



CINT2000 Result

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Sun Microsystems
Sun Netra 20

SPECint2000 = 417
SPECint_base2000 = 377

SPEC license #: 6 Tested by: Sun Microsystems, Palo Alto Test date: Nov-2001 Hardware Avail: Oct-2001 Software Avail: Feb-2002

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
164.gzip	1400	458	306	423	331	
175.vpr	1400	440	318	391	358	
176.gcc	1100	269	409	251	439	
181.mcf	1800	414	435	427	421	
186.crafty	1000	252	398	204	490	
197.parser	1800	520	346	419	429	
252.eon	1300	345	377	316	412	
253.perlbnk	1800	468	385	434	415	
254.gap	1100	425	259	423	260	
255.vortex	1900	379	502	302	630	
256.bzip2	1500	335	448	318	472	
300.twolf	3000	735	408	650	462	

Hardware

CPU: UltraSPARC III
 CPU MHz: 750
 FPU: Integrated
 CPU(s) enabled: 1 core, 1 chip, 1 core/chip
 CPU(s) orderable: 1-2
 Parallel: None
 Primary Cache: 32KBI+64KBD on chip
 Secondary Cache: 8MB(I+D) off chip
 L3 Cache: None
 Other Cache: None
 Memory: 2GB
 Disk Subsystem: 2 x 36GB
 Other Hardware: --

Software

Operating System: Solaris 8 7/01
 Compiler: Forte Developer 7 EA
 Forte Developer 6 update 2
 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.perlbnk: -DSPEC_CPU2000_SOLARIS
254.gap: -DSYS_IS_USG -DSYS_HAS_TIME_PROTO -DSYS_HAS_SIGNAL_PROTO
        -DSYS_HAS_CALLOC_PROTO -DSYS_HAS_IOCTL_PROTO
```

Base Flags:

```
Base C flags: -fast -xcrossfile -l12amm -xprofile
Base C++ flags: -fast -xcrossfile -xprofile
```

Peak Flags:

```
164.gzip: -x05 -xtarget=native -xalias_level=std -W2,-whole -xcrossfile -W2,-Ainline -xprofile
175.vpr: -fast -xalias_level=std -xcrossfile -xsfpconst -xdepend -W2,-whole
        -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 -l12amm -xprofile
181.mcf: -fast -xcrossfile -xprefetch -xdepend
```



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Notes/Tuning Information (Continued)

```

-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 -xdepend -xprefetch=no%auto -xcrossfile -xregs=syst
-Wc,-Qgsched-trace_late=1,-Qgsched-T4 -xalias_level=strong -Wc,-Qipa:valueprediction -xprofile
252.eon: -fast -xcrossfile -xsafe=mem -Qoption iropt -Mt500,-xrestrict
-Qoption cg -Qgsched-trace_late=1,-Qgsched-T4 -xprofile
-Wc,-Qiselect-sw_pf_tbl_th=20 -xprofile
253.perlbnk: -xO5 -xtarget=ative -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
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 -xdepend -ll2amm -lprism32 -xprofile
256.bzip2: -fast -W2,-Abopt -xcrossfile -xalias_level=strong
-Wc,-Qiselect-funcalign=32 -xdepend -xregs=syst -xprofile
300.twolf: -fast -xalias_level=strong -xsafe=mem -xcrossfile -xprefetch=no%auto
-Wc,-Qms_pipe+intdivusefp -xprofile

```

Forte Developer 7 (final) will ship May-2002

ONESTEP=yes for all benchmarks in base and peak except for C benchmarks in fp base

252.eon compiled with Forte Developer 6 update 2 for both base and peak

Shell Environments:

```

LD_LIBRARY_PATH=/usr/lib:/Forted7/FD7/lib/v8plusb:/Forted7/FD7/YNH/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 at

<http://www.sun.com/products-n-solutions/hw/networking/netrat/netra20/>