CFP2000 Result

IBM Corporation

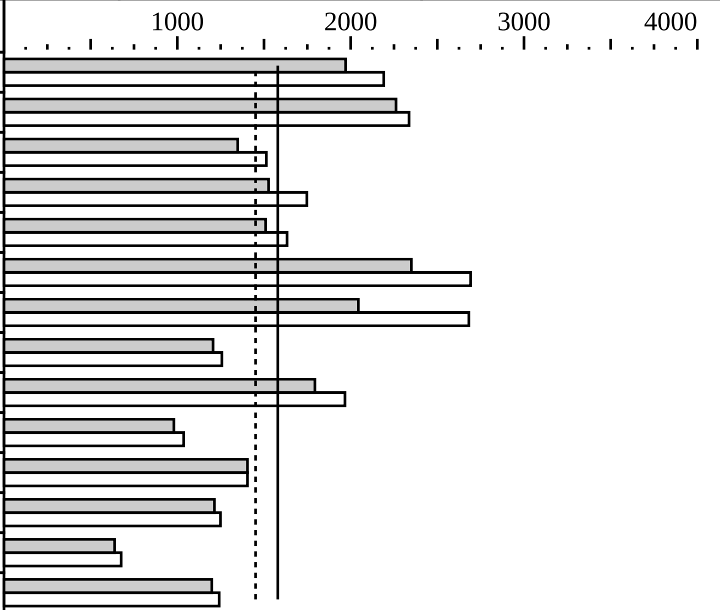
IBM eServer e326 (AMD Opteron (TM) 246)

SPECfp2000 = 1580

SPECfp_base2000 = 1451

SPEC license #: 11	Tested by: IBM, Inc.	Test date: Apr-2005	Hardware Avail: Sep-2005	Software Avail: Apr-2005

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	81.2	1971	73.0	2191
171.swim	3100	137	2262	133	2337
172.mgrid	1800	134	1348	119	1514
173.applu	2100	138	1526	120	1747
177.mesa	1400	92.8	1509	85.7	1633
178.galgel	2900	123	2350	108	2692
179.art	2600	127	2045	96.9	2682
183.equake	1300	108	1206	103	1257
187.facerec	1900	106	1794	96.6	1967
188.ammp	2200	224	980	212	1036
189.lucas	2000	142	1405	142	1405
191.fma3d	2100	173	1214	168	1249
200.sixtrack	1100	172	638	163	676
301.apsi	2600	217	1199	209	1242



Hardware

CPU:	AMD Opteron 246
CPU MHz:	2000
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	1,2
Parallel:	No
Primary Cache:	64KBI + 64KBD on chip
Secondary Cache:	1024KB (I+D) on chip
L3 Cache:	N/A
Other Cache:	N/A
Memory:	8 x 1GB, DDR400
Disk Subsystem:	SCSI, 36GB 10K RPM
Other Hardware:	None

Software

Operating System:	SuSE Linux 9.0 SP1 SLES 64 bit Kernel 2.6.5-7.151-smp (SP1)
Compiler:	PathScale EKOPath(TM) Compiler Suite, Release 2.1
File System:	Linux/reiserfs
System State:	Multi-user, run level 3

Notes/Tuning Information

```
Tested by IBM, Inc.

 +FDO: PASS1= -fb_create fbdata  PASS2= -fb_opt fbdata
 +ACML  means -L/opt/acml2.5.1/pathscale64/lib -lacml,
        which causes linking with AMD Core Math Library V2.5.1

 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 -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
```

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Notes/Tuning Information (Continued)

```
171.swim:    -Ofast -LNO:fusion=2 -m3dnow
172.mgrid:   -O3 -LNO:fusion=2:blocking=off
             -OPT:Ofast:unroll_times_max=8:unroll_size=256:ro=3
             -CG:gcm=off:cflow=off -m3dnow
173.applu:   -Ofast -CG:local_fwd_sched=on
             -LNO:fusion=2:fission=2:full_unroll_size=10000:prefetch=3
             -OPT:ro=3 -TENV:X=3
177.mesa:    -O2 -ipa -OPT:Ofast -fno-math-errno -CG:local_fwd_sched=on +FDO
178.galgel:  -Ofast -OPT:fast_complex=on +ACML
179.art:     -O3 -OPT:ro=2:div_split=on:alias=typed -fno-math-errno -m32
183.equake:  -Ofast -CG:load_exe=2 -OPT:treeheight=on -WOPT:mem_opnds=on -m32
187.facerec:  -Ofast -OPT:IEEE_NaN_Inf=off:ro=3 -LNO:fusion=2
              -IPA:plimit=1500 +FDO
188.ammp: -O3 -OPT:alias=disjoint:unroll_times_max=8:Ofast:ro=3
          -fno-math-errno -TENV:X=4 +FDO
189.lucas: basepeak = true
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=6000 -fno-math-errno -CG:load_exe=1 +FDO
301.apsi: -Ofast -TENV:X=4 -LNO:fusion=2:prefetch=0
```