



# CINT2000 Result

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## IBM Corporation

IBM eServer pSeries 630 Model 6E4 (1450 MHz, 1 CPU)

SPECint2000 = 910

SPECint\_base2000 = 884

SPEC license #: 11 | Tested by: IBM, Austin, TX | Test date: Jan-2003 | Hardware Avail: Feb-2003 | Software Avail: Dec-2002

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
164.gzip	1400	212	660	212	660	
175.vpr	1400	165	848	165	848	
176.gcc	1100	116	951	116	951	
181.mcf	1800	133	1348	127	1416	
186.crafty	1000	126	794	108	928	
197.parser	1800	487	370	489	368	
252.eon	1300	114	1136	114	1136	
253.perlbmk	1800	257	700	232	775	
254.gap	1100	124	888	124	888	
255.vortex	1900	140	1360	139	1363	
256.bzip2	1500	159	941	154	973	
300.twolf	3000	252	1189	249	1202	

### Hardware

CPU: POWER4+  
 CPU MHz: 1450  
 FPU: Integrated  
 CPU(s) enabled: 1 core, 1 chip, 2 cores/chip, 1 chip/SCM  
 CPU(s) orderable: 1,2,4 (order by # cores)  
 Parallel: No  
 Primary Cache: 64KBI+32KBD (on chip) per core  
 Secondary Cache: 1536KB unified (on chip) per chip  
 L3 Cache: 8MB unified (off-chip) per SCM, 1 SCM in SUT  
 Other Cache: None  
 Memory: 8 GB  
 Disk Subsystem: 1x36GB SCSI  
 Other Hardware: None

### Software

Operating System: AIX 5L V5.2  
 Compiler: IBM C for AIX, Version 6.0  
 IBM VisualAge C++ Professional for AIX, Version 6.0  
 File System: AIX/JFS  
 System State: Multi-User

## Notes/Tuning Information

### Integer Portability Flags:

```
gcc:      -ma -DHOST_WORDS_BIG_ENDIAN
crafty:   -DAIX
eon:      -DNEED_EXPLICIT_SPECIALIZATION
          -I. -DNDEBUG
perlbmk:  -DSPEC_CPU2000_AIX
gap:      -DSYS_IS_BSD -DSYS_STRING_H -DSYS_HAS_TIME_PROTO
          -DSYS_HAS_MALLOC_PROTO -DSYS_HAS_CALLOC_PROTO
twolf:    -DHAVE_SIGNED_CHAR
```

### Base Optimization Flags:

```
C:
-qpdf1/pdf2
-O5 -blpdata -qalign=natural
C++:
-qpdf1/pdf2
-O5 -lhm -qalign=natural
```

### Integer Peak Optimization Flags

164.gzip



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## Notes/Tuning Information (Continued)

```

BASEPEAK = 1
"CC      = /usr/vac/bin/xlc"
175.vpr
BASEPEAK = 1
176.gcc
BASEPEAK = 1
181.mcf
fdpr -v -R3
-O5 -blpdata
186.crafty
-qpdf1/pdf2
fdpr -v -R3
-O3 -q64
197.parser
-O5 -blpdata
252.eon
BASEPEAK = 1
253.perlbmk
-qpdf1/pdf2
-O5 -lhmu -qalign=natural
254.gap
BASEPEAK = 1
255.vortex
-qpdf1/pdf2
-O5 -lhmu -qalign=natural
256.bzip2
-qpdf1/pdf2
-O5 -blpdata -qarch=pwr3 -qtune=pwr3
300.twolf
-qpdf1/pdf2
-O5 -lhmu -qalign=natural -blpdata
"CC      = /usr/vac/bin/xlc"

```

SCM: Acronym for "Single-Chip Module"

SUT: Acronym for "System Under Test"

1 processor was deconfigured through the configuration menu.

```

fpdr: Feedback directed program restructuring tool
/usr/spec2000 filesystem mounted with no JFS log file I/O.
APAR IY 38292 was applied to AIX to enable new hardware support.
ulimits set to unlimited.
C: IBM VAC++ invoked as cc except where noted as xlc
C++: IBM VAC++ invoked as xlc
Large page mode and memory affinity were set as follows:
vmo -r -o lpgg_regions=32 -o lpgg_size=16777216 -o memory_affinity=1
chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
shutdown -r
export MEMORY_AFFINITY=MCM

```