



CFP2000 Result

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IBM Corporation

IBM eServer OpenPower 710 (1650MHz, 2 CPU, Linux)

SPECfp_rate2000 = 40.2

SPECfp_rate_base2000 = 39.5

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

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	4	139	53.5	4	133	55.8
171.swim	4	432	33.3	4	418	34.4
172.mgrid	4	277	30.1	4	281	29.7
173.applu	4	386	25.3	4	392	24.9
177.mesa	4	208	31.2	4	193	33.6
178.galgel	4	154	87.6	4	133	102
179.art	4	77.0	157	4	77.4	156
183.equake	4	121	49.7	4	121	49.9
187.facerec	4	198	44.6	4	211	41.8
188.amp	4	374	27.3	4	385	26.5
189.lucas	4	341	27.2	4	341	27.2
191.fma3d	4	324	30.1	4	316	30.8
200.sixtrack	4	211	24.2	4	210	24.3
301.apsi	4	366	32.9	4	355	34.0

Hardware

CPU: POWER5
 CPU MHz: 1650
 FPU: Integrated
 CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip (SMT on)
 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: 8x4 GB
 Disk Subsystem: 1X73GB 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 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)

```
-04 -qarch=pwr4 -qtune=pwr4
173.applu
-05 -qarch=pwr5 -qtune=pwr5
177.mesa: -qpdf1/pdf2
-04 -qarch=pwr4 -qtune=pwr4
178.galgel
-05 -qessl -lessl
"F77 invoked as xlf_r"
179.art:
-05 -qarch=pwr5 -qtune=pwr5
183.quake
-05 -qarch=pwr5 -qtune=pwr5
187.facerec: -qpdf1/pdf2
-03 -qarch=pwr5 -qtune=pwr5 -qhot
188.ammp
-03 -qarch=pwr4 -qtune=pwr4
189.lucas
-03 -qarch=pwr5 -qtune=pwr5
191.fma3d: -qpdf1/pdf2
-04 -qarch=pwr5 -qtune=pwr5
200.sixtrack
-03 -qarch=pwr5 -qtune=pwr5
301.apsi
-05 -qarch=pwr5 -qtune=pwr5 -qessl -lessl
"F77 invoked as xlf_r"
```

Stack size set to unlimited using the command "ulimit -s unlimited"
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.

C: invoked 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"

Flag file: IBM-20040817-Linux.txt