CINT2000 Result

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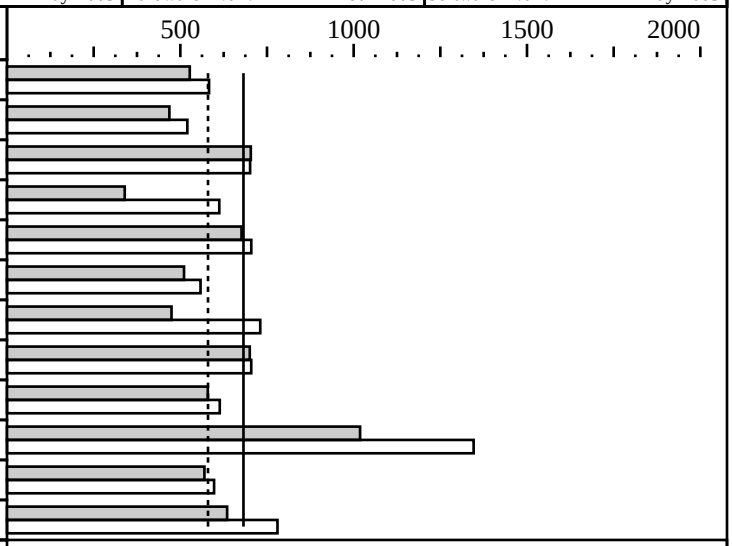
Fujitsu Limited
PRIMEPOWER450 (1100MHz)

SPECint2000 = 682

SPECint_base2000 = 580

SPEC license #: 19 | Tested by: Fujitsu Limited | Test date: May-2003 | Hardware Avail: Jul-2003 | Software Avail: May-2003

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
164.gzip	1400	266	527	240	583
175.vpr	1400	299	468	269	520
176.gcc	1100	156	703	157	701
181.mcf	1800	530	340	294	612
186.crafty	1000	148	677	142	705
197.parser	1800	352	511	322	558
252.eon	1300	274	475	178	731
253.perlbmk	1800	257	700	255	705
254.gap	1100	190	579	179	614
255.vortex	1900	187	1018	141	1346
256.bzip2	1500	263	570	251	597
300.twolf	3000	472	635	385	780



Hardware

CPU:	SPARC64 V
CPU MHz:	1100
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	1 to 4 (increments of 1)
Parallel:	None
Primary Cache:	128KBI+128KBD on chip
Secondary Cache:	1MB(I+D) on chip
L3 Cache:	None
Other Cache:	None
Memory:	8192MB
Disk Subsystem:	1 x 36.4GB SCSI (10000rpm)
Other Hardware:	None

Software

Operating System:	Solaris8 2/02 with current patches (see notes)
Compiler:	Fujitsu Parallelnavi 1.0.2 Sun ONE Studio 8 (EA2 version of Sun ONE Studio 8 used) Sun Performance Library 8
File System:	ufs
System State:	multi user

Notes/Tuning Information

```
Baseline (except 252.eon, for Sun ONE Studio 8 EA2): -fast -xtarget=ultra3cu -xipo=2 ONESTEP=yes
fdo_pre0=rm -rf ./feedback.profile ./SunWS_cache
PASS1=-xprofile=collect:./feedback
PASS2=-xprofile=use:./feedback
(252.eon, for Sun ONE Studio 8 EA2): -fast -xchip=ultra3cu -xarch=v8plusb -xipo=2 ONESTEP=yes
Peak
(for Sun ONE Studio 8 EA2)
   fdo_pre0=rm -rf ./feedback.profile ./SunWS_cache
   PASS1=-xprofile=collect:./feedback
   PASS2=-xprofile=use:./feedback
164.gzip: -xO5 -xchip=ultra2 -xcache=128/64/2:1024/64/2 -xarch=v8plusb -xalias_level=std
    -xipo=2 -xprefetch -xprefetch_level=2 -W2,-whole,-Ainline ONESTEP=yes
175.vpr: -fast -xchip=ultra2 -xcache=128/64/2:1024/64/2 -xarch=v8plusb
    -xalias_level=std -xipo=2 -xsfpconst -xdepend -W2,-whole
   -Wc,-Qeps:enabled=1,-Qeps:do_spec_load=1,-Qeps:rp_filtering_margin=100 -lmopt -lm ONESTEP=yes
176.gcc: -fast -xchip=ultra3 -xcache=128/64/2:1024/64/2 -xarch=v8plusb
   -xipo=2 -xprefetch=latex:2.0 -W2,whole -Wc,-Qgsched-trace_late=1,-Qgsched-T4 -ll2amm ONESTEP=yes
181.mcf: -fast -xchip=ultra2 -xcache=128/64/2:1024/64/2 -xarch=v8plusb
    -xipo=2 -xdepend -Wc,-Qms_pipe-pref,-Qeps:enabled=1 -xprefetch_level=3
    -W2,Apf:llist=3:noinnerllist -lprism32 ONESTEP=yes
```

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Notes/Tuning Information (Continued)

186.crafty: -fast -xchip=ultra3cu -xcache=128/64/2:1024/64/2
-xarch=v8plusb -xipo=2 -xalias_level=strong -xprefetch=latx:1.2
-W2,-Ashort_ldst ONESTEP=yes
197.parser: -fast -xchip=ultra3cu -xcache=128/64/2:1024/64/2 -xarch=v8plusb
-xipo=2 -xalias_level=strong -xdepend -xregs=syst
-Wc,-Qgsched-trace_late=1,-Qgsched-T6,-Qipa:valueprediction -lprism32 ONESTEP=yes
252.eon: -fast -xchip=ultra3 -xcache=128/64/2:1024/64/2 -xarch=v8plusb -xipo=2
-xregs=syst -xalias_level=compatible -noex -xunroll=3 -xprefetch=latx:0.8 -Qoption iropt -Mt2000
-Qoption cg -Qgsched-trace_late=1,-Qgsched-T4,-Qeps:enabled=1,-Qeps:ws=32
-lmopt ONESTEP=yes
253.perlbmk: -dn -xO5 -xchip=ultra3 -xcache=128/64/2:1024/64/2
-xarch=v8plus -xipo=2 ONESTEP=yes
254.gap: -fast -xchip=ultra3 -xcache=128/64/2:1024/64/2
-xarch=v8plusb -xipo=2 -xalias_level=strong -xvector -xprefetch_level=3
-W2,-whole,Abcopy -Wc,-Qgsched-trace_late=1,-Qgsched-T4 ONESTEP=yes
255.vortex: -fast -xchip=ultra2 -xcache=128/64/2:1024/64/2
-xarch=v8plusb -xrestrict -xipo=2 -xdepend -xprefetch=latx:2.4
-W2,-crit,Ainline:recursion=1:cs=500:irs=6000,-Aheap,-reroll=1,-Aunroll,-Ms15,-Mt300,-Mr6000
-Wc,Qeps:enabled=1,-Qeps:do_spec_load=1,-Qdepgraph-early_cross_call=1
-Wc,-Qiselect-funcalign=32,-Qpeep-Sh0 -ll2amm -lprism32 ONESTEP=yes
256.bzip2: -fast -xchip=ultra3 -xcache=128/64/2:1024/64/2
-xarch=v8plusb -xipo -xalias_level=strong -xdepend -xregs=syst
-xrestrict -xprefetch=latx:1.6 -W2,-Abopt -Wc,-Qiselect-funcalign=64,Qeps:enabled ONESTEP=yes
(for Parallelnavi 1.0.2)
300.twolf: -Kfast_GP=5,GREG,popt,cfunc,staticclump,use_rodata,xi=10,nounroll,largepage,bcopy,prefetch=4 -dy
PASS1=-Kpg
PASS2=-Kpu=$(EXEBASE).fbk
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 -DSYS_HAS_IOCTL_PROTO
Note:
System Tunables: (for /etc/system)
consistent_coloring=1,
set shmsys:shminfo_shmmax=2147483648,set shmsys:shminfo_shmmni=256,
set shmsys:shminfo_shmseg=400,set shmsys:shminfo_shmmin=1
set tune_t_fsflushr = 86400
set autoup = 86400
(for /etc/opt/FJSVpnrm/lpg.conf)
TSS=1024M, SHMSEGSIZE=256M
Shell Environments:
LD_LIBRARY_PATH="/opt3/SUNWspro/prod/lib/v8plusb"
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 except 252.eon(base).
Stack size set to unlimited via "ulimit -s unlimited"
Small configuration memory system mode used ("4cpu mode", enabled via system console).
System board used with only one CPU present.
Sun ONE Studio 8 EA2 (Early Access 2), posted at URL http://access1.sun.com/s1sprod/
as updated through 27-Mar-2003, was used for this submission.
Sun ONE Studio 8 (final) will ship May-2003.
All patches for Solaris8 posted at
http://access1.sun.com/patch.public/cgi-bin/show_list.cgi/wrk/Sun_ONE_Studio_7_SPARC_SunOS_5.8

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Notes/Tuning Information (Continued)

as of date 2003/04/21 were applied: 108434-11, 108435-11, 111697-04, 111721-03.