CINT2000 Result

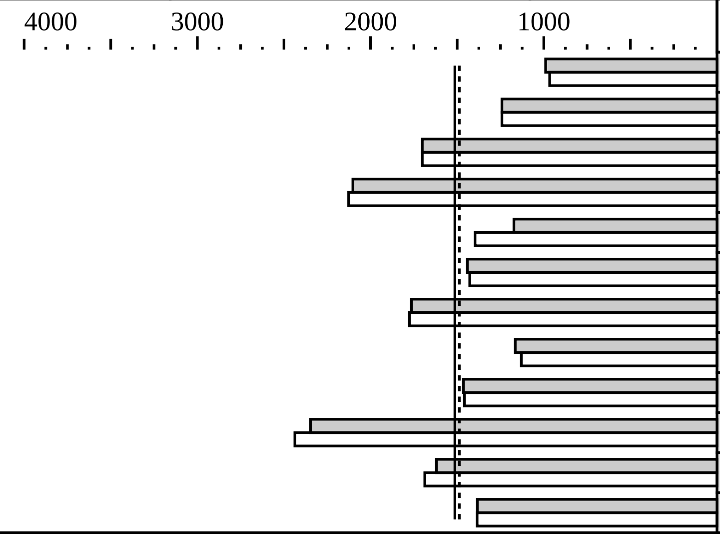
IBM Corporation

IBM System p5 595 (2300 MHz, 64 CPU)

SPECint_rate2000 = 1513

SPECint_rate_base2000 = 1488

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	128	210	989	128	215	966
175.vpr	128	167	1242	128	167	1242
176.gcc	128	96.0	1701	128	96.0	1701
181.mcf	128	127	2102	128	126	2127
186.crafty	128	127	1173	128	106	1397
197.parser	128	185	1441	128	187	1428
252.eon	128	109	1764	128	109	1776
253.perlbmk	128	229	1165	128	237	1130
254.gap	128	112	1464	128	112	1459
255.vortex	128	120	2347	128	116	2437
256.bzip2	128	137	1620	128	132	1687
300.twolf	128	322	1384	128	322	1385

Hardware

CPU:	POWER5+
CPU MHz:	2300
FPU:	Integrated
CPU(s) enabled:	64 cores, 32 chips, 2 cores/chip (SMT on)
CPU(s) orderable:	16,32,48,64 cores
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, 32 chips per SUT
Other Cache:	None
Memory:	256 GB (64x4 GB)
Disk Subsystem:	2x73GB SCSI, 15K RPM
Other Hardware:	None

Software

Operating System:	AIX 5L V5.3
Compiler:	XL C/C++ Enterprise Edition Version 8.0 for AIX XL Fortran Enterprise Edition Version 10.1 for AIX Other Software: ESSL 4.2.0.4
File System:	AIX/JFS2
System State:	Multi-user

Notes/Tuning Information

```
Portability Flags:
  176.gcc:      -ma -DHOST_WORDS_BIG_ENDIAN
  186.crafty:   -DAIX
  253.perlbmk:  -DSPEC_CPU2000_AIX
  254.gap:      -DSYS_IS_BSD -DSYS_STRING_H
                -DSYS_HAS_MALLOC_PROTO -DSYS_HAS_CALLOC_PROTO
  300.twolf:    -DHAVE_SIGNED_CHAR

Base Optimization Flags:
  C:     -qpdf1/pdf2
         -O5 -blpdata -D_ILS_MACROS
  C++:  -qpdf1/pdf2
         -O4 -qalign=natural

Peak Optimization Flags
  164.gzip:     -qpdf1/pdf2
                -O4 -qfdpr -blpdata
                fdpr -q -O3
  175.vpr:      basepeak=1
  176.gcc:      basepeak=1
```

Notes/Tuning Information (Continued)

```
    181.mcf:       -qpdf1/pdf2
                   -O5 -blpdata -qalign=natural -qhot=arraypad -qfdpr -Q -qmaxmem=-1
                   fdpr -q -O3
    186.crafty:    -qpdf1/pdf2
                   -O4 -qalign=natural -q64 -lhmu -blpdata
    197.parser:    -qpdf1/pdf2
                   -O4 -qfdpr -D_ILS_MACROS -blpdata
                   fdpr -q -O3
    252.eon:       -qpdf1/pdf2
                   -O4 -qarch=pwr4 -qtune=pwr4 -qalign=natural
    253.perlbmk:   -qpdf1/pdf2
                   -O4 -qarch=pwr4 -qtune=pwr4 -qalign=natural -blpdata -lhmu
    254.gap:       -qpdf1/pdf2
                   -O4 -qarch=pwr4 -qtune=pwr4 -qalign=natural -blpdata
    255.vortex:    -qpdf1/pdf2
                   -O4 -qfdpr -lhmu -blpdata
                   fdpr -q -O3
    256.bzip2:     -qpdf1/pdf2
                   -O5 -qfdpr -blpdata
                   fdpr -q -O3
    300.twolf:     -O5 -qfdpr -blpdata
                   fdpr -q -O3
```

The installed OS level is AIX 5L for POWER Version 5.3 with the 5300-05 Recommended Technology Level.
The installed C/C++ compiler is XL C/C++ Enterprise Edition Version 8.0 for AIX with the March 2006 PTF.
The installed Fortran copiler is XL Fortran Enterprise Edition Version 10.1 with the May 2006 AIX PTF.

```
SMT:  Acronym for "Simultaneous Multi-Threading". A processor technology that allows
      the simultaneous execution of multiple thread contexts within a single processor
      core. (Enabled by default)
SUT:  Acronym for "System Under Test"
PTF:  IBM identifier for "Program Fix Level"

Extended C:     IBM XL C for AIX invoked as cc
ANSI C89:       IBM XL C for AIX invoked as xlc
C++:            IBM XL C for AIX invoked as xlC

ulimits set to unlimited.
Large page mode and memory affinity were set as follows:
    vmo -r -o lgpg_regions=12800 -o lgpg_size=16777216
    chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
    bosboot -aD
    shutdown -rF
    export MEMORY_AFFINITY=MCM

The following config-file entry was used to assign each benchmark process to a core:
     submit = bindprocessor $$ $SPECUSERNUM; $command
The "bindprocessor" AIX command binds a process to a CPU core.
```