



CINT2000 Result

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IBM Corporation
IBM eServer pSeries 640 (8 MB L2)

SPECint_rate2000 = 6.18
SPECint_rate_base2000 = 5.57

SPEC license #: 11 | Tested by: IBM, Austin, TX | Test date: Aug-2000 | Hardware Avail: Oct-2000 | Software Avail: Oct-2000

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.zip	2	714	4.55	2	621	5.23
175.vpr	2	571	5.69	2	505	6.43
176.gcc	2	378	6.75	2	369	6.92
181.mcf	2	405	10.3	2	397	10.5
186.crafty	2	397	5.85	2	419	5.54
197.parser	2	1276	3.27	2	982	4.25
252.eon	2	570	5.29	2	565	5.34
253.perlbnk	2	1031	4.05	2	912	4.58
254.gap	2	510	5.01	2	477	5.35
255.vortex	2	727	6.06	2	662	6.66
256.bzip2	2	704	4.94	2	539	6.46
300.twolf	2	858	8.12	2	727	9.58

Hardware

CPU: IBM Power3-II
CPU MHz: 375
FPU: Integrated
CPU(s) enabled: 2 cores, 2 chips, 1 core/chip
CPU(s) orderable: 2,4
Parallel: No
Primary Cache: 32KBI+64KBD (on chip)
Secondary Cache: 8MB (I+D) (off chip)
L3 Cache: None
Other Cache: None
Memory: 4GB
Disk Subsystem: 1x9.1GB IBM Ultra-2 SCSI, 10000RPM
Other Hardware: None

Software

Operating System: AIX 4.3.3 + beta of APAR IY12051
Compiler: C: IBM VAC 5.0.1 invoked as 'cc' except where noted as 'xlc'
C++: IBM C++ 3.6.6.0 invoked as 'xlc'
File System: AIX/JFS
System State: Multi-user

Notes/Tuning Information

Portability Flags:

```
gcc: -ma -qlanglvl=ansi -DHOST_WORDS_BIG_ENDIAN
crafty: -DAIX
eon: -DNEED_EXPLICIT_SPECIALIZATION
perlbnk: -DSPEC_CPU2000_AIX
gap: -DSYS_IS_BSD -DSYS_STRING_H -DSYS_HAS_TIME_PROTO -DSYS_HAS_MALLOC_PROTO -D SYS_HAS_CALLOC_PROTO
twolf: -DHAVE_SIGNED_CHAR
```

NOTE: The flag combination 'qpdf1/qpdf2' indicates a 2 step compilation process, the exact process is as follows:

```
fdo_pre0 = rm -rf ${PDFDIR}; mkdir -p ${PDFDIR}
PASS1_FLAGS  =--qpdf1 {optimization flags}
PASS1_LDFLAGS = {libraries} -L{pdf library location} -lpdf
PASS2_FLAGS  =--qpdf2 {optimization flags}
PASS2_LDFLAGS =--{libraries}
```

Base Optimization Flags:

```
C: -qpdf1/pdf2 -O3 -lhma -qarch=pwr3
C++: -qpdf1/pdf2 -O3 -qarch=ppc -qtune=pwr3
```

Peak Optimization Flags

```
175.vpr: CC=xlc, -O4 -qarch=ppc, -bnso -bI:/lib/syscalls.exp
176.gcc: -qpdf1/pdf2 -O3 -lhma -qarch=pwr3, fdpr -v -R3
```



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Notes/Tuning Information (Continued)

181.mcf: -O4
186.crafty: -O4, fdpr -v -R3
197.parser: CC=xlc, -qpdf1/pdf2 -O4 -bnso -bI:/lib/syscalls.exp, fdpr -v -R3
252.eon: -qpdf1/pdf2 -O3 -lhmu -qarch=ppc -qtune=pwr3, fdpr -v -R3
253.perlbnk: -qpdf1/pdf2 -O3 -lhmu -qarch=pwr3 -qdatalocal -qunroll=8, fdpr -v -R3
254.gap: -O4 -qarch=pwr3, fdpr -v -R3
255.vortex: -qpdf1/pdf2 -O5 -lhmu -Q=500
256.bzip2: -O5 -qunroll=8, fdpr -v -R3
300.twolf: CC=xlc, -qpdf1/pdf2 -O5, fdpr -v -R3