Topic 3: Real Time Operation System (RTOS): A hands on approach

Abstract

A real-time operating system (RTOS) is an operating system (OS) intended to serve real-time applications that process data as it comes in, typically less than tenths of seconds or shorter increments of time. They either are event driven or time sharing. Event driven systems switch between tasks based on their priorities while time sharing systems switch the task based on clock interrupts. Most RTOSs use a pre-emptive scheduling algorithm. RTOS are found in critical system as critical process controls, aviation and others. This talk provides an overview of a RTOS architecture. It uses a ARM32 board to demonstrate application design, development and debugging.