



CINT2000 Result

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Fujitsu Limited
PRIMEPOWER400 (600MHz)

SPECint2000 = **424**
SPECint_base2000 = **390**

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
164.gzip	1400	386	363	378	370	
175.vpr	1400	394	355	368	381	
176.gcc	1100	386	285	281	392	
181.mcf	1800	397	453	384	469	
186.crafty	1000	245	409	216	463	
197.parser	1800	450	400	438	411	
252.eon	1300	305	426	286	455	
253.perlbnk	1800	410	439	389	463	
254.gap	1100	521	211	436	252	
255.vortex	1900	316	601	304	626	
256.bzip2	1500	368	408	368	408	
300.twolf	3000	640	469	597	502	

Hardware

CPU: SPARC64 GP
 CPU MHz: 600
 FPU: Integrated
 CPU(s) enabled: 1 core, 1 chip, 1 core/chip
 CPU(s) orderable: 1 to 4
 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: Ethernet

Software

Operating System: Solaris 8 4/01
 Compiler: Fujitsu Parallelnavi 1.0.2
 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
 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)

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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,-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/FJSVpnrmlpg.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.
System board used with only one CPU present.