CFP2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

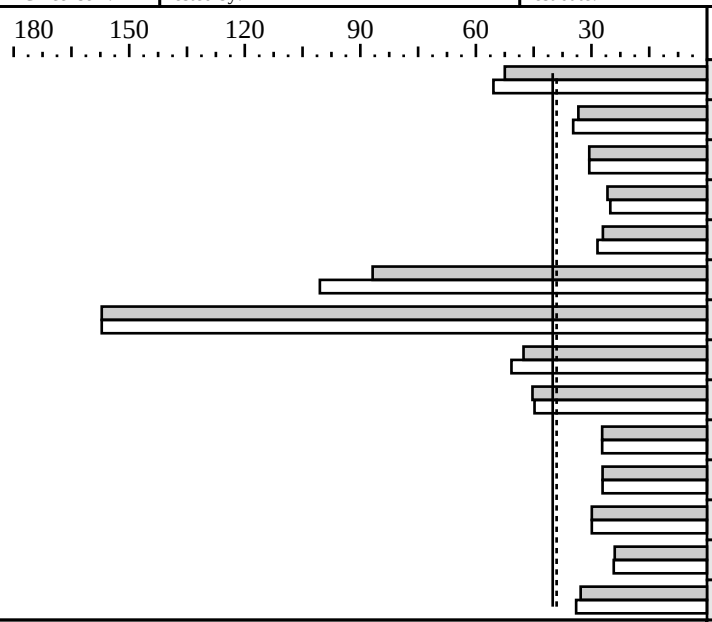
IBM Corporation

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

SPECfp_rate2000 = 40.1

SPECfp_rate_base2000 = 39.0

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	4	141	52.5	4	134	55.4
171.swim	4	431	33.4	4	414	34.7
172.mgrid	4	273	30.6	4	273	30.6
173.applu	4	377	25.8	4	388	25.1
177.mesa	4	240	27.0	4	228	28.4
178.galgel	4	155	86.8	4	134	101
179.art	4	76.8	157	4	76.8	157
183.equake	4	127	47.6	4	119	50.8
187.facerec	4	195	45.3	4	197	44.8
188.ammp	4	375	27.2	4	375	27.2
189.lucas	4	342	27.1	4	342	27.1
191.fma3d	4	326	29.9	4	326	29.9
200.sixtrack	4	213	24.0	4	211	24.2
301.apsi	4	368	32.8	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:	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
```

Copyright ©1999-2004, Standard Performance Evaluation Corporation

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

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
```