

**Course Description:** Red Hat Linux continues to enjoy an ever-expanding role in providing enterprise-level solutions. As companies migrate from proprietary to open source platforms, technical staff must leverage their existing expertise by learning the tools and techniques of the world of open source. Red Hat's RHD256 course provides a succinct introduction to new application development, as well as providing insight into porting existing applications, into the Red Hat Linux environment.

**Who Should Attend:** RHD256 allows an experienced programmer, who is already familiar with development on a proprietary UNIX-like system such as Sun Solaris, SGI IRIX, or Hewlett-Packard HP-UX or another Linux distribution, to gain equivalent skills for the Linux environment in a timely manner. The combination of lecture and hands-on lab exercises is designed to illustrate the unique features of Red Hat Linux development and provide contrasts with proprietary systems.

**Prerequisites:** Application development skills on any UNIX-like platform, including proprietary offerings and other Linux distributions. Attendees are expected to be familiar with common shells and command line utilities such as the C compiler, a linker utility, and the make(1) program.

**Benefits of Attendance:** Upon completion of this course, students will be able to:

- Compile and debug application programs using the GNU Compiler Collection and DDD.
- Understand how commonly-used enterprise file systems affect the application development effort.
- Write, install, and control system services.
- Understand how Linux multithreaded applications are built.
- Use the "/proc" filesystem to obtain system information.
- Debug, trace and optimize software for better speed and memory usage.

## Course Outline:

### Open Source Vs. The Proprietary Model

### The Common Open Source Software Licenses & How They Affect Software Development Strategy

### Components Of The Red Hat Linux Development Environment

### Packaging Software With RPM And TAR

### The CVS And Subversion Version Control Systems

### Functional Differences Between Linux Command-line Tools & Proprietary-system Counterparts.

### Using Red Hat Linux System Libraries, And Creating Your Own Libraries

### Issues To Be Concerned With When Porting Applications To Red Hat Linux

### Linux Security Features Such As PAM And OpenSSH

### Advanced Linux Features, Such As Asynchronous I/O

### Building Software With Autoconf

### The Eclipse Integrated Development Environment