A Broadcom Company

technologies

CA Rapid Reorg® for Db2 for z/OS

Product Brief

Key Benefits

- **Simple and easy to use.** Allows you to load data, reorganize objects, take image copies, and collect stats in a single job.
- **Multiple processing modes.** Helps you balance data availability and performance.
- **Complete solution.** Reorganizes both tablespaces and indexspaces.
- **Reorg online or offline.** Online capability enables read and update operations to tables during the reorganization process.

Key Features

- **Flexible reorganization options.** Provides multiple ways to reorganize your objects, which helps you design reorganizations to meet your specific needs.
- **Performance and zIIP utilization.** Increases performance by using internal processes such as controlling the number of I/O buffers, VSAM buffers, sort tasks, sort space used, and dynamic sort optimizations during the reorganization. The zIIP processors are utilized during the reorganization process to reduce CPU overhead.
- **Log exit method.** Provides a patented, alternate method to capture log changes during the reorganization, which eliminates the need to read log records from the log data sets. This technique captures only log records of the object that is being reorganized, rather than scanning records for all objects.
- **Data availability and data set switching.** Enables control when the switch occurs during online reorganizations. Waiting until all locks are released can provide higher availability and prevent applications from being locked out by long running transactions.

At a Glance

CA Rapid Reorg® for Db2 for z/OS reorganizes your tablespaces and indexes to alleviate problems caused by disorganized data. It can reclaim space used by dropped tables, recluster data, remove overflow pointers, re-establish free space, rebalance index trees, and reduce the number of levels required. It is designed to help increase data availability, improve performance, and save resources.

Business Challenges

In a heavily used Db2 database, adding, deleting, and updating data can result in disorganized data. The following are common causes of disorganized data:

- Dropped tables
- Data that is not in clustering order
- Unnecessary (outdated) data
- Overflow pointers
- Fragmented free space
- Unbalanced index trees with excessive index tree levels (caused by page splits)

Disorganized data requires more I/Os for retrieval than organized data. Additional I/Os are costly in time, money, and user productivity.

Reorganizing your tablespaces and indexes alleviates many problems caused by disorganized data. Reorganization reclaims space used by dropped tables, reclusters the data, removes overflow pointers, re-establishes free space (PCTFREE and FREEPAGE), rebalances index trees, and reduces the number of levels. Reorganization also reallocates VCAT-defined spaces and adds default column data to altered tables.

Solution Overview

Speedy and effective reorganization of Db2 tablespaces and indexspaces reduces the window of data inaccessibility. CA Rapid Reorg helps reduce CPU time, I/0 activity, and costs associated with downtime.

In one execution, it performs reorganizations, collects CA Database Analyzer™ for Db2 for z/OS statistics, produces up to eight image copies, and updates Db2 catalog statistics.

You can use the online mode to perform reorganizations while data is in read/write mode. CA Rapid Reorg offers not only speed but also effective control and management of the reorganization requirements in a Db2 data processing center.

CA Rapid Reorg improves system availability by shortening reorganization times and enhancing application data access through efficiently organized databases. The online capability enables read and update operations to tables during the reorganization process so that application access to data is unaffected.

Critical Differentiators

- **Complete solution.** Reorganizes both tablespaces and indexspaces.
- **Cluster control.** Sorts and reloads the data in clustering order, and then rebuilds the clustering index. This option eliminates unnecessary and inefficient scans.
- **Delete processing.** Deletes unnecessary rows during the reorganization.
- **Dynamic file allocation.** Allocates output data sets and sorts work data sets dynamically.
- **More space, better access.** Enhances application data access through efficiently organized databases.
- **Use less, more efficient.** Helps reduce CPU time, I/O activity, and costs associated with downtime.

Related Products

- **CA Database Analyzer™ for Db2 for z/OS.** Designed for robust database monitoring and analysis capability to help uncover database errors, prevent data loss, and simplify administration.
- **CA Fast Load® for Db2 for z/OS.** Helps minimize the time that your data is unavailable by reducing data load time and loads multiple tables or multiple partitions concurrently.
- **CA Quick Copy for Db2 for z/OS.** Creates fast, consistent, and accurate Db2 image copies (up to eight image copies during execution) without impacting data availability.

For more information, please visit ca.com/db2.

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