CFP2000 Result

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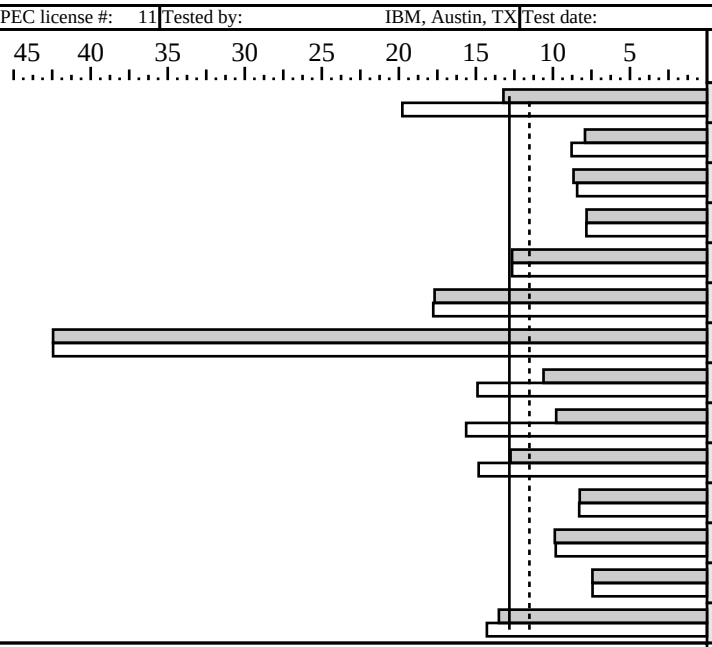
IBM Corporation
IBM eServer pSeries 640 (8 MB L2)

SPECfp_rate2000 = 12.8

SPECfp_rate_base2000 = 11.5

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	562	13.2	4	375	19.8
171.swim	4	1816	7.92	4	1637	8.79
172.mgrid	4	964	8.66	4	991	8.43
173.applu	4	1247	7.82	4	1245	7.83
177.mesa	4	514	12.7	4	514	12.6
178.galgel	4	761	17.7	4	757	17.8
179.art	4	284	42.4	4	284	42.4
183.equake	4	569	10.6	4	405	14.9
187.facerec	4	901	9.79	4	564	15.6
188.ammp	4	801	12.7	4	689	14.8
189.lucas	4	1123	8.26	4	1119	8.29
191.fma3d	4	986	9.88	4	993	9.82
200.sixtrack	4	686	7.44	4	687	7.43
301.apsi	4	893	13.5	4	844	14.3

Hardware

CPU:	IBM Power3-II
CPU MHz:	375
FPU:	Integrated
CPU(s) enabled:	4 cores, 4 chips, 1 core/chip
CPU(s) orderable:	2,4
Parallel:	No
Primary Cache:	32KBI+64KBD (on chip)
Secondary Cache:	8MB (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
```

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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.equake: -O5 -lmass -lhmu
187.facerec: -O3 -qarch=pwr3 -qhot -lmass
188.ammp: -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
```