CINT2000 Result

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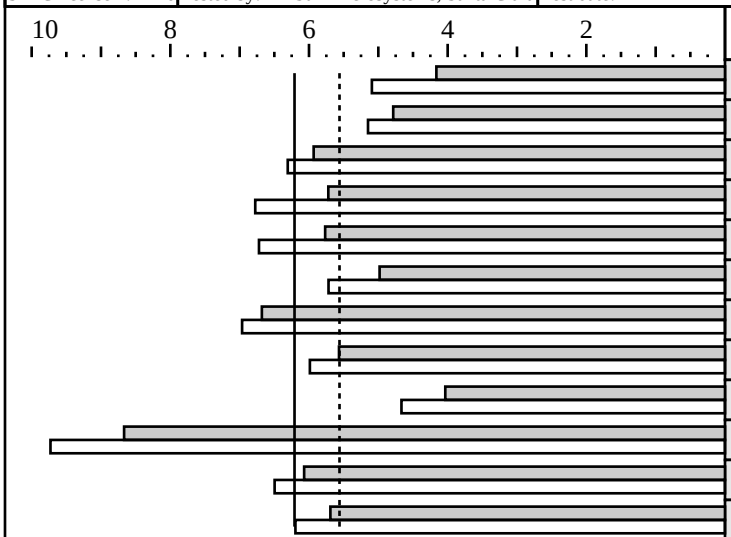
Sun Microsystems
Sun Fire V1280 (900MHz)

SPECint_rate2000 = 6.21

SPECint_rate_base2000 = 5.56

SPEC license #: 6 | Tested by: Sun Microsystems, Santa Clara | Test date: Feb-2003 | Hardware Avail: Feb-2003 | Software Avail: May-2003



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	1	390	4.16	1	319	5.09
175.vpr	1	339	4.79	1	315	5.15
176.gcc	1	215	5.93	1	202	6.31
181.mcf	1	365	5.72	1	308	6.78
186.crafty	1	201	5.77	1	173	6.72
197.parser	1	419	4.98	1	365	5.72
252.eon	1	226	6.68	1	217	6.96
253.perlbmk	1	375	5.57	1	349	5.99
254.gap	1	316	4.03	1	273	4.67
255.vortex	1	254	8.67	1	227	9.73
256.bzip2	1	287	6.07	1	268	6.50
300.twolf	1	611	5.69	1	562	6.20

Hardware

CPU:	UltraSPARC III Cu
CPU MHz:	900
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:	2 x 36GB 10K RPM LVD Disk, Sun P/N XTA-3310-36GB-10K
Other Hardware:	None

Software

Operating System:	Solaris 9 9/02
Compiler:	Sun ONE Studio 8 (pre-FCS build 1/28) Sun Performance Library 8 (pre-FCS build 1/28)
File System:	ufs with ufs logging
System State:	Multi-User

Notes/Tuning Information

```
Compiler invocation:
  C: cc
  CXX: CC
  F90: f90
  F77: f90

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
  LD_LIBRARY_PATH=/usr/lib:/export/home/compilers/EA2-FCS
  /20030128_k2/lib/v8plusb:/export/home/compilers/EA2-FCS
  /20030128_k2/prod/lib/v8plusb
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
```