CFP2000 Result

IBM Corporation

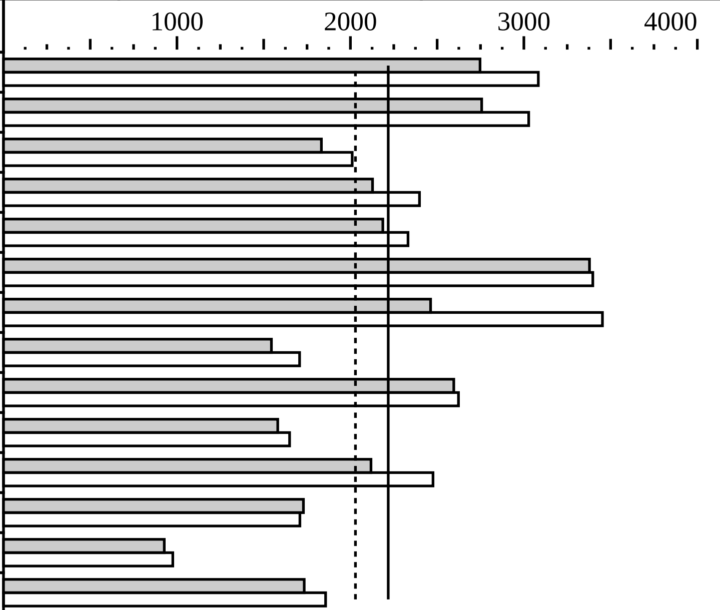
IBM System X 3455 (AMD Opteron (TM) 2220 SE)

SPECfp2000 = 2218

SPECfp_base2000 = 2029

SPEC license #: 11	Tested by: IBM Corporation	Test date: Aug-2006	Hardware Avail: Sep-2006	Software Avail: Mar-2006

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	58.2	2747	51.9	3083
171.swim	3100	112	2757	102	3028
172.mgrid	1800	98.2	1833	89.5	2010
173.applu	2100	98.7	2128	87.6	2398
177.mesa	1400	64.0	2187	60.0	2332
178.galgel	2900	85.8	3378	85.4	3397
179.art	2600	106	2462	75.3	3453
183.equake	1300	84.2	1545	76.2	1707
187.facerec	1900	73.2	2596	72.4	2623
188.ammp	2200	139	1581	133	1649
189.lucas	2000	94.4	2119	80.8	2476
191.fma3d	2100	121	1729	123	1709
200.sixtrack	1100	119	927	113	976
301.apsi	2600	150	1734	140	1857



Hardware

CPU:	AMD Opteron 2220 SE
CPU MHz:	2800
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip
CPU(s) orderable:	1,2
Parallel:	No
Primary Cache:	64KBI + 64KBD (on chip) per core
Secondary Cache:	1024KB (I+D) (on chip) per core
L3 Cache:	N/A
Other Cache:	N/A
Memory:	8x2GB, PC2-5300
Disk Subsystem:	SATA, 80GB 10K RPM
Other Hardware:	None

Software

Operating System:	SuSE Linux 9.0 SP3 SLES 64 bit Kernel 2.6.5-7.244-smp
Compiler:	PathScale EKO Compiler Suite, Release 2.4 PathScale EKOPath(TM) Compiler Suite, Release 2.4
File System:	Linux/reiserfs
System State:	Multi-user, run level 3

Notes/Tuning Information

```
+FDO: PASS1= -fb_create fbdata  PASS2= -fb_opt fbdata

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
 173.applu:    -Ofast -CG:local_fwd_sched=on -OPT:ro=3 -TENV:X=3
               -LNO:fusion=2:fission=2:full_unroll_size=10000 +FDO
```

Notes/Tuning Information (Continued)

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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 +FDO
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:    -O2 -ipa -CG:load_exe=1 -OPT:Ofast:IEEE_arith=3:ro=3
              -WOPT:mem_opnds=on:retype_expr=on -IPA:pu_reorder=1 +FDO
200.sixtrack: -O3 -OPT:Ofast:early_intrinsics=on
              -fno-math-errno -CG:load_exe=1 +FDO
301.apsi:     -Ofast -CG:load_exe=0 -LNO:prefetch=0:simd=2
```