SPEC CFP95 Results

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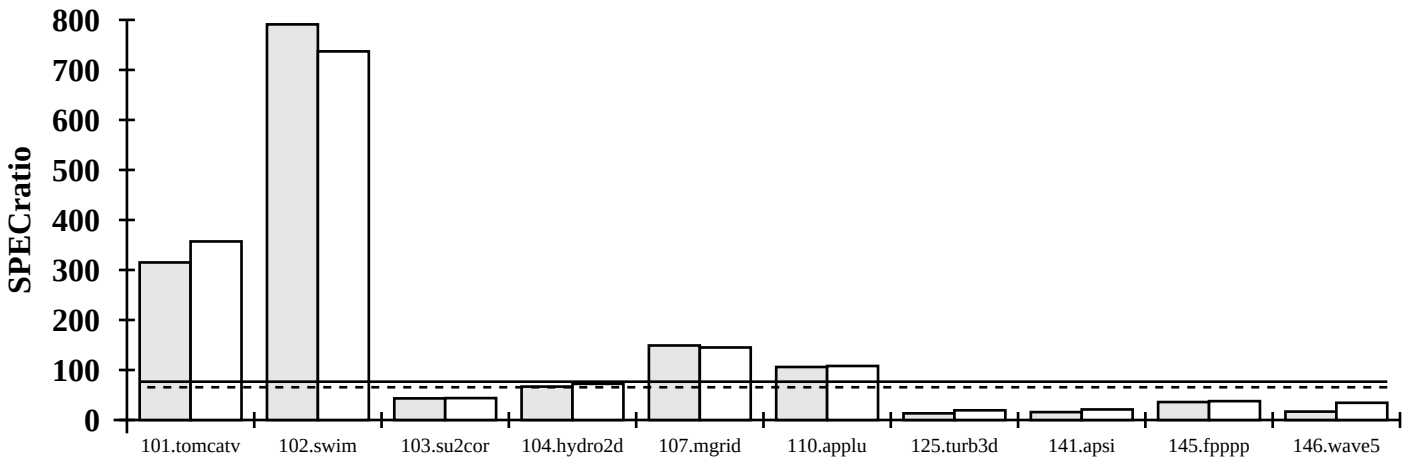
SGI Origin2000 16x 250MHz R10k

SPECfp95 = 76.6

SPECfp_base95 = 65.5

SPEC license # 04 | Tested By: SGI | Test Date: Oct-98 | Hardware Avail: Jun-98 | Software Avail: Sep-97



Hardware/Software Configuration for:
Origin2000 16x 250MHz R10k

Hardware

Model Name:	Origin2000: 16X 250MHz R10k
CPU:	250 MHz MIPS R10000 Processor Chip Revision: 3.3
FPU:	MIPS R10010 Floating Point Chip Revision: 0.0
Number of CPU(s):	16
Primary Cache:	32KBI + 32KBD on chip
Secondary Cache:	4MB(I+D)
Other Cache:	None
Memory:	4096MB
Disk Subsystem:	4 SCSI 4.4GB (striped)
Other Hardware:	none

Software

Operating System:	IRIX64 6.4 w/patch 2509 & 2694
Compiler:	MIPSpro Fortran 77 and 90 7.2
	MIPSpro Auto Parallelizing Option 7.2
	IRIX Development Foundation 1.0 w/patch 2483,2687
File System:	XFS
System State:	Single-User

Benchmark # and Name	Reference Time	Base Run Time	Base SPEC Ratio	Run Time	SPEC Ratio
101.tomcatv	3700	11.7	315	10	357
102.swim	8600	10.9	791	12	737
103.su2cor	1400	32.4	43.2	32	43.8
104.hydro2d	2400	35.9	66.8	33	72.3
107.mgrid	2500	16.7	149	17	145
110.applu	2200	20.7	106	20	108
125.turb3d	4100	308	13.3	211	19.4
141.apsi	2100	133	15.8	99	21.1
145.fpppp	9600	267	35.9	255	37.7
146.wave5	3000	178	16.8	87	34.4
SPECfp_base95 (G. Mean)			65.5		
		SPECfp95 (G. Mean)			76.6

Notes/Tuning Information

```
All benchmarks built with f77 unless noted otherwise
base: -Ofast=ip27 -pfa -LNO:prefetch_ahead=1:auto_dist=on
peak:
FEEDBACK:
.   PASS1 = -fb_create /tmp/FBDIR/$(EXENAME)
.   PASS2 = -fb_opt /tmp/FBDIR/$(EXENAME)
tomcatv: f90 -O3 -n32 -mips4 -LNO:prefetch_ahead=1:blocking=off:auto_dist=on -pfa
swim:    -Ofast=ip27 -LNO:prefetch_ahead=1:auto_dist=on -pfa
su2cor:  -Ofast=ip27 -pfa -LNO:prefetch_ahead=1:auto_dist=on
hydro2d: -Ofast=ip27 -n32 -mips4 -TENV:X=4 -OPT:ieee_arith=3 -LNO:prefetch=2:fusion=2:blocking=off:auto_dist=on -pfa
mgrid:   -Ofast=ip27 -n32 -mips4 -LNO:fusion=2:prefetch=2:prefetch_ahead=1:auto_dist=on -pfa -LNO:ap=2
applu:   -Ofast=ip27 -LNO:fusion=2:auto_dist=on -pfa
turb3d:  -Ofast=ip27 -IPA:inline=off -n32 -mips4 -OPT:ro=3:ieee_arith=3 -LNO:pf2=0:interchange=off \
.        -OPT:unroll_times_max=2, FEEDBACK
apsi:    -O3 -n32 -mips4 -IPA -OPT:div_split -LNO:fusion=2:prefetch=0:interchange=off
fpppp:   -Ofast=ip27 -n32 -mips4 -lfastm -LNO:fusion=2, FEEDBACK
wave5:   -Ofast -LNO:fusion=2:fission=2:prefetch=1:prefetch_ahead=2 , FEEDBACK
.
These environment variables were set for base and peak:
.  systune -i ; percent_totalmem_64k_pages = 50
.  setenv PAGESIZE_DATA 64k
.  setenv MP_SET_NUMTHREADS 16
.  setenv _DSM_ROUND_ROBIN TRUE
```

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