

Getting Started With Linux Self-Study Workbook

This workbook is designed to help you practice the skills associated with Course 3060 (Getting Started With Linux - Novell's Guide to CompTIA's Linux+) objectives outside of a classroom.

Introduction

The skills introduced in this workbook are critical for preparing to perform basic administrative tasks with SUSE LINUX, and are necessary for passing the CompTIA Linux+ certification.

The exercises in this workbook are the same as those included in your *Course 3060 Getting Started with Linux - Novell's Guide to CompTIA's Linux+* manual, but with modifications and notes to help you perform the exercises on a single computer without relying on an instructor SLES 9 server.



If you experience any problems using the SLES 9 VMware Server DVD or the Self-Study Workbook, please email your questions or comments to EDCustomer@novell.com.

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SLES 9 VMware Server Setup Instructions

Before starting the exercises in this workbook, you need to set up a SLES 9 server with the same configuration as that provided in the classroom.

You can follow the steps in Exercise 1-1 to install SLES 9, however this requires dedicating a computer to a SLES 9 installation.

If you want to avoid this, you can use the SLES 9 VMware virtual server da10 provided on the *SLES 9 VMware Server DVD*.

The second virtual server (da1) on the DVD is used in exercises that require a second machine in the second half of the course. All the following information applies to this machine as well.

The following guides you through installing and using the SLES 9 VMware server:

- [Check Setup Prerequisites](#)
- [Install the SLES 9 VMware Server](#)
- [Configure the SLES 9 VMware Server](#)
- [Start the SLES 9 VMware Server](#)
- [VMware Workstation Tips](#)



The SLES 9 VMware server is used for more than one SUSE LINUX course (such as 3037 - SUSE LINUX Administration), and may include installed software packages that are not used in Getting Started with Linux.

If you would like to try using these software packages, feel free to do so. However, they are not supported as part of the Getting Started With Linux Self-Study Workbook experience.

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Check Setup Prerequisites

The following items are required to run the SLES 9 VMware server on your computer:

Table Intro-1

Item	Requirement
Memory	256 MB RAM (minimum)
Hard Drive Space	3.4 GB
DVD-ROM Drive	For reading the SLES 9 Self-Study Server DVD and other CDs required for the exercises.
Software	VMware Workstation 4.5 or later (Windows or Linux)
SLES 9 VMware Server DVD	Contains the SLES 9 VMware Server files

Although you can run the SLES 9 VMware server with 256 MB of RAM, processing time for performing some Linux administration tasks (such as using YaST) can be significantly reduced by increasing memory for the VMware server.

If you do not own a copy of VMware Workstation (or have a version earlier than 4.5), you can download and install a VMware Workstation 4.5 30-day evaluation copy from www.vmware.com.

Install the SLES 9 VMware Server

Once you have VMware Workstation 4.5 installed on your host computer, do the following to install the SLES 9 VMware server:

1. Insert the *SLES 9 VMware Server DVD* in your DVD-ROM drive.

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Install the SLES 9 VMware Server

Once you have VMware Workstation 4.5 installed on your host computer, do the following to install the SLES 9 VMware server:

1. Insert the *SLES 9 VMware Server DVD* in your DVD-ROM drive.

2. Copy the VMware server files on the DVD to a directory on your hard drive. Make sure they are writable for the user running VMWare (and not read-only).

We recommend creating a specific directories (such as **/tmp/vmware/SLES9_da1** or **/temp/vmware/SLES9_da1** and **/tmp/vmware/SLES9_da10** or **/temp/vmware/SLES9_da10**) to store the files. Use a separate directory for each virtual machine.

3. Start VMware Workstation 4.5.
4. Select **File > Open Virtual Machine**.
5. Browse to and open the ***.vmx** file.

The SLES9 VMware server opens in VMware Workstation and is ready to start.

Configure the SLES 9 VMware Server

Before starting the SLES 9 server, do the following:

1. Select **VM > Settings** (or **Edit virtual machine settings**).

A Virtual Machine Settings - SLES9_da10 dialog appears.

From this dialog you can adjust the settings for several devices such as memory, floppy drive, and network adaptor before starting the virtual server.

2. Check the following device settings:
 - **Memory.** This memory setting indicates the amount of memory used by the SLES 9 virtual server on the host computer.

Although you can run the SLES 9 virtual server with 256 MB of memory, we recommend increasing the amount (when possible) to increase the speed of certain administrative tasks (such as starting X Window or using the GUI version of YaST).

2. Copy the VMware server files on the DVD to a directory on your hard drive. Make sure they are writable for the user running VMWare (and not read-only).

We recommend creating a specific directories (such as **/tmp/vmware/SLES9_da1** or **/temp/vmware/SLES9_da1** and **/tmp/vmware/SLES9_da10** or **/temp/vmware/SLES9_da10**) to store the files. Use a separate directory for each virtual machine.

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- ❑ **DVD/CD-ROM.** This is the DVD drive on your host computer, and should be set as a physical drive.

If you are running VMware Workstation on Windows, enter the mapped drive of the DVD drive (such as D:). You can normally select the mapped drive from the drop-down list.

If you are running VMware Workstation on Linux, enter the device name of the DVD drive (such as /dev/hdc). You can normally select the device name from the drop-down list for the Device field.

- ❑ **Floppy Drive.** This is the floppy drive on your host computer.

The default is set to “A:” for a Windows computer. If you are running VMware Workstation on Linux, change the setting to the device for the floppy drive (such as /dev/fd0).

- ❑ **Network Adaptor.** The “NAT” network connection default setting provides a VMware Workstation DHCP server for the SLES 9 server (which is configured to use DHCP).

While you can select another setting (such as “Bridged”), these have not been tested and can cause problems completing some of the exercises.

We recommend keeping the default “NAT” setting.

The rest of the settings should work properly to provide you with the access you need to devices for USB, sound, and mouse control.

If not, return to this dialog to make the necessary adjustments to the settings.

3. When you finish reviewing the virtual server configuration, save any changes and close the dialog by selecting **OK**.

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3. When you finish reviewing the virtual server configuration, save any changes and close the dialog by selecting **OK**.

During the exercises, you use the **Ctrl + Alt** key combination to access features such as terminal consoles. VMware Workstation also uses this hot key combination to switch you out of the virtual server to the host machine.

4. To change the VMware hot key configuration, select **Edit > Preferences**.

A Preferences dialog appears.

5. Select the **Hot keys** tab; then select the **Ctrl-Shift-Alt** option.

Once you start the SLES 9 VMware server, you can press **Ctrl + Shift + Alt** to access the host machine, including the VMware Workstation menu options.

6. Save the change by selecting **OK**.

Start the SLES 9 VMware Server

Do the following:

1. Start the SLES 9 VMware server by selecting **Power > Power On** (or **Start this virtual machine**).
2. The SLES 9 server starts booting.
3. (Conditional) If you cannot see the entire SLES 9 window on your monitor, select the VMware Workstation full screen mode.

After starting the SLES 9 services (which can take several minutes), a blank screen is displayed while the X Window GUI interface is loaded.

Depending on the amount of memory allocated to the virtual server, loading the GUI interface can take almost a minute.

4. Once the GUI login dialog appears (with Geeko Novell listed as a user), select **VM > Install VMware Tools**.

The VMware Tools package enhances the graphics resolution and color depth capabilities of your virtual server.

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The VMware Tools package enhances the graphics resolution and color depth capabilities of your virtual server.

A Question dialog appears to confirm the installation.

5. Install the VMware Tools package by selecting **Install**.

The installation takes only a couple of seconds, but no “success” dialog is displayed to indicate that the package was installed.

You can verify that the package was installed by displaying the VM menu. If there is a **Cancel VMware Tools Install** option listed, then the package was installed successfully.

You are now ready to start Exercise 2-1 in the workbook.

VMware Workstation Tips

Although we rely on your experience with VMware Workstation to complete the exercises in a virtual server environment, the following are some tips that can help you when using the SLES 9 virtual server:

- If you cannot use the keyboard to enter text, try selecting the virtual server window with the mouse or try pressing **Shift + Tab**.
- If you need to switch keyboard and mouse focus from the virtual server to the host computer, press **Ctrl + Shift + Alt**; then select the virtual window again to switch focus back.
- If you want to save a copy of the SLES 9 virtual server before continuing on with an exercise or the next exercise, use the Snapshot feature (**Snapshot > Save Snapshot**).
- Before powering off the SLES 9 virtual server, make sure you shut down the server to avoid any problems caused by not shutting down the server cleanly.

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You can verify that the package was installed by displaying the VM menu. If there is a **Cancel VMware Tools Install** option listed, then the package was installed successfully.

You are now ready to start Exercise 2-1 in the workbook.

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Installation of SLES9 on a Dedicated Machine

If you have a separate machine for SLES9 follow the exercise “[Install SUSE LINUX Enterprise Server 9](#)” on 1-1 to install the machine.

An alternative is to copy the file student.xml from the student CDROM to a floppy disk. Then insert the floppy into the floppy drive, insert the 1. SLES9 CDROM and power on the machine. When the installation dialog appears, select **Installation** and type **autoyast=floppy:///student.xml** in the Boot Options field, then press enter. Change CDROMs as prompted.

The software selection may be somewhat different from that given in the first exercise but you should be able to do the exercises anyway.

The installation process as given in the first exercise as well as the autoyast method will delete all files that might exist on the machine. **Do not use a machine that has any files you still need on it for the purpose of this course!**

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