SPEC CFP95rate Results

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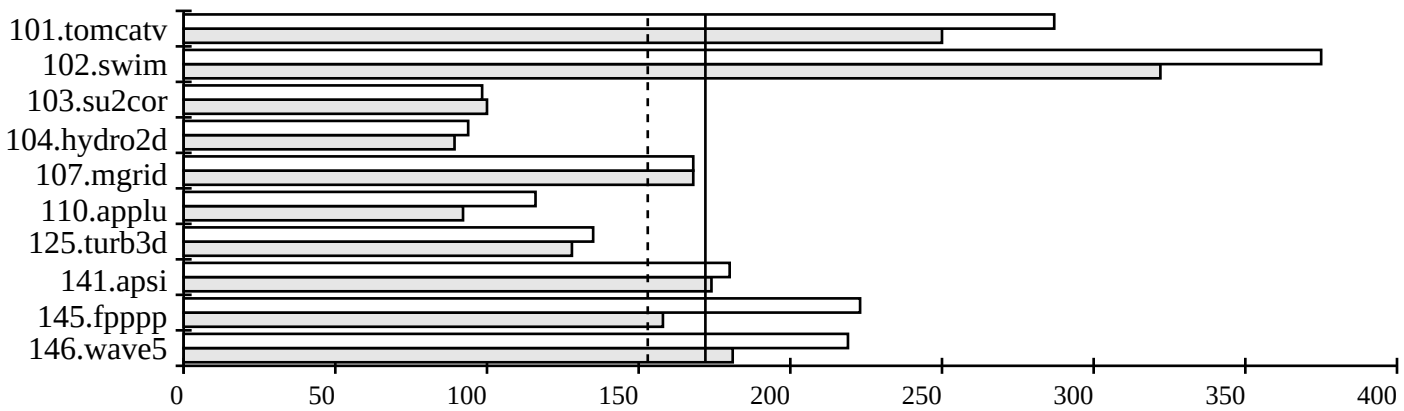
Sun Microsystems Ultra 450

SPECfp_rate95	=	172
SPECfp_rate_base95	=	153

SPEC license # 6	Tested By: Sun, Palo Alto	Test Date: Jul-98	Hardware Avail: Jul-98	Software Avail: Oct-98



SPECrate

Hardware/Software Configuration for:
Ultra 450

Hardware

Model Name:	Ultra 450
CPU:	296 MHz UltraSPARC-II
FPU:	Integrated
Number of CPU(s):	1
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 2.6 3/98
Compiler:	Sun f77 SF77 EFT1 (8/98)
File System:	UFS
System State:	Single User
Kernel Extensions:	consistent_coloring=1

Benchmark # and Name	Base Copies	Base Run Time	Base SPEC Ratio	Copies	Run Time	SPEC Ratio
101.tomcatv	2	266	250	2	232	287
102.swim	2	481	322	2	413	375
103.su2cor	2	252	100.0	2	256	98.4
104.hydro2d	2	484	89.3	2	460	93.8
107.mgrid	2	269	168	2	268	168
110.applu	2	430	92.1	2	341	116
125.turb3d	2	575	128	2	548	135
141.apsi	2	217	174	2	210	180
145.fpppp	2	1092	158	2	773	223
146.wave5	2	298	181	2	246	219
SPECfp_rate_base95 (G. Mean)			153			
SPECfp_rate95 (G. Mean)						172

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 -fsimple=2 -xprefetch
Peak:     -fast -xO4 -xarch=v8plusa -xchip=ultra
101.tomcatv: -fast -xarch=v8plusa -xpad=local:23 -xprefetch -Qoption iropt -O4+data_access
102.swim:    -fast -xarch=v8plusa -xpad=common:15 -xprefetch -fsimple=2
103.su2cor:  -fast -xarch=v8plusa -xvector -Qoption cg -Qms_pipe+nfll=5 -fsimple=2  ${BCOPY}
103.su2cor:  PASS1= -xO4 ${P1}; PASS2= -xO5 -xsafe=mem ${P2}
104.hydro2d: -fast -xarch=v8plusa -xprefetch -Qoption iropt -O4+pde -fsimple=2
104.hydro2d: PASS1= ${P1}; PASS2= ${P2}
107.mgrid:   -fast -xarch=v8plusa -xprefetch -fsimple=2  ${BCOPY}
107.mgrid:   PASS1= -xO4 ${P1}; PASS2= -xO5 -xsafe=mem ${P2}
110.applu:   -fast -xarch=v8plusa -Qoption iropt -O4+scalarrep+ddint+perfect+loop_dist+pde+algassoc,-Mt6000,-Mr20000,-Ma140,-ldstr -fsimple=2
125.turb3d:  -fast -xarch=v8plusa -stackvar -xpad -fsimple=2 -Qoption iropt -O4+bcopy ${INV} -xvector=yes
125.turb3d:  PASS1= -xO4 ${P1}; PASS2= -xO5 -xsafe=mem ${P2}
141.apsi:    -fast -xarch=v8plusa -xchip=ultra3 -fsimple=2 -stackvar  -Qoption iropt -Si36  ${INV} -Qoption iropt -O4+algassoc
141.apsi:    PASS1= -xO4 ${P1}; PASS2= -xO5 -xsafe=mem ${P2}
145.fpppp:   -fast -xarch=v8plusa -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  -stackvar -fsimple=2 -Qoption iropt -O4+unroll ${BCOPY}
Shell limits: # ulimit -n 1024  or % limit descriptors 1024
Config file: ultra450_fp.cfg
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