CINT2000 Result

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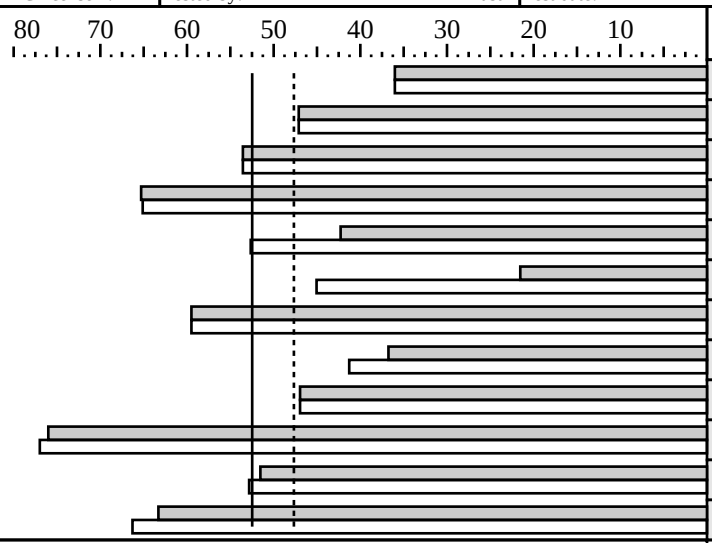
IBM Corporation

IBM eServer pSeries 655 (1700 MHz, 4 CPU)

SPECint_rate2000 = 52.5

SPECint_rate_base2000 = 47.7

SPEC license #: 11 | Tested by: IBM Austin | Test date: Sep-2003 | Hardware Avail: Jul-2003 | Software Avail: Oct-2003



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	4	180	36.0	4	180	36.0
175.vpr	4	138	47.1	4	138	47.1
176.gcc	4	95.3	53.6	4	95.3	53.6
181.mcf	4	128	65.3	4	128	65.1
186.crafty	4	110	42.3	4	88.1	52.6
197.parser	4	388	21.5	4	185	45.1
252.eon	4	101	59.5	4	101	59.5
253.perlbmk	4	227	36.8	4	202	41.3
254.gap	4	109	47.0	4	109	47.0
255.vortex	4	116	76.0	4	115	77.0
256.bzip2	4	135	51.5	4	132	52.8
300.twolf	4	220	63.3	4	210	66.3

Hardware

CPU:	POWER4+
CPU MHz:	1700
FPU:	Integrated
CPU(s) enabled:	4 cores, 4 chips, 1 core/chip, 4 chips/MCM
CPU(s) orderable:	1 (order by # MCM)
Parallel:	No
Primary Cache:	64KBI+32KBD (on chip) per core
Secondary Cache:	1536KB unified (on 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:	1x36GB SCSI, 15K 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/JFS2
System State:	Multi-User

Notes/Tuning Information

```
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


Peak Optimization Flags
  164.gzip:     basepeak = 1
```

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Notes/Tuning Information (Continued)

```
                "CC      = /usr/vac/bin/xlc"
  175.vpr:      basepeak = 1
  176.gcc:      basepeak = 1
  181.mcf:      fdpr -v -R3
                -O5 -blpdata -D_ILS_MACROS
  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:      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"


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

C:   IBM VAC++ invoked as cc except where noted as xlc
C++: IBM VAC++ invoked as xlC

fpdr: Feedback directed program restructuring tool
AIX maintenance fixes APAR IY49575 were applied to base operating system.
ulimits set to unlimited.
Large page mode and memory affinity were set as follows:
   vmo -r -o lgpg_regions=400 -o lgpg_size=16777216 -o memory_affinity=1
   chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
   shutdown -r
   export MEMORY_AFFINITY=MCM


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