

ARE TPC BENCHMARKS USEFUL?

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David McGoveran
Alternative Technologies
13130 Highway 9, Suite 123
Boulder Creek, CA 95006
Telephone: 408/425-1859

BEING KIND

- The TPC benchmarks are significant improvements over the loosely defined Debit Credit, ET1, and TP1 benchmarks. They are more formal. The original designers and some of the auditors are experienced, knowledgeable, and well-meaning professionals.

A CAUTION

- **Unfortunately, these facts are a trap. They lead users who do not understand the complexity of the benchmarking art to perceive TPC benchmark numbers as offering useful information to users about performance and concurrency.**

AN INDICTMENT

In fact, TPC benchmarks are not scientific, repeatable, nor do they provide useful information...

But they are great marketing and sales tools.

- TPC BENCHMARKS ARE A LITTLE MORE THAN ADVERTISEMENTS**

BENCHMARK DESIGN ISSUES

- **POOR USE OF STATISTICS**

Steady state? Estimate of error? Standard deviation?

- **UNREALISTIC CONFIGURATIONS**

Enough disk space? ACMS or proprietary code disallowed!

- **HIGH COST OF RUNNING**

3+ months! Disk space for 8 hrs!

- **TUNING COMPLEXITY**

Undocumented vendor knowledge

Average user experience

Isolation of system

INTERPRETATION OF RESULTS

- **TRANSACTION PROFILES NOT RELEVANT TO MOST USERS**
4 tables?
- **LACK OF COMPARABILITY**
Numbers, configuration, specification ALL loosely defined
- **NO MEASURE OF PRODUCT CAPABILITIES**
ROWIDs, triggers, etc. disallowed
- **INADEQUATE REPORTING REQUIREMENTS**
DBMS configuration? Driver code reported in some won't even compile!

COMPLIANCE ISSUES

- **AUDITOR COMPREHENSION**
Too much expertise required!
O/S? DBMS? Language? Driver?
- **TOO MUCH AUDITOR DISCRETION**
Allowed/Disallowed
Sponsors vs. auditors
- **NON-UNIFORM TRANSACTION ISOLATION**
What transaction isolation mix is OK?
- **SERIALIZABILITY NOT ENFORCED**
Improperly defined in the specification!

CRITICISMS OF THE COUNCIL

- . **OWNED AND RUN BY VESTED INTERESTS**
- . **TOO MUCH MEMBER POLITICS**
Re-interpretation of specification after the fact!
- . **CLOSED MEETINGS AND MINUTES**
Issues, discussions, issues raised, decisions, etc. should be public.
- . **MEMBER LOBBYING**
- . **SELF-SERVING TO VENDORS**
Should be USER serving

CONCLUSIONS

- TPC BENCHMARKS ARE IMPROVING
- USERS MUST DEMAND MORE
- IN THE MEANTIME, JUST SAY NO!
- TO THE INFLUENCE OF USELESS BENCHMARKS

Who needs “marketing numerology?”

Biography

- David McGoveran is a well-known relational database consultant and president of Alternative Technologies (Boulder Creek, CA), specialists in solving difficult relational applications problems since 1981. He publishes The Database Product Evaluation Report Series: authored (with Chris Date) A Guide to SYBASE and SQL Server; and is completing An Advanced Guide to Client/Server Applications.