

HSM
LOG SCANNER

FOR
DFSMSHSM
REPORTING
AND
ANALYSIS





MAJOR BENEFITS

- The number of man-hours required daily to monitor the system log is greatly reduced.
- Problems and trends can be easily identified almost immediately using an on-line (ISPF) or batch process.
- Drastically improves the access and readability of HSM raw log data.
- Provides on-line return/reason code look-up that can be easily customized and edited.
- Provides critical capacity planning data for ML1 and ML2 levels of storage, as well as HSM backup storage space.
- Full ISPF Panel Support for HSCAN administration.
- Sort on-line: by time, by condition code, by dataset name, or by return code.
- Zoom in on a particular HSM dataset and receive all related information for that dataset.
- Reports on all operator commands issued to HSM, as well as all messages generated by HSM.
- No additional products required to produce reports, HSCAN works directly with HSM data.
- Reports can be adjusted, using selected parameters, to meet a client's particular needs. The HSCAN ISPF option menus will accept user input filtering strings to all data to be selectively displayed.
- Reports provide instant feedback on system tuning to verify the effectiveness of tuning. Reports are easy to read and HSM activities are listed in chronological order.
- Produces a multitude of reports, including two comprehensive statistical reports, and a variety of options for viewing the log data.
- All error code descriptions are automatically displayed on the batch reports
- Functions quickly and without monopolizing CPU cycles.
- Minor problems can be identified before they become major problems.
- Easy to install. Minimal installation process or modifications required.



OVERVIEW

HSCAN™ is an enhanced DFSMSHsm (HSM) activity analysis and reporting tool, which drastically improves the access to and readability of HSM raw log data. DASD/Storage Management personnel now have the ability to easily identify and analyze any action taken by HSM, as well as obtain critical capacity planning data regarding system resources used by HSM. This allows users to spend more time on actual implementation of proactive solutions to HSM error conditions and system capacity issues.

With HSCAN, problems can be easily identified and corrected before they are apparent to end users or cause significant processing delays. HSCAN is the easiest, fastest way to gather the data needed to monitor, analyze and tune the effectiveness of DFSMSHsm procedures.

The majority of all HSCAN reports are available via batch and/or its ISPF Interface. All error code descriptions are automatically displayed on the batch reports and are selectable via the ISPF interface. The HSCAN ISPF Interface also provides you with the ability to research HSM return/reason codes online with the option to customize the text to incorporate your operational and/or recovery procedures. The product produces a multitude of reports from three main program modules, two comprehensive statistical reports, and a variety of options for viewing the log data, whether using ISPF or sorting the log data in batch mode.

The first main program produces basic dataset-level activity, reporting on ALL activity (the default), or just: BACKUP, DELETE, ERROR, MIGRATE, RECALL, RECYCLE, RESTORE, or SPILL.

The second main program reports on HSM volume-level and volume-oriented processing and HSM record activity, reporting on ALL (the default) or: BACKUP, ERROR, MIGRATE, MOVE, REDUCE, SCRATCH, and DELETE types of HSM functions. Most of the information reported in this second program is unique to this program, and not duplicated in the first. Furthermore, many errors reported by second program occurred before basic HSM activity or after HSM issued a return or reason code.

The third main program scans for command and message activity, reporting on ALL (the default) or: MESSAGE, COMMAND, or ERROR activity only.

Additionally, HSCAN provides the ability to produce reports containing critical capacity planning data with regards to resources being consumed by HSM, as well as certain operational information. The amount of space used at each migration level and the number of tapes at ML2 are just two of these categories. HSCAN also break down this summary data by HSM function (BACKUP, SPILL, Primary to Level 1, etc).

The HSCAN HSM Error Statistics report, provides error descriptions based on function and return/reason codes, as well as the totals on the number of each error.

DATASET	FROM	TO	DATE	TIME	ACTION	AGE	TRKS	BLKS	RCODE	REASON
ERQ V1R2M1 PROD PLIB	WORK04	MIG001	1999/08/01	09 04 30	MIGRATE	10	90			
ERQ V1R2M1 PROD PROC	WORK04	BKP001	1999/08/01	09 05 31	BACKUP	7	16			
DR XTS V230 INSTLIB	WORK04	BKP001	1999/08/02	09 19 28	BACKUP	1	1		19	
DR XTS V230 ISPSLIB	WORK04	MIG001	1999/08/05	09 07 34	MIGRATE	100			30	

-----more data here-----

FUNCTION	RCDE	COUNT	ERROR DESCRIPTION
BACKUP	19	1	Error in allocating a backup version on source volume because the backup version is in use. User added text here.
MIGRATE	30	20	Data set not cataloged. User added text here.

TOTAL TRACKS MIGRATED - 497
 TOTAL TRACKS BACKED UP - 504

Volume Activity Report

FUNCTION TYPE	COUNT	SPACE	TAPES
PRIMARY TO LEVEL 1 MIGRATION	19	10,331	
LEVEL 1 TO LEVEL 2 MIGRATION OR LEVEL 1 TO LEVEL 1 MIGRATION OR LEVEL 2 TO LEVEL 2 MIGRATION	12	1,047	4
PRIMARY TO LEVEL 2 MIGRATION	0	0	
RECALL FROM LEVEL 1 TO PRIMARY	17	22,891	
RECALL FROM LEVEL 2 TO PRIMARY	0	0	
DELETE A MIGRATED DATASET	0	0	
DAILY BACKUP	57	6,856	
SPILL BACKUP	0	0	
RECOVERY	0	0	
RECYCLE BACKUP VOLUME (RECYCLE SPACE IS IN BLOCKS)	0	0	
DATASET DELETION BY AGE	0	0	
RECYCLE MIGRATION VOLUME (RECYCLE SPACE IS IN BLOCKS)	0	0	
FULL VOLUME DUMP	0	0	
VOLUME OF DATASET RESTORE	0	0	

0MHS0011 HSCAN LOG PROCESSING COMPLETE

Function Type Statistic Report

Dataset name HSM was acting upon

Action that HSM took on the dataset

Where dataset was prior to the action

Characteristics of the dataset

Return/reason code number

Return/reason code description

```

-----HSCAN Volume Level Detail-----
COMMAND ==>
Dataset/Record Name - ESLINK C LOADLIB PDSE
Type of Action - MIGRATE
From Volume - WORK04
DSORG - PO
Date of Action - 1999/08/01
To Volume - MIG001
Format - U
JOB Name - HSM
Time Started - 12:53:18
Time Ended - 12:53:19
RETURN CODE - 37
No space on the migration volume. User added text here.
    
```

HSM activity detail screen

Target for dataset if applicable

Name of job that executes this HSM function

User added customizable text added to the code description via ISPF panels



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