



CINT2000 Result

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Fujitsu Siemens Computers
PRIMEPOWER2000 (563MHz)

SPECint_rate2000 = 138
SPECint_rate_base2000 = 123

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	32	421	123	32	421	123
175.vpr	32	523	99.4	32	466	112
176.gcc	32	409	99.8	32	329	124
181.mcf	32	627	106	32	438	153
186.crafty	32	266	139	32	239	155
197.parser	32	514	130	32	521	128
252.eon	32	330	146	32	306	157
253.perlbnk	32	448	149	32	453	147
254.gap	32	524	77.9	32	524	77.9
255.vortex	32	383	184	32	329	215
256.bzip2	32	453	123	32	419	133
300.twolf	32	856	130	32	649	172

Hardware

CPU: SPARC64 GP
 CPU MHz: 563
 FPU: Integrated
 CPU(s) enabled: 32 cores, 32 chips, 1 core/chip
 CPU(s) orderable: 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: 29696MB
 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,NOFLTLID=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

Standard Performance Evaluation Corporation

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Notes/Tuning Information (Continued)

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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
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.

```

Also used, for 253.perlbnk (base and peak): -lnsl -lsocket

These linker flags are no longer necessary for the benchmark, they are redundant and not necessary for result reproduction.
(They were a leftover from a pre-release version of the benchmark which contained calls to the respective libraries.)