



CINT2000 Result

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Fujitsu Siemens Computers
PRIMEPOWER800/1000/2000 (788MHz)

SPECint2000 = 591
SPECint_base2000 = 505

SPEC license #: 22 Tested by: Fujitsu Limited Test date: Jun-2002 Hardware Avail: Sep-2002 Software Avail: May-2002

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
164.gzip	1400	309	453	271	517	
175.vpr	1400	318	441	278	504	
176.gcc	1100	282	390	210	523	
181.mcf	1800	346	520	301	597	
186.crafty	1000	200	501	153	654	
197.parser	1800	345	522	310	580	
252.eon	1300	210	618	189	687	
253.perlbmk	1800	316	569	262	688	
254.gap	1100	385	285	376	292	
255.vortex	1900	242	785	175	1087	
256.bzip2	1500	281	534	259	579	
300.twolf	3000	487	616	444	676	

Hardware

CPU: SPARC64 GP
CPU MHz: 788
FPU: Integrated
CPU(s) enabled: 1 core, 1 chip, 1 core/chip
CPU(s) orderable: 4 to 16/4 to 32/8 to 128
Parallel: None
Primary Cache: 128KBI+128KBD on chip
Secondary Cache: 8MB(I+D) off chip, per CPU
L3 Cache: None
Other Cache: None
Memory: 8192MB
Disk Subsystem: 1 x 18.2GB SCSI (10025rpm)
Other Hardware: Ethernet

Software

Operating System: Solaris 8 2/02 with patches 108434-07 and 108435-07.
Compiler: Fujitsu Parallelnavi 1.0.2 with patches 911403-01 and 911746-01, Sun ONE Studio 7 with patches 111704-01, 111705-01, 111706-01, 111708-01, 111709-01, 111715-01 and 111716-01, Sun Performance Library 7
File System: ufs
System State: single user

Notes/Tuning Information

Baseline (except 252.eon, for Parallelnavi 1.0.2): -Kfast_GP=3,largepage
fdo_pre0=rm -rf `pwd`/*.fbk
PASS1=-Kpg
PASS2=-Kpu=\$(EXEBASE).fbk
(252.eon, for Sun ONE Studio 7): -fast -xcrossfile -xtarget=ultra3
fdo_pre0=rm -rf `pwd`/../feedback.profile `pwd`/SunWS_cache
PASS1=-xprofile=collect:`pwd`/../feedback
PASS2=-xprofile=use:`pwd`/../feedback

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 -xtarget=ultra3 -xalias_level=std -W2,-whole -xcrossfile -W2,-Ainline -xprefetch -Wc,-Qgsched-trace_late=1,-Qgsched-spec_load=1 -l12amm
175.vpr: -fast -xarch=v8plusb -xalias_level=std -xcrossfile -xsfpconst -xdepend -W2,-whole,-Mt600,-Mr4000 -Wc,-Qeps:enabled=1,-Qeps:do_spec_load=1,-Qeps:rp_filtering_margin=100 -xregs=syst -lprism32 -lmopt -lm
176.gcc: -fast -xtarget=ultra3 -xcrossfile -W2,-whole -Wc,-Qgsched-trace_late=1,-Qgsched-T4 -l12amm



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Notes/Tuning Information (Continued)

```

186.crafty: -fast -xtarget=ultra3 -xarch=v8plus -xF -xinline= -xcrossfile -Wc,-Qgsched-spec_load=1,-Qiselect-funcalign=64
           -xalias_level=strong -xregs=syst -W2,-Ashort_ldst,-Aivel:duplicate_loops -xprefetch=auto,latx:5.0
197.parser: -fast -xarch=v8plusb -xdepend -xprefetch=no%auto
           -xcrossfile -xregs=syst -Wc,-Qgsched-trace_late=1,-Qgsched-T4
           -xalias_level=strong -Wc,-Qipa:valueprediction
           -W2,-Ashort_ldst,-Mt5000 -Wc,-Qiselect-funcalign=32 -lprism32
252.eon: -fast -xtarget=ultra3 -xcrossfile -xalias_level=compatible -xsafe=mem -Qoption iropt
          -Mt2000,-xrestrict -Qoption cg -Qgsched-trace_spec_load=1,-Qgsched-trace_late=1
253.perlbmk: -xO5 -xtarget=ultra3 -xarch=v8plusb -xcrossfile -xalias_level=strong -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 -Wc,-Qiselect-sw_pf_tbl_th=20 -W2,-Adata_access -xprefetch=auto,latx:5.0 -l12amm -dn
255.vortex: -fast -xtarget=ultra3 -xcrossfile -W2,-Aheap,-reroll=1,-Aunroll,-Ms1,-Mt600,-Mr13000,-crit
            -Wc,-Qdepgraph-early_cross_call=1 -Wc,-Qiselect-funcalign=32 -Wc,-Qpeep-Sh0
            -xrestrict -xdepend -W2,-Amemopt
            -l12amm -lprism32
256.bzip2: -fast -xtarget=ultra3 -W2,-whole,-crit
           -xcrossfile -xalias_level=strong -Wc,-Qiselect-funcalign=32
           -xdepend -xregs=syst -xsfpcnst -Wc,-Qgsched-trace_spec_load=1 -xsafe=mem -l12amm -lprism32

```

(for Parallelnavi 1.0.2):

fdo_pre0=rm -rf `pwd`/*.fbk

PASS1=-Kpg

PASS2=-Kpu=\$(EXEBASE).fbk

181.mcf: -Kfast_GP=2,GREG,eval,preex,popt,unroll=2,prefetch=4,largepage,preload -x-

254.gap: -Kfast_GP=3,popt,eval,cfunc,largepage,xi=10

300.twolf: -Kfast_GP=5,eval,GREG,popt,cfunc,staticclump,use_rodata,xi=10,largepage,bcopy,nounroll,prefetch=4

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

Note:

System Tunables: (for /etc/system)

consistent_coloring=1, tune_t_fsflushr=86400, autoup=86400,

shmsys:shminfo_shmmax=1477846784, shmsys:shminfo_shmni=1024, shmsys:shminfo_shmseg=1024,shminfo_shmmin=1

(for /etc/opt/FJSVpnm/lpg.conf)

TSS=512M, SHMSEGSIZE=256M

Shell Environments:

LD_LIBRARY_PATH="/usr/lib:/opt/FD7/SUNWspro/lib/v8plusb:/opt/FD7/SUNWspro/prod/lib/v8plusb:/opt/FSUNf90/lib"

LD_LIBRARY_PATH_64="/usr/lib/64:/opt/FD7/SUNWspro/lib/v9:/opt/FD7/SUNWspro/prod/lib/v9"

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.

System board used with only one CPU present.