CINT2000 Result

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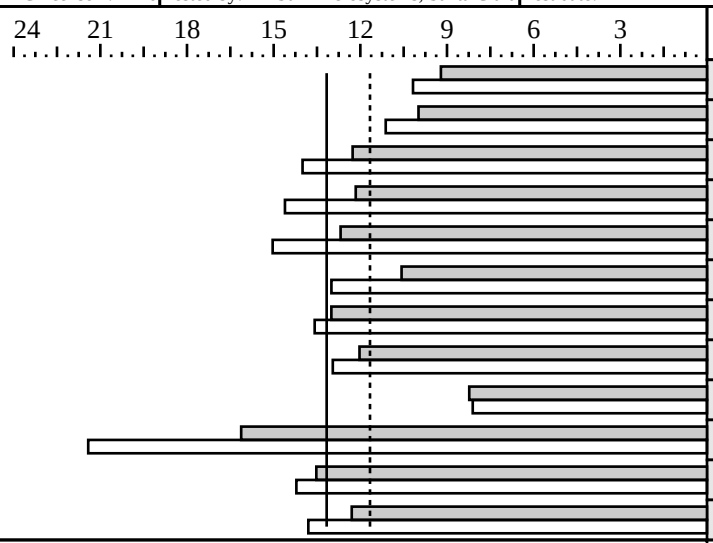
Sun Microsystems
Sun Fire 280R (1.015GHz)

SPECint_rate2000 = 13.2

SPECint_rate_base2000 = 11.7

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
164.gzip	2	353	9.21	2	319	10.2
175.vpr	2	325	9.99	2	292	11.1
176.gcc	2	208	12.3	2	182	14.0
181.mcf	2	343	12.2	2	286	14.6
186.crafty	2	183	12.7	2	154	15.0
197.parser	2	395	10.6	2	321	13.0
252.eon	2	232	13.0	2	222	13.6
253.perlbmk	2	347	12.0	2	322	13.0
254.gap	2	310	8.23	2	315	8.11
255.vortex	2	273	16.1	2	206	21.4
256.bzip2	2	257	13.5	2	245	14.2
300.twolf	2	566	12.3	2	504	13.8

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:
 176.gcc: -Dalloca=__builtin_alloca -DHOST_WORDS_BIG_ENDIAN
 186.crafty: -DSUN
 252.eon: -library=iostream
 253.perlbmk: -DSPEC_CPU2000_SOLARIS
 254.gap: -DSYS_IS_USG -DSYS_HAS_TIME_PROTO -DSYS_HAS_SIGNAL_PROTO
          -DSYS_HAS_CALLOC_PROTO -DSYS_HAS_IOCTL_PROTO
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 -xcrossfile -ll2amm -xprofile
 Base C++ flags: -fast -xcrossfile -xprofile

Peak Flags:
 164.gzip: -xO5 -xtarget=native -xalias_level=std -W2,-whole -xcrossfile -W2,-Ainline -xprofile
 175.vpr: -fast -xalias_level=std -xcrossfile -xsfpconst -W2,-whole
```

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Notes/Tuning Information (Continued)

```
          -Wc,-Qeps:enabled=1,-Qeps:do_spec_load=1,-Qeps:rp_filtering_margin=100
          -xregs=syst -lmopt -xprofile
 176.gcc: -fast -xcrossfile -W2,-whole -Wc,-Qgsched-trace_late=1,-Qgsched-T4 -ll2amm -xprofile
 181.mcf: -fast -xcrossfile -Wc,-Qms_pipe-pref,-Qlp=1-fa=1-av=64-t=3-fl=1
          -lprism32 -xprofile
 186.crafty: -fast -xF -xinline= -xcrossfile -Wc,-Qgsched-trace_late=1,-Qgsched-T4
             -xalias_level=strong -xregs=syst -W2,-Ashort_ldst,-Aivel:duplicate_loops
             -xprofile
 197.parser: -fast -xprefetch=no%auto -xcrossfile -xregs=syst
          -Wc,-Qgsched-trace_late=1,-Qgsched-T4 -xalias_level=strong -Wc,-Qipa:valueprediction -xprofile
 252.eon: -fast -xcrossfile -xalias_level=compatible -xsafe=mem -Qoption iropt -Mt500,-xrestrict
          -Qoption cg -Qgsched-trace_late=1,-Qgsched-T4 -dn -lmopt -xprofile
 253.perlbmk: -xO5 -xtarget=native -xcrossfile -xalias_level=std -xsafe=mem
              -Wc,-Qgsched-trace_late=1,-Qgsched-T4,-Qgsched-trace_spec_load=1
              -Wc,-Qinline_memcpy=32 -Wc,-Qiselect-funcalign=32,-Qicache-chbab=1
              -Wc,-Qiselect-sw_pf_tbl_th=20 -xprofile
 254.gap: -fast -xcrossfile -xalias_level=std -xprefetch -W2,-whole -lprism32 -xprofile
 255.vortex: -fast -xcrossfile -Wc,-Qeps:enabled=1,-Qeps:do_spec_load=1
            -Wc,-Qinline_memcpy=32 -W2,-Aheap,-reroll=1,-Aunroll,-Ms1,-Mt500,-Mr6000,-crit
             -Wc,-Qdepgraph-early_cross_call=1 -Wc,-Qiselect-funcalign=32
             -Wc,-Qpeep-Sh0 -xrestrict -ll2amm -lprism32 -xprofile
 256.bzip2: -fast -W2,-Abopt -xcrossfile -xalias_level=strong
            -Wc,-Qiselect-funcalign=32 -xregs=syst -xprofile
 300.twolf: -fast -xalias_level=strong -xsafe=mem -xcrossfile -xprefetch=no%auto
            -Wc,-Qms_pipe+intdivusefp -xprofile
ONESTEP=yes for all benchmarks in base and peak

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
```