CINT2000 Result

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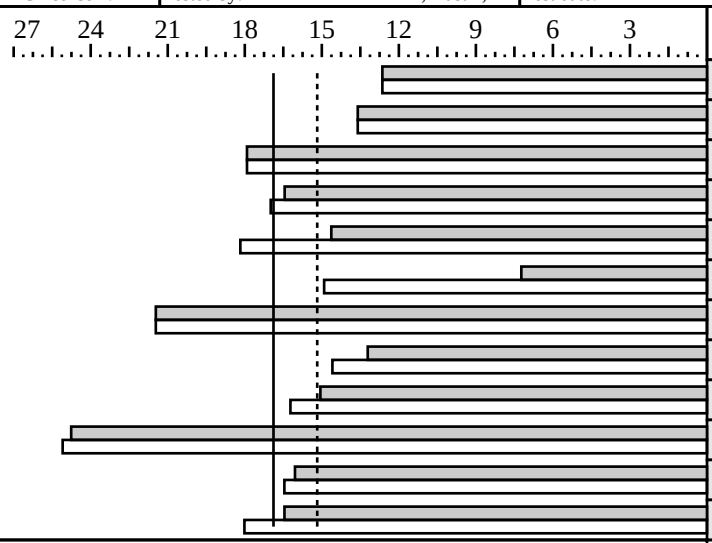
IBM Corporation

IBM eServer pSeries 615 Model 6E3 (1200 MHz, 2 CPU)

SPECint_rate2000 = 16.9

SPECint_rate_base2000 = 15.2

SPEC license #: 11 | Tested by: IBM, Austin, TX | Test date: May-2003 | Hardware Avail: Jun-2003 | Software Avail: May-2003



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	2	257	12.6	2	257	12.6
175.vpr	2	239	13.6	2	239	13.6
176.gcc	2	142	17.9	2	142	17.9
181.mcf	2	254	16.4	2	246	17.0
186.crafty	2	159	14.6	2	128	18.2
197.parser	2	578	7.23	2	280	14.9
252.eon	2	141	21.5	2	141	21.5
253.perlbmk	2	316	13.2	2	286	14.6
254.gap	2	170	15.1	2	157	16.2
255.vortex	2	178	24.8	2	176	25.1
256.bzip2	2	217	16.0	2	211	16.5
300.twolf	2	423	16.5	2	386	18.0

Hardware

CPU:	POWER4+
CPU MHz:	1200
FPU:	Integrated
CPU(s) enabled:	2 cores, 1 chip, 2 cores/chip, 1 processor chip/DCM
CPU(s) orderable:	1,2 (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 DCM, 1 DCM in SUT
Other Cache:	None
Memory:	4 GB
Disk Subsystem:	1x36GB SCSI, 10K RPM
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:
  176.gcc:     -ma -DHOST_WORDS_BIG_ENDIAN
  186.crafty:  -DAIX
  252.eon:     srcalt=fmax_errno
               -I. -DNDEBUG
  253.perlbmk: -DSPEC_CPU2000_AIX
  254.gap:     -DSYS_IS_BSD -DSYS_STRING_H -DSYS_HAS_TIME_PROTO
               -DSYS_HAS_MALLOC_PROTO -DSYS_HAS_CALLOC_PROTO
  300.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 -D_ILS_MACROS
  252.eon
    BASEPEAK = 1
  253.perlbmk
    -qpdf1/pdf2
    -O5 -lhmu -qalign=natural
  254.gap
    -qpdf1/pdf2
    -O5 -lhmu -qalign=natural
  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"

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

    DCM: Acronym for "Dual-Chip Module"
    SUT: Acronym for "System Under Test"

    IBM eServer pSeries 615 Model 6C3 (rack-mount server) and pSeries
    615 Model 6E3 (deskside server) are electronically equivalent.

    fpdr: Feedback directed program restructuring tool
    /usr/spec2000 filesystem mounted with no JFS log file I/O.
    APAR IY 43549 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=64 -o lgpg_size=16777216 -o memory_affinity=1
      chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
      shutdown -r
      export MEMORY_AFFINITY=MCM
```