Abstract

The performance of Database Management System (DBMS) is significantly affected when the key tuning parameters are altered. Most DBMS come along with several hundred tuning parameters. It is therefore important to identify only a few important tuning parameters and evaluate their effect on the system performance. The effect of each of the tuning parameter must be thoroughly understood so as to predict the performance when these parameters are altered. It is also important to understand the range of the tuning parameter over which tuning is most effective. Over tuning may lead to poor utilization of system resources. In this paper, a mathematical model is presented to predict the effect of one of the most important tuning parameter, namely, the buffer cache size and the model output is compared with experimental result. The model shows very close match with the experimental results.

References

Modeling of DBMS Memory for Performance Tuning

- Wiese, David; Rabinovitch, Gennadi, Knowledge Management in Autonomic Database Performance Tuning, 20-25 April 2009.
- Gennadi Rabinovitch, David Wiese, Non-linear Optimization of Performance functions Autonomic Database Performance Tuning, IEEE Conference, 2007

Index Terms

Computer Science Databases
Keywords
Dbms  Performance Tuning  Tpc-h(dss) Workload