



# CINT2000 Result

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Fujitsu Limited  
PRIMEPOWER900 (1350MHz)

SPECint2000 = 858  
SPECint\_base2000 = 743

SPEC license #: 19 Tested by: Fujitsu Limited Test date: Feb-2003 Hardware Avail: Jun-2003 Software Avail: Feb-2003

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
164.gzip	1400	220	636	200	699	
175.vpr	1400	216	648	168	835	
176.gcc	1100	158	698	121	906	
181.mcf	1800	268	672	248	726	
186.crafty	1000	119	837	114	877	
197.parser	1800	275	656	241	748	
252.eon	1300	222	586	167	778	
253.perlbnk	1800	205	876	201	895	
254.gap	1100	185	595	180	609	
255.vortex	1900	153	1240	109	1742	
256.bzip2	1500	192	780	182	826	
300.twolf	3000	335	895	290	1035	

### Hardware

CPU: SPARC64 V  
 CPU MHz: 1350  
 FPU: Integrated  
 CPU(s) enabled: 1 core, 1 chip, 1 core/chip  
 CPU(s) orderable: 1 to 16 (increments of 1)  
 Parallel: None  
 Primary Cache: 128KBI+128KBD on chip  
 Secondary Cache: 2MB(I+D) on chip  
 L3 Cache: None  
 Other Cache: None  
 Memory: 8192MB  
 Disk Subsystem: 1 x 36.4GB SCSI (10000rpm)  
 Other Hardware: None

### Software

Operating System: Solaris8 2/02 with current patches (see notes)  
 Compiler: Fujitsu Parallelnavi 1.0.2  
 Sun ONE Studio 7 with current patches (see notes)  
 Sun Performance Library 7  
 File System: ufs  
 System State: multi user

## Notes/Tuning Information

Baseline (except 252.eon, for Sun ONE Studio 7): -fast -xtarget=ultra3 -xcrossfile  
 fdo\_pre0=rm -rf `pwd`/../../feedback.profile `pwd`/SunWS\_cache

PASS1=-xprofile=collect:`pwd`/../../feedback

PASS2=-xprofile=use:`pwd`/../../feedback

(252.eon, for Sun ONE Studio 7): -fast -xchip=ultra3 -xarch=v8plus -xcrossfile  
 Peak

(for Sun ONE Studio 7)

fdo\_pre0=rm -rf `pwd`/../../feedback.profile `pwd`/SunWS\_cache

PASS1=-xprofile=collect:`pwd`/../../feedback

PASS2=-xprofile=use:`pwd`/../../feedback

164.gzip: -x05 -xchip=ultra3cu -xcache=128/64/2:2048/64/4 -xarch=v8plusb -xalias\_level=std  
 -W2,-whole -xcrossfile -W2,-Ainline -xprefetch -xprefetch\_level=2

175.vpr: -fast -xchip=ultra2 -xcache=128/64/2:2048/64/4 -xarch=v8plusb

-xalias\_level=std -xipo=1 -xsfpcnst -xdepend -W2,-whole

-Wc,-Qeps:enabled=1,-Qeps:do\_spec\_load=1,-Qeps:rp\_filtering\_margin=100 ONESTEP=yes

176.gcc: -fast -xchip=ultra3 -xcache=128/64/2:2048/64/4 -xarch=v8plusb

-xcrossfile -W2,-whole -Wc,-Qgsched-trace\_late=1,-Qgsched-T4 -xprefetch -l12amm

181.mcf: -fast -xchip=ultra3 -xcache=128/64/2:2048/64/4 -xarch=v8plusb

-xcrossfile -xprefetch -xdepend -Wc,-Qms\_pipe-pref,-Qlp=1-fa=1-av=256-t=2-fl=1

186.crafty: -fast -xchip=ultra3cu -xcache=128/64/2:2048/64/4

Standard Performance Evaluation Corporation

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http://www.spec.org



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## Notes/Tuning Information (Continued)

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-xarch=v8plusb -xinline=%auto -Wc,-Qgsched-trace_late=1,-Qgsched-T4
-xalias_level=strong -xregs=syst -W2,-Ashort_ldst,-Aivel:duplicate_loops -xipo=1
197.parser: -fast -xchip=ultra3cu -xcache=128/64/2:2048/64/4 -xarch=v8plusb
-xdepend -xcrossfile -xregs=syst -Wc,-Qgsched-trace_late=1,-Qgsched-T4
-xalias_level=strong -Wc,-Qipa:valueprediction -lprism32 ONESTEP=yes
252.eon: -fast -xchip=ultra3 -xcache=128/64/2:2048/64/4 -xarch=v8plus
-xcrossfile -xregs=syst -xsafe=mem -Qoption iropt -Mt2000 -Qoption cg
-Qgsched -trace_late=1,-Qgsched-trace_spec_load=1,-Qgsched-T4
-xunroll=3 -lmopt
253.perlbnk: -dn -x05 -xchip=ultra3 -xcache=128/64/2:2048/64/2
-xarch=v8plus -xcrossfile
254.gap: -fast -xchip=ultra3cu -xcache=128/64/2:2048/64/4
-xarch=v8plusb -xcrossfile -xalias_level=std -xprefetch
-W2,-whole -Wc,-Qgsched-trace_late=1,-Qgsched-T4
255.vortex: -fast -xchip=ultra3 -xcache=128/64/2:2048/64/4
-xarch=v8plusb -Wc,-Qeps:enabled=1,-Qeps:do_spec_load=1
-W2,-Aheap,-reroll=1,-Aunroll,-Ms15,-Mt300,-Mr6000,-crit
-Wc,-Qdepgraph-early_cross_call=1 -Wc,-Qiselect-funcalign=64
-Wc,-Qpeep-Sh0 -xrestrict -xdepend -xcrossfile -ll2amm -lprism32
256.bzip2: -fast -xchip=ultra3 -xcache=128/64/2:2048/64/4
-xarch=v8plusb -W2,-Abopt -xcrossfile -xalias_level=strong
-Wc,-Qiselect-funcalign=64 -xdepend -xregs=syst -xsafe=mem
(for Parallelnavi 1.0.2)
300.twolf: -Kfast_GP=5,GREG,popt,cfunc,staticclump,use_rodata,xi=10,nounroll,largepage,bcopy,prefetch=4 -dy
PASS1=-Kpg
PASS2=-Kpu=$(EXEBASE).fbk
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

```

### Note:

```

System Tunables: (for /etc/system)
consistent_coloring=1,
shmsys:shminfo_shmmax=2147483648, shmsys:shminfo_shmmni=256,
shmsys:shminfo_shmseg=400,shminfo_shmmin=1
set tune_t_fsflushr = 86400
set autoup = 86400
(for /etc/opt/FJSVpnm/lpg.conf)
TSS=512M, SHMSEGSIZE=256M
Shell Environments:
LD_LIBRARY_PATH="/opt/SUNWspro/prod/lib/v8plusb"
PRISM_HEAP=268435456
PRISM_MODE=2
ONESTEP=yes was set for all baseline and peak benchmarks.
Feedback directed optimization was used for all baseline and peak benchmarks except 252.eon(base).
Stack size set to unlimited via "ulimit -s unlimited"
Small configuration memory system mode used ("4cpu mode", enabled via system console).
System board used with only one CPU present.
All patches of Sun ONE Studio 7 posted at URL http://access1.sun.com/sundev/sls7-patches.html
as of date 2003/02/21 were applied: 111704-06, 111706-04, 111709-02, 111715-04, 111718-01
111705-03, 111708-03, 111714-04, 111716-02, 111723-02
All patches for Sun ONE Studio 7 SPARC SunOS 5.8 posted at
http://access1.sun.com/patch.public/cgi-bin/show_list.cgi/wrk/Sun_ONE_Studio_7_SPARC_SunOS_5.8
as of date 2003/02/21 were applied: 108434-10, 108435-10, 111697-04, 111721-02

```