Mainstar's Data Management Solution

HSM Reporter/Manager

Gain insight into DFSMShsm.

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HSM Reporter/Manager puts accurate, up-to-date system information at your fingertips so you can proactively manage your environment.

- Identify and correct error conditions – before they lead to data loss
- Cut unnecessary resource consumption
- Simplify DFSMShsm management
- Improve productivity
- Bridge the learning curve for new DFSMShsm administrators
- Keep up-to-date on DFSMShsm health.

Ensuring the availability of the hundreds of thousands to millions of data assets managed by DFSMShsm (HSM) requires daily analysis of its functions. To maximize productivity, DFSMShsm administrators need a powerful automated reporting tool that provides pertinent information about HSM functions in a straightforward, interactive format.

Comprehensive, interactive DFSMShsm management

Know exactly what DFSMShsm is doing before critical issues arise. HSM Reporter/Manager gathers critical information from the DFSMShsm environment and creates an interactive display with customizable reporting capabilities, so you can quickly identify and correct error conditions in the environment. HSM Reporter/Manager also alerts the DFSMShsm administrator when automatic tasks are not completed.

Day-to-day DFSMShsm management becomes much easier with daily reporting on DFSMShsm automatic and on-demand tasks. HSM Reporter/Manager provides relevant reporting and analysis for both large and small DFSMShsm projects, as well as customizable reports with powerful filtering and masking support. Once you analyze the reports, it's a snap to implement fixes before problems occur using the interactive correction facility.

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Gain Insight into DFSMShsm

HSM Reporter/Manager gathers critical information from the DFSMShsm environment and creates an interactive display with customizable reporting capabilities, so you can quickly identify and correct error conditions in the environment. The provided ISPF panels offer insight to the following areas of DFSMShsm:

- Log Files
- Control Data Sets (CDS)
- Functional Static Records (FSR)
- Daily Statistic Records (DSR)
- Volume Statistic Records (VSR)
- VTOC Information
- TTOC Information
- Management Control Volume (MCV) Records
- Mounted Volume Table (MVT) Records
- DFSMS Constructs

With this increased DFSMShsm data visibility, administrators can proactively manage the DFSMShsm environment, freeing up time and resources needed to complete other vital tasks and projects.

Analyze and Identify Problems

With a more precise view of the status of DFSMShsm's automatic and on-demand tasks, as well as powerful data analysis and DFSMShsm problem identification, you can keep the DFSMShsm environment functioning efficiently.

- Collect, sort, filter, and display DFSMShsm information in a variety of formats.
- Validate DFSMS ACS routine logic and management class assignments.
- Mask data set names in filters using ACS masking and "wild card" operators such as LIKE and NOTLIKE.
- Export data and automatically create charts and graphs for visual trending, space analysis, and resource utilization.

Correct Errors

Issue DFSMShsm, IDCAMS, and other commands from the ISPF interface to correct error conditions in the environment.

- Filter specific data in the DFSMShsm environment and issue commands towards one or all of the data matching the criteria.
- Select from a customizable library of error corrections and commands or create and save your own error correction commands.
- Process corrective commands interactively or in a batch job.

Research and Create Reports

Researching and reporting on DFSMShsm's daily automatic and on-demand tasks doesn't have to be difficult. HSM Reporter/Manager helps you quickly determine which tasks completed successfully and which tasks resulted in errors. In addition, HSM Reporter/Manager alerts the administrator when DFSMShsm automatic tasks do not complete and describes why they did not complete.

The HSM Reporter/Manager started task automatically collects the log data whenever the DFSMShsm SWAP command is issued. It also collects the most current records from the log file every 10 minutes and refreshes the view in HSM Reporter/Manager's panels.

The log data provides a visual overview of the successes and failures of DFSMShsm's automatic tasks: Automatic Space Management, Availability Management, and Autodump. In addition, reporting is provided for on-demand tasks such as recall, recycle, and command backup.

Within HSM Reporter/Manager's ISPF interface, you can choose a drill-down view, by data set name, to select detailed information for all DFSMShsm functions performed. After viewing the reports, effortlessly issue DFSMShsm commands and correct any error conditions reported. For example, data that did not migrate to ML1 due to insufficient space can be migrated directly to ML2 using HSM Reporter/Manager's command prompt.

Build Filters and Plans

Those who are already taking advantage of HSM Reporter/Manager tell us that providing a visual of all data assets managed by DFSMShsm is one of the most important features. Visual access and a powerful filtering capability simplify the process of isolating data that meets specific project criteria. Data that meets those criteria can be reported on either interactively or in a batch report.

Using the filtering feature and wild cards, you can quickly find the following information:

- All data, by data set name, in the MCDS,

BCDS, and OCDS.
- Creation date, last referenced date, migration date migration level, size, and DFSMS constructs (Data Class, Storage Class, Management Class, or Storage Group).
- Migration thrashing; data migrated and subsequently recalled.
- Migrated data by data set name or DFSMS construct.
- All backup copies by data set or DFSMS construct.
- Data on ML1 VOLSERs, ML2 VOLSERs, or both.
- Migrated data that does not have a DFSMShsm backup.
- Data recalled by userid.

View data, by data set name or VOLSER, on an ML2 migration tape, a backup, or a spill tape. If a tape is damaged or lost, the data sets on that tape are easily identified. With three easy commands, recreate an ML2 tape by identifying data on the tape, recovering the lost migration data from backup, and issuing migration commands to migrate it directly to ML2.

If you frequently use the same filtering patterns, save these patterns in the form of a Plan. A Plan can be executed to refresh the report with the most current data. Several pre-made Plans are included, and it's simple to add your own. Using an automated scheduler, you can then schedule saved Plans to be executed at various times throughout the reporting period or just prior to the start of the workday, so you'll have the information you need ready and available for analysis.

Health Reports

Keep a close watch on DFSMShsm's automatic tasks with straightforward Health Reports. Several factors can prevent an automatic task from completing on all volumes in the environment, potentially resulting in problems. For example, when DFSMShsm cannot complete Space Management on all of the volumes, the risk of out-of-space conditions grows. With high-level reporting on DFSMS and DFSMShsm managed hardware and data, and the ability to drill down to the data set level, you can ensure DFSMShsm integrity.

Track DFSMShsm health with familiar Microsoft Office Excel charts and graphs. If you're an Excel user, simply upload the information to Excel, and use the provided macros to create charts and graphs. The charts provide options to define the number of days' activity to report on. The extract file automatically provides a trending report using the specified number of days.

Report on data stored in the historical database with additional charts and graphs. The charts provide a vehicle to communicate issues in the DFSMShsm managed environment, such as an increase in recall activity, a high wait time on tape mounts, or DFSMShsm's inability to complete its automatic functions due to longer than normal batch or other processing.

Neartime Reporting

The Neartime reporting capability uses the provided started task to detect whenever the DFSMShsm SWAPLOG command is issued. Whenever this occurs, the log data is captured and stored in a new generation data set. The generation data set's most current generation is continually defined to the online ISPF interface in HSM Reporter/Manager for viewing. In addition, every 10 minutes, the most current information from the DFSMShsm log files is collected and the view in HSM Reporter/Manager is refreshed.

The started task can also be used to schedule and submit batch jobs provided in HSM Reporter/Manager to collect information for the DFSMS Storage Group Tracking and Trending historical database.

Mainstar Query and Format Language

Mainstar Query and Format Language (MQFL) provides selection criteria to extract records and create custom reports from the DFSMShsm CDS as well as from extraction files created by HSM Reporter/Manager, FastAudit/390 Suite, Storage Manager, and Catalog RecoveryPlus (CR+). MQFL uses ANSI Standard Query Language (SQL) with a JOIN process that compares the contents of two extracted files and merges the results when the JOIN criteria has been met.

Create Microsoft Office Excel charts with data from MQFL reports. This automatic charting facility provides a graphical display capable of reporting key areas within DFSMShsm and the storage environment, such as:
- High/Low and Occupancy of Storage Groups
- High/Low and Occupancy for specific Storage

Why HSM Reporter/Manager?

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Groups
- Storage Groups exceeding thresholds
- Multiple Storage Groups reporting at a specific time
- Single Storage Group reporting over multiple hours
- Storage Groups under the minimal Low Threshold

Find Out More

Visit www.mainstar.com for technical articles and additional information on how HSM Reporter/Manager and Mainstar's other innovative data access solutions can help you. To arrange a personal briefing or a free trial, contact us at product_info@mainstar.com.

Product Specifications

OS/390 and z/OS operating systems and all supported levels of DFSMShsm.

Requires:
- DFSMShsm control data set names and DFSMShsm log file names to execute in the DFSMShsm environment.
- One provided load library to be APF authorized.
- DFSMShsm and security access to issue DFSMShsm commands.
- Access to read the DFSMShsm control data set and log files.

Feature	What It Does	Benefit
ISPF panels	Makes it easy to research with reports in ISPF format and options for drill-down views for more information.	Gain insight into DFSMShsm without the learning curve.
Dialog manager	Assists in submission of DFSMShsm commands for a faster response to selected actions.	Improve productivity.
Powerful filtering	Builds filters and filter patterns quickly and accurately, so that you can apply corrective actions for detected problems before they become issues.	Manage DFSMShsm proactively.
Automatic scheduler	Executes saved filter patterns at scheduled intervals.	Have the information you need ready and available for analysis.
Health Reports	Alerts the administrator of incomplete DFSMShsm automatic tasks.	Reduce the risk of error.
Microsoft Office Excel charting	Creates easy-to-understand trending and historical charts and graphs from specified data.	Recognize trends in your DFSMShsm environment.
Mainstar Query Format Language (MQFL)	Uses simple SQL statements and Boolean logic to create customized reports.	Simplify DFSMShsm management.
Neartime reporting	Automatically collects the most current information from the DFSMShsm log files and refreshes the view.	Keep up-to-date on DFSMShsm health.