



CINT2000 Result

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IBM Corporation
IBM System p5 550 (1900 MHz, 4 CPU)

SPECint_rate2000 = 78.5
SPECint_rate_base2000 = 77.1

SPEC license #: 11 | Tested by: IBM | Test date: Sep-2005 | Hardware Avail: Oct-2005 | Software Avail: 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.perlbnk	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.perlbnk: -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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Notes/Tuning Information (Continued)

```

181.mcf:      -O5 -blpdata -qalign=natural -D_ILS_MACROS
              -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.perlbnk:  -qpdf1/pdf2
              -O5 -lhm -qalign=natural -blpdata -D_ILS_MACROS
254.gap:      -qpdf1/pdf2
              -O5 -qalign=natural -lhm -blpdata -qfdpr -Q
255.vortex:   -qpdf1/pdf2
              -O5 -lhm -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 lpgg_regions=800 -o lpgg_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.