

数据库、信号与信息处理

数据仓库中新型动态实视图选择调整算法

葛学彬, 周丽娟, 王林爽, 石倩

首都师范大学 信息工程学院, 北京 100037

收稿日期 2008-9-25 修回日期 2008-11-24 网络版发布日期 2010-3-11 接受日期

摘要 现有的静态实视图选择算法存在搜索空间太大、时间复杂度高以及未考虑查询的概率和分布等诸多缺点, 并且当源数据发生变化时, 这种变化不能立刻反映到数据仓库, 不适合在线运行。针对上述问题在候选视图生成算法和IGA算法的基础上, 对算法进行了动态调整, 从而得出了新型物化视图动态调整算法CNUMV。经实验证明该算法降低了视图的搜索空间和时间复杂度, 更重要的是该算法考虑到了各视图之间相互依赖关系对视图收益的影响, 从而使算法能够动态地在线调整, 并且用实验证明了CNUMV算法的优越性, 达到了预期的目的。

关键词 [实视图](#) [数据仓库](#) [查询概率](#)

分类号 [TP311.13](#)

New dynamic materialized view selection adjustment algorithm in data warehouse

GE Xue-bin, ZHOU Li-juan, WANG Lin-shuang, SHI Qian

College of Information Engineering, Capital Normal University, Beijing 100037, China

Abstract

Because static materialized views selection algorithm has many shortcomings, such as larger search space, higher time consumption and excluding query probability and distribution, and the changes in data sources can't be reflected in data warehouse immediately. In view of these, this paper implements dynamic adjustment for static materialized views selection algorithm according to CVLC and IGA, that is, CNUMV algorithm. The algorithm has been proved in reducing search space and time consumption by the experiment. Most of all, because the algorithm considers materialized views mutual relations in influencing view benefit. Consequently, the algorithm can be dynamically adjusted online and obtains anticipative purpose.

Key words [materialized view](#) [data warehouse](#) [query probability](#)

DOI: 10.3778/j.issn.1002-8331.2010.08.034

通讯作者 葛学彬 icon666@126.com

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