CFP2000 Result

IBM Corporation

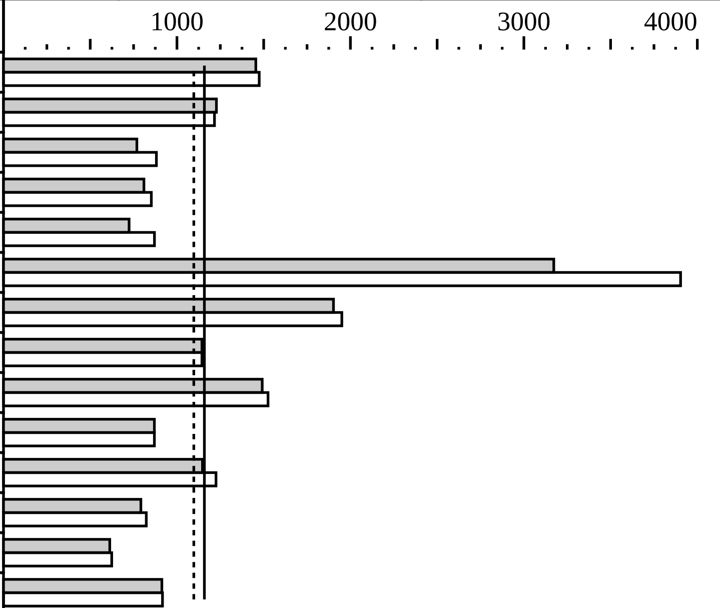
IBM eServer pSeries 630 Model 6C4 (1450 MHz, 1 CPU)

SPECfp2000 = 1158

SPECfp_base2000 = 1097

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	110	1455	109	1474
171.swim	3100	253	1228	255	1216
172.mgrid	1800	234	769	204	882
173.applu	2100	259	810	246	852
177.mesa	1400	193	724	161	870
178.galgel	2900	91.4	3172	74.3	3904
179.art	2600	137	1902	133	1951
183.equake	1300	114	1144	114	1144
187.facerec	1900	127	1492	125	1525
188.ammp	2200	253	870	253	870
189.lucas	2000	174	1147	163	1225
191.fma3d	2100	265	792	255	823
200.sixtrack	1100	180	613	176	624
301.apsi	2600	285	913	284	917



Hardware

CPU:	POWER4+
CPU MHz:	1450
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 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, 1 SCM in SUT
Other Cache:	None
Memory:	8 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)

```
      -O5 -qarch=pwr3 -qtune=pwr3 -blpdata
    173.applu
      -O3 -qarch=pwr3 -qtune=pwr3 -lmass -qhot -blpdata
    177.mesa
      -qpdf1/pdf2
      fdpr -v -R3
      -O3 -qarch=pwr3 -qtune=pwr3 -qipa=level=2 -qalign=natural -blpdata
    178.galgel
      -qpdf1/pdf2
      fdpr -v -R3
      -O5 -qalign=natural -qessl -lessl -lmass -blpdata
    179.art
     -O4 -lhmu
    183.equake
      BASEPEAK = 1
    187.facerec
      fdpr -v -R3
      -O5 -lmass -blpdata
    188.ammp
      BASEPEAK = 1
    189.lucas
      -O3 -q64 -blpdata
    191.fma3d
      -qpdf1/pdf2
      -O5 -qarch=pwr4 -qtune=pwr3 -lhmu -qalign=natural -blpdata
    200.sixtrack
      -qpdf1/pdf2
      -O5 -lmass
    301.apsi
      -O5 -qarch=pwr4 -qtune=pwr3 -blpdata

      SCM: Acronym for "Single-Chip Module"
      SUT: Acronym for "System Under Test"

      1 processor was deconfigured through the configuration menu.

      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 lgpg_regions=32 -o lgpg_size=16777216 -o memory_affinity=1
        chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
        shutdown -r
        export MEMORY_AFFINITY=MCM
```