CFP2000 Result

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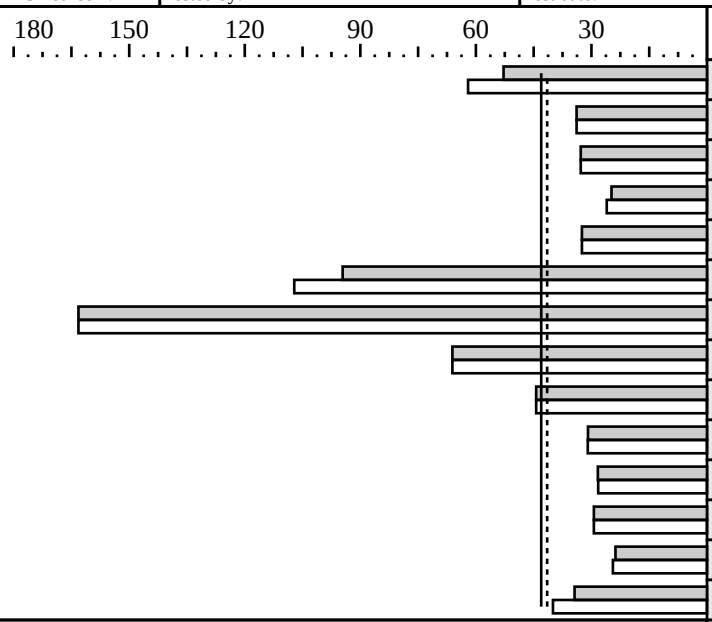
IBM Corporation

IBM eServer i5 520 (1650 MHz, 2 CPU)

SPECfp_rate2000 = 43.0

SPECfp_rate_base2000 = 41.5

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	4	141	52.8	4	120	62.0
171.swim	4	425	33.9	4	425	33.9
172.mgrid	4	255	32.8	4	255	32.8
173.applu	4	393	24.8	4	374	26.0
177.mesa	4	200	32.5	4	200	32.5
178.galgel	4	142	94.6	4	126	107
179.art	4	73.9	163	4	73.9	163
183.equake	4	91.3	66.1	4	91.3	66.1
187.facerec	4	199	44.3	4	199	44.3
188.ammp	4	330	30.9	4	330	30.9
189.lucas	4	327	28.3	4	329	28.2
191.fma3d	4	332	29.4	4	332	29.4
200.sixtrack	4	215	23.8	4	209	24.4
301.apsi	4	351	34.4	4	302	40.0

Hardware

CPU:	POWER5
CPU MHz:	1650
FPU:	Integrated
CPU(s) enabled:	2 cores, 1 chip, 2 cores/chip (SMT on)
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 and memory affinity were set as follows:
   vmo -r -o lgpg_regions=400 -o lgpg_size=16777216 -o memory_affinity=1
   chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
   reboot -q
   export MEMORY_AFFINITY=MCM
This result was measured on model IBM eServer p5 520.
Model i5 520 and model p5 520 are electronically equivalent.
```