

# CA Fast Index<sup>®</sup> for DB2 for z/OS

CA Fast Index<sup>®</sup> for DB2 for z/OS (CA Fast Index) is designed to let you add indexes quickly and efficiently to large DB2 tables without burdening DB2 subsystem resources or interfering with the function of other applications.

## Business Value

CA Fast Index gathers the information needed to create multiple indexes with just one pass of a table space, which can significantly reduce the I/O required to build the indexes. CA Fast Index makes the index-building process fast and easy, enabling you to conserve system resources by deleting indexes you no longer need and then building new ones later when you need them.

## Product Overview

The process of creating indexes on large tables can have a detrimental effect on a DB2 system. CA Fast Index is designed to add indexes quickly and efficiently to large DB2 tables without burdening DB2 subsystem resources or interfering with the function of other applications. Up-to-date DB2 catalog statistics can be collected as part of the index build process.

## Delivery Approach

CA Services provides a portfolio of mainframe services delivered through CA internal staff and a network of established partners chosen to help you achieve a successful deployment and get the desired business results as quickly as possible. Our standard service offerings are designed to speed deployment and accelerate the learning curve for your staff. CA's field-proven mainframe best practices and training lower risk, improve use/adoption and ultimately align the product configuration to your business requirements.

## What's New, What's Compelling?

### Mainframe 2.0

CA Fast Index has adopted key Mainframe 2.0 features that are designed to simplify your use of CA Fast Index and enable your staff to install, configure and maintain it more effectively and quickly.

- **CA Mainframe Software Manager:** The CA Mainframe Software Manager automates CA Fast Index installation and maintenance and removes SMP/E complexities.
  - › The Product Acquisition Service enables you to easily move product installation packages and maintenance from CA Support Online directly to your mainframe environment and prepare them for installation.
  - › The Software Installation Service standardizes CA Fast Index installation, which includes a new, streamlined Electronic Software Delivery (ESD) method that allows CA Fast Index to be installed using standard utilities. This service also provides standardized SMP/E product installation and maintenance via APARs and PTFs, and simplifies SMP/E processing through an intuitive graphical user interface and an intelligent Installation Wizard.
- **Best Practices Guide:** This guide provides information on CA Fast Index installation, initial configuration and deployment to shorten the learning curve for staff that is responsible for the installation and management of this product.
- **Interoperability Certification:** CA Fast Index has been tested in an environment with many other CA products as part of a dedicated effort to find and resolve interoperability problems prior to release.
- **Health Checker:** The Mainframe 2.0 Health Checker provides CA Fast Index Health Checks that execute under the IBM Health Checker for z/OS.

## Features

CA Fast Index provides:

- **High Performance and High Availability:** To help enable the fastest possible index creation, many of the tasks are performed in parallel. Because of the way it creates indexes, CA Fast Index significantly outperforms both a normal CREATE INDEX and a CREATE INDEX ... DEFER, followed by a REBUILD INDEX.
  - › **External Sort:** Since an external sort package is used to sort index keys, it is more efficient than the internal DB2 sort and can be tuned for optimal performance. In addition, use of an external sort package eliminates any possible contention in the DB2 work file database (DSNDB07) and allows other DB2 applications to run smoothly without interference.
  - › **Concurrent Sorting:** When creating multiple indexes in a single pass, index keys can be sorted concurrently, further reducing elapsed time.
  - › **Index Statistics Collection:** While creating the index, CA Fast Index collects statistics on newly created indexes. There is no need for a separate step to run RUNSTATS.
  - › **Multiple Index Creation:** If you are creating multiple indexes on the same table, CA Fast Index will read keys for all indexes during the same pass through the table space data rather than reading the data once for each index (as would be necessary for a DB2 CREATE INDEX statement).
- **Ease of Use:** CA Fast Index adds many capabilities to ease the difficulties involved in creating new DB2 indexes.
  - › **Online Interface:** CA Fast Index provides an easy-to-use online interface that helps you quickly and easily generate and submit CA Fast Index jobs. Additionally, default model JCL is provided to build the CA Fast Index job, and you can use the default settings or customize the JCL to your own specifications.
  - › **Pageset Management:** STOGROUP defined pagesets are reallocated as part of the index creation. This same principle can be applied to VCAT-defined ones.

- **IBM Compatibility:** Where practical, CA Fast Index supports IBM CREATE INDEX syntax, allowing existing index creation jobs to be used with minimal changes.
  - › **CREATE INDEX:** Any type of DB2 index can be created using the same keywords as a standard CREATE INDEX statement.
  - › **DROP INDEX:** The DROP INDEX statement is supported so that index keys can be changed (through DROP and CREATE) using CA Fast Index.

## Benefits

Supporting standard CREATE INDEX syntax, CA Fast Index is designed to rapidly build and add indexes to large DB2 tables without burdening DB2 subsystems. Up-to-date DB2 catalog statistics can be collected as part of the index build process, and you can also build several indexes and collect statistics simultaneously.

Furthermore, you can build new indexes on loaded tables, enhancing performance by providing more efficient data access. For example, if your organization runs periodic reports that would perform better with additional indexes on the data, you can use CA Fast Index to quickly build them. You can then remove the indexes from the table if you have limited DASD space, if you need to reduce index maintenance or want to speed DB2 insert processing. When you are ready to run the reports again, you can simply rebuild the desired indexes.

## Why CA

A key component of both CA's Mainframe 2.0 strategy and Enterprise IT Management (EITM) vision, CA Fast Index is a member of the CA Database Management Solutions for DB2 for z/OS family. Using these solutions help you to optimize performance and reduce database downtime, as well as enhance the overall business value provided by DB2 applications.

The CA Database Management Solutions for DB2 for z/OS are part of a family of database products that support both mainframe and distributed environments. This family of products helps you to reduce the amount of time, effort and human error that is involved in implementing, maintaining and maximizing the availability of efficient database applications. Organized into three solution areas comprised of Database Administration, Database Performance Management and Database Backup and Recovery, these products help DBAs to be more productive, accurate and efficient.

CA Database Management is an integral part of EITM, providing products that help manage the total cost of database ownership by automating day-to-day operations and increasing overall service responsiveness. From DB2 and IMS on the mainframe, to Oracle, DB2 and SQL Server on distributed servers, CA Database Management provides advanced technology and integration to manage increasingly large and complex databases.

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