



# CINT2000 Result

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## Advanced Micro Devices

Tyan Thunder K9HM (S3992), AMD Opteron (TM) 2218

SPECint\_rate2000 = 82.2

SPECint\_rate\_base2000 = 72.4

SPEC license #: 49 | Tested by: AMD Austin, TX | Test date: Jul-2006 | Hardware Avail: Sep-2006 | Software Avail: Sep-2005

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	4	112	58.0	4	98.8	65.7
175.vpr	4	124	52.2	4	99.8	65.1
176.gcc	4	84.0	60.7	4	58.6	87.1
181.mcf	4	172	48.5	4	133	62.7
186.crafty	4	57.3	81.0	4	54.7	84.8
197.parser	4	113	74.0	4	113	73.9
252.eon	4	54.7	110	4	48.8	124
253.perlbnk	4	95.5	87.5	4	93.5	89.3
254.gap	4	64.7	78.9	4	64.7	78.9
255.vortex	4	79.8	110	4	74.4	119
256.bzip2	4	110	63.2	4	107	65.0
300.twolf	4	190	73.4	4	144	96.4

### Hardware

CPU: AMD Opteron (TM) 2218  
 CPU MHz: 2600  
 FPU: Integrated  
 CPU(s) enabled: 4 cores, 2 chips, 2 cores/chip  
 CPU(s) orderable: 1,2  
 Parallel: no  
 Primary Cache: 64KBI + 64KBD on chip per core  
 Secondary Cache: 1024KB (I+D) on chip per core  
 L3 Cache: N/A  
 Other Cache: N/A  
 Memory: 8x512MB, DDR2-667 CL4 ECC Reg  
 Disk Subsystem: IDE, 120 GB  
 Other Hardware: None

### Software

Operating System: Windows Server 2003 Enterprise Edition SP1 (32-bit)  
 Compiler: Intel C++ 9.0 build 20050912Z for IA32  
 Microsoft Visual Studio .NET 7.0.9466 (libraries)  
 MicroQuill Smartheap Library 7.0  
 File System: NTFS  
 System State: default

## Notes/Tuning Information

shlw32M.lib is the SmartHeap library V7.0 from MicroQuill ([www.microquill.com](http://www.microquill.com))

+FDO: PASS1=-Qprof\_gen PASS2=-Qprof\_use

Portability:

176.gcc: -Dalloca=\_alloca /F10000000

186.crafty: -DNT\_i386

253.perlbnk: -DSPEC\_CPU2000\_NTOS -DPERLDLL /MT

254.gap: -DSYS\_HAS\_CALLOC\_PROTO -DSYS\_HAS\_MALLOC\_PROTO

Baseline C: -O3 -Qipo -Op +FDO

Baseline C++: -O3 -Qipo -Qcxx-features +FDO

Peak Tuning:

164.gzip: -O3 -Qipo -QxW +FDO

175.vpr: -O3 -Qipo -QxW +FDO

-Qoption,c,-ip\_ninl\_max\_stats=2000,-ip\_ninl\_max\_total\_stats=4500

176.gcc: -O3 -Qipo -QxW -Oi- -Qunroll13 +FDO

181.mcf: -O3 -Qipo -QaxN +FDO

186.crafty: -O3 -Qipo -QxW +FDO

197.parser: -QxW +FDO -Oi- -Qipo

252.eon: -O3 -Qipo -QxW +FDO -Qansi\_alias

-Qoption,c,-ip\_ninl\_max\_stats=2000,-ip\_ninl\_max\_total\_stats=4500

253.perlbnk: -O3 -Qipo -QxW +FDO

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<http://www.spec.org>



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## Notes/Tuning Information (Continued)

```
254.gap:          basepeak = yes
255.vortex:       -O3 -Qipo -arch:SSE +FDO -Oi- shlw32M.lib
                  -Qoption,c,-ip_ninl_max_stats=2000,-ip_ninl_max_total_stats=4500
256.bzip2:        -O3 -Qipo          -Qunroll2
300.twolf:        -O3 -Qipo -QxW +FDO    -Qunroll3 shlw32M.lib -Qansi_alias
system can be built using a standard ATX case and a Zippy 700W PSL-6701P power supply
Half memory slots populated on all CPUs in dual channel configuration
'start /b /wait /affinity' command is used to bind CPU(s) to processes
```