



# CINT2000 Result

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Fujitsu Limited  
PRIMEPOWER600 (600MHz)

SPECint\_rate2000 = 9.67  
SPECint\_rate\_base2000 = 8.88

SPEC license #: 19 Tested by: Fujitsu Limited Test date: Sep-2001 Hardware Avail: Aug-2001 Software Avail: Dec-2001

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	2	393	8.26	2	384	8.46
175.vpr	2	391	8.30	2	375	8.67
176.gcc	2	391	6.53	2	281	9.08
181.mcf	2	420	9.93	2	409	10.2
186.crafty	2	295	7.87	2	215	10.8
197.parser	2	454	9.20	2	438	9.53
252.eon	2	306	9.85	2	287	10.5
253.perlbnk	2	411	10.2	2	401	10.4
254.gap	2	476	5.36	2	462	5.52
255.vortex	2	319	13.8	2	310	14.2
256.bzip2	2	369	9.43	2	369	9.43
300.twolf	2	654	10.6	2	590	11.8

### Hardware

CPU: SPARC64 GP  
CPU MHz: 600  
FPU: Integrated  
CPU(s) enabled: 2 cores, 2 chips, 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: 8192MB  
Disk Subsystem: 1 x 36.4GB 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: 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,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)

```

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/FJSPvnm/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.

```