



CFP2000 Result

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SGI
SGI 2200 2X 300MHz R12k

SPECfp2000 = **283**
SPECfp_base2000 = **269**

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
168.wupwise	1600	618	259	542	295
171.swim	3100	1095	283	1088	285
172.mgrid	1800	853	211	828	217
173.applu	2100	1034	203	969	217
177.mesa	1400	664	211	602	232
178.galgel	2900	386	752	382	758
179.art	2600	325	800	338	769
183.quake	1300	640	203	627	207
187.facerec	1900	565	336	560	339
188.amp	2200	756	291	756	291
189.lucas	2000	810	247	812	246
191.fma3d	2100	1285	163	1089	193
200.sixtrack	1100	733	150	736	150
301.apsi	2600	1214	214	961	270

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: Multi-user

Notes/Tuning Information

Baseline optimization flags (for C benchmarks):

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)

Baseline optimization flags (for Fortran benchmarks): -Ofast=ip27 -LNO:fusion=2

Portability Flags:

178.galgel: -fixedform

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)

168.wupwise: -Ofast=ip27 -IPA:space=1000:linear=on:plimit=10000:callee_limit=5000 -INLINE:aggressive=on
-OPT:Olimit=0 -LNO:fusion=2:prefetch Ahead=5

171.swim: -Ofast=ip27 -LNO:cs2=8m:fission=2:ou=2

172.mgrid: -Ofast=ip27 -LNO:cs2=8m:fission=2:ou=2

173.applu: -Ofast=ip27 -LNO:ou_max=5:ou_prod_max=10:prefetch=0:fusion=2

177.mesa: -Ofast=ip27 -OPT:goto=off -LNO:opt=0 (FEEDBACK)

178.galgel: -Ofast=ip27 -LNO:ou_max=7 (FEEDBACK)

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Notes/Tuning Information (Continued)

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179.art: -Ofast=ip27 -bigp_off -LNO:prefetch=0 -IPA:min_hot=15 (FEEDBACK)
183.quake: -Ofast=ip27 -LNO:prefetch=0 -TENV:X=4 -CG:ld_latency=7 -IPA:space=500 (FEEDBACK)
187.facerec: -Ofast=ip27 -fb_opt /tmp/SPEC2000/FBDIR_peak/$(EXEBASE) -LNO:fusion=2 (FEEDBACK)
188.ampp: -Ofast=ip27 -OPT:goto=off -IPA:space=500:plimit=900 (FEEDBACK)
189.lucas: -Ofast=ip27 -LNO:fusion=2:blocking=off -CG:ld_latency=4 -IPA:min_hot=8 (FEEDBACK)
191.fma3d: -Ofast=ip27 -bigp_off -LNO:prefetch=0 -OPT:goto=off:unroll_size=160:unroll_times_max=4
.
-CG:ld_latency=2 (FEEDBACK)
200.sixtrack:= -Ofast=ip27 -IPA:maxdepth=2 -LNO:prefetch=0 (FEEDBACK)
301.apsi: -Ofast=ip27 -TENV:X=4 -LNO:prefetch=0:blocking=off -IPA:linear=on:use_intrinsic
The following O/S parameters were set:
limit stacksize 500000
setenv PAGESIZE_DATA 4096
setenv PAGESIZE_TEXT 4096
setenv PAGESIZE_STACK 4096
systemd -i ; percent_totalmem_4m_pages = 50 ; nlpages_4m = 128

```