CFP2000 Result

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IBM

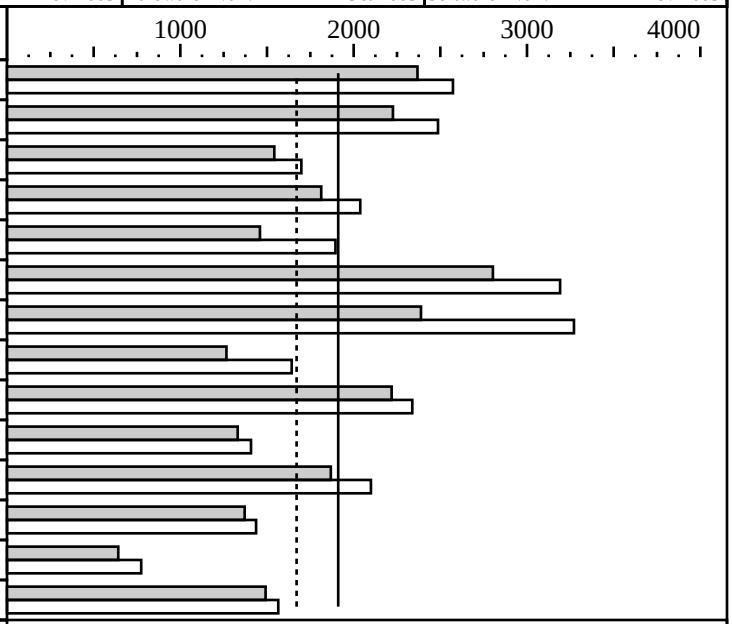
IBM eServer 326m, 2.2 GHz Dual Core AMD Opteron(tm) Processor 275

SPECfp2000 = 1911

SPECfp_base2000 = 1671

SPEC license #: 11 | Tested by: IBM Corporation | Test date: Nov-2005 | Hardware Avail: Oct-2005 | Software Avail: Nov-2005

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	67.6	2368	62.2	2573
171.swim	3100	139	2227	125	2487
172.mgrid	1800	117	1542	106	1698
173.applu	2100	116	1813	103	2038
177.mesa	1400	95.9	1459	73.9	1895
178.galgel	2900	103	2803	90.9	3191
179.art	2600	109	2388	79.5	3271
183.equake	1300	103	1266	79.1	1643
187.facerec	1900	85.6	2219	81.3	2338
188.ammp	2200	165	1331	156	1408
189.lucas	2000	107	1868	95.3	2100
191.fma3d	2100	153	1371	146	1437
200.sixtrack	1100	171	642	142	774
301.apsi	2600	174	1492	166	1565



Hardware

CPU:	Dual Core AMD Opteron(tm) Processor 275
CPU MHz:	2200
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:	8 x 1024GB PC3200
Disk Subsystem:	SCSI, 36GB 15K RPM
Other Hardware:	None

Software

Operating System:	SuSE Linux 9.0 SP2 SLES 64 bit Kernel 2.6.5-7.191-smp (SP2)
Compiler:	PathScale EKO Compiler Suite, Release 2.2.1 AMD Core Math Library 2.5.1
File System:	Linux/reiserfs
System State:	Multi-user, run level 3

Notes/Tuning Information

```
Tested by IBM Corporation
 +ACML: Linked with AMD Core Math Library
 Base tuning for C programs: -Ofast -WOPT:mem_opnds=on +FDO
 Base tuning for FORTRAN programs: -Ofast -LNO:fusion=2 -OPT:fast_complex +FDO
 Portability flags:
   178.galgel:    -fixedform
 Peak tuning:
   168.wupwise:   -Ofast -LNO:prefetch_ahead=5:prefetch=3
                  -OPT:unroll_times_max=8:unroll_size=128:IEEE_NaN_Inf=off:ro=3
                  -IPA:linear=on:plimit=50000:callee_limit=5000
                  -INLINE:aggressive=on
   171.swim:      -Ofast -CG:local_fwd_sched=on -LNO:fusion=2 -m3dnow
   172.mgrid:     -Ofast -CG:gcm=off:cflow=on -OPT:IEEE_a=3:unroll_size=200
                  -LNO:fusion=2:fission=1:blocking=off:prefetch_ahead=2
      -WOPT:memopnds=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:prefetch=3 +FDO
```

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Notes/Tuning Information (Continued)

```
  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 +ACML +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 -LNO:fusion=2
                  -OPT:fast_complex=on:IEEE_NaN_Inf=off:unroll_size=0 +FDO
   188.ammp:      -O3 -OPT:alias=disjoint:unroll_times_max=8:Ofast:ro=3
                  -fno-math-errno -TENV:X=4 -LNO:prefetch=0 +FDO
   189.lucas:     -Ofast -OPT:ro=3:fast_nint=off:unroll_size=256 -WOPT:memopnds=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:Olimit=60000:early_intrinsics=on
      -fno-math-errno -CG:load_exe=1 +FDO
   301.apsi:      -Ofast -CG:load_exe=0 -LNO:prefetch=0:simd=2
BIOS Configuration Notes
  Node Interleaving is Disabled
Other Configuration Notes
   Taskset utility used to bind process to CPU(s)
```