



CFP2000 Result

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SGI
SGI Origin 300 1X 600MHz R14000A

SPECfp2000 = 495

SPECfp_base2000 = 472

SPEC license #: 4 Tested by: SGI Test date: Jul-2002 Hardware Avail: May-2002 Software Avail: Aug-2002

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	369	434	321	498
171.swim	3100	607	511	604	513
172.mgrid	1800	512	352	511	352
173.applu	2100	568	370	523	401
177.mesa	1400	328	427	301	465
178.galgel	2900	222	1308	194	1492
179.art	2600	209	1245	209	1246
183.earthquake	1300	394	330	389	334
187.facerec	1900	369	514	369	514
188.ammmp	2200	406	542	406	541
189.lucas	2000	472	424	470	426
191.fma3d	2100	703	299	651	322
200.sixtrack	1100	370	298	367	300
301.apsi	2600	669	388	580	448

Hardware

CPU: R14000A
CPU MHz: 600
FPU: Integrated
CPU(s) enabled: 1 core, 1 chip, 1 core/chip
CPU(s) orderable: 2-32
Parallel: No
Primary Cache: 32KBI + 32KBD on chip
Secondary Cache: 4MB(I+D) off chip
L3 Cache: N/A
Other Cache: N/A
Memory: 1 GB
Disk Subsystem: 1 x 18 GB FC
Other Hardware: None

Software

Operating System: IRIX 6.5.17f
Compiler: MIPSpro 7.3.1.3m C, Fortran90
SCSL 1.4.0.1 Math Library
File System: xfs
System State: Single-user

Notes/Tuning Information

Baseline optimization flags (for C benchmarks):

PASS1 : -Ofast=ip35 -fb_create /tmp/SPEC2000/FBDIR_base/\$(EXEBASE)

PASS2 : -Ofast=ip35 -fb_opt /tmp/SPEC2000/FBDIR_base/\$(EXEBASE)

Baseline optimization flags (for Fortran benchmarks): -Ofast=ip35 -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=ip35 -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=ip35 -CG:ld_latency=10

172.mgrid: -Ofast=ip35 -LNO:fusion=2

173.applu: -Ofast=ip35 -LNO:ou_max=5:ou_prod_max=10:prefetch=0:fusion=2 -CG:ld_latency=3

177.mesa: -Ofast=ip35 -OPT:goto=off -LNO:opt=0 -CG:ld_latency=6 (FEEDBACK)

178.galgel: -Ofast=ip35 -LNO:ou_max=7 -CG:ld_latency=3 -lscs (FEEDBACK)

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Notes/Tuning Information (Continued)

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RM_SOURCES = lapak.f90
179.art: -Ofast=ip35 -LNO:prefetch=0 -IPA:min_hot=15 -CG:ld_latency=3 (FEEDBACK)
183.quake: -Ofast=ip35 -LNO:prefetch=0 -TENV:X=4 -CG:ld_latency=7 -IPA:space=500 (FEEDBACK)
187.facerec: -Ofast=ip35 -LNO:fusion=2
188.ammp: -Ofast=ip35 -OPT:goto=off -IPA:space=500:plimit=900 -CG:ld_latency=7 (FEEDBACK)
189.lucas: -Ofast=ip35 -LNO:fusion=2:blocking=off -CG:ld_latency=4 -IPA:min_hot=8 (FEEDBACK)
191.fma3d: -Ofast=ip35 -bigp_off -LNO:prefetch=0 -CG:ld_latency=2
-OPT:goto=off:unroll_size=160:unroll_times_max=4 (FEEDBACK)
200.sixtrack:= -Ofast=ip35 -IPA:maxdepth=2 -LNO:prefetch=0 (FEEDBACK)
301.apsi: -Ofast=ip35 -TENV:X=4 -LNO:prefetch=0:blocking=off -IPA:linear=on:use_intrinsic
The following O/S parameters were set:
setenv PAGESIZE_DATA 4096 ; setenv PAGESIZE_TEXT 4096 ; setenv PAGESIZE_STACK 4096
systune -i ; percent_totalmem_4m_pages = 40 ; percent_totalmem_1m_pages = 7
systune -i ; percent_totalmem_256k_pages = 7 ; percent_totalmem_64k_pages = 7
systune -i ; r12k_bdiag = 0x4000000
limit stacksize 500000
The following is done before building each benchmark that requires (FEEDBACK):
rm -rf /tmp/SPEC2000/FBDIR_peak/$baseexe ; mkdir -p /tmp/SPEC2000/FBDIR_peak/$baseexe

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