CFP2000 Result

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IBM Corporation

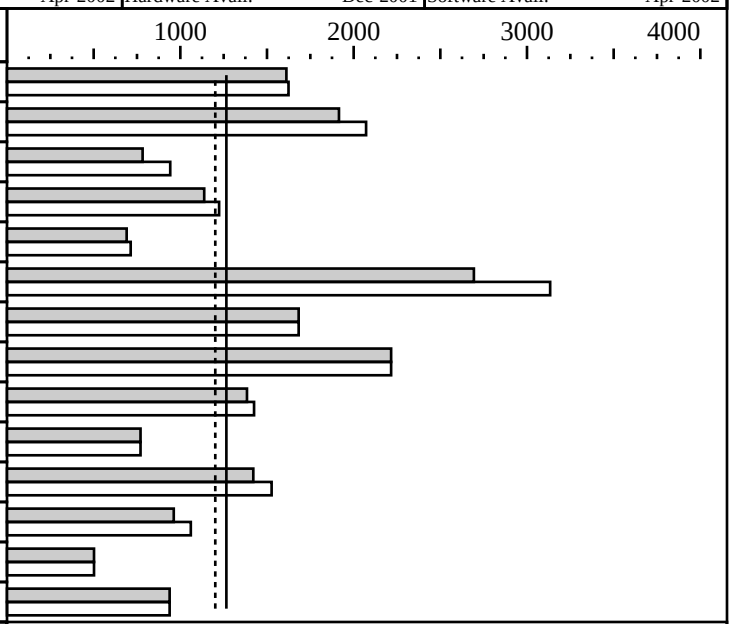
IBM eServer pSeries 690 Turbo (1300 MHz)

SPECfp2000 = 1266

SPECfp_base2000 = 1202

SPEC license #: 11 | Tested by: IBM, Austin, TX | Test date: Apr-2002 | Hardware Avail: Dec-2001 | Software Avail: Apr-2002

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	99.3	1612	98.5	1624
171.swim	3100	162	1915	150	2072
172.mgrid	1800	230	782	191	942
173.applu	2100	185	1138	172	1224
177.mesa	1400	203	690	196	714
178.galgel	2900	108	2694	92.5	3134
179.art	2600	155	1683	155	1683
183.equake	1300	58.7	2216	58.7	2216
187.facerec	1900	137	1384	133	1425
188.ammp	2200	286	770	286	770
189.lucas	2000	141	1421	131	1527
191.fma3d	2100	218	962	198	1060
200.sixtrack	1100	219	502	219	502
301.apsi	2600	277	938	277	938



Hardware

CPU:	POWER4
CPU MHz:	1300
FPU:	Integrated
CPU(s) enabled:	1 core, 4 chips, 2 cores/chip, 4 chips/MCM
CPU(s) orderable:	1,2,3,4 MCMs (order by # MCM)
Parallel:	No
Primary Cache:	64KBI+32KBD (on chip) per core
Secondary Cache:	1440KB unified (on chip) per chip
L3 Cache:	128MB unified (off chip)
Other Cache:	None
Memory:	64GB
Disk Subsystem:	1x18.2GB SCSI
Other Hardware:	None

Software

Operating System:	AIX 5L V5.1
Compiler:	IBM XL FORTRAN for AIX, Version 7.1.1.1 IBM VisualAge C++ for AIX, Version 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
  179.art:     basepeak=1
```

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Notes/Tuning Information (Continued)

```
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
fpdr: 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 support.
ulimits set to unlimited
Fortran 77 and 90: IBM XL Fortran 7.1.1.1 for AIX invoked
as xlf90 for Fortran 90 and as xlf for Fortran 77
C: IBM VAC++ invoked as xlc
The final version of the compiler will be available by Dec-2002.
Large page mode and memory affinity were set as follows:
vmtune -g 16777216 -L 1024 -y1.
```