



BMC DATA ACCELERATOR Compression

Use data compression to improve performance and maximize your investment in your existing technology

KEY BENEFITS

- > Uses the services of DFSMS/MVS to compress and expand SMS-managed data sets
- > Provides transparent data compression for batch and online applications in both VSAM and non-VSAM environments
- > Reduces physical data storage requirements by up to 50 to 90 percent
- > Features multiple compression algorithms for optimum data compression
- > Reduces CPU time and improves performance through I/O avoidance
- > Dynamically increases buffering
- > Works with SMS and non-SMS data

Businesses today must process, store, and provide large amounts of data. The BMC DATA ACCELERATOR Compression product helps businesses increase their return on investment in their existing technology by reducing CPU time, reducing storage requirements, and improving performance.

BUSINESS CHALLENGE

To keep pace with business demands, new and more complex applications are being introduced throughout the enterprise. Data volumes have increased and created a need for continual availability. Companies are faced with challenges of improving online application performance, increasing data availability, reducing processing time, and storing large volumes of data while minimizing storage costs. Although DASD unit costs are declining, new applications, such as data warehousing, are adding data at an even faster rate. Even with lower unit storage costs, most users are spending more for data storage.

THE BMC SOLUTION

The BMC DATA ACCELERATOR Compression product includes the non-VSAM component, VSAM component, and the SMS component. This product provides high-performance, easy-to-use data compression that uses advanced compression techniques and options for VSAM and non-VSAM data sets. Physical data storage requirements are reduced by up to 50 to 90 percent based on the algorithm that is selected and the type of data that is being compressed.

The Extended Compression Architecture (XCA[®]) feature provides extensive data integrity checks and reduces the I/O load. BMC DATA ACCELERATOR Compression incorporates buffering enhancements that significantly accelerate the elapsed run time of batch jobs.

FEATURES

BMC DATA ACCELERATOR Compression offers the following features:

SMS Compression

BMC DATA ACCELERATOR Compression uses the services of DFSMS/MVS to compress and expand SMS managed data sets. BMC DATA ACCELERATOR Compression intercepts the DFSMS/MVS compression services and inspects the data set eligibility for compression. If the data set meets BMC DATA ACCELERATOR Compression criteria, BMC DATA ACCELERATOR Compression compresses or expands the data by using a variety of compression techniques using the XCA. If the data set fails to meet the eligibility criteria, the data set is returned to DFSMS for processing.

Multiple compression algorithms

Because no single compression algorithm is best for every type of data, BMC DATA ACCELERATOR Compression features seven user-selectable compression options, one or more of which achieve industry-leading compression results. These options allow the compression density to be optimized for different data types and include:

- > **Repeating character** identifies and eliminates repeating characters.
- > **Extended character** recognizes and reduces repeating strings of characters.
- > **Arithmetic adaptive** (VSAM only) offers better compression on files with very short records.
- > **Static Huffman** uses a Huffman compression algorithm with a data dictionary that is defined by customer data.

- > **Dynamic adaptive** analyzes data and selects the best compression method, which is either extended character, arithmetic adaptive, or static Huffman.
- > **Hardware** provides software emulation of IBM's ES/9000 (H-5) processor compression.
- > **Custom dictionary for hardware** builds a dictionary for optimal compression results based on unique data characteristics.

Improved performance

BMC DATA ACCELERATOR Compression employs the XCA to compress data. XCA helps reduce the I/O load because more data can be transferred per I/O occurrence, which reduces the amount of needed storage media, and improves data integrity. XCA recognizes and ignores data that is already compressed.

Because fewer I/O operations are required to move compressed data, the CPU time that is required to compress and expand data is offset by lowered overall I/O counts. In many cases, the CPU time that is saved by avoiding I/O operations while moving compressed data outweighs the compression and expansion overhead, which results in an overall reduction of job CPU time.

XCA options include:

- > Automatic space release
- > Simulation mode/trial facility
- > Local and shared compression server
- > View statistics

XCA also features enhanced VSAM buffering which significantly accelerates the elapsed run time of batch jobs.

Maximizing your investment

BMC DATA ACCELERATOR Compression is just one of a set of transparent technologies BMC Software offers that compresses data on storage devices, increases utilization, and improves the service of networks and data storage. BMC Software compression technologies maximize existing technology investments, regardless of platform.

ABOUT BMC SOFTWARE

BMC Software delivers the solutions IT needs to increase business value through better management of technology and IT processes. Our industry-leading Business Service Management solutions help you reduce cost, lower risk of business disruption, and benefit from an IT infrastructure built to support business growth and flexibility. Only BMC provides best practice IT processes, automated technology management, and award-winning BMC® Atrium™ technologies that offer a shared view into how IT services support business priorities. Known for enterprise solutions that span mainframe, distributed systems, and end-user devices, BMC also delivers solutions that address the unique challenges of the midsized business. Founded in 1980, BMC has offices worldwide and fiscal 2006 revenues of more than \$1.49 billion. Activate your business with the power of IT. www.bmc.com.



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