



CFP2000 Result

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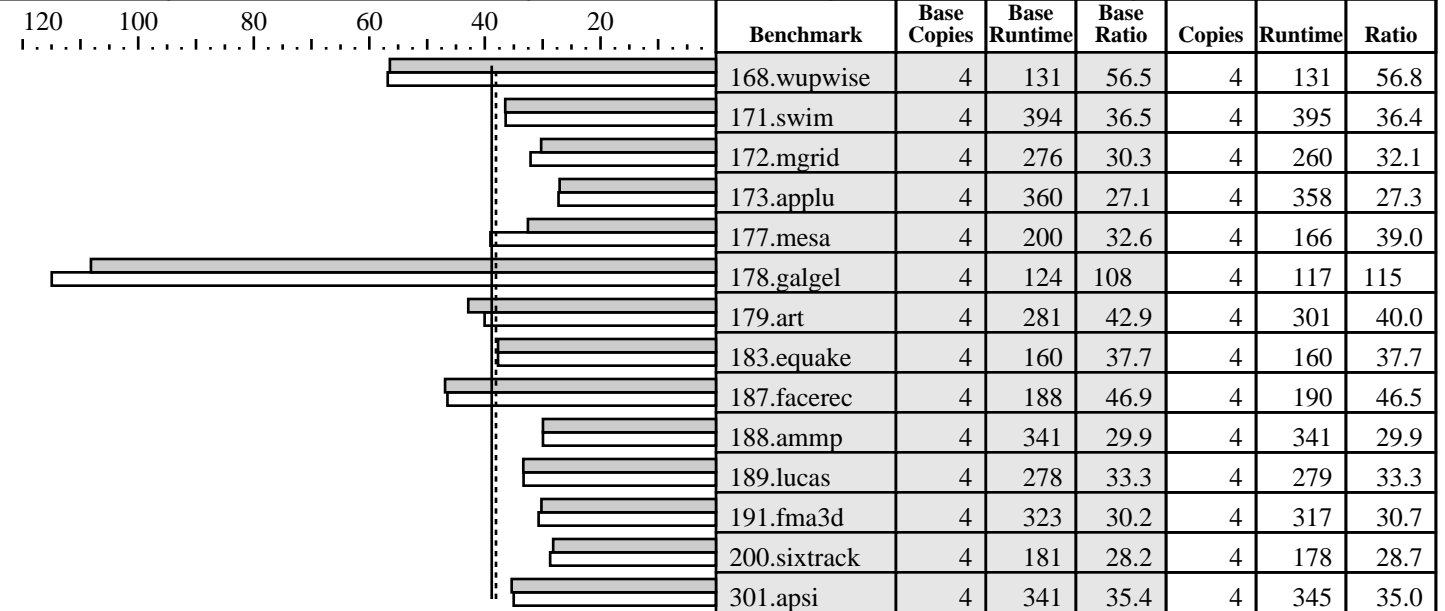
IBM Corporation

IBM eServer pSeries 630 Model 6E4 (1450 MHz, 4 CPU)

SPECfp_rate2000 = 38.8

SPECfp_rate_base2000 = 38.1

SPEC license #: 11 | Tested by: IBM, Austin, TX | Test date: Jan-2003 | Hardware Avail: Feb-2003 | Software Avail: Dec-2002



Hardware

CPU: POWER4+
 CPU MHz: 1450
 FPU: Integrated
 CPU(s) enabled: 4 cores, 2 chips, 2 cores/chip, 1 chip/SCM
 CPU(s) orderable: 1,2,4 (order by # cores)
 Parallel: No
 Primary Cache: 64KBI+32KBD (on chip) per core
 Secondary Cache: 1536KB unified (on chip) per chip
 L3 Cache: 8MB unified (off-chip) per SCM, 2 SCMs in SUT
 Other Cache: None
 Memory: 16 GB
 Disk Subsystem: 1x36GB SCSI
 Other Hardware: None

Software

Operating System: AIX 5L V5.2
 Compiler: IBM C for AIX, Version 6.0
 IBM XL FORTRAN for AIX, Version 8.1.0.1
 Other Software: ESSL 3.3, MASS 3.0
 File System: AIX/JFS
 System State: Multi-User

Notes/Tuning Information

Portability Flags

-qfixed used in: wupwise, swim, mgrid, applu, galgel, sixtrack, apsi
 -qsuffix=f=f90 used in: galgel, facerec, lucas, fma3d

Base Optimization Flags:

C:
 -O5 -qalign=natural -blpdata -lmass
 Fortran:
 -O5 -qalign=natural -blpdata -lmass

Floating Point Peak Flags

168.wupwise
 -O5 -qipa=partition=large
 171.swim
 -O4 -q64 -blpdata
 172.mgrid



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Notes/Tuning Information (Continued)

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-05 -qarch=pwr3 -qtune=pwr3 -blpdata
173.applu
-03 -qarch=pwr3 -qtune=pwr3 -lmass -qhot -blpdata
177.mesa
-qpdf1/pdf2
fdpr -v -R3
-03 -qarch=pwr3 -qtune=pwr3 -qipa=level=2 -qalign=natural -blpdata
178.galgel
-qpdf1/pdf2
fdpr -v -R3
-05 -qalign=natural -qessl -lessl -lmass -blpdata
179.art
-04 -lhmu
183.quake
BASEPEAK = 1
187.facerec
fdpr -v -R3
-05 -lmass -blpdata
188.amp
BASEPEAK = 1
189.lucas
-03 -q64 -blpdata
191.fma3d
-qpdf1/pdf2
-05 -qarch=pwr4 -qtune=pwr3 -lhmu -qalign=natural -blpdata
200.sixtrack
-qpdf1/pdf2
-05 -lmass
301.apsi
-05 -qarch=pwr4 -qtune=pwr3 -blpdata

```

SCM: Acronym for "Single-Chip Module"

SUT: Acronym for "System Under Test"

```

fpdr: Feedback directed program restructuring tool
/usr/spec2000 filesystem mounted with no JFS log file I/O.
APAR IY 38292 was applied to AIX to enable new hardware support.
ulimits set to unlimited.
C: IBM VAC++ invoked as xlc
Fortran 77 and 90: IBM XL Fortran for AIX invoked as xlf90.
Large page mode and memory affinity were set as follows:
vmo -r -o lpgg_regions=128 -o lpgg_size=16777216 -o memory_affinity=1
chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
shutdown -r
export MEMORY_AFFINITY=MCM

```