VELOCI-RAPTOR Introduction

VELOCI-RAPTOR (VR) is an integrated optimization system that tunes I/O functions to improve throughput for batch and on-line processing. VELOCI-RAPTOR dynamically gathers information during I/O requests to VSAM and SAM (QSAM, BSAM and EXCP) data sets and uses this information to access a knowledge-base of I/O processing rules.

How Does VELOCI-RAPTOR Work?

VR is an intelligent, intuitive, performance optimization tool designed to dramatically improve system performance while significantly reducing system overhead by automating tuning activities. VR reduces system overhead by optimally allocating buffers for VSAM files to provide the best throughput and response time for I/O requests. It uses 256 LSR buffer pools to speed application processing and provides virtual storage constraint relief by placing control blocks and buffers above the 16MB line. VR ensures optimal tuning and buffer allocation for non-VSAM files while optimizing the use of SAM/E chained scheduling for asynchronous sequential access.

I/O Efficiencies Generate CPU Recourse Optimization Benefits

By buffering VSAM and non-VSAM files more efficiently, your system can process applications more quickly with less demand on the CPU. VR allows users to defer CPU upgrades thereby saving both time and money.

What Are The Primary Challenges Addressed by VELOCI-RAPTOR?

VR addresses the following typical challenges encountered by most Data Centres:

1. Automatically reducing system overhead and associated batch window constraints.
2. Elimination of manual and labour intensive system tuning activities.
3. zSeries CPU resource optimization, deferring or eliminating CPU upgrade activities.
4. Safeguarding Service Level Agreement (SLA) goals for on-line and batch workloads.

What Are The Typical Benefits Delivered by VELOCI-RAPTOR?

VR generates the following benefits:

➢ Faster processing for VSAM and non-VSAM files, significantly optimizing batch processing.
➢ Automation of system tuning activities, eliminating the requirement for JCL or application code changes, thus releasing technical personnel for other duties.
➢ Efficient I/O processing minimizes CPU, Memory & I/O resources, eradicating associated CPU and I/O subsystem upgrade activities.
➢ SLA objective goals are satisfied, potentially allowing the customer to revisit these metrics for providing an even better, faster and more reliable service for the business.
➢ Virtual Storage Constraint Relief (VSCR), by deploying LSR and NSR buffers above the 16 MB line, while dynamic buffering safeguards the efficient allocation of virtual storage; period!

How Easy is VELOCI-RAPTOR to Install and Use?

VR is easily and transparently installed on any z/OS system. Once enabled, batch processing jobs are analyzed and then modified to utilize the best possible accesses to each file. An immediate and dramatic difference in run times will be seen as buffers are allocated more efficiently, EXCP's are reduced, memory is freed for application programs and file processing is optimized.

How Does VELOCI-RAPTOR Deliver Optimal I/O Performance?

VR contains a proprietary database containing the parameters and values that deliver the best I/O performance by type of device and by type of access. Users can override these rules by keying in their own parameters, or by excluding a dataset or job name from the VR optimization process. However, most users use the default parameters and achieve outstanding results from its I/O optimization. VR intercepts the open and close of any data set and optimally buffers VSAM, QSAM, and BSAM files to reduce system overhead, while utilizing super fast read/write routines to significantly reduce the time required for batch processing.

What Performance Improvements Does VELOCI-RAPTOR Typically Deliver?

VR customers routinely report that they can reduce VSAM batch processing times from 60 percent to 90 percent. QSAM and BSAM batch processing times can be reduced by up to 85 percent. VR saves up to 50% elapsed time for DB2 Unloads and Reloads and saves up to 40% elapsed time for IDMS sweeps, naming but a few deployment examples...

What z/OS Interoperability Levels are Required by VELOCI-RAPTOR?

VR runs on all z/OS platforms requiring only 10k of common storage (CSA) below the 16MB line and the user interface requires ISPF Version 3.3 or above.

What Reporting Capability Does VELOCI-RAPTOR Provide?

Detailed statistics can be produced showing the type of buffering that was applied and the amount of data movement that occurred. Also available is the number and type of program I/O requests for VSAM files. These statistics may also be recorded in SMF records for later analysis. There are also pre-implementation reports available to assist in determining which jobs are likely to provide the most benefit, thus generating a structured "quick wins" based implementation schedule.