CINT2000 Result

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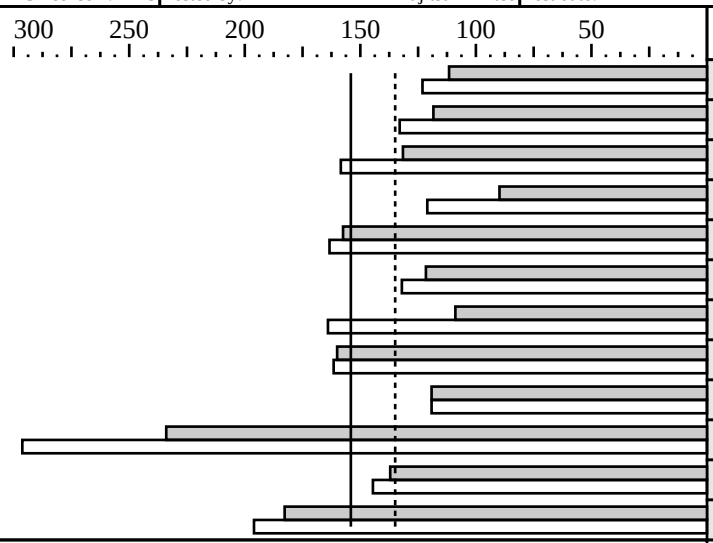
Fujitsu Limited
PRIMEPOWER900 (1350MHz)

SPECint_rate2000 = 154

SPECint_rate_base2000 = 135

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	16	233	112	16	211	123
175.vpr	16	219	118	16	195	133
176.gcc	16	155	132	16	129	158
181.mcf	16	372	89.8	16	276	121
186.crafty	16	118	157	16	114	163
197.parser	16	275	122	16	253	132
252.eon	16	222	109	16	147	164
253.perlbmk	16	209	160	16	207	162
254.gap	16	171	119	16	171	119
255.vortex	16	151	234	16	119	296
256.bzip2	16	203	137	16	193	145
300.twolf	16	305	183	16	284	196

Hardware

CPU:	SPARC64 V
CPU MHz:	1350
FPU:	Integrated
CPU(s) enabled:	16 cores, 16 chips, 1 core/chip
CPU(s) orderable:	1 to 16 (increments of 1)
Parallel:	None
Primary Cache:	128KBI+128KBD on chip
Secondary Cache:	2MB(I+D) on chip
L3 Cache:	None
Other Cache:	None
Memory:	32768MB
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=128/64/2:2048/64/4 -xarch=v8plusb -xipo=2
    -xalias_level=std -xprefetch -xprefetch_level=2 -W2,-whole,-Ainline ONESTEP=yes
175.vpr: -fast -xchip=ultra2 -xcache=128/64/2:2048/64/4 -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=128/64/2:2048/64/4 -xarch=v8plusb
    -xipo=2 -xprefetch=latx:2.0 -W2,whole
```

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Notes/Tuning Information (Continued)

```
    -Wc,-Qgsched-trace_late=1,-Qgsched-T4 -ll2amm ONESTEP=yes
181.mcf: -fast -xchip=ultra2 -xcache=128/64/2:2048/64/4 -xarch=v8plusb
    -xipo=2 -xdepend -Wc,-Qms_pipe-pref,-Qeps:enabled=1 -xprefetch_level=3
    -W2,-Apf:llist=3:noinnerllist -lprism32 ONESTEP=yes
186.crafty: -fast -xchip=ultra3cu -xcache=128/64/2:2048/64/4
    -xarch=v8plusb -xipo=2 -xalias_level=strong -xprefetch=latx:1.2
    -W2,-Ashort_ldst ONESTEP=yes
197.parser: -fast -xchip=ultra3cu -xcache=128/64/2:2048/64/4 -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=128/64/2:2048/64/4 -xarch=v8plusb -xipo=2
    -xregs=syst -xalias_level=compatible -noex -xunroll=3 -xprefetch=latx:0.8
    -Qoption cg -Qgsched-trace_late=1,-Qgsched-T4,-Qeps:enabled=1,-Qeps:ws=32
    -Qoption iropt -Mt2000 -lmopt ONESTEP=yes
253.perlbmk: -dn -xO5 -xchip=ultra3 -xcache=128/64/2:2048/64/4
    -xarch=v8plus -xipo=2 ONESTEP=yes
254.gap: basepeak=yes
255.vortex: -fast -xchip=ultra2 -xcache=128/64/2:2048/64/4
    -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=128/64/2:2048/64/4
    -xarch=v8plusb -xipo -xalias_level=strong -xdepend -xregs=syst
    -xrestrict -xprefetch=latx:1.6 -W2,-Abopt
    -Wc,-Qiselect-funcalign=64,-Qeps:enabled=1 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=8589934592,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=4096M, 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"
Sun ONE Studio 8 EA2 (Early Access 2), posted at URL http://access1.sun.com/s1sprod/
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Notes/Tuning Information (Continued)

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
as of date 2003/04/21 were applied: 108434-11, 108435-11, 111697-04, 111721-03.
PPAR(Physical PARtitioning) configuration