CFP2000 Result

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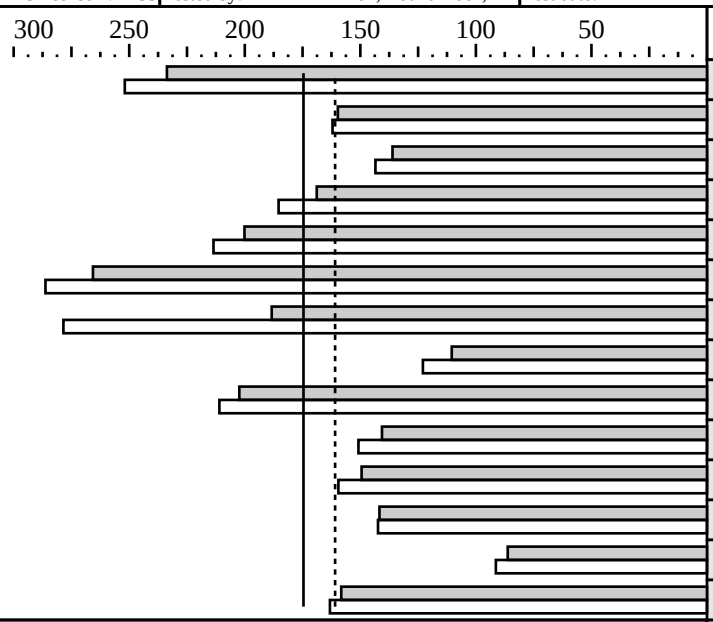
Dell

PowerEdge 6950 (AMD Opteron (TM) 8220SE)

SPECfp_rate2000 = 175

SPECfp_rate_base2000 = 161

SPEC license #: 55 | Tested by: Dell, Round Rock, TX | Test date: Oct-2006 | Hardware Avail: Dec-2006 | Software Avail: Aug-2006



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	8	63.5	234	8	58.9	252
171.swim	8	180	160	8	178	162
172.mgrid	8	123	136	8	116	143
173.applu	8	115	169	8	105	185
177.mesa	8	64.9	200	8	60.8	214
178.galgel	8	101	266	8	94.0	286
179.art	8	128	188	8	86.6	278
183.equake	8	109	110	8	98.1	123
187.facerec	8	87.1	202	8	83.6	211
188.ammp	8	145	141	8	135	151
189.lucas	8	124	149	8	116	159
191.fma3d	8	138	142	8	137	142
200.sixtrack	8	118	86.2	8	112	91.4
301.apsi	8	152	158	8	148	163

Hardware

CPU:	AMD Opteron (TM) 8220SE
CPU MHz:	2800
FPU:	Integrated
CPU(s) enabled:	8 cores, 4 chips, 2 cores/chip
CPU(s) orderable:	2,4
Parallel:	No
Primary Cache:	64KB(I) + 64KB(D) on chip, per core
Secondary Cache:	1MB(I+D) on chip, per core
L3 Cache:	N/A
Other Cache:	N/A
Memory:	32GB (16 x 2GB PC2-5300P CL5)
Disk Subsystem:	1 x 73GB 15K SAS
Other Hardware:	

Software

Operating System:	SUSE Linux Enterprise Server 10 (x86_64) Kernel 2.6.16.21-0.8-smp
Compiler:	PathScale EKOPath Compiler Suite, Release 2.5
File System:	Linux/reiserfs
System State:	Multi-user, run level 3

Notes/Tuning Information

```
  +FDO: PASS1= -fb_create fbdata  PASS2= -fb_opt fbdata
  +ACML  means -L<acml3.5.0-install-dir>/pathscale64/lib -lacml,
         which causes linking with AMD Core Math Library V3.5.0

  Baseline optimization
    C programs:       -Ofast -WOPT:mem_opnds=on +FDO
    Fortran programs: -Ofast -LNO:fusion=2 -OPT:fast_complex=on +FDO
  Portability Flags:
    178.galgel: -fixedform

 Peak Tuning:
  168.wupwise:  -Ofast -IPA:linear=on -LNO:prefetch_ahead=5:prefetch=3
                -OPT:unroll_times_max=8:unroll_size=128:IEEE_NaN_Inf=off:ro=3
  171.swim:     -Ofast -CG:local_fwd_sched=on -LNO:fusion=2 -m3dnow
  172.mgrid:    -Ofast -CG:gcm=off -OPT:IEEE_arith=3:unroll_size=200
                -LNO:fusion=2:fission=1:blocking=off:prefetch_ahead=2
                -WOPT:mem_opnds=on:aggstr=0
```

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Notes/Tuning Information (Continued)

```
173.applu:    -Ofast -CG:local_fwd_sched=on -OPT:ro=3 -TENV:X=3
              -LNO:fusion=2:fission=2:full_unroll_size=10000 +FDO
177.mesa:    -O2 -ipa -OPT:Ofast -fno-math-errno -CG:local_fwd_sched=on -WOPT:mem_opnds=on +FDO
178.galgel:   -Ofast -OPT:fast_complex=on +ACML +FDO
               RM_SOURCES=lapak.f90
179.art:      -O3 -OPT:Ofast -fno-math-errno -mno-sse2 -m32
183.equake:   -Ofast -CG:load_exe=2 -WOPT:mem_opnds=on -m32 +FDO
187.facerec:  -Ofast -IPA:plimit=1500 -LNO:fusion=2
              -OPT:IEEE_NaN_Inf=off:ro=3:unroll_size=0 +FDO
188.ammp:     -O3 -OPT:alias=disjoint:unroll_times_max=8:Ofast:ro=3
              -GRA:optimize_boundary=on -fno-math-errno -TENV:X=4 +FDO
189.lucas:    -Ofast -OPT:ro=3:fast_nint=off:unroll_size=256 -WOPT:mem_opnds=on +FDO
191.fma3d:    -Ofast -IPA:plimit=400 -LNO:fu=9:full_unroll_size=7000
200.sixtrack: -O3 -OPT:Ofast:early_intrinsics=on
              -fno-math-errno -CG:load_exe=1 +FDO
301.apsi:     -Ofast -CG:load_exe=0 -LNO:opt=0
Other Configuration Notes
  Taskset utility used to bind CPU(s) to processes
```