



# CINT2000 Result

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IBM Corporation  
IBM System p5 185 (2500 MHz, 1 CPU)

SPECint2000 = 1459  
SPECint\_base2000 = 1393

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
164.gzip	1400	132	1058	119	1177	
175.vpr	1400	152	918	152	921	
176.gcc	1100	64.7	1700	65.3	1683	
181.mcf	1800	137	1310	138	1301	
186.crafty	1000	73.2	1366	59.1	1692	
197.parser	1800	133	1353	132	1364	
252.eon	1300	61.5	2115	61.5	2115	
253.perlbmk	1800	143	1256	134	1339	
254.gap	1100	74.6	1475	74.1	1485	
255.vortex	1900	87.9	2162	79.5	2391	
256.bzip2	1500	143	1048	138	1086	
300.twolf	3000	200	1498	192	1560	

### Hardware

CPU: IBM PowerPC 970MP  
 CPU MHz: 2500  
 FPU: Integrated  
 CPU(s) enabled: 1 core, 2 chips, 1 core/chip  
 CPU(s) orderable: 1,2  
 Parallel: No  
 Primary Cache: 64KBI+32KBD (on chip)/core  
 Secondary Cache: 1MB unified (on chip)/core  
 L3 Cache: None  
 Other Cache: None  
 Memory: 4x2GB  
 Disk Subsystem: 2x73GB SCSI, 10K RPM  
 Other Hardware: None

### 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 -qhot=arraypad -qfdr -Q -qmaxmem=-1 -q64 -blpdata -lhm -qenablevmx
          fdpr -q -O3
175.vpr: -qpdf1/pdf2
         -O5 -qalign=natural -qhot=arraypad -qfdr -Q -qmaxmem=-1 -blpdata -lhm
```



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## Notes/Tuning Information (Continued)

```

176.gcc:      fdpr -q -O3
              -qpdf1/pdf2
              -O5 -D_ILS_MACROS -blpdata
181.mcf:      -qpdf1/pdf2
              -O5 -qalign=natural -qhot=arraypad -qfdpr -Q -qmaxmem=-1 -blpdata
186.crafty:   fdpr -q -O3
              -qpdf1/pdf2
              -O5 -qfdpr -q64 -lhmu
197.parser:   fdpr -q -O3
              -qpdf1/pdf2
              -O4 -qfdpr -D_ILS_MACROS -blpdata
              fdpr -q -O3
252.eon:      -qpdf1/pdf2
              -O4 -qalign=natural
253.perlbnk:  -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 lpgg_regions=100 -o lpgg_size=16777216
chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
shutdown -rF
export MEMORY_AFFINITY=MCM

```

One core was deconfigured at the open-firmware prompt, using the command  
boot -s cpu=1

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.

This result was measured on an IBM System p5 185. The IBM System p5 185 and IBM IntelliStation POWER 185 models are electronically equivalent.