CFP2000 Result

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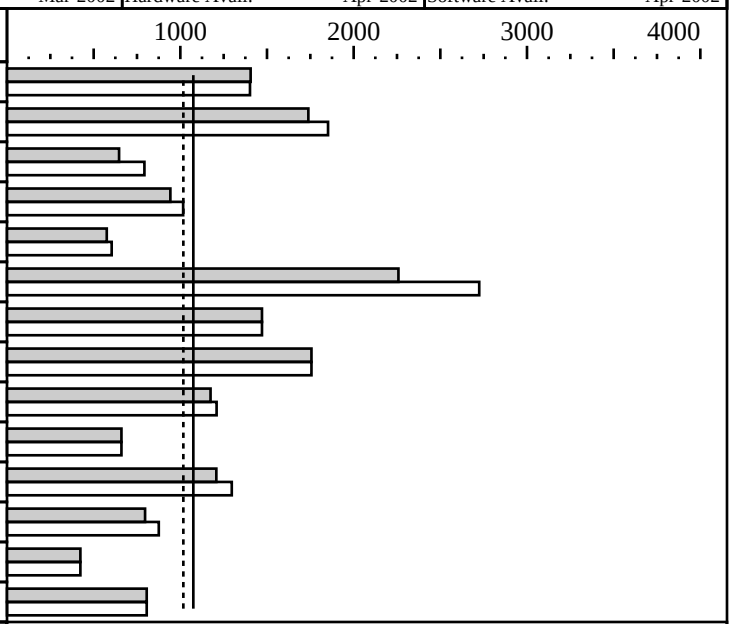
IBM Corporation
IBM eServer pSeries 670 (1100 MHz)

SPECfp2000 = 1075

SPECfp_base2000 = 1017

SPEC license #: 11 | Tested by: IBM, Austin, TX | Test date: Mar-2002 | Hardware Avail: Apr-2002 | Software Avail: Apr-2002

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	114	1406	114	1402
171.swim	3100	178	1739	167	1852
172.mgrid	1800	278	647	227	793
173.applu	2100	223	943	207	1016
177.mesa	1400	243	576	232	604
178.galgel	2900	128	2258	106	2724
179.art	2600	177	1471	177	1471
183.equake	1300	74.0	1756	74.0	1756
187.facerec	1900	162	1174	157	1209
188.ammp	2200	333	660	333	660
189.lucas	2000	166	1208	154	1297
191.fma3d	2100	264	797	240	876
200.sixtrack	1100	260	423	260	423
301.apsi	2600	323	806	323	806



Hardware

CPU:	POWER4
CPU MHz:	1100
FPU:	Integrated
CPU(s) enabled:	1 core, 4 chips, 2 cores/chip, 4 chips/MCM
CPU(s) orderable:	4,8,16 (order by # cores)
Parallel:	No
Primary Cache:	64KBI+32KBD (on chip) per core
Secondary Cache:	1440KB unified (on chip) per chip
L3 Cache:	32MB * 4 unified (off Chip)
Other Cache:	None
Memory:	64GB
Disk Subsystem:	1x18GB 10000RPM
Other Hardware:	None

Software

Operating System:	AIX 5L V5.1
Compiler:	Fortran 77 and 90: IBM xl Fortran 7.1.1.1 C++: IBM VisualAge C++ for AIX 6.0 BETA Other Software: ESSL 3.3, MASS 2.7
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
Base Optimization Flags:
  Fortran:   -O5 -qalign=natural -blpdata -lmass
  C:         -O5 -qalign=natural -blpdata -lmass
Peak Optization Flags:
168.wupwise:  -O5 -lmass -blpdata , fdpr -v -R3
171.swim:     -O4 -q64 -blpdata
172.mgrid:    -O3  -qarch=pwr3 -qtune=pwr3  -lmass  -qhot
              -qalign=natural -blpdata
173.applu:    -O3  -qarch=pwr3 -qtune=pwr3  -lmass  -qhot
              -blpdata
177.mesa:     -O5  -lmass -lhmu  -qalign=natural -q64
178.galgel:   -O5 -qpdf1/pdf2    -lessl -lmass
              -qalign=natural -qessl -blpdata , fdpr -v -R3
```

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Notes/Tuning Information (Continued)

```
 179.art:      basepeak=1
 183.equake:   basepeak=1
 187.facerec:  -O5  -lmass -blpdata , fdpr -v -R3
 188.ammp:     basepeak=1
 189.lucas:    -O3  -q64 -blpdata
 191.fma3d:    -O4  -qarch=pwr3 -qtune=pwr3  -lmass
               -qipa=partition=large -qalign=natural -blpdata
 200.sixtrack  basepeak=1
 301.apsi:     basepeak=1
 fdpr: Feedback directed program restructuring tool
 /usr/spec2000 filesystem mounted with no JFS log file I/O
 APAR IY28102 was applied to AIX 5L V5.1 to enable new hardware
 ulimits set to unlimited.
 Large page mode was set as follows: vmtune -g 16777216 -L 1024
Fortran 77 and 90: IBM xl Fortran 7.1.1.0 invoked
as xlf90.
C++: IBM VAC++ for AIX 6.0 BETA invoked as xlc
The final version of the compiler will be available by Dec-2002.
```