CFP2000 Result

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IBM Corporation

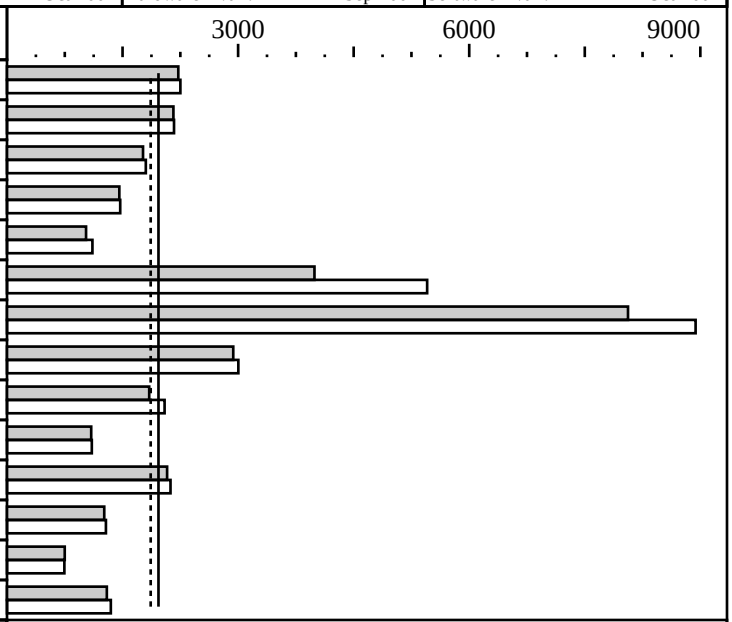
IBM eServer OpenPower 720 (1650 MHz, 4CPU, Linux)

SPECfp2000 = 1966

SPECfp_base2000 = 1865

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	72.0	2224	71.1	2251
171.swim	3100	144	2160	143	2168
172.mgrid	1800	102	1766	99.9	1802
173.applu	2100	144	1458	143	1470
177.mesa	1400	136	1026	126	1109
178.galgel	2900	72.7	3991	53.2	5454
179.art	2600	32.3	8061	29.1	8939
183.equake	1300	44.3	2937	43.3	3003
187.facerec	1900	103	1846	92.9	2046
188.ammp	2200	201	1093	200	1101
189.lucas	2000	96.2	2078	94.2	2122
191.fma3d	2100	166	1262	164	1284
200.sixtrack	1100	147	749	148	745
301.apsi	2600	201	1296	193	1348



Hardware

CPU:	POWER5
CPU MHz:	1650
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 2 cores/chip (SMT off)
CPU(s) orderable:	2,4
Parallel:	No
Primary Cache:	64KBI+32KBD (on chip)/core
Secondary Cache:	1920KB unified (on chip)/chip
L3 Cache:	36MB unified (off chip)/DCM, 2 DCM/SUT
Other Cache:	None
Memory:	16x1 GB
Disk Subsystem:	1X72GB SCSI, 15K RPM
Other Hardware:	None

Software

Operating System:	SUSE LINUX Enterprise Server 9 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, Version 4 Release 2
File System:	ReiserFS
System State:	Single-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 -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)

```
-O4 -qarch=pwr4 -qtune=pwr4
173.applu
-O5 -q64 -qarch=pwr4 -qtune=pwr4
177.mesa:  -qpdf1/pdf2
-O4 -qarch=pwr4 -qtune=pwr4
178.galgel
-O5 -qessl -lessl
"FC invoked as xlf_r"
179.art
-O5 -qarch=pwr5 -qtune=pwr5
183.equake
-O5 -qarch=pwr5 -qtune=pwr5
187.facerec:  -qpdf1/pdf2
-O3 -qarch=pwr5 -qtune=pwr5 -qhot
188.ammp
-O3 -qarch=pwr4 -qtune=pwr4
189.lucas
-O3 -qarch=pwr5 -qtune=pwr5
191.fma3d:  -qpdf1/pdf2
-O4 -qarch=pwr5 -qtune=pwr5
200.sixtrack
-O3 -qarch=pwr5 -qtune=pwr5
301.apsi
-O5 -qarch=pwr5 -qtune=pwr5 -qessl -lessl
"F77 invoked as xlf_r"

C: invoked as cc except where noted as xlc
Fortran 77 and 90: Fortran for Linux invoked as xlf90
ESSL: Engineering and Scientific Subroutine Library
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"
Stack size set to unlimited using the command "ulimit -s unlimite
Three cores were deconfigured using the Hardware Monitor Console
SMT was disabled at the Linux boot prompt, using the command
smt-enabled=off


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