



# CINT2000 Result

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Sun Microsystems  
Sun Fire V880

SPECint2000 = 390  
SPECint\_base2000 = 347

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	483	290	448	313	
175.vpr	1400	478	293	426	328	
176.gcc	1100	288	381	265	415	
181.mcf	1800	473	380	476	378	
186.crafty	1000	301	332	220	455	
197.parser	1800	551	327	447	403	
252.eon	1300	358	363	329	395	
253.perlbnk	1800	491	366	457	394	
254.gap	1100	463	237	451	244	
255.vortex	1900	421	451	327	581	
256.bzip2	1500	354	424	340	441	
300.twolf	3000	787	381	699	429	

### Hardware

CPU: UltraSPARC III  
 CPU MHz: 750  
 FPU: Integrated  
 CPU(s) enabled: 1 core, 1 chip, 1 core/chip  
 CPU(s) orderable: 2,4,6,8  
 Parallel: None  
 Primary Cache: 32KBI+64KBD on chip  
 Secondary Cache: 8MB(I+D) off chip  
 L3 Cache: None  
 Other Cache: None  
 Memory: 4GB  
 Disk Subsystem: 9 x 18GB  
 Other Hardware: --

### Software

Operating System: Solaris 8 7/01  
 Compiler: Forte Developer 7 EA  
 Forte Developer 6 update 2  
 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.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=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
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 -l12amm -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/servers/workgroup/880/>