



B

Installation Screens for Red Hat Enterprise Linux 3

This appendix is straightforward. It illustrates the steps required to install Red Hat Enterprise Linux 3 on your computer, using the graphical and text-based installation methods. Both are governed by the Red Hat program known as Anaconda. Descriptive comments in this section are at a minimum; for more information, read Chapter 2. In both cases, I'll assume that you're installing from a remote installation server, shared with NFS.

While there are a substantial number of options available when you install RHEL 3, I illustrate a more generic installation. If you want to learn about some of the options, you'll have to experiment with the installation yourself. In fact, the exercises in Chapter 2 are designed to help you learn the different things you can do with a RHEL 3 installation, on your computer, and during the exam.

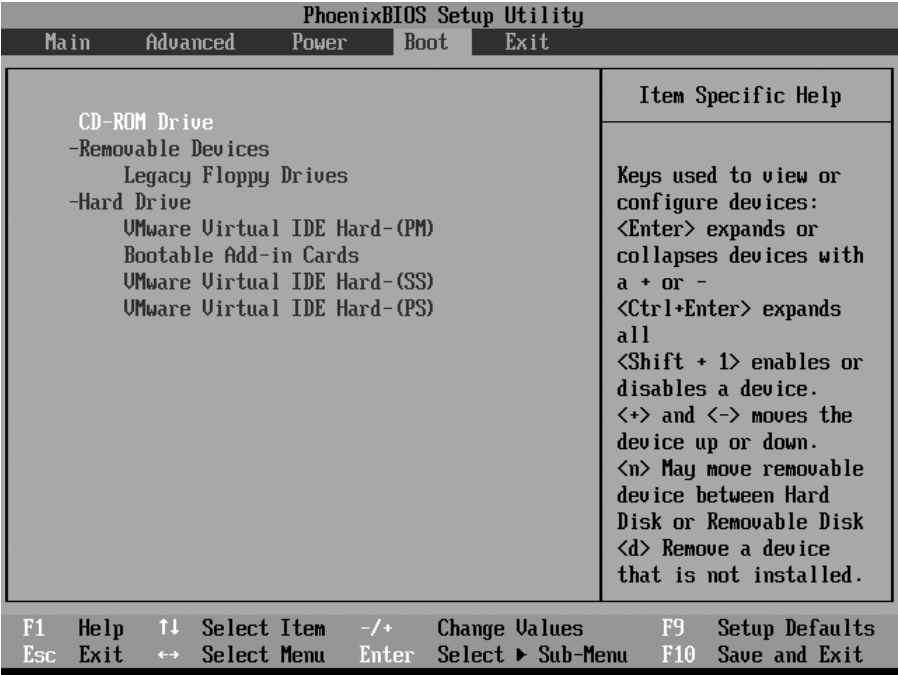
Graphical Installation

To install Red Hat Enterprise Linux 3 on your computer, take the following steps:

- 1. Set your computer’s BIOS to boot from the first installation CD. Details vary by PC. Make sure your BIOS saves your changes before you reboot. One example is shown in Figure B-1.

FIGURE B-1

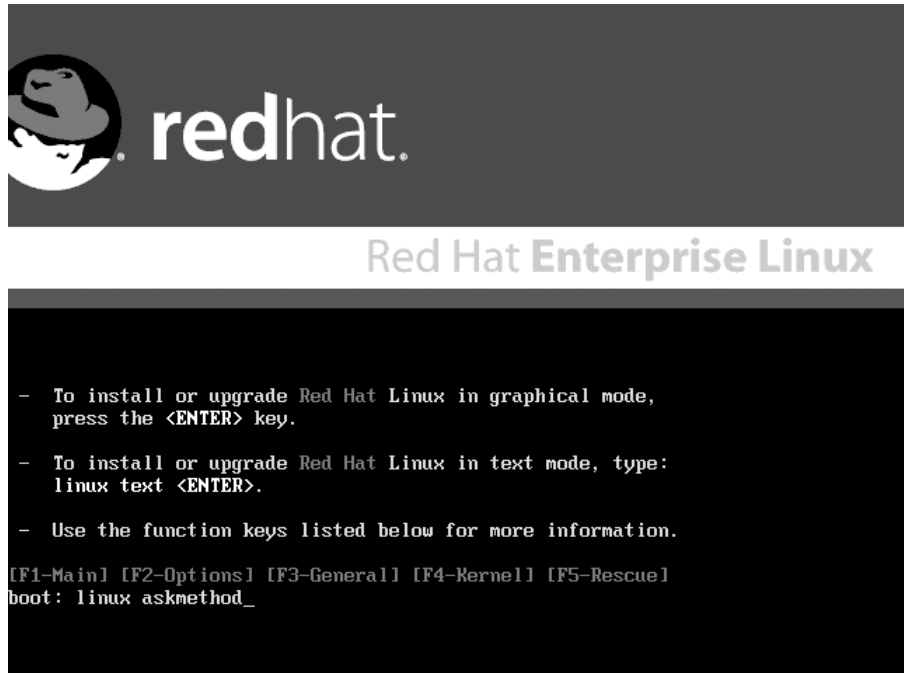
Configuring
your BIOS



2. Type `linux askmethod` when you see the prompt in Figure B-2.

FIGURE B-2

Starting the
installation
process

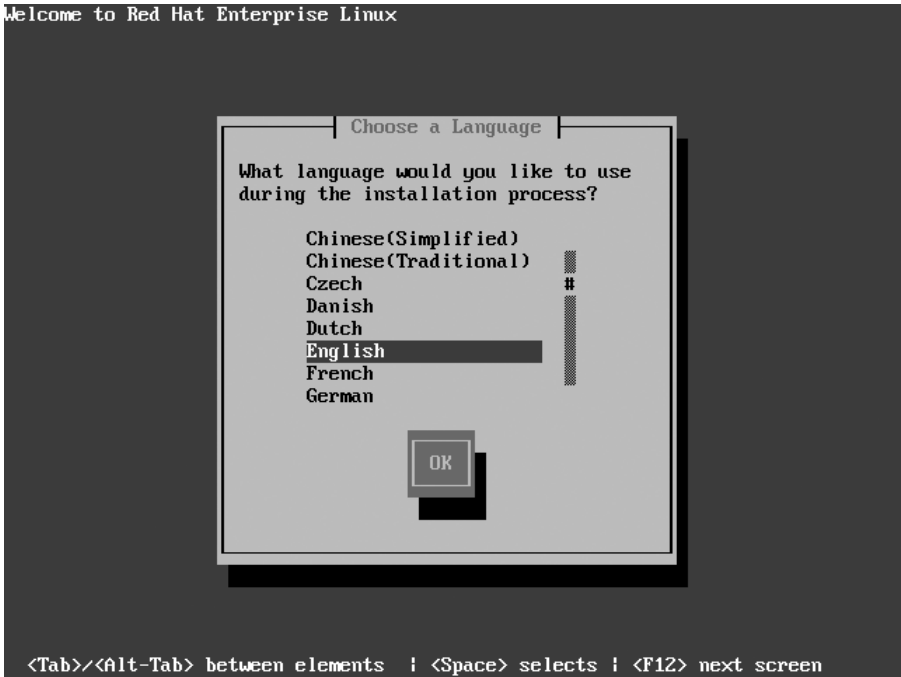


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3. Choose a language, as shown in Figure B-3.

FIGURE B-3

Selecting
a language



4. Select a keyboard, as shown in Figure B-4.

FIGURE B-4

Choosing a
keyboard

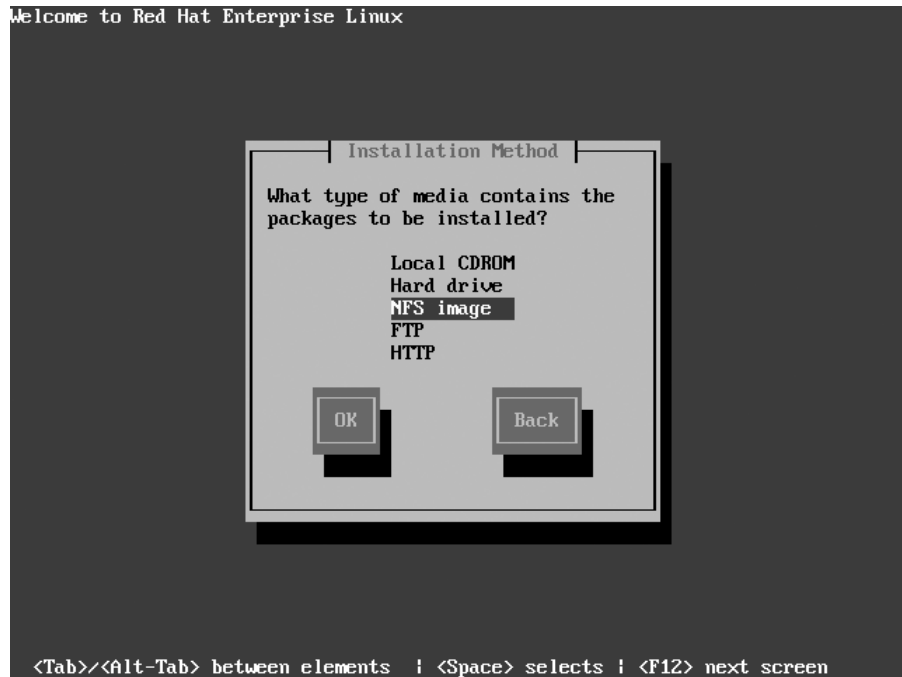


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5. Set up an NFS installation, as shown in Figure B-5. If you've booted from a 1.44MB installation floppy, you'll need 1.44MB driver floppies as well.

FIGURE B-5

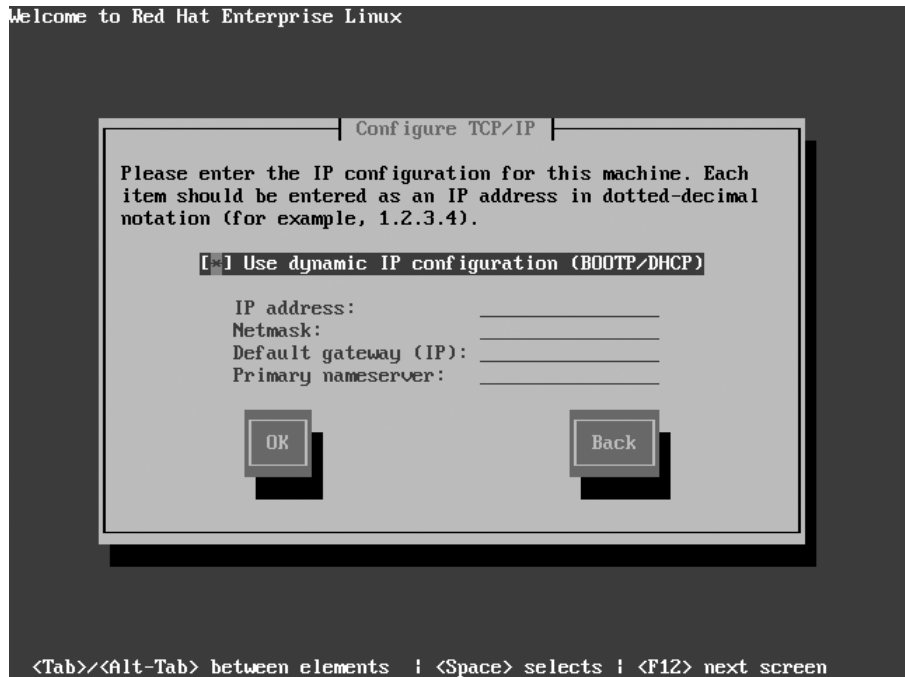
Selecting an
installation
source



6. Configure your network, as shown in Figure B-6. If you have a DHCP server on your network, that is simplest.

FIGURE B-6

Configuring TCP/
IP for your server

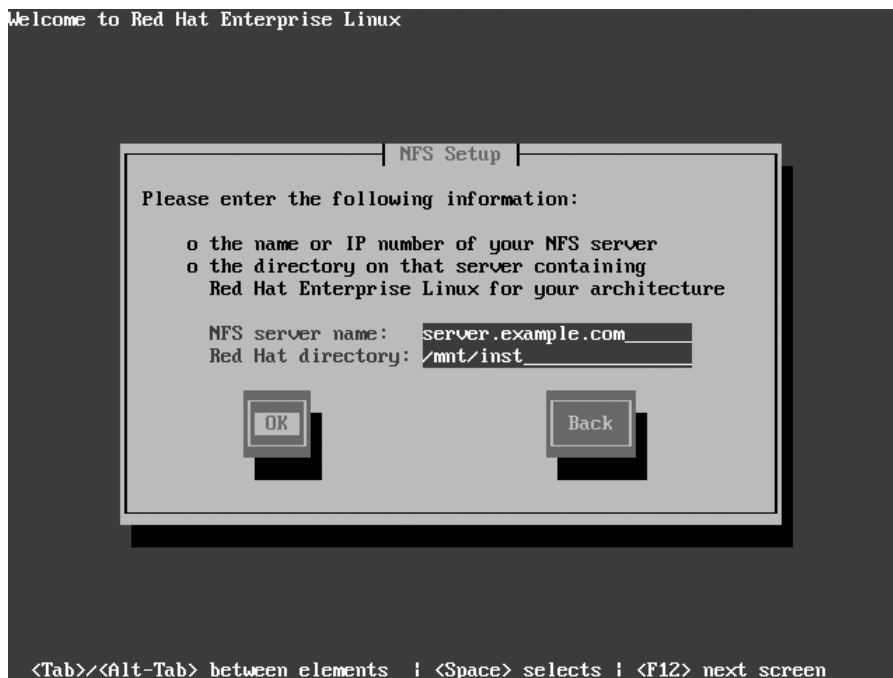


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7. Add connection information to the installation server, as shown in Figure B-7.

FIGURE B-7

Setting up
a connection
to the RHEL 3
installation server



8. Assuming your connection works, you'll see the first installation screen, as shown in Figure B-8.

FIGURE B-8

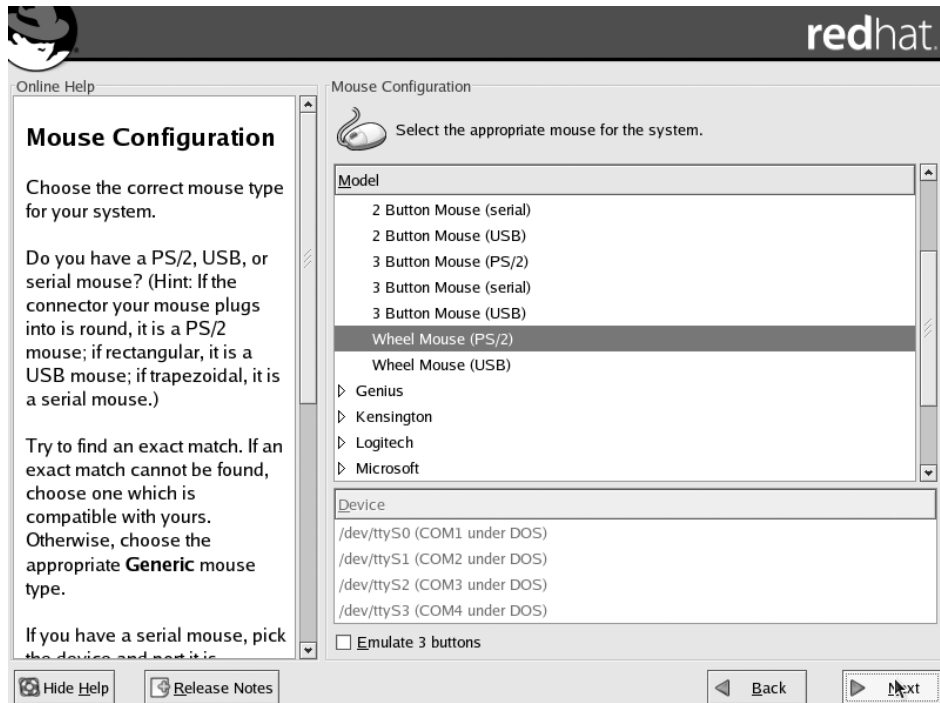
Starting the
“official” graphical
installation
process



9. Since you've already selected a language and keyboard, all you need to do for your basic hardware is select a mouse or pointing device, as shown in Figure B-9.

FIGURE B-9

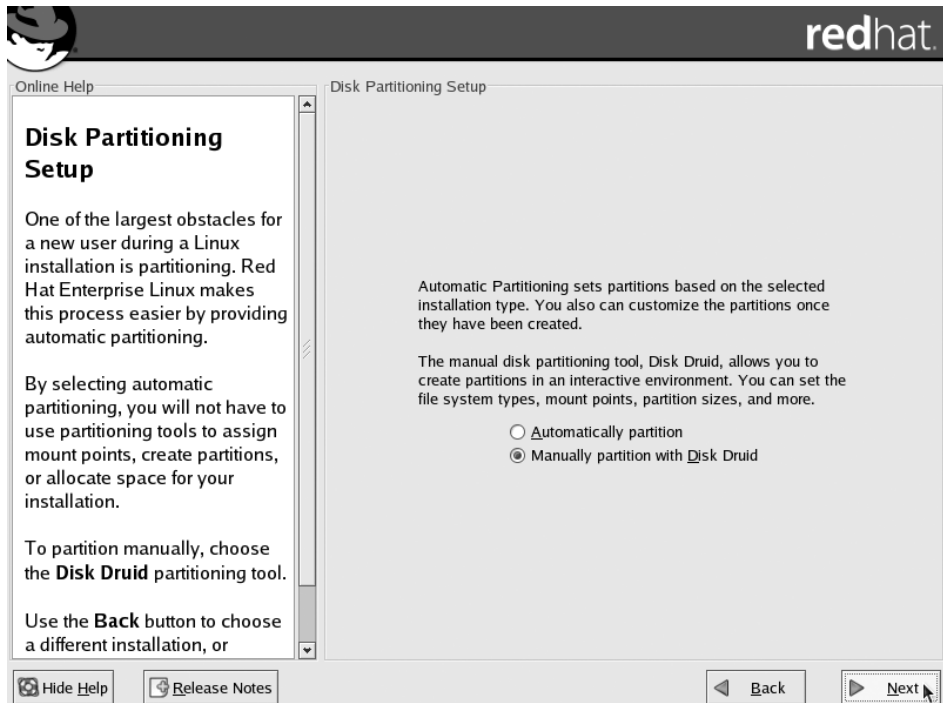
Selecting a mouse



10. You can allow Anaconda to configure an optimized installation based on your memory and available hard disk space, or choose to customize the configuration, as shown in Figure B-10.

FIGURE B-10

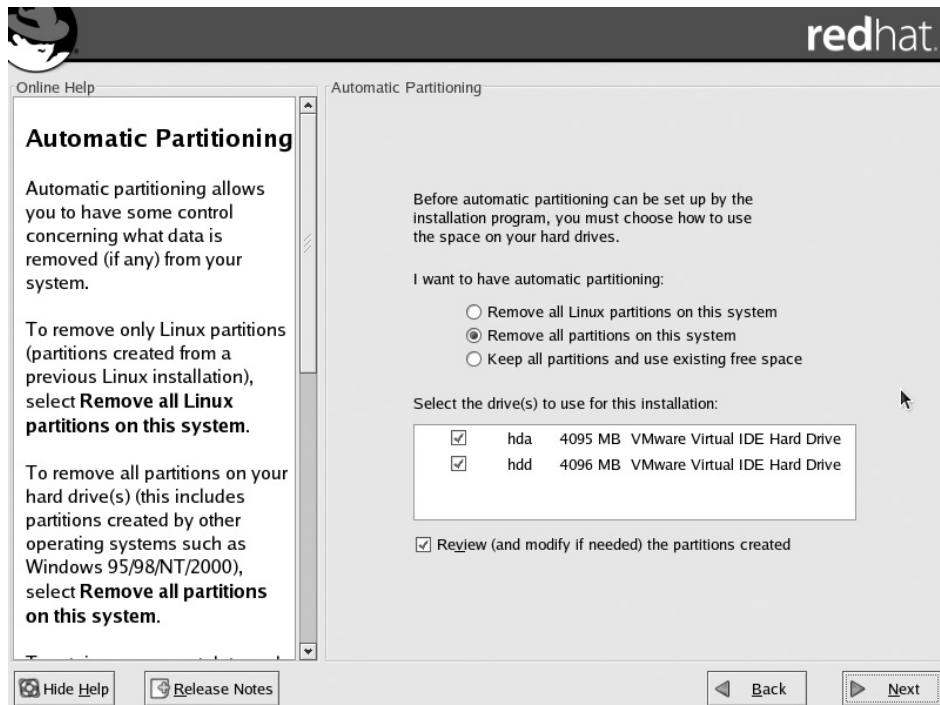
Disk partitioning
setup



11. If there are existing partitions on the installed hard drives, you'll be given the opportunity to remove said partitions. If you're configuring a "dual-boot" with another operating system, don't delete! However, the RHCE exam is a Linux exam, so I believe a "dual-boot" configuration is unlikely during the exam. These options are shown in Figure B-11.

FIGURE B-11

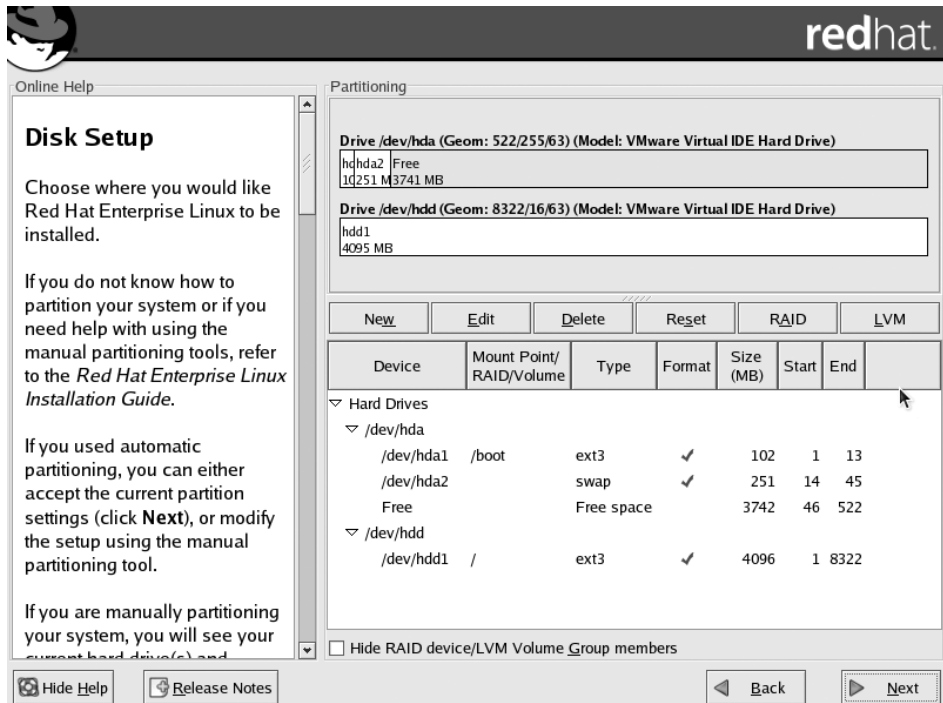
Deleting
previously
configured
partitions



12. Now inspect and change partitions in Disk Druid, as shown in Figure B-12. You can also create and then configure RAID and LVM partitions, as discussed in Chapter 2.

FIGURE B-12

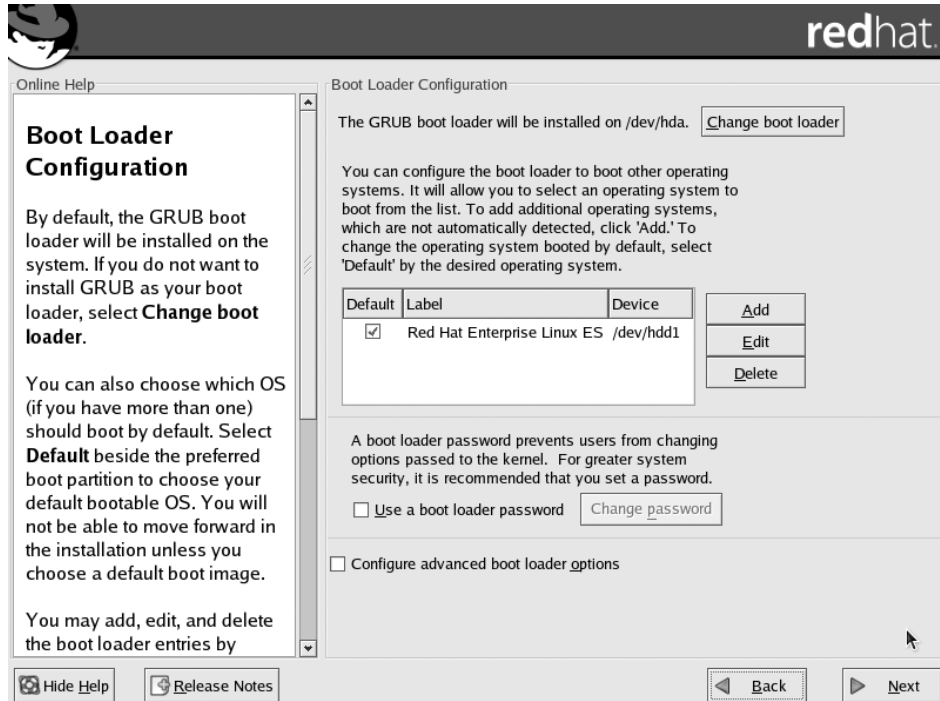
Disk Druid



13. Once you've configured your partitions, set up a boot loader, as shown in Figure B-13. If you click Change Boot Loader, LILO is still available as an option.

FIGURE B-13

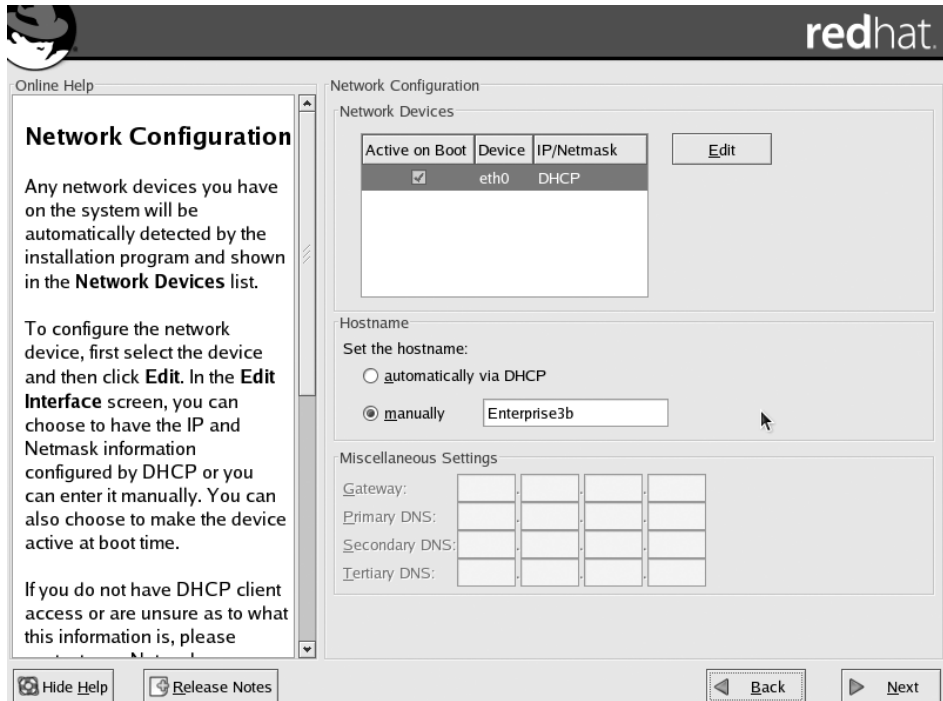
Configuring your
boot loader



14. Configure your connection to the network. It should reflect the settings you input in Figure B-6. You can also add the hostname of your choice, as shown in Figure B-14. If you have more than one network adapter, you'll repeat this step as often as needed.

FIGURE B-14

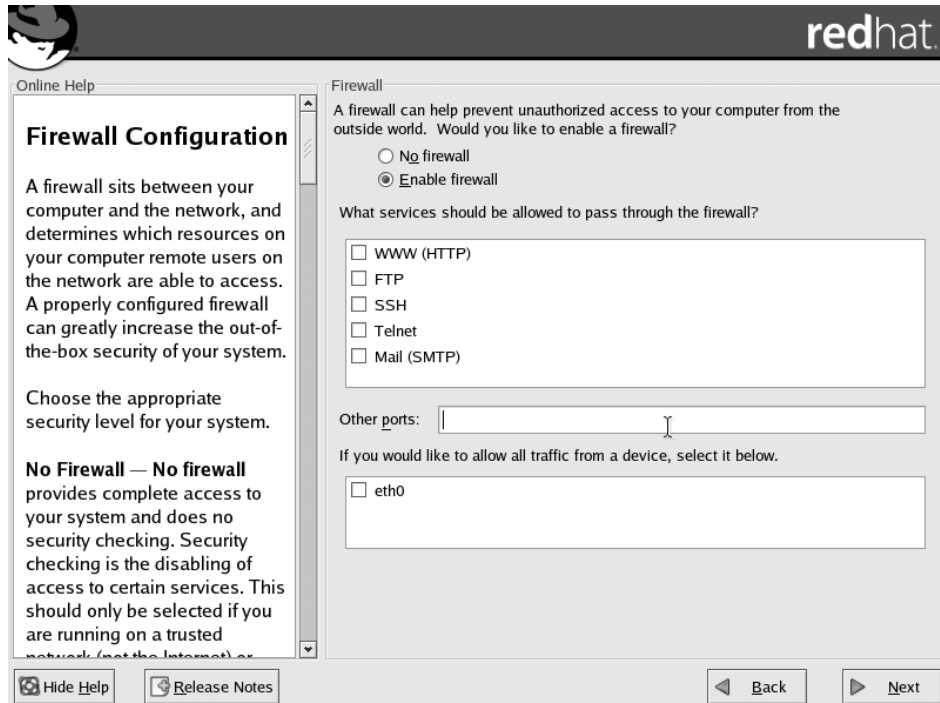
Configuring
your network



15. Configure a firewall; this is appropriate especially if this computer serves as a gateway between your network and the Internet. If you enable a firewall, as shown in Figure B-15, you can allow outsiders to access your Web, FTP, SSH, Telnet, or e-mail servers, or even other ports.

FIGURE B-15

Setting up
a firewall



16. Select one or more languages for your installed system, as shown in Figure B-16. If you're installing a GUI, this also adds available language files for that GUI.

FIGURE B-16

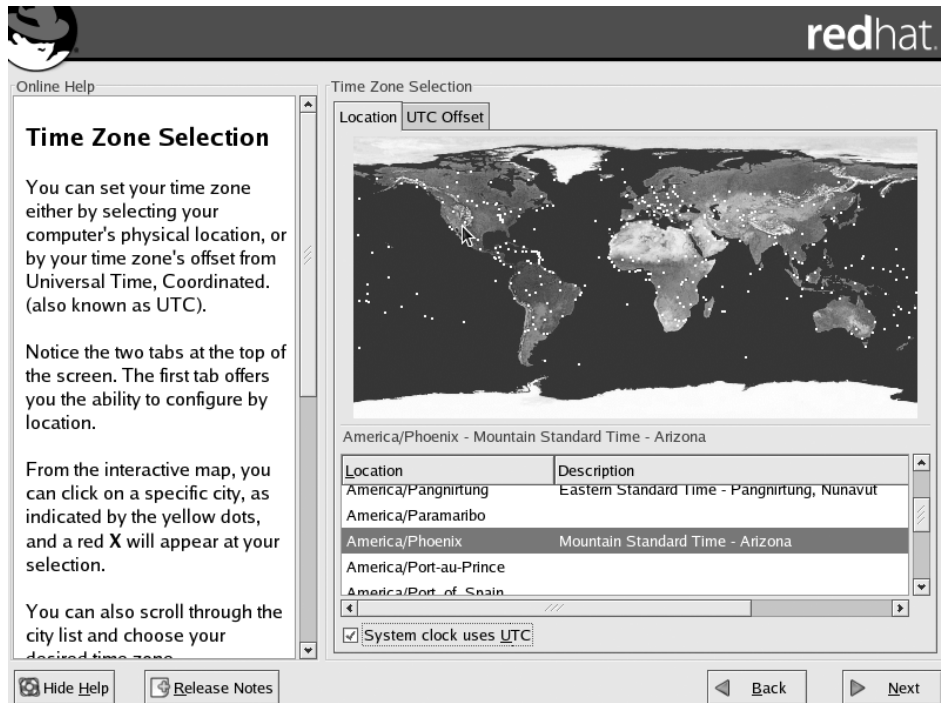
Selecting one or more languages



17. Set the time zone for your system. If you don't have another operating system on this computer, activate the System Clock Uses UTC option, as shown in Figure B-17.

FIGURE B-17

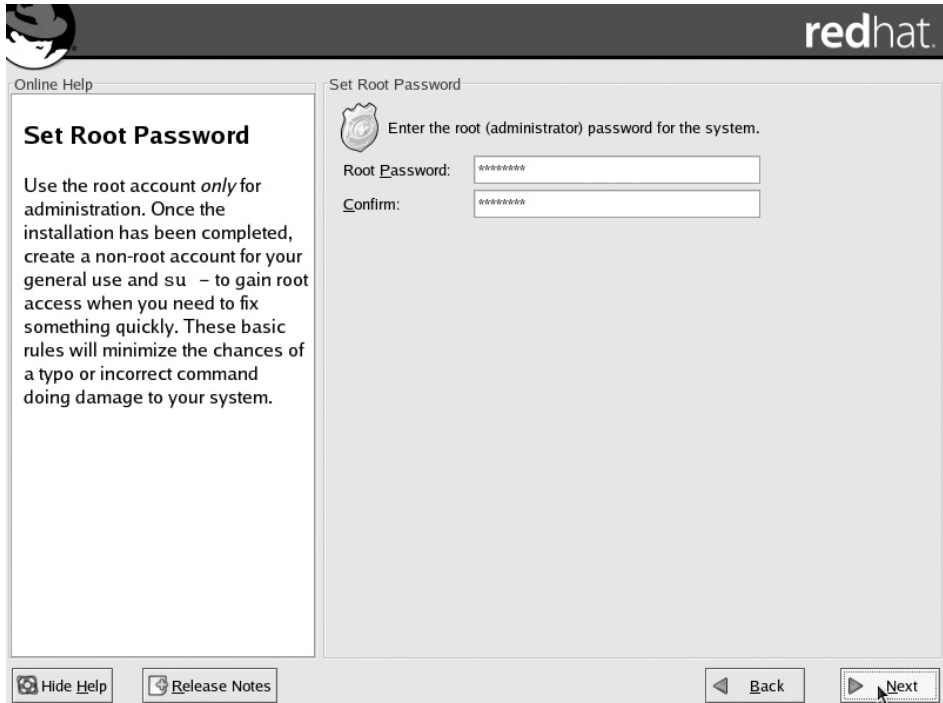
Choosing
a time zone



18. Select the root password for your system, as shown in Figure B-18. Follow any instructions on your exam carefully for this; you want to make it easy for the person grading your exam to see what you've done.

FIGURE B-18

Setting a root
user password



Online Help

Set Root Password

Use the root account *only* for administration. Once the installation has been completed, create a non-root account for your general use and `su -` to gain root access when you need to fix something quickly. These basic rules will minimize the chances of a typo or incorrect command doing damage to your system.

Set Root Password

Enter the root (administrator) password for the system.

Root Password:

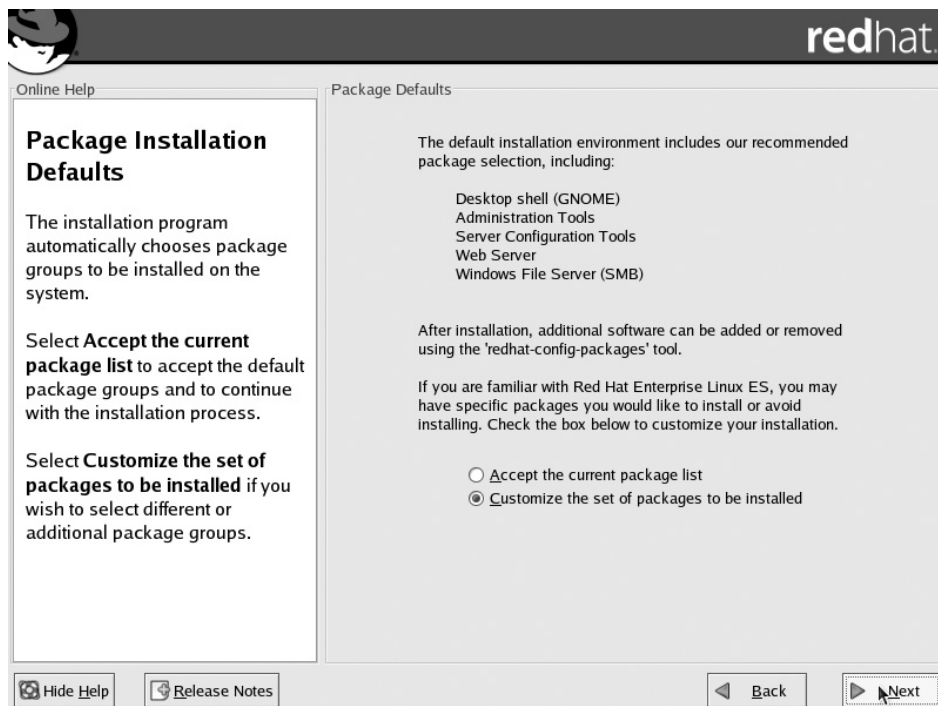
Confirm:

Hide Help Release Notes Back Next

19. You can accept the defaults, or customize the package list, as shown in Figure B-19. It's usually best to customize, based on the requirements on your particular Installation and Configuration exam.

FIGURE B-19

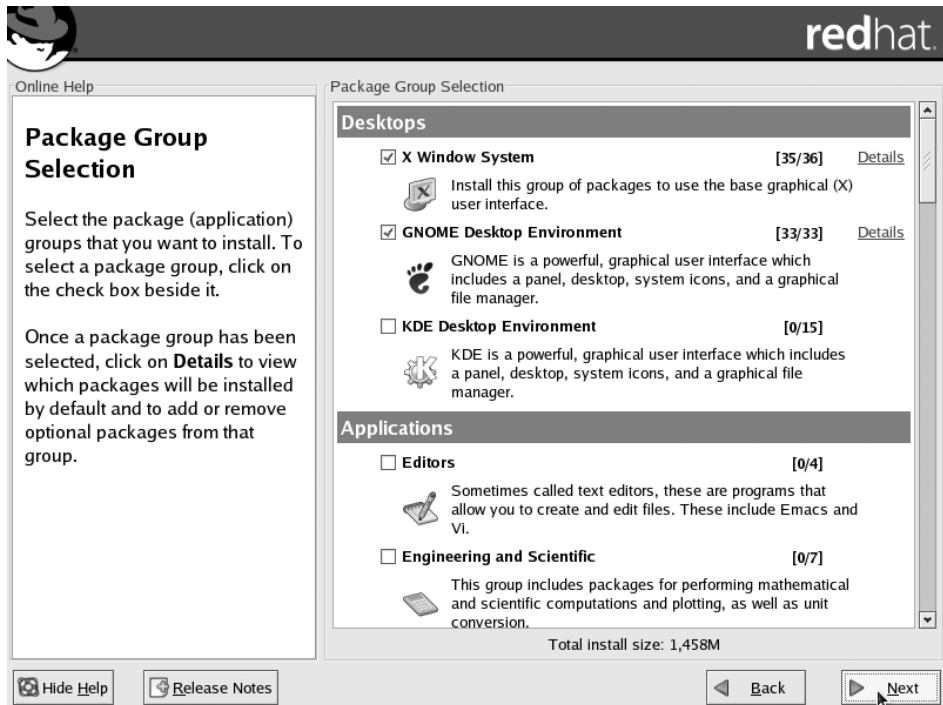
Package defaults



20. Select the package groups of your choice, as shown in Figure B-20. It should conform to the requirements of your particular Installation and Configuration exam.

FIGURE B-20

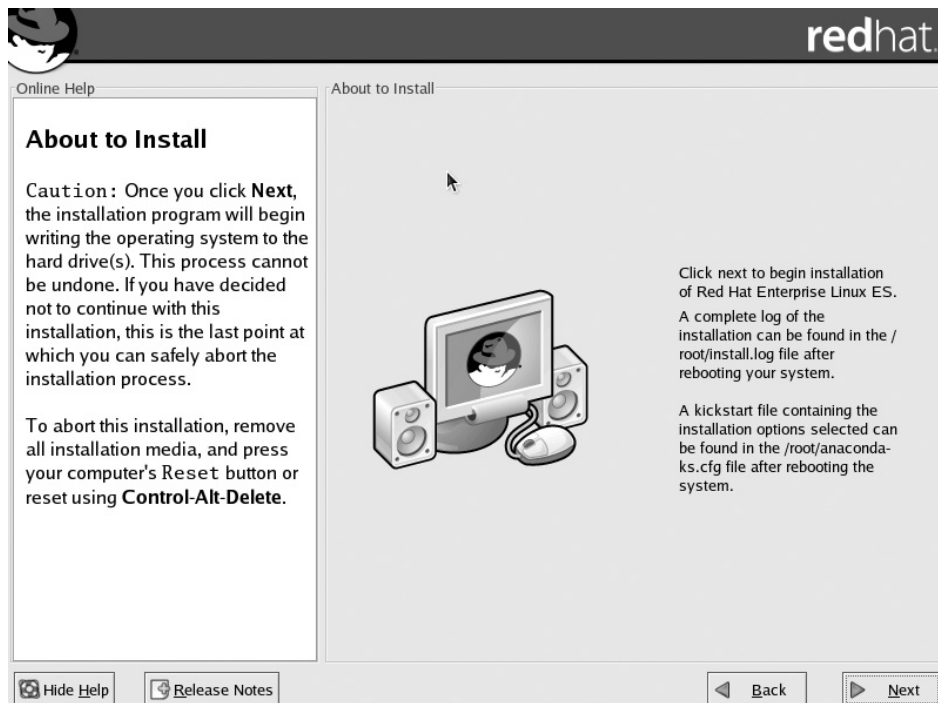
Selecting package groups



21. Once you've selected the package groups of your choice, you get one last chance to go back before starting the installation process, as shown in Figure B-21.

FIGURE B-21

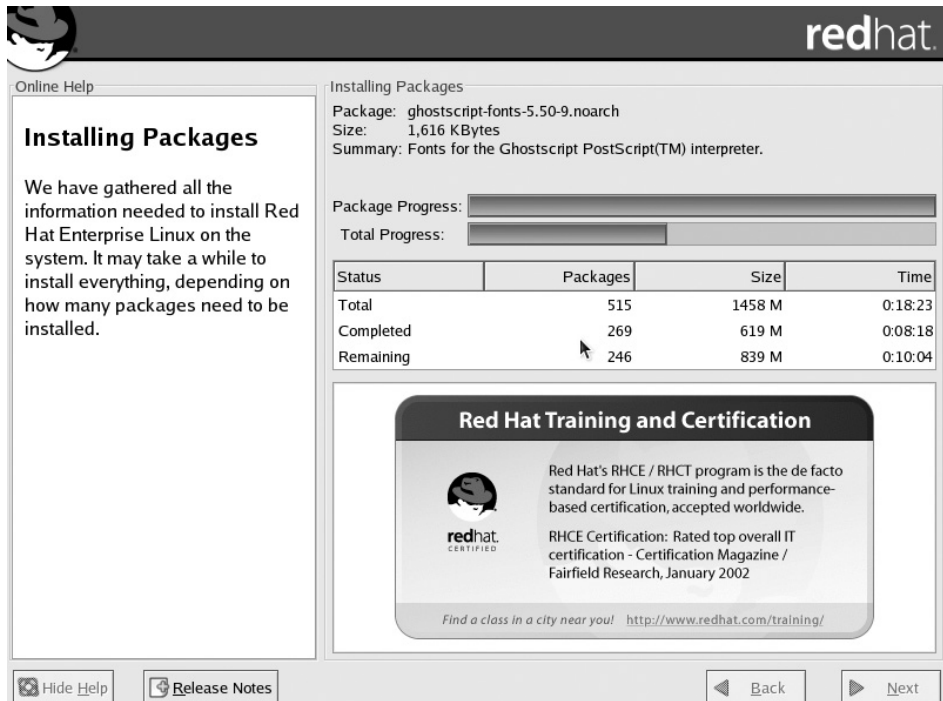
Are you ready?



22. Once your installation process starts, you'll see packages being installed, as shown in Figure B-22.

FIGURE B-22

Starting the
installation
process



23. While RHEL 3 is being installed, you have a few minutes to start configuring your system, as shown in Figure B-23.


Watch

You don't have to waste time watching the installation. Press CTRL-ALT-F2 to get into a bash shell prompt. You'll find your standard root directory (/) in the /mnt/sysimage

subdirectory during the installation process. You can start configuring files and using commands as soon as they are installed. You can return to the installation process with the CTRL-ALT-F7 command.

FIGURE B-23

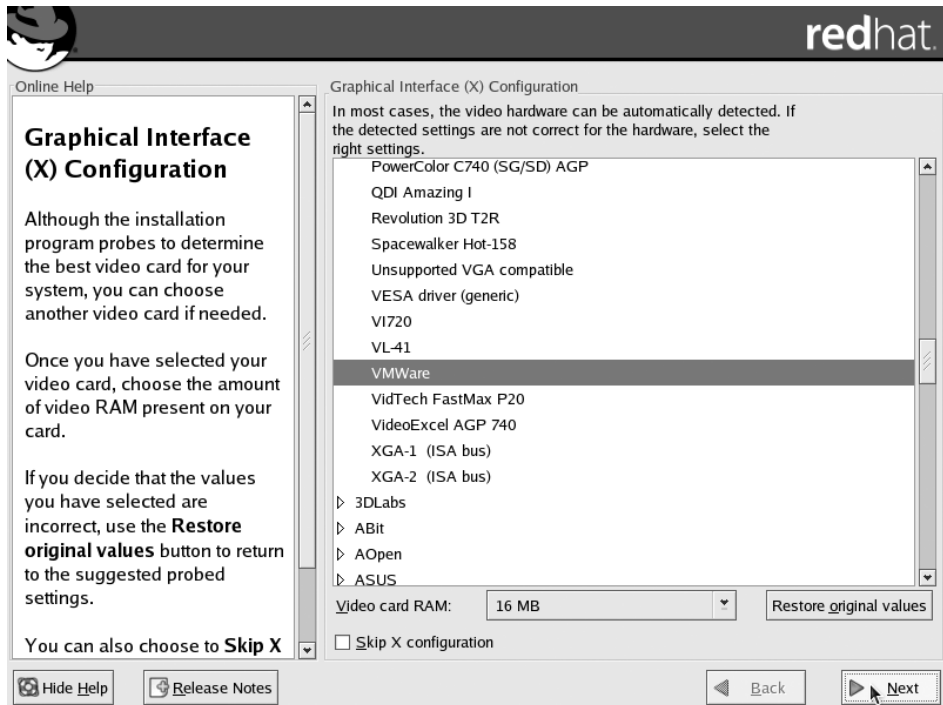
Commands during the installation process

```
~/bin/sh-2.05b# chroot /mnt/sysimage/  
sh-2.05b# ls  
bin  dev  home  lib      mnt  proc  sbin  usr  
boot etc  initrd lost+found  opt  root  tmp   var  
sh-2.05b#
```

24. Once installation is complete, Anaconda proceeds to detect and configure your graphical hardware, as shown in Figure B-24. Confirm or change the selection as appropriate.

FIGURE B-24

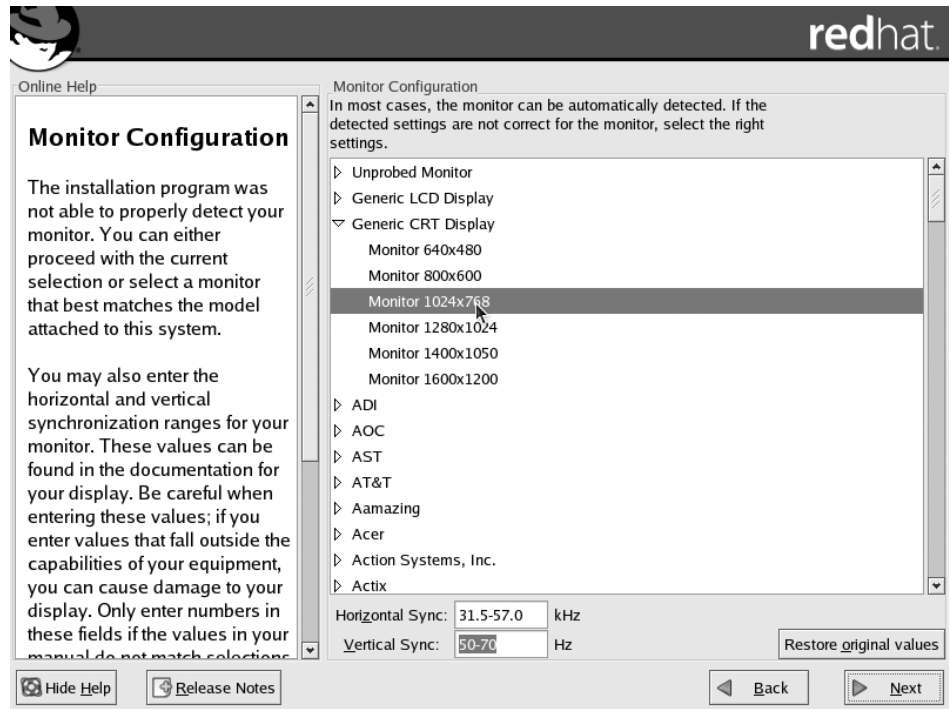
Graphics card
configuration



25. Similar to the previous step, Figure B-25 illustrates the detected monitor. Confirm or change the selection as appropriate.

FIGURE B-25

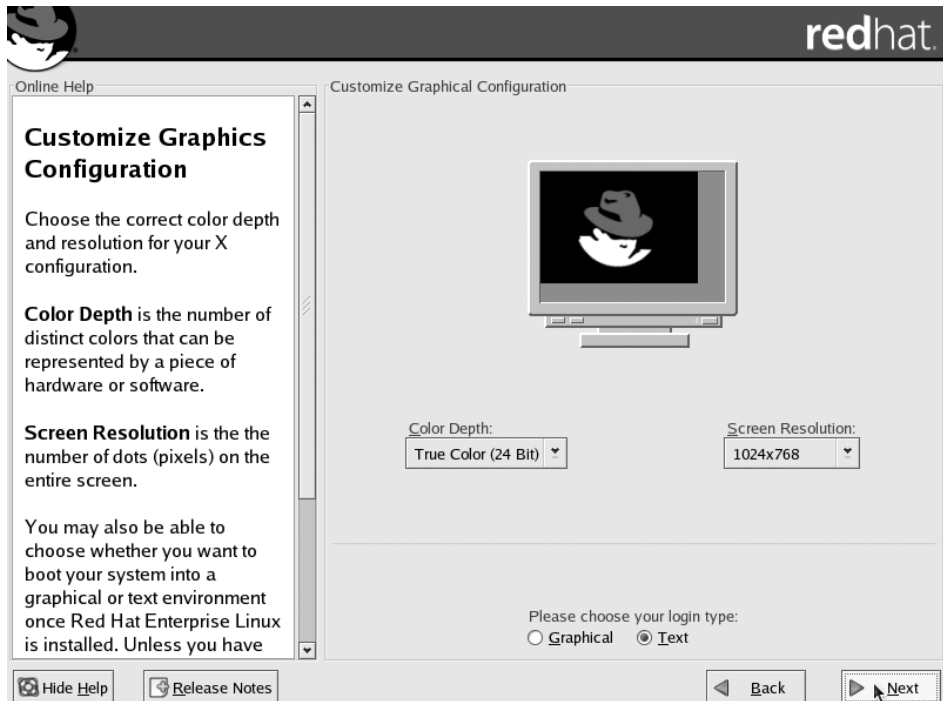
Monitor
configuration



26. Finally, choose a text login if possible in Figure B-26, so you do not need to waste time with the first boot process described in Chapter 2.

FIGURE B-26

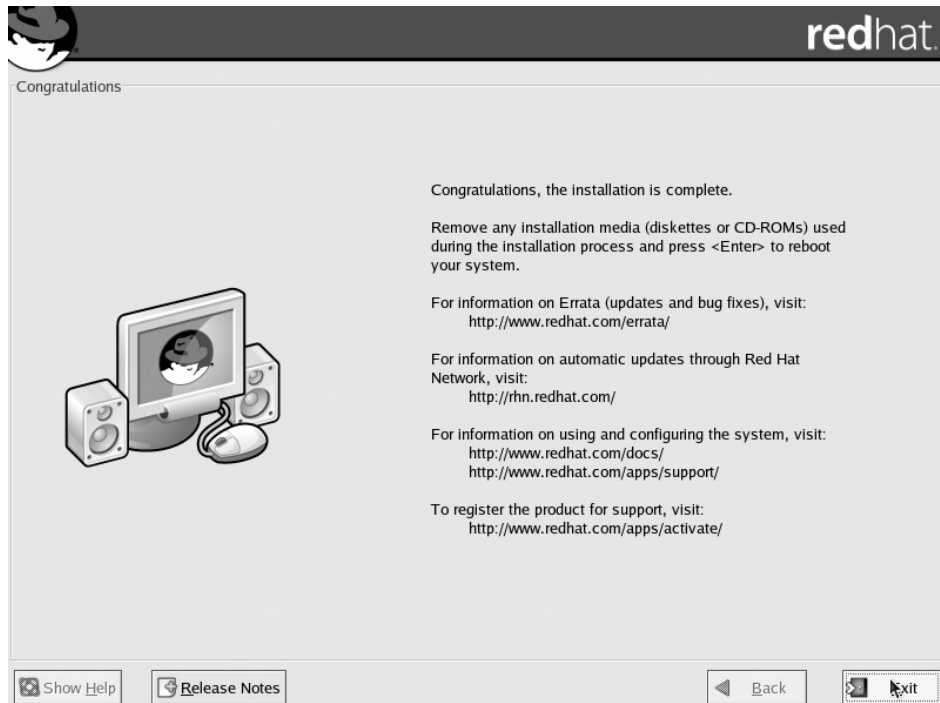
Selecting
a text login



27. Once you see this screen, installation is just about complete. The next step should reboot your computer into RHEL 3, as shown in Figure B-27.

FIGURE B-27

Ready to reboot
into Linux



- 28. Set your computer’s BIOS to boot from the hard drive. If you had to boot from the first installation CD in the first step, reverse the process. Details vary by PC. Make sure your BIOS saves your changes before you reboot.

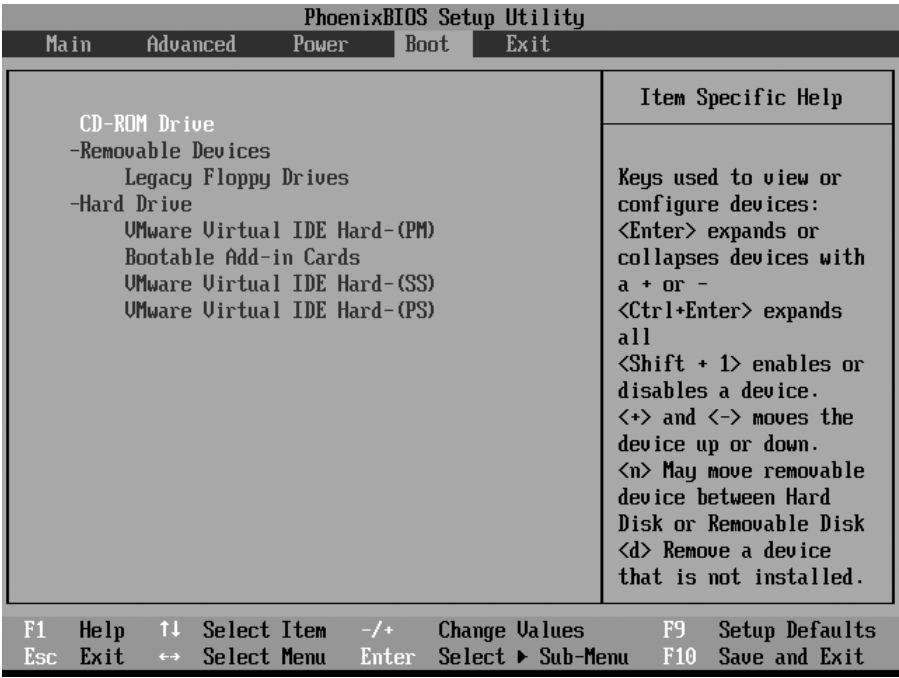
Text Installation

To install Red Hat Enterprise Linux 3 on your computer in text mode, take the following steps:

- 1. Set your computer’s BIOS to boot from the first installation CD. Details vary by PC. Make sure your BIOS saves your changes before you reboot. One example is shown in Figure B-28.

FIGURE B-28

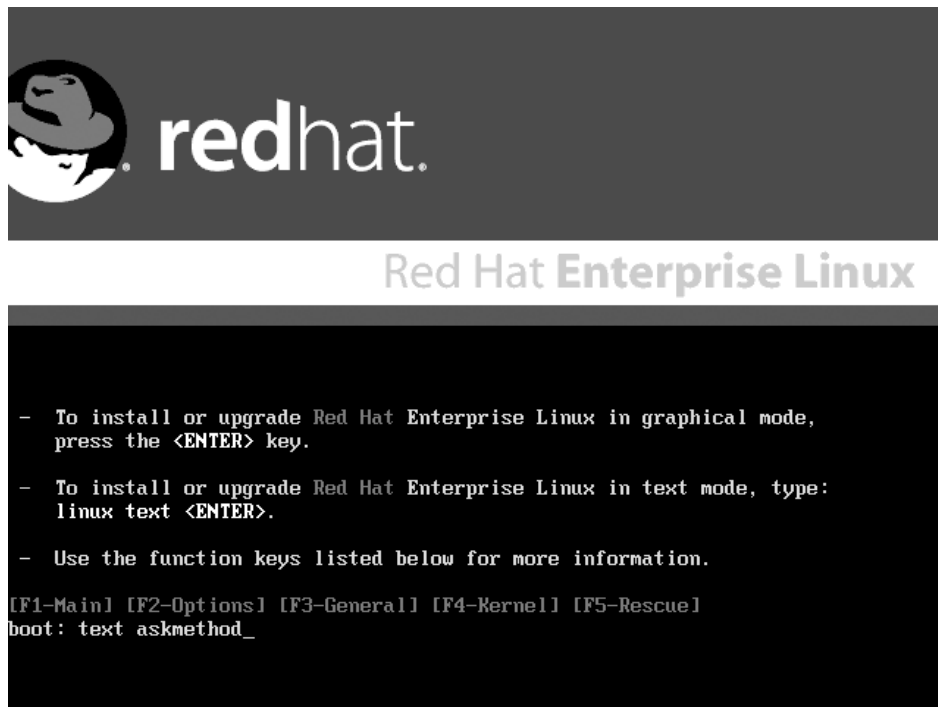
Configuring
your BIOS



2. Type `text askmethod` when you see the prompt in Figure B-29.

FIGURE B-29

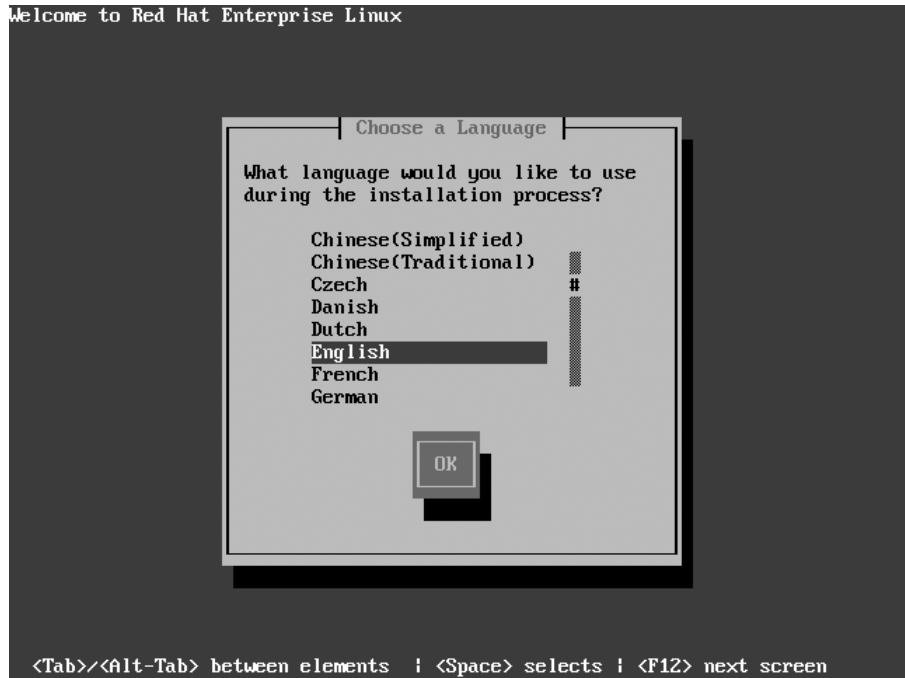
Starting the
installation
process



3. Choose a language, as shown in Figure B-30.

FIGURE B-30

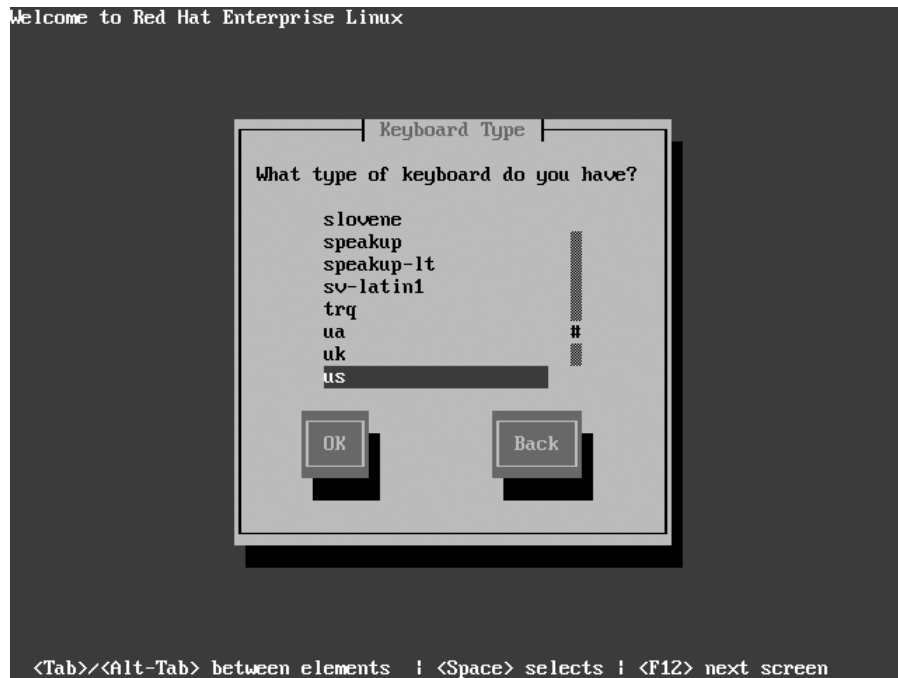
Selecting
a language



4. Select a keyboard, as shown in Figure B-31.

FIGURE B-31

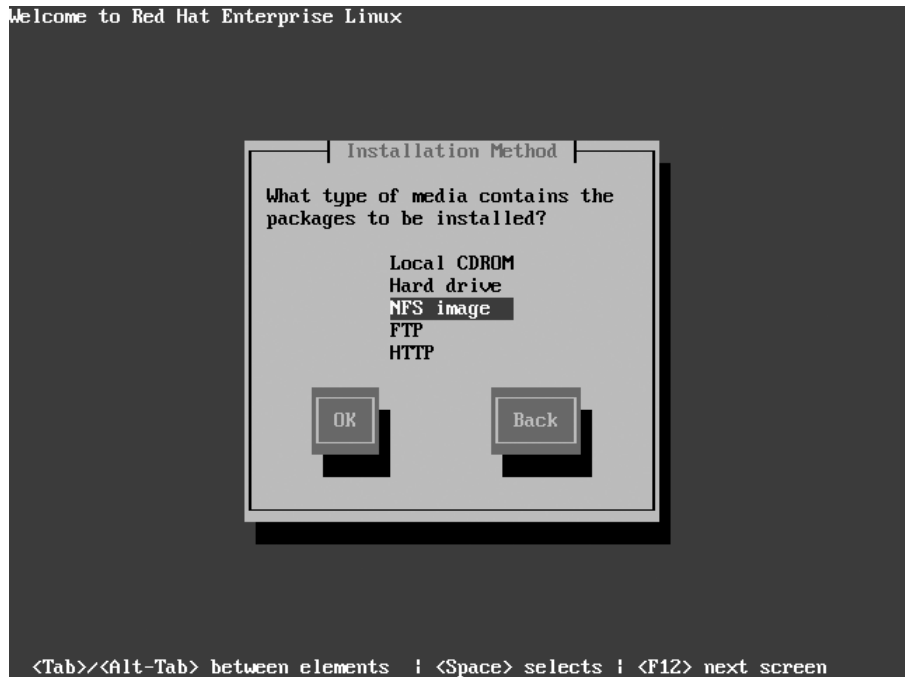
Choosing
a keyboard



5. Set up an NFS installation, as shown in Figure B-32. If you've booted from a 1.44MB installation floppy, you'll need 1.44MB driver floppies as well.

FIGURE B-32

Selecting an
installation
source



6. Configure your network, as shown in Figure B-33. If you have a DHCP server on your network, that is simplest.

FIGURE B-33

Configuring TCP/
IP for your server

Welcome to Red Hat Enterprise Linux

Configure TCP/IP

Please enter the IP configuration for this machine. Each item should be entered as an IP address in dotted-decimal notation (for example, 1.2.3.4).

☒ Use dynamic IP configuration (BOOTP/DHCP)

IP address: _____

Netmask: _____

Default gateway (IP): _____

Primary nameserver: _____

<Tab>/<Alt-Tab> between elements | <Space> selects | <F12> next screen

7. Add connection information to the installation server, as shown in Figure B-34.

FIGURE B-34

Setting up
a connection
to the RHEL 3
installation server



8. Assuming your connection works, you'll see the first installation screen, as shown in Figure B-35.

FIGURE B-35

Starting the
text installation
process



9. Since you've already selected a language and keyboard, all you need to do for your basic hardware is select a mouse or pointing device, as shown in Figure B-36.

FIGURE B-36

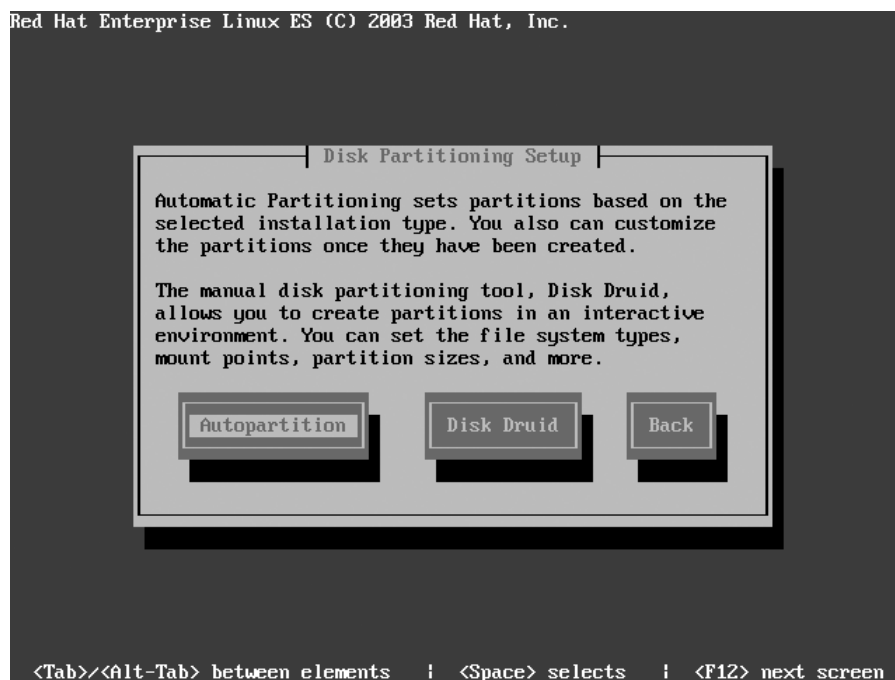
Selecting a mouse



10. You can allow Anaconda to configure an optimized installation based on your memory and available hard disk space, or choose to customize the configuration, as shown in Figure B-37.

FIGURE B-37

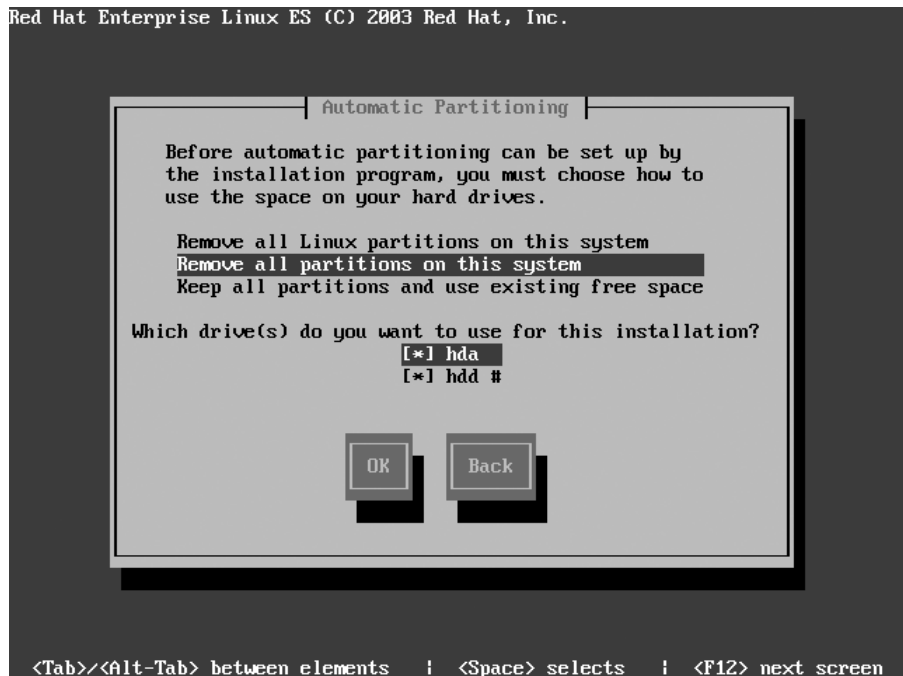
Disk partitioning
setup



11. If there are existing partitions on the installed hard drives, you'll be given the opportunity to remove said partitions. If you're configuring a "dual-boot" with another operating system, don't delete! However, on the exam, you'll be working with Linux, so I believe a "dual-boot" configuration is unlikely during the exam. These options are shown in Figure B-38.

FIGURE B-38

Deleting
previously
configured
partitions



12. Now you can inspect and change partitions in Disk Druid, as shown in Figure B-39. You can also create and then configure RAID partitions.

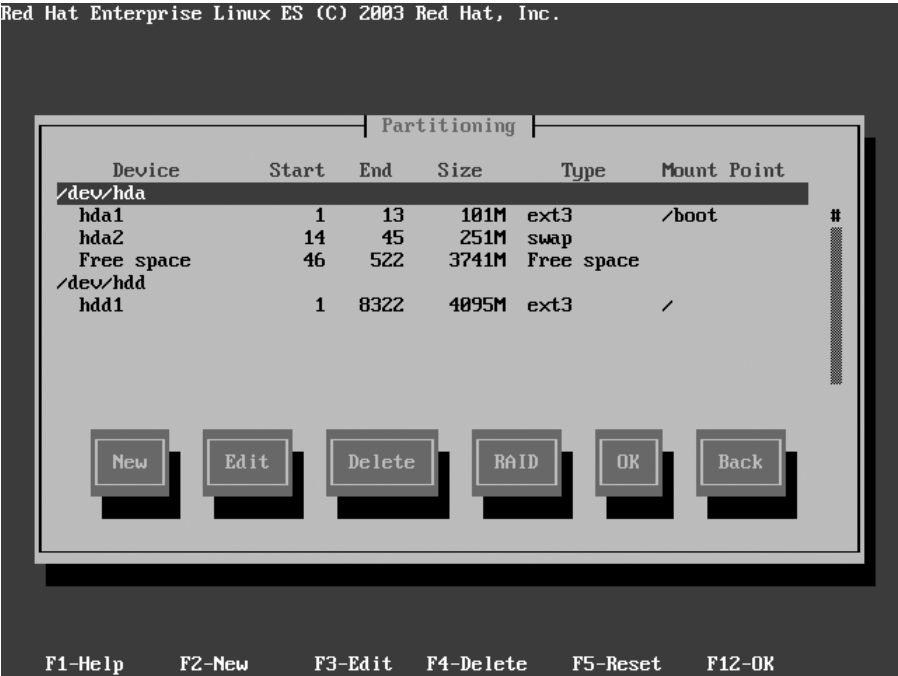
exam

Watch

Anaconda does not support the creation of LVM partitions during the text installation process.

FIGURE B-39

Disk Druid



13. Once you've configured your partitions, choose a boot loader, as shown in Figure B-40.

FIGURE B-40

Selecting a
boot loader



14. Next, you can add commands to be read by the kernel, as shown in Figure B-41. For example, some CDs may require SCSI emulation with a command such as `hdc=ide-scsi`.

FIGURE B-41

Adding commands
to the boot loader



15. If you're using GRUB, you can configure it with a password, as shown in Figure B-42.

FIGURE B-42

Configuring
GRUB with
a password



16. If you have more than one operating system on this computer, you can configure the default operating system and their labels, as shown in Figure B-43.

FIGURE B-43

Default operating system and labels



17. Finally, you can choose to install the boot loader on the MBR or on the first sector of the RHEL 3 /boot partition, as shown in Figure B-44.

FIGURE B-44

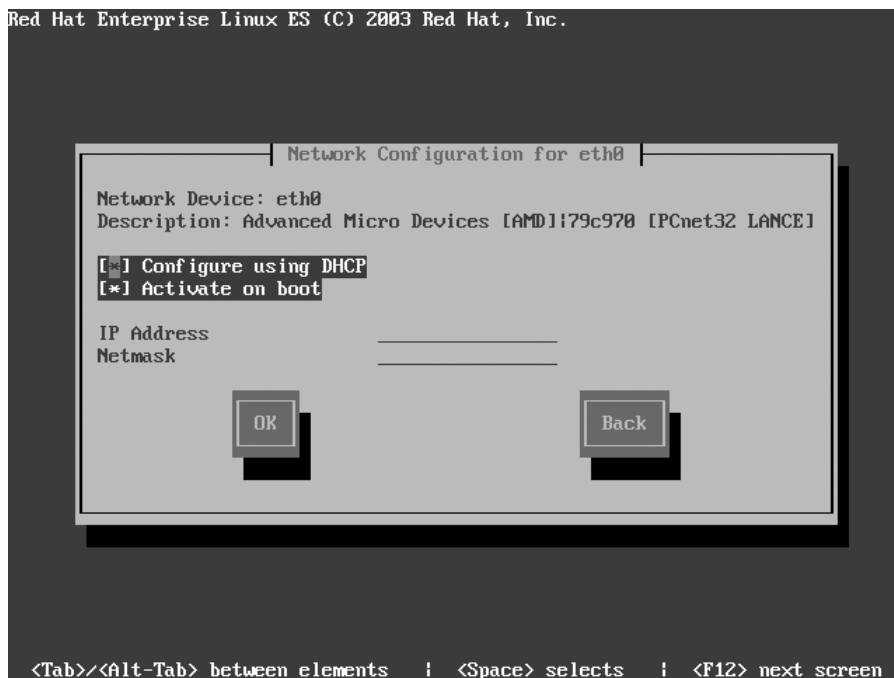
Choosing where to install the boot loader



18. Configure your connection to the network, as shown in Figure B-45. It should default to the settings you input in Figure B-33, which you can change. If you've set up a static configuration, you'll see a screen where you can set up other IP address information.

FIGURE B-45

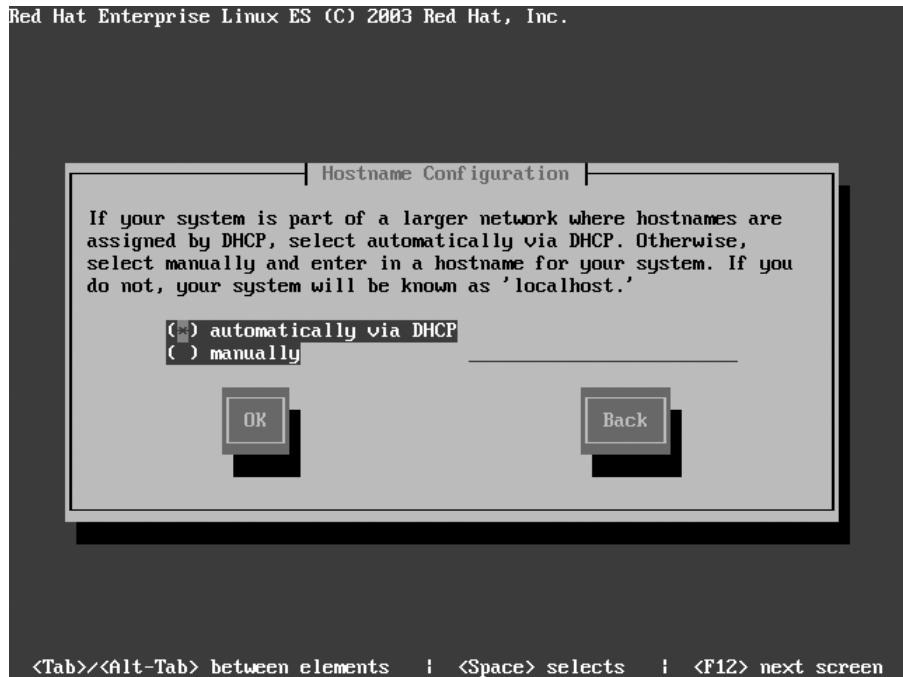
Configuring
your network
connection



19. You can also add the hostname of your choice, as shown in Figure B-46. If you have more than one network adapter, you'll return to step 18 as often as needed.

FIGURE B-46

Configuring your network



20. Next, you can configure a firewall; this is appropriate especially if this computer serves as a gateway between your network and the Internet. If you enable a firewall, as shown in Figure B-47, click Customize to allow outsiders to access your Web, FTP, SSH, Telnet, or e-mail servers, or even other ports.

FIGURE B-47

Setting up
a firewall



21. Select one or more languages for your installed system, as shown in Figure B-48. If you're installing a GUI, this also adds available language files for that GUI. If you select more than one language, you'll see another screen where you'll select the default language for your system.

FIGURE B-48

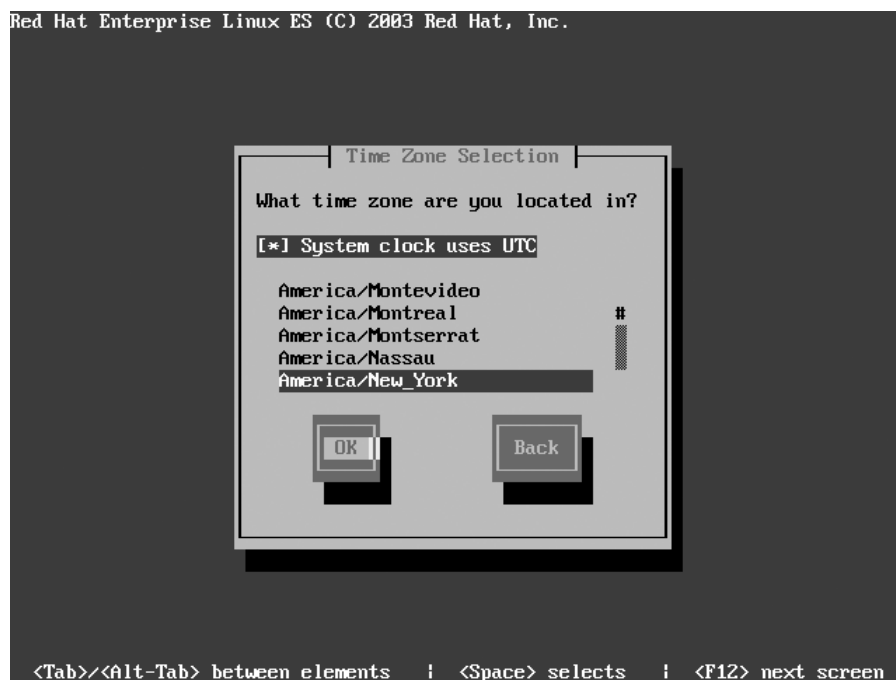
Selecting one or more languages



22. Next, set the time zone for your system. If you don't have other operating systems on this computer, activate the System Clock Uses UTC option, as shown in Figure B-49.

FIGURE B-49

Choosing a
time zone



23. Now choose a root password for this system, as shown in Figure B-50. Follow any instructions on your exam carefully for this; you want to make it easy for the person grading your exam to see what you've done.

FIGURE B-50

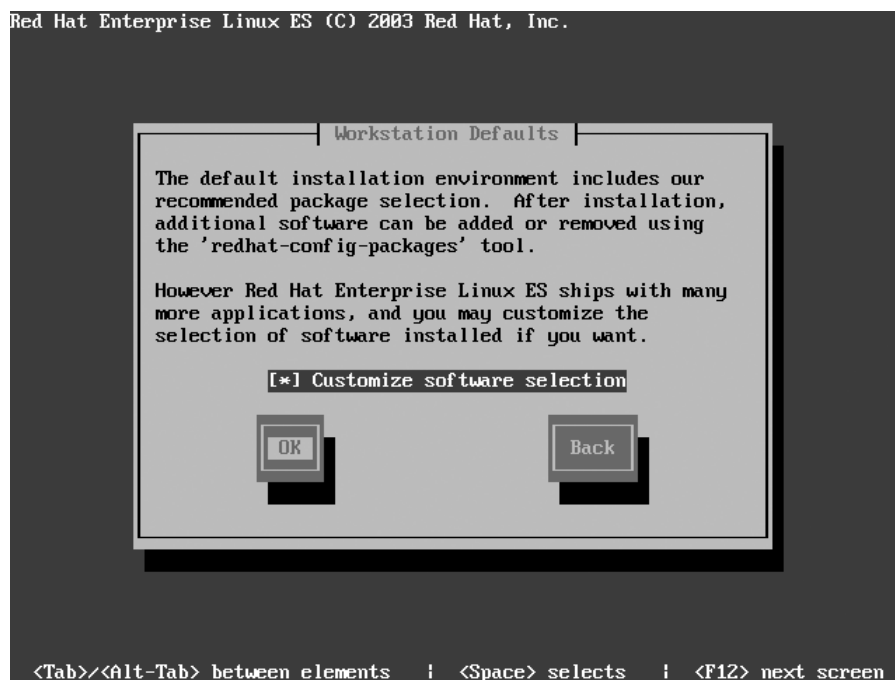
Setting a root
user password



24. You can accept the defaults, or customize the package list, as shown in Figure B-51. It's usually best to customize, based on the requirements on your particular Installation and Configuration exam.

FIGURE B-51

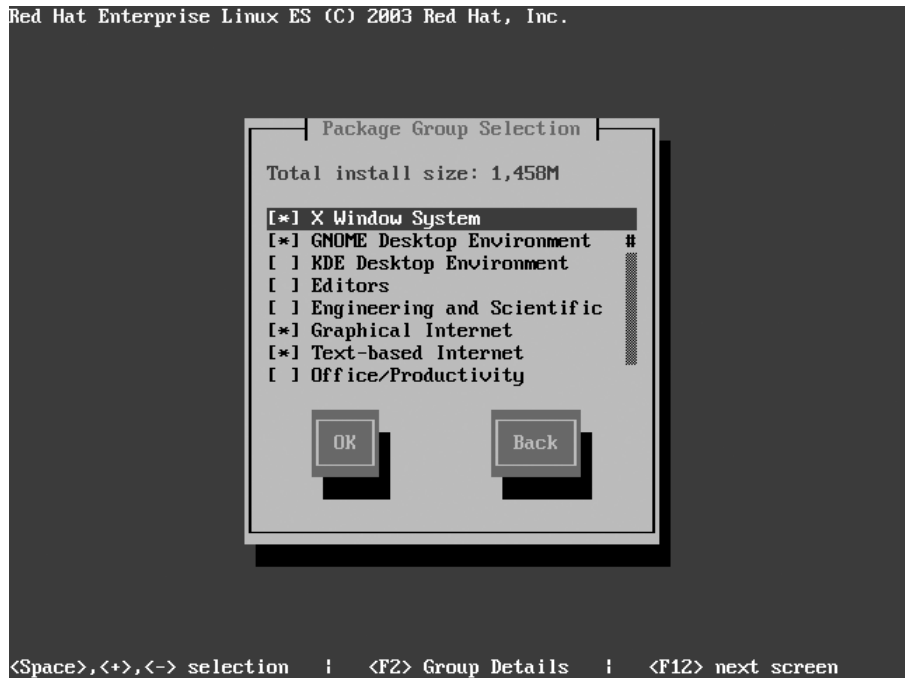
Package defaults



25. Now you'll want to select the package groups of your choice, as shown in Figure B-52. It should conform to whatever you need to meet the requirements of your particular Installation and Configuration exam.

FIGURE B-52

Selecting package groups



26. Once you've selected the package groups of your choice, you get one last chance to go back before starting the installation process, as shown in Figure B-53.

FIGURE B-53

Are you ready?



27. Once your installation process starts, you'll see packages being installed, as shown in Figure B-54.

FIGURE B-54

Starting the
installation
process



28. While RHEL 3 is being installed, you have a few minutes to start configuring your system, as shown in Figure B-55.

**e x a m**

Watch

You don't have to waste time watching the installation. Press ALT-F2 to get into a bash shell prompt. You'll find your standard root directory (/) in the /mnt/sysimage

subdirectory during the installation process. You can start configuring files and using commands as soon as they are installed. You can return to the installation process with the ALT-F1 command.

FIGURE B-55

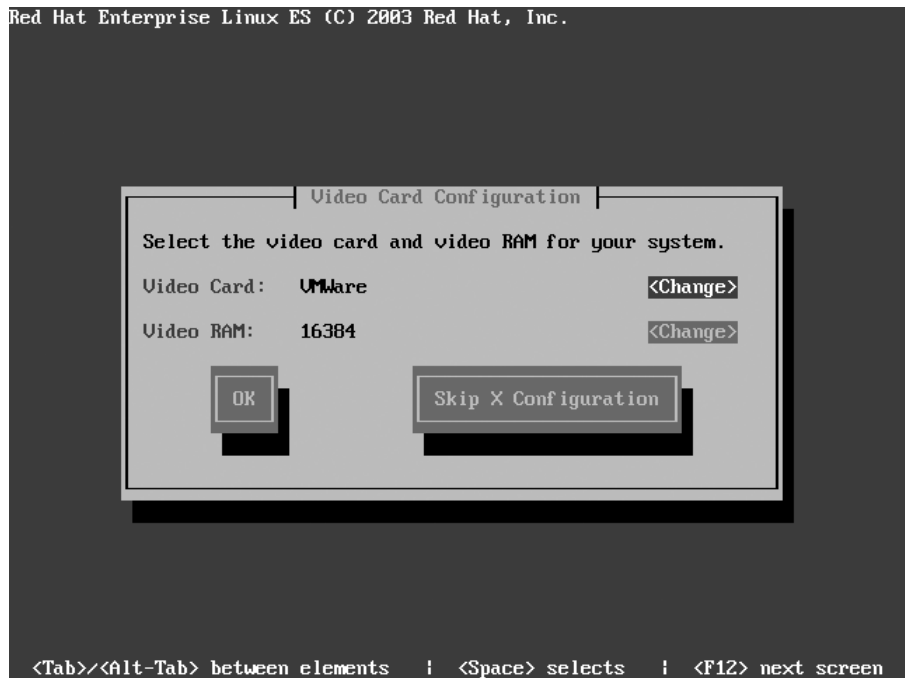
Commands during the installation process

```
~/bin/sh-2.05b# chroot /mnt/sysimage/
sh-2.05b# ls
bin  dev  home  lib      mnt  proc  sbin  usr
boot etc  initrd lost+found  opt  root  tmp   var
sh-2.05b#
```

29. Once installation is complete, Anaconda proceeds to detect and configure your graphical hardware, as shown in Figure B-56. Confirm or change the selection as appropriate.

FIGURE B-56

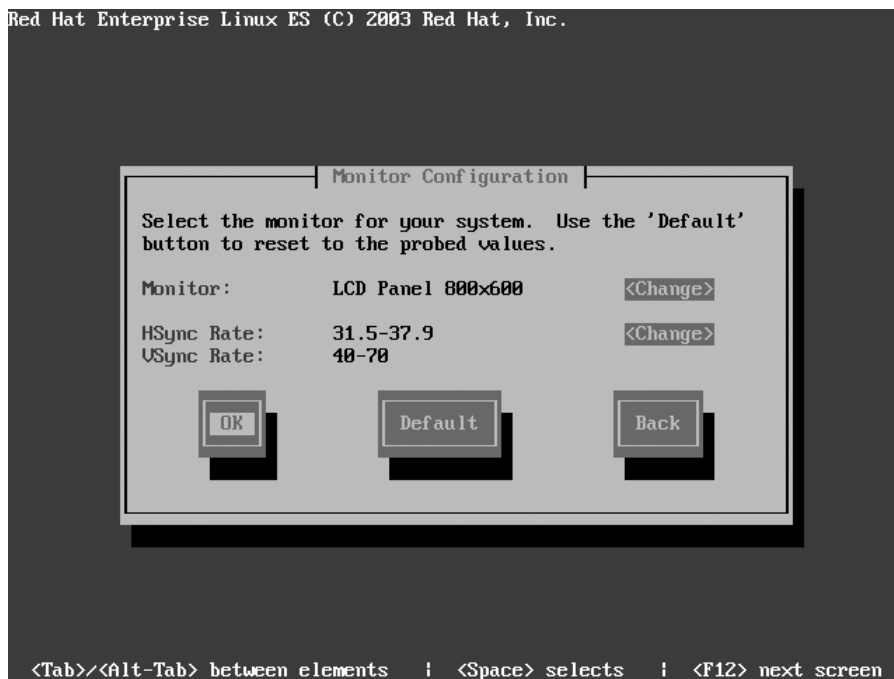
Video card
configuration



30. Similar to the previous step, Figure B-57 illustrates the detected monitor. Confirm or change the selection as appropriate.

FIGURE B-57

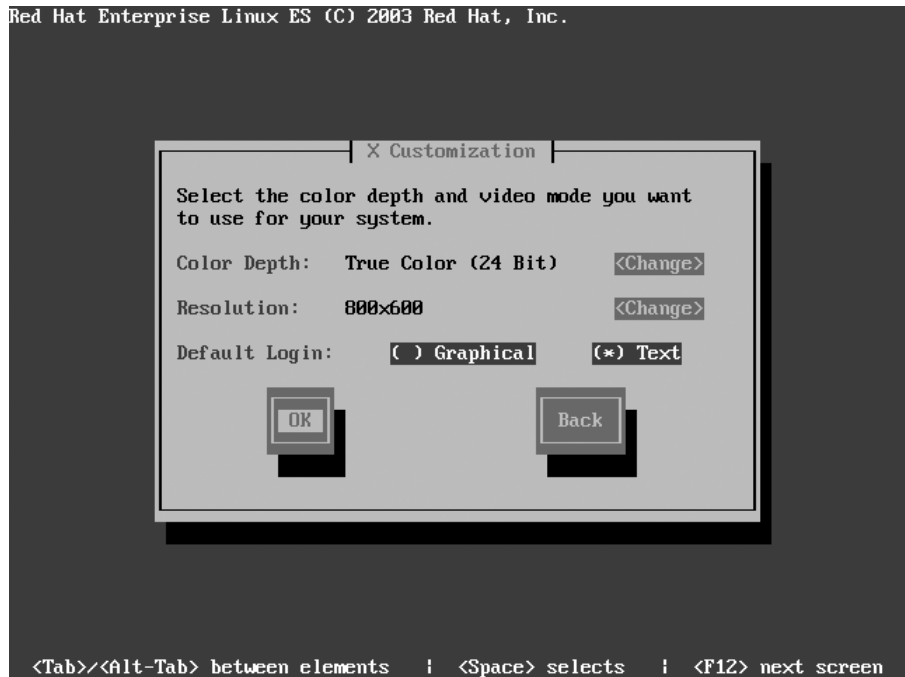
Monitor
configuration



31. Finally, choose a text login if possible in Figure B-58, so you do not need to waste time with the first boot process described in Chapter 2.

FIGURE B-58

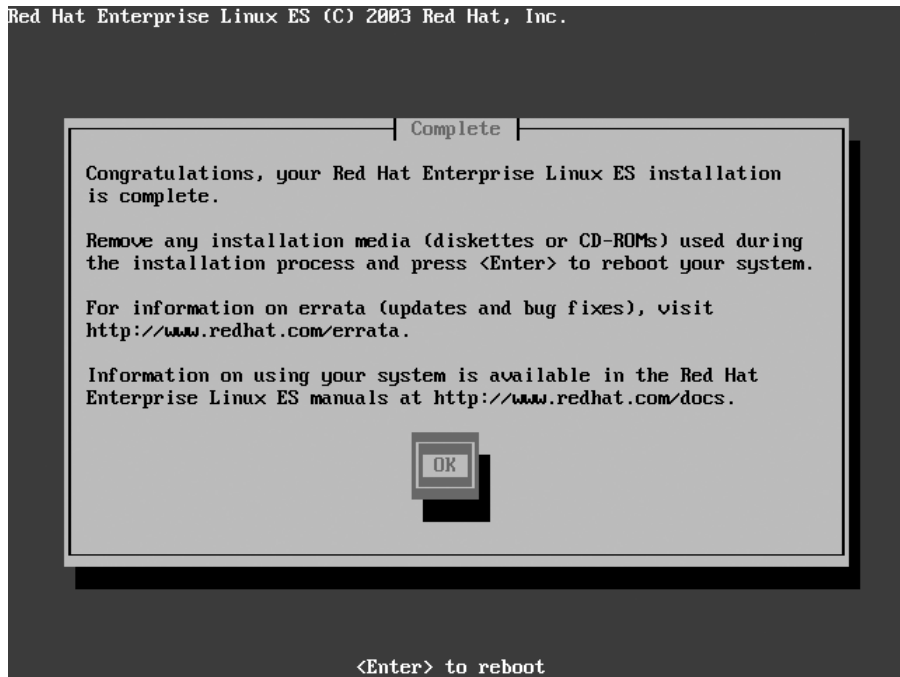
Selecting
a text login



32. Once you see the screen in Figure B-59, installation is just about complete. The next step should reboot your computer into RHEL 3.

FIGURE B-59

Ready to reboot
into Linux



33. Set your computer's BIOS to boot from the hard drive. If you had to boot from the first installation CD in the first step, reverse the process. Details vary by PC. Make sure your BIOS saves your changes before you reboot.