CINT2000 Result

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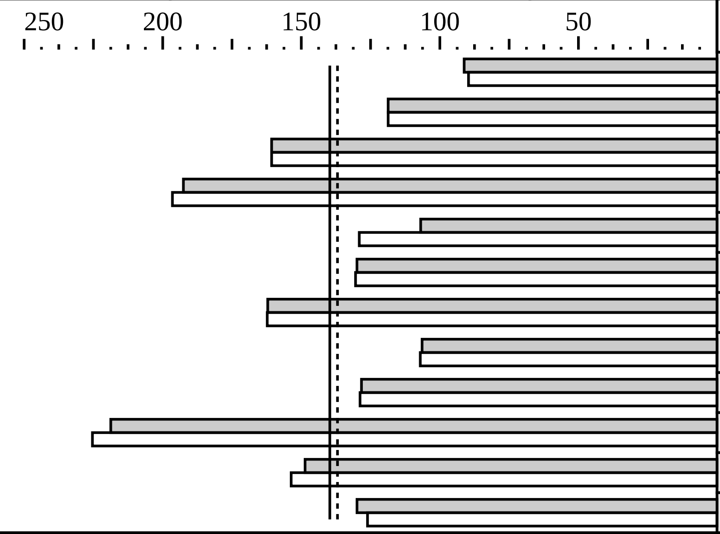
IBM Corporation
IBM System p5 550Q (1650 MHz, 8 CPU)

SPECint_rate2000 = 140
SPECint_rate_base2000 = 137

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	16	285	91.2	16	290	89.7
175.vpr	16	219	119	16	219	119
176.gcc	16	127	161	16	127	161
181.mcf	16	174	193	16	170	196
186.crafty	16	174	107	16	144	129
197.parser	16	257	130	16	256	130
252.eon	16	149	162	16	149	162
253.perlbmk	16	314	106	16	312	107
254.gap	16	159	128	16	159	129
255.vortex	16	161	219	16	156	225
256.bzip2	16	187	149	16	181	154
300.twolf	16	429	130	16	442	126

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, 4 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:
  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
```

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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=1024 -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.