CINT2000 Result

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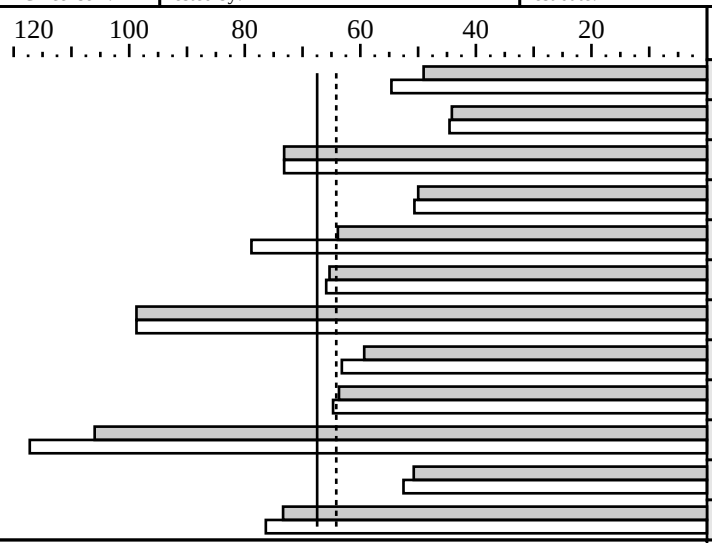
IBM Corporation

IBM BladeCenter JS21 (2500 MHz, 4 CPU)

SPECint_rate2000 = 67.5

SPECint_rate_base2000 = 64.2

SPEC license #: 11 | Tested by: IBM | Test date: Jan-2006 | Hardware Avail: Mar-2006 | Software Avail: Mar-2006



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	4	132	49.0	4	119	54.6
175.vpr	4	147	44.2	4	146	44.6
176.gcc	4	69.7	73.2	4	69.7	73.2
181.mcf	4	167	50.0	4	165	50.6
186.crafty	4	72.6	63.9	4	58.8	78.8
197.parser	4	128	65.3	4	127	65.9
252.eon	4	61.1	98.7	4	61.1	98.7
253.perlbmk	4	141	59.3	4	132	63.2
254.gap	4	80.1	63.7	4	78.9	64.7
255.vortex	4	83.2	106	4	75.2	117
256.bzip2	4	137	50.8	4	132	52.5
300.twolf	4	190	73.4	4	182	76.4

Hardware

CPU:	IBM PowerPC 970MP
CPU MHz:	2500
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip
CPU(s) orderable:	4
Parallel:	No
Primary Cache:	64KBI+32KBD (on chip)/core
Secondary Cache:	1MB unified (on chip)/core
L3 Cache:	None
Other Cache:	None
Memory:	4x2GB PC2-4200 533MHz ECC Chipkill DDR2
Disk Subsystem:	2x 73GB 10,000 rpm 2.5" SFF Serial Attached SCSI
Other Hardware:	BladeCenter H

Software

Operating System:	AIX 5L V5.3
Compiler:	XL C/C++ Enterprise Edition Version 8.0 for AIX
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
               -O5 -qalign=natural -qfdpr -Q -qmaxmem=-1 -q64 -blpdata -lhmu -qenablevmx
                fdpr -q -O3
  175.vpr:      -qpdf1/pdf2
                -O5 -qalign=natural -qfdpr -Q -qmaxmem=-1 -blpdata -lhmu
```

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Notes/Tuning Information (Continued)

```
                fdpr -q -O3
  176.gcc:      basepeak=1
  181.mcf:      -qpdf1/pdf2
                -O5 -qalign=natural -qfdpr -Q -qmaxmem=-1 -blpdata
                fdpr -q -O3
  186.crafty:   -qpdf1/pdf2
                -O5 -qfdpr -q64 -lhmu
                 fdpr -q -O3
  197.parser:   -qpdf1/pdf2
                -O4 -qfdpr -D_ILS_MACROS -blpdata
                 fdpr -q -O3
  252.eon:      basepeak=1
  253.perlbmk:  -qpdf1/pdf2
                 -O4 -qalign=natural -D_ILS_MACROS -blpdata -lhmu -qenablevmx
  254.gap:      -qpdf1/pdf2
                 -O5 -D_ILS_MACROS -blpdata -lhmu -qenablevmx
  255.vortex:   -qpdf1/pdf2
                -O4 -qfdpr -blpdata -lhmu
                 fdpr -q -O3
  256.bzip2:    -qpdf1/pdf2
                -O5 -qfdpr -blpdata
                fdpr -q -O3
  300.twolf:    -qpdf1/pdf2
                -O4 -qfdpr -qarch=pwr3 -qtune=pwr3 -blpdata
                fdpr -q -O3


The installed OS level is AIX 5L for POWER version 5.3 with the 5300-04 Recommended Technology Level.

Extended C:     IBM XL C for AIX invoked as cc
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=200 -o lgpg_size=16777216
    chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
    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.
```