CFP2000 Result

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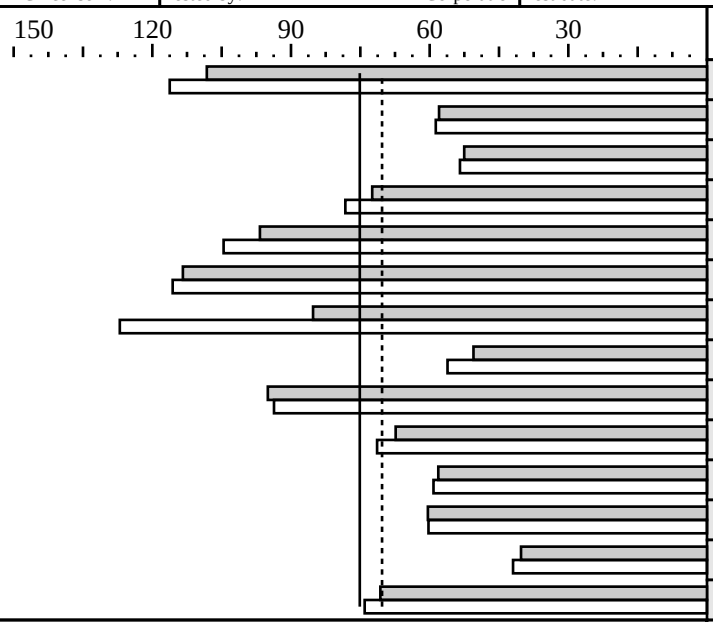
IBM

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.equake	4	119	50.5	4	107	56.1
187.facerec	4	92.8	95.0	4	94.1	93.7
188.ammp	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
```

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Notes/Tuning Information (Continued)

```
                  +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)
```