SPEC CFP95 Results

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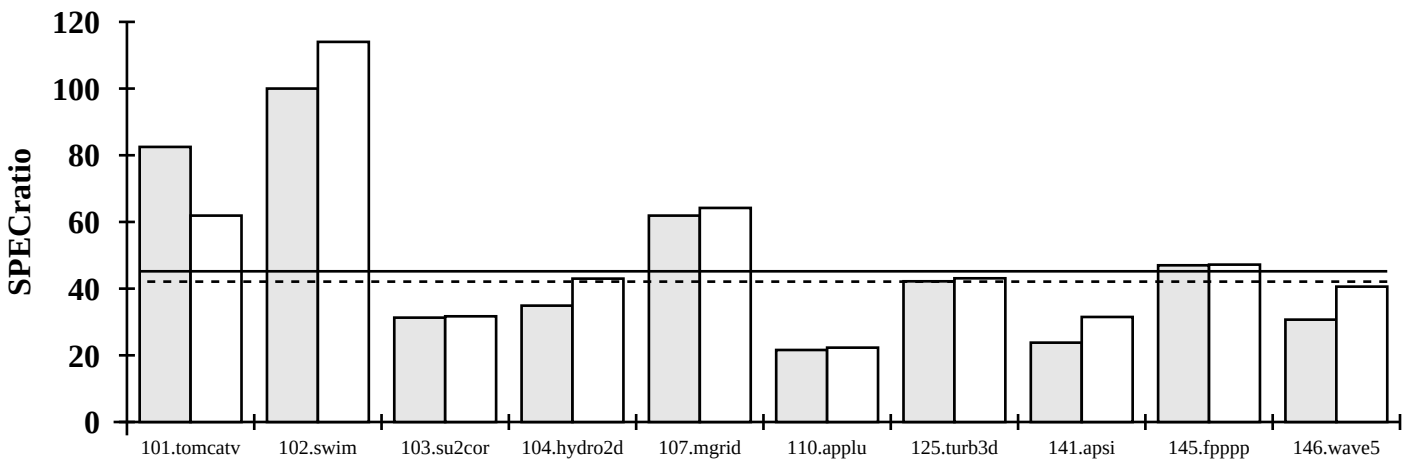
SGI Origin2000: 2X 300MHz R12k

SPECfp95 = 45.2

SPECfp_base95 = 42.1

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



Hardware/Software Configuration for:
Origin2000: 2X 300MHz R12k

Hardware

Model Name:	Origin2000: 2X 300MHz R12k
CPU:	300 MHz MIPS R12000 Processor Chip Revision: 2.3
FPU:	Integrated
Number of CPU(s):	2
Primary Cache:	32KBI + 32KBD on chip
Secondary Cache:	8MB (I+D)
Other Cache:	None
Memory:	512MB
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	44.9	82.5	60	61.9
102.swim	8600	85.9	100	76	114
103.su2cor	1400	44.8	31.3	44	31.7
104.hydro2d	2400	68.8	34.9	56	43.0
107.mgrid	2500	40.4	61.9	39	64.2
110.applu	2200	102	21.6	99	22.3
125.turb3d	4100	97.2	42.2	95	43.1
141.apsi	2100	88.3	23.8	67	31.5
145.fpppp	9600	204	47.0	203	47.2
146.wave5	3000	97.8	30.7	74	40.6
SPECfp_base95 (G. Mean)			42.1		
		SPECfp95 (G. Mean)			45.2

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 = 4000 ; 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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-- Prepared By: --