



# CINT2000 Result

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Fujitsu Limited  
PRIMEPOWER650 (675MHz)

SPECint2000 = 478  
SPECint\_base2000 = 449

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
164.gzip	1400	348	403	348	403	
175.vpr	1400	332	422	318	440	
176.gcc	1100	301	365	247	446	
181.mcf	1800	356	505	322	559	
186.crafty	1000	233	429	192	520	
197.parser	1800	399	452	390	461	
252.eon	1300	274	474	256	507	
253.perlbnk	1800	367	491	354	509	
254.gap	1100	396	278	400	275	
255.vortex	1900	272	699	262	726	
256.bzip2	1500	323	464	323	464	
300.twolf	3000	572	524	533	563	

### Hardware

CPU: SPARC64 GP  
 CPU MHz: 675  
 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: 8192MB  
 Disk Subsystem: 2 x 18GB SCSI (10025rpm)  
 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  
 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
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.perlbmk: -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.
Only one CPU installed on the system board.
4cpu-mode option applied/enabled.

```