Profiler Demo

# Overview

This demonstration uses the profiler to evaluate the execution time use of an application built on the run to completion scheduler. That application flashes LEDs 1, 2 and 3 at different frequencies, and also displays elapsed time on the LCD. LED6 lights whenever the tick timer ISR is running. It can instead be configured to light whenever the MCU is executing task code.

# Comments and Suggestions

* The sampling frequency for the profiler is chosen to be different from the RTC scheduler’s tick frequency in order to prevent sampling errors from synchronization between the two.
* Insert breakpoints in the tasks, scheduler and ISR for debugging purposes.
* Enable a power saving mode (stop or halt) when the processor is idle and see how the data from profiling changes.
* If an unknown function (e.g. library function) is dominating execution time, examine it by putting a breakpoint at its end and seeing to which function it returns. It may be necessary to temporarily disable this breakpoint until the program finishes initialization.

# Sequence

