CINT2000 Result

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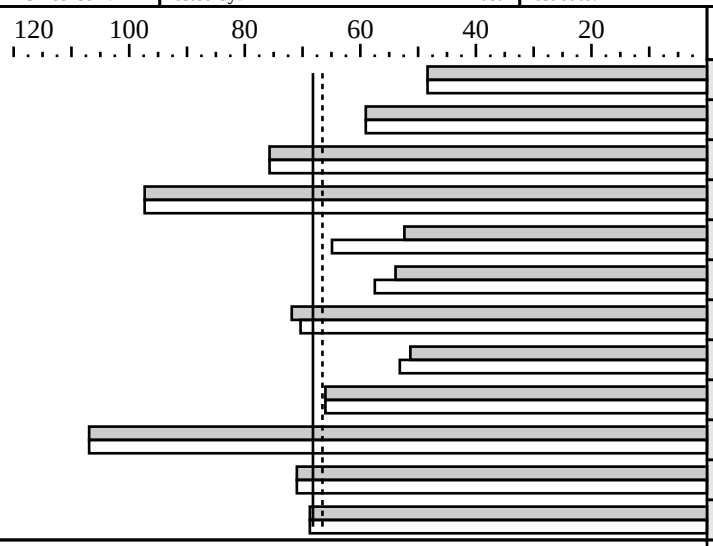
IBM Corporation

IBM System p5 520Q (1650 Mhz, 4 CPU, SLES)

SPECint_rate2000 = 68.2

SPECint_rate_base2000 = 66.6

SPEC license #: 11 | Tested by: IBM Austin | Test date: Oct-2006 | Hardware Avail: Aug-2006 | Software Avail: Dec-2006



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	8	269	48.4	8	269	48.4
175.vpr	8	220	59.1	8	220	59.1
176.gcc	8	135	75.7	8	135	75.7
181.mcf	8	172	97.3	8	172	97.3
186.crafty	8	177	52.4	8	143	64.9
197.parser	8	310	53.9	8	291	57.5
252.eon	8	168	71.9	8	171	70.3
253.perlbmk	8	325	51.3	8	314	53.2
254.gap	8	155	66.0	8	155	66.0
255.vortex	8	165	107	8	165	107
256.bzip2	8	196	71.0	8	196	71.0
300.twolf	8	405	68.7	8	405	68.7

Hardware

CPU:	POWER5+
CPU MHz:	1650
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip (SMT on)
CPU(s) orderable:	4 core
Parallel:	No
Primary Cache:	64 KB I + 32 KB D on chip per core
Secondary Cache:	1920 KB I+D on chip per chip
L3 Cache:	36 MB I+D off chip per chip
Other Cache:	None
Memory:	16 GB (8x2GB)
Disk Subsystem:	1x73GB SCSI, 15K RPM
Other Hardware:	None

Software

Operating System:	SLES SUSE Linux Enterprise Server 10 (ppc) VERSION = 10 w/2.6.16.21-0.8-ppc64 Linux kernel
Compiler:	IBM XL C/C++ Advanced Edition V8.0.1 for Linux
File System:	reiserfs
System State:	Multi-User

Notes/Tuning Information

```
+FDO
    Feedback directed optimization enabled by:  PASS1=-qpdf1  PASS2=-qpdf2

Integer suite
  C:   invoked as cc
  C++: invoked as xlC

Integer Portability Flags:
  176.gcc:     -DHOST_WORDS_BIG_ENDIAN
  186.crafty:  -DLINUX_PPC32
  252.eon:     -DHAS_ERRLIST
  253.perlbmk: -DSPEC_CPU2000_LINUX_PPC32 -DSPEC_CPU2000_NEED_BOOL
  254.gap:     -DSYS_IS_USG -DSYS_HAS_IOCTL_PROTO -DSYS_HAS_CALLOC_PROTO
  300.twolf:   -DHAVE_SIGNED_CHAR

Additional Peak Portability Flags:
   252.eon:     -DSPEC_CPU2000_LP64    (for 64-bit compilation)
   253.perlbmk: -DSPEC_CPU2000_LP64    (for 64-bit compilation)

Integer Base Optimization Flags:
```

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Notes/Tuning Information (Continued)

```
  C:   +FDO -O5
  C++: +FDO -O5


Integer Peak Optimization Flags

164.gzip
    basepeak=1
175.vpr
    basepeak=1
176.gcc
    basepeak=1
181.mcf
    basepeak=1
186.crafty
    +FDO -O4 -qarch=pwr4 -qtune=pwr4 -q64
197.parser
    +FDO -O5 -qstaticlink
252.eon
    +FDO -O5 -q64
253.perlbmk:
    +FDO -O5 -q64
254.gap
   basepeak=1
255.vortex
    basepeak=1
256.bzip2
    basepeak=1
300.twolf
    basepeak=1


System Settings:
-- ulimit stack size set to unlimited


SMT: Acronym for 'Simultaneous Multi-Threading'.  A processor technology that allows
     the simultaneous execution of multiple thread contexts within a single processor
     core. SMT is enabled by default.

Large pages reserved as follows by root user:
    echo 240 > /proc/sys/vm/nr_hugepages
System configured with libhugetlbfs library for application access to large pages
Environment variables set as follows:
    export HUGETLB_MORECORE=yes
    export LD_PRELOAD=libhugetlbfs.so
        (export LD_PRELOAD=libhugetlbfs.so not used for --action build.)


Each process was bound to a cpu using submit= with the taskset command
   submit = taskset -p -c $SPECUSERNUM $$ >/dev/null ; $command
```