CINT2000 Result

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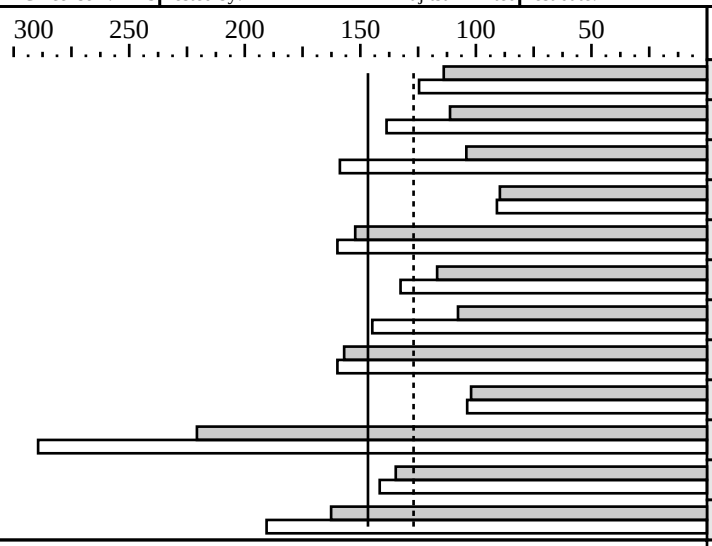
Fujitsu Limited
PRIMEPOWER900 (1350MHz)

SPECint_rate2000 = 147

SPECint_rate_base2000 = 127

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	16	228	114	16	209	125
175.vpr	16	234	111	16	187	139
176.gcc	16	196	104	16	129	159
181.mcf	16	373	89.6	16	368	90.9
186.crafty	16	122	152	16	116	160
197.parser	16	286	117	16	252	133
252.eon	16	224	108	16	167	145
253.perlbmk	16	213	157	16	209	160
254.gap	16	200	102	16	197	104
255.vortex	16	160	221	16	122	289
256.bzip2	16	207	135	16	197	142
300.twolf	16	342	163	16	292	191

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:	64GB
Disk Subsystem:	1 x 36.4GB SCSI (10000rpm)
Other Hardware:	System with one PPAR, see Notes

Software

Operating System:	Solaris8 2/02 with current patches (see notes)
Compiler:	Fujitsu Parallelnavi 1.0.2 Sun ONE Studio 7 with current patches (see notes) Sun Performance Library 7
File System:	ufs
System State:	multi user

Notes/Tuning Information

```
Baseline (except 252.eon, for Sun ONE Studio 7): -fast -xtarget=ultra3 -xcrossfile
fdo_pre0=rm -rf ‘pwd‘/../feedback.profile ‘pwd‘/SunWS_cache
PASS1=-xprofile=collect:‘pwd‘/../feedback
PASS2=-xprofile=use:‘pwd‘/../feedback
(252.eon, for Sun ONE Studio 7): -fast -xchip=ultra3 -xarch=v8plus -xcrossfile
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: -xO5 -xchip=ultra3cu -xcache=128/64/2:2048/64/4 -xarch=v8plusb -xalias_level=std
    -W2,-whole -xcrossfile -W2,-Ainline -xprefetch -xprefetch_level=2
175.vpr: -fast -xchip=ultra2 -xcache=128/64/2:2048/64/4 -xarch=v8plusb
    -xalias_level=std -xipo=1 -xsfpconst -xdepend -W2,-whole
    -Wc,-Qeps:enabled=1,-Qeps:do_spec_load=1,-Qeps:rp_filtering_margin=100
176.gcc: -fast -xchip=ultra3 -xcache=128/64/2:2048/64/4 -xarch=v8plusb
    -xcrossfile -W2,-whole -Wc,-Qgsched-trace_late=1,-Qgsched-T4 -xprefetch -ll2amm
181.mcf: -fast -xchip=ultra3 -xcache=128/64/2:2048/64/4 -xarch=v8plusb
    -xcrossfile -xprefetch -xdepend -Wc,-Qms_pipe-pref,-Qlp=1-fa=1-av=256-t=2-fl=1
186.crafty: -fast -xchip=ultra3cu -xcache=128/64/2:2048/64/4
```

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Notes/Tuning Information (Continued)

-xarch=v8plusb -xinline=%auto -Wc,-Qgsched-trace_late=1,-Qgsched-T4
-xalias_level=strong -xregs=syst -W2,-Ashort_ldst,-Aivel:duplicate_loops -xipo=1
197.parser: -fast -xchip=ultra3cu -xcache=128/64/2:2048/64/4 -xarch=v8plusb
-xdepend -xcrossfile -xregs=syst -Wc,-Qgsched-trace_late=1,-Qgsched-T4
-xalias_level=strong -Wc,-Qipa:valueprediction -lprism32
252.eon: -fast -xchip=ultra3 -xcache=128/64/2:2048/64/4 -xarch=v8plus
-xcrossfile -xregs=syst -xsafe=mem -Qoption iropt -Mt2000 -Qoption cg
-Qgsched -trace_late=1,-Qgsched-trace_spec_load=1,-Qgsched-T4
-xunroll=3 -lmopt
253.perlbmk: -dn -xO5 -xchip=ultra3 -xcache=128/64/2:2048/64/2
-xarch=v8plus -xcrossfile
254.gap: -fast -xchip=ultra3cu -xcache=128/64/2:2048/64/4
-xarch=v8plusb -xcrossfile -xalias_level=std -xprefetch
-W2,-whole -Wc,-Qgsched-trace_late=1,-Qgsched-T4
255.vortex: -fast -xchip=ultra3 -xcache=128/64/2:2048/64/4
-xarch=v8plusb -Wc,-Qeps:enabled=1,-Qeps:do_spec_load=1
-W2,-Aheap,-reroll=1,-Aunroll,-Ms15,-Mt300,-Mr6000,-crit
-Wc,-Qdepgraph-early_cross_call=1 -Wc,-Qiselect-funcalign=64
-Wc,-Qpeep-Sh0 -xrestrict -xdepend -xcrossfile -ll2amm -lprism32
256.bzip2: -fast -xchip=ultra3 -xcache=128/64/2:2048/64/4
-xarch=v8plusb -W2,-Abopt -xcrossfile -xalias_level=strong
-Wc,-Qiselect-funcalign=64 -xdepend -xregs=syst -xsafe=mem
(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,
shmsys:shminfo_shmmax=8589934592, shmsys:shminfo_shmmni=256,
shmsys:shminfo_shmseg=400,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="/opt/SUNWspro/prod/lib/v8plusb"
PRISM_HEAP=268435456
PRISM_MODE=2
ONESTEP=yes was set for all baseline and peak benchmarks.
Feedback directed optimization (FDO) was used for all baseline and peak benchmarks except 252.eon(base).
Stack size set to unlimited via "ulimit -s unlimited"
All patches of Sun ONE Studio 7 posted at URL http://access1.sun.com/sundev/s1s7-patches.html
as of date 2003/02/21 were applied: 111704-06, 111706-04, 111709-02, 111715-04, 111718-01
111705-03, 111708-03, 111714-04, 111716-02, 111723-02
All patches for Sun_ONE_Studio_7_SPARC_SunOS_5.8 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 2003/02/21 were applied: 108434-10, 108435-10, 111697-04, 111721-02
System configured at installation time in PPAR(Physical PARtitioning) mode.
One partition used, extending over the whole system.

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Notes/Tuning Information (Continued)

8 CPUs and 32 GB installed on each of the two system boards.