CINT2000 Result

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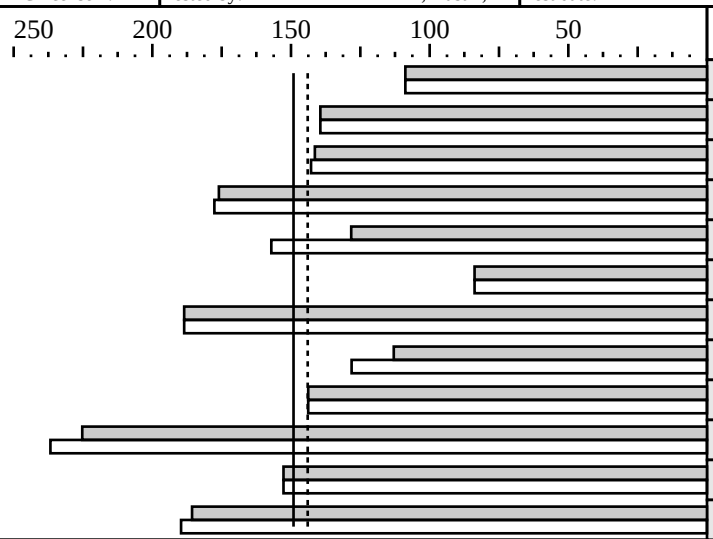
IBM Corporation

IBM eServer pSeries 690 HPC (1300 MHz, 16 CPU)

SPECint_rate2000 = 149

SPECint_rate_base2000 = 144

SPEC license #: 11 | Tested by: IBM, Austin, TX | Test date: Jun-2002 | Hardware Avail: Dec-2001 | Software Avail: Sep-2002



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	16	239	109	16	239	109
175.vpr	16	186	139	16	186	139
176.gcc	16	144	141	16	143	143
181.mcf	16	190	176	16	188	178
186.crafty	16	145	128	16	118	157
197.parser	16	399	83.8	16	399	83.8
252.eon	16	128	189	16	128	189
253.perlbmk	16	296	113	16	261	128
254.gap	16	142	144	16	142	144
255.vortex	16	157	225	16	149	237
256.bzip2	16	182	153	16	182	153
300.twolf	16	300	186	16	294	190

Hardware

CPU:	POWER4
CPU MHz:	1300
FPU:	Integrated
CPU(s) enabled:	16 cores, 16 chips, 1 core/chip, 4 chips/MCM
CPU(s) orderable:	8,16 (order by # cores)
Parallel:	No
Primary Cache:	64KBI+32KBD (on chip) per core
Secondary Cache:	1440KB unified (on chip) per chip
L3 Cache:	128MB unified (off-chip) per MCM, 4 MCMs in SUT (4 chips per MCM)
Other Cache:	None
Memory:	128 GB
Disk Subsystem:	1X16GB 1X8GB
Other Hardware:	None

Software

Operating System:	AIX 5L V5.1
Compiler:	IBM VisualAge C for AIX, Version 6.0 IBM VisualAge C++ for AIX, Version 6.0
File System:	AIX/JFS
System State:	Multi-User

Notes/Tuning Information

```
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
  175.vpr
    BASEPEAK = 1
  176.gcc
    -qpdf1/pdf2
    -O5 -lhmu -qalign=natural
  181.mcf
    fdpr -v -R3
    -O3 -lhmu -qipa=partition=large -blpdata
  186.crafty
    fdpr -v -R3
    -O4 -q64
  197.parser
    BASEPEAK = 1
  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
    BASEPEAK = 1
  300.twolf
    -qpdf1/pdf2
    -O5 -lhmu -qalign=natural -blpdata

    fpdr: Feedback directed program restructuring tool.
    /usr/spec2000 filesystem mounted with no JFS log file I/O.
    APAR IY 28102 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:
    vmtune -g 16777216 -L 1024 -y1

  MCM = Multi-chip Module
  SUT = System under Test
```