CINT2000 Result

IBM Corporation

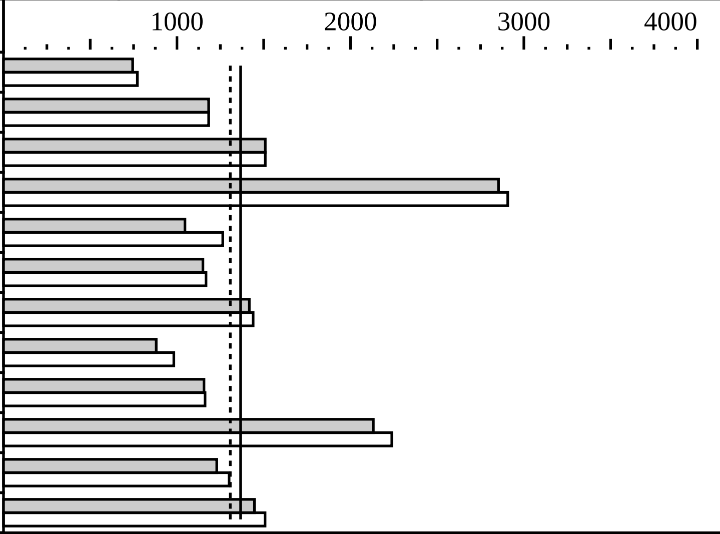
IBM System p5 550Q (1650 MHz, 1 CPU)

SPECint2000 = 1367

SPECint_base2000 = 1307

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
164.gzip	1400	188	745	181	772
175.vpr	1400	118	1183	118	1183
176.gcc	1100	72.9	1509	72.9	1509
181.mcf	1800	63.1	2854	61.9	2907
186.crafty	1000	95.6	1046	79.1	1264
197.parser	1800	157	1150	154	1167
252.eon	1300	91.7	1417	90.3	1439
253.perlbmk	1800	204	880	183	982
254.gap	1100	95.2	1156	94.7	1162
255.vortex	1900	89.1	2132	84.9	2239
256.bzip2	1500	122	1230	115	1301
300.twolf	3000	207	1447	199	1508



Hardware

CPU:	POWER5+
CPU MHz:	1650
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 2 cores/chip (SMT off)
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
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:
  176.gcc:      -ma -DHOST_WORDS_BIG_ENDIAN
  186.crafty:   -DAIX
  253.perlbmk:  -DSPEC_CPU2000_AIX
  254.gap:      -DSYS_IS_BSD -DSYS_STRING_H
                -DSYS_HAS_MALLOC_PROTO -DSYS_HAS_CALLOC_PROTO
  300.twolf:    -DHAVE_SIGNED_CHAR

Base Optimization Flags:
  C:     -qpdf1/pdf2
         -O5 -blpdata -D_ILS_MACROS
  C++:   -qpdf1/pdf2
         -O4 -qalign=natural

Peak Optimization Flags
  164.gzip:     -qpdf1/pdf2
                -O4 -qfdpr -blpdata
                fdpr -q -O3
  175.vpr:      basepeak=1
  176.gcc:      basepeak=1
```

CINT2000 Result

IBM Corporation	SPECint2000 =	1367
IBM System p5 550Q (1650 MHz, 1 CPU)	SPECint_base2000 =	1307

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

Notes/Tuning Information (Continued)

```
    181.mcf:        -qpdf1/pdf2
                    -O5 -blpdata -qalign=natural -qhot=arraypad -qfdpr -Q -qmaxmem=-1
                    fdpr -q -O3
    186.crafty:     -qpdf1/pdf2
                    -O4 -qalign=natural -q64 -lhmu -blpdata
    197.parser:     -qpdf1/pdf2
                    -O4 -qfdpr -D_ILS_MACROS -blpdata
                    fdpr -q -O3
    252.eon:        -qpdf1/pdf2
                    -O4 -qarch=pwr4 -qtune=pwr4 -qalign=natural
    253.perlbmk:    -qpdf1/pdf2
                    -O4 -qarch=pwr4 -qtune=pwr4 -qalign=natural -blpdata -lhmu
    254.gap:        -qpdf1/pdf2
                    -O4 -qarch=pwr4 -qtune=pwr4 -qalign=natural -blpdata
    255.vortex:     -qpdf1/pdf2
                    -O4 -qfdpr -lhmu -blpdata
                    fdpr -q -O3
    256.bzip2:      -qpdf1/pdf2
                    -O5 -qfdpr -blpdata
                    fdpr -q -O3
    300.twolf:      -O5 -qfdpr -blpdata
                    fdpr -q -O3
```

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"
PTF:  IBM identifier for "Program Fix Level"

Extended C:     IBM XL C for AIX invoked as cc
ANSI C89:       IBM XL C for AIX invoked as xlc
C++:            IBM XL C for AIX invoked as xlC

ulimits set to unlimited.
Large page mode and memory affinity were set as follows:
    vmo -r -o lgpg_regions=128 -o lgpg_size=16777216
    chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
    bosboot -aD
    shutdown -rF
    export MEMORY_AFFINITY=MCM

The following config-file entry was used to assign each benchmark process to a core:
     submit = bindprocessor $$ $SPECUSERNUM; $command
The "bindprocessor" AIX command binds a process to a CPU core.
Seven cores were deconfigured and SMT disabled using the AIX commands
     smtctl -m off -w boot
     bosboot -aD
     shutdown -rF
     drmgr -r -c cpu
     drmgr -r -c cpu
     drmgr -r -c cpu
```

Notes/Tuning Information (Continued)

```
drmgr -r -c cpu
drmgr -r -c cpu
drmgr -r -c cpu
drmgr -r -c cpu
```