ChibiOS/RT is a free and efficient RTOS designed for deeply embedded applications. It offers a comprehensive set of kernel primitives and supports many architectures: ARM7, Cortex-M0, Cortex-M3, Cortex-M4, PowerPC e200z, STM8, AVR, MSP430, ColdFire, H8S, x86.

Download here.

Features

- Tiny memory footprint, high performance, easily portable, clean and readable.

- Preemptive kernel, 128 priority levels, reliable static architecture.

- Kernel support for Semaphores, Mutexes, CondVars, Messages, Event Flags, Mailboxes, Virtual Timers.

- IRQ abstraction, support for non-OS fast IRQ sources (zero latency buzzword).

- Support for ARM, ARM-CM0, ARM-CM3, ARM-CM4, PowerPC, STM8, MSP430, AVR, ColdFire, H8S, Linux/Win32/MacOS simulators.

- HAL component makes applications portable across the supported platforms.

- HAL support for Port, Serial, ADC, CAN, DAC, EXT, GPT, I2C, I2S, ICU, MAC, MMC, PWM, RTC, SDC, SPI, UART, USB, WDG device driver models.

- Support for the uIP and lwIP TCP/IP stacks (demo included).

- Support for the FatFS file system library (demo included).