

New! Extended TTOC Support



Mainstar's Data Management Solution

FastAudit

The key to data integrity.

w w w . m a i n s t a r . c o m

FastAudit keeps your z/OS environment trouble-free with fast, accurate, and flexible audits.

- ▶ Keep track of the health of your metadata structures
- ▶ Prioritize the auditing of business-critical data
- ▶ Improve productivity by customizing and automating error correction
- ▶ Perform audits with confidence
- ▶ Design audits that fit your unique environment
- ▶ Simplify auditing for both novice and experienced storage administrators
- ▶ Support 24x7 data access while protecting your data assets

Without fast, accurate, and reliable audits, you risk losing access not only to your OS/390® or z/OS® data, but also all your DFSMSHsm™ migrated data. To avoid serious outages, you need a powerful yet easy-to-use audit and maintenance program.

Discover Mainstar's *FastAudit*™, a powerful data interrogation solution that keeps your z/OS environment trouble-free with high-speed, accurate, and flexible audits.

Fast, accurate, and non-disruptive

Because *FastAudit* is more than 60 times faster than the DFSMSHsm AUDIT and Enhanced AUDIT commands – in some cases, 150 times faster – you can run these audits frequently, even during heavy processing times, to identify and resolve corruption issues early, avoiding loss and inadvertent overlay of data. Then, you can quickly view errors in the easy-to-use ISPF interface and fix any problems by choosing from automatically created FIX statements or by creating customized FIX statements.

Customizable and automated

With *FastAudit*, you can customize audits and fixes for your unique environment. Prioritize audits so that business-critical data is addressed first. Target one, several, or many specific data sets or applications, and select customized fixes for these audits. Automatically fix errors, and set up different fixes for different types of data.

Data Integrity

The MVS™ operating system relies on metadata structures that allow you to access your data. Metadata structures include the BCS catalog environment, tape management database, and DFSMSHsm control data sets (CDS). Damage to or loss of any of these critical support structures can be devastating to your environment.

Abnormal termination of the operating system, inability to IPL, and considerable downtime are possible consequences of poorly maintained metadata structures.

With *FastAudit*, storage administrators can maintain healthy metadata environments and prevent temporary or permanent loss of data access. *FastAudit* provides extremely fast and accurate audits and diagnostics, as well as automatic corrective actions to resolve error conditions.

The secret behind the accuracy and speed of the *FastAudit* audit and error verification process is the point-in-time extract files used in the process. All error conditions found by the audits are then re-verified in real time to ensure that they are real errors, rather than the result of an in-flight transaction. *FastAudit* includes Catalog & DASD Audit™, HSM *FastAudit*™, HSM *FastAudit*-MediaControls™, and Tape Audit™.

Catalog & DASD Audit

- ▶ Evaluates all master and user catalog data set entries.
- ▶ Checks and verifies catalog entries to your DASD pool.

HSM *FastAudit*

- ▶ Evaluates the HSM CDSs to resolve structural and logical discrepancies that can prevent migrated data from being recalled or backup data from being restored.
- ▶ Duplicates and performs more audits than available with DFSMSHsm AUDITs and Enhanced AUDITs commands, more accurately and at many times the speed.
- ▶ Fixes errors and discrepancies automatically, for all errors – or by high-level qualifier or by application.

HSM *FastAudit*-MediaControls

- ▶ Solves your tape corruption issues, correcting HSM tape errors quickly and easily – before data is lost – without impacting your HSM environment.

- ▶ Can completely rebuild a single data set or a damaged or missing TTOC, allowing access to data on the HSM tape and returning tapes to HSM control.
- ▶ Is benchmarked at 5 to over 180 times faster than the standard HSM command AUDIT MEDIACONTROLS.
- ▶ Can rebuild HSM ML2 and backup data that standard audits would delete.

Tape Audit

- ▶ Makes reconciling entries in the tape management catalog with ICF catalog status fast and painless.

FastAudit is a proven software solution, used in environments ranging in size from hundreds of gigabytes to several hundred terabytes.

The IBM® DFSMSHsm development lab uses *FastAudit* to test new product releases.

A Proactive Approach to Metadata Integrity

If you don't regularly run audits and resolve the errors, you most likely experience symptoms of corrupted records in your CDSs. These symptoms may include tapes in 'failed create' or 'failed recycle' status, data sets that won't migrate or recall, or backup copies that can't be recovered. When these symptoms prevent access to important data sets, the storage administrator may attempt to execute an IBM command AUDIT to diagnose and correct the problem.

The IBM command AUDIT can execute for several hours (or in some cases days), is resource-intensive, and may interfere with other DFSMSHsm processing. While this analysis is underway, the data remains inaccessible.

The *FastAudit* audits allow storage administrators to take a proactive approach by ensuring the health of the metadata structures, controlling access to catalogs, DFSMSHsm control data sets, and tapes controlled by your tape management system. These audits execute in a fraction of the time taken by IBM command AUDITs, so you can run audits on demand, or schedule them using your scheduling system.

Designed for Both Experienced and Novice Storage Administrators

Whether you've been managing DFSMSHsm,

catalogs, and tape management systems for years, or you're new to this discipline, you can use *FastAudit* with confidence.

All audit procedures use online panels to view diagnostic aids and corrective actions. You perform diagnostics and select corrective actions based on your unique environment. Helpful audit error descriptions and diagnostic tips are documented in the *FastAudit User Guide*. Additionally, the IBM Redbooks® publication *DFSMSHsm AUDIT*

and *FastAudit/390* contains detailed information about how to diagnose and correct audit errors for all selectable products. You can download this publication from the IBM Redbooks web site at www.redbooks.ibm.com.

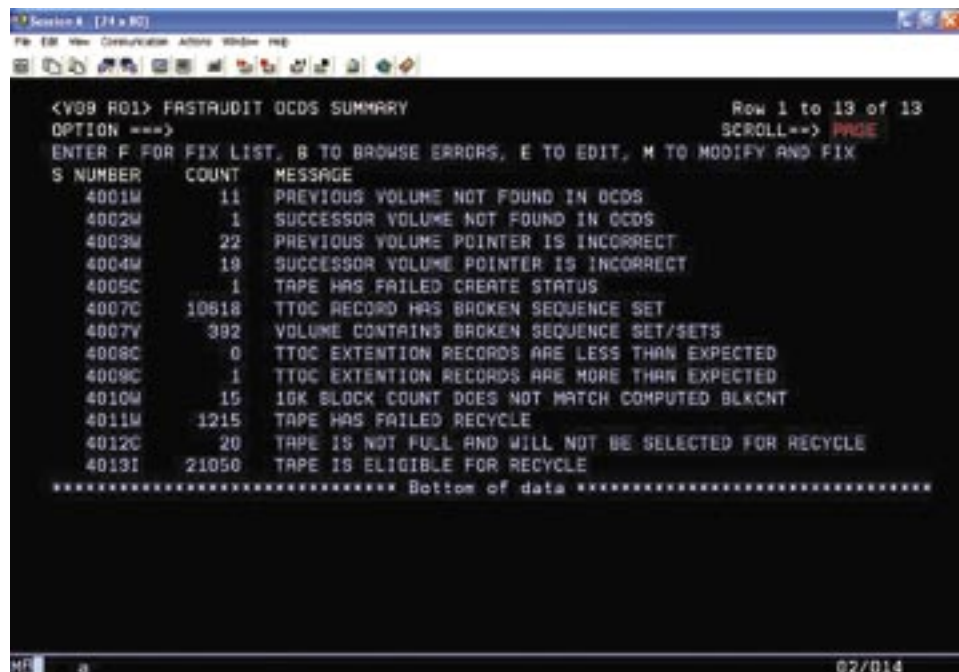
Unequaled Comprehensive Audits

FastAudit provides fast, comprehensive audits. Just one HSM *FastAudit* procedure executes up to 15 IBM equivalent command AUDITs, and runs 50 to 160 times faster than standard IBM command AUDITs.

All audits executed by any of the *FastAudit* selectable products are non-disruptive to the catalog or DFSMSHsm environment. This results in a significant savings of DFSMSHsm resource utilization, increasing productivity.

Audits results are displayed online. Diagnostic aids and corrective actions are selected using line commands. All JCL, FIXCDS, and other corrective action commands are automatically generated. All ISPF edit commands you need to modify the member are supported. You simply key SUBMIT on the Command line and press Enter to correct the errors.

Audits can be set up to automatically submit and execute corrective actions, without the need for human intervention.



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<V09 R01> FASTAUDIT CCDS SUMMARY                               Row 1 to 13 of 13
OPTION ==>                                                    SCROLL==> PAGE
ENTER F FOR FIX LIST, B TO BROWSE ERRORS, E TO EDIT, M TO MODIFY AND FIX
S NUMBER      COUNT      MESSAGE
4001M         11      PREVIOUS VOLUME NOT FOUND IN CCDS
4002M          1      SUCCESSOR VOLUME NOT FOUND IN CCDS
4003M         22      PREVIOUS VOLUME POINTER IS INCORRECT
4004M         19      SUCCESSOR VOLUME POINTER IS INCORRECT
4005C          1      TAPE HAS FAILED CREATE STATUS
4007C       10618      TTOC RECORD HAS BROKEN SEQUENCE SET
4007V         392      VOLUME CONTAINS BROKEN SEQUENCE SET/SETS
4008C          0      TTOC EXTENSION RECORDS ARE LESS THAN EXPECTED
4009C          1      TTOC EXTENSION RECORDS ARE MORE THAN EXPECTED
4010M         15      10K BLOCK COUNT DOES NOT MATCH COMPUTED BLKCNT
4011M        1215      TAPE HAS FAILED RECYCLE
4012C         20      TAPE IS NOT FULL AND WILL NOT BE SELECTED FOR RECYCLE
4013I       21050      TAPE IS ELIGIBLE FOR RECYCLE
***** Bottom of data *****
    
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Why Use *FastAudit*?

Consider that DFSMSHsm manages hundreds of thousands to millions of data assets in the typical mainframe environment. As the amount of data in your z/OS environment grows, the role of DFSMSHsm is increasingly crucial. With *FastAudit*, you can keep DFSMSHsm running smoothly and accurately – and achieve this with minimal time and resources.

- ▶ Manage your DFSMSHsm environment proactively with quick audits – completing audits in minutes instead of hours or days.
- ▶ Perform audits without any negative impact on the DFSMSHsm environment, such as high increases in system resource utilization.
- ▶ Run audit reports that are organized and easy to interpret.
- ▶ Know which audits need to be executed to resolve the reported errors.
- ▶ Avoid wasting time researching reported errors that are simply the result of migration or recall activity occurring during the AUDIT execution.
- ▶ Ensure that you get the desired results by knowing exactly what a corrective action will do before you run it.
- ▶ Monitor error thresholds to ensure that valid data sets that were inadvertently not catalogued are not automatically deleted.
- ▶ Reduce the learning curve for new storage administrators.

Key Features of *FastAudit*

- ▶ Non-disruptive audits for the metadata structures in your environment: catalogs, DASD VTOC records, DFSMSHsm, and tape management systems.
- ▶ Easy-to-use online selection and submission of audits, diagnostic aids, and corrective actions.
- ▶ Easy online viewing of audit results.
- ▶ Flexibility to create, save, and reuse your own customized diagnostic aids and corrective actions.
- ▶ Complete control over which metadata structures are audited.
- ▶ Complete control over which diagnostic aid or corrective action is implemented for your unique environment.
- ▶ Flexibility to edit JCL and corrective action commands to apply fix control statements to only the records you want to fix.
- ▶ Automatic application of fixes to reported errors.
- ▶ Capability to turn ON or OFF individual error

correction actions.

- ▶ Automatic halting of audits if a high threshold of errors is reported.
- ▶ Ability to apply automatic fixes to specific high-level qualifiers.
- ▶ Support for both DFSMSHsm standard TTOC and expanded TTOC.

Find Out More

Visit www.mainstar.com for technical articles and additional information on how *FastAudit* and Mainstar's other innovative data access solutions can help you.

To find out for yourself how *FastAudit* can keep your z/OS environment trouble-free, contact us at product_info@mainstar.com to arrange a personal briefing or a free trial.

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Feature	What It Does	Benefit
Audit and error verification process	Uses point-in-time extract files to increase the accuracy and speed of audits.	Keep track of the health of your metadata structures.
Auditing of specific high-level qualifiers	Provides total control over audits and priorities.	Prioritize the auditing of business-critical data.
Automatic error correction	Submits and executes pre-defined error corrective actions without having to go through the ISPF panels.	Improve productivity by customizing and automating error correction.
Error threshold monitoring	Ensures that automatic corrective actions are not being performed due to human error or an unexplained high number of errors found and reported.	Perform audits with confidence.
INCLUDE and EXCLUDE	Provides the flexibility to audit exactly what you want.	Design audits that fit your unique environment.
Multi-Purpose Query Format Language (MQFL)	Uses simple SQL statements and Boolean logic.	Simplify auditing for both novice and experienced storage administrators.
Non-disruptive metadata audits	Audits your catalogs, DASD VTOC records, DFSMSHsm, and tape management systems – even during heavy production and DFSMSHsm processing.	Support 24x7 data access while protecting your data assets.