Serial Shell, MSPSim, COOJA

Marcus Lundén Research Intern WSN, ASL, QCAT, CSIRO

Serial Shell

Interact through text commands

UNIX-style shell

Pipe,

```
Starting 'Blink Process'
1.0: Contiki>
Available commands:
?: shows this help
binprint: print binary data in decimal format
bt: Report workload
echo <text>: print <text>
exit: exit shell
hd: print binary data in hexadecimal format
help: shows this help
kill <command>: stop a specific command
killall: stop all running commands
null: discard input
ps: list all running processes
quit: exit shell
size: print the size of the input
ut: Print network statistics
1.0: Contiki>
Data sink ETX: 3.4
Neighbor table----
Adrs 2.0, ETX 1.4, last seen 24s ago.
Adrs 5.0, ETX 1.9, last seen 67s ago.
1.0: Contiki>
Jptime: 3-19:23:11
Currently at 1.02% radio duty cycle.
CPU LPM: 0.5%
1.0: Contiki>
```

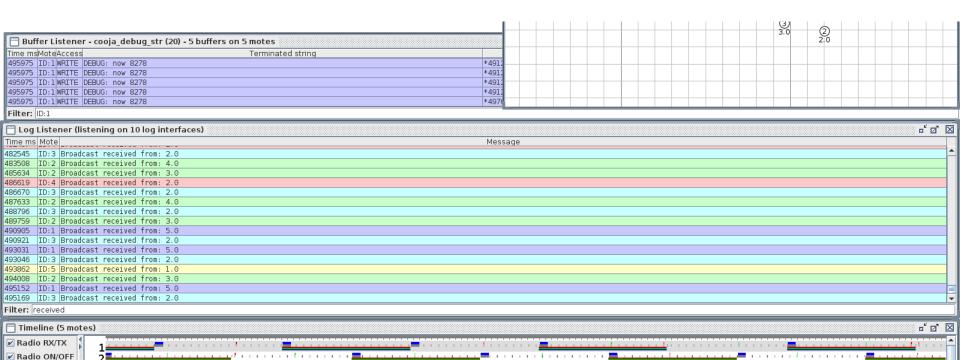
MSPSim

Main author: Joakim Eriksson, SICS
MSP430, MSP430x, ...
GUI and CLI

```
----- Interrupt vector 6 start execution -----
[ <mark>6] Call to $6cb0: rtimer_run_next (../..</mark>//core/sys/rtimer.c)
      Call to $573e: powercycle (local in ../../core/net/mac/contikimac.c)
        Call to $5674: on (local in ../../core/net/mac/contikimac.c)
 6]
          Call to $8848: cc2420 on (../../core/dev/cc2420.c)
            Call to $8346: on (local in ../../core/dev/cc2420.c)
 6]
            return from on (local in ../..//core/dev/cc2420.c) elapsed: 127 maxStackUsage: 0
 6]
 6]
            Call to $8554: RELEASE LOCK (local in ../../core/dev/cc2420.c)
            return from RELEASE LOCK (local in ../../core/dev/cc2420.c) elapsed: 27 maxStackUsage: 0
          return from cc2420 on (../../core/dev/cc2420.c) elapsed: 182 maxStackUsage: 0
        return from on (local in ../../core/net/mac/contikimac.c) elapsed: 206 maxStackUsage: 0
        Call to $8ale: cc2420 cca (local in ../../core/dev/cc2420.c)
          Call to $8554: RELEASE LOCK (local in ../../core/dev/cc2420.c)
          return from RELEASE_LOCK (local in ../..//core/dev/cc2420.c) elapsed: 27 maxStackUsage: 0
        return from cc2420_cca (local in ../..//core/dev/cc2420.c) elapsed: 1213 maxStackUsage: 0
        Call to $56b0: powercycle turn radio off (local in ../../core/net/mac/contikimac.c)
6]
          Call to $568a: off (local in ../..//core/net/mac/contikimac.c)
 6]
            Call to $89d4: cc2420 off (../..//core/dev/cc2420.c)
              Call to $84e4: off (local in ../../core/dev/cc2420.c)
                Call to $8476: flushrx (local in ../../core/dev/cc2420.c)
 6]
                  Call to $8fbe: clock delay (../../cpu/msp430/./clock.c)
                  return from clock delay (../../cpu/msp430/./clock.c) elapsed: 8 maxStackUsage: 0
                return from flushrx (local in ../..//core/dev/cc2420.c) elapsed: 200 maxStackUsage: 0
              return from off (local in ../../core/dev/cc2420.c) elapsed: 350 maxStackUsage: 0
              Call to $8554: RELEASE_LOCK (local in ../..//core/dev/cc2420.c)
              return from RELEASE LOCK (local in ../..//core/dev/cc2420.c) elapsed: 27 maxStackUsage: 0
```

COOJA

Main author: Fredrik Österlind, SICS
Network simulator
MSPSim



✓ LEDs