



CINT2000 Result

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Fujitsu Limited
PRIMEPOWER650 (810MHz)

SPECint2000 = **624**
SPECint_base2000 = **512**

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	
164.gzip	1400	300	467	255	549	
175.vpr	1400	302	463	260	539	
176.gcc	1100	422	261	201	547	
181.mcf	1800	302	595	271	664	
186.crafty	1000	194	516	149	673	
197.parser	1800	333	541	298	604	
252.eon	1300	204	636	184	706	
253.perlbmk	1800	303	594	251	716	
254.gap	1100	343	320	335	328	
255.vortex	1900	235	809	166	1145	
256.bzip2	1500	269	558	246	610	
300.twolf	3000	473	634	439	684	

Hardware

CPU: SPARC64 GP
CPU MHz: 810
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: 36GB SCSI
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 -xsfpconst -xdepend -W2,-whole,-Mt600,-Mr4000 -Wc,-Qeps:enabled=1,-Qeps:do_spec_load=1,-Qeps:rp_filtering_margin=100 -xregs=syst -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,-Ms1,-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: -Kfast_GP=2,GREG,eval,preex,popt,unroll=2,prefetch=4,largepage,preload -x-

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_shmnni=1024, shmsys:shminfo_shmseg=1024,shminfo_shmmin=1

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

TSS=512M, SHMSEGSIZE=256M

Shell Environments:

LD_LIBRARY_PATH="/usr/lib:/opt/FD7/SUNWspro/lib/v8plusb:/opt/FD7/SUNWspro/prod/lib/v8plusb:/opt/FSUNf90/lib"

LD_LIBRARY_PATH_64="/usr/lib/64:/opt/FD7/SUNWspro/lib/v9:/opt/FD7/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.

Small configuration memory system mode used ("4cpu mode", enabled via front panel).

System board used with only one CPU present.