

Other Information	
RHD221	
Days	5
Starting Time	9:00
Finish Time	4:30
Lunch & refreshments are included with this course.	

Red Hat Linux Device Drivers

Introduction

RHD221 Red Hat Linux Device Drivers is designed to teach experienced programmers how to develop device drivers for Linux systems. Upon completion of the course, students will understand the Linux architecture, hardware and memory management, modularization, and the layout of the kernel source, and will have practiced key concepts and skills for development of character, block, and network drivers.

Goal

Build concepts and skills in kernel essentials and to build practical skills in developing device drivers for various types of hardware.

Audience

Developers of hardware device drivers who need to ramp up quickly on how to develop drivers for Linux.

Prerequisites

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

Course Objectives

- How device drivers work with the Linux Kernel
- How to configure and install the kernel
- Compiling and loading a module and exporting symbols
- Working with character and block device drivers
- Memory Management
- IOCTLs
- Data Transfer Between User and Kernel Space
- Memory Management
- Tracing and Debugging
- Time Management, Wait and Task Queues
- Dealing with I/O ports and Interrupts
- Accessing PCI hardware
- Network drivers
- SMP issues
- Virtual File System and the ext2/ext3 filesystems