CFP2000 Result

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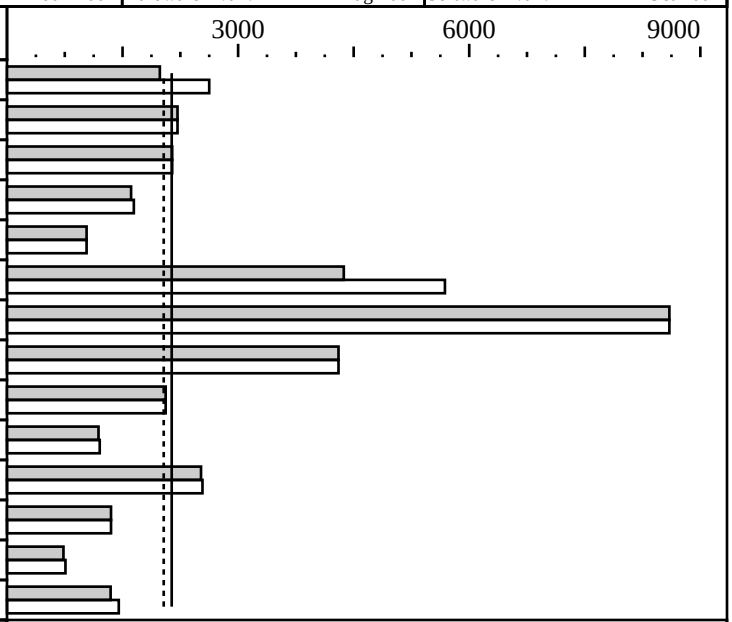
IBM Corporation
IBM eServer i5 520 (1650 MHz, 1 CPU)

SPECfp2000 = 2138

SPECfp_base2000 = 2034

SPEC license #: 11 | Tested by: IBM | Test date: Jun-2004 | Hardware Avail: Aug-2004 | Software Avail: Oct-2004

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	80.6	1984	61.0	2625
171.swim	3100	140	2213	140	2213
172.mgrid	1800	83.9	2144	83.9	2144
173.applu	2100	130	1611	128	1646
177.mesa	1400	136	1033	136	1033
178.galgel	2900	66.3	4372	51.0	5685
179.art	2600	30.2	8598	30.2	8598
183.equake	1300	30.2	4303	30.2	4303
187.facerec	1900	92.2	2060	92.2	2060
188.ammp	2200	185	1188	183	1204
189.lucas	2000	79.4	2519	78.8	2537
191.fma3d	2100	156	1350	156	1350
200.sixtrack	1100	150	733	145	759
301.apsi	2600	193	1345	179	1451



Hardware

CPU:	POWER5
CPU MHz:	1650
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 2 cores/chip (SMT off)
CPU(s) orderable:	2
Parallel:	No
Primary Cache:	64KBI+32KBD (on chip)/core
Secondary Cache:	1920KB unified (on chip)/chip
L3 Cache:	36MB unified (off chip)/DCM, 1 DCM/SUT
Other Cache:	none
Memory:	8x4 GB
Disk Subsystem:	1x36GB SCSI, 15K RPM
Other Hardware:	

Software

Operating System:	AIX 5L V5.3
Compiler:	XL C/C++ Enterprise Edition Version 7.0 for AIX XL Fortran Enterprise Edition V9.1 for AIX Other Software: IBM Engineering and Scientific Subroutine Library for AIX, Version 4 Release 2
File System:	AIX/JFS2
System State:	Multi-User

Notes/Tuning Information

```
Portability Flags
  -qfixed used in:        168.wupwise, 171.swim, 172.mgrid, 173.applu,
                          178.galgel, 200.sixtrack, 301.apsi
  -qsuffix=f=f90 used in: 178.galgel, 187.facerec, 189.lucas, 191.fma3d


Base Optimization Flags:
  C:        -qpdf1/pdf2 -O5 -blpdata -qalign=natural
  Fortran:  -qpdf1/pdf2 -O5 -blpdata -lmass

Peak Optimization Flags
  168.wupwise:  -O5 -qarch=pwr3 -qtune=pwr3 -blpdata -lmass
                F77 = xlf
  171.swim:     basepeak = 1
  172.mgrid:    basepeak = 1
  173.applu:    -O5 -blpdata -lmass
```

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Notes/Tuning Information (Continued)

```
  177.mesa:     basepeak = 1
  178.galgel:   -O5 -blpdata -qessl -lessl
  179.art:      basepeak = 1
  183.equake:   basepeak = 1
  187.facerec:  basepeak = 1
  188.ammp:     -qpdf1/pdf2
                -O5 -blpdata -qalign=natural -D_ILS_MACROS
  189.lucas:    -O5 -blpdata -lmass
  191.fma3d:    basepeak = 1
  200.sixtrack: fdpr -quiet -R3
                -O3 -qhot -qarch=pwr5 -qtune=pwr5 -qfdpr
  301.apsi:     -O5 -lmass -qessl -lessl -blpdata -qsave

SMT: Acronym for "Simultaneous Multi-Threading". A processor technology that allows
     the simultaneous execution of multiple thread contexts within a single processor
     core. (Enabled by default)
DCM: Acronym for "Dual-Chip Module" (one dual-core processor chip + one L3-cache chip)
SUT: Acronym for "System Under Test"

ulimits set to unlimited.
Large page mode was set as follows:
   vmo -r -o lgpg_regions=400 -o lgpg_size=16777216
   chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
   reboot -q
One core was deconfigured and SMT disabled at the open-firmware prompt, using the
command
   boot -s cpu=1 -s smt_off
This result was measured on model IBM eServer p5 520.
Model i5 520 and model p5 520 are electronically equivalent.
```