CINT2000 Result

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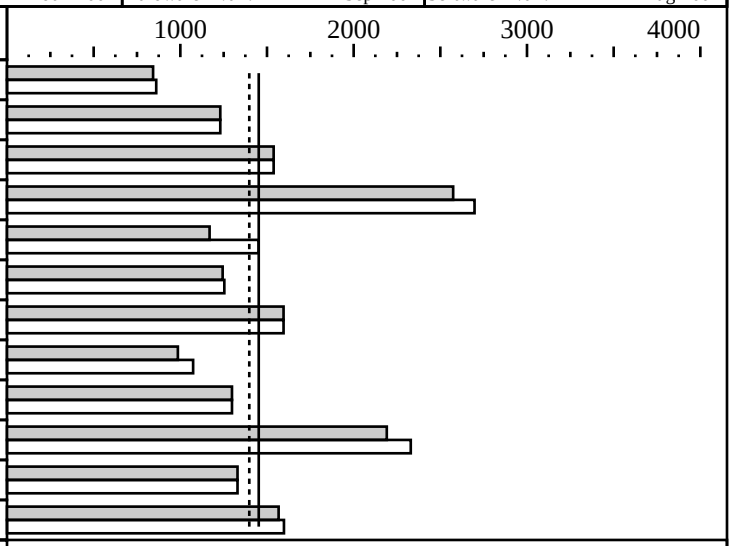
IBM Corporation
IBM eServer p5 570 (1900 MHz, 1 CPU)

SPECint2000 = 1452

SPECint_base2000 = 1398

SPEC license #: 11 | Tested by: IBM | Test date: Jun-2004 | Hardware Avail: Sep-2004 | Software Avail: Aug-2004

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
164.gzip	1400	166	843	163	861
175.vpr	1400	114	1230	114	1230
176.gcc	1100	71.5	1538	71.5	1538
181.mcf	1800	69.9	2574	66.7	2697
186.crafty	1000	85.6	1169	68.9	1452
197.parser	1800	145	1244	144	1254
252.eon	1300	81.5	1596	81.5	1596
253.perlbmk	1800	183	986	168	1074
254.gap	1100	84.7	1298	84.7	1298
255.vortex	1900	86.7	2191	81.6	2329
256.bzip2	1500	113	1330	113	1330
300.twolf	3000	191	1567	188	1598



Hardware

CPU:	POWER5
CPU MHz:	1900
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 2 cores/chip (SMT off)
CPU(s) orderable:	2,4,8,12,16
Parallel:	No
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:	16x1 GB DDR2
Disk Subsystem:	1x36GB SCSI, 15K RPM
Other Hardware:	

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. -DNDEBUG
  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
```

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Notes/Tuning Information (Continued)

```
                -O4 -qarch=pwr4 -qtune=pwr4 -qalign=natural -D_ILS_MACROS
                "CC=xlc"
  175.vpr:      basepeak = 1
  176.gcc:      basepeak = 1
  181.mcf:      fdpr -quiet -R3
                -O5 -blpdata -qfdpr -D_ILS_MACROS
  186.crafty:   -qpdf1/pdf2
                fdpr -quiet -R3
                -O4 -q64 -qfdpr -qarch=pwr3 -qtune=pwr3 -D_ILS_MACROS
  197.parser:   -qpdf1/pdf2
                fdpr -quiet -R3
                -O5 -blpdata -D_ILS_MACROS -qfdpr
  252.eon:      basepeak = 1
  253.perlbmk:  -qpdf1/pdf2
                -O5 -D_ILS_MACROS -lhmu -qalign=natural
  254.gap:      basepeak = 1
  255.vortex:   -qpdf1/pdf2
                -O5 -lhmu -qalign=natural -D_ILS_MACROS -blpdata
  256.bzip2:    basepeak = 1
  300.twolf:    -O5 -lhmu -blpdata -qalign=natural
                "CC = xlc"

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

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=400 -o lgpg_size=16777216 -o memory_affinity=1
   chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
   reboot -q
   export MEMORY_AFFINITY=MCM
Three cores were deconfigured and SMT disabled at the open-firmware prompt, using the
command
   boot -s cpu=1 -s smt_off
```