



CFP2000 Result

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SGI
SGI 2200 8X 400MHz R12k

SPECfp_rate2000 = 26.2

SPECfp_rate_base2000 = 24.3

SPEC license #: 4 Tested by: SGI Test date: May-2000 Hardware Avail: Jun-2000 Software Avail: Apr-2000

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	8	662	22.4	8	574	25.9
171.swim	8	1813	15.9	8	1824	15.8
172.mgrid	8	1163	14.4	8	1105	15.1
173.applu	8	1101	17.7	8	1017	19.2
177.mesa	8	493	26.3	8	466	27.9
178.galgel	8	301	89.4	8	260	103
179.art	8	261	92.4	8	262	92.3
183.equake	8	788	15.3	8	775	15.6
187.facerec	8	543	32.5	8	533	33.1
188.amp	8	582	35.1	8	585	34.9
189.lucas	8	1218	15.2	8	1214	15.3
191.fma3d	8	1436	13.6	8	1221	16.0
200.sixtrack	8	564	18.1	8	559	18.3
301.apsi	8	1267	19.0	8	847	28.5

Hardware

CPU: R12000
CPU MHz: 400
FPU: Integrated
CPU(s) enabled: 8 cores, 8 chips, 1 core/chip
CPU(s) orderable: 2-8
Parallel: No
Primary Cache: 32KBI + 32KBD on chip
Secondary Cache: 8MB(I+D) off chip
L3 Cache: N/A
Other Cache: N/A
Memory: 2048MB
Disk Subsystem: 1 x 18 GB SCSI, 10 x 18 GB FC (striped)
Other Hardware: None

Software

Operating System: IRIX 6.5.8f
Compiler: MIPSpro 7.3.1m C, C++, Fortran90
SCSL 1.2 Math Library
File System: xfs
System State: Single-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
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 -lscs (FEEDBACK)



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Notes/Tuning Information (Continued)

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.
  RM_SOURCES = lapak.f90
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/$(EXEBASE) -LNO:fusion=2 (FEEDBACK)
188.ammp: -Ofast=ip27 -OPT:goto=off -IPA:space=500:plimit=900 (FEEDBACK)
189.lucas: -Ofast=ip27 -LNO:fusion=2:blocking=off -CG:ld_latency=4 -IPA:min_hot=8 (FEEDBACK)
191.fma3d: -Ofast=ip27 -bigp_off -LNO:prefetch=0 -OPT:goto=off:unroll_size=160:unroll_times_max=4
  -CG:ld_latency=2 (FEEDBACK)
200.sixtrack:= -Ofast=ip27 -IPA:maxdepth=2 -LNO:prefetch=0 (FEEDBACK)
301.apsi: -Ofast=ip27 -TENV:X=4 -LNO:prefetch=0:blocking=off -IPA:linear=on:use_intrinsic
The following O/S parameters were set:
  setenv PAGESIZE_DATA 4096
  setenv PAGESIZE_TEXT 4096
  setenv PAGESIZE_STACK 4096
  systune -i ; percent_totalmem_4m_pages = 50 ; nlpages_4m = 128
  limit stacksize 500000
The following is done before building each benchmark that requires (FEEDBACK):
rm -rf /tmp/SPEC2000/FBDIR_peak/$baseexe ; mkdir -p /tmp/SPEC2000/FBDIR_peak/$baseexe
or
rm -rf /tmp/SPEC2000/FBDIR_base/$baseexe ; mkdir -p /tmp/SPEC2000/FBDIR_base/$baseexe
```