



CINT2000 Result

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IBM Corporation

IBM System p5 575 (2200 Mhz, 8 CPU, SLES)

SPECint_rate2000 = 199

SPECint_rate_base2000 = 193

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

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.zip	16	196	133	16	196	133
175.vpr	16	146	179	16	146	179
176.gcc	16	97.6	209	16	97.6	209
181.mcf	16	86.3	387	16	86.3	387
186.crafty	16	129	144	16	103	180
197.parser	16	223	150	16	206	162
252.eon	16	121	199	16	122	198
253.perlbnk	16	239	140	16	228	146
254.gap	16	113	181	16	113	181
255.vortex	16	119	297	16	119	297
256.bzip2	16	140	199	16	140	199
300.twolf	16	259	215	16	259	215

Hardware

CPU: POWER5+
 CPU MHz: 2200
 FPU: Integrated
 CPU(s) enabled: 8 cores, 8 chips, 1 core/chip (SMT on)
 CPU(s) orderable: 8,16 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 unified off chip per chip
 Other Cache: None
 Memory: 64 GB (32x2GB)
 Disk Subsystem: 1x73GB SCSI, 15K RPM
 Other Hardware:

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.perlbnk: -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.perlbnk: -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 480 > /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
```