CFP2000 Result

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IBM

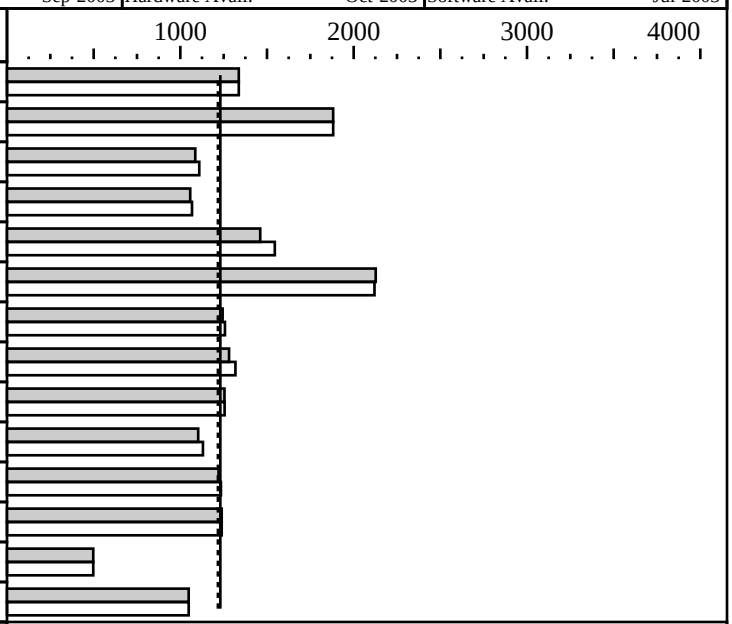
eServer 325, 2.0 GHz Opteron, 64-bit pgi, SuSE SLES8 Linux

SPECfp2000 = 1231

SPECfp_base2000 = 1217

SPEC license #: 11 | Tested by: IBM, Research Triangle Park, NC | Test date: Sep-2003 | Hardware Avail: Oct-2003 | Software Avail: Jul-2003

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	120	1337	120	1337
171.swim	3100	165	1882	165	1882
172.mgrid	1800	166	1086	162	1109
173.applu	2100	199	1057	197	1067
177.mesa	1400	95.8	1461	90.6	1545
178.galgel	2900	136	2127	137	2120
179.art	2600	209	1244	207	1257
183.equake	1300	101	1281	98.6	1318
187.facerec	1900	151	1255	151	1255
188.ammp	2200	199	1103	195	1130
189.lucas	2000	164	1221	162	1234
191.fma3d	2100	170	1239	170	1239
200.sixtrack	1100	221	498	221	498
301.apsi	2600	248	1048	248	1048



Hardware

CPU:	AMD Opteron 246
CPU MHz:	2000
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:	4x512MB PC2700 Reg ECC DDR SDRAM CL2.5
Disk Subsystem:	1 x 40GB IDE
Other Hardware:	None

Software

Operating System:	SuSE Linux 8.0 SLES 64 bit Kernel 2.4.19-249 (SP2)
Compiler:	PGI Fortran 5.0-1 and SuSE gcc33 optional compiler (from SLES8 SP2)
File System:	Linux/reiserfs
System State:	Multi-user SuSE Run level 5

Notes/Tuning Information

```
Tested by IBM Corporation
  pgf90 is the PGI Fortran compiler
  gcc is the SuSE optional gcc33 package C compiler (from SLES8 SP2)
  +FDO: PASS1=-fprofile-arcs PASS2=-fbranch-probabilities
  ONESTEP is used for all base and peak runs
  Portability:
    178.galgel:     -Mfixed
  Baseline Fortran: pgf90 -fastsse -Mipa=fast
  Baseline C:       gcc -O3 -funroll-all-loops +FD0
  Peak tuning:
    168.wupwise:    basepeak=true
    171.swim:       basepeak=true
    172.mgrid:      -fast -Mipa=fast
    173.applu:      -fast -Mipa=fast
    177.mesa:       -O3 -funroll-all-loops -finline-limit=2000 +FDO
    178.galgel:     -fastsse -Mipa=fast -O3
    179.art:        -O3 -funroll-all-loops -ffast-math -finline-limit=1500 +FDO
```

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Notes/Tuning Information (Continued)

```
    183.equake:     -O3 -funroll-all-loops -ffast-math -finline-limit=2000
    187.facerec:    -fastsse -Mipa=fast -O3
    188.ammp:       -O3 -funroll-all-loops -ffast-math -finline-limit=2000 +FDO
    189.lucas:      -fastsse -Mipa=fast -Mnosmart
    191.fma3d:      basepeak=true
    200.sixtrack:   basepeak=true
    301.apsi:       basepeak=true
  Set the following BIOS parameters:
    DRAM Interleave = AUTO
```