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

SPECfp2000 = 1911  
SPECfp_base2000 = 1671

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 -W0T:mm_opnds=on +FDO
Base tuning for FORTRAN programs: -Ofast -LNO:fusion=2 -OFT: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
      -LNO:fusion=2:fission=1:blocking=off:prefetch_ahead=2
      -W0T:mmopnds=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)
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
-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)