Datasheet
Fujitsu Software BS2000 MAREN V12.6

Tape Management in BS2000

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 the archiving system Fujitsu Storage ETERNUS CS8000 and manages their large media-sets safely and with great comfort.

Green IT

Topics

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 virtual library systems (ETERNUS CS8000)
- Management of Backup-Media in cooperation with HSMS/Archive or FDDRL
- 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.
- 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.
- Management of media that are not processed in BS2000. It is also possible to manage non-BS2000 volumes 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 MARENADM and MAREN have been implemented using the BS2000 component SDF. 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

Technical details

Requirements	
Technical requirements Hardware	Fujitsu Server BS2000 SE Series
Technical requirements Software	BS2000 OS DX V1.0 MAREN V12.6 can be used in combination with MAREN V12.5.
Requirements for the user	Knowledge of BS2000 tape management

Installation and operation	
Operating mode	Dialog and batch operation
Implementation language	Assembler
User interface	Commands english, message texts german/english
Installation	By the customer according to the release notice and user manual

Documentation and training	
Documentation	The manuals or Release Notices for MAREN are available on the manual server.
Training	See course offer (German)

Reference and delivery	
Conditions	This software product can be leased by the customer in accordance with the conditions for the use of software products.
Ordering and delivery information	The software product can be obtained from your local Fujitsu regional office.

Contact