# CINT2000 Result

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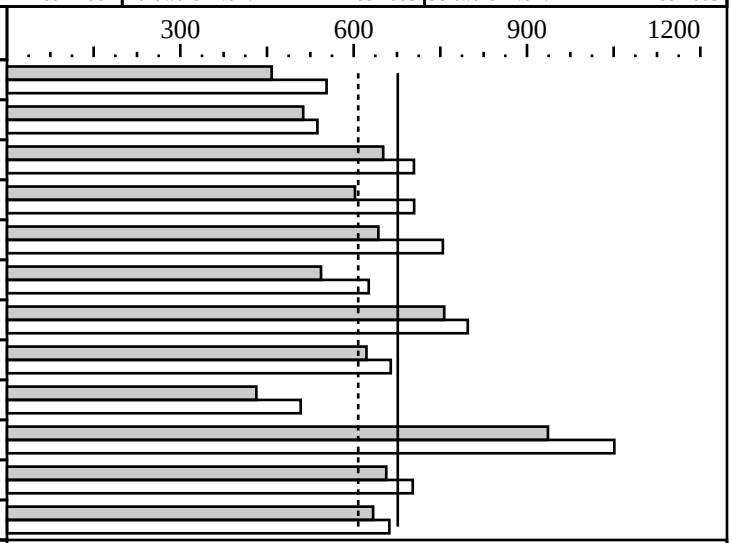
## Sun Microsystems
## Sun Fire V1280 (1200MHz)

SPECint2000 = 676

SPECint_base2000 = 608

SPEC license #: 6 | Tested by: Sun Microsystems | Test date: Jan-2004 | Hardware Avail: Dec-2003 | Software Avail: Dec-2003

| Benchmark | Reference Time | Base Runtime | Base Ratio | Runtime | Ratio |
|---|---|---|---|---|---|
| 164.gzip | 1400 | 306 | 458 | 253 | 553 |
| 175.vpr | 1400 | 273 | 513 | 261 | 537 |
| 176.gcc | 1100 | 169 | 651 | 156 | 704 |
| 181.mcf | 1800 | 299 | 602 | 255 | 705 |
| 186.crafty | 1000 | 156 | 643 | 133 | 754 |
| 197.parser | 1800 | 331 | 543 | 288 | 626 |
| 252.eon | 1300 | 172 | 757 | 163 | 797 |
| 253.perlbmk | 1800 | 289 | 622 | 271 | 664 |
| 254.gap | 1100 | 255 | 432 | 216 | 508 |
| 255.vortex | 1900 | 203 | 936 | 181 | 1051 |
| 256.bzip2 | 1500 | 229 | 656 | 214 | 702 |
| 300.twolf | 3000 | 473 | 634 | 453 | 662 |




### Hardware

| | |
|---|---|
| CPU: | UltraSPARC III Cu |
| CPU MHz: | 1200 |
| FPU: | Integrated |
| CPU(s) enabled: | 1 core, 1 chip, 1 core/chip |
| CPU(s) orderable: | 4,8,12 |
| Parallel: | No |
| Primary Cache: | 32KBI+64KBD on chip |
| Secondary Cache: | 8MB(I+D) off chip |
| L3 Cache: | None |
| Other Cache: | None |
| Memory: | 2GB 4-way interleaved |
| Disk Subsystem: | 1 x 36GB FUJITSU MAN3367M SUN36G |
| Other Hardware: | None |

### Software

| | |
|---|---|
| Operating System: | Solaris 9 12/03 |
| Compiler: | Sun ONE Studio 8<br>Sun Performance Library 8 |
| File System: | ufs with ufs logging |
| System State: | Multi-User |

## Notes/Tuning Information

```
Compiler invocation:
  C: cc
  CXX: CC



Integer base flags:
     -fast -xipo=2 with ONESTEP=yes and feedback

Integer peak flags:
 ONESTEP=yes and feedback for all benchmarks

 164.gzip:    -xO4  -xbuiltin=%all -xtarget=native -xalias_level=std
              -xipo=2 -Wc,-Qeps:enabled=1,-Qeps:rp_filtering_margin=100
 175.vpr:     -fast -xalias_level=std -xipo=2
              -Wc,-Qeps:enabled=1,-Qeps:rp_filtering_margin=100 -lmopt -lm
 176.gcc:     -fast -xipo=2 -ll2amm
 181.mcf:     -fast -xipo=2 -xprefetch_level=3 -Wc,-Qeps:enabled=1
 186.crafty:  -fast -xinline= -xipo=2 -xalias_level=strong -W2,-Ashort_ldst
              Feedback adds -xlinkopt in PASS2
```

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## Notes/Tuning Information (Continued)

```
 197.parser:  -fast -xipo=2 -xalias_level=strong
              -Wc,-Qgsched-T6,-Qipa:valueprediction
 252.eon:     -fast -xipo=2 -xalias_level=compatible -noex
              -Qoption cg -Qeps:enabled=1,-Qeps:ws=32
 253.perlbmk: -xO5 -xtarget=native -xipo -xalias_level=std -xsafe=mem
              -Wc,-Qeps:enabled=1,-Qeps:ws=8,-Qiselect-sw_pf_tbl_th=20,
              -Qiselect-funcalign=32,-Qicache-chbab=1
 254.gap:     -fast -xipo=2 -xalias_level=strong -xvector
              -xprefetch_level=3 -W2,-Abcopy
 255.vortex:  -fast -xrestrict -xipo=2
              -W2,-crit,-Ainline:recursion=1:cs=500:irs=6000
              -Wc,-Qeps:enabled=1,-Qdepgraph-early_cross_call=1,
              -Qiselect-funcalign=32,-Qpeep-Sh0 -ll2amm
 256.bzip2:   -fast -xipo -xalias_level=strong -xrestrict
              -Wc,-Qeps:enabled=1
 300.twolf:   -fast -xalias_level=strong -xsafe=mem -xipo=2
              -xprefetch=no%auto -Wc,-Qms_pipe+intdivusefp

Feedback is done as follows, unless otherwise noted:
 fdo_pre0:  rm -rf ./feedback.profile ./SunWS_cache
 PASS1:     -xprofile=collect:./feedback
 PASS2:     -xprofile=use:./feedback

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

Shell Environments:
  Stack size set to unlimited via "ulimit -s unlimited"
  MPSSHEAP=4M
  MPSSSTACK=4M
  LD_PRELOAD=mpss.so.1

Kernel Parameters (/etc/system):
  autoup=900
  tune_t_fsflushr=1
System Settings:
 Other CPUs disabled at the firmware level using
 "disablecomponent" on the System Controller processor
 running System Management Services software
```