

# Understanding Linux (Linux Primer)

Learn via: **Classroom / Virtual Classroom / Online**

Duration: **1 Day**

## **Overview**

Many institutions have been adding a Linux machine to their existing infrastructure: perhaps to give developers a platform of their choice, or to provide an alternative to a network server, or to introduce an additional piece to the security jigsaw.

## **Prerequisites**

- Typically, delegate skills will include a good appreciation of operating system principles, and familiarity with computer structure and design.

## **Who Should Attend**

This 1-day event is targeted at people that are considering the transfer of their computer skills from variety of operating systems to Linux.

The course is also suitable as a high-level overview of Linux for decision makers, system analysts and other professionals trying to position Linux in the contemporary computer industry.

## **What You Will Learn**

At the end of this course you will be able to:

- Place Linux in the server and desktop IT market
- Understand origins of Linux and role of Linux distributors
- Describe open source development model
- Discuss the platforms and hardware supported by Linux kernel
- Interrogate and manipulate Linux processes
- Perform simple instructions at both graphical and command line interfaces
- Understand the client/server nature of X Window System and X applications
- Appreciate the power of Linux data manipulation tools and techniques
- Use redirection and piping techniques
- Use basic network communication tools
- Obtain on-line help for commands and configuration
- Be aware of other sources of help - community, magazines, books, LUGs

## **Outline**

### **Introduction**

- Linux? Why?
- Unix Market and place for Linux within it
- OSS (Open Source Software) principles
- GNU GPL and Linux philosophy
- Linux distributors

### **A Session with Linux**

- Character interface
- Working with the command line
- Examples of simple commands
- The X Windows system; Graphical interface
- Linux Windows Managers
- Login procedure

## **Hardware and Architecture**

- Types of platforms Linux will run on
- Minimum hardware requirements; Supported devices
- Motherboards, disks, video cards, printers, mouse
- Ethernet cards and modems; Laptops specifics
- Linux kernel and system architecture
- Configuring the kernel; Dynamic loading of kernel modules

## **Processes and Memory Management**

- Processes
- Types of process
- Scheduling
- Interprocess communication
- Memory handling
- System initialisation

## **Tools and Utilities**

- Principles of Linux tools
- System examination utilities
- Common data utilities
- Redirection
- Pipes

## **Linux in a TCP/IP Network**

- Internet and Linux
- TCP/IP as the network protocol
- TCP/IP interrogation tools
- User commands
- Linux as a network server

## **Linux and Applications**

- DOS Utilities within Linux
- Unix Market and place for Linux within it
- Software Emulators
- Linux Databases
- End-user applications
- Inter-operability with other operating systems
- Open Software projects and initiatives

## **Getting Help**

- On-Line manual pages
- Gnome Help Browser
- Exploring the system
- Locating documentation; on-line FAQ files
- Getting help on the Internet
- Distributor sites
- Magazines, books