



# CINT2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

IBM Corporation  
IBM eServer pSeries 640 (4 MB L2)

SPECint\_rate2000 = 6.00  
SPECint\_rate\_base2000 = 5.46

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	711	4.57	2	615	5.28
175.vpr	2	602	5.40	2	541	6.00
176.gcc	2	374	6.83	2	368	6.94
181.mcf	2	541	7.72	2	541	7.72
186.crafty	2	389	5.97	2	412	5.64
197.parser	2	1268	3.29	2	978	4.27
252.eon	2	558	5.41	2	557	5.41
253.perlbnk	2	1003	4.17	2	907	4.60
254.gap	2	506	5.04	2	476	5.36
255.vortex	2	725	6.08	2	663	6.65
256.bzip2	2	711	4.89	2	555	6.27
300.twolf	2	856	8.13	2	720	9.67

### Hardware

CPU: IBM Power3-II  
CPU MHz: 375  
FPU: Integrated  
CPU(s) enabled: 2 cores, 2 chips, 1 core/chip  
CPU(s) orderable: 1,2,3,4  
Parallel: No  
Primary Cache: 32KBI+64KBD (on chip)  
Secondary Cache: 4MB (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
```



# CINT2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

IBM Corporation  
IBM eServer pSeries 640 (4 MB L2)

SPECint\_rate2000 = 6.00  
SPECint\_rate\_base2000 = 5.46

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

## 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