



CFP2000 Result

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IBM

IBM eServer 326m, 2.6 GHz Dual Core AMD Opteron(tm) Processor 285

SPECfp_rate2000 = 75.1

SPECfp_rate_base2000 = 70.3

SPEC license #: 11 | Tested by: IBM Corporation | Test date: Mar-2006 | Hardware Avail: Apr-2006 | Software Avail: Feb-2006

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	4	68.6	108	4	63.9	116
171.swim	4	248	58.0	4	245	58.7
172.mgrid	4	159	52.5	4	156	53.4
173.applu	4	135	72.4	4	125	78.2
177.mesa	4	67.2	96.7	4	62.1	105
178.galgel	4	119	113	4	116	116
179.art	4	142	85.2	4	95.0	127
183.quake	4	119	50.5	4	107	56.1
187.facerec	4	92.8	95.0	4	94.1	93.7
188.amp	4	152	67.4	4	143	71.4
189.lucas	4	160	58.1	4	157	59.2
191.fma3d	4	161	60.4	4	162	60.3
200.sixtrack	4	127	40.2	4	122	42.0
301.apsi	4	171	70.7	4	163	74.1

Hardware

CPU: AMD Opteron(tm) Processor 285
 CPU MHz: 2600
 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
 Secondary Cache: 1024KB (I+D) on chip
 L3 Cache: N/A
 Other Cache: N/A
 Memory: 8 x 1024MB, 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 2.3
 AMD Core Math Library 3.0.0
 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=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

171.swim: -Ofast -CG:local_fwd_sched=on -LNO:fusion=2 -m3dnow

172.mgrid: -Ofast -CG:gcm=off -OPT:IEEE_a=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:prefetch=3

Standard Performance Evaluation Corporation

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Notes/Tuning Information (Continued)

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+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
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 +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:Olimit=6000: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)