



# CINT2000 Result

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Fujitsu Siemens Computers  
PRIMEPOWER400 (600MHz)

SPECint2000 = 424  
SPECint\_base2000 = 390

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	200 400 600 800			
164.gzip	1400	386	363	378	370	[Bar chart showing ratio 370]			
175.vpr	1400	394	355	368	381	[Bar chart showing ratio 381]			
176.gcc	1100	386	285	281	392	[Bar chart showing ratio 392]			
181.mcf	1800	397	453	384	469	[Bar chart showing ratio 469]			
186.crafty	1000	245	409	216	463	[Bar chart showing ratio 463]			
197.parser	1800	450	400	438	411	[Bar chart showing ratio 411]			
252.eon	1300	305	426	286	455	[Bar chart showing ratio 455]			
253.perlbnk	1800	410	439	389	463	[Bar chart showing ratio 463]			
254.gap	1100	521	211	436	252	[Bar chart showing ratio 252]			
255.vortex	1900	316	601	304	626	[Bar chart showing ratio 626]			
256.bzip2	1500	368	408	368	408	[Bar chart showing ratio 408]			
300.twolf	3000	640	469	597	502	[Bar chart showing ratio 502]			

### Hardware

CPU: SPARC64 GP  
CPU MHz: 600  
FPU: Integrated  
CPU(s) enabled: 1 core, 1 chip, 1 core/chip  
CPU(s) orderable: 1 to 4  
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 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:

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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:

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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.

```

```

Submitted_by: Maki Nagahama <nagahama@cs.fujitsu.co.jp>
Submitted: Tue Aug 14 00:53:22 2001
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```