



CINT2000 Result

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Fujitsu Siemens Computers
PRIMEPOWER2000 (675MHz)

SPECint_rate2000 = 319
SPECint_rate_base2000 = 299

SPEC license #: 22 | Tested by: Fujitsu Limited | Test date: Sep-2001 | Hardware Avail: Nov-2001 | Software Avail: Dec-2001

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	64	371	280	64	364	285
175.vpr	64	369	282	64	353	294
176.gcc	64	484	169	64	394	207
181.mcf	64	439	305	64	382	350
186.crafty	64	223	332	64	198	376
197.parser	64	416	321	64	402	332
252.eon	64	280	345	64	263	367
253.perlbnk	64	376	355	64	369	362
254.gap	64	494	165	64	485	168
255.vortex	64	290	486	64	283	498
256.bzip2	64	341	326	64	342	326
300.twolf	64	597	373	64	558	399

Hardware

CPU: SPARC64 GP
 CPU MHz: 675
 FPU: Integrated
 CPU(s) enabled: 64 cores, 64 chips, 1 core/chip
 CPU(s) orderable: 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: 128GB
 Disk Subsystem: 1 x 36GB, 1 x 18GB SCSI (10000rpm)
 Other Hardware: None

Software

Operating System: Solaris 8 7/01
 Compiler: Fujitsu Parallelnavi 1.0.2 with patch 911403-01
 Sun Forte Developer 6 update 2
 File System: ufs
 System State: multi 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 Forte Developer 6 update 2): -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 1.0.2):
 fdo_pre0=rm -rf `pwd`/*.fbk
 PASS1=-Kpg
 PASS2=-Kpu=\$(EXEBASE).fbk
 164.gzip: -Kfast_GP=4,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=2,largepage -x-
 197.parser: -Kfast_GP=4,switchopt,cond,staticclump,use_rodata,largepage
 253.perlbnk: -Kfast_GP=4,memalias,switchopt,largepage,bcopy
 254.gap: -Kfast_GP=3,largepage,memalias,unroll=4
 256.bzip2: -Kfast_GP=3,largepage



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Notes/Tuning Information (Continued)

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300.twolf: -Kfast_GP=5,GREG,memalias,cfunc,staticclump,use_rodata,xi=10,largepage,nounroll,bcopy
(for Forte Developer 6 update 2)
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
186.crafty: -fast -xcrossfile -Wc,-Qgsched-trace_late=1,-Qgsched-T4 -xalias_level=strong
-xregs=syst -xchip=ultra2 -xarch=v8plus -W2,-Amemopt
252.eon: -fast -xcrossfile -xsafe=mem -Qoption iropt -Mt500,-restrict_g,-restrict
-Qoption cg -Qgsched-trace_late=1,-Qgsched-T4 -xarch=v8plus
255.vortex: -fast -xsafe=mem -xcrossfile -W2,-Aheap,-reroll=1,-Aunroll,-Ms1,-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 -W2,-Amemopt

```

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=8589934592, shmsys:shminfo_shmmni=1024, shmsys:shminfo_shmseg=1024
(for /etc/opt/FJSPnrm/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.

```