CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

IBM

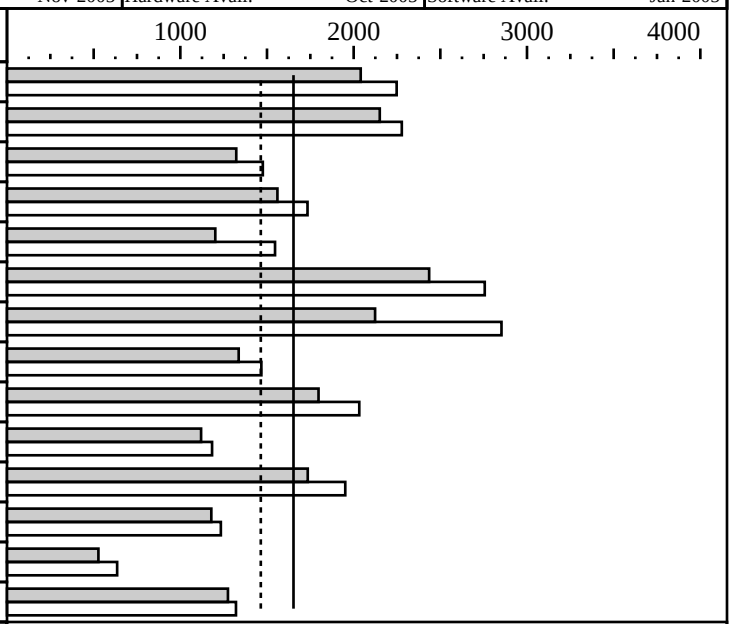
IBM eServer 326m, 1.8 GHz Dual Core AMD Opteron(tm) Processor 265

SPECfp2000 = 1653

SPECfp_base2000 = 1464

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	78.4	2041	71.2	2248
171.swim	3100	144	2151	136	2278
172.mgrid	1800	136	1323	122	1476
173.applu	2100	135	1560	121	1734
177.mesa	1400	116	1202	90.5	1546
178.galgel	2900	119	2435	105	2756
179.art	2600	122	2124	91.1	2853
183.equake	1300	97.3	1337	88.6	1467
187.facerec	1900	106	1797	93.5	2032
188.ammp	2200	196	1120	186	1183
189.lucas	2000	115	1735	102	1952
191.fma3d	2100	178	1179	170	1234
200.sixtrack	1100	209	527	173	635
301.apsi	2600	204	1275	197	1321



Hardware

CPU:	Dual Core AMD Opteron(tm) Processor 265
CPU MHz:	1800
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
```

Copyright ©1999-2005, Standard Performance Evaluation Corporation

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)
```