CINT2000 Result

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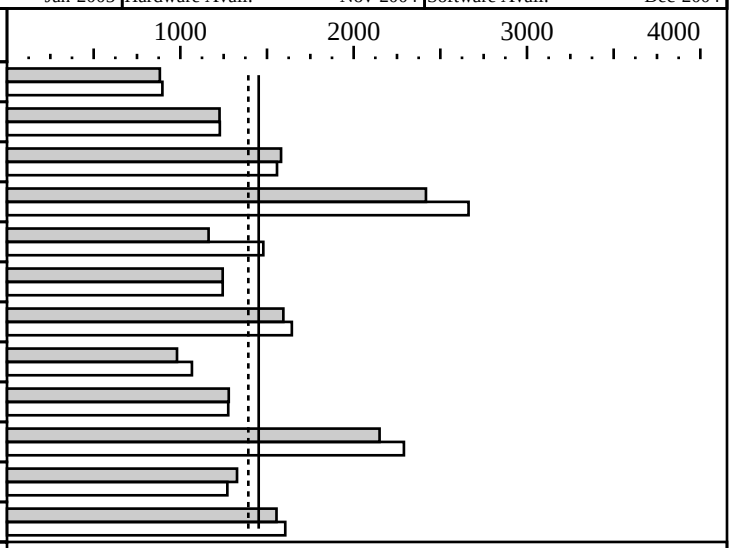
IBM Corporation
IBM eServer p5 595 (1900 MHz, 1 CPU)

SPECint2000 = 1452

SPECint_base2000 = 1392

SPEC license #: 11 | Tested by: IBM | Test date: Jan-2005 | Hardware Avail: Nov-2004 | Software Avail: Dec-2004

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
164.gzip	1400	159	882	156	897
175.vpr	1400	114	1226	114	1228
176.gcc	1100	69.6	1581	70.6	1558
181.mcf	1800	74.5	2417	67.6	2663
186.crafty	1000	86.0	1163	67.6	1479
197.parser	1800	145	1244	145	1244
252.eon	1300	81.5	1594	79.1	1643
253.perlbmk	1800	184	981	169	1067
254.gap	1100	86.0	1279	86.2	1276
255.vortex	1900	88.4	2149	83.0	2290
256.bzip2	1500	113	1327	118	1271
300.twolf	3000	193	1555	187	1605



Hardware

CPU:	POWER5
CPU MHz:	1900
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip (SMT off)
CPU(s) orderable:	16,24,32,40,48,56,64
Parallel:	No
Primary Cache:	64KBI+32KBD (on chip)
Secondary Cache:	1920KB unified (on chip)
L3 Cache:	36MB unified (off-chip)/chip, 1 chip/MCM, 8 MCM/SUT
Other Cache:	None
Memory:	256 GB DDR2
Disk Subsystem:	2x36GB SCSI, 15K RPM
Other Hardware:	None

Software

Operating System:	AIX 5L V5.3
Compiler:	XL C/C++ Enterprise Edition Version 7.0 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
                -I.
  253.perlbmk:  -DSPEC_CPU2000_AIX
  254.gap:      -DSYS_IS_BSD -DSYS_STRING_H -DSYS_HAS_TIME_PROTO
                -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:     -qpdf1/pdf2
                fdpr -q -O3
                -O5 -blpdata -D_ILS_MACROS -qfdpr
```

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Notes/Tuning Information (Continued)

```
  175.vpr:      -qpdf1/pdf2
                -O5 -blpdata -qalign=natural -qhot=arraypad -Q
  176.gcc:      -qpdf1/pdf2
                -O5
  181.mcf:      fdpr -q -O3
                -O5 -blpdata -qfdpr -D_ILS_MACROS
  186.crafty:   -qpdf1/pdf2
                fdpr -q -O3
                -O4 -q64 -qfdpr -qarch=pwr3 -qtune=pwr3 -D_ILS_MACROS
  197.parser:   basepeak=1
  252.eon:      -qpdf1/pdf2
                -O4 -qarch=pwr4 -qtune=pwr4 -qalign=natural -D_ILS_MACROS
                CC=xlC
  253.perlbmk:  -qpdf1/pdf2
                -O5 -lhmu -qalign=natural
  254.gap:      -qpdf1/pdf2
                 -O5 -lhmu -qalign=natural -D_ILS_MACROS -blpdata
  255.vortex:   -qpdf1/pdf2
                -O5 -lhmu -qalign=natural -D_ILS_MACROS -blpdata
  256.bzip2:    fdpr -q -O3
                -O5 -blpdata -D_ILS_MACROS -qfdpr
  300.twolf:    fdpr -q -O3
                -O5 -blpdata -qfdpr -D_ILS_MACROS

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

APAR IY62267 was applied to AIX 5L V5.3 to achieve Mantainence Level 1.

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)
MCM:  Acronym for "Multi-Chip Module" (four dual-core processor chips + four L3-cache chips)
SUT:  Acronym for "System Under Test"

ulimits set to unlimited.
Large page mode and memory affinity were set as follows:
    vmo -r -o lgpg_regions=4096 -o lgpg_size=16777216 -o memory_affinity=1
    chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
    reboot -q
    export MEMORY_AFFINITY=MCM
One core was deconfigured and SMT disabled at the open-firmware prompt, using the
command
    boot -s cpu=1 -s smt_off
```