CFP2000 Result

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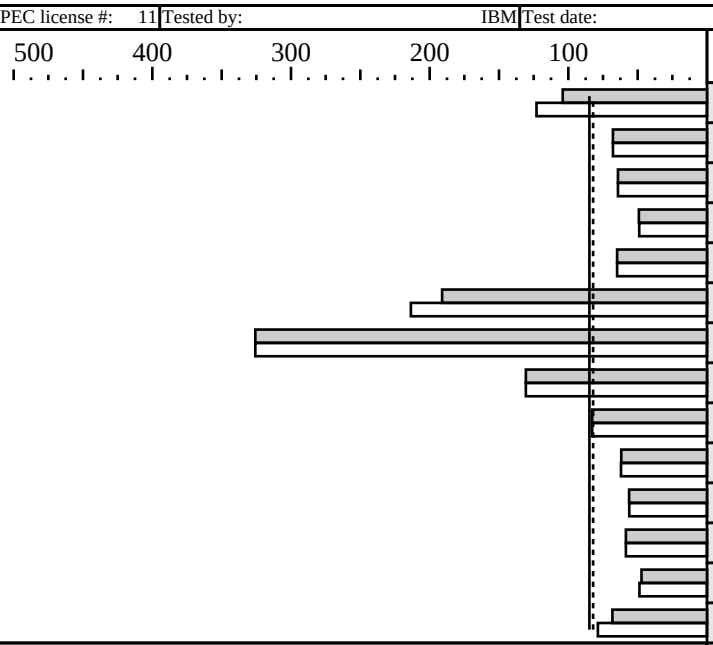
IBM Corporation
IBM eServer i5 550 (1650 MHz, 4 CPU)

SPECfp_rate2000 = 84.8

SPECfp_rate_base2000 = 82.1

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	8	143	104	8	121	123
171.swim	8	424	67.8	8	424	67.8
172.mgrid	8	260	64.2	8	260	64.2
173.applu	8	397	49.1	8	399	48.9
177.mesa	8	200	64.8	8	200	64.8
178.galgel	8	141	191	8	126	214
179.art	8	74.1	326	8	74.1	326
183.equake	8	92.4	131	8	92.4	131
187.facerec	8	213	82.8	8	213	82.8
188.ammp	8	330	61.8	8	329	62.0
189.lucas	8	330	56.2	8	331	56.1
191.fma3d	8	333	58.5	8	333	58.5
200.sixtrack	8	216	47.2	8	210	48.7
301.apsi	8	354	68.2	8	307	78.7

Hardware

CPU:	POWER5
CPU MHz:	1650
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip (SMT on)
CPU(s) orderable:	2,4
Parallel:	No
Primary Cache:	64KBI+32KBD (on chip)/core
Secondary Cache:	1920KB unified (on chip)/chip
L3 Cache:	36MB unified (off chip)/DCM, 2 DCM/SUT
Other Cache:	none
Memory:	16x4 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 550.
Model i5 550 and model p5 550 are electronically equivalent.
```