Introduction

VxWorks developed by Wind River System, is a networked real time System, designed to be used in distributed environment.

It requires a host work station for program development.

VxWorks used in combination like VxWorks and Unix or VxWorks and Windows.

VxWorks handles the critical real time chores, while the host machine is used for program development and for applications that are not time critical.

Basic Operating System

- VxWorks kernel **"wind"** includes both POSIX interfaces and interfaces specially for VxWorks.
- **Task:** Applications are organized into independent, though cooperating, programs, each of these programs, while executing, is called ***task.*** (Multitasking is carried out).
- **Task's Context:**

  (A) A thread of execution, which is task's program counter

  (B) The CPU registers and floating point registers.

  (C) A stack for dynamic variables and function calls.

  (D) I/O assignments for standard input, output, and error.

  (E) A delay timer, timer slice timer, Kernel control structures.

Basic Operating System Cont.

Task State Transition:

- Upon creation, task enters suspended state.
- Activation is necessary for the task to enter ready state.
- Task can be deleted from any state.