



CINT2000 Result

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Fujitsu Limited
PRIMEPOWER450 (1100MHz)

SPECint_rate2000 = 30.5
SPECint_rate_base2000 = 26.1

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

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	4	270	24.1	4	241	26.9
175.vpr	4	308	21.1	4	281	23.1
176.gcc	4	169	30.2	4	159	32.1
181.mcf	4	601	13.9	4	368	22.7
186.crafty	4	147	31.5	4	143	32.5
197.parser	4	356	23.5	4	327	25.5
252.eon	4	277	21.8	4	179	33.7
253.perlbnk	4	259	32.2	4	256	32.6
254.gap	4	193	26.4	4	182	28.0
255.vortex	4	192	46.0	4	148	59.7
256.bzip2	4	272	25.6	4	260	26.8
300.twolf	4	476	29.3	4	396	35.1

Hardware	Software
CPU: SPARC64 V	Operating System: Solaris8 2/02 with current patches (see notes)
CPU MHz: 1100	Compiler: Fujitsu Parallelnavi 1.0.2
FPU: Integrated	File System: ufs
CPU(s) enabled: 4 cores, 4 chips, 1 core/chip	System State: multi user
CPU(s) orderable: 1 to 4 (increments of 1)	
Parallel: None	
Primary Cache: 128KBI+128KBD on chip	
Secondary Cache: 1MB(I+D) on chip	
L3 Cache: None	
Other Cache: None	
Memory: 8192MB	
Disk Subsystem: 1 x 36.4GB SCSI (10000rpm)	
Other Hardware: None	

Notes/Tuning Information

Baseline (except 252.eon, for Sun ONE Studio 8 EA2):
 -fast -xtarget=ultra3cu -xipo=2 ONESTEP=yes
 fdo_pre0=rm -rf ./feedback.profile ./SunWS_cache
 PASS1=-xprofile=collect:./feedback
 PASS2=-xprofile=use:./feedback
 (252.eon, for Sun ONE Studio 8 EA2):
 -fast -xchip=ultra3cu -xarch=v8plusb -xipo=2 ONESTEP=yes

Peak
 (for Sun ONE Studio 8 EA2)
 fdo_pre0=rm -rf ./feedback.profile ./SunWS_cache
 PASS1=-xprofile=collect:./feedback
 PASS2=-xprofile=use:./feedback

164.gzip: -xO5 -xchip=ultra2 -xcache=128/64/2:1024/64/2 -xarch=v8plusb -xipo=2
 -xalias_level=std -xprefetch -xprefetch_level=2 -W2,-whole,-Ainline ONESTEP=yes

175.vpr: -fast -xchip=ultra2 -xcache=128/64/2:1024/64/2 -xarch=v8plusb
 -xalias_level=std -xipo=2 -xsfpconst -xdepend -W2,-whole
 -Wc,-Qeps:enabled=1,-Qeps:do_spec_load=1,-Qeps:rp_filtering_margin=100
 -lmopt -lm ONESTEP=yes

176.gcc: -fast -xchip=ultra3 -xcache=128/64/2:1024/64/2 -xarch=v8plusb
 -xipo=2 -xprefetch=latx:2.0 -W2,whole



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Notes/Tuning Information (Continued)

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-Wc,-Qgsched-trace_late=1,-Qgsched-T4 -l12amm ONESTEP=yes
181.mcf: -fast -xchip=ultra2 -xcache=128/64/2:1024/64/2 -xarch=v8plusb
-xipo=2 -xdepend -Wc,-Qms_pipe-pref,-Qeps:enabled=1 -xprefetch_level=3
-W2,-Apf:l1list=3:noninnerl1list -lprism32 ONESTEP=yes
186.crafty: -fast -xchip=ultra3cu -xcache=128/64/2:1024/64/2
-xarch=v8plusb -xipo=2 -xalias_level=strong -xprefetch=latx:1.2
-W2,-Ashort_ldst ONESTEP=yes
197.parser: -fast -xchip=ultra3cu -xcache=128/64/2:1024/64/2 -xarch=v8plusb
-xipo=2 -xalias_level=strong -xdepend -xregs=syst
-Wc,-Qgsched-trace_late=1,-Qgsched-T6,-Qipa:valueprediction -lprism32 ONESTEP=yes
252.eon: -fast -xchip=ultra3 -xcache=128/64/2:1024/64/2 -xarch=v8plusb -xipo=2
-xregs=syst -xalias_level=compatible -noex -xunroll=3 -xprefetch=latx:0.8
-Qoption cg -Qgsched-trace_late=1,-Qgsched-T4,-Qeps:enabled=1,-Qeps:ws=32
-Qoption iropt -Mt2000 -lmopt ONESTEP=yes
253.perlbnk: -dn -xO5 -xchip=ultra3 -xcache=128/64/2:1024/64/2
-xarch=v8plus -xipo=2 ONESTEP=yes
254.gap: -fast -xchip=ultra3 -xcache=128/64/2:1024/64/2
-xarch=v8plusb -xipo=2 -xalias_level=strong -xvector -xprefetch_level=3
-W2,-whole,-Abcopy -Wc,-Qgsched-trace_late=1,-Qgsched-T4 ONESTEP=yes
255.vortex: -fast -xchip=ultra2 -xcache=128/64/2:1024/64/2
-xarch=v8plusb -xrestrict -xipo=2 -xdepend -xprefetch=latx:2.4
-W2,-crit,Ainline:recursion=1:cs=500:irs=6000,-Aheap,-reroll=1,-Aunroll,-Ms15,-Mt300,-Mr6000
-Wc,-Qeps:enabled=1,-Qeps:do_spec_load=1,-Qdepgraph-early_cross_call=1
-Wc,-Qiselect-funcalign=32,-Qpeep-Sh0 -l12amm -lprism32 ONESTEP=yes
256.bzip2: -fast -xchip=ultra3 -xcache=128/64/2:1024/64/2
-xarch=v8plusb -xipo -xalias_level=strong -xdepend -xregs=syst
-xrestrict -xprefetch=latx:1.6 -W2,-Abopt
-Wc,-Qiselect-funcalign=64,-Qeps:enabled=1 ONESTEP=yes
(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

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Note:

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System Tunables: (for /etc/system)
consistent_coloring=1,
set shmsys:shminfo_shmmax=2147483648,set shmsys:shminfo_shmmni=256,
set shmsys:shminfo_shmseg=400,set shmsys:shminfo_shmmin=1
set tune_t_fsflushr = 86400
set autoup = 86400
(for /etc/opt/FJSVpnm/lpg.conf)
TSS=1024M, SHMSEGSIZE=256M
Shell Environments:
LD_LIBRARY_PATH="/opt3/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).

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Notes/Tuning Information (Continued)

Stack size set to unlimited via "ulimit -s unlimited"

Sun ONE Studio 8 EA2 (Early Access 2), posted at URL <http://access1.sun.com/s1sprod/> as updated through 27-Mar-2003, was used for this submission.

Sun ONE Studio 8 (final) will ship May-2003.

All patches for Solaris8 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 2003/04/21 were applied: 108434-11, 108435-11, 111697-04, 111721-03.