



CINT2000 Result

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Bull
Escala PL250R+ (2100 MHz, 2 CPU)

SPECint_rate2000 = 44.5
SPECint_rate_base2000 = 43.8

SPEC license #: 20 | Tested by: Bull | Test date: Feb-2007 | Hardware Avail: Feb-2006 | Software Avail: Dec-2006

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	4	217	29.9	4	218	29.9
175.vpr	4	175	37.2	4	175	37.2
176.gcc	4	100	50.9	4	100	50.9
181.mcf	4	136	61.4	2	62.9	66.4
186.crafty	4	133	34.9	4	133	34.9
197.parser	4	197	42.5	4	197	42.3
252.eon	4	117	51.6	4	116	52.1
253.perlbnk	4	245	34.2	4	234	35.8
254.gap	4	126	40.6	4	123	41.5
255.vortex	4	126	69.9	4	121	73.0
256.bzip2	4	151	46.0	4	145	47.9
300.twolf	4	330	42.2	4	347	40.1

Hardware

CPU: POWER5+
 CPU MHz: 2100
 FPU: Integrated
 CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip (SMT on)
 CPU(s) orderable: 1 chip
 Parallel: no
 Primary Cache: 64KBI+32KBD (on chip)per core
 Secondary Cache: 1920KB unified (on chip) per chip
 L3 Cache: 36MB unified off chip per chip
 Other Cache: None
 Memory: 32 GB (8x4 GBB)
 Disk Subsystem: 1x73GB SCSI, 15K RPM
 Other Hardware: None

Software

Operating System: AIX 5L V5.3
 Compiler: XL C/C++ Enterprise Edition Version 8.0 for AIX with the December 2006 PTF
 XL Fortran Enterprise Edition Version 10.1 for AIX with the November 2006 PTF
 File System: AIX/JFS2
 System State: Multi-user

Notes/Tuning Information

Portability Flags:

```
176.gcc: -ma -DHOST_WORDS_BIG_ENDIAN
186.crafty: -DAIX
253.perlbnk: -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
```



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Notes/Tuning Information (Continued)

```

181.mcf:      users=2
              -qpdf1/pdf2
              -O5 -blpdata -qalign=natural -qhot=arraypad -qfdpr -Q -qmaxmem=-1
              fdpr -q -O3
186.crafty:  basepeak=1
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.perlbnk: -qpdf1/pdf2
              -O4 -qarch=pwr4 -qtune=pwr4 -qalign=natural -blpdata -lhm
254.gap:     -qpdf1/pdf2
              -O4 -qarch=pwr4 -qtune=pwr4 -qalign=natural -blpdata
255.vortex:  -qpdf1/pdf2
              -O4 -qfdpr -lhm -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 5300-04 Recommended Maintenance package.

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)

DCM: Acronym for "Dual-Chip Module" (one dual-core processor chip + one L3-cache chip)

SUT: Acronym for "System Under Test"

```

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
Fortran 77:   IBM XL Fortran for AIX invoked as xlf90 unless explicitly reassigned
Fortran 90:   IBM XL Fortran for AIX invoked as xlf

```

ulimits set to unlimited.

Large page mode was set as follows:

```

vmo -r -o lpgp_regions=800 -o lpgp_size=16777216
bosboot -aD
shutdown -rF

```

The following config-file entry was used to assign each benchmark process to a core:

```

submit = let "MYCPU=2*\$SPECUSERNUM"; if ((" \$MYCPU > 3"))
then let "MYCPU=3"; fi; bindprocessor \$ \$ \$MYCPU; $command

```

The "bindprocessor" AIX command binds a process to a CPU core.