



PREDICTIVE RECALL REDUCE DATASET THRASHING

Overview

Predictive Recall is a feature of MONitor that minimizes production delays caused by recalls of migrated data. Migrated production datasets will be recalled prior to their actual use, resulting in an overall shorter batch window.

Predictive Recall uses the information from the Job Scheduler to create a list of production datasets that will be accessed in the next production cycle and determines if any of those datasets have been migrated. Appropriate HRECALL commands are generated and passed directly to the Inactive Data Mover.

To avoid any impact on the production workload, the Predictive Recall job can be scheduled to run when the system is under-utilized, prior to the production cycle.

The Costly Problems

Unscheduled production dataset recalls will delay the production cycle since the job will be required to wait for the dataset to be recalled. The delay can be significant, especially for large files. If there is no VTS, there will be additional delays for tape location, mounting and dataset recovery.

To avoid these delays, a common and costly practice is to set high migration age levels to ensure the dataset will be available. This inefficient practice keeps production datasets unnecessarily on active DASD, resulting in higher storage costs.

With Predictive Recall, the migration age could be set efficiently, e.g., a few days. A dataset used infrequently will be migrated quickly, freeing up DASD space, and then later recalled by the Predictive Recall application shortly before it is actually needed.

Predictive Recall

Avoid Production Delays due to Recalls

- More consistent batch run times
- Reduce batch window
- Shift production recalls to lower utilization periods

Make Better Use of your DASD Storage

- Migrate production data more aggressively
- Send large files directly to L2 because they can be recalled prior to use
- Implement "Just in Time" recall strategies

Support for these Job Schedulers

- OPC/TWS
- CA-7
- Control-M
- Zeke

Support for these Inactive Data Movers

- DFHSM
- FDR/ABR

How does it work?

- The Job Scheduling software generates a list of the jobs for the Predictive Recall application to consider
- The actual JCL used in the production jobs is obtained and the JCL is expanded to determine the fully qualified dataset names that are used as input
- A catalog lookup is issued for each input dataset, and a HRECALL statement is generated if the VOLSER is MIGRAT
- The HRECALL statements are passed directly to the Inactive Data Mover to recall the dataset prior to the production cycle



What Job Schedulers are supported?

The Predictive Recall software provides support for the major Job Schedulers, as listed in the inset. Additional job schedulers can be supported by supplying a report of the jobs that are scheduled to run. The application supports both DFHSM and FDR/ABR. If support for another Inactive Data Mover is required, a simple change to the MONitor control cards can be implemented to generate a different HRECALL command format.

Installation

Predictive Recall installs in less than 30 minutes. It does not require SMP/E or an IPL. Predictive Recall does not make any permanent changes to z/OS load libraries.

Free Recall Thrashing Report

For DFHSM customers, DTS Software will provide a free report showing the number of recalls occurring per hour throughout the day. This report can be filtered to show only production recalls if those recalls can be identified by high level qualifier.

MONitor

Although Predictive Recall may be licensed separately, it is one of many functions of the DTS Software MONitor product. Additional features of MONitor will allow your installation to monitor dataset and volume/pool detailed information contained in VTOCs, VVDS, and Catalogues, DFHSM Control datasets and even RMM/CA-1 tape catalogues. Reporting options include email, console messages, TSO messages, printed reports and a robust PC GUI interface. Additionally, Job Automation is provided to perform corrective procedures for volumes and datasets.

DAILY RECALL THRASHING REPORT

DATE	RECALLS
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09/29/2010	2
09/30/2010	4
10/01/2010	372
10/02/2010	32
10/03/2010	1
10/04/2010	85
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TOTAL RECALLS	496

HOURLY RECALL THRASHING REPORT

DATE	TIME	RECALLS
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10/01/2010	00:00:00	155
10/01/2010	03:00:00	32
10/01/2010	04:00:00	1
10/01/2010	05:00:00	105
10/01/2010	06:00:00	2
10/01/2010	09:00:00	18
10/01/2010	10:00:00	26
10/01/2010	11:00:00	33
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TOTAL RECALLS		372

In the examples above, Daily and Hourly Thrashing Reports are generated showing the problematic times of excess thrashing. The use of Predictive Recall will eliminate these recalls and their excess processing during the production cycle, thereby reducing the production batch window.



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