CFP2000 Result

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IBM Corporation

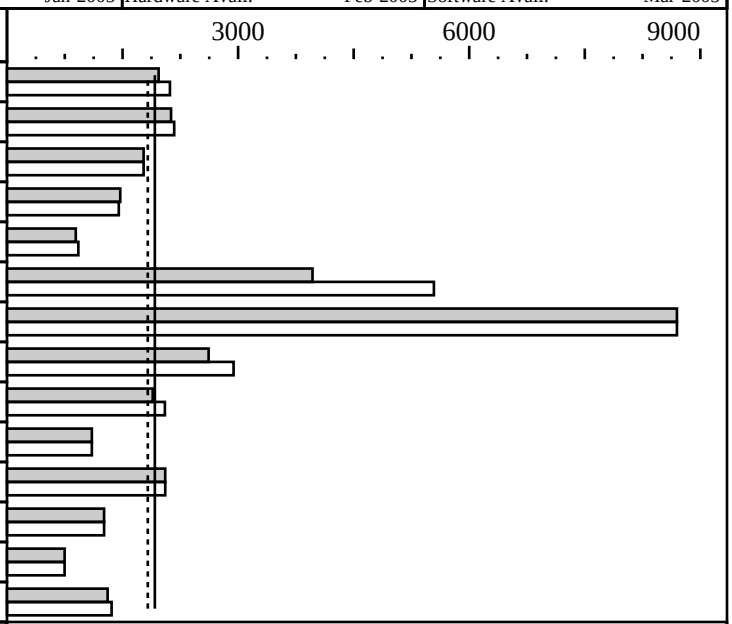
IBM eServer OpenPower 710 (1650MHz, 1 CPU, Linux)

SPECfp2000 = 1919

SPECfp_base2000 = 1828

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	81.3	1968	75.6	2115
171.swim	3100	146	2129	143	2170
172.mgrid	1800	101	1774	101	1774
173.applu	2100	143	1470	145	1451
177.mesa	1400	157	893	151	926
178.galgel	2900	73.1	3966	52.3	5542
179.art	2600	29.9	8696	29.9	8696
183.equake	1300	49.7	2617	44.2	2941
187.facerec	1900	100	1891	92.7	2049
188.ammp	2200	200	1101	200	1101
189.lucas	2000	97.4	2054	97.4	2054
191.fma3d	2100	167	1260	167	1260
200.sixtrack	1100	147	748	147	748
301.apsi	2600	199	1306	191	1358



Hardware

CPU:	POWER5
CPU MHz:	1650
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 2 cores/chip (SMT off)
CPU(s) orderable:	1,2
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:	1X73GB SCSI, 15K RPM
Other Hardware:	None

Software

Operating System:	Red Hat Enterprise Linux AS 4
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
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
Benchmark was run in a 1 CPU partition created using the Hardware Management Console
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
```