Abstract

The advancement of information technology has affected all walks of our life. And when we talk the use of information technology in a business environment, we cannot ignore the presence of a huge number of data base systems as its core. Data base technology has also grown from a simple file system to data navigation system, and over a last two to three decades
A Digital Compression Scheme using Delta and Differential Methods

A majority of business institutions, organizations, industries etc. have adopted the computerization process, and as a result have been flooded with data. Temporal database (a database that require some aspect of time when organizing their information) often increases with the time like information from reservation counters (flight, railways, buses, hotels), Bank ATMs, shares price from stock market, insurance policies. So with the limited resources how to manage and store these data, the only possible solution one can have is to just compress and store it with in the available resources. The traditional approach of compression make use of entropy encoding (compress without any regard to its content), whereas we can take advantage of Differential and Delta coding compression as we do in text compression. Now days many papers using lossy compression or lossless compressions which comes under both source encoding and entropy encoding. This paper presents an attempt to apply this category of compression method for a database file with some new approaches [9]. Approaches may be different but final goal is how to compress a data to some efficient manner. The percentage of compression level will become very high with these given approaches, it may go as high as 60% to 70% of compression [18]. The approaches are so simple that can be implemented in even C or C++ also. So that programmer and user can understand so simple way. It does not require special type of software. The attempt is so simple and may be used as a new development of compression for database.

Reference

- Pujari. A. K “Data Mining Technique” (University Press).
- Jianzhong Li and Hong Gao “Efficient Algorithms for On-line Analysis Processing On Compressed Data Warehouses” Harbin Institute of Technology, China.
- Ming-Bo Lin, Member and Yung-Yi Chang, “A New Architecture of a Two-Stage Lossless
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Data Compression and Decompression Algorithm” IEEE TRANSACTIONS ON VERY LARGE SCALE INTEGRATION (VLSI) SYSTEMS, VOL. 17, NO. 9, SEPTEMBER 2009 1063-8210 Years 2009 IEEE.


- Thanos Makatos*, Yannis Klonatos, Manolis Marazakis, Michail D. Flouris, and Angelos Bilas*, “ZBD: Using Transparent Compression at the Block Level to Increase Storage Space Efficiency”, Foundation for Research and Technology – Hellas (FORTH), P.O. Box 2208, Heraklion, GR 71409, Greece, 978-07695-2/10, © 2010 IEEE.

- Ming-Bo Lin, Member, IEEE, and Yung-Yi Chang, “A New Architecture of a Two-Stage Lossless Data Compression and Decompression Algorithm”, 1063-8210, ©2009 IEEE.


**Index Terms**

Computer Science

Databases

**Key words**

Delta code

Differential Method

Temporal

Database