CINT2000 Result

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IBM Corporation

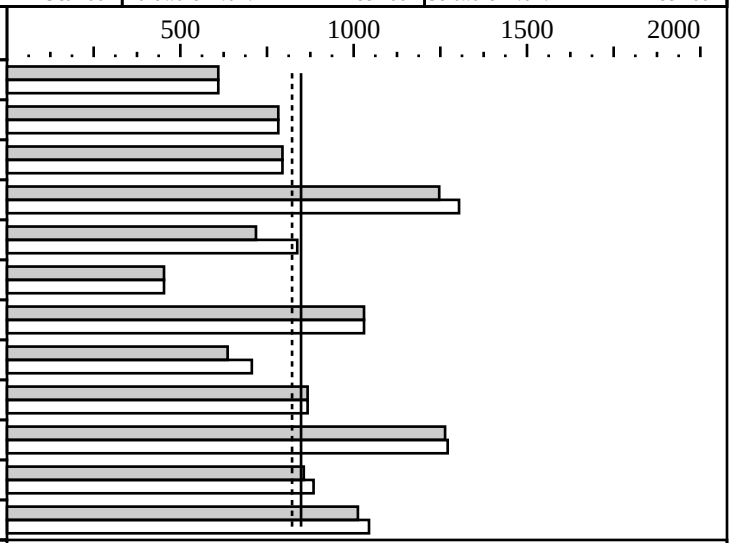
IBM eServer pSeries 655 Model 651 (1300 MHz, 1 CPU)

SPECint2000 = 848

SPECint_base2000 = 822

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
164.gzip	1400	230	609	230	609
175.vpr	1400	179	783	179	783
176.gcc	1100	138	795	138	795
181.mcf	1800	144	1247	138	1304
186.crafty	1000	139	718	119	837
197.parser	1800	397	453	397	453
252.eon	1300	126	1030	126	1030
253.perlbmk	1800	283	636	255	706
254.gap	1100	127	867	127	867
255.vortex	1900	150	1264	149	1271
256.bzip2	1500	175	856	170	884
300.twolf	3000	296	1012	287	1044



Hardware

CPU:	POWER4
CPU MHz:	1300
FPU:	Integrated
CPU(s) enabled:	1 core, 4 chips, 1 core/chip, 4 chips/MCM
CPU(s) orderable:	1 MCM (order by # MCM)
Parallel:	No
Primary Cache:	64KBI+32KBD (on chip) per core
Secondary Cache:	1440KB unified (off chip) per chip
L3 Cache:	128MB unified (off-chip) per MCM, 1 MCM in SUT (4 chips per MCM)
Other Cache:	None
Memory:	16 GB
Disk Subsystem:	1x18.2 GB SCSI
Other Hardware:	None

Software

Operating System:	AIX 5L V5.1
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 -lhmu -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"

    MCM: Acronym for "Multi-Chip Module"
    SUT: Acronym for "System Under Test"

    3 processors were deconfigured through the configuration menu.

    fpdr: Feedback directed program restructuring tool
    /usr/spec2000 filesystem mounted with no JFS log file I/O.
    APAR IY 35692 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:
      vmtune64 -g 16777216 -L 32 -y1
      chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
      bosboot -a
      shutdown -r
```