CFP2000 Result

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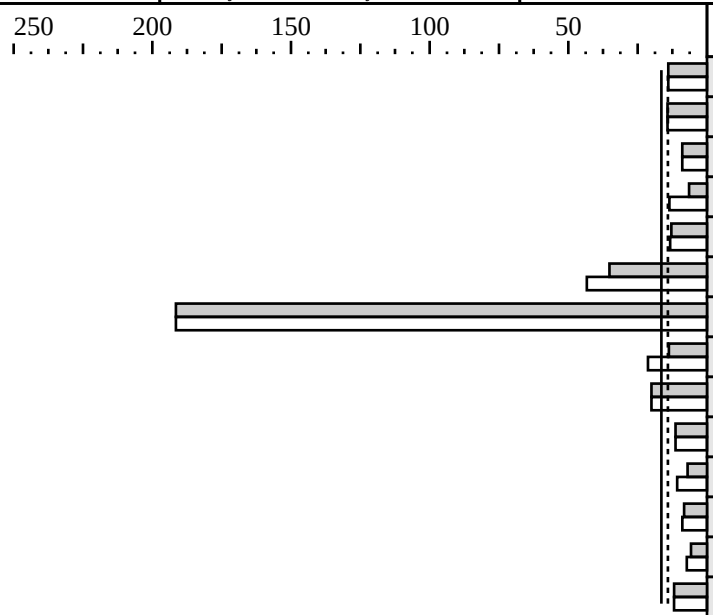
Sun Microsystems
Sun Fire 280R (1.015GHz)

SPECfp_rate2000 = 16.4

SPECfp_rate_base2000 = 14.1

SPEC license #: 6 | Tested by: Sun Microsystems, Santa Clara | Test date: Oct-2002 | Hardware Avail: Sep-2002 | Software Avail: Sep-2002



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	2	266	14.0	2	266	14.0
171.swim	2	505	14.2	2	505	14.2
172.mgrid	2	468	8.91	2	468	8.91
173.applu	2	754	6.46	2	359	13.6
177.mesa	2	253	12.9	2	245	13.3
178.galgel	2	191	35.2	2	155	43.3
179.art	2	31.5	191	2	31.5	191
183.equake	2	219	13.7	2	142	21.3
187.facerec	2	220	20.0	2	220	20.0
188.ammp	2	450	11.3	2	450	11.3
189.lucas	2	663	7.00	2	432	10.8
191.fma3d	2	590	8.25	2	548	8.89
200.sixtrack	2	443	5.76	2	350	7.29
301.apsi	2	509	11.9	2	508	11.9

Hardware

CPU:	UltraSPARC III Cu
CPU MHz:	1015
FPU:	Integrated
CPU(s) enabled:	2 cores, 2 chips, 1 core/chip
CPU(s) orderable:	1-2
Parallel:	No
Primary Cache:	32KBI+64KBD on chip
Secondary Cache:	8MB(I+D) off chip
L3 Cache:	None
Other Cache:	None
Memory:	8GB
Disk Subsystem:	2 x 18GB
Other Hardware:	None

Software

Operating System:	Solaris 8 02/02
Compiler:	Sun ONE Studio 7 and Sun Performance Library 7
File System:	ufs
System State:	Single-User

Notes/Tuning Information

```
Portability:
 178.galgel: -e -fixed
Profile Feedback (-xprofile):
 fdo_pre0: rm -rf ./feedback.profile ./SunWS_cache
 Pass 1: -xprofile=collect:./feedback
 Pass 2: -xprofile=use:./feedback

Base Flags:
 Base C   flags: -fast -xipo=2 -xalias_level=std -xprofile
 Base F90 flags: -fast -xcrossfile -lprism32 -xprofile

Peak Flags:
 168.wupwise: basepeak=yes
 171.swim: basepeak=yes
 172.mgrid: basepeak=yes
 173.applu: -fast -Qoption iropt -Adata_access,-Mt7000,-Mm14000,-Mr40000,-Ma400,-whole
```

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Notes/Tuning Information (Continued)

```
              -xregs=syst -Qoption iropt -Rscalarrep,-MR -Qoption cg -Qlp=1-av=192-fa=1
              -Qoption f90comp -O3
  177.mesa: -fast -xcrossfile -xalias_level=strong -xprofile
  178.galgel: -fast -xcrossfile -xregs=syst -Qoption iropt -Addint:sf=9 -xlic_lib=sunperf -xprofile
  179.art: basepeak=yes
  183.equake: -fast -xalias_level=strong -W2,-whole,-Amemopt:arrayloc
              -Wc,-Qms_pipe-pref,-Qlp=1-av=256-t=4-fa=1-fl=1 -lprism32 -lmopt -xprofile
  187.facerec: basepeak=yes
  188.ammp: basepeak=yes
  189.lucas: -fast -Qoption f90comp -array_pad_rows,2002 -Qoption iropt -whole
             -Qoption cg -Qms_pipe-pref,-Qlp=1-t=3-fa=1
             -lprism32 -xprofile
  191.fma3d: -fast -xcrossfile -stackvar -Qoption cg -Qlp=1-av=256-t=3-fa=1 -xprofile
  200.sixtrack:  -fast -xcrossfile -xalias_level=std -xprofile
  301.apsi: -fast -Qoption iropt -Mt450 -lprism32 -xprofile
ONESTEP=yes for all benchmarks in peak except 179.art and 188.ammp, and Fortran benchmarks in base

Shell Environments:
 LD_LIBRARY_PATH=/usr/lib:/opt/SUNWspro/lib/v8plusb:/opt/SUNWspro/prod/lib/v8plusb
 PRISM_HEAP=268435456
 PRISM_MODE=2

 Stack size set to unlimited via "ulimit -s unlimited"



Kernel Parameters (/etc/system):
 set shmsys:shminfo_shmmin=1
 set shmsys:shminfo_shmmax=1477846784
 set shmsys:shminfo_shmmni=256
 set shmsys:shminfo_shmseg=400

Software Patches: All patches for the Sun ONE Studio 7
Compiler (Product Patches and OS Patches) as recommended
by http://access1.sun.com/sundev/s1s7-patches.html
on Oct 9th, 2002 were installed (111704-04, 111705-03,
111706-02, 111708-01, 111709-02, 111714-02, 111715-01,
111716-02, 111718-01, 111723-01, 108434-08, 108435-09,
111697-03, 111721-02
```