Microbenchmark

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Definition
A micro-benchmark is an experimental tool that studies a given aspect (e.g., performance, resource consumption) of XML processing tool. The studied aspect is called the target of the micro-benchmark. A micro-benchmark includes a parametric measure and guidelines, explaining which data and/or operation parameters may impact the target, and suggesting value ranges for these parameters.

Main Text
Micro-benchmarks help capture the behavior of an XML processing system on a given operation, as a result of varying one given parameter. In other words, the goal of a micro-benchmark is to study the precise effect of a given system feature or aspect in isolation.

Micro-benchmarks were first introduced for object-oriented databases [2]. An XML benchmark sharing some micro-benchmark features is the Michigan benchmark [3] ([CITATION TO EDS ENTRY ON XML BENCHMARKING]). The MemBeR project [1], developed jointly by researchers at INRIA Futures, the University of Amsterdam, and University of Antwerp provides a comprehensive repository of micro-benchmarks for XML.

Unlike application benchmarks ([CITATION TO ENTRY ON APPLICATION BENCHMARKS]), micro-benchmarks do not directly help determining which XML processing system is most appropriate for a given task. Rather, they are helpful in assessing particular modules, algorithms and techniques present inside an XML processing tool. Micro-benchmarks are therefore typically very useful to system developers.

Cross-references
► Application Benchmarks
► XML Application

Recommended Reading