



CINT2000 Result

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Fujitsu Siemens Computers PRIMEPOWER200 (500MHz)

SPECint2000 = 342
SPECint_base2000 = 310

SPEC license #: 22 Tested by: Fujitsu Limited Test date: Feb-2001 Hardware Avail: Apr-2001 Software Avail: Apr-2001

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
164.gzip	1400	454	308	454	308	
175.vpr	1400	494	283	469	299	
176.gcc	1100	478	230	348	316	
181.mcf	1800	622	289	511	352	
186.crafty	1000	294	340	269	372	
197.parser	1800	564	319	560	321	
252.eon	1300	374	348	340	382	
253.perlbmk	1800	505	356	483	373	
254.gap	1100	519	212	519	212	
255.vortex	1900	387	491	383	496	
256.bzip2	1500	477	315	468	320	
300.twolf	3000	989	303	688	436	

Hardware

CPU: SPARC64 GP
 CPU MHz: 501
 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: 2048MB
 Disk Subsystem: 1 x 36.4GB SCSI (10025rpm)
 Other Hardware: Ethernet

Software

Operating System: Solaris 8
 Compiler: Fujitsu Parallelnavi 1.0.1
 Sun Forte Developer 6 update 1
 File System: ufs
 System State: single user

Notes/Tuning Information

Baseline (except 252.eon, for Parallelnavi 1.0.1): -Kfast_GP=3,largepage

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

PASS1=-Kpg

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

(252.eon, for Forte Developer 6 update 1): -fast -xcrossfile -xarch=v8plus

fdo_pre0=rm -rf `pwd`/../../feedback.profile `pwd`/SunWS_cache

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

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

Peak (for Parallelnavi 1.0.1):

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

PASS1=-Kpg

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

164.gzip: -Kfast_GP=3,largepage

175.vpr: -Kfast_GP=4,staticclump,memalias,switchopt,cond,GREG,nounroll,largepage,onefile,NOFLTLTD=3,xi=30

181.mcf: -Kfast_GP=2,nounroll,memalias,restp,prefetch=4,largepage -x-

186.crafty: -Kfast_GP=3,switchopt,cond,noiopt,staticclump,xi=6,memalias,largepage

197.parser: -Kfast_GP=3,switchopt,cond,staticclump,use_rodata,largepage,funcalign=128

253.perlbmk: -Kfast_GP=3,memalias,switchopt,largepage,bcopy

254.gap: -Kfast_GP=3,largepage

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Notes/Tuning Information (Continued)

```

256.bzip2: Kfast_GP=3,NOFLTLTD=1,use_rodata,staticclump,xi=8,cfunc,memalias,restp,largepage,funcalign=128
300.twolf: -Kfast_GP=5,GREG,popt,cfunc,staticclump,use_rodata,xi=10,nounroll,largepage,bcopy
(for Forte Developer 6 update 1)
fdo_pre0=rm -rf `pwd`/../feedback.profile `pwd`/SunWS_cache
PASS1=-xprofile=collect:`pwd`/../feedback
PASS2=-xprofile=use:`pwd`/../feedback
176.gcc: -fast -xcrossfile -W2,-whole -Wc,-Qgsched-trace_late=1,-Qgsched-T4,-Qiselect-funcalign=64
-xarch=v8plus -xprefetch
252.eon: -fast -xcrossfile -xregs=syst -xsafe=mem -Qoption iropt -Mt500,-restrict_g,-restrict
-Qoption cg -Qgsched-trace_late=1,-Qgsched-trace_spec_load=1,-Qgsched-T4 -xarch=v8plus
-lmopt
255.vortex: -fast -xsafe=mem -xcrossfile -W2,-Aheap,-reroll=1,-Aunroll,-Msl,-Mt500,-Mr6000,-crit
-Wc,-Qdepgraph-early_cross_call=1 -Wc,-Qiselect-funcalign=32 -Wc,-Qpeep-Sh0
-xrestrict -xdepend -Wc,-Qgsched-trace_late=1,-Qgsched-T4 -xarch=v8plus

```

Portability:

```

176.gcc: -Dalloca=__builtin_alloca -DHOST_WORDS_BIG_ENDIAN
186.crafty: -DSUN
252.eon: -library=iostream,no%Cstd
253.perlbnk: -DSPEC_CPU2000_SOLARIS -lnsl -lsocket
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, tune_t_fsflushr=86400, autoup=86400,
shmsys:shminfo_shmmax=268435456, shmsys:shminfo_shmmni=1024, shmsys:shminfo_shmseg=1024
(for /etc/opt/FJSVpnm/lpg.conf)
TSS=512M, SHMSEGSIZE=256M
ONESTEP=yes was set for all baseline and peak benchmarks.
Feedback directed optimization was used for all baseline and peak benchmarks.

```

Also used:

```

-Xa (base and peak, except where noted) for 176.gcc (base only), 181.mcf, 186.crafty, 197.parser (peak only), 254.gap
-dy (base) for all benchmarks except 252.eon, -dy (peak) for all except 176.gcc, 252.eon, 255.vortex
-DWANT_STD_PROTO for 181.mcf (base and peak), -DCPU2000 for 186.crafty (base and peak),
-DSUN -DCPU2000 for 197.parser (peak)

```

The flags listed above as "also used" were used for the actual compilation, but they had no effect (-D flags), were the compiler's default (-Xa), or the compiler's default when -Klargepage is used (-dy).

They are not necessary for result reproduction and can be omitted.