CINT2000 Result

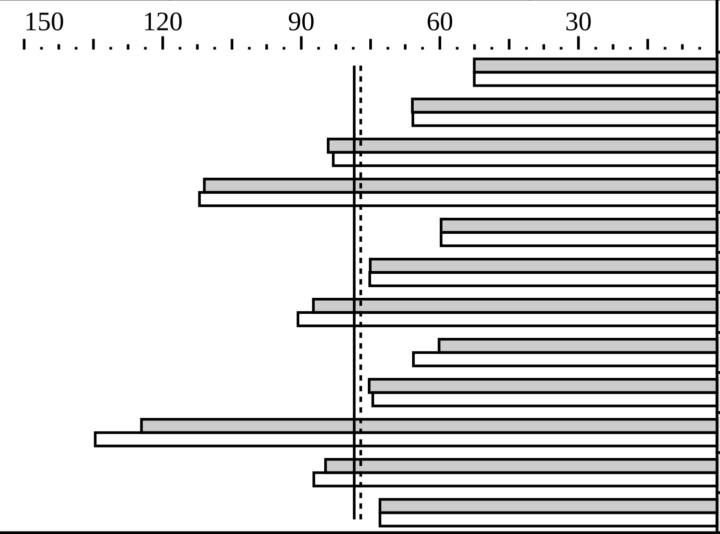
IBM Corporation

IBM System p5 550 (1900 MHz, 4 CPU)

SPECint_rate2000 = 78.5

SPECint_rate_base2000 = 77.1

SPEC license #:	Tested by:	Test date:	Hardware Avail:	Software Avail:
11	IBM	Sep-2005	Oct-2005	Oct-2005



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	8	247	52.5	8	247	52.5
175.vpr	8	197	66.0	8	197	65.8
176.gcc	8	121	84.2	8	123	83.1
181.mcf	8	151	111	8	149	112
186.crafty	8	155	59.7	8	155	59.7
197.parser	8	222	75.1	8	222	75.2
252.eon	8	138	87.4	8	133	90.7
253.perlbmk	8	278	60.2	8	254	65.7
254.gap	8	136	75.3	8	137	74.5
255.vortex	8	142	125	8	131	135
256.bzip2	8	164	84.8	8	159	87.3
300.twolf	8	382	73.0	8	382	73.0

Hardware

CPU:	POWER5+
CPU MHz:	1900
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip (SMT on)
CPU(s) orderable:	2,4
Parallel:	None
Primary Cache:	64KBI+32KBD (on chip)/core
Secondary Cache:	1920KB unified (on chip)/chip
L3 Cache:	36MB unified (off-chip)/DCM, 2 DCM/SUT
Other Cache:	None
Memory:	16x2GB
Disk Subsystem:	2x36GB SCSI, 15K RPM
Other Hardware:	None

Software

Operating System:	AIX 5L V5.3
Compiler:	XL C/C++ Enterprise Edition Version 8.0 for AIX
File System:	AIX/JFS2
System State:	Multi-user

Notes/Tuning Information

```
Portability Flags:
  176.gcc:      -ma -DHOST_WORDS_BIG_ENDIAN
  186.crafty:   -DAIX
  252.eon:      srcalt=fmax_errno
  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
         -O5 -lhmu -qalign=natural

Peak Optimization Flags
  164.gzip:     basepeak=1
  175.vpr:      -qpdf1/pdf2
                -O5 -lhmu -blpdata -D_ILS_MACROS
  176.gcc:      -qpdf1/pdf2
```

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SPEC license #: 11	Tested by: IBM	Test date: Sep-2005	Hardware Avail: Oct-2005	Software Avail: Oct-2005

Notes/Tuning Information (Continued)

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

Approved alternate-source file 252.eon.fmax_errno.src.alt.tar.gz
was used with 252.eon for POSIX-compatibility.

The installed OS level is AIX 5L for POWER version 5.3 with the 5300-03 Recommended Maintenance package.

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)
DCM: Acronym for "Dual-Chip Module" (one dual-core processor chip + one L3-cache chip)
SUT: Acronym for "System Under Test"

```
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=800 -o lgpg_size=16777216
    chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
    reboot -q
    export MEMORY_AFFINITY=MCM
```

The following config-file entry was used to assign each benchmark process to a core:

```
submit = let "MYCPU=2*$SPECUSERNUM"; if (("$MYCPU > 7")) then let "MYCPU-=7"; fi; bindprocessor $$ $MYCPU; $command
```

The "bindprocessor" AIX command binds a process to a CPU core.

Use flags-description file IBM-20050919-AIX.txt.