SPEC CFP95 Results

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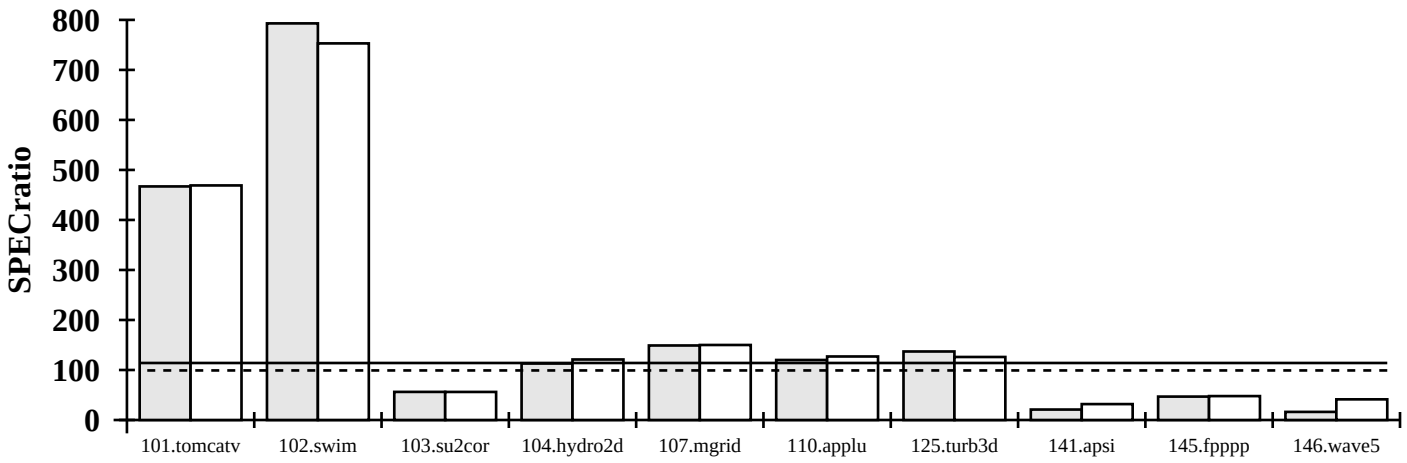
SGI Origin2000: 16X 300MHz R12k

SPECfp95 = 114

SPECfp_base95 = 99.1

SPEC license # 04	Tested By: SGI	Test Date: Aug-99	Hardware Avail: Aug-99	Software Avail: Jul-99



Hardware/Software Configuration for:
Origin2000: 16X 300MHz R12k

Hardware

Model Name:	Origin2000: 16X 300MHz R12k
CPU:	300 MHz MIPS R12000 Processor Chip Revision: 2.3
FPU:	Integrated
Number of CPU(s):	16
Primary Cache:	32KBI + 32KBD on chip
Secondary Cache:	8MB (I+D)
Other Cache:	None
Memory:	4096MB
Disk Subsystem:	1 SCSI 9 GB
Other Hardware:	none

Software

Operating System:	IRIX64 6.5.5
Compiler:	MIPSpro Fortran 77 and 90 7.3
	MIPSpro Auto Parallelizing Option 7.3
	IRIX Development Foundation 1.2
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	7.93	467	8	469
102.swim	8600	10.8	793	11	753
103.su2cor	1400	24.9	56.2	25	56.1
104.hydro2d	2400	21.2	113	20	121
107.mgrid	2500	16.7	149	17	150
110.applu	2200	18.3	120	17	127
125.turb3d	4100	29.9	137	32	126
141.apsi	2100	100	20.9	66	31.8
145.fpppp	9600	205	46.8	201	47.8
146.wave5	3000	185	16.2	73	41.3
SPECfp_base95 (G. Mean)			99.1		
		SPECfp95 (G. Mean)			114

Notes/Tuning Information

```
base: f90 -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:blocking=off -pfa
su2cor:  f90 -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:blocking=off -pfa -LNO:ap=2
applu:    -Ofast=ip27 -LNO:fusion=2:auto_dist=on:blocking=off -pfa
turb3d:  -Ofast=ip27 -n32 -mips4 -OPT:ro=3:ieee_arith=3 -LNO:pf2=0:interchange=off:blocking=off -OPT:unroll_times_max=2 -pfa
apsi:     f77 -Ofast=ip27 -OPT:div_split -LNO:fusion=2:prefetch=0:blocking=off -bigp_off
fpppp:   f77 -Ofast=ip27 -LNO:fusion=2 FEEDBACK
wave5:   f77 -Ofast=ip27 -LNO:fusion=2 -IPA:common_pad_size=13:maxdepth=2 -OPT:unroll_size=400 -bigp_off
.
The following changes were made to the environment:
systune -i ; percent_totalmem_64k_pages = 50 ; nlpages_64k = 32000 ; quit
setenv PAGESIZE_DATA 64 ; setenv OMP_DYNAMIC FALSE ; setenv MPC_GANG OFF
setenv _DSM_PLACEMENT ROUND_ROBIN ; setenv _DSM_MUSTRUN
```

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