CFP2000 Result

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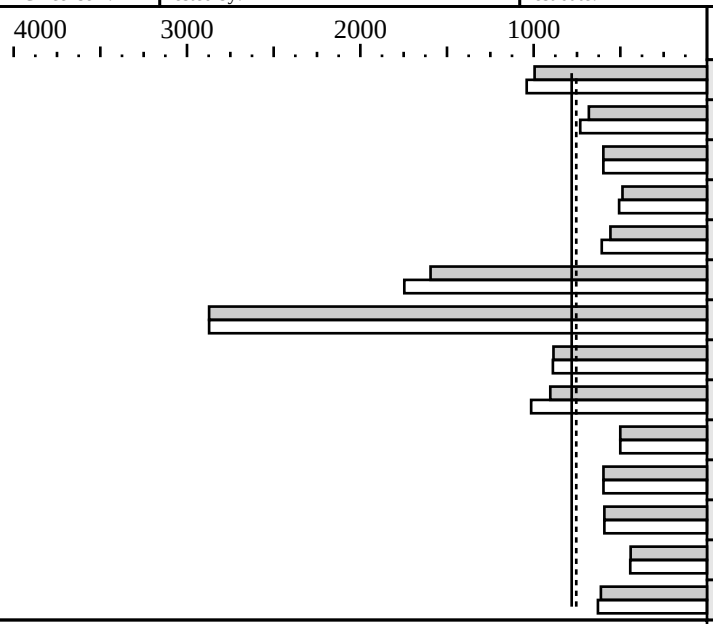
IBM Corporation

IBM eServer p5 595 (1900 MHz, 32 CPU, Linux)

SPECfp_rate2000 = 781

SPECfp_rate_base2000 = 754

SPEC license #: 11 | Tested by: IBM | Test date: Feb-2005 | Hardware Avail: Oct-2004 | Software Avail: Jan-2005



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	64	119	995	64	114	1040
171.swim	64	338	682	64	315	731
172.mgrid	64	223	598	64	223	598
173.applu	64	320	488	64	308	507
177.mesa	64	187	557	64	171	607
178.galgel	64	135	1595	64	123	1746
179.art	64	67.2	2872	64	67.2	2872
183.equake	64	109	886	64	109	889
187.facerec	64	156	904	64	139	1014
188.ammp	64	326	500	64	326	500
189.lucas	64	249	597	64	249	597
191.fma3d	64	263	592	64	263	592
200.sixtrack	64	185	441	64	184	443
301.apsi	64	315	612	64	307	629

Hardware

CPU:	POWER5
CPU MHz:	1900
FPU:	Integrated
CPU(s) enabled:	32 cores, 16 chips, 2 cores/chip, 4 processor chips (SMT on)
CPU(s) orderable:	16,24,32,40,48,56,64
Parallel:	No
Primary Cache:	64KBI+32KBD (on chip)/core
Secondary Cache:	1920KB unified (on chip)/chip
L3 Cache:	36MB unified (off chip)/chip, 4 chips/MCM, 8 MCMs/SUT
Other Cache:	None
Memory:	32x8 GB
Disk Subsystem:	1X73GB SCSI, 15K RPM
Other Hardware:	None

Software

Operating System:	SUSE LINUX Enterprise Server 9 SP1 for IBM POWER
Compiler:	XL Fortran Enterprise Edition Version 9.1 for Linux XL C/C++ Enterprise Edition Version 7.0 for Linux Other Software: IBM ESSL for Linux on POWER, Version 4 Release 2
File System:	EXT2
System State:	Multi-User, run level 3

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 -qpdf1/pdf2
  Fortran:
        -O5 -qpdf1/pdf2

Floating Point Peak Flags
168.wupwise
 -O5 -qarch=pwr3 -qtune=pwr3
171.swim
 -O3 -qarch=pwr5 -qtune=pwr5 -qhot
172.mgrid
```

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Notes/Tuning Information (Continued)

```
 basepeak=1
173.applu
 -O3 -qarch=pwr4 -qtune=pwr4
177.mesa:  -qpdf1/pdf2
   -O4 -qarch=pwr4 -qtune=pwr4
178.galgel
        "Fortran compiler invoked as xlf_r"
 -O5 -qessl -lessl
179.art:
 basepeak=1
183.equake
 -O5 -qarch=pwr5 -qtune=pwr5
187.facerec:  -qpdf1/pdf2
 -O3 -qarch=pwr5 -qtune=pwr5 -qhot
188.ammp
 basepeak=1
189.lucas
 basepeak=1
191.fma3d:
 basepeak=1
200.sixtrack
 -O3 -qarch=pwr5 -qtune=pwr5
301.apsi
        "Fortran compiler invoked as xlf_r"
  -O5 -qarch=pwr5 -qtune=pwr5 -qessl -lessl

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)
DCM: Acronym for "Dual-Chip Module" (one dual-core processor chip + one L3-cache chip)
SUT: Acronym for "System Under Test"
ESSL: Engineering and Scientific Subroutine Library
MCM: Acronym for "Multi-Chip Module" (four dual-core processor chips + four L3-cache chips)
Stack size set to unlimited using "ulimit -s unlimited"
C:       IBM XL C/C++ for Linux invoked as xlc
Fortran: IBM XL Fortran for Linux invoked as xlf90 unless explicitly reassigned
Fortran: IBM XL Fortran for Linux invoked as xlf_r where noted
cleanpdf used with -qpdf1/pdf2 to erase the information in the PDF directory if any
     exists to ensure no feedback information is reused between compilations.
Flag file: IBM-20050209-Linux.txt
```