



CINT2000 Result

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Fujitsu Siemens Computers
PRIMEPOWER600 (600MHz)

SPECint2000 = 420
SPECint_base2000 = 391

SPEC license #: 22 Tested by: Fujitsu Limited Test date: Aug-2001 Hardware Avail: Oct-2001 Software Avail: Sep-2001

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
164.gzip	1400	389	360	382	367	
175.vpr	1400	390	359	373	376	
176.gcc	1100	387	285	284	387	
181.mcf	1800	408	442	394	457	
186.crafty	1000	259	387	215	466	
197.parser	1800	452	398	439	410	
252.eon	1300	306	425	286	454	
253.perlbnk	1800	409	440	391	460	
254.gap	1100	464	237	447	246	
255.vortex	1900	317	599	306	621	
256.bzip2	1500	369	406	369	406	
300.twolf	3000	639	470	597	503	

Hardware

CPU: SPARC64 GP
 CPU MHz: 600
 FPU: Integrated
 CPU(s) enabled: 1 core, 1 chip, 1 core/chip
 CPU(s) orderable: 2 to 8
 Parallel: None
 Primary Cache: 128KBI+128KBD on chip
 Secondary Cache: 8MB(I+D) off chip, per CPU
 L3 Cache: None
 Other Cache: None
 Memory: 2048MB
 Disk Subsystem: 1 x 36.4GB SCSI (10000rpm)
 Other Hardware: Ethernet

Software

Operating System: Solaris 8 4/01
 Compiler: Fujitsu Parallelnavi 1.0.2
 Sun Forte Developer 6 update 2
 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 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
 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 -DUSG
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,-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 -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/FJSPvnrmlpg.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.
System board used with only one CPU present.

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