CINT2000 Result

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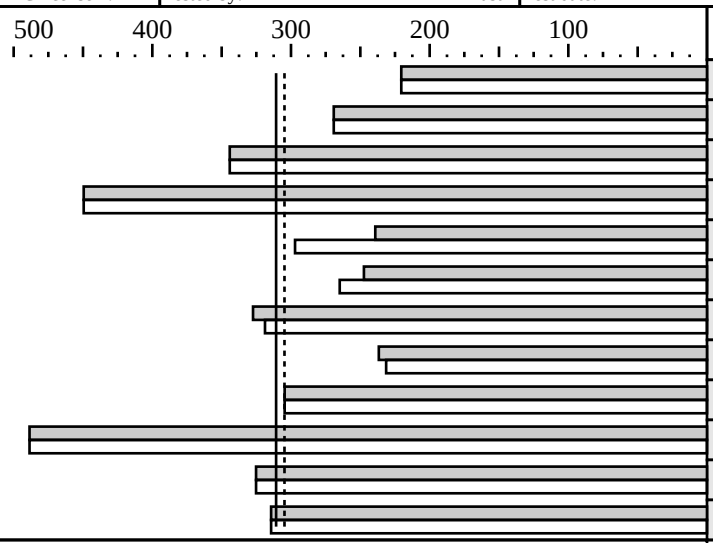
IBM Corporation

IBM System p5 575 (1900 Mhz, 16 CPU, SLES)

SPECint_rate2000 = 311

SPECint_rate_base2000 = 305

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.gzip	32	236	220	32	236	220
175.vpr	32	193	269	32	193	269
176.gcc	32	119	344	32	119	344
181.mcf	32	149	449	32	149	449
186.crafty	32	155	239	32	125	297
197.parser	32	270	247	32	252	265
252.eon	32	147	327	32	151	319
253.perlbmk	32	282	237	32	289	231
254.gap	32	134	305	32	134	305
255.vortex	32	144	489	32	144	489
256.bzip2	32	171	325	32	171	325
300.twolf	32	354	314	32	354	314

Hardware

CPU:	POWER5+
CPU MHz:	1900
FPU:	Integrated
CPU(s) enabled:	16 cores, 8 chips, 2 cores/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.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 960 > /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
```