



CINT2000 Result

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SGI
SGI 2200 2X 300MHz R12k

SPECint2000 = **264**
SPECint_base2000 = **254**

SPEC license #: 4 Tested by: SGI Test date: Nov-1999 Hardware Avail: Apr-1999 Software Avail: May-1999

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
164.gzip	1400	812	172	786	178	
175.vpr	1400	478	293	463	303	
176.gcc	1100	459	240	461	239	
181.mcf	1800	401	449	378	476	
186.crafty	1000	400	250	396	253	
197.parser	1800	842	214	796	226	
252.eon	1300	479	271	483	269	
253.perlbnk	1800	969	186	964	187	
254.gap	1100	680	162	671	164	
255.vortex	1900	535	355	461	412	
256.bzip2	1500	591	254	531	283	
300.twolf	3000	878	342	879	341	

Hardware

CPU: R12000
 CPU MHz: 300
 FPU: Integrated
 CPU(s) enabled: 2 cores, 2 chips, 1 core/chip
 CPU(s) orderable: 2
 Parallel: No
 Primary Cache: 32KBI + 32KBD on chip
 Secondary Cache: 8MB(I+D) off chip
 L3 Cache: N/A
 Other Cache: N/A
 Memory: 1024MB
 Disk Subsystem: 1 x 9 GB SCSI
 Other Hardware: None

Software

Operating System: IRIX 6.5.5f
 Compiler: MIPSpro 7.3 C, C++, Fortran90
 File System: xfs
 System State: Single-user

Notes/Tuning Information

Baseline optimization flags (C and C++ use same flags):

PASS1 : -Ofast=ip27 -IPA:use_intrinsic -fb_create /tmp/SPEC2000/FBDIR/base/\$(EXEBASE)
 PASS2 : -Ofast=ip27 -IPA:use_intrinsic -fb_opt /tmp/SPEC2000/FBDIR/base/\$(EXEBASE)

Portability Flags:

176.gcc: -DUSG -Dalloca=__builtin_alloca -DMIPS -DHOST_WORDS_BIG_ENDIAN
 186.crafty: -DSGI
 253.perlbnk: -DSPEC_CPU2000_SGI -DI_FCNTL
 254.gap: -DSYS_IS_USG -DSYS_HAS_TIME_PROTO -DSYS_HAS_SIGNAL_PROTO -DSYS_HAS_IOCTL_PROTO
 300.twolf: -DHAVE_SIGNED_CHAR

Peak optimization flags:

note: all occurrences of (FEEDBACK) below means compiled with a two-step process:

PASS1 = -fb_create /tmp/SPEC2000/FBDIR_peak/\$(EXEBASE)
 PASS2 = -fb_opt /tmp/SPEC2000/FBDIR_peak/\$(EXEBASE)
 164.gzip: -Ofast=ip27 -IPA:space=500:plimit=500 (FEEDBACK)
 175.vpr: -Ofast=ip27 -IPA:space=300:plimit=10000: callee_limit=5000:linear=on -LNO:prefetch Ahead=2
 . -INLINE:aggressive=on -OPT:Olimit=0:alias=disjoint:alias=restrict (FEEDBACK)
 181.mcf: -Ofast=ip27 -IPA:min_hot=14 (FEEDBACK)
 176.gcc: -Ofast=ip27 (FEEDBACK)
 186.crafty: -Ofast=ip27 -LNO:prefetch=0 -OPT:goto=off (FEEDBACK)
 197.parser: -Ofast=ip27 -IPA:min_hot=14 (FEEDBACK)



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Notes/Tuning Information (Continued)

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252.eon: -Ofast=ip27 -LNO:prefetch=0 -LANG:exceptions=off (FEEDBACK)
253.perlbnk: -Ofast=ip27 -IPA:use_intrinsic -Wl,-x (FEEDBACK)
254.gap: -Ofast=ip27 -IPA:use_intrinsic -OPT:unroll_analysis=off:unroll_size=0:unroll_times_max=4
.
-OPT:alias=restrict:alias=disjoint -IPA:min_hot=7 (FEEDBACK)
255.vortex: -Ofast=ip27 -IPA:use_intrinsic -OPT:unroll_analysis=off:unroll_size=0:unroll_times_max=4 -LNO:opt=0
.
-CG:ld_latency=5 -IPA:min_hot=14 -TENV:X=4 -IPA:space=500:plimit=3600 -OPT:goto=off (FEEDBACK)
256.bzip2: -Ofast=ip27 -IPA:min_hot=5:space=500:plimit=2900 -INLINE:aggressive=on (FEEDBACK)
300.twolf: -Ofast=ip27 -IPA:use_intrinsic (FEEDBACK)
The following O/S parameters were set:
limit stacksize 500000
setenv PAGESIZE_DATA 4096
setenv PAGESIZE_TEXT 4096
setenv PAGESIZE_STACK 4096
systune -i ; percent_totalmem_4m_pages = 50 ; nlpages_4m = 128

```