# RHD362 Red Hat Linux Kernel Internals II: Device Driver

# Course Summary

### Description

RHD362 teaches experienced programmers how to develop device drivers specifically for Linux systems. By the end of this course, you will understand the Linux architecture, hardware and memory management, modularization, and the layout of the kernel source. You also will have practiced key concepts and skills for the development of character, block, and network drivers.

### Topics

- Device Driver Basics
- udev
- Writing to a Device
- /proc Entries
- Module Parameters and /sys
- Module Dependencies
- Licensing
- Dynamic Module Loading
- ioctl
- mmap
- DMA and Asynchronous Transfers

- Interrupts
- HAL
- Locking
- Driver Updates
- Driver Packaging
- Power Management
- User Space Drivers
- Contributing to the Entropy Pool
- PCI
- Block Devices
- Network Devices

### Audience

This course is designed for experienced C programmers with a good understanding of the Linux kernel who want to learn how to develop device drivers for Linux systems.

### Prerequisites

- Experience in C programming
- RHD143 Red Hat Linux Programming Essentials course or equivalent experience

### Duration

Five days