CFP2000 Result

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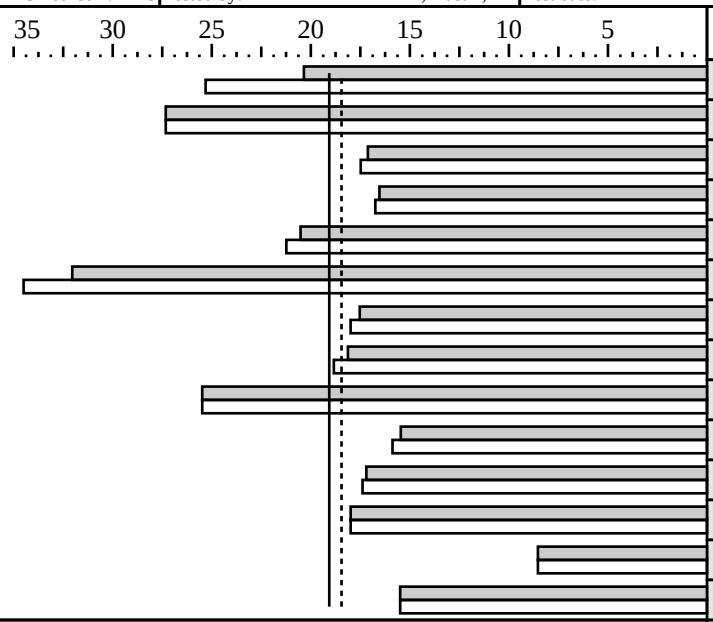
Advanced Micro Devices

ASUS SK8V Motherboard, AMD Opteron (TM) 150

SPECfp_rate2000 = 19.1

SPECfp_rate_base2000 = 18.4

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
168.wupwise	1	91.2	20.3	1	73.3	25.3
171.swim	1	132	27.3	1	132	27.3
172.mgrid	1	122	17.1	1	119	17.5
173.applu	1	147	16.5	1	145	16.7
177.mesa	1	79.2	20.5	1	76.5	21.2
178.galgel	1	105	32.0	1	97.5	34.5
179.art	1	172	17.5	1	168	18.0
183.equake	1	83.2	18.1	1	80.1	18.8
187.facerec	1	86.5	25.5	1	86.5	25.5
188.ammp	1	165	15.5	1	161	15.9
189.lucas	1	135	17.2	1	133	17.4
191.fma3d	1	135	18.0	1	135	18.0
200.sixtrack	1	149	8.54	1	149	8.54
301.apsi	1	195	15.5	1	195	15.5

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:	PGI Fortran 5.1-3 SuSE gcc33 optional compiler (from SLES8 SP3) AMD Core Math Library (Version 1.5) for AMD64
File System:	Linux/ext3
System State:	Multi-user SuSE Run level 3

Notes/Tuning Information

```
+FDO: PASS1=-fprofile-arcs PASS2=-fbranch-probabilities
+ACML is linking with AMD Core Math Library
pgf90 is the PGI Fortran compiler
gcc is the SuSE optional gcc 3.3 compiler (from SLES8 SP3)
Portability:
                PORTABILITY=-DSPEC_CPU2000_LP64 is applied to all the C benchmarks.
  178.galgel:    -Mfixed
Baseline: C      gcc   -O3 -funroll-all-loops +FDO
Baseline: Fortran pgf90 -fastsse  -Mipa=fast
Peak tuning:
  168.wupwise:   pgf90 -fastsse -Mipa=fast -Minline=levels:2
  171.swim:      basepeak=true
  172.mgrid:     pgf90 -fast -Mipa=fast
  173.applu:     pgf90 -fast -Mipa=fast
  177.mesa:      gcc   -O3 -funroll-all-loops -finline-limit=2000 +FDO
  178.galgel:    pgf90 -fastsse -O3 -mp RM_SOURCES=lapak.f90 +ACML
  179.art:       gcc   -O3 -funroll-all-loops -ffast-math -finline-limit=1500 +FDO
```

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Notes/Tuning Information (Continued)

```
  183.equake:     gcc   -O3 -funroll-all-loops -ffast-math -finline-limit=2000
  187.facerec:    basepeak=true
  188.ammp:       gcc   -O3 -funroll-all-loops -ffast-math -finline-limit=2000 +FDO
  189.lucas:      pgf90 -fastsse -Mipa=fast -Mnosmart
  191.fma3d:      basepeak=true
  200.sixtrack:   basepeak=true
  301.apsi:       basepeak=true
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
```