



CINT2000 Result

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Fujitsu Siemens Computers PRIMEPOWER200 (700MHz)

SPECint2000 = 491
SPECint_base2000 = 415

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	346	404	303	463	
175.vpr	1400	379	369	348	402	
176.gcc	1100	386	285	250	440	
181.mcf	1800	524	344	450	400	
186.crafty	1000	242	413	175	571	
197.parser	1800	418	431	379	474	
252.eon	1300	244	532	220	591	
253.perlbnk	1800	367	491	324	556	
254.gap	1100	412	267	406	271	
255.vortex	1900	300	632	216	882	
256.bzip2	1500	347	433	312	481	
300.twolf	3000	565	531	508	590	

Hardware

CPU: SPARC64 GP
CPU MHz: 700
FPU: Integrated
CPU(s) enabled: 1 core, 1 chip, 1 core/chip
CPU(s) orderable: 1 to 2
Parallel: None
Primary Cache: 128KBI+128KBD on chip
Secondary Cache: 4MB(I+D) off chip, per CPU
L3 Cache: None
Other Cache: None
Memory: 8192MB
Disk Subsystem: 1 x 36.4GB SCSI (10000rpm)
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: -xO5 -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 -xsfpcnst -xdepend -W2,-whole,-Mt600,-Mr4000 -Wc,-Qeps:enabled=1,-Qeps:do_spec_load=1,-Qeps:rp_filtering_margin=100 -xregs=syst -xprefetch=auto,latx:5.0 -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)

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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.perlbnk: -x05 -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,-Msl,-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_roddata,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.perlbnk: -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_shmmni=1024, shmsys:shminfo_shmseg=1024,shminfo_shmmin=1

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

TSS=4G, SHMSEGSIZE=256M

Shell Environments:

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

LD_LIBRARY_PATH_64="/usr/lib/64:/opt/SUNWspro/lib/v9:/opt/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.