



# CFP2000 Result

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IBM Corporation  
RS/6000 44P-270 (1 CPU)

SPECfp2000 = 360  
SPECfp\_base2000 = 309

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	519	308	286	560
171.swim	3100	1369	226	793	391
172.mgrid	1800	634	284	631	285
173.applu	2100	675	311	675	311
177.mesa	1400	517	271	518	270
178.galgel	2900	791	366	788	368
179.art	2600	302	861	313	830
183.earthquake	1300	247	525	186	699
187.facerec	1900	891	213	546	348
188.amp	2200	843	261	721	305
189.lucas	2000	762	262	762	262
191.fma3d	2100	689	305	675	311
200.sixtrack	1100	553	199	553	199
301.apsi	2600	887	293	823	316

### Hardware

CPU: Power3-II  
CPU MHz: 375  
FPU: Integrated  
CPU(s) enabled: 1 core, 1 chip, 1 core/chip  
CPU(s) orderable: 1,2,3,4  
Parallel: None  
Primary Cache: 32KBI+64KBD (on chip)  
Secondary Cache: 4MB unified (off chip)  
L3 Cache: None  
Other Cache: None  
Memory: 4GB  
Disk Subsystem: 2x9.1GB IBM Fast/Wide SCSI 7200 RPM  
Other Hardware: None

### Software

Operating System: AIX 4.3.3  
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  =<optimized libraries> -L<pdf library location> -lpdf
```

```
PASS2_FLAGS    ==-qpdf2 <optimization flags>
```

```
PASS2_LDFLAGS  ==<optimized libraries>
```

### Base Flags:

```
Fortran: -qpdf1/pdf2 -O3 -qarch=pwr3 -lmass
```

```
C: -O5 -lmass
```

### Peak 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
```



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## 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 -lhmu
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
```

NOTE: 4 CPUs were installed, but 3 were disabled via the service processor setup menu.