

Fujitsu Technology Solutions

SM2 (BS2000/OSD)

Version 16.0A

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Release Notice

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1	GENERAL	2
	1.1 Ordering	4
	1.2 Delivery	4
	1.3 Documentation	5
2	SOFTWARE EXTENSIONS	6
3	TECHNICAL INFORMATION	7
	3.1 Resource requirements	7
	3.2 Software configuration	7
	3.3 Product installation	7
	3.4 Product use	8
	3.5 Obsolete functions (and those to be discontinued)	9
	3.6 Incompatibilities	9
	3.7 Restrictions	9
	3.8 Procedure in the event of errors	10
4	HARDWARE SUPPORT	10

1 GENERAL

The delivery group SM2 16.0A is part of the delivery unit openSM2 (BS2000/OSD).

openSM2 (BS2000/OSD) supplies the user with statistical data on the performance and utilization of a BS2000/OSD *) system, that allow the performance of the system and the applications to be improved as required.

The core of SM2 V16.0A is the measurement monitor SM2. It collects measurement data for a number of measurement values. Some measurement data is always recorded (e.g. CPU memory and disk utilization) while others are recorded by special measurement programs that are switched in as needed. The measurement data is presented to a program interface for online monitoring and can also be stored into a measurement values file for later problem and trend analysis.

In addition to the measurement monitor SM2, SM2 V16.0A also comprises the utility program SM2U1 for administering the measurement value files and the program SM2R1 for analyzing the measurement value files.

The powerful and comfortable client/server applications INSPECTOR (old name SM2ONLINE-PC) and ANALYZER (old name SM2R1-PC) are provided for central online monitoring of multiple BS2000/OSD systems and analysis of measurement value files under Microsoft Windows.

INSPECTOR and ANALYZER are components of the delivery group SM2-TOOLS that is itself a component of the delivery unit openSM2 (BS2000/OSD) V7.0A.

In a computer network, the highest released version of SM2-TOOLS must be used on all systems to be monitored. There is a separate Release Notice for the delivery group SM2-TOOLS and this must be read before using the tools.

This Release Notice is a summary of the major extensions, dependencies and operating information with regard to the SM2 V16.0A software monitor (including SM2U1 and SM2R1).

The release level is that of May 2009. Changes and extensions in SM2 V16.0A are marked with '*1' in the right margin.

The Release Notice is also 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 the file, use (English version):

```
/PRINT-DOCUMENT FROM-FILE=SYSFGM.SM2.160.E,  
DOC-FORM=*TEXT(LINE-SPACING=BY-EBCDIC-CONTR)
```

*) : [BS2000/OSD \(R\)](#) is a registered trademark of Fujitsu Technology Solutions.

All BS2000 product Release Notices are available in the Internet. This one is available under the following URL:
<http://manuals.ts.fujitsu.com>

If one or more previous versions are skipped when this product version is used, the information from the Release Notices (and README files) for BS2000/OSD-BC of the previous versions must be noted.

The use of names, trademarks, etc. in this Release Notice does not entitle readers to assume that these names/designations may be used without restriction by anyone; often the names/designations are protected by law or contract, even if this is not indicated here.

1.1 Ordering

SM2 V16.0A is part of the delivery unit openSM2 (BS2000/OSD) V7.0A.
openSM2 (BS2000/OSD) V7.0A can be ordered from your local distributors and is subject to the general terms and conditions of the software product use and service agreement.

1.2 Delivery

The SM2 V16.0A files are supplied via SOLIS.
The current file and volume attributes are listed in the SOLIS2 delivery letter.
SYSSII files (if included in the delivery package) are not installed.

Summary of delivery components:

Delivery unit SM2:

```
-----  
SIPLIB.SM2.160      Restricted macros of SM2  
SPMLNK.SM2.160      Dynamically loadable TPR part  
                     of SM2 (SPARC)  
SYSDAT.SM2.160.MTFILE Control file for SM2R1  
SYSFGM.SM2.160.D     Release Notice (German)  
SYSFGM.SM2.160.E     Release Notice (English)  
SYSLIB.SM2.160       Include files for C program interface  
                     and procedures for the SM2 and COSMOS  
                     manual examples  
  
SYSLNK.SM2.160       Dynamically loadable TPR part  
                     of SM2 (/390)  
SYSLNK.SM2.160.SM2   Dynamically loadable TU part of SM2  
SYSLNK.SM2.160.SM2R1 Dynamically loadable part of SM2R1  
SYSLNK.SM2.160.SM2U1 Dynamically loadable part of SM2U1  
  
SYSMES.SM2.160       Message file for SM2, SM2U1, SM2R1  
SYSMSP.SM2.160.D     PLI1 text file for SM2R1 (German)  
SYSMSP.SM2.160.E     PLI1 text file for SM2R1 (English)  
SYSNRF.SM2.160       Help file for Rep processing  
  
SYSPRG.SM2.160.SM2   Prephase for loading and starting SM2  
SYSPRG.SM2.160.SM2U1 Prephase for loading and starting SM2U1  
SYSPRG.SM2.160.SM2R1 Prephase for loading and starting SM2R1  
SYSRMS.SM2.160       Loader delivery set for SM2  
SYSSDF.SM2.160       Syntax file for all statements and  
                     commands of SM2, SM2U1 and SM2R1  
  
SYSSII.SM2.160       Structure and installation  
                     information for IMON  
SYSSPR.SM2.160.SM2R1 Procedure for START-SM2R1 command  
SYSSSC.SM2.160       DSSM declarations of SM2
```

1.3 Documentation

The following documentation is available for SM2 V16.0A:

openSM2 (BS2000/OSD) V7.0A Software Monitor
Volume 1: Administration and Operation
(Order number German : U3585-J-Z125-11
English: U3585-J-Z125-11-76)

Volume 2: Evaluating and Displaying SM2 Measurement Values
(Order number German : U41078-J-Z125-4
English: U41078-J-Z125-4-76)

The following manual is recommended for interpreting the measurement values supplied by SM2 and for analyzing and optimizing system performance:

BS2000/OSD-BC V7.0 Performance Handbook
(Order number German : U1794-J-Z125-12
English: U1794-J-Z125-12-76)

The documentation on current BS2000/OSD software products is also available under the following Internet address:
<http://manuals.ts.fujitsu.com>

2 SOFTWARE EXTENSIONS

SM2 V16.0A offers no innovations over the previous version SM2 V15.0B.

Innovations and extensions are only implemented in the delivery group SM2-TOOLS V7.5.
There is a separate Release Notice for this.

3 TECHNICAL INFORMATION

3.1 Resource requirements

There are no minimum system equipment restrictions for using SM2, only that required for running BS2000. The memory requirement for all SM2 components is approximately 3000 PAM pages. SM2 requires the following memory at runtime:

Memory class	CL3	CL4	CL5	CL6
SM2 startup (without additional measurement programs)	40KB	200KB	300KB	450KB

Appreciably more memory (particularly in classes 3 and 4) may be required depending on the number of monitored devices, tasks and files as well as the number of active measurement programs.

3.2 Software configuration

The basic configuration of BS2000/OSD-BC V7.0 is required to run SM2 and, if the RESPONSTIME or UTM programs are used, also BCAM or UTM.

The BCAM-SM2 subsystem is supplied together with the BCAM subsystem, and the UTM-SM2 subsystem is supplied together with the BS2-GA subsystem. BCAM as of V15.0 is required for the measurement program BCAM-CONNECTION.

HSMS as of V3.0A is required for the measurement program HSMS. SHC-OSD V4.0A or higher is required to run the STORAGE-SYSTEM measurement program.

3.3 Product installation

Installation of SM2 V16.0A with the installation monitor IMON is mandatory, as execution of the product requires a consistent Software Configuration Inventory (SCI).

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

The necessary inputs and the sequence of the installation are described in the IMON documentation.

If the product is not installed with the IMON installation monitor, the following points must be observed in addition to the information provided in the delivery cover letter and the product documentation:

- The SYSREP.SM2.160 loader must be generated from the SYSRMS.SM2.160 delivery set with the product RMS.
- SM2 expects the following files:
 - SPMLNK.SM2.160 or SYSLNK.SM2.160,
 - SYSREP.SM2.160 and
 - SYSNRF.SM2.160
 under a standard user ID (defined with the DEFLUID system parameter) which must have the SWMONADM (Software Monitor Administration) privilege. TSOS has this privilege by default. If the three files are set up under a different user ID, the subsystem declaration must be modified accordingly.
- The SYSMES.SM2.160 message file must be merged in using the BS2000 /MODIFY-MSG-FILE-ASSIGNMENT command.
- The SDF syntax file SYSSDF.SM2.160 must be registered. This is done with the following command:


```
/MODIFY-SDF-PARAMETER SCOPE=*PERMANENT, -
/SYNTAX-FILE-TYPE= -
/*SUBSYSTEM(NAME=SYSSDF.SM2.160,SUBSYSTEM-NAME=SM2)
```
- The file SYSSSC.SM2.160 must not be modified, apart from the ID under which the files required for dynamic loading are stored. The file contains the SM2 subsystem declarations and is required to update the DSSM catalog.

3.4 Product use

- The SM2 subsystem is loaded and started the first time it is called under a user ID with the SWMONADM privilege. Only the SM2 modules required for running the basic functions are loaded.
- However, the SM2 subsystem can also be loaded via the DSSM /START-SUBSYSTEM SUBSYSTEM-NAME=SM2 command. SM2 can then be started under any desired ID.
- The SM2 subsystem SM2 exists until it is unloaded via the DSSM command /STOP-SUBSYSTEM SUBSYSTEM-NAME=SM2.
- Unconditional unloading using /STOP-SUBSYSTEM SUBSYSTEM-NAME=SM2, FORCED=YES is possible but should only be used if problems are encountered.

The SUBSYSTEM-MANAGEMENT privilege is required for the DSSM /START-SUBSYSTEM and /STOP-SUBSYSTEM commands.

3.5 obsolete functions (and those to be discontinued)

- none -

3.6 Incompatibilities

Previously, measurement values for Symmetrix systems could be recorded with the measurement programs PFA and STORAGE-SYSTEM (requires the SHC-OSD subsystem as of V4.0A).
The measurement program PFA has been incompatibly modified and no longer supplies measurement values for Symmetrix systems.

3.7 Restrictions

Connections of applications that use the SOCKETS(BS2000) or ICMX(BS2000) interfaces are only output globally by SM2 for the measurement program RESPONSTIME.

3.8 Procedure in the event of errors

- o The contents of the SM2 REP file are always required, as well as the following documentation, depending on the type of error:

- o For DUMPs provided by BS2000, the usual diagnostic documents are to be generated:
 - for S.E.T.S. : SLED
 - for system dumps : system dump
 - for P1 errors : user dump

The error documents should always be provided in file form if possible, to facilitate analysis with diagnostic tools.

- o For incorrect measurement data:
 - SM2 start and stop procedures
 - SM2 measurement values file
 - SM2R1 analysis procedure
 - Hardcopy printout of the SM2 report
(only for errors in the online statistics)

- o The following additional information simplifies error diagnosis:
 - Which NPSxxxx messages were output ?
 - Listing on the SM2 system task state
(see the SM2 SHOW-SM2-STATUS statement)
 - Which measurement programs were active?
(SM2 start procedure required)
 - Did the error occur during operation or while processing an SM2 statement ?
 - Special conditions (e.g. new versions of programs whose data is recorded by SM2, such as DAB, PCS, etc.).

4 HARDWARE SUPPORT

The SM2 V16.0A software monitor supports all hardware components served by BS2000/OSD-BC V7.0.