



# CINT2000 Result

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Advanced Micro Devices  
TYAN S2865 K8E Tomcat, AMD Opteron (TM) 144

SPECint2000 = 1325  
SPECint\_base2000 = 1255

SPEC license #: 49 Tested by: AMD, Austin, TX Test date: Jul-2005 Hardware Avail: Aug-2005 Software Avail: Aug-2004

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
164.gzip	1400	139	1009	139	1009	
175.vpr	1400	131	1067	126	1110	
176.gcc	1100	80.3	1371	79.8	1378	
181.mcf	1800	173	1041	144	1250	
186.crafty	1000	85.8	1166	77.2	1296	
197.parser	1800	151	1192	151	1194	
252.eon	1300	76.7	1695	68.5	1898	
253.perlbnk	1800	145	1242	145	1242	
254.gap	1100	83.4	1319	83.4	1319	
255.vortex	1900	100	1898	92.5	2053	
256.bzip2	1500	144	1041	142	1055	
300.twolf	3000	229	1309	206	1458	

### Hardware

CPU: AMD Opteron (TM) 144 (939-pin)  
 CPU MHz: 1800  
 FPU: Integrated  
 CPU(s) enabled: 1 core, 1 chip, 1 core/chip  
 CPU(s) orderable: 1  
 Parallel: No  
 Primary Cache: 64KBI + 64KBD on chip  
 Secondary Cache: 1024KB(I+D) on chip  
 L3 Cache: N/A  
 Other Cache: N/A  
 Memory: 4x512 MB DDR400 CL2.0  
 Disk Subsystem: SATA, Western Digital WD740GD, 10000 rpm  
 Other Hardware: None

### Software

Operating System: Microsoft Windows XP Pro SP2  
 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 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 version 1.01