CFP2000 Result

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IBM

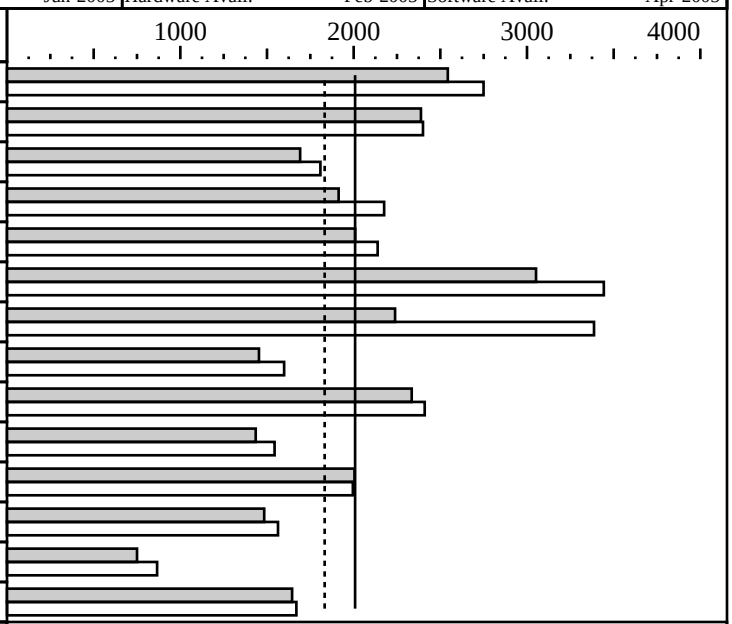
IBM eServer e326 (AMD Opteron (TM) 252)

SPECfp2000 = 2008

SPECfp_base2000 = 1833

SPEC license #: 11 | Tested by: IBM Corporation | Test date: Jun-2005 | Hardware Avail: Feb-2005 | Software Avail: Apr-2005

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	62.9	2543	58.2	2749
171.swim	3100	130	2388	129	2400
172.mgrid	1800	106	1691	99.6	1808
173.applu	2100	110	1913	96.5	2176
177.mesa	1400	69.7	2009	65.5	2138
178.galgel	2900	95.0	3052	84.2	3443
179.art	2600	116	2239	76.8	3387
183.equake	1300	89.4	1454	81.3	1599
187.facerec	1900	81.4	2335	78.8	2410
188.ammp	2200	153	1435	143	1544
189.lucas	2000	99.8	2005	100	1995
191.fma3d	2100	142	1484	134	1563
200.sixtrack	1100	147	750	127	866
301.apsi	2600	158	1645	156	1669



Hardware

CPU:	AMD Opteron 252
CPU MHz:	2600
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 2.6.5-7.139-smp
Compiler:	PathScale EKOPath(TM) Compiler Suite, Release 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
 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 -TENV:X=4
                  -IPA:space=1000:linear=on:plimit=50000:callee_limit=5000
                  -INLINE:aggressive=on +FDO
   171.swim:      -Ofast -LNO:fusion=2
   172.mgrid:     -O3 -LNO:fusion=2:blocking=off
                 -OPT:Ofast:unroll_times_max=8:unroll_size=256:ro=3 -CG:gcm=off:cflow=off
   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 -WOPT:val=2
```

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Notes/Tuning Information (Continued)

```
    177.mesa:      -O2 -ipa -OPT:Ofast -fno-math-errno -CG:local_fwd_sched=on +FDO
    178.galgel:    -Ofast -OPT:fast_complex -CG:use_movlpd=on RM_SOURCES=lapak.f90 +ACML
    179.art:       -O3 -OPT:ro=2:div_split=on:alias=typed -fno-math-errno -m32 +FDO
    183.equake:    -Ofast -WOPT:mem_opnds=on -CG:local_fwd_sched=on -m32
    187.facerec:   -Ofast -OPT:treeheight=on:IEEE_NaN_Inf=off:ro=3 -CG:load_exe=0
                   -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 -LNO:prefetch=0 +FDO
    189.lucas:     -Ofast -CG:local_fwd_sched=on -LNO:fusion=2 +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:  -Ofast -CG:load_exe=1 +FDO
    301.apsi:      -Ofast -TENV:X=4 -LNO:fusion=2:prefetch=0
  BIOS Configuration Notes
    Node Interleaving is Disabled
  Other Configuration Notes
     Taskset utility used to bind process to CPU(s)
```