



CFP2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

IBM Corporation

IBM eServer p5 520 Express (1500 MHz, 2 CPU)

SPECfp_rate2000 = NC

SPECfp_rate_base2000 = NC

SPEC license #: 11 | Tested by: IBM | Test date: Sep-2004 | Hardware Avail: Oct-2004 | Software Avail: Oct-2004

SPEC has determined that this result was not in compliance with the SPEC CPU2000 run and reporting rules. Specifically, the submitter has reported that measurements on a production system were not, as required by the SPEC CPU2000 Run Rules, within the 1.75% lower bound of the preproduction system.

5	4	3	2	1	Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
					168.wupwise	4	NC	NC	4	NC	NC
					171.swim	4	NC	NC	4	NC	NC
					172.mgrid	4	NC	NC	4	NC	NC
					173.applu	4	NC	NC	4	NC	NC
					177.mesa	4	NC	NC	4	NC	NC
					178.galgel	4	NC	NC	4	NC	NC
					179.art	4	NC	NC	4	NC	NC
					183.equake	4	NC	NC	4	NC	NC
					187.facerec	4	NC	NC	4	NC	NC
					188.ampp	4	NC	NC	4	NC	NC
					189.lucas	4	NC	NC	4	NC	NC
					191.fma3d	4	NC	NC	4	NC	NC
					200.sixtrack	4	NC	NC	4	NC	NC
					301.apsi	4	NC	NC	4	NC	NC

Hardware

CPU: POWER5
 CPU MHz: 1500
 FPU: Integrated
 CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip (SMT on)
 CPU(s) orderable: 2
 Parallel: No
 Primary Cache: 64KBI+32KBD (on chip)/core
 Secondary Cache: 1920KB unified (on chip)/chip
 L3 Cache: 36MB unified (off chip)/DCM, 1 DCM/SUT
 Other Cache: None
 Memory: 8x2 GB
 Disk Subsystem: 2x36GB SCSI, 15K RPM
 Other Hardware:

Software

Operating System: AIX 5L V5.3
 Compiler: XL C/C++ Enterprise Edition V7.0 for AIX
 XL Fortran Enterprise Edition V9.1 for AIX
 Other Software: IBM ESSL for AIX V4.2
 File System: AIX/JFS2
 System State: Multi-user

Notes/Tuning Information

Tested by IBM

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:



CFP2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

IBM Corporation

IBM eServer p5 520 Express (1500 MHz, 2 CPU)

SPECfp_rate2000 = NC

SPECfp_rate_base2000 = NC

SPEC license #: 11 | Tested by: IBM | Test date: Sep-2004 | Hardware Avail: Oct-2004 | Software Avail: Oct-2004

SPEC has determined that this result was not in compliance with the SPEC CPU2000 run and reporting rules. Specifically, the submitter has reported that measurements on a production system were not, as required by the SPEC CPU2000 Run Rules, within the 1.75% lower bound of the preproduction system.

Notes/Tuning Information (Continued)

C: -qpdf1/pdf2
-O5 -blpdata -lmass
Fortran: -qpdf1/pdf2
-O5 -blpdata -lmass

Peak Optimization Flags:

168.wupwise: -O5 -qarch=pwr3 -qtune=pwr3 -blpdata -lmass
F77=xlfi
171.swim: -O5 -qarch=pwr3 -qtune=pwr3 -blpdata -lmass
F77=xlfi
172.mgrid: -qpdf1/pdf2
-O5 -blpdata -lmass
173.applu: -O5 -qarch=pwr3 -qtune=pwr3 -blpdata -lmass
F77=xlfi
177.mesa: -qpdf1/pdf2
-O5
178.galgel: -O5 -blpdata -qessl -lessl
179.art: -O5 -lmass -qessl -lessl -blpdata -qsave
183.earthquake: -qpdf1/pdf2
-O5 -blpdata -lmass
187.facerec: -O3 -qhot -qarch=pwr5 -qtune=pwr5 -qfdpr
fdpr -R3
188.ammp: -qpdf1/pdf2
-O5 -blpdata -qalign=natural -D_ILS_MACROS
189.lucas: -O5 -blpdata -lmass
191.fma3d: -qpdf1/pdf2
-O5 -blpdata -qalign=natural -qhot=arraypad -Q
200.sixtrack: -O3 -qhot -qarch=pwr5 -qtune=pwr5 -qfdpr
fdpr -R3
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)

ESSL: Engineering and Scientific Subroutine Library

DCM: Acronym for "Dual-Chip Module" (one dual-core processor chip + one L3-cache chip)

SUT: Acronym for "System Under Test"

C: IBM XL C for AIX invoked as xlc

Fortran: IBM XL Fortran for AIX invoked as xlf90

APAR IY 62534 was applied to AIX to enable new hardware support.

ulimits set to unlimited.

Large page mode and memory affinity were set as follows:

vmo -r -o lpgg_regions=400 -o lpgg_size=16777216 -o memory_affinity=1

Standard Performance Evaluation Corporation

info@spec.org

http://www.spec.org



CFP2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

IBM Corporation

IBM eServer p5 520 Express (1500 MHz, 2 CPU)

SPECfp_rate2000 = NC

SPECfp_rate_base2000 = NC

SPEC license #: 11 | Tested by: IBM | Test date: Sep-2004 | Hardware Avail: Oct-2004 | Software Avail: Oct-2004

SPEC has determined that this result was not in compliance with the SPEC CPU2000 run and reporting rules. Specifically, the submitter has reported that measurements on a production system were not, as required by the SPEC CPU2000 Run Rules, within the 1.75% lower bound of the preproduction system.

Notes/Tuning Information (Continued)

```
chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
shutdown -r
export MEMORY_AFFINITY=MCM
```

Non-Compliant