IBM DB2 Sort for z/OS

Accelerating your application availability

Highlights:

- Provides significant improvements in elapsed time and CPU consumption during sort processing of IBM DB2 data

- Increases application availability by reducing the batch window for utility maintenance

- Improves total cost of ownership (TCO) and productivity by eliminating duplicate software

- Maximizes IBM System z resources, such as memory and storage

Maximize utility maintenance window

Most DB2 applications run non-stop for a global user community, requiring almost 100 percent accessibility. Availability demands shrink the window to perform utility maintenance such as REORG, LOAD and REBUILD of indexes on critical DB2 objects. The IBM® DB2® Utilities Suite for z/OS®, taking full advantage of IBM DB2 Sort for z/OS, maximizes your batch window availability by significantly reducing elapsed time and CPU usage during DB2 utility sort processing. During the execution of utility processing, DB2 Sort monitors and adjusts the allocation of system resources to optimize CPU processing, I/O performance and memory usage.

Eliminate duplicate software costs

Performance is critical to any DB2 environment, and meeting service level agreement (SLA) criteria is critical to your business. Utility sort processing for large volumes of data or large table spaces involving REORG, RUNSTATS or LOAD utilities with a rebuild of indexes could place a strain on your batch window to complete these tasks and thus affect performance targets. You can meet performance goals and eliminate the need to purchase additional DB2 utilities with DB2 Sort and the DB2 Utilities Suite. You'll be able to improve your total cost of ownership (TCO) and availability while reducing both system resources such as DASD and staff resources to maintain duplicate sets of utilities and utility jobs.

Optimizing System z® Resources

DB2 Sort determines the availability of system resources and chooses the appropriate amount of storage to allocate. It employs memory objects and data space to avoid DASD access, when possible, to reduce elapsed time. It also provides optimization for intermediate work space.

DB2 Sort provides optimization of specific I/O devices to utilize the best I/O transfer technique. DB2 Sort monitors the I/O transfer rates and, if performance objectives are not being met, adjusts the use of devices to balance the I/O load and achieve the best elapsed time.

DB2 Sort provides optimization of central storage use by determining the availability of system resources and selecting the appropriate amount of storage to allocate. DB2 Sort employs memory objects and data space to avoid DASD access when possible to reduce elapsed time.

DB2 Sort for z/OS dynamically allocates intermediate work space incrementally to minimize the amount of DASD space used.

- Potential reduction in the amount of space allocated, because temporary sort files can be allocated dynamically as needed
- Avoidance of utility job terminating if a temporary file size is underestimated

Synergy with IBM DB2 Utilities

When DB2 utilities require sort processing, there are many cases when multiple sorts from a single utility are run in parallel to reduce the elapsed time of the utility. This is referred to as "intra-regional parallelism." DB2 Sort for z/OS communicates with the IBM REORG utility, for example, and is able to determine the optimal number of sorts to run in parallel. DB2 Sort for z/OS assesses the availability of system resources and communicates with the REORG utility to optimize the allocation of resources for each sort, based on the data characteristics. By choosing the most effective use of resources for each sort, DB2 Sort can increase the number of sorts that can be run simultaneously. This higher degree of parallelism results in lower elapsed time for utility processing.

For more information

To learn more about IBM DB2 for z/OS, please contact your IBM representative or IBM Business Partner, or visit:
ibm.com/software/data/db2imstools