



CINT2000 Result

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Fujitsu Siemens Computers
PRIMEPOWER800/1000/2000 (563MHz)

SPECint_rate2000 = 70.4
SPECint_rate_base2000 = 61.9

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

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	16	418	62.2	16	418	62.1
175.vpr	16	515	50.5	16	423	61.4
176.gcc	16	400	51.0	16	315	64.8
181.mcf	16	628	53.2	16	418	80.0
186.crafty	16	264	70.2	16	237	78.4
197.parser	16	511	65.4	16	499	66.9
252.eon	16	328	73.6	16	305	79.2
253.perlbnk	16	446	74.8	16	451	74.1
254.gap	16	520	39.3	16	520	39.3
255.vortex	16	380	92.7	16	327	108
256.bzip2	16	452	61.6	16	416	66.8
300.twolf	16	849	65.6	16	643	86.6

Hardware

CPU: SPARC64 GP
 CPU MHz: 563
 FPU: Integrated
 CPU(s) enabled: 16 cores, 16 chips, 1 core/chip
 CPU(s) orderable: 4 to 16/4 to 32/8 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: 16384MB
 Disk Subsystem: 2 x 18.2GB 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

```
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
```

```
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
```

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

```
253.perlbnk: -Kfast_GP=3,memalias,switchopt,bcopy
```

```
254.gap: -Kfast_GP=3
```

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Notes/Tuning Information (Continued)

```

300.twolf: -Kfast_GP=5,GREG,popt,cfunc,staticclump,use_rodata,xi=10,nounroll,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,-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
256.bzip2: -fast -xarch=v8plus -W2,-Abopt -xcrossfile -xalias_level=strong
        -Wc,-Qiselect-funcalign=32 -xdepend -xregs=syst

```

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=8192M, SHMSEGSIZE=256M
ONESTEP=yes was set for all baseline and peak benchmarks.
Feedback directed optimization was used for all baseline and peak benchmarks.

```