



CINT2000 Result

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IBM Corporation

IBM eServer OpenPower 710 (1650MHz, 1 CPU, Linux)

SPECint2000 = 1144

SPECint_base2000 = 1129

SPEC license #: 11 | Tested by: IBM | Test date: Jan-2005 | Hardware Avail: Feb-2005 | Software Avail: Mar-2005

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
164.gzip	1400	181	774	181	774	
175.vpr	1400	141	991	138	1011	
176.gcc	1100	80.0	1375	80.0	1375	
181.mcf	1800	96.6	1863	95.7	1881	
186.crafty	1000	97.2	1029	96.9	1032	
197.parser	1800	196	917	196	917	
252.eon	1300	109	1192	109	1192	
253.perlbnk	1800	222	813	219	823	
254.gap	1100	110	1003	108	1022	
255.vortex	1900	107	1781	107	1781	
256.bzip2	1500	148	1012	138	1086	
300.twolf	3000	227	1320	222	1350	

Hardware

CPU: POWER5
 CPU MHz: 1650
 FPU: Integrated
 CPU(s) enabled: 1 core, 1 chip, 2 cores/chip (SMT off)
 CPU(s) orderable: 1,2
 Parallel: No
 Primary Cache: 64KBI+32KBD (on chip)/core
 Secondary Cache: 1920KB unified (on chip)/chip
 L3 Cache: 36MB unified (off chip)/DCM, 1 DCM/SUT
 Other Cache: None
 Memory: 8x2 GB
 Disk Subsystem: 1X73GB SCSI, 15K RPM
 Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux AS 4
 Compiler: XL C/C++ Enterprise Edition Version 7.0 for Linux
 File System: EXT2
 System State: Multi-User, run level 3

Notes/Tuning Information

Integer Portability Flags:

```
gcc: -DHOST_WORDS_BIG_ENDIAN
crafty: -DLINUX_PPC32
eon: -DHAS_ERRLIST
    srcalt=fmax_errno
perlbnk: -DSPEC_CPU2000_LINUX_PPC32 -DSPEC_CPU2000_NEED_BOOL -DHAS_FGETPOS -DHAS_FSETPOS
gap: -DSYS_STRING_H -DSYS_IS_USG -DSYS_HAS_IOCTL_PROTO -DSYS_HAS_CALLOC_PROTO
twolf: -DHAVE_SIGNED_CHAR
mcf: None
parser: None
vortex: srcalt=closed_files
bzip2: None
```

Base Optimization Flags:

```
C:
    -qpdf1/pdf2
    -O5
C++:
    -qpdf1/pdf2
    -O5
```



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Notes/Tuning Information (Continued)

Integer Peak Optimization Flags

```
164.gzip
  basepeak=1
175.vpr:  -qpdf1/qpdf2
  -O5 -qhot=arraypad -Q
176.gcc
  basepeak=1
181.mcf
  -O4 -qarch=pwr4 -qtune=pwr4
186.crafty: -qpdf1/pdf2
  -O4 -qarch=pwr3 -qtune=pwr3
197.parser
  basepeak=1
252.eon:
  basepeak=1
253.perlbnk: -qpdf1/pdf2
  -O4 -qarch=pwr5 -qtune=pwr5
254.gap: -qpdf1/pdf2
  -O5 -qarch=pwr4 -qtune=pwr4
255.vortex: -qpdf1/pdf2
  -O4 -qarch=pwr4 -qtune=pwr4
256.bzip2:
  -O5 -qtune=pwr5 -qarch=pwr5
300.twolf:
  "C invoked as /opt/ibmcomp/vac/7.0/bin/xlc"
  -O4 -qarch=pwr5 -qtune=pwr5
```

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"

Stack size set to unlimited using "ulimit -s unlimited"

C: IBM XL C/C++ for Linux invoked as cc unless explicitly reassigned

C: IBM XL C/C++ for Linux invoked as xlc where noted

C++: IBM XL C/C++ for Linux invoked as xlc

SMT was disabled at the Linux boot prompt, using the command smt-enabled=off

Benchmark was run in a 1 CPU partition created using the Hardware Management Console cleanpdf used with -qpdf1/pdf2 to erase the information in the PDF directory if any exists to ensure no feedback information is reused between compilations.

Flag file: IBM-20050209-Linux.txt