

# Introduction to Linux

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## What you will receive

- Introduction to Linux v2.0 course kit
- Current Linux distribution: SLES 10
- Professional Instructor-led training from Linux Professionals

## What you will learn

- All the key core elements of the Linux operating system – installation, package management, X Windows, application management, and more.

## Who should attend?

- Anyone interested in gaining a greater understanding of Linux
- Anyone responsible for providing basic installation, operation, and troubleshooting services on Linux workstations and servers
- Microsoft professionals seeking to add Linux expertise

## Suggested Course Length

- 2 days

## Course outline

### Linux Overview

- Describe the history of Linux
- Describe the Free Software Model
- Describe the General Public License (GPL)
- List the different programming, hardware, and software features of Linux
- List the benefits and limitations of Linux

- Identify the major Linux distributions
- Describe various Linux standards
- Describe the Linux Documentation Project
- Identify Linux system administration tasks

### Installing a Linux Workstation

- Identify the type of system, hardware, and network settings necessary for Linux installation
- Describe the need for pre-installation procedures
- Identify the different types of file systems: ext2fs, ext3fs, ReiserFS, XFS, and JFS
- Describe the procedures for CD-ROM or network installation
- List and describe the different types of boot loaders
- List and describe system initialization, boot sequences, and boot files

### Linux Usage

- Define command line basic procedures
- List common commands
- Describe and use the commands su and sudo
- Describe and perform basic file system tasks
- Locate commands and files
- Describe and use the Linux shell environment (e.g. bash)

### vi

- Identify Linux text editors (e.g. vi)
- Understand and distinguish the three types of modes in vi: command, insert, and execute

- Navigate within a text file using vi commands
- Open, edit, and save documents in vi
- Find/change words using global replacement and regular expressions in vi
- Split screens horizontally and vertically in vi
- Diff files using vimdiff and :diffsplit
- List and navigate buffers

### Getting Help

- Use the uname and hostname command to identify system and host information
- Locate and identify system default files
- Use the man command
- Identify and communicate with active users
- Find files and commands

### Documentation

- Use the man command
- Use the info command
- Identify and locate system documentation
- Identify and use online documentation such as The Linux Documentation Project

### File Systems

- To understand the Linux file system concepts
- Define and identify different file system structures and types
- Describe and mount file systems including MS Windows partitions
- Define and manage disk quotas
- Create different file systems
- Describe the /proc file system

## Files and Directories

- Describe and explain the Linux file system directory structure
- Explain file system concepts
- Identify and explain inodes
- Utilize chown, chgrp, and other file related commands
- Set user and group ID permissions
- Identify and explain sticky bits
- Identify and explain links

## Package Management

- Describe and use package (software) management utilities such as Red Hat's rpm, Debian's dpkg, Slackware's pkgtool, and alien
- Install programs from source
- Use the configure, make, make install commands
- Examine a package file without using a standard package manager