CFP2000 Result

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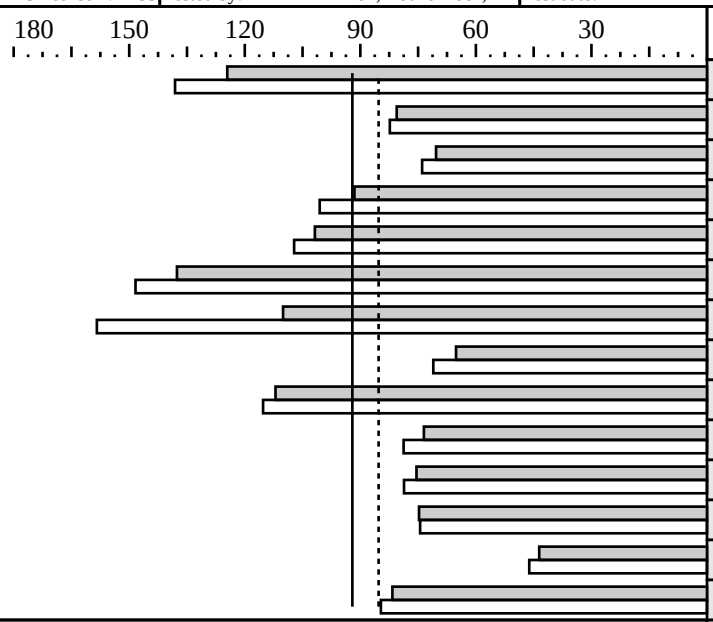
Dell

PowerEdge SC1435 (AMD Opteron (TM) 2220SE)

SPECfp_rate2000 = 92.1

SPECfp_rate_base2000 = 85.3

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	4	59.6	125	4	53.8	138
171.swim	4	179	80.6	4	175	82.3
172.mgrid	4	119	70.3	4	113	74.0
173.applu	4	106	91.5	4	96.9	101
177.mesa	4	63.8	102	4	60.6	107
178.galgel	4	97.8	138	4	90.7	148
179.art	4	110	110	4	76.2	158
183.equake	4	92.6	65.2	4	84.9	71.1
187.facerec	4	78.7	112	4	76.5	115
188.ammp	4	139	73.5	4	130	78.8
189.lucas	4	123	75.4	4	118	78.7
191.fma3d	4	130	74.8	4	131	74.5
200.sixtrack	4	117	43.6	4	111	46.1
301.apsi	4	148	81.7	4	142	84.7

Hardware

CPU:	AMD Opteron (TM) 2220SE
CPU MHz:	2800
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip
CPU(s) orderable:	1,2
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:	16GB (8 x 2GB PC2-5300P CL5)
Disk Subsystem:	1 x 80GB 7.2K SATA
Other Hardware:	

Software

Operating System:	Red Hat Enterprise Linux 4 Advanced Server Update 4 64-bit Kernel 2.6.9-42.ELsmp
Compiler:	PathScale EKOPath Compiler Suite, Release 2.5
File System:	Linux/ext3
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
```