



# CINT2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Advanced Micro Devices  
ASUS SK8V Motherboard, AMD Opteron (TM) 150

SPECint\_rate2000 = 17.2  
SPECint\_rate\_base2000 = 15.9

SPEC license #: 49 | Tested by: AMD, Austin, TX | Test date: Apr-2004 | Hardware Avail: Jun-2004 | Software Avail: Apr-2004

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	1	113	14.3	1	109	14.9
175.vpr	1	120	13.5	1	118	13.7
176.gcc	1	68.0	18.8	1	67.2	19.0
181.mcf	1	268	7.79	1	165	12.6
186.crafty	1	47.1	24.6	1	45.6	25.4
197.parser	1	148	14.2	1	137	15.2
252.eon	1	64.3	23.5	1	61.1	24.7
253.perlbnk	1	115	18.1	1	115	18.2
254.gap	1	83.0	15.4	1	83.0	15.4
255.vortex	1	122	18.1	1	113	19.6
256.bzip2	1	117	14.8	1	115	15.1
300.twolf	1	235	14.8	1	195	17.8

### Hardware

CPU: AMD Opteron (TM) 150  
CPU MHz: 2400  
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: 2x512 MB PC3200 DDR SDRAM ECC Reg CL2  
Disk Subsystem: IDE, Western Digital WD2000  
Other Hardware: None

### Software

Operating System: SuSE Linux 8.0 SLES 64 bit (SP3)  
Compiler: SuSE optional gcc 3.3 compiler (20030312) (from SLES8 SP3)  
File System: Linux/ext3  
System State: Multi-user SuSE Run level 3

## Notes/Tuning Information

+FDO: PASS1=-fprofile-arcs PASS2=-fbranch-probabilities

Portability:

PORTABILITY=-DSPEC\_CPU2000\_LP64 is applied to all benchmarks, except for peak runs of 181.mcf, 197.parser and 300.twolf, which are compiled for 32-bit in peak.

186.crafty: CPORTABILITY=-DLINUX\_i386

176.gcc: Approved src.alt is used

252.eon: CXXPORTABILITY=-DHAS\_ERRLIST -DFMAX\_IS\_DOUBLE

Approved src.alt is used.

253.perlbnk: CPORTABILITY=-DSPEC\_CPU2000\_LINUX\_I386 -DSPEC\_CPU2000\_NEED\_BOOL -DSPEC\_CPU2000\_GLIBC22

254.gap: CPORTABILITY=-DSYS\_IS\_USG -DSYS\_HAS\_IOCTL\_PROTO -DSYS\_HAS\_TIME\_PROTO -DSYS\_HAS\_SIGNAL\_PROTO -DSYS\_HAS\_ANSI -DSYS\_HAS\_CALLOC\_PROTO

Baseline C: gcc -O3 -funroll-all-loops +FDO

Baseline C++: g++ -O3 -funroll-all-loops +FDO

Peak tuning:

164.gzip: -O3 -funroll-all-loops -finline-limit=900 -freduce-all-givs +FDO

175.vpr: -O3 -funroll-loops -finline-limit=1000 +FDO

176.gcc: -O3 -funroll-all-loops -finline-limit=900 +FDO

181.mcf: -O3 -funroll-all-loops -m32 +FDO

Standard Performance Evaluation Corporation

info@spec.org

http://www.spec.org



# CINT2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Advanced Micro Devices  
ASUS SK8V Motherboard, AMD Opteron (TM) 150

SPECint\_rate2000 = 17.2  
SPECint\_rate\_base2000 = 15.9

SPEC license #: 49 | Tested by: AMD, Austin, TX | Test date: Apr-2004 | Hardware Avail: Jun-2004 | Software Avail: Apr-2004

## Notes/Tuning Information (Continued)

```
186.crafty: -O3 -funroll-loops -fprefetch-loop-arrays
197.parser: -O3 -funroll-all-loops -m32 +FDO
252.eon: -O3 -funroll-all-loops -ffast-math -finline-limit=3000 +FDO
253.perlbnk: -O3 -funroll-all-loops -finline-limit=1800 +FDO
254.gap: basepeak=true
255.vortex: -O3 -funroll-all-loops -finline-limit=1000 +FDO
256.bzip2: -O3 -funroll-all-loops -freduce-all-givs -finline-limit=2700 +FDO
300.twolf: -O3 -funroll-all-loops -finline-limit=2000 -m32 +FDO
```

ONESTEP is used for all base and peak runs  
BIOS rev.: 1001  
Memory used is Corsair CMX512R-3200C2  
Cas Latency manually set to 2.0 in BIOS