# CINT2000 Result

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## IBM Corporation

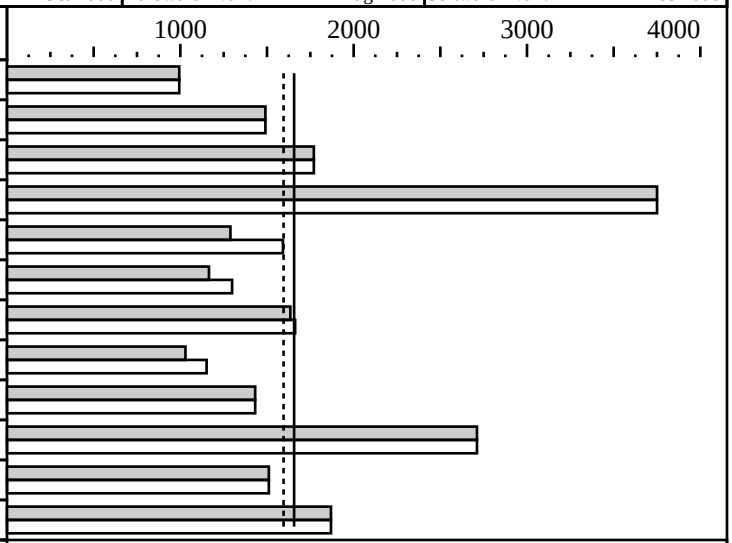
IBM System p5 550 (2100 Mhz, 1 CPU, SLES)

SPECint2000 = 1656

SPECint_base2000 = 1596

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

| Benchmark | Reference Time | Base Runtime | Base Ratio | Runtime | Ratio |
|---|---|---|---|---|---|
| 164.gzip | 1400 | 141 | 994 | 141 | 994 |
| 175.vpr | 1400 | 93.9 | 1491 | 93.9 | 1491 |
| 176.gcc | 1100 | 62.1 | 1770 | 62.1 | 1770 |
| 181.mcf | 1800 | 48.0 | 3750 | 48.0 | 3750 |
| 186.crafty | 1000 | 77.6 | 1289 | 62.8 | 1592 |
| 197.parser | 1800 | 154 | 1165 | 139 | 1299 |
| 252.eon | 1300 | 79.5 | 1635 | 78.2 | 1662 |
| 253.perlbmk | 1800 | 175 | 1030 | 156 | 1152 |
| 254.gap | 1100 | 76.8 | 1432 | 76.8 | 1432 |
| 255.vortex | 1900 | 70.1 | 2711 | 70.1 | 2711 |
| 256.bzip2 | 1500 | 99.3 | 1511 | 99.3 | 1511 |
| 300.twolf | 3000 | 161 | 1869 | 161 | 1869 |




### Hardware

| | |
|---|---|
| CPU: | POWER5+ |
| CPU MHz: | 2100 |
| FPU: | Integrated |
| CPU(s) enabled: | 1 core, 1 chip, 2 cores/chip (SMT off) |
| CPU(s) orderable: | 2,4 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: | 32 GB (16x2GB) |
| Disk Subsystem: | 1x73GB SCSI, 15K RPM |
| Other Hardware: | None |

### Software

| | |
|---|---|
| Operating System: | SLES<br>SUSE Linux Enterprise Server 10 (ppc) VERSION = 10<br>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 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
```