



CINT2000 Result

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Fujitsu Limited
PRIMEPOWER400 (700MHz)

SPECint2000 = 521
SPECint_base2000 = 448

SPEC license #: 19 Tested by: Fujitsu Limited Test date: Jun-2002 Hardware Avail: Aug-2002 Software Avail: May-2002

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	300 600 900 1200			
164.gzip	1400	345	406	300	467	[Bar chart showing ratio 467]			
175.vpr	1400	338	414	313	447	[Bar chart showing ratio 447]			
176.gcc	1100	366	301	235	469	[Bar chart showing ratio 469]			
181.mcf	1800	359	501	359	501	[Bar chart showing ratio 501]			
186.crafty	1000	227	441	174	575	[Bar chart showing ratio 575]			
197.parser	1800	389	463	353	510	[Bar chart showing ratio 510]			
252.eon	1300	244	533	220	591	[Bar chart showing ratio 591]			
253.perlbnk	1800	356	506	313	575	[Bar chart showing ratio 575]			
254.gap	1100	409	269	403	273	[Bar chart showing ratio 273]			
255.vortex	1900	278	683	198	960	[Bar chart showing ratio 960]			
256.bzip2	1500	319	470	288	520	[Bar chart showing ratio 520]			
300.twolf	3000	547	548	500	600	[Bar chart showing ratio 600]			

Hardware

CPU: SPARC64 GP
 CPU MHz: 700
 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 2/02 with patches 108434-07 and 108435-07.
 Compiler: Fujitsu Parallelnavi 1.0.2 with patches 911403-01 and 911746-01, Sun ONE Studio 7 with patches 111704-01, 111705-01, 111706-01, 111708-01, 111709-01, 111715-01 and 111716-01, Sun Performance Library 7
 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 Sun ONE Studio 7): -fast -xcrossfile -xtarget=ultra3
 fdo_pre0=rm -rf `pwd`/../feedback.profile `pwd`/SunWS_cache
 PASS1=-xprofile=collect:`pwd`/../feedback
 PASS2=-xprofile=use:`pwd`/../feedback

Peak

(for Sun ONE Studio 7)
 fdo_pre0=rm -rf `pwd`/../feedback.profile `pwd`/SunWS_cache
 PASS1=-xprofile=collect:`pwd`/../feedback
 PASS2=-xprofile=use:`pwd`/../feedback
 164.gzip: -x05 -xtarget=ultra3 -xalias_level=std -W2,-whole -xcrossfile -W2,-Ainline -xprefetch -Wc,-Qgsched-trace_late=1,-Qgsched-spec_load=1 -l12amm
 175.vpr: -fast -xarch=v8plusb -xalias_level=std -xcrossfile -xsfpcnst -xdepend -W2,-whole,-Mt600,-Mr4000 -Wc,-Qeps:enabled=1,-Qeps:do_spec_load=1,-Qeps:rp_filtering_margin=100 -xregs=syst -xprefetch=auto,latx:5.0 -lprism32 -lmopt -lm
 176.gcc: -fast -xtarget=ultra3 -xcrossfile -W2,-whole -Wc,-Qgsched-trace_late=1,-Qgsched-T4 -l12amm



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Notes/Tuning Information (Continued)

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186.crafty: -fast -xtarget=ultra3 -xarch=v8plus -xF -xinline= -xcrossfile -Wc,-Qgsched-spec_load=1,-Qiselect-funcalign=64 -xalias_level=strong -xregs=syst
  -W2,-Ashort_ldst,-Aivel:duplicate_loops -xprefetch=auto,latx:5.0
197.parser: -fast -xarch=v8plusb -xdepend -xprefetch=no%auto -xcrossfile
  -xregs=syst -Wc,-Qgsched-trace_late=1,-Qgsched-T4 -xalias_level=strong
  -Wc,-Qipa:valueprediction -W2,-Ashort_ldst,-Mt5000 -Wc,-Qiselect-funcalign=32 -lprism32
252.eon: -fast -xtarget=ultra3 -xcrossfile -xalias_level=compatible -xsafe=mem
  -Qoption iropt -Mt2000,-xrestrict -Qoption cg -Qgsched-trace_spec_load=1,-Qgsched-trace_late=1
253.perlbnk: -xO5 -xtarget=ultra3 -xarch=v8plusb -xcrossfile -xalias_level=strong
  -xsafe=mem -Wc,-Qgsched-trace_late=1,-Qgsched-T4,-Qgsched-trace_spec_load=1 -Wc,-Qinline_memcpy=32 -Wc,-Qiselect-funcalign=32,-Qicache-chbab=1
  -Wc,-Qiselect-sw_pf_tbl_th=20 -W2,-Adata_access -xprefetch=auto,latx:5.0 -l12amm -dn
255.vortex: -fast -xtarget=ultra3 -xcrossfile -W2,-Aheap,-reroll=1,-Aunroll,-Msl,-Mt600,-Mr13000,-crit
  -Wc,-Qdepgraph-early_cross_call=1 -Wc,-Qiselect-funcalign=32
  -Wc,-Qpeep-Sh0 -xrestrict -xdepend -W2,-Amemopt -l12amm -lprism32
256.bzip2: -fast -xtarget=ultra3 -W2,-whole,-crit -xcrossfile -xalias_level=strong -Wc,-Qiselect-funcalign=32
  -xdepend -xregs=syst -xsfpcnst -Wc,-Qgsched-trace_spec_load=1 -xsafe=mem -l12amm -lprism32

```

(for Parallelnavi 1.0.2):

fdo_pre0=rm -rf `pwd`/*.fbk

PASS1=-Kpg

PASS2=-Kpu=\$(EXEBASE).fbk

181.mcf: basepeak=yes

254.gap: -Kfast_GP=3,popt,eval,cfunc,largepage,xi=10

300.twolf: -Kfast_GP=5,eval,GREG,popt,cfunc,staticclump,use_rodata,xi=10,largepage,bcopy,nounroll,prefetch=4

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=1477846784, shmsys:shminfo_shmmni=1024, shmsys:shminfo_shmseg=1024,shminfo_shmmin=1

(for /etc/opt/FJSVpnm/lpg.conf)

TSS=4G, SHMSEGSIZE=256M

Shell Environments:

LD_LIBRARY_PATH="/usr/lib:/opt/SUNWspro/lib/v8plusb:/opt/SUNWspro/prod/lib/v8plusb:/opt/FSUNf90/lib"

LD_LIBRARY_PATH_64="/usr/lib/64:/opt/SUNWspro/lib/v9:/opt/SUNWspro/prod/lib/v9"

PRISM_HEAP=268435456

PRISM_MODE=2

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.