SPEC CFP95 Results

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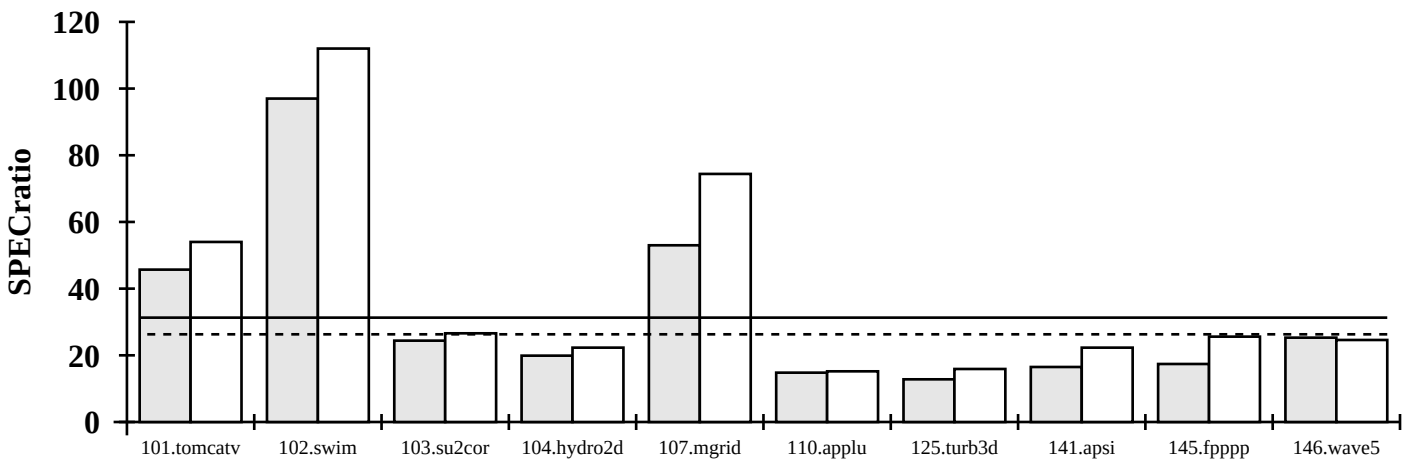
Sun Microsystems
Ultra 450

SPECfp95 = 31.3

SPECfp_base95 = 26.3

SPEC license # 6 | Tested By: Sun, Palo Alto | Test Date: Jan-2000 | Hardware Avail: Jul-1998 | Software Avail: Nov-1999



Hardware/Software Configuration for:
Ultra 450

Hardware

Model Name:	Ultra 450
CPU:	296 MHz UltraSPARC-II
FPU:	Integrated
Number of CPU(s):	4
Primary Cache:	16KBI+16KBD on chip
Secondary Cache:	2MB(I+D) off chip
Other Cache:	None
Memory:	512MB
Disk Subsystem:	2 x 4.0GB
Other Hardware:	Fast Ethernet System clock frequency: 99 MHz

Software

Operating System:	Solaris 7 11/99 (64-bit)
Compiler:	Sun Workshop FORTRAN 77 5.0
File System:	UFS
System State:	Single User
Kernel Extensions:	

Benchmark # and Name	Reference Time	Base Run Time	Base SPEC Ratio	Run Time	SPEC Ratio
101.tomcatv	3700	80.9	45.7	68	54.0
102.swim	8600	88.7	97.0	77	112
103.su2cor	1400	57.3	24.4	53	26.6
104.hydro2d	2400	120	19.9	108	22.3
107.mgrid	2500	47.2	53.0	34	74.4
110.applu	2200	149	14.8	144	15.2
125.turb3d	4100	321	12.8	258	15.9
141.apsi	2100	127	16.5	94	22.3
145.fpppp	9600	552	17.4	375	25.6
146.wave5	3000	118	25.3	122	24.6
SPECfp_base95 (G. Mean)			26.3		
		SPECfp95 (G. Mean)			31.3

Notes/Tuning Information

```
P1= -xprofile=collect:‘pwd‘/../feedback
P2= -xprofile=use:‘pwd‘/../feedback
BCOPY= -Qoption iropt -O4+bcopy; INV = -Qoption iropt -O4+invccexp; BMR = -Qoption iropt -O4+bmerge
Baseline: -fast -xarch=v8plusa -xparallel
Baseline: PASS1= ${P1}; PASS2= ${P2};
101.tomcatv: -fast -xarch=v8plusa -s -xpad=local:23 -xprefetch -xparallel -xreduction -Qoption iropt -O4+data_access
102.swim:    -fast -xarch=v8plusa -s -xpad=common:15 -xprefetch  -xparallel
103.su2cor:  -fast -xarch=v8plusa -s -xvector -Qoption cg -Qms_pipe+nfll=5 -fsimple=2  ${BCOPY}  -xparallel -xreduction
103.su2cor:  PASS1= -xO4 ${P1}; PASS2= -xO5 -xsafe=mem ${P2};  EXTRA_LIBS= -lmvec
104.hydro2d: -fast -xarch=v8plusa -s -xprefetch -Qoption iropt -O4+pde -fsimple=2  ${BMR} -xparallel
104.hydro2d:  PASS1= ${P1}; PASS2= ${P2};
107.mgrid: -fast -xarch=v8plusa -fsimple=2 -xprefetch -xparallel
110.applu: -fast -xarch=v8plusa -s -Qoption iropt -O4+scalarrep+ddint+perfect+loop_dist+algassoc,-Mt6000,-Mr20000,-Ma140,-ldstr -xparallel
125.turb3d:  -fast -xarch=v8plusa -s -stackvar -xpad -fsimple=2 ${INV}
125.turb3d:  PASS1= -xO4 ${P1}; PASS2= -xO5 -xsafe=mem ${P2};
141.apsi:    -fast -xarch=v8plusa -s -xchip=ultra2  -fsimple=2 -xvector -stackvar  -Qoption iropt -Si36  ${BMR} ${INV}
141.apsi (cont):  -Qoption iropt -O4+algassoc
141.apsi:    PASS1= -xO4 ${P1}; PASS2= -xO5 -xsafe=mem ${P2};
145.fpppp:   -fast -xarch=v8plusa -s -xO5 -xsafe=mem -fsimple=2 -nodepend -Qoption iropt -O4+algassoc -Qoption iropt -reroll=1
145.fpppp:   PASS1= ${P1}; PASS2= ${P2};
146.wave5:   -fast -xarch=v8plusa  -s -stackvar -fsimple=2 -Qoption iropt -O4+unroll ${BCOPY}  -xparallel
Config file: ultra4504wayfpmp.cfg
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For More Information Contact:
SPEC
10754 Ambassador Drive, Suite 201
Manassas, VA 20109
(703) 331-0180
info@spec.org
http://www.spec.org/

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Prepared By: gnana