



CFP2000 Result

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IBM Corporation

IBM eServer pSeries 615 Model 6C3 (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.quake	1300	124	1050	124	1050	
187.facerec	1900	146	1299	143	1327	
188.amp	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)

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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.ammp
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

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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 lpgg_regions=32 -o lpgg_size=16777216 -o memory_affinity=1
chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE \$USER
shutdown -r
export MEMORY_AFFINITY=MCM