



CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

IBM Corporation
IBM System p5 185 (2500 MHz, 2 CPU)

SPECfp_rate2000 = 24.7
SPECfp_rate_base2000 = 23.5

SPEC license #: 11 | Tested by: IBM | Test date: Jan-2006 | Hardware Avail: Feb-2006 | Software Avail: Feb-2006

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	2	102	36.5	2	101	36.6
171.swim	2	372	19.3	2	372	19.3
172.mgrid	2	277	15.1	2	274	15.3
173.applu	2	385	12.6	2	366	13.3
177.mesa	2	92.0	35.3	2	84.4	38.5
178.galgel	2	225	29.9	2	222	30.3
179.art	2	96.5	62.5	2	93.0	64.8
183.quake	2	93.4	32.3	2	93.1	32.4
187.facerec	2	176	25.1	2	176	25.1
188.amp	2	357	14.3	2	242	21.1
189.lucas	2	327	14.2	2	323	14.4
191.fma3d	2	240	20.3	2	231	21.1
200.sixtrack	2	113	22.7	2	108	23.7
301.apsi	2	262	23.0	2	263	23.0

Hardware

CPU: IBM PowerPC 970MP
 CPU MHz: 2500
 FPU: Integrated
 CPU(s) enabled: 2 cores, 2 chips, 1 core/chip
 CPU(s) orderable: 1,2
 Parallel: No
 Primary Cache: 64KBI+32KBD (on chip)/core
 Secondary Cache: 1MB unified (on chip)/core
 L3 Cache: None
 Other Cache: None
 Memory: 4x2GB
 Disk Subsystem: 2x73GB SCSI, 10K RPM
 Other Hardware: None

Software

Operating System: AIX 5L V5.3
 Compiler: XL C/C++ Enterprise Edition Version 8.0 for AIX
 XL Fortran Enterprise Edition Version 10.1 for AIX
 Other Software: ESSL 4.2.0.4
 File System: AIX/JFS2
 System State: Multi-user

Notes/Tuning Information

Portability Flags:
 -qfixed used in: 168.wupwise, 171.swim, 172.mgrid, 173.applu,
 178.galgel, 200.sixtrack, 301.apsi
 -qsuffix=f=f90 used in: 178.galgel, 187.facerec, 189.lucas, 191.fma3d

Base Optimization Flags:
 Fortran: -O5 -lhmu -blpdata -lmass
 C: -qpdf1/pdf2
 -O5 -blpdata -qalign=natural

Peak Optimization Flags
 168.wupwise: -O5 -qsave -blpdata -lhmu -qenablevmx -lmass
 171.swim: -qpdf1/pdf2
 -O4 -qfdpr -blpdata
 fdpr -q -O3
 172.mgrid: -O5 -qalign=struct=natural -qfdpr -q64 -blpdata
 fdpr -q -O3



CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

IBM Corporation
IBM System p5 185 (2500 MHz, 2 CPU)

SPECfp_rate2000 = 24.7
SPECfp_rate_base2000 = 23.5

SPEC license #: 11 | Tested by: IBM | Test date: Jan-2006 | Hardware Avail: Feb-2006 | Software Avail: Feb-2006

Notes/Tuning Information (Continued)

```

173.applu: -O5 -qarch=pwr3 -qtune=pwr3 -qalign=struct=natural -qfdpr -q64 -blpdata
           fdpr -q -O3
177.mesa:  -qpdf1/pdf2
           -O5 -qfdpr -qalign=natural
           fdpr -q -O3
178.galgel: -O5 -qfdpr -q64 -blpdata -qenablevmx -lmass -qessl -lessl
           fdpr -q -O3
179.art:    -O5 -qarch=pwr3 -qtune=pwr3 -blpdata -lhmu
183.equake: -qpdf1/pdf2
           -O5 -qfdpr -blpdata
           fdpr -q -O3
187.facerec: -O5 -qfdpr -blpdata -qenablevmx -lmass -qessl -lessl
           fdpr -q -O3
188.ammp:   -qpdf1/pdf2
           -O3 -qarch=auto -qtune=auto -qipa=level=2 -blpdata -lhmu -qenablevmx -lmass
189.lucas:  -O3 -qarch=pwr4 -qtune=pwr4 -blpdata
191.fma3d:  -O5 -qarch=pwr3 -qtune=pwr3 -qalign=struct=natural -qfdpr -blpdata
           fdpr -q -O3
200.sixtrack: -O3 -qarch=auto -qtune=auto -qfdpr -q64 -qenablevmx -lmass
           fdpr -q -O3
301.apsi:   -O5 -qhot=arraypad -qipa=noobject -qipa=partition=large -qmaxmem=-1 -q64 -qenablevmx -lmass

```

The installed OS level is AIX 5L for POWER version 5.3 with the 5300-04 Recommended Technology Level.

ESSL: Engineering and Scientific Subroutine Library

```

ANSI C89:      IBM XL C for AIX invoked as xlc
Fortran 77:    IBM XL Fortran for AIX invoked as xlf90
Fortran 90:    IBM XL Fortran for AIX invoked as xlf90

```

ulimits set to unlimited.

Large page mode and memory affinity were set as follows:

```

vmo -r -o lpgg_regions=100 -o lpgg_size=16777216
chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
shutdown -rF
export MEMORY_AFFINITY=MCM

```

The following config-file entry was used to assign each benchmark process to a core:

```
submit = bindprocessor \$$ \$$SPECUSERNUM; $command
```

The "bindprocessor" AIX command binds a process to a CPU core.

This result was measured on an IBM System p5 185. The IBM System p5 185 and IBM IntelliStation POWER 185 models are electronically equivalent.