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## Application Benchmark

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### Synonyms

Benchmark; Performance benchmark

### Definition

An application benchmark is a suite of tasks that are representative of typical workloads in an application domain.

### Main Text

Unlike a MICROBENCHMARK, an application benchmark specifies broader tasks that are aimed at exercising most components of a system or tool. Each individual task in the benchmark is assigned a relative *weight*, usually reflecting its frequency or importance in the application being modeled. A meaningful interpretation of the benchmark results has to take these weights into account.

The Transaction Processing Performance Council (TPC) is a body with a long history of defining and published benchmarks for database systems. For

instance, it has defined benchmarks for Online Transaction Processing applications (TPC-C and TPC-E), Decision Support applications (TPC-H), and for an Application Server setting (TPC-App).

Other examples of application benchmarks are: the OO1 and OO7 benchmarks, developed for object-oriented databases, and XMark, X Bench and TPoX, developed for XML applications.

### Cross-references

- ▶ Micro-Benchmarks
- ▶ XML Application

### Recommended Reading

1. Carey M.J., DeWitt D.J., and Naughton J.F. The OO7 benchmark. In Proceedings of the ACM SIGMOD International Conference on Management of Data, WA, USA. ACM, New York, NY, USA, pp. 12–21, June 1993.
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4. Schmidt A., Waas F., Kersten M.L., Carey M.J., Manolescu I., and Busse R. XMark: a benchmark for XML data management. In Proceedings of the Very Large Database Conference. Hong Kong, China, 2002, pp. 974–985.
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6. Yao B.B., Özsu M.T., and Khandelwal N. X Bench benchmark and performance testing of XML DBMSs. In ICDE. Boston, MA, USA, 621–633, 2004.