



CINT2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

IBM Corporation

IBM eServer BladeCenter JS20 (2200 MHz, 1 CPU)

SPECint2000 = 1040

SPECint_base2000 = 986

SPEC license #: 11 | Tested by: IBM | Test date: Oct-2004 | Hardware Avail: Oct-2004 | Software Avail: Dec-2004

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
164.gzip	1400	138	1015	135	1041	
175.vpr	1400	244	573	242	579	
176.gcc	1100	99.5	1106	97.3	1130	
181.mcf	1800	288	625	271	665	
186.crafty	1000	85.8	1165	68.1	1469	
197.parser	1800	181	995	180	999	
252.eon	1300	74.5	1745	69.6	1868	
253.perlbnk	1800	181	992	159	1133	
254.gap	1100	89.9	1223	90.8	1212	
255.vortex	1900	120	1578	113	1687	
256.bzip2	1500	196	766	192	781	
300.twolf	3000	426	705	422	711	

Hardware

CPU: PowerPC 970
 CPU MHz: 2200
 FPU: Integrated
 CPU(s) enabled: 1 core, 1 chip, 1 core/chip
 CPU(s) orderable: 1,2
 Parallel: No
 Primary Cache: 64KBI+32KBD (on chip)/chip
 Secondary Cache: 512KB unified (on chip)/chip
 L3 Cache: None
 Other Cache: None
 Memory: 4x1 GB
 Disk Subsystem: 1x40GB SCSI, 15K RPM
 Other Hardware: None

Software

Operating System: AIX 5L V5.3
 Compiler: XL C/C++ Enterprise Edition V7.0 for AIX
 File System: AIX/JFS2
 System State: Multi-user

Notes/Tuning Information

Tested by IBM

Portability Flags:

176.gcc: EXTRA_CFLAGS=-ma -DHOST_WORDS_BIG_ENDIAN
 186.crafty: EXTRA_CFLAGS=-DAIX
 252.eon: EXTRA_LDFLAGS=-I.
 253.perlbnk: EXTRA_CFLAGS=-DSPEC_CPU2000_AIX
 254.gap: EXTRA_CFLAGS=-DSYS_IS_BSD -DSYS_STRING_H -DSYS_HAS_TIME_PROTO
 -DSYS_HAS_MALLOC_PROTO -DSYS_HAS_CALLOC_PROTO
 300.twolf: EXTRA_CFLAGS=-DHAVE_SIGNED_CHAR

Base Optimization Flags:

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

Alternate Sources for Base & Peak:

Approved alternate-source file 252.eon.fmax_errno.src.alt.tar.gz
 was used with 252.eon for POSIX-compatibility.



CINT2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

IBM Corporation

IBM eServer BladeCenter JS20 (2200 MHz, 1 CPU)

SPECint2000 = 1040

SPECint_base2000 = 986

SPEC license #: 11 | Tested by: IBM | Test date: Oct-2004 | Hardware Avail: Oct-2004 | Software Avail: Dec-2004

Notes/Tuning Information (Continued)

Peak Optimization Flags:

```

164.gzip:      -qpdf1/pdf2
               -O5 -blpdata -D_ILS_MACROS -qfdpr
               fdpr -R3
175.vpr:      -qpdf1/pdf2
               -O5 -lhm -qalign=natural -D_ILS_MACROS -blpdata
176.gcc:      -qpdf1/pdf2
               -O5 -blpdata -D_ILS_MACROS -qfdpr
               fdpr -R3
181.mcf:      -O5 -lhm -blpdata -qalign=natural
               CC=xlc
186.crafty:   -qpdf1/pdf2
               -O4 -q64 -qfdpr -qarch=pwr3 -qtune=pwr3 -D_ILS_MACROS
               fdpr -R3
197.parser:   -qpdf1/pdf2
               -O5 -blpdata -D_ILS_MACROS -qfdpr
               fdpr -R3
252.eon:      -qpdf1/pdf2
               -O4 -qarch=auto -qtune=auto -qalign=natural -lhm
253.perlbnk:  -qpdf1/pdf2
               -O5 -lhm -qalign=natural
254.gap:      -qpdf1/pdf2
               -O5 -blpdata -D_ILS_MACROS -qfdpr
               fdpr -R3
255.vortex:   -qpdf1/pdf2
               -O5 -blpdata -D_ILS_MACROS -qfdpr
               fdpr -R3
256.bzip2:    -qpdf1/pdf2
               -O5 -blpdata -D_ILS_MACROS -qfdpr
               fdpr -R3
300.twolf:    -qpdf1/pdf2
               -O4 -qarch=auto -qtune=auto -qalign=natural
               fdpr -R3

```

C: IBM XL C for AIX invoked as xlc
C++: IBM VAC++ invoked as xlc

APAR IY 62532 was applied to AIX to enable new hardware support.
ulimits set to unlimited.

Large page mode and memory affinity were set as follows:

```

vmo -r -o lpgg_regions=200 -o lpgg_size=16777216 -o memory_affinity=1
chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
shutdown -r
export MEMORY_AFFINITY=MCM

```

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