

# DATA SHEET

## MAREN (BS2000/OSD) V12.0

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### Magnetic Data Volume Archiving System in Computer Networks

With the introduction of the MAREN system, manual management of data volumes in a BS2000 computer center can be replaced by a computer-supported and largely automated process. As a result, security in processing and storage of data volumes will be substantially increased and confusion and overwriting practically eliminated. At the same time, with MAREN certain activities in volume management, work process scheduling and operating can be dealt with more effectively and economically.

MAREN cooperates with different archiving systems (e.g. ETERNUS CS HE) and manages their large media-sets safely and with great comfort.

### MAREN Summary

MAREN is a system for the management of data volume resources in a BS2000 Data Center. MAREN stores all volume, file and access information in a MAREN catalog. This may also be a central catalog containing information on several computer systems. Data transfer between computer systems is carried out using RFA. In order to keep the information in the MAREN catalog constantly up to date, the MAREN system is directly coupled with BS2000.

When processing data volumes with STD labels, authorization checks are carried out in addition to the BS2000 DMS routines. These ensure that volumes cannot be inadvertently overwritten or accessed by unauthorized persons.

MAREN supports multi-file and multi-volume media and permits administration of external and special tapes (NSTD/NOLABEL tapes). Logically related tapes (MAREN tape set) can be managed and edited together by MAREN. An important feature of MAREN is its "automatic free tape assignment", which selects and reserves free data volumes.

When a MAREN catalog is in operation for multiple systems in a cluster, the functions of the domain concept can be used to keep the resources managed via MAREN segregated between the cluster participants.

### MAREN and its features

- Interoperation with real and virtual library systems (ETERNUS CS HE)
- Management of Backup-Media in cooperation with ARCHIVE or HSMS or FDDRL
- Interoperation with AVAS
- Volume-specific data security features. The type of access can be restricted for each individual data volume.
- A logging function can be used to reconstruct the MAREN catalog and to backtrace volume requests. The MAREN

logging file can be switched during a MAREN session to support uninterrupted operation.

- Automatic initialization of free volumes during normal processing. If necessary, the SCRATCH volumes are automatically re-initialized immediately prior to being written, thus eliminating the need for a separate initialization run and simplifying handling.
- A flexible free tape pool administration function is available. Free tape pools can be set up for data backup as well as for any applications; freely selectable names can be specified.
- To improve tape administration, statistical information is recorded in the MAREN catalog. This consists of information on the tape fill level as a pointer to tape utilization and allows cost-effective use of tapes.
- A domain-concept allows for flexible and comfortable segregation of media-sets in a multi-system-environment. MAREN ensures that already used tapes cannot be used across system-boundaries. Thus service-providers who serve different customers are able to use a central MAREN-catalog and to protect each customer's media-set from being used by other customers.
- Previously, only volumes which were also supported by BS2000 could be administered in MAREN. It is also possible to manage non-BS2000 volumes (subject to restrictions) during processing with MAREN.
- Automatic recovery after temporary failure in MAREN control program

### MAREN administration programs:

#### MARENADM Administration Program

This central utility routine for the MAREN administrator is used for managing the data media with the aid of the MAREN catalog and for administration of the MAREN system. All administration functions relating to data media can also be called on a VSN- or file-oriented basis. The following administration functions are carried out by MARENADM:

- Initialization, addition and deletion of volumes

- Importing of complete number ranges of data volumes for new installation, upgrading or resisting
- Modification of MAREN catalog entries
- Release of volumes after expiry of retention period
- The MAREN catalog can be copied during operation. If the catalog is lost, rapid reconstruction is possible using the copy and the logging file. In addition to reconstruction of the entire catalog, sections of the MAREN catalog can also be repaired.
- Information services including online archive data retrieval and printing out of lists based on various selection criteria (free tapes, VSN-oriented, file-oriented)
- Output of information on the current status of the MAREN subsystem (including in a multiprocessor network) for monitoring and improved diagnostics in the event of faults
- Output of volume information as CSV file and sending as email
- Lending functions with return monitoring
- Media location management
- Accounting features for billing archiving services
- Setting of system options for customizing MAREN to data centre
- Setup and administration of domains.

### MAREN user program

This program can be used by non-privileged BS2000 users to administer volumes archived in the MAREN catalog under their user IDs.

The user interfaces for both these programs have been implemented using the BS2000 component SDF (System Dialog Facility). The programs can be run in both interactive and batch modes and are also provided as linkage modules for calling as subroutines.

### MAREN Location Manager (MLM)

MAREN Location Manager empowers the administrator to set up and update a file which stores the tape characteristics (position, band type, VSN) and the selection criteria (user ID, job name, archive directory / file name). According to the rules in this file users and applications are provided with free media

### MARENEKM – MAREN Encryption Manager

As of MAREN V12.0 when data volume encryption is used on LTO volumes (as of LTO-4), the MARENEKM administration program enables encryption keys to be generated and managed in a domain on a cross-computer basis.

## Supplementary Data on MAREN V12.0

### Hardware

BS2000/OSD business server

Virtual archive systems ETERNUS CS HE

Archive systems from Quantum

Magnetic tape cartridge units

### Software

With regard to interaction between MAREN and BS2000/OSD, the relevant software configuration should be observed (see relevant MAREN release notice)

Product	from version	Comments
BS2000/OSD-BC	V6.0	
OSD/XC	V2.0	
RFA	V15.0	
HIPLEX MSCF	V4.0	
JV	V14.0	see notes
LMS	V3.3	see notes
SORT	V7.8	see notes
RSO	V3.4	
HSMS	V7.0	
optional:		
ROBAR	V5.0	for support of the Quantum systems

Notes:

- For the preparation of printer listings, MAREN calls up the SORT product internally.
- When executing the "PRINT-VOLUME-ATTRIBUTES" statement, MAREN uses the LMS product internally.
- When executing the "SHOW-MAREN-STATUS" statement, MAREN uses the JV product internally.

MAREN catalog version 8.1 or higher (NK-ISAM) is a requirement for MAREN V12.0.

MAREN-V12 coexists with MAREN as of V10.0A!

### Operating mode

Interactive and batch mode

### Implementation language

Assembler

### User interface

Commands in English

Message text in either German or English

### Installation

According to the User Guide

### Documentation

The documentation is available in the form of online manuals at <http://manuals.ts.fujitsu.com/mainframes.html>

### Demands on the user

Knowledge of tape administration and processing

### Conditions

This software product can be purchased by the customer against a single payment or leased in accordance with our conditions for the use of software products.

### Ordering and delivery

This software product may be obtained from your regional Fujitsu Technology Solutions office.

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