



# CINT2000 Result

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Advanced Micro Devices  
TYAN S2865 K8E Tomcat, AMD Opteron (TM) 170

SPECint\_rate2000 = 31.2  
SPECint\_rate\_base2000 = 29.7

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

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	2	126	25.7	2	126	25.7
175.vpr	2	129	25.3	2	125	26.1
176.gcc	2	81.5	31.3	2	81.3	31.4
181.mcf	2	251	16.6	2	198	21.1
186.crafty	2	77.5	29.9	2	69.9	33.2
197.parser	2	141	29.7	2	140	29.7
252.eon	2	69.6	43.3	2	61.1	49.4
253.perlbnk	2	133	31.4	2	133	31.4
254.gap	2	81.4	31.4	2	81.4	31.4
255.vortex	2	94.5	46.7	2	100	44.0
256.bzip2	2	141	24.6	2	141	24.7
300.twolf	2	215	32.3	2	186	37.4

### Hardware

CPU: AMD Opteron (TM) 170 (939-pin)  
 CPU MHz: 2000  
 FPU: Integrated  
 CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip  
 CPU(s) orderable: 1  
 Parallel: No  
 Primary Cache: 64KBI + 64KBD/core  
 Secondary Cache: 1024KB(I+D)/core  
 L3 Cache: N/A  
 Other Cache: N/A  
 Memory: 4x512 MB DDR400 CL2.0  
 Disk Subsystem: IDE, Western Digital WD2500JB, 7200 rpm  
 Other Hardware: None

### Software

Operating System: Microsoft Windows Server 2003 Enterprise Edition SP1  
 Compiler: Intel C++ 8.0 build 20040714Z  
 Microsoft Visual Studio .NET 7.0.9466 (libraries)  
 MicroQuill Smartheap Library 7.0  
 File System: NTFS  
 System State: Default

## Notes/Tuning Information

shlw32M7.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: -fast -arch:SSE2 -Oi- +FDO

Baseline C++: -fast -arch:SSE2 -GX -GR

### Peak Tuning:

164.gzip: basepeak=yes  
 175.vpr: -fast -arch:SSE2 +FDO  
 -Qoption,c,-ip\_ninl\_max\_stats=2000,-ip\_ninl\_max\_total\_stats=4500  
 176.gcc: -fast -arch:SSE2 +FDO -Oi- -Qunroll3  
 181.mcf: -fast -QaxN +FDO  
 186.crafty: -fast -arch:SSE2 +FDO  
 197.parser: -arch:SSE2 +FDO -Oi- -Qipo  
 252.eon: -fast -arch:SSE2 +FDO -Qansi\_alias  
 -Qoption,c,-ip\_ninl\_max\_stats=2000,-ip\_ninl\_max\_total\_stats=4500  
 253.perlbnk: basepeak=yes



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## Notes/Tuning Information (Continued)

```
254.gap:      basepeak=yes
255.vortex:   -fast -arch:SSE +FDO -Oi- shlw32M7.lib
              -Qoption,c,-ip_ninl_max_stats=2000,-ip_ninl_max_total_stats=4500
256.bzip2:    -fast -Qunroll2
300.twolf:    -fast -arch:SSE2 +FDO -Qunroll3 shlw32M7.lib -Qansi_alias
The start /b /wait /affinity command is used to bind CPU(s) to processes.
The tested system can be assembled using a standard ATX footprint, an Antec True 550
Watt EPS12V power supply, and a PCI or PCIe graphics card.
All memory slots were populated with Corsair CMX512-3200XL.
Memory timings manually set in BIOS: CAS=2, TRCD=2, TRAS=5, TRP=2
BIOS V2.00b
```