# CINT2000 Result

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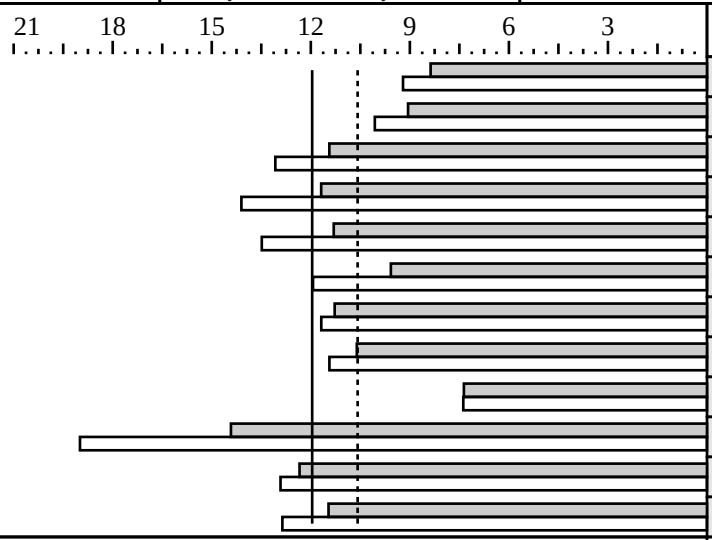
## Sun Microsystems
## Sun Fire V880

SPECint_rate2000 = 12.0

SPECint_rate_base2000 = 10.6

SPEC license #: 6 | Tested by: Sun Microsystems, Palo Alto | Test date: May-2002 | Hardware Avail: Jun-2002 | Software Avail: May-2002




| Benchmark | Base Copies | Base Runtime | Base Ratio | Copies | Runtime | Ratio |
|---|---|---|---|---|---|---|
| 164.gzip | 2 | 388 | 8.37 | 2 | 353 | 9.21 |
| 175.vpr | 2 | 359 | 9.05 | 2 | 323 | 10.1 |
| 176.gcc | 2 | 223 | 11.4 | 2 | 195 | 13.1 |
| 181.mcf | 2 | 357 | 11.7 | 2 | 296 | 14.1 |
| 186.crafty | 2 | 205 | 11.3 | 2 | 172 | 13.5 |
| 197.parser | 2 | 436 | 9.58 | 2 | 350 | 11.9 |
| 252.eon | 2 | 267 | 11.3 | 2 | 258 | 11.7 |
| 253.perlbmk | 2 | 394 | 10.6 | 2 | 365 | 11.4 |
| 254.gap | 2 | 347 | 7.36 | 2 | 346 | 7.38 |
| 255.vortex | 2 | 306 | 14.4 | 2 | 232 | 19.0 |
| 256.bzip2 | 2 | 282 | 12.3 | 2 | 269 | 12.9 |
| 300.twolf | 2 | 607 | 11.5 | 2 | 541 | 12.9 |

### Hardware

| | |
|---|---|
| CPU: | UltraSPARC III Cu |
| CPU MHz: | 900 |
| FPU: | Integrated |
| CPU(s) enabled: | 2 cores, 2 chips, 1 core/chip |
| CPU(s) orderable: | 2,4,8 |
| Parallel: | No |
| Primary Cache: | 32KBI+64KBD on chip |
| Secondary Cache: | 8MB(I+D) off chip |
| L3 Cache: | None |
| Other Cache: | None |
| Memory: | 4GB |
| Disk Subsystem: | 12 x 36GB |
| Other Hardware: | None |

### Software

| | |
|---|---|
| Operating System: | Solaris 8 02/02 |
| Compiler: | Sun ONE Studio 7<br>with patch 111704-01<br>Sun Performance Library 7 |
| File System: | tmpfs |
| System State: | Multi-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

-xprofile: PASS1=-xprofile=collect, PASS2=-xprofile=use

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
          -Wc,-Qeps:enabled=1,-Qeps:do_spec_load=1,-Qeps:rp_filtering_margin=100
          -xregs=syst -lmopt -xprofile
```

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## Notes/Tuning Information (Continued)

```
 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 -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

System configuration details located (as of Jun 2002) at
    http://www.sun.com/servers/entry/
```