CFP2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

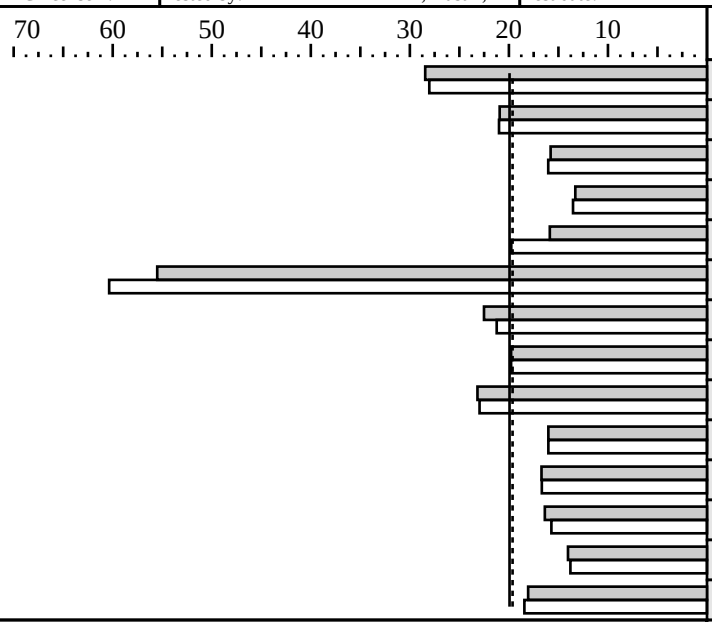
IBM Corporation

IBM IntelliStation POWER 275 Workstation (1450 MHz, 2 CPU)

SPECfp_rate2000 = 19.9

SPECfp_rate_base2000 = 19.6

SPEC license #: 11 | Tested by: IBM, Austin, TX | Test date: Jun-2003 | Hardware Avail: Jul-2003 | Software Avail: Jun-2003



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	2	130	28.4	2	132	28.0
171.swim	2	344	20.9	2	343	21.0
172.mgrid	2	264	15.8	2	261	16.0
173.applu	2	366	13.3	2	360	13.5
177.mesa	2	205	15.9	2	164	19.8
178.galgel	2	121	55.5	2	111	60.4
179.art	2	268	22.5	2	284	21.2
183.equake	2	152	19.8	2	152	19.8
187.facerec	2	190	23.2	2	192	23.0
188.ammp	2	319	16.0	2	319	16.0
189.lucas	2	278	16.7	2	278	16.7
191.fma3d	2	298	16.4	2	310	15.7
200.sixtrack	2	182	14.0	2	185	13.8
301.apsi	2	334	18.1	2	327	18.4

Hardware

CPU:	POWER4+
CPU MHz:	1450
FPU:	Integrated
CPU(s) enabled:	2 cores, 1 chip, 2 cores/chip, 1 processor chip/DCM
CPU(s) orderable:	1,2 (order by # cores)
Parallel:	No
Primary Cache:	64KBI+32KBD (on chip) per core
Secondary Cache:	1536KB unified (on chip) per chip
L3 Cache:	8MB unified (off-chip) per DCM, 1 DCM in SUT
Other Cache:	None
Memory:	8 GB
Disk Subsystem:	1x36GB SCSI, 10K RPM
Other Hardware:	None

Software

Operating System:	AIX 5L V5.2
Compiler:	IBM C for AIX, Version 6.0 IBM XL FORTRAN for AIX, Version 8.1.1.0 Other Software: ESSL 3.3.0.5, MASS 3.0
File System:	AIX/JFS
System State:	Multi-User

Notes/Tuning Information

```
Portability Flags
  -qfixed used in: 168.wupwise, 171.swim, 172.mgrid, 173.applu, 178.galgel,
   200.sixtrack, 301.apsi
  -qsuffix=f=f90 used in: 178.galgel, 187.facerec, 189.lucas, 191.fma3d

Base Optimization Flags:
  C:
  -O5 -qalign=natural -blpdata -lmass
  Fortran:
  -O5 -qalign=natural -blpdata -lmass

Floating Point Peak Flags
168.wupwise
  -O5 -qipa=partition=large
171.swim
  -O4 -q64 -blpdata
172.mgrid
```

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Notes/Tuning Information (Continued)

```
    -O5 -qarch=pwr3 -qtune=pwr3 -blpdata
  173.applu
    -O3 -qarch=pwr3 -qtune=pwr3 -lmass -qhot -blpdata
  177.mesa
    -qpdf1/pdf2
    fdpr -v -R3
    -O3 -qarch=pwr3 -qtune=pwr3 -qipa=level=2 -qalign=natural -blpdata
  178.galgel
    -qpdf1/pdf2
    fdpr -v -R3
    -O5 -qalign=natural -qessl -lessl -lmass -blpdata
  179.art
   -O4 -lhmu
  183.equake
    BASEPEAK = 1
  187.facerec
    fdpr -v -R3
    -O5 -lmass -blpdata
  188.ammp
    BASEPEAK = 1
  189.lucas
    -O3 -q64 -blpdata
  191.fma3d
    -qpdf1/pdf2
    -O5 -qarch=pwr4 -qtune=pwr3 -lhmu -qalign=natural -blpdata
  200.sixtrack
    -qpdf1/pdf2
    -O5 -lmass
  301.apsi
    -O5 -qarch=pwr4 -qtune=pwr3 -blpdata

     DCM: Acronym for "Dual-Chip Module"
     SUT: Acronym for "System Under Test"

     fpdr: Feedback directed program restructuring tool
     /usr/spec2000 filesystem mounted with no JFS log file I/O.
     APAR IY 43549 was applied to AIX to enable new hardware support.
     ulimits set to unlimited.
     C: IBM VAC++ invoked as xlc
     Fortran 77 and 90: IBM XL Fortran for AIX invoked as xlf90.
     Large page mode and memory affinity were set as follows:
       vmo -r -o lgpg_regions=400 -o lgpg_size=16777216 -o memory_affinity=1
       chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
       shutdown -r
       export MEMORY_AFFINITY=MCM
```