

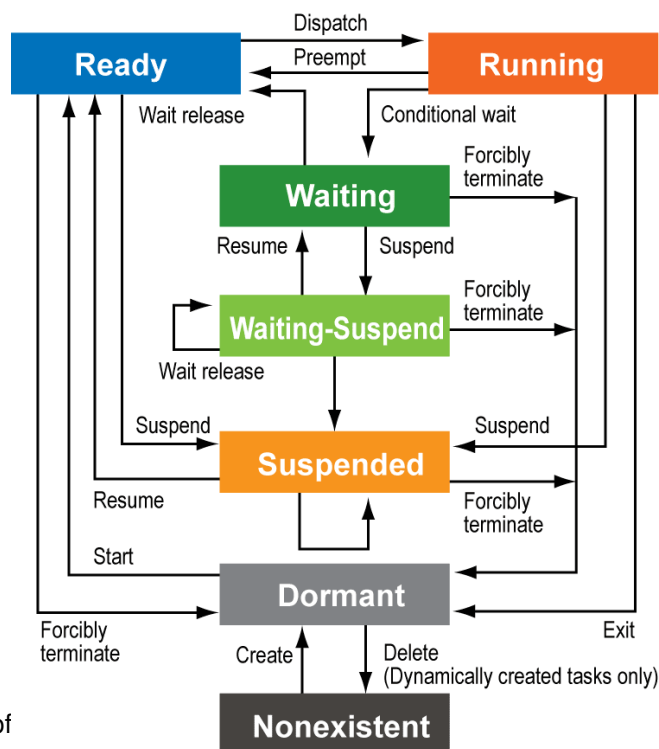
Advanced Real Time Kernel

Product Overview

PrKERNELv4 is a fully preemptive and deterministic kernel, targeting market-leading 32-bit RISC processors. PrKERNELv4 comes with the functions of a fully "preemptive kernel" which enables true real-time operation. The system is completely configurable by the user, so unused functions will not be included in the application. The preemptive kernel prevents priority inversion of service calls and improves response time. Our meticulous proprietary designs, such as the "system trace" function for debugging, are key value-added features that build on standard OS designs.

Key Features

- ❑ Preemptive kernel
- ❑ Reentrant design
- ❑ Compact and scalable
 - Small footprint
 - User configurable
- ❑ High performance
 - Very low interrupt latency
- ❑ Advanced RTOS features
 - Priority inversion protection
 - Mutex support
 - Variable-sized memory pool
 - Alarm handler
 - Dynamic kernel object generation
- ❑ Includes diagnostic utilities
 - Monitors the state of kernel objects
 - System trace
- ❑ Many system services can be activated from interrupt service routines
- ❑ Completely ROMable
- ❑ Supports CPU-specific functions
- ❑ μ ITRONv4 compliant
 - Supports "standard" and "extended" prof
- ❑ Complete source code provided



μ ITRON

The μ ITRON specification establishes a common operating system standard and environment. The specification has been designed to allow the user to create multitasking applications that are compatible across architectures and systems that support the μ ITRON specification. Function calls found in the μ ITRON specification will work in the same manner from implementation to implementation regardless of how the underlying system operates.

Memory Usage

PrKERNELv4 requires very little memory. The table "Memory Usage" illustrates well how compact the PrKERNEL implementation is on many 32-bit RISC architectures.

Processors Supported

- ARM7/9/10/11 & MPCore, Freescale DragonBall iMX/L, Renesas SH 3/4, SH3-DSP, Texas Instruments TMS320DM320/35x/644x
- Supported Compilers: RVCT (ARM), GCC (SH)
- Many Board Support Packages are available

