



# CFP2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

IBM Corporation  
IBM eServer pSeries 640 (4 MB L2)

SPECfp\_rate2000 = 11.9  
SPECfp\_rate\_base2000 = 10.6

SPEC license #: 11 | Tested by: IBM, Austin, TX | Test date: Aug-2000 | Hardware Avail: Oct-2000 | Software Avail: Oct-2000

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	4	569	13.0	4	378	19.6
171.swim	4	2187	6.58	4	1624	8.86
172.mgrid	4	1008	8.29	4	1032	8.10
173.applu	4	1271	7.67	4	1271	7.67
177.mesa	4	515	12.6	4	514	12.6
178.galgel	4	824	16.3	4	826	16.3
179.art	4	455	26.5	4	455	26.5
183.quake	4	634	9.51	4	459	13.1
187.facerec	4	965	9.14	4	638	13.8
188.amp	4	867	11.8	4	740	13.8
189.lucas	4	1169	7.94	4	1163	7.98
191.fma3d	4	987	9.88	4	994	9.81
200.sixtrack	4	674	7.58	4	675	7.56
301.apsi	4	1003	12.0	4	931	13.0

### Hardware

CPU: IBM Power3-II  
 CPU MHz: 375  
 FPU: Integrated  
 CPU(s) enabled: 4 cores, 4 chips, 1 core/chip  
 CPU(s) orderable: 1,2,3,4  
 Parallel: No  
 Primary Cache: 32KBI+64KBD (on chip)  
 Secondary Cache: 4MB (I+D) (off chip)  
 L3 Cache: None  
 Other Cache: None  
 Memory: 4GB  
 Disk Subsystem: 1x9.1GB IBM Ultra-2 SCSI, 10000RPM  
 Other Hardware: None

### Software

Operating System: AIX 4.3.3 + beta of APAR IY12051  
 Compiler: Fortran 77 and 90: IBM xl Fortran 6.1 invoked as 'xlF90'  
 C: IBM VAC 5.0 invoked as 'xlc'  
 File System: AIX/JFS  
 System State: Multi-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

NOTE: The flag combination 'qpdf1/qpdf2' indicates a 2 step compilation process, the exact process is as follows:

```
fdo_pre0 = rm -rf ${PDFDIR}; mkdir -p ${PDFDIR}
PASS1_FLAGS    =--qpdf1 {optimization flags}
PASS1_LDFLAGS  = {libraries} -L{pdf library location} -lpdf
PASS2_FLAGS    =--qpdf2 {optimization flags}
PASS2_LDFLAGS  =--{libraries}
```

### Base Optimization Flags:

Fortran: -qpdf1/pdf2 -O3 -qarch=pwr3 -lmass  
 C: -O5 -lmass

### Peak Optimization Flags:

168.wupwise: -qpdf1/pdf2 -O4 -qipa=level=2 -lmass  
 171.swim: -qpdf1/pdf2 -O4 -qipa=level=2 -qhot -lmass  
 172.mgrid: -O3 -qarch=pwr3 -qhot



# CFP2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

IBM Corporation  
IBM eServer pSeries 640 (4 MB L2)

SPECfp\_rate2000 = 11.9  
SPECfp\_rate\_base2000 = 10.6

SPEC license #: 11 | Tested by: IBM, Austin, TX | Test date: Aug-2000 | Hardware Avail: Oct-2000 | Software Avail: Oct-2000

## Notes/Tuning Information (Continued)

```
173.applu: -qpdf1/pdf2 -O3 -qarch=pwr3 -lmass
177.mesa: -O5 -lmass
178.galgel: -O4 -qipa=level=2 -qhot -lmass
179.art: -O5 -lmass
183.quake: -O5 -lmass -lhm
187.facerec: -O3 -qarch=pwr3 -qhot -lmass
188.amp: -O3 -qarch=pwr3 -bnso -bI:/lib/syscalls.exp
189.lucas: -qpdf1/pdf2 -O3 -qarch=pwr3 -lmass
191.fma3d: -O4 -qipa=level=2 -qhot -lmass
200.sixtrack: -O3 -qarch=pwr3
301.apsi: -O4 -qipa=level=2 -qhot -lmass -bnso -bI:/lib/syscalls.exp
```