CINT2000 Result

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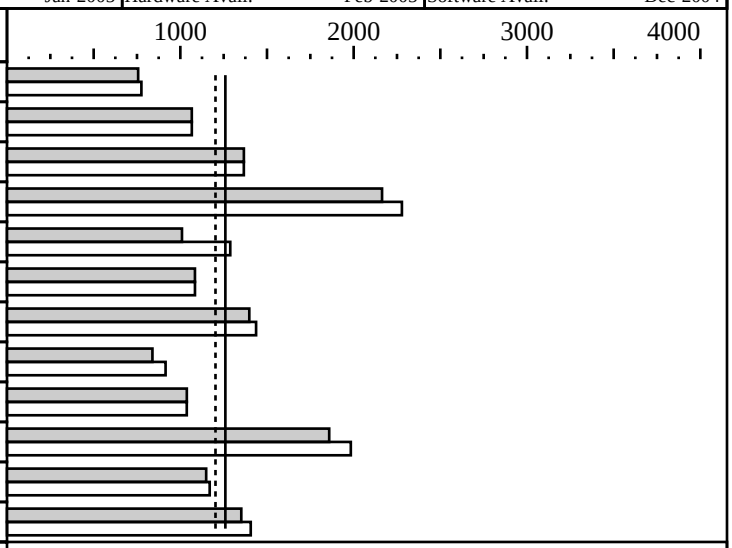
IBM Corporation
IBM eServer p5 510 (1650 MHz, 1 CPU)

SPECint2000 = 1260

SPECint_base2000 = 1203

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
164.gzip	1400	185	757	181	775
175.vpr	1400	131	1066	131	1066
176.gcc	1100	80.5	1367	80.5	1366
181.mcf	1800	83.2	2164	79.0	2278
186.crafty	1000	99.1	1009	77.6	1288
197.parser	1800	166	1084	166	1084
252.eon	1300	93.0	1398	90.5	1437
253.perlbmk	1800	215	839	197	915
254.gap	1100	106	1037	106	1037
255.vortex	1900	102	1859	95.8	1984
256.bzip2	1500	131	1149	128	1169
300.twolf	3000	222	1352	213	1406



Hardware

CPU:	POWER5
CPU MHz:	1650
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip (SMT off)
CPU(s) orderable:	1,2
Parallel:	no
Primary Cache:	64KBI+32KBD (on chip)
Secondary Cache:	1920KB unified (on chip)
L3 Cache:	36MB unified (off-chip)/DCM, 1 DCM/SUT
Other Cache:	None
Memory:	8x4GB
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 -qfdpr
```

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Notes/Tuning Information (Continued)

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

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)
DCM:  Acronym for "Dual-Chip Module" (one dual-core processor chip + one L3-cache chip)
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=512 -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
```