CINT2000 Result

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IBM Corporation

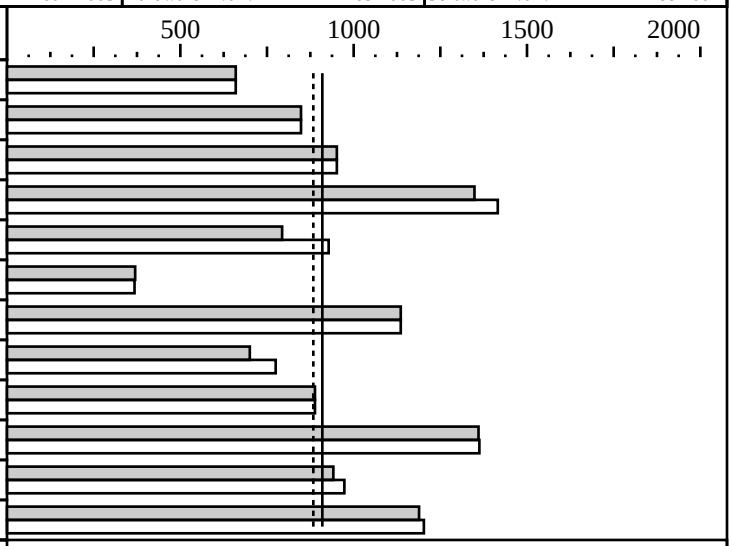
IBM eServer pSeries 630 Model 6C4 (1450 MHz, 1 CPU)

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 -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"

    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 lgpg_regions=32 -o lgpg_size=16777216 -o memory_affinity=1
      chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
      shutdown -r
      export MEMORY_AFFINITY=MCM
```