CFP2000 Result

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IBM Corporation

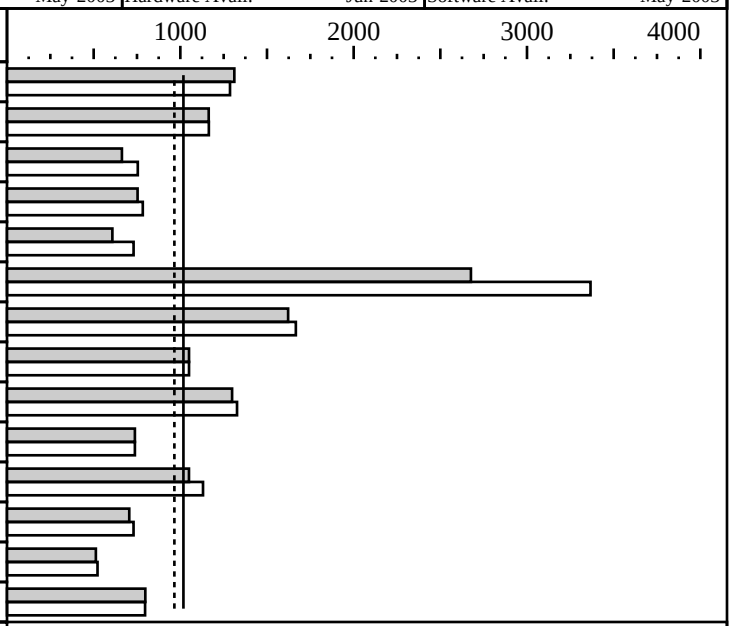
IBM eServer pSeries 615 Model 6E3 (1200 MHz, 1 CPU)

SPECfp2000 = 1018

SPECfp_base2000 = 966

SPEC license #: 11 | Tested by: IBM, Austin, TX | Test date: May-2003 | Hardware Avail: Jun-2003 | Software Avail: May-2003

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	122	1312	124	1287
171.swim	3100	266	1164	266	1164
172.mgrid	1800	272	663	239	755
173.applu	2100	279	753	268	783
177.mesa	1400	230	608	192	730
178.galgel	2900	108	2676	86.1	3366
179.art	2600	160	1622	156	1666
183.equake	1300	124	1050	124	1050
187.facerec	1900	146	1299	143	1327
188.ammp	2200	298	738	298	738
189.lucas	2000	191	1050	177	1131
191.fma3d	2100	298	705	288	730
200.sixtrack	1100	215	513	211	522
301.apsi	2600	326	798	326	797



Hardware

CPU:	POWER4+
CPU MHz:	1200
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 2 cores/chip, 1 processor chip/DCM
CPU(s) orderable:	1,2 (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 DCM, 1 DCM in SUT
Other Cache:	None
Memory:	4 GB
Disk Subsystem:	1x36GB SCSI, 10K RPM
Other Hardware:	None

Software

Operating System:	AIX 5L V5.2
Compiler:	IBM C for AIX, Version 6.0 IBM XL FORTRAN for AIX, Version 8.1.0.3 Other Software: ESSL 3.3.0.5, MASS 3.0
File System:	AIX/JFS
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:
  -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

    DCM: Acronym for "Dual-Chip Module"
    SUT: Acronym for "System Under Test"

    IBM eServer pSeries 615 Model 6C3 (rack-mount server) and pSeries
    615 Model 6E3 (deskside server) are electronically equivalent.
    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 43549 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
```