
Fujitsu Technology Solutions

COSMOS (BS2000/OSD)
Version 18.0A
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Release Notice

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1 General

COSMOS can be used to record measurement values for targeted diagnosis of performance problems. COSMOS supplements the functionality of the software monitor openSM2.

openSM2 is used to collect statistic data about the performance of the operating system and the utilization of the resources, while COSMOS records all registered events in the system without gaps.

This Release Notice is a summary of the major extensions, dependencies and operating information with respect to COSMOS V18.0A.

The release level is that of: June 2012.

This and other current Release Notices are shipped on the SoftBooks DVD and are available online at <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) of the previous versions must also be noted.

1.1 Ordering

The COSMOS V18.0A Software Monitor can be ordered from your local distributors and is subject to the general terms and conditions of the agreement for purchasing, using and servicing software products.

1.2 Delivery

The COSMOS V18.0A files are delivered via SOLIS.

The current file and volume attributes are listed in the SOLIS2 delivery letter. SYSSII files (if included in the delivery scope) are not installed.

List of delivery components:

Measurement part:

<u>COSMOS</u>	
SIPLIB.COSMOS.180	Library containing the 'restricted macros' of COSMOS
SKMLNK.COSMOS.180	Dynamically loadable part of COSMOS (x86)
SPMLNK.COSMOS.180	Dynamically loadable part of COSMOS (SPARC)
SYSDAT.COSMOS.180	LMS file with program descriptions
SYSGM.COSMOS.180.D	Release Notice (German)
SYSGM.COSMOS.180.E	Release Notice (English)
SYSLIB.COSMOS.180	Library containing the 'user macros' of COSMOS
SYSLNK.COSMOS.180	Dynamically loadable part of COSMOS (/390)
SYRMS.COSMOS.180	Loader delivery set for COSMOS
SYSSII.COSMOS.180	Structure and installation information for IMON

COSMOS-BC

SYSTEMES.COSMOS.180	Message file for COSMOS
SYSSII.COSMOS-BC.180	Structure and installation information for IMON

SYSSC.COSMOS.180	File with DSSM declarations
<u>File processing:</u>	COSMIX (COSfile-MIX program)
SYSLNK.COSMIX.180	Dynamically loadable part of COSMIX
SYSTEMS.COSMIX.180	Message file for COSMOS
SYSPRG.COSMIX.180	Prephase for loading and starting COSMIX(auxiliary program for COSMOS file processing)
SYSSDF.COSMIX.180	Syntax file for COSMIX
SYSSII.COSMIX.180	Structure and installation information for IMON
SYSSPR.COSMIX.180	Procedure for the command START-COSMIX
<u>Analysis part:</u>	CAP (Cosmos Analysis Program)
SIPLIB.CAP.180	Library containing the 'restricted macros' of CAP
SYSLNK.CAP.180	Dynamically loadable part of CAP
SYSTEMS.CAP.180	Complete message file for CAP
SYSPRG.CAP.180	Prephase for loading and starting CAP
SYSSDF.CAP.180	Syntax file for CAP
SYSSII.CAP.180	Structure and installation information for IMON
SYSSPR.CAP.180	Procedure for the command START-CAP
SYSLNK.NEGET.180	NEGET.OML (read routine for the COSMOS file) for linking into your own analyzer
SYSSII.NEGET.180	Structure and installation information for IMON

The delivery components of the other analyzers

CAPIO
 COSAUS
 COSLAST
 COSPAM/HFCACHE
 COSSEL/COSPATH

are listed in the Release Notice for the COSMOS-TOOLS delivery group.

1.3 Documentation

All program descriptions are contained in the supplied LMS library
 SYSDAT.COSMOS.180.

Table of contents of SYSDAT.COSMOS.180:

(J) SELECT
 (X) CAP.PRN
 (X) COSMOS.FTP.ZIP
 (X) COSMOS.OFT.ZIP
 (X) COSMOS.PRN
 (X) NEGET.PRN

The descriptions are provided in two different formats:

- 1) COSMOS.FTP.ZIP and COSMOS.OFT.ZIP

These are WINDOWS files.

The following steps are needed to print the descriptions on a PC:

- a) Transfer elements from the LMS library to files using the statement

```
/CALL-PROC FROM-FILE=*LIBRARY-ELEMENT(  
LIBRARY=SYSDAT.COSMOS.180,  
ELEMENT=SELECT)
```

- b) Transfer either the file COSMOS.FTP.ZIP with ftp or the file COSMOS.OFT.ZIP with openFT in binary mode to the PC.
- c) Extract the files <name>.pdf from the transferred file with WinZip. You can read and print these files with Adobe Reader.

1) <name>.PRN

These are postscript files that you can print either directly on BS2000 (if Postscript printers are supported there) or on any other Postscript-compatible printer.

You will find information on workload limitations for primary resources and notes on performance optimization of DP systems in the manual

BS2000/OSD-BC V9.0 Performance Guide

This manual is currently being prepared.

In the meantime, you can use the
BS2000/OSD-BC V8.0 Performance Guide

The BS2000/OSD¹ documentation is available in German and English on DVD with the title BS2000/OSD SoftBooks.

The documentation is also available in the form of online manuals at <http://manuals.ts.fujitsu.com> or can be ordered at extra cost at <http://manualshop.ts.fujitsu.com>. In the manual shop only manuals are available for products which are still orderable.

¹ BS2000/OSD (R) is a registered trademark of Fujitsu Technology Solutions.

2 Software extensions

There are no extensions or enhancements in COSMOS V18.0A over the previous version COSMOS V17.0A.

2.1 Software component “Analysis programs”

Software extensions to the analyzers are described in chapter 3 of the Release Notice for the COSMOS-TOOLS delivery group.
You must read this Release Notice before using the analyzers.

3 Technical information

3.1 Resource requirements

There are no restrictions regarding COSMOS as to minimum system configuration. COSMOS will run on the configuration required by BS2000/OSD-BC V9.0A. At runtime, COSMOS requires approximately 100 KB of static address space. Depending on the number and size of the output buffers (NUMBER-OF-BUFFERS and BUFFER-SIZE parameters for SET- and MODIFY-COSMOS-PARAMETERS) and on the number of COSMOS write tasks (FILE-NAME=.....), requirements can rise to several MB (class 3 memory).

3.2 Software configuration

The following are required to run COSMOS: BS2000/OSD-BC V8.0A basic configuration and, if the events BCAM, BCPT and DCAM are used, the BCAM/DCAM subsystems BCAM-COS and DCAM-COS.

After standard installation of the subsystems, the response time-specific measurement modules are dynamically loaded from the files SPMLNK.BCAM.xxx.COSSYS and SPMLNK.DCAM.xxx.COSSYS.

In the case of analysis using CAP and NEGET, the analysis modules from the files SYSLNK.BCAM.xxx.COSMOS and SYSLNK.DCAM.xxx.COSMOS are also dynamically loaded.

A UTM subsystem that will run under BS2000/OSD-BC V9.0A is also required to measure the UTM events.

3.3 Product installation

Installation of the product COSMOS with the IMON installation monitor is mandatory. You must follow the information concerning installation in the delivery cover letter and in the product documentation as well as the information in this Release Notice.

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

3.4 Product use

A COSMOS measurement can be carried out under any user ID that has the SWMONADM privilege. \$TSOS has this privilege by default.

The COSMOS measurement program should only be used if the SM2 software monitor functionality (with all statistics and application-related response time capture) is not sufficient to identify the performance problems or if, for example, analysis of individual transactions including database involvement is required in UTM applications.

In very fast systems with very heavy system loads, "MISSED EVENTS" may occur during measurement despite using a large I/O buffer (max.: BUFFER-SIZE=7; NUMBER-OF-BUFFERS=128), as the limited tape speed may prevent the data involved from being written quickly enough. In such cases, only the detailed SM2 preliminary analysis and then a COSMOS measurement with task selection will help. Parallel writing to several output files (max. 16) and the use of magnetic tape

cartridge systems help avoid data loss. It is also possible to operate tape devices in streaming mode using the OUTPUT=*STREAM-TAPE parameter.

3.5 Discontinued functions (and those to be discontinued)

None

3.6 Incompatibilities

None

3.7 Restrictions

- Measurement values from BS2000/OSD versions before V1.0 are no longer supported by the analyzers.
- As of BCAM V11.0A, OSI applications with ICMX/ISOCKET names (TCP/IP) up to 78 bytes are supported. The values in the BCAM events for APPLICATION, PARTNER and PARTNER-PROCESSOR (eight-byte names) are not supplied; as a result, the analysis programs **cannot** determine response time values in TCP/IP networks.
- In streaming mode (OUTPUT=*STREAM-TAPE), continuation tapes are **not** supported; as a result, parallel output must be used for longer measurements. Such tapes must be merged before analyzing them with COSMIX.

3.8 Procedure in the event of errors

The contents of the REP file are always needed for error diagnosis. Depending on the type of error, the following documentation is also required:

The usual diagnostic material should be supplied for DUMPS provided by BS2000/OSD

- CONSLOG file
- for S.E.T.S: SLED
- for system dumps : system dump
- for TU errors: user dump

Wherever possible, the material should be provided in file form for processing with the diagnostic tools.

In the case of incorrect measurement data:

- COSMOS measurement file
- Analysis procedure with the parameters used

The following information will facilitate error diagnosis:

- Which COSMOS parameters were used?
- Did the error occur during current operation or while processing a COSMOS statement?
- Special circumstances:
e.g. new DAB version, new PCS version, etc.

4 Hardware requirements

The COSMOS V18.0A Software Monitor supports all hardware components served by BS2000/OSD-BC V9.0A