CFP2000 Result

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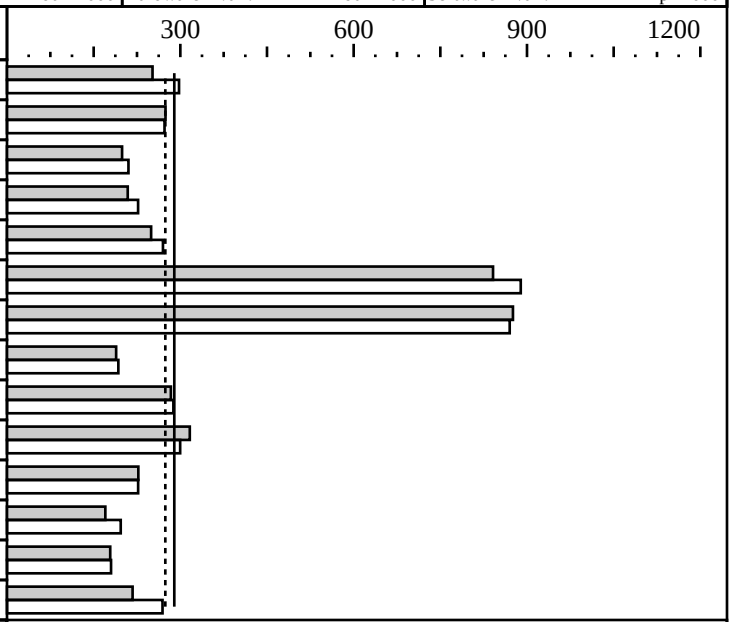
SGI
Origin200 360MHz R12k

SPECfp2000 = 290

SPECfp_base2000 = 274

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	635	252	537	298
171.swim	3100	1130	274	1137	273
172.mgrid	1800	904	199	856	210
173.applu	2100	1005	209	926	227
177.mesa	1400	561	249	519	270
178.galgel	2900	345	841	326	889
179.art	2600	297	876	299	870
183.equake	1300	688	189	675	193
187.facerec	1900	670	284	660	288
188.ammp	2200	695	316	734	300
189.lucas	2000	880	227	881	227
191.fma3d	2100	1234	170	1067	197
200.sixtrack	1100	616	179	611	180
301.apsi	2600	1196	217	966	269



Hardware

CPU:	R12000
CPU MHz:	360
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	1-4
Parallel:	No
Primary Cache:	32KBI + 32KBD on chip
Secondary Cache:	4MB(I+D) off chip
L3 Cache:	N/A
Other Cache:	N/A
Memory:	512MB
Disk Subsystem:	1 x 9 GB SCSI
Other Hardware:	None

Software

Operating System:	IRIX 6.5.8f
Compiler:	MIPSpro 7.3.1.1m 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 occurances 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)

```
.           RM_SOURCES = lapak.f90
179.art: -Ofast=ip27 -bigp_off -LNO:prefetch=0 -IPA:min_hot=15 (FEEDBACK)
183.equake: -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
```