

SPACEOPT (BS2000/OSD) Version 4.0

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Disk Optimizer

SPACEOPT provides system administrators with an efficient tool for optimizing disk space usage during online operation.

SPACEOPT reduces file fragmentation (fewer extents) and creates the largest possible contiguous storage areas within the volume.

With minimal outlay SPACEOPT generates the following benefits:

- Faster file access thanks to reduced fragmentation
- Significantly higher volume utilization levels.

How SPACEOPT works

SPACEOPT operates on a volume-specific basis. Jobs can be specified for individual volumes of a pubset or for an entire pubset.

SPACEOPT is deployed during live operation, so no additional service window is required.

The optimum time to run SPACEOPT is during off-peak periods with low system activity, since a higher I/O load can be generated depending on the degree of fragmentation of the volumes.

Files that are open at the time of the run are also defragmented.

SPACEOPT is implemented as a DSSM subsystem.

A server task generated via DSSM acts as the carrier task and manages all the SPACEOPT jobs.

The individual volumes are processed in subtasks (one per volume) which are initiated and managed by the carrier task. The number of active subtasks per pubset is configurable.

SPACEOPT commands

Some selected commands provide an overview of SPACEOPT's functionality:

ADAPT-PUBSET-SIZE

The size of one or more volumes of a pubset is adapted without data loss to the capacity of the disks that make up the volume.

The Symmetrix and FibreCat disk systems are supported.

Example applications:

- Restoring volumes to higher-capacity disks using FDDRL
- Migrating pubsets using DRV.

CANCEL-SPACEOPT-JOB

Jobs can be aborted prior to completion. The degree of reorganization reached up to that point is retained.

CLEAR-VOLUME

Enables a volume to be emptied provided the relevant criteria are met (e.g. no files with extents on the volumes must be open).

This function can be used to prepare for targeted removal of a volume from a pubset.

REDUCE-FILE-EXTENT-NUMBER

Selectively reduces the number of extents of one or more files.

SHOW-FREE-ISAM-SPACE

Reports the number of free pages in an ISAM file. This information can be used as a basis for deciding whether the file needs to be reorganized.

SHOW-SPACEOPT-JOB-STATUS

Provides status information relating to jobs that have not yet completed.

SHOW-SPACEOPT-SPACE-ALLOCATION

Provides information used to assess the allocation and fragmentation levels of individual pubset volumes or pubsets. Based on this, the system administrator can make a more informed decision on the need for reorganization or use the function to check on the success of a currently running SPACEOPT job.

Excluded files

In any system there are files which must be excluded from a reorganization on account of their special function. Included in this category are system initialization files which must always reside at precisely defined storage locations. These files are automatically excluded from a reorganization run.

Files with the following attributes are also excluded from any reorganization:

- locked files,
- files in NOCLOSE or REPAIR NEEDED status,
- cached files,
- files involved in a CCOPY session.

Users also have the option to specify files of their own that they want to be excluded from a reorganization run.

Data center automation

Data center automation is supported by the following functions:

- Monitoring of SPACEOPT jobs by MONJVs
- Writing of accounting records
- Logging of extent relocations with SAT.

When used in combination with DAB, SPACEOPT also allows ADM-PFA caching during reorganization runs.

Technical Data

Hardware

BS2000/OSD business server

Software

BS2000/OSD-BC V7.0

Operating Mode

Interactive and batch operation

Implementation Language

SPL

User Interface

Commands in English, message texts in English/German

Installation

See Release Notice

Documentation

SPACEOPT User Guide

Training

See course offer at:

<http://www.fujitsu-siemens.com/training>

Demands on the User

A knowledge of data management and pubset management under BS2000

Conditions

This software product is supplied to the customer under our conditions against a single payment or installments.

Ordering and Delivery

This software product may be obtained from your local Fujitsu Siemens Computers regional office.