.0A	Windows2000 Windows XP Windows Server 2003** Windows Vista
AVAS-SV (for HP-UX OS) V8.0A	HP-UX V11.11*
AVAS-SV (for AIX OS) V8.0A	AIX V4.2*
AVAS-SV (for UnixWare OS) V8.0A	UnixWare V7.1.1*
AVAS-SV (for Tru64 UNIX) V8.0A	Tru64 UNIX as of V5.1A
AVAS-SV (for Linux OS) V8.0A	Suse Linux as of V8.0, Kernel 2.4.18 Red Hat EL 5

* and fully compatible versions

** AVAS-SV supports the Microsoft Cluster Server

Version V8.0A of the AVAS server (avsrecv) can be run in conjunction with AVAS as of V6.0A. The communication interfaces are compatible.

3.2.5 R3JobControl

Running R3JobControl V8.0A requires the following software products:

SAP R/3 V4.0, V4.5, V4.6 V 4.7, V6.1, V6.2, V6.4 or V7.0.

3.3 Product installation

The information concerning installation in the delivery cover letter and in the product documentation must be followed, as well as the information given below.

3.3.1 AVAS-SV

The AVAS agents for UNIX-based and Windows system are installed from a MultiCD structured in compliance with ISO9660. The CD contains installation and product software for AVAS-SV with an additional function that controls SAP R/3-Jobs AVAS-R3JobControl and the software product AVAS-DOORS.

3.3.1.1 AVAS-SV for UNIX-based systems

The installation is performed by calling the installation procedure `install_avs` from the CD-ROM. The installation paths and settings are queried by the installation procedure. For further information refer to chapter 'Installation' of the server description (file `README.AVAS-SV.D.PDF` or `README.AVAS-SV.E.PDF`)

3.3.1.2 Installation example AVAS-SV on UNIX-based systems for various user IDs

AVAS-SV offers the user the opportunity to install the server under root or any user ID. If AVAS-SV is installed under root, the jobs will run under the user ID specified in the configuration file. This has the advantage that AVAS-SV needs to be installed only once, under root.

If an installation under the system ID is not desirable, it is possible to install the server under any target ID. The jobs to be started will then run directly under this ID. Then, however, it is necessary to install AVAS-SV under every ID under which jobs are to be started. In practice this is not always desirable, as it requires extensive maintenance activities in the case of updates.

The following procedure can be used to bypass this problem:

- Installation of the AVAS-SV under system ID root as explained in the installation description.
- Release the installed objects so that other users can access them.
- Copy the setup.avs to the relevant user ID.
- Adjust the setup.avs file:
 - Assign a port number that is unique throughout the system
 - Assign a communication password
 - Optionally assign a new log file. If the pre-set value is retained, ensure that write access to this file is possible. Therefore, after the product has been installed, the file should be created manually and should be assigned the appropriate access rights.
 - Variable AVAS_SVUSER must be adjusted.
 - All other variables should not be changed.

Adjust the .profile in the user ID's main directory. Here, enter the line
". <path>/Setup.avs". where <path> is the absolute path name of the
setup.avs file. For example, the line could be ".
/home/avas/Setup.avs". (Character " must of course be left out.

This procedure has the advantage that any number of user IDs can be used. An update of AVAS-SV adapts only the installation under system ID root. All other IDs must not be changed as long as file Setup.avs is not changed. An update installation in a different directory is therefore not allowed.

3.3.1.3 AVAS-SV for Windows systems

The installation is performed by automatically calling a setup program after inserting the CD into the CD-ROM drive. The setup program was developed in line with the valid conventions of Windows systems for 32-bit applications.

The installation process is menu-driven. For further information refer to the README file which is offered for reading in the course of the installation process, or to the chapter 'Installation' of the server description. (file README.AVAS-SV.D.PDF)

3.3.2 R3JobControl

Installations on UNIX-based systems are always performed by calling the installation procedure `install_avs` from the CD-ROM; on Windows systems they are performed by a setup program that is launched automatically after the CD has been inserted in the CD-ROM drive. The installation paths and settings are queried by the installation procedure. For further information refer to chapter 'Installation' of the server description (file `README.AVAS-SV.D.PDF` or `README.AVAS-SV.E.PDF`).

3.3.3 AVSSURF

The 'avssurf' program is part of AVAS-SV and is installed with the same installation tools as AVAS-SV (UNIX-based systems: installation procedure `install_avs`, Windows: setup program). Under BS2000, the program is installed by SOLIS, together with AVAS, the program launch is effected with `AVS.SURF` in the LMS library `SYSRPC.AVAS.080`. The required configuration settings can also be performed by `AVS.SURF`.

3.3.4 AVAS-DOORS

In addition, the following points must be considered during first-time installation of AVAS-DOORS:

- AVAS-DOORS V8.0A consists of mask description files, one for each AVAS V8.0A mask. FHS-DOORS must be installed to be able to work with these files.
- The mask description files are installed during menu-driven installation from the CD-ROM. You can specify the installation path.
- Configuring FHS-DOORS
After you have installed the masks on the PC, you must tell FHS-DOORS in which directory it is to look for the AVAS-DOORS masks. To do this, you can either define a new FHS-DOORS session or change an existing session:
- Call FHS-DOORS by clicking on the FHS-DOORS icon in WINDOWS.
- Open a session (CTRL+N or click on "Session" and "Open...") or start a new session (CTRL+O or click on "Session" and "New...").
- Entry into the configuration mask for the session.

After you start a new session, the session configuration mask opens. If you opened an existing session, you can access this mask by clicking on "Configuration" and "Session...".

- Enter the resource path by clicking on the relevant part of the
- window. If the newly created directory for AVAS-DOORS appears below "Resource path:" (e.g. `C:\Programme\Siemens\AVAS-NT\AVASDOORS`), the parameter has the correct value.
 - The remaining parameters must be set according to the hardware and software on the PC and the FHS-DOORS manual.
 - If you now start the FHS-DOORS session and start AVAS V8.0A within the emulation, the AVAS V8.0A masks are replaced with those of AVAS-DOORS V8.0A.

3.4 Product use

3.4.1 AVAS example

Library SYSDAT.AVAS.080 contains an example to simplify getting started with AVAS.

3.4.2 DPAGE utility routine for version changes

The AVS.UPDATE.VERSION routine from library SYSPRC.AVAS.080 lets you change the name of the AVAS-SYSTEM-ID identifying the AVAS configuration, and the RUN-CONTROL-SYSTEM names identifying the run controls.

A description in the form of a guided dialog appears while the routine is executing.

3.4.3 Jobs for BS2000 servers

When migrating from AVAS V6.0A:
Jobs for BS2000 servers may be planned and released only when all nets released in AVAS V6.0 have been completed. Otherwise jobs for the local BS2000 will unintentionally be sent to the BS2000 server.

3.4.4 Notes on AVAS-QUER

Please observe the following:

- The program is either called with the AVS.QUER procedure from within SYSPRC.AVAS.070 or as program AVAS.SYS.LOAD.QUER from within SYSPRG.AVAS.070.SYSTEM.

The following requirements must be satisfied when the program is started:

- For creating SQL statements (INSERT-FORMAT):
The program requires an output file (SAM file) that is assigned with the link name \$AVSQUER. Any existing output file will be overwritten.
- For creating the LOAD format:
The program requires an assigned output file (SAM file) for each table to be created . Any existing output file will be overwritten. The following link names must be used for the output files:

Table	Link name
-----	-----
caltab	\$AVSCAL
caldaytab	\$AVSCALD
caldaysymtab	\$AVSCDAY
nettab	\$AVSNET
netdoktab	\$AVSNETD
netformtab	\$AVSNETF
netpartab	\$AVSNETP
netsymtab	\$AVSNETS
netttexttab	\$AVSNETT
ordertab	\$AVSORD

orderdoktab	\$AVSORDD
orderpartab	\$AVSORDP
ordersymtab	\$AVSORDS
ordersturmtab	\$AVSORDT
ordertexttab	\$AVSORDX

- An SDF syntax file that contains the statements for AVAS-QUER must be active. The supplied system syntax file SYSSDF.AVAS.070 must be merged into the current system syntax file with the SDF-I utility (see also the SDF Administrator Manual).
- In the system parameters of the AVAS system that is being used, the user must have the COPY-ELEMENT right for objects he or she may access.
- The AVAS access processes (ZDD, ZDL) must have been started.
- The file SYSLNK.AVAS.070 must be assigned with the link name SYSLNK.
- The message file SYSMES.AVAS.070 must be assigned.
- The database on the target system must have been created.

3.4.5 Notes on AVAS-SV

3.4.5.1 AVAS Server JOBLLOG

If files with binary data are transferred, this may cause transfer interruptions, transfer errors and lost connections. Therefore, only text files may be signaled via AVSLOG.

3.4.5.2 Operation on Windows cluster

For operation on a Windows cluster, AVAS-SV must be installed on each node computer. Please note the following:

- The configuration files must be identical on all node computers.
- Windows user data must be maintained separately on every node computer.
- Configuration files "work directory" and "log file" are to refer to files on a shared drive.
- The start type of the service (service name "AvasService") must be set to "manual" on all servers to ensure that the start of the service can be effected by the cluster software.

3.5 Obsolete functions (and those to be discontinued)

There are no functions that are either obsolete or to be discontinued.

3.6 Incompatibilities

The exits to AVAS are to be recompiled (extension of journal records).

3.7 Restrictions

- *1 There are no restrictions to the planned version scope. The restriction for AVAS-SV of October 2007 is lifted.
- *1

3.8 Procedure in the event of errors

3.8.1 Procedure in the event of AVAS errors (BS2000)

If AVAS errors occur, the following documents will be needed:

- System parameter file (SYSPAR)
- Runtime file (ABLDAT)
- Log file (JRNDAT)
- User dump
- System dump

If problems occur with processes, the following will also be needed:

- Process log (SYSOUT/SYSLST)
(see also the Administrator Manual 'Outputting diagnostic documentation via SYSLST') documentation via SYSLST')
- Contents of the job variable monitoring the process

If problems occur with nets, the following will also be needed:

- The relevant elements from NETLIB and/or NPRLIB

Note:

To ensure correct diagnosis, do not suppress any log records when creating the diagnostic documentation.

3.8.2 Procedure in the event of AVAS-QUER errors

If errors occur with AVAS-QUER, provide the following documents, if possible:

- System parameter file (SYSPAR)
- Created output file
- User dump
- System dump
- The relevant elements from NETLIB and/or CALLIB

3.8.3 Procedure in the event of AVAS-DOORS errors

If errors occur with AVAS-DOORS, try to provide the following documents:

- Hard copy
- Mask name
- Description of the data and the action executed

3.8.4 Procedure in the event of AVAS-SV errors

If errors occur with AVAS-SV, try to provide the following documents:

- Log of AVSSINCM's messages
- Log of AVSRECV's or AVSSINJV's messages
- An exact description of the steps you performed
- Trace documents of the error situation

Traces in AVAS-SV

Various trace levels (from 0 to 11) can be set for all programs. The following values are useful:

- 0: No trace
- 4: The trace contains the most important subroutine calls incl. parameters
- 8: The trace contains (almost) all subroutine calls incl. parameters
- 10: The trace contains also the network traffic
- 11: The trace contains also the memory assignment

From level 8 the data may be very extensive; we advise not to perform long-term traces.

From level 10 the trace may include security-relevant data - e.g. as contents of scripts or log files.

The traces can be controlled as follows:

AVSSINCM

When starting the program AVSSINCM, you may specify the start parameter AVAS-TRACE.

```
AVAS-TRACE = n
```

With $n=[0..1]$.

The trace is written to SYSOUT.

AVSRECV, AVSSERV, AVSSURF, AVSSVDOG

BS2000:

- Create a file named 'AVS.LEV' under the execution ID of the program in question.
- Enter the first line of the trace levels in the file.
- The trace is entered in file '#AVSRECV.LOG', '#AVSSURF.LOG' or '#AVSSVDOG.LOG'

UNIX-based systems:

- Create a file named 'LEV' under '/tmp'
- Enter the first line of the trace levels in the file.
- The trace is entered in file 'avsRecv.log' or 'avsSurf.log' respectively

Windows

- The string values 'Lev' and 'Trace' are created in the registry, under ;HKEY_LOCAL_MACHINE\SOFTWARE\Siemens\AVAS-NT\AVAS-SV' or, with AVSSURF, under ;HKEY_LOCAL_MACHINE\SOFTWARE\Siemens\AVAS-NT\AVAS-SURFACE'.
- 'Lev' is used to enter the trace level
- 'Trace' is used to enter the name of the trace file.

The trace level can be changed during operation.

The change becomes effective as follows:

- AVSRECV and AVSSERV: At the next received task
- AVSSURF: At the next received http request
- AVSSVDOG: At the next server cycle

4 Hardware support

AVAS V08.0A will run on all central units and devices supported by BS2000-OSD as of V5.0.