CINT2000 Result

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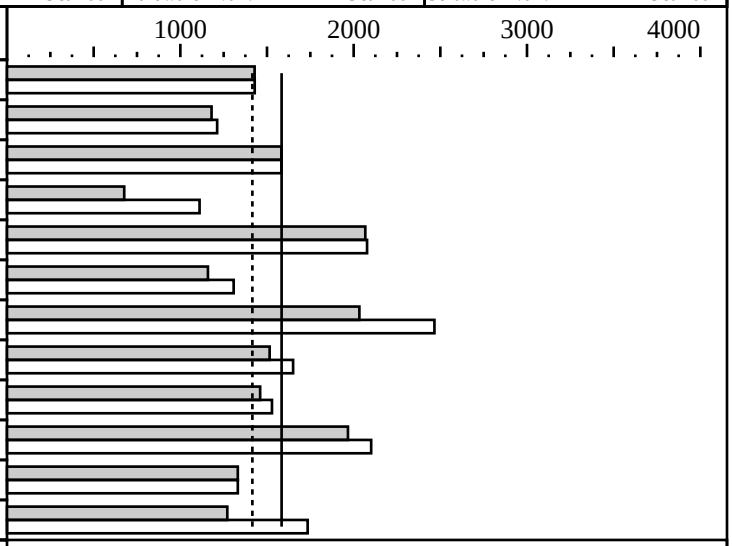
IBM
eServer 326, 2.4 GHz AMD Opteron (TM)

SPECint2000 = 1584

SPECint_base2000 = 1416

SPEC license #: 11 | Tested by: IBM Corporation | Test date: Oct-2004 | Hardware Avail: Oct-2004 | Software Avail: Oct-2004

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
164.gzip	1400	98.0	1429	98.0	1429
175.vpr	1400	119	1180	115	1212
176.gcc	1100	69.5	1583	69.5	1583
181.mcf	1800	266	676	162	1111
186.crafty	1000	48.4	2067	48.1	2077
197.parser	1800	155	1159	138	1308
252.eon	1300	63.9	2033	52.7	2466
253.perlbmk	1800	119	1515	109	1651
254.gap	1100	75.3	1460	72.0	1529
255.vortex	1900	96.6	1967	90.4	2101
256.bzip2	1500	113	1332	113	1332
300.twolf	3000	236	1271	173	1735



Hardware

CPU:	AMD Opteron 250
CPU MHz:	2400
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	1,2
Parallel:	No
Primary Cache:	64KBI + 64KBD on chip
Secondary Cache:	1024KB (I+D) on chip
L3 Cache:	N/A
Other Cache:	N/A
Memory:	8x512MB, DDR400
Disk Subsystem:	SCSI, 36GB 10K RPM
Other Hardware:	None

Software

Operating System:	SuSE Linux 8.0 SLES 64 bit Kernel 2.4.21-143-smp (SP3)
Compiler:	PathScale EKO Compiler Suite, Release 1.4
File System:	Linux/reiserfs
System State:	Multi-user, run level 3

Notes/Tuning Information

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Tested by IBM Corporation

 +FDO: PASS1= -fb_create fbdata  PASS2= -fb_opt fbdata

 Baseline optimization flags:
   C programs:       -O3 -ipa +FDO
   C++ programs:     -Ofast +FDO

 Portability Flags:
   175.vpr:     -DSPEC_CPU2000
   181.mcf:     -DWANT_STDC_PROTO
   186.crafty:  -DLINUX_i386 -DSPEC_CPU2000
   252.eon:     -DHAS_ERRLIST -DFMAX_IS_DOUBLE -DSPEC_CPU2000_LP64
   253.perlbmk: -DSPEC_CPU2000_LINUX_I386 -DSPEC_CPU2000_NEED_BOOL
                -DSPEC_CPU2000_GLIBC22 -DSPEC_CPU2000_LP64
   254.gap:     -DSYS_IS_USG -DSYS_HAS_IOCTL_PROTO -DSYS_HAS_TIME_PROTO
                -DSYS_HAS_SIGNAL_PROTO  -DSYS_HAS_ANSI
                -DSYS_HAS_CALLOC_PROTO -DSPEC_CPU2000_LP64
   255.vortex:  -DSPEC_CPU2000_LP64
   300.twolf:   -DSPEC_CPU2000 -DHAVE_SIGNED_CHAR
```

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Notes/Tuning Information (Continued)

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Peak Tuning:
  164.gzip:     -Ofast +FDO
  175.vpr:      -O2 -ipa -OPT:alias=disjoint
                -CG:p2align_freq=500000 -INLINE:aggressive=on
                -IPA:space=300:plimit=10000:callee_limit=5000:linear=on
                +FDO
  176.gcc:      basepeak = true
  181.mcf:      -O3 -ipa -IPA:field_reorder=on -m32
  186.crafty:   -Ofast +FDO
  197.parser:   -O3 -ipa -m32 -IPA:ctype=on +FDO
  252.eon:      -Ofast -CG:gcm=off:p2align_freq=1:prefetch=off
                -OPT:treeheight=on -TENV:X=4:frame_pointer=off
                -fno-exceptions -LNO:fu=10:full_unroll_outer=on
                +FDO -IPA:plimit=4000:pu_reorder=1
  253.perlbmk:  -O3 -ipa +FDO -IPA:plimit=10000
  254.gap:      -O3 -ipa -OPT:transform_to_memlib=on +FDO
  255.vortex:   -Ofast -IPA:space=70:plimit=3000
                -OPT:goto=off:unroll_analysis=off:unroll_size=0:unroll_times_max=8
                -LNO:opt=0 -TENV:X=4 +FDO
  256.bzip2:    basepeak=TRUE
  300.twolf:    -O2 -OPT:unroll_times=8:unroll_size=256:alias=disjoint:Ofast
                -CG:gcm=off:p2align_freq=100000 -WOPT:mem_opnds=on -m32 +FDO

BIOS Settings:
  ChipKill was DISABLED

Compiler Flags File:
  IBM-PathScale-20041025
```