CINT2000 Result

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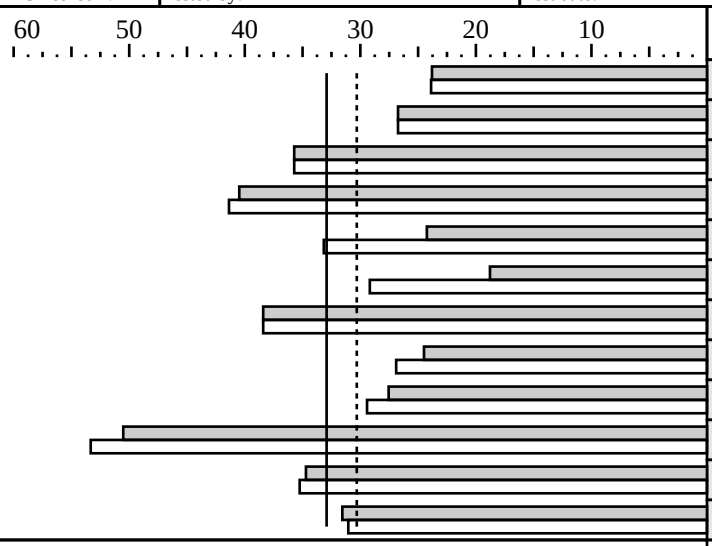
IBM Corporation
IBM eServer i5 520 (1650 MHz, 2 CPU)

SPECint_rate2000 = 32.9

SPECint_rate_base2000 = 30.3

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	4	273	23.8	4	272	23.9
175.vpr	4	243	26.7	4	243	26.7
176.gcc	4	143	35.7	4	143	35.7
181.mcf	4	206	40.5	4	202	41.4
186.crafty	4	191	24.2	4	140	33.2
197.parser	4	445	18.8	4	286	29.2
252.eon	4	157	38.4	4	157	38.4
253.perlbmk	4	341	24.5	4	311	26.9
254.gap	4	185	27.6	4	173	29.4
255.vortex	4	175	50.5	4	165	53.3
256.bzip2	4	201	34.7	4	197	35.2
300.twolf	4	441	31.6	4	448	31.0

Hardware

CPU:	POWER5
CPU MHz:	1650
FPU:	Integrated
CPU(s) enabled:	2 cores, 1 chip, 2 cores/chip (SMT on)
CPU(s) orderable:	2
Parallel:	No
Primary Cache:	64KBI+32KBD (on chip)/core
Secondary Cache:	1920KB unified (on chip)/chip
L3 Cache:	36MB unified (off chip)/DCM, 1 DCM/SUT
Other Cache:	none
Memory:	8x4 GB
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 -qalign=natural
  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
  186.crafty:   -qpdf1/pdf2
                fdpr -quiet -R3
                -O4 -q64 -qfdpr -qarch=pwr3 -qtune=pwr3 -D_ILS_MACROS
  197.parser:   -qpdf1/pdf2
                fdpr -quiet -R3
                -O4 -blpdata -D_ILS_MACROS -qfdpr -qarch=pwr3 -qtune=pwr3
  252.eon:      basepeak = 1
  253.perlbmk:  -qpdf1/pdf2
                -O5 -D_ILS_MACROS -lhmu -qalign=natural
  254.gap:      -qpdf1/pdf2
                -O4 -qarch=pwr4 -qtune=pwr4 -D_ILS_MACROS -lhmu -qalign=natural
  255.vortex:   -qpdf1/pdf2
                -O5 -lhmu -qalign=natural -D_ILS_MACROS -blpdata
  256.bzip2:    -qpdf1/pdf2
                -O5 -blpdata -qarch=pwr3 -qtune=pwr3 -qalign=natural
  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
This result was measured on model IBM eServer p5 520.
Model i5 520 and model p5 520 are electronically equivalent.
```