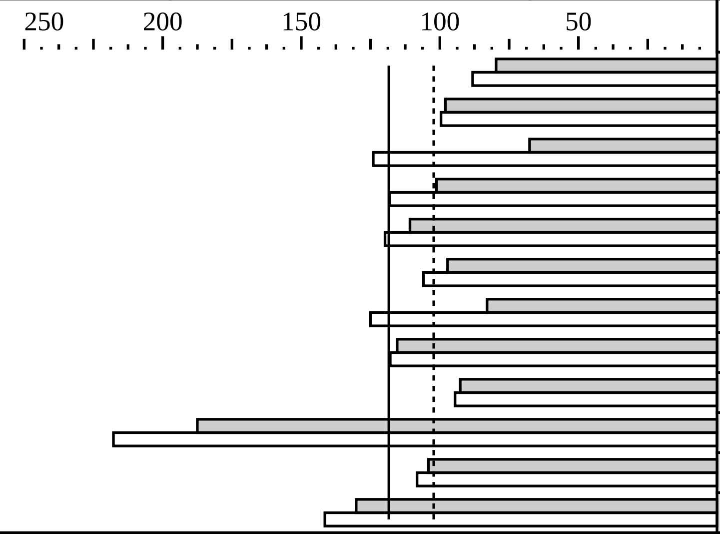
CINT2000 Result

Fujitsu Limited
PRIMEPOWER850 (1890MHz)

SPECint_rate2000 = 118
SPECint_rate_base2000 = 102

SPEC license #:	19	Tested by:	Fujitsu Limited	Test date:	May-2004	Hardware Avail:	Aug-2004	Software Avail:	Apr-2004



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	8	163	79.7	8	147	88.2
175.vpr	8	133	98.0	8	130	99.6
176.gcc	8	151	67.6	8	82.3	124
181.mcf	8	165	101	8	141	118
186.crafty	8	83.8	111	8	77.5	120
197.parser	8	172	97.2	8	158	106
252.eon	8	145	83.0	8	96.5	125
253.perlbmk	8	145	115	8	142	118
254.gap	8	110	92.6	8	108	94.5
255.vortex	8	94.0	188	8	81.0	218
256.bzip2	8	134	104	8	129	108
300.twolf	8	214	130	8	197	141

Hardware

CPU:	SPARC64 V
CPU MHz:	1890
FPU:	Integrated
CPU(s) enabled:	8 cores, 8 chips, 1 core/chip
CPU(s) orderable:	1 to 16 (increments of 1)
Parallel:	None
Primary Cache:	128KBI + 128KBD on chip
Secondary Cache:	3MB(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:	Solaris 9 4/04
Compiler:	Fujitsu Parallelnavi 2.3 with patch 913287-01 Sun Studio 8 Sun Performance Library 8
File System:	ufs
System State:	multi user

Notes/Tuning Information

```
FDO: (for Parallelnavi 2.3)
fdo_pre0=rm -rf ‘pwd‘/*.f.d
PASS1=-Kpg
PASS2=-Kpu=$(EXEBASE).fbk
FDO: (for Sun Studio 8)
fdo_pre0=rm -rf ./feedback.profile ./SunWS_cache
PASS1=-xprofile=collect:./feedback
PASS2=-xprofile=use:./feedback

Integer base flags:
(using C compiler of Sun Studio 8)
   -fast -xtarget=ultra3cu -xipo=2 ONESTEP=yes FDO
(using C++ compiler of Sun Studio 8)
   -fast -xchip=ultra3cu -xarch=v8plusb -xipo=2 ONESTEP=yes

Integer peak flags:
(using C compiler of Parallelnavi 2.3)
300.twolf:    -Kfast_GP2=3,GREG,eval,preex,cfunc -O3 ONESTEP=yes FDO
```

Notes/Tuning Information (Continued)

```
(using C compiler of Sun Studio 8)
164.gzip:      -xO5 -xarch=v8plusb -xchip=ultra2 -xcache=128/64/2:4096/64/4
               -xalias_level=std -xipo=2 -xprefetch -W2,-whole,-Ainline
               -Wc,-Qiselect-funcalign=64 ONESTEP=yes FDO
175.vpr:       -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
               -xalias_level=std -xchip=ultra -xipo=2 -xprefetch=latx:1.6
               -xsfpconst -W2,-whole -Wc,-Qeps:do_spec_load=1,
               -Qeps:enabled=1,-Qeps:rp_filtering_margin=100,
               -Qiselect-funcalign=64 -lmopt -lm ONESTEP=yes FDO
176.gcc:       -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
               -xipo=2 -W2,-whole -Wc,-Qgsched-T4,-Qgsched-trace_late=1,
               -Qiselect-funcalign=64 -ll2amm ONESTEP=yes FDO
181.mcf:       -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
               -xipo=2 -xprefetch_level=3 -W2,-Apf:llist=3:noinnerllist
               -Wc,-Qeps:enabled=1 ONESTEP=yes FDO
186.crafty:    -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
               -xalias_level=strong -xipo=2 -xpagesize=512K -W2,-Ashort_ldst
               ONESTEP=yes FDO
197.parser:    -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
               -xalias_level=strong -xipo=2 -xregs=syst
               -Wc,-Qgsched-T6,-Qgsched-trace_late=1,
               -Qipa:valueprediction,-Qiselect-funcalign=64
               ONESTEP=yes FDO
253.perlbmk:   -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
               -xipo=2 -xalias_level=std -Wc,-Qeps:enabled=1,
               -Qiselect-funcalign=64 ONESTEP=yes FDO
254.gap:       -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
               -xalias_level=strong -xipo=2 -xprefetch_level=3
               -xprefetch=latx:2.0 -xvector -W2,-Abcopy
               -Wc,-Qiselect-funcalign=64 ONESTEP=yes FDO
255.vortex:    -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
               -xchip=ultra -xipo=2 -xrestrict -xprefetch=latx:1.6
               -W2,-Aheap,-Ainline:recursion=1:cs=500:irs=6000,-Aunroll,-crit,
               -Ms15,-Mt300,-Mr6000,-reroll=1 -Wc,-Qdepgraph-early_cross_call=1,
               -Qeps:do_spec_load=1,-Qeps:enabled=1,-Qiselect-funcalign=64,
               -Qpeep-Sh0 -ll2amm ONESTEP=yes FDO
256.bzip2:     -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
               -xipo -xalias_level=strong -xregs=syst -xrestrict
               -xprefetch=latx:1.8 -W2,-Abopt -Wc,-Qiselect-funcalign=64,
               -Qeps:enabled ONESTEP=yes FDO

(using C++ compiler of Sun Studio 8)
252.eon:       -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
               -noex -xalias_level=compatible -xipo=2 -xregs=syst -xunroll=3
               -Qoption cg -Qeps:enabled=1,-Qeps:ws=32,-Qgsched-T4,
               -Qgsched-trace_late=1,-Qiselect-funcalign=64
               -Qoption iropt -Mt2000 -lmopt ONESTEP=yes FDO

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
```

Notes/Tuning Information (Continued)

```
System Tunables:
(for /etc/system)
      set consistent_coloring=1
      set tune_t_fsflushr=86400
      set autoup=86400
      set memscrub_period_sec=172800

Shell Environments:
      Stack size set to unlimited via "ulimit -s unlimited"
      MPSSHEAP=4M
      MPSSSTACK=4M
      LD_PRELOAD=mpss.so.1

Processes were bound to CPUs using "submit=pbind".

Extended Interleave Mode enabled.

4 CPUs each on 2 system board. Unused CPUs have physically removed.

Sun Studio 8, posted at URL http://wwws.sun.com/software/products/studio/
was used for this submission.

This result was measured on model PRIMEPOWER900.
Model PRIMEPOWER850 and model PRIMEPOWER900 are electronically equivalent.
```