



# CINT2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

IBM Corporation  
IBM BladeCenter JS21 (2500 MHz, 1 CPU)

SPECint2000 = 1587  
SPECint\_base2000 = 1509

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
164.gzip	1400	131	1065	118	1187	
175.vpr	1400	129	1081	128	1090	
176.gcc	1100	64.3	1711	64.3	1711	
181.mcf	1800	108	1659	107	1678	
186.crafty	1000	72.7	1376	58.7	1703	
197.parser	1800	124	1457	122	1471	
252.eon	1300	61.5	2114	61.5	2114	
253.perlbnk	1800	140	1290	131	1374	
254.gap	1100	70.0	1572	69.7	1579	
255.vortex	1900	79.9	2377	72.2	2631	
256.bzip2	1500	117	1282	112	1337	
300.twolf	3000	184	1632	176	1701	

### Hardware

CPU: IBM PowerPC 970MP  
 CPU MHz: 2500  
 FPU: Integrated  
 CPU(s) enabled: 1 core, 2 chips, 2 cores/chip  
 CPU(s) orderable: 4  
 Parallel: No  
 Primary Cache: 64KBI+32KBD (on chip)/core  
 Secondary Cache: 1MB unified (on chip)/core  
 L3 Cache: None  
 Other Cache: None  
 Memory: 4x2GB PC2-4200 533MHz ECC Chipkill DDR2  
 Disk Subsystem: 2x 73GB 10,000 rpm 2.5" SFF Serial Attached SCSI  
 Other Hardware: BladeCenter H

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



# CINT2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

IBM Corporation  
IBM BladeCenter JS21 (2500 MHz, 1 CPU)

SPECint2000 = 1587  
SPECint\_base2000 = 1509

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

## Notes/Tuning Information (Continued)

```

fdpr -q -O3
176.gcc: basepeak=1
181.mcf: -qpdf1/pdf2
        -O5 -qalign=natural -qfdpr -Q -qmaxmem=-1 -blpdata
        fdpr -q -O3
186.crafty: -qpdf1/pdf2
           -O5 -qfdpr -q64 -lhmu
           fdpr -q -O3
197.parser: -qpdf1/pdf2
           -O4 -qfdpr -D_ILS_MACROS -blpdata
           fdpr -q -O3
252.eon: basepeak=1
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=200 -o lpgg_size=16777216
chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
shutdown -rF
export MEMORY_AFFINITY=MCM

```

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.

One core was deconfigured at the open-firmware prompt, using the command

```
boot -s cpu=1
```