CINT2000 Result

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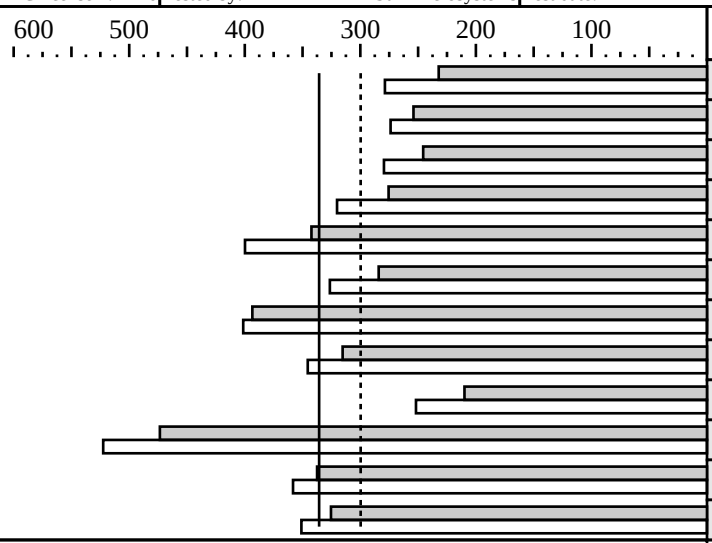
Sun Microsystems
Sun Fire 15K

SPECint_rate2000 = 336

SPECint_rate_base2000 = 300

SPEC license #: 6 | Tested by: Sun Microsystems | Test date: Mar-2003 | Hardware Avail: Mar-2003 | Software Avail: May-2003



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	48	336	232	48	280	279
175.vpr	48	307	254	48	285	274
176.gcc	48	249	246	48	219	280
181.mcf	48	364	276	48	313	320
186.crafty	48	163	342	48	139	400
197.parser	48	353	284	48	307	326
252.eon	48	184	393	48	180	401
253.perlbmk	48	318	315	48	290	346
254.gap	48	292	210	48	243	252
255.vortex	48	223	473	48	202	523
256.bzip2	48	248	337	48	233	358
300.twolf	48	513	325	48	476	351

Hardware

CPU:	UltraSPARC III Cu
CPU MHz:	1200
FPU:	Integrated
CPU(s) enabled:	48 cores, 48 chips, 1 core/chip
CPU(s) orderable:	4-106
Parallel:	No
Primary Cache:	32KBI+64KBD on chip
Secondary Cache:	8MB(I+D) off chip
L3 Cache:	None
Other Cache:	None
Memory:	384GB 16-way interleaved
Disk Subsystem:	1 x 36GB (System Disk) Sun StorEdge T3, 9 x 18GB striped
Other Hardware:	None

Software

Operating System:	Solaris 9 12/02
Compiler:	Sun ONE Studio 8 (pre-FCS build 3/9) Sun Performance Library 8 (pre-FCS build 3/9)
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
```

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Notes/Tuning Information (Continued)

```
                Feedback adds -xlinkopt in PASS2
 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

Processes were bound to CPUs using submit=pbind
```