CFP2000 Result

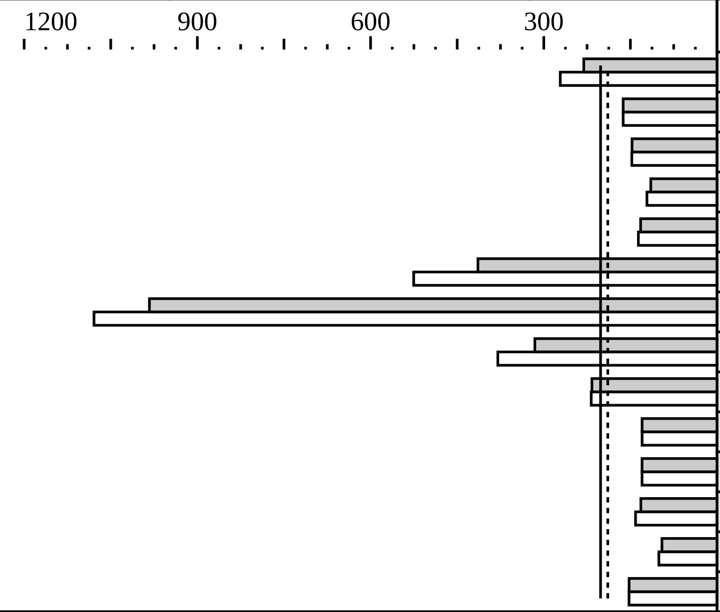
IBM Corporation

IBM System p5 550Q (1650 MHz, 8 CPU)

SPECfp_rate2000 = 202

SPECfp_rate_base2000 = 189

SPEC license #:	11	Tested by:	IBM Austin	Test date:	Jul-2006	Hardware Avail:	Aug-2006	Software Avail:	Aug-2006



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	16	129	231	16	109	271
171.swim	16	354	163	16	354	163
172.mgrid	16	227	147	16	226	148
173.applu	16	340	115	16	321	121
177.mesa	16	196	132	16	191	136
178.galgel	16	130	414	8	51.2	525
179.art	16	49.1	983	16	44.7	1079
183.equake	16	76.5	315	8	31.8	380
187.facerec	16	163	217	16	162	218
188.ammp	16	315	130	16	315	130
189.lucas	16	286	130	16	286	130
191.fma3d	16	296	132	16	276	141
200.sixtrack	16	214	95.4	16	203	101
301.apsi	16	317	152	16	317	152

Hardware

CPU:	POWER5+
CPU MHz:	1650
FPU:	Integrated
CPU(s) enabled:	8 cores, 4 chips, 2 cores/chip (SMT on)
CPU(s) orderable:	4,8 cores
Parallel:	No
Primary Cache:	64 KB I + 32 KB D on chip per core
Secondary Cache:	1920 KB I+D on chip per chip
L3 Cache:	36 MB I+D off chip per chip, 2 chips per SUT
Other Cache:	None
Memory:	64 GB (16x4 GB)
Disk Subsystem:	2x73GB SCSI, 15K RPM
Other Hardware:	None

Software

Operating System:	AIX 5L V5.3
Compiler:	XL C/C++ Enterprise Edition Version 8.0 for AIX XL Fortran Enterprise Edition Version 10.1 for AIX Other Software: ESSL 4.2.0.4
File System:	AIX/JFS2
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:
  Fortran:    -O5 -lhmu -blpdata -lmass
  C:          -qpdf1/pdf2
              -O5 -blpdata -qalign=natural

Peak Optimization Flags
  168.wupwise:  -O5 -qsave -blpdata -lhmu -lmass
  171.swim:     basepeak=1
  172.mgrid:    -qpdf1/pdf2
                -O4 -qipa=partition=large -q64 -blpdata
  173.applu:    -q64 -blpdata -O3 -qarch=auto -qtune=auto -qfdpr
                fdpr -q -O3
```

CFP2000 Result

IBM Corporation
IBM System p5 550Q (1650 MHz, 8 CPU)

SPECfp_rate2000 = 202
SPECfp_rate_base2000 = 189

SPEC license #: 11	Tested by: IBM Austin	Test date: Jul-2006	Hardware Avail: Aug-2006	Software Avail: Aug-2006

Notes/Tuning Information (Continued)

```
   177.mesa:      -qpdf1/pdf2
                  -O4 -qfdpr
                  fdpr -q -O3
   178.galgel:    users = 8
                  -O5 -qfdpr -lhmu -blpdata -lmass -qessl -lessl
                  fdpr -q -O3
   179.art:       -O5 -lhmu -blpdata
   183.equake:    users = 8
                  -qpdf1/pdf2
                  -O3 -qarch=auto -qtune=auto -qipa=level=2 -blpdata
   187.facerec:   -O5 -qsave -blpdata
   188.ammp:      basepeak=1
   189.lucas:     basepeak=1
   191.fma3d:     -qpdf1/pdf2
                  -O3 -qarch=auto -qtune=auto -qipa=level=2 -q64 -lhmu -blpdata -lmass
   200.sixtrack:  -qpdf1/pdf2
                  -O5 -qfdpr -qalign=struct=natural
                  fdpr -q -O3
   301.apsi:      -O5


 The installed OS level is AIX 5L for POWER Version 5.3 with the 5300-05 Recommended Technology Level.
 The installed C/C++ compiler is XL C/C++ Enterprise Edition Version 8.0 for AIX with the March 2006 PTF.
 The installed Fortran copiler is XL Fortran Enterprise Edition Version 10.1 with the May 2006 AIX PTF.

 SMT:  Acronym for "Simultaneous Multi-Threading". A processor technology that allows
       the simultaneous execution of multiple thread contexts within a single processor
       core. (Enabled by default)
 SUT:  Acronym for "System Under Test"
 ESSL: Engineering and Scientific Subroutine Library
 PTF:  IBM identifier for "Program Fix Level"

 ANSI C89:        IBM XL C for AIX invoked as xlc
 Fortran 77:      IBM XL Fortran for AIX invoked as xlf90
 Fortran 90:      IBM XL Fortran for AIX invoked as xlf90

 ulimits set to unlimited.
 Large page mode, memory affinity and MATMUL threading were set as follows:
     vmo -r -o lgpg_regions=2048 -o lgpg_size=16777216
     chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
     bosboot -aD
     shutdown -rF
     export MEMORY_AFFINITY=MCM
     export XLFRTEOPTS=intrinthds=1

 The following config-file entry was used to assign each benchmark process to a core:
    submit = let "MYCPU=2*$SPECUSERNUM"; if (("$MYCPU > 15")) then let "MYCPU-=15"; fi; bindprocessor $$ $MYCPU; $command
 The "bindprocessor" AIX command binds a process to a CPU core.
```