Java Grande Benchmark Suite

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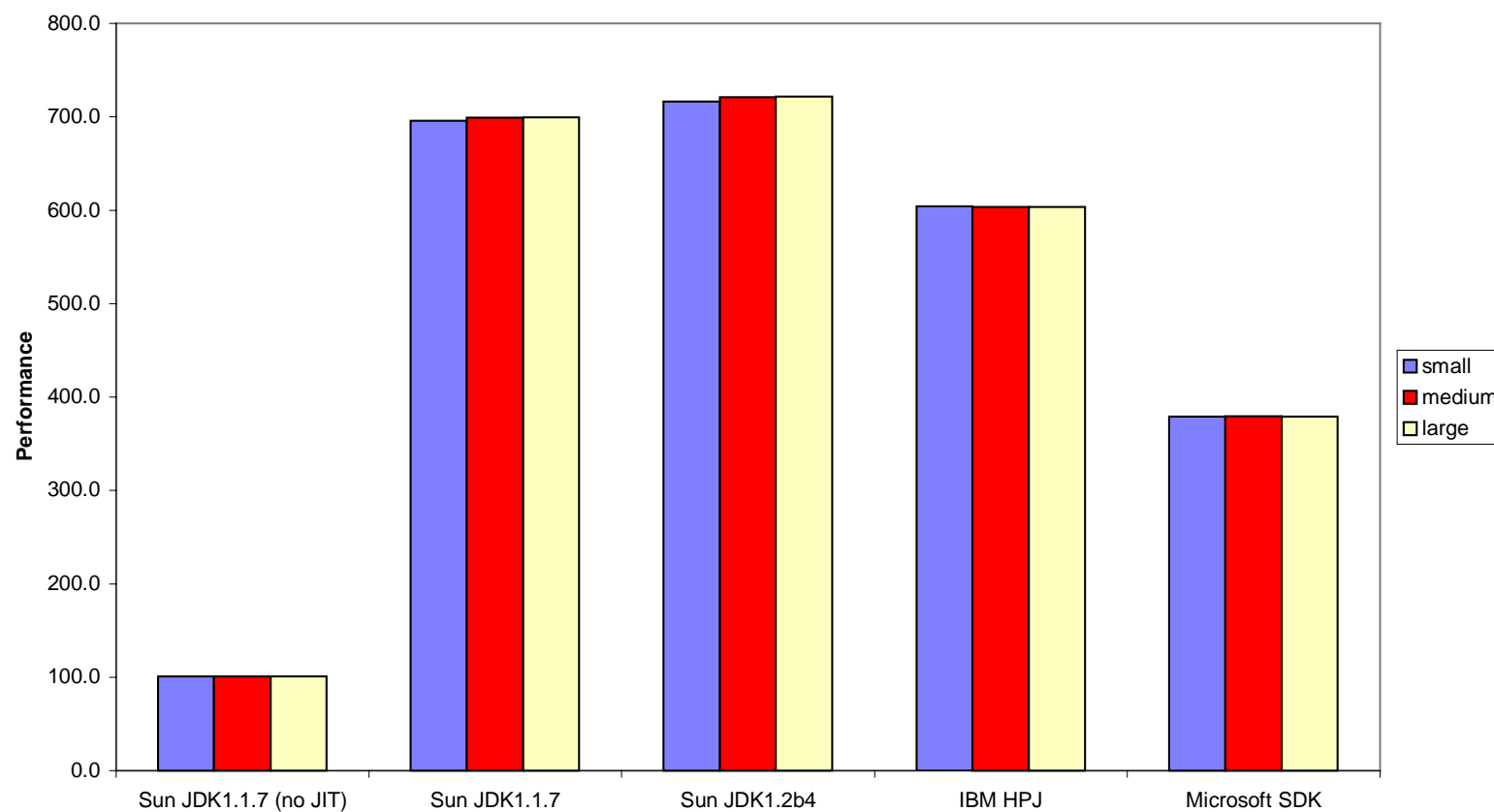
http://www.epcc.ed.ac.uk/research/javagrande/benchmarking.html

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▶ Develop a coherent benchmark procedure

– class libraries to implement standard benchmarking procedures

▶ Develop a coherent benchmarking suite

– consistent output format
– consistent definition of terms

▶ Test different execution environments

▶ Specific to grande applications

▶ Supported by the UK HPCI Initiative

▶ ## Section 1: Low Level Operations

– Arithmetic, Casting, Math Library, Garbage Collection

▶ ## Section 2: Kernels

– Encryption, Fourier Analysis, LU Factorisation

▶ ## Section 3: Large Scale Applications

– e.g. Discrete Event Simulation, Image Analysis, Computation Fluid Dynamics
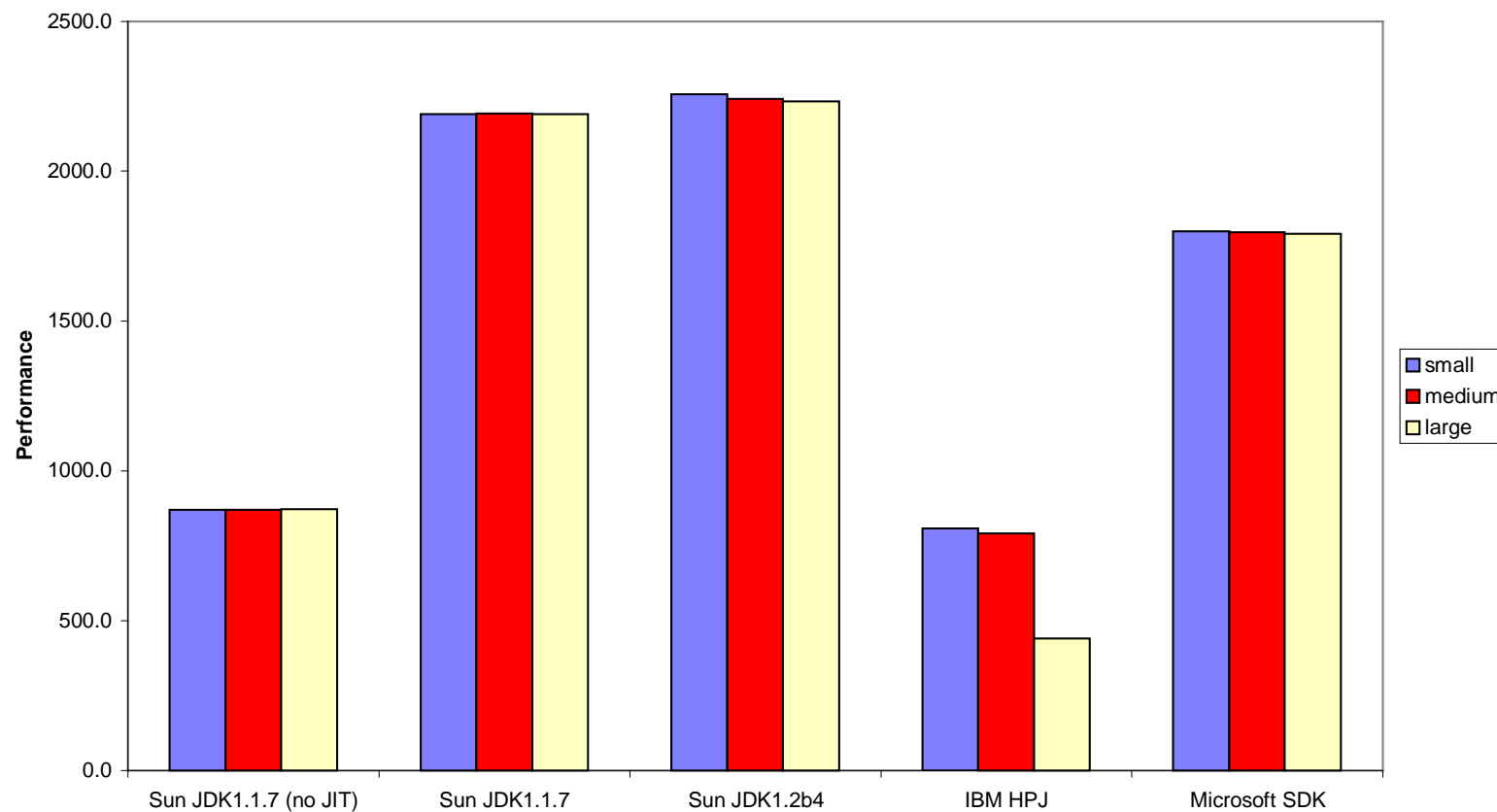
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▶ **200Mhz Pentium Pro with 256Mb of RAM**

– Sun JDK1.1.7 (with / without JIT)

– Sun JDK1.2beta4 (with JIT)

– IBM HPJa12h

– Microsoft SDK for Java 3.1

▶ **250MHz Sun Ultra Enterprise 3000 with 1Gb RAM**
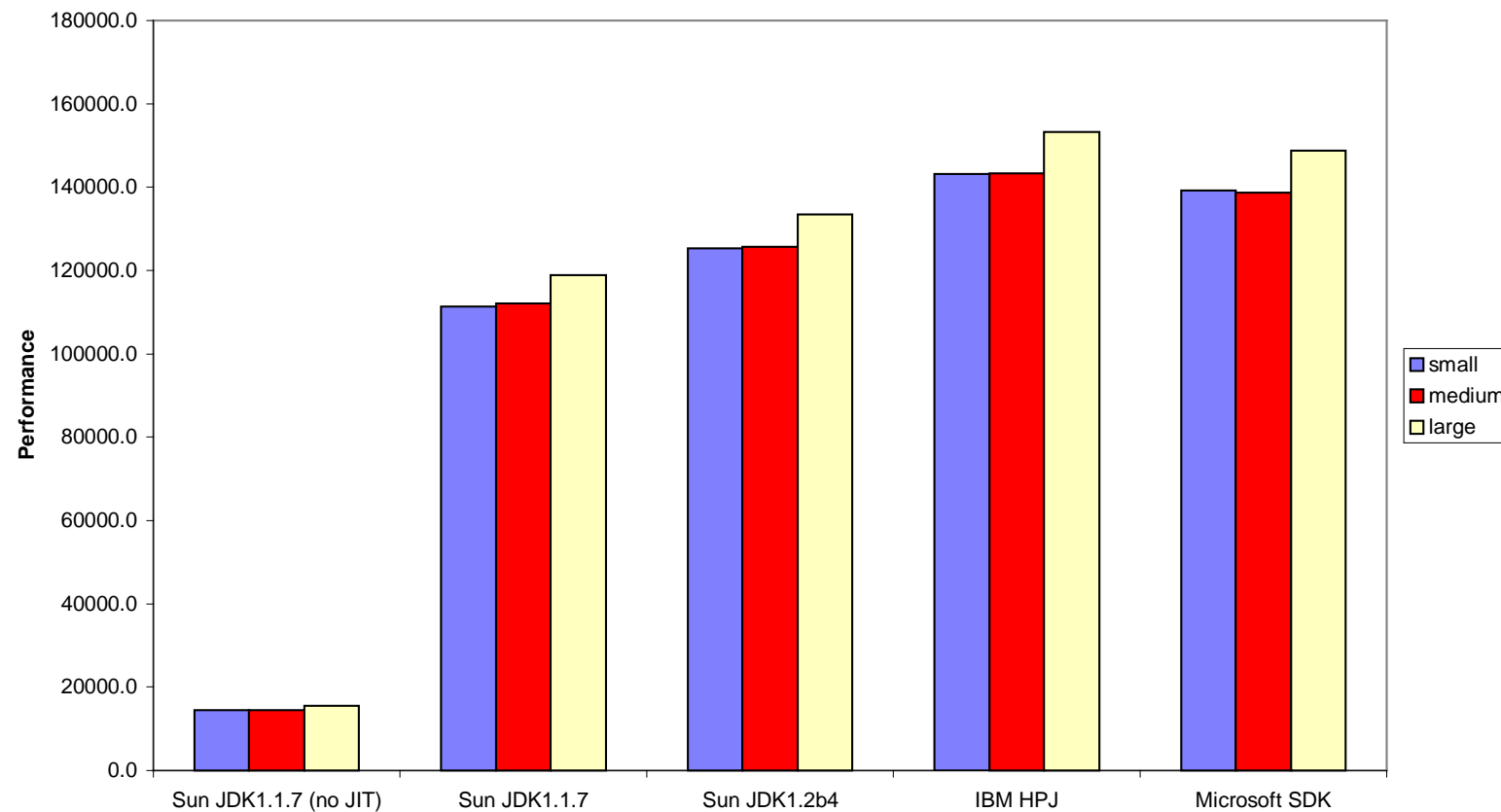
– Sun JDK1.1.7

– Sun JDK1.2beta4

Crypt Benchmark

Fourier Benchmark

Search Benchmark

Linpack Results