CINT2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

IBM Corporation

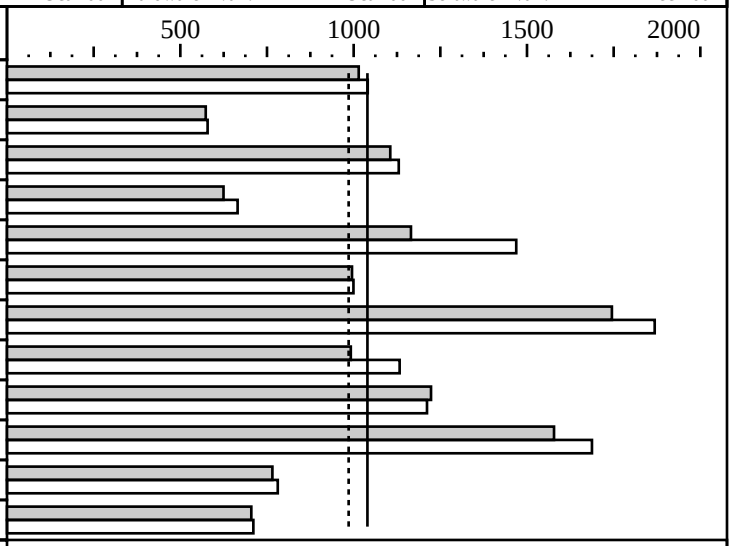
IBM eServer BladeCenter JS20 (2200 MHz, 1 CPU)

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.perlbmk	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.perlbmk:      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 -lhmu -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.
```

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Notes/Tuning Information (Continued)

```
Peak Optimization Flags:
   164.gzip:       -qpdf1/pdf2
                   -O5 -blpdata -D_ILS_MACROS -qfdpr
                   fdpr -R3
   175.vpr:        -qpdf1/pdf2
                   -O5 -lhmu -qalign=natural -D_ILS_MACROS -blpdata
   176.gcc:        -qpdf1/pdf2
                   -O5 -blpdata -D_ILS_MACROS -qfdpr
                   fdpr -R3
   181.mcf:        -O5 -lhmu -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 -lhmu
   253.perlbmk:    -qpdf1/pdf2
                   -O5 -lhmu -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 lgpg_regions=200 -o lgpg_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
```