



CINT2000 Result

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Fujitsu Limited
PRIMEPOWER600 (500MHz)

SPECint_rate2000 = 15.8
SPECint_rate_base2000 = 14.3

SPEC license #: 19 Tested by: Fujitsu Limited Test date: Feb-2001 Hardware Avail: Feb-2001 Software Avail: Apr-2001

24	21	18	15	12	9	6	3	Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
								164.gzip	4	483	13.4	4	483	13.5
								175.vpr	4	517	12.6	4	456	14.3
								176.gcc	4	510	10.0	4	347	14.7
								181.mcf	4	492	17.0	4	472	17.7
								186.crafty	4	298	15.6	4	267	17.4
								197.parser	4	540	15.5	4	537	15.6
								252.eon	4	368	16.4	4	346	17.4
								253.perlbnk	4	531	15.7	4	506	16.5
								254.gap	4	571	8.94	4	567	8.99
								255.vortex	4	396	22.3	4	377	23.4
								256.bzip2	4	462	15.1	4	453	15.4
								300.twolf	4	1010	13.8	4	703	19.8

Hardware

CPU: SPARC64 GP
 CPU MHz: 501
 FPU: Integrated
 CPU(s) enabled: 4 cores, 4 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: 4096MB
 Disk Subsystem: 1 x 36.4GB 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,largepage

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,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=4,largepage -x-

186.crafty: -Kfast_GP=3,switchopt,cond,noiopt,staticclump,xi=6,memalias,largepage

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

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

254.gap: -Kfast_GP=3,largepage

Standard Performance Evaluation Corporation

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http://www.spec.org



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Notes/Tuning Information (Continued)

```

256.bzip2: Kfast_GP=3,NOFLTLTD=1,use_rodata,staticclump,xi=8,cfunc,memalias,restp,largepage,funcalign=128
300.twolf: -Kfast_GP=5,GREG,popt,cfunc,staticclump,use_rodata,xi=10,nounroll,largepage,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,-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

```

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=512M, 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:

-Xa (base and peak, except where noted) for 176.gcc (base only), 181.mcf, 186.crafty, 197.parser (peak only), 254.gap
-dy (base) for all benchmarks except 252.eon, -dy (peak) for all except 176.gcc, 252.eon, 255. vortex
-DWANT_STD_PROTO for 181.mcf (base and peak), -DCPU2000 for 186.crafty (base and peak),
-DSUN -DCPU2000 for 197.parser (peak)

The flags listed above as "also used" were used for the actual compilation, but they had no effect (-D flags), were the compiler's default (-Xa), or the compiler's default when -Klargepage is used (-dy).

They are not necessary for result reproduction and can be omitted.