CFP2000 Result

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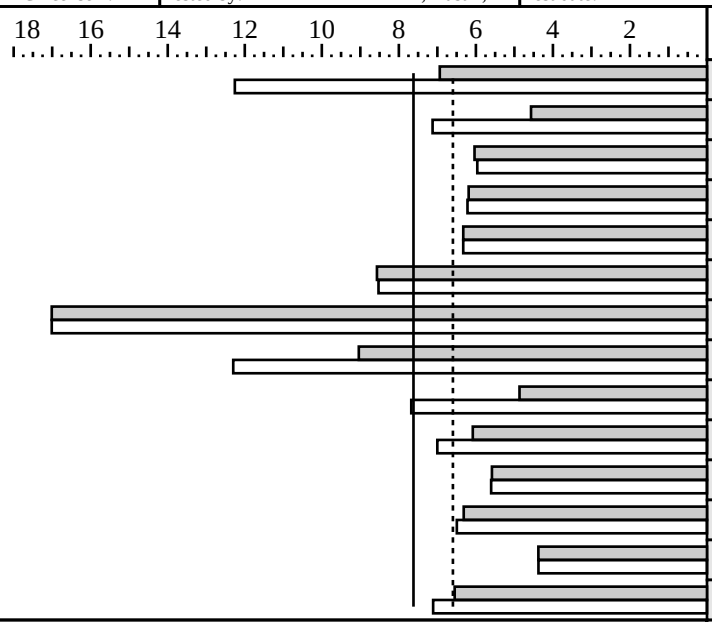
IBM Corporation
IBM eServer pSeries 640 (4 MB L2)

SPECfp_rate2000 = 7.62

SPECfp_rate_base2000 = 6.60

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	2	535	6.94	2	303	12.3
171.swim	2	1574	4.57	2	1010	7.12
172.mgrid	2	692	6.04	2	700	5.96
173.applu	2	787	6.19	2	784	6.22
177.mesa	2	513	6.33	2	513	6.33
178.galgel	2	785	8.57	2	789	8.53
179.art	2	355	17.0	2	355	17.0
183.equake	2	334	9.04	2	245	12.3
187.facerec	2	906	4.87	2	574	7.68
188.ammp	2	839	6.08	2	729	7.00
189.lucas	2	831	5.58	2	828	5.60
191.fma3d	2	771	6.32	2	750	6.49
200.sixtrack	2	583	4.38	2	583	4.38
301.apsi	2	921	6.55	2	848	7.11

Hardware

CPU:	IBM Power3-II
CPU MHz:	375
FPU:	Integrated
CPU(s) enabled:	2 cores, 2 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
```

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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
```