



CINT2000 Result

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IBM Corporation
IBM System p5 575 (1900 Mhz, 1 CPU, SLES)

SPECint2000 = 1501
SPECint_base2000 = 1445

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
164.gzip	1400	155	902	155	902	
175.vpr	1400	104	1351	104	1351	
176.gcc	1100	68.4	1609	68.4	1609	
181.mcf	1800	54.2	3323	54.2	3323	
186.crafty	1000	85.7	1167	69.2	1446	
197.parser	1800	170	1056	153	1177	
252.eon	1300	88.1	1476	85.8	1515	
253.perlbnk	1800	193	935	172	1044	
254.gap	1100	84.0	1309	84.0	1309	
255.vortex	1900	77.3	2457	77.3	2457	
256.bzip2	1500	110	1369	110	1369	
300.twolf	3000	177	1692	177	1692	

Hardware

CPU: POWER5+
CPU MHz: 1900
FPU: Integrated
CPU(s) enabled: 1 core, 1 chip, 2 cores/chip (SMT off)
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 30 > /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.)
```

Linux booted with the options:

```
maxcpus=1 smt-enabled=off
```

Each process was bound to a cpu using submit= with the taskset command

```
submit = taskset -p -c \$$SPECUSERNUM \$$ >/dev/null ; $command
```