

Red Hat Linux 7.2 Installation Guide

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Installing Red Hat Linux

This guide explains how to install Red Hat Linux from a CD-ROM using the graphical, mouse-based installation program.

Starting the installation program

There are several ways to start the installation program. This guide will be using the bootable CD-ROM installation method. Here are some other ways to start the installation program:

- *Bootable CD-ROM* – this is where your computer supports a bootable CD-ROM drive
- *Local boot disk* – this is where your computer does not support a bootable CD-ROM and you want to install from a local CD-ROM or hard drive
- *Network boot disk* – this is where you take a boot disk that allows you to install from a FTP or HTTP site
- *PCMCIA boot disks* – use this when you need PCMCIA support

Insert the boot disk into the floppy disk drive, and reboot. If your computer supports booting from the CD-ROM drive, put the CD into the drive, and reboot.

After rebooting the computer you will see a screen showing the boot prompt. Press [Enter] to boot.

Selecting an Installation Method

Next, you will be asked what type of installation you would like to use. The following installation methods are available:

- **CD-ROM** – You will need a boot disk or a bootable CD-ROM.
- **Hard Drive** – If you have copied the Red Hat Linux ISO images to your hard drive, you can use this method. You will need a boot disk.
- **NFS Images** – If you are installing from an NFS server, you can use this method. You will need a network boot disk.
- **FTP** – If you are installing directly from an FTP server, use this method. You will need a network boot disk.
- **HTTP** – If you are installing directly from an HTTP server, use this method. You will need a network boot disk.

Beginning the Installation

To install Red Hat Linux from a CD-ROM, choose the CD-ROM option from the boot loader screen and select **OK**. Now, you will be prompted to insert the Red Hat Linux CD into your CD-ROM drive (if you didn't boot from the bootable CD-ROM). After putting the CD into the drive, select **OK**, and press [Enter].

The installation program will then look for your CD-ROM drive. If your CD-ROM is found, you will continue to the next stage, Language Selection.

Language Selection

Using the mouse, select the language you would like to use for the installation (see Figure 1. *Language Selection*). Once you have selected the language, click **Next** to continue.



Figure 1. Language Selection

Keyboard Configuration

Now, you can pick the keyboard that you have (see Figure 2. *Keyboard Configuration*). If you can't find the exact model, choose the one of the generic models.

To test your keyboard configuration, use the blank text field at the bottom of the screen to enter text.

Once you are done testing your keyboard, click **Next** to continue.

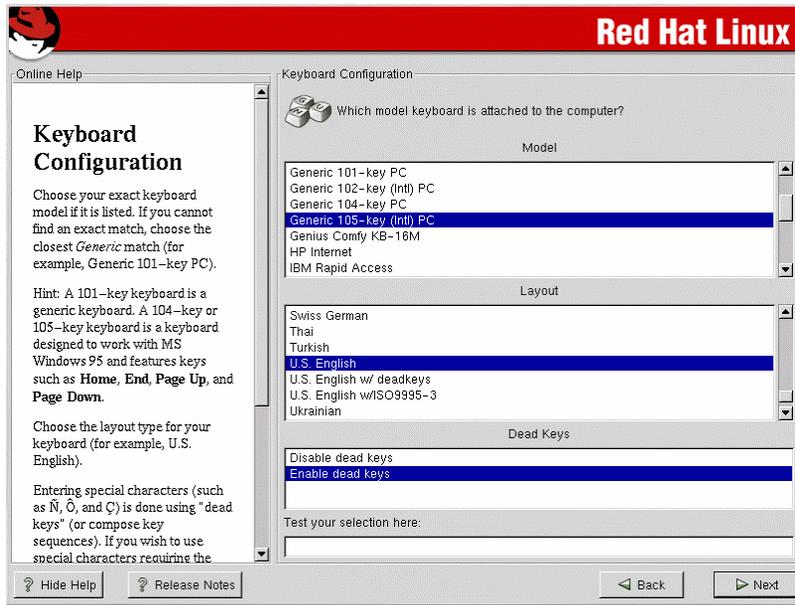


Figure 2. Keyboard Configuration

Mouse Configuration

Choose the correct mouse type for your computer (see Figure 3. *Mouse Configuration*). If you can't find an exact match, choose a generic one.

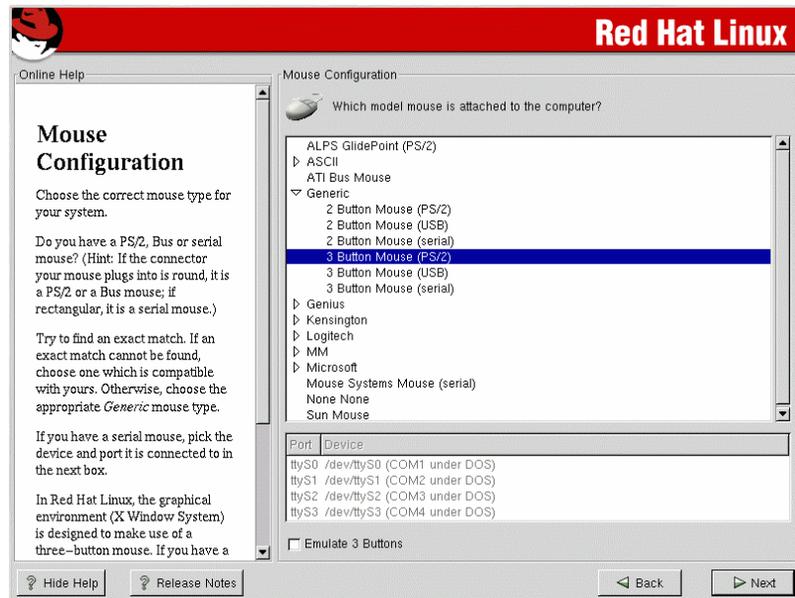


Figure 3. Mouse Configuration

Welcome to Red Hat Linux

Now, you will see the Welcome screen. Notice the Hide Help button at the bottom left corner of the screen. If you don't want to view the help information from now, click on **Hide Help** to minimize the help portion of the screen.

Click on the **Next** button to continue.

Install Options

Choose whether you want to perform a full installation or an upgrade (see Figure 4. *Choosing Install or Upgrade*).

Red Hat Linux offers these install options: Workstation, Server, Laptop, Custom, and Upgrade.

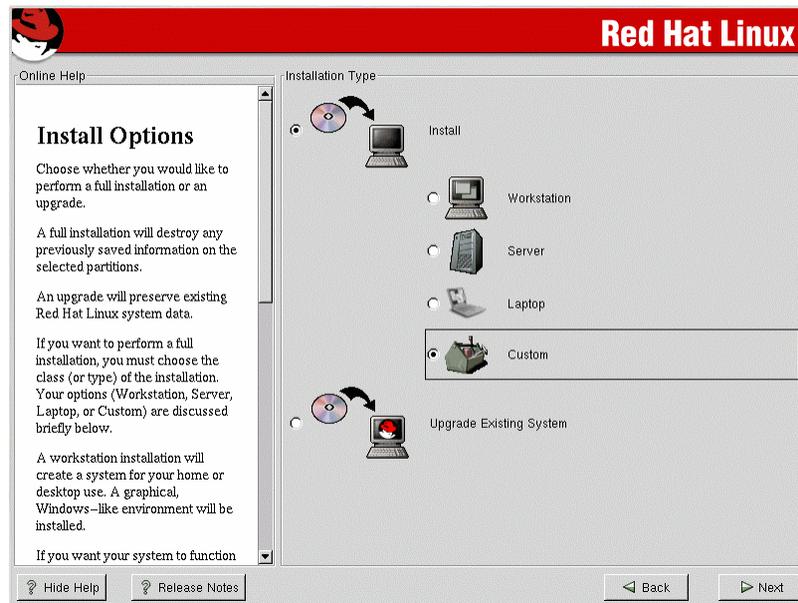


Figure 4. Choosing Install or Upgrade

Disk Partitioning Setup

Partitioning allows you to divide your hard drive into different sections, where each section acts as its own hard drive. Partitioning is very useful if you're running more than one operating system.

In this screen you can choose to perform automatic partitioning, to partition manually using Disk Druid, or to partition manually using fdisk (see Figure 5. *Disk Partitioning Setup*).

Automatic partitioning allows you to perform an installation without having to partition your hard drive(s) yourself. If you don't feel comfortable partitioning your hard drive, it's recommended that you choose to have the install automatically partition for you.

To partition manually, choose either Disk Druid or fdisk.

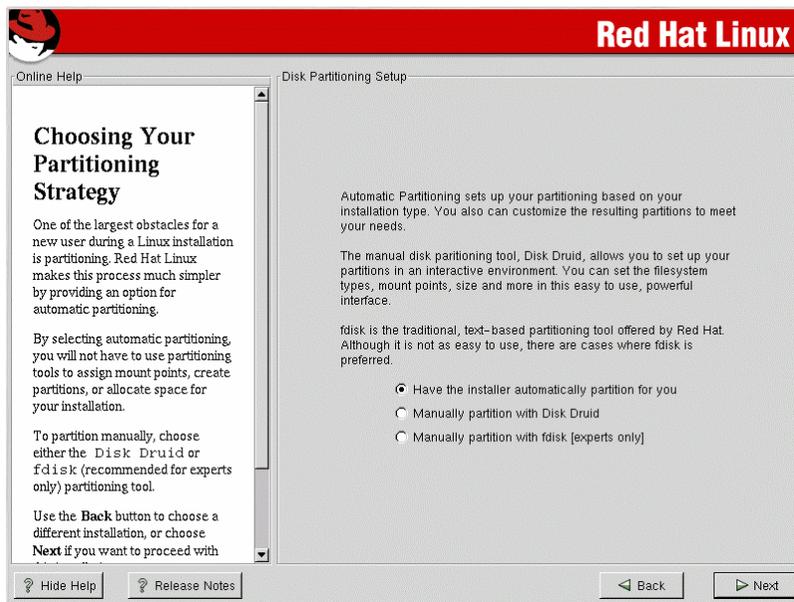


Figure 5. Disk Partitioning Setup

Automatic Partitioning

Automatic partitioning gives you some control in deciding what data to remove (see Figure 6. *Automatic Partitioning*).

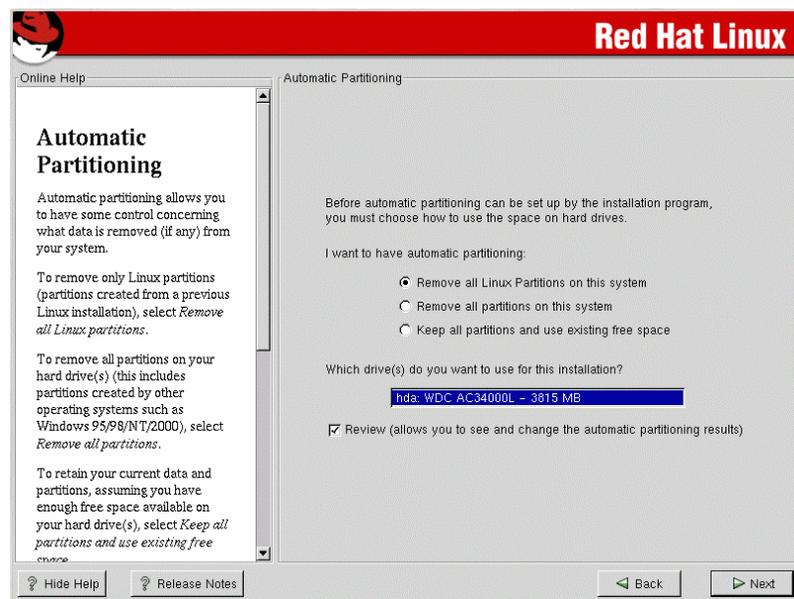


Figure 6. Automatic Partitioning

Your options are:

- **Remove all Linux partitions on this system** – select this option to remove only Linux partitions
 - **Remove all partitions on this system** – select this option to remove all partitions on your hard drive(s) including Windows partitions
-  **NOTE:** If you select this option, all data on the selected hard drive(s) will be removed.
- **Keep all partitions and use existing free space** – select this option to keep your current data and partitions

Using your mouse, select the hard drive(s) you want to install Red Hat Linux on. To review and make changes to the partitions created by automatic partitioning, select the **Review** option. Click **Next** once you are satisfied reviewing the partition information.

Boot Loader Installation

In order to boot your Red Hat Linux system without a boot disk, you will need to install a boot loader. You can choose to install either GRUB (default) or LILO (see Figure 7. *Boot Loader Installation*). GRUB is a software boot loader that can be used to start other operating systems, such as Windows 9x.

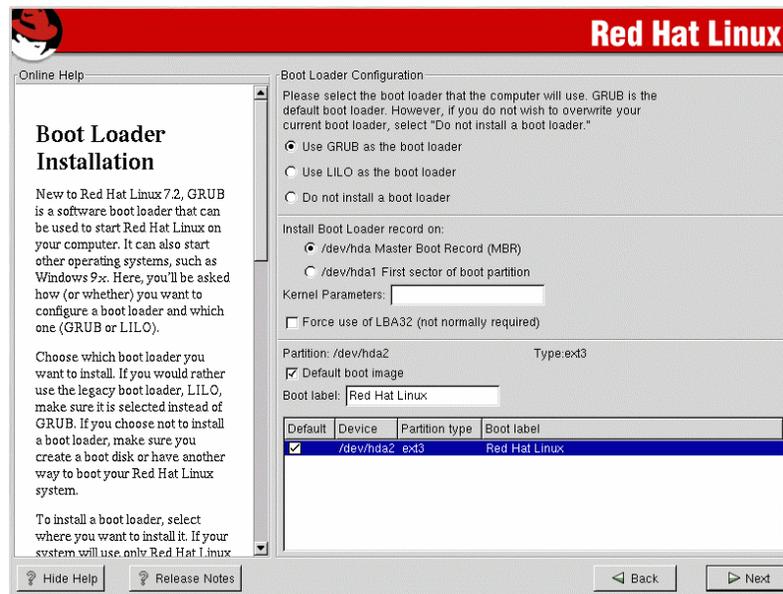


Figure 7. Boot Loader Installation

Now that you have chosen to install a boot loader, you have to decide where you want to install it. The recommended place to install it is in the master boot record.

If you install it in your master boot record, when your computer boots, GRUB (or LILO) will present a boot prompt. You can then boot Red Hat Linux or any other operating system that you have configured the boot loader to boot.

GRUB Password

If you are installing GRUB as your boot loader, you should create a password to protect your system (see Figure 8. *GRUB Password*).

The screenshot shows the 'GRUB Password' configuration window in a Red Hat Linux installer. The window is titled 'Red Hat Linux' and has a red header. It is split into two panes. The left pane, titled 'GRUB Password', contains the following text:

GRUB Password

Now that you have chosen to install GRUB as your boot loader, you should create a password to protect your system. Users can pass options to the kernel which can compromise your system security.

To enhance your system security, you should select *Use a Grub Password*.

Once selected, enter in a password and then confirm it.

The right pane, titled 'Boot Loader Password Configuration', contains the following text:

A GRUB password prevents users from passing arbitrary options to the kernel. For highest security, we recommend setting a password, but this is not necessary for more casual users.

Use a GRUB Password?

Password:

Confirm:

Password accepted.

At the bottom of the window, there are buttons for 'Hide Help', 'Release Notes', 'Back', and 'Next'.

Figure 8. GRUB Password

After checking the box, enter a password and confirm it.

Network Configuration

If you have a network card, and haven't configured your networking yet, now is the time (see Figure 9. *Network Configuration*). If you have more than one network device, you will see a tab for each one.

Check the box if you want to configure your IP address using DHCP. If you select **Activate on boot**, your network interface card will be started when you boot up the computer.

Next, enter if known, the **IP Address**, **Netmask**, **Network**, and **Broadcast** addresses.

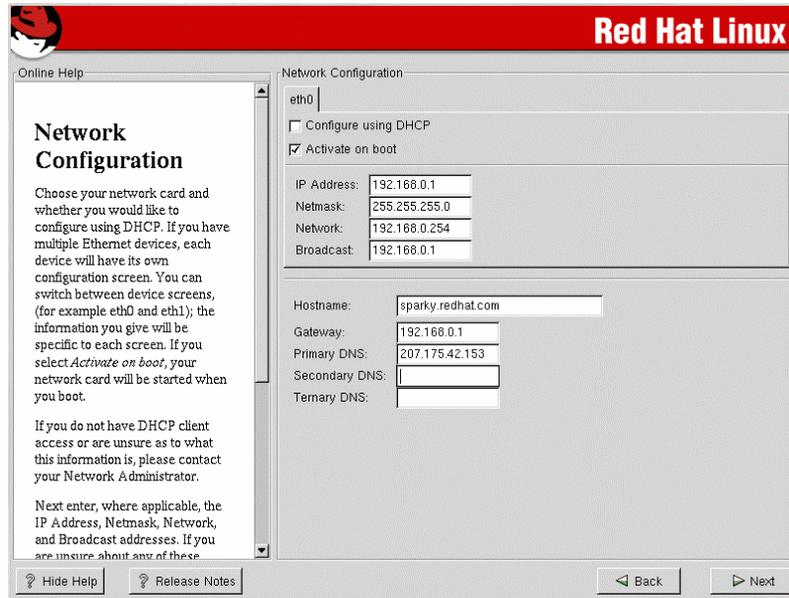


Figure 9. Network Configuration

Finally, enter the **Hostname**, **Gateway**, and **Primary DNS** addresses.

Firewall Configuration

Red Hat Linux offers firewall protection for added security. A firewall exists between your computer and the Internet. A properly configured firewall can increase the security of your computer (see Figure 10. *Firewall Configuration*).

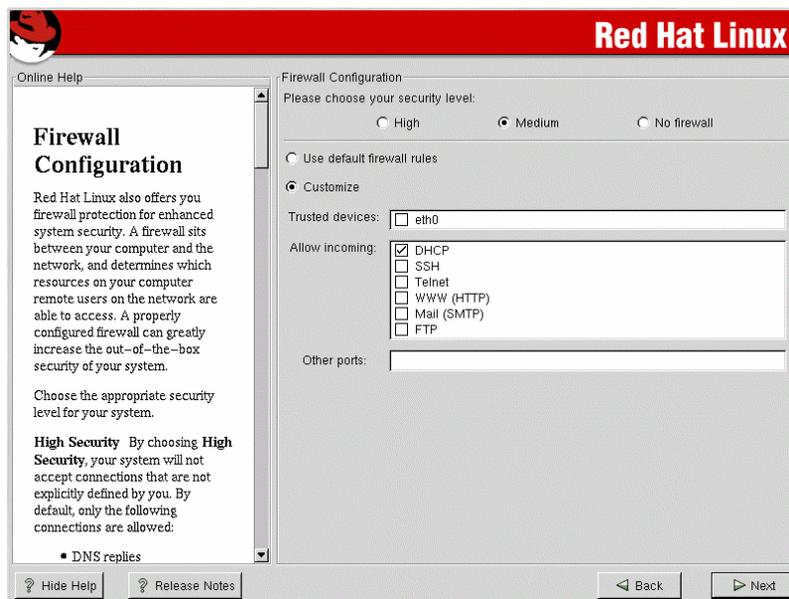


Figure 10. Firewall Configuration

There are three different levels of security. The security levels are **High**, **Medium**, and **No firewall**. You can also choose **Customize** to allow specific services through the firewall.

Language Support Selection

Red Hat Linux can install and support multiple languages for use on your computer. You must select a language to use as the default language though (see Figure 11. *Language Support Selection*).

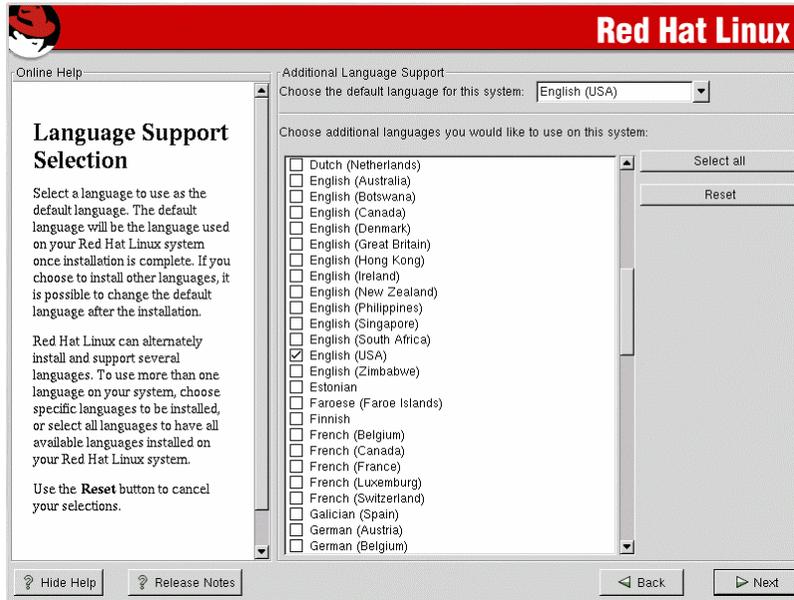


Figure 11. Language Support Selection

Time Zone Configuration

You can set your time zone by either selecting your physical location or selecting your time zone (see Figure 12. *Configuring the Time Zone*).

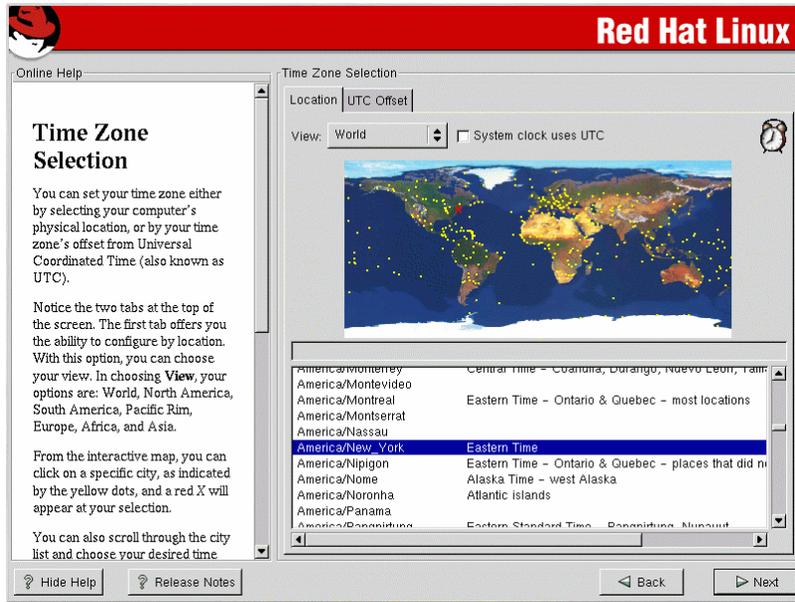


Figure 12. Configuring the Time Zone

Account Configuration

The account configuration screen lets you set your root password. On this screen you can also set up additional user accounts for you to log in once the installation is complete (see Figure 13. *Account Creation*).

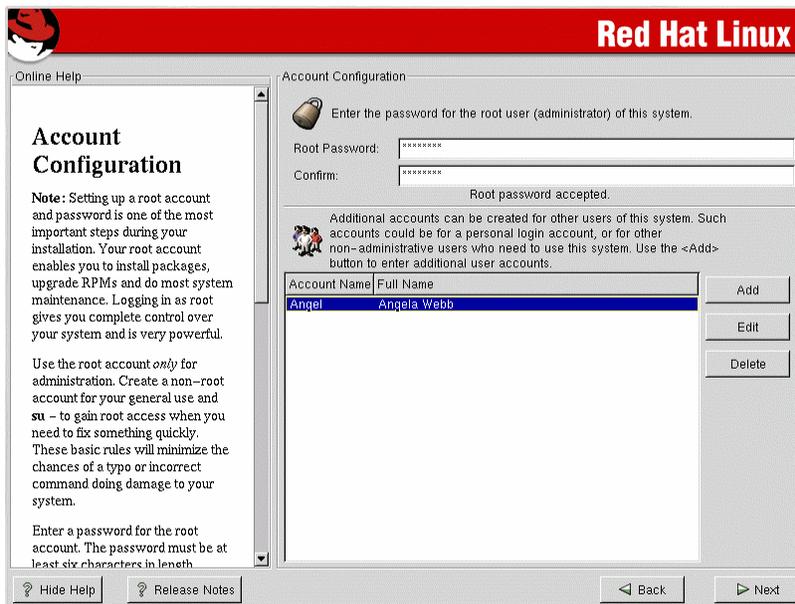


Figure 13. Account Creation

Package Group Selection

Now, you are ready to select packages for installation.

GNOME and KDE are both graphical desktop environments. You must choose one of these to have a default graphical setup, but you can also install both, and then choose which one you like better.

You can now select package groups like Printing Support, Laptop Support, Network Support, etc. To select a package group, click on the checkbox beside it (see Figure 14. *Package Group Selection*).

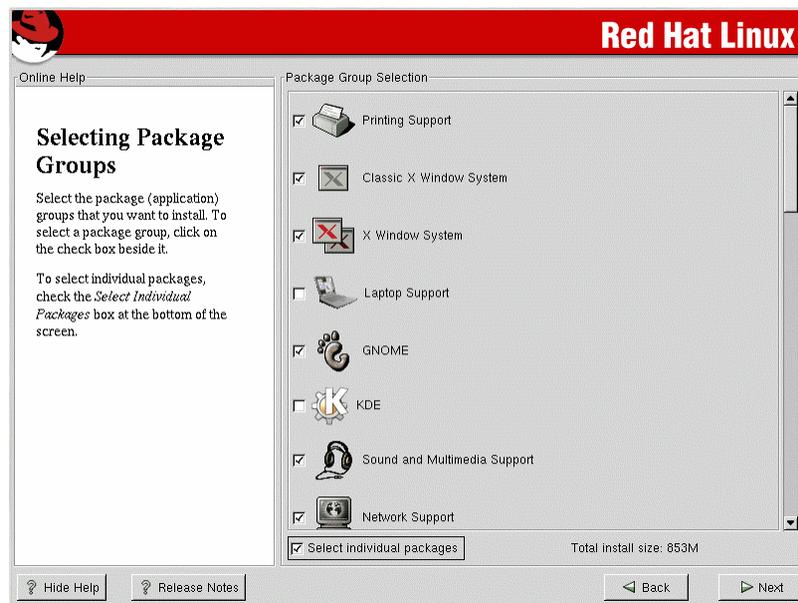


Figure 14. Package Group Selection

Selecting **Everything** will install all packages included with Red Hat Linux. If you do install everything you will need at least 1.7 GB of free disk space. You can also select individual packages.

X Configuration

If you decided to install the X Window System packages in the previous step, you can now configure your X server for your computer.

If your video card doesn't show up on the list, X may not support it. When this happens, it's recommended that you select something similar to your card (see Figure 15. *Video Card Setup*).

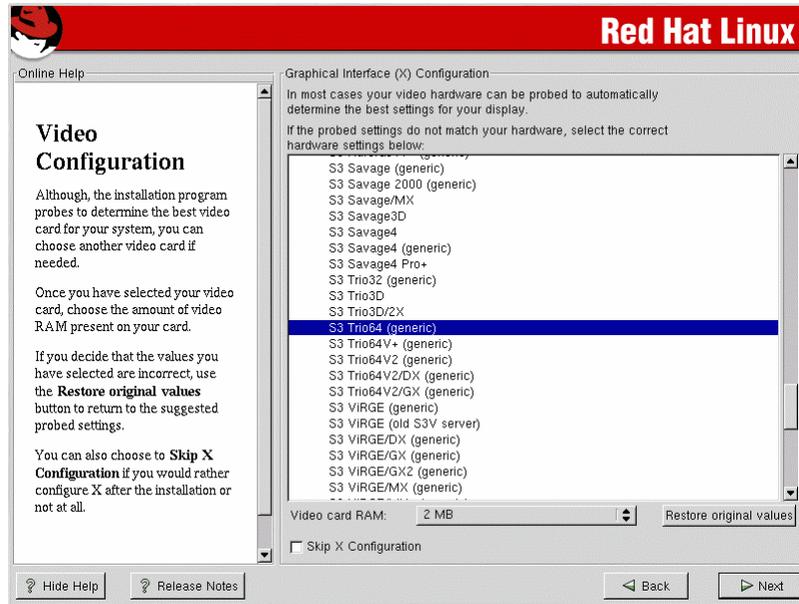


Figure 15. Video Card Setup

Next, enter the amount of memory on your video card.

Preparing to Install

You should now see a screen preparing you for the installation of Red Hat Linux.



NOTE: To cancel the installation, press the computer's Reset button or press the [Control]-[Alt]-[Delete] combination to restart the computer.

Installing Packages

Now, you have to install the selected packages (see Figure 16. *Installing Packages*).

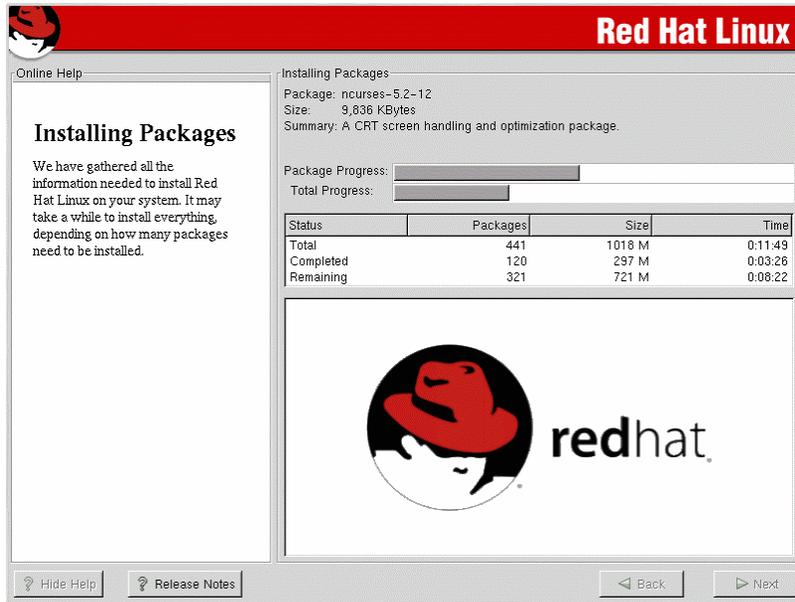


Figure 16. Installing Packages

Boot Disk Creation

It is highly recommended that you create boot disk. If your system were not able to boot properly using GRUB (or LILO), a boot disk would allow you to properly boot your Red Hat Linux System. Here is the screen you should see (see Figure 17. *Creating Your Boot Disk*).



Figure 17. Creating Your Boot Disk

X Configuration

The last thing you need to do to complete X configuration is to configure your monitor and customize your X-settings.

First, you have to configure your monitor. You will see a list of monitors to choose from. Your monitor should be selected based on auto detection (see Figure 18. *Monitor Selection*).

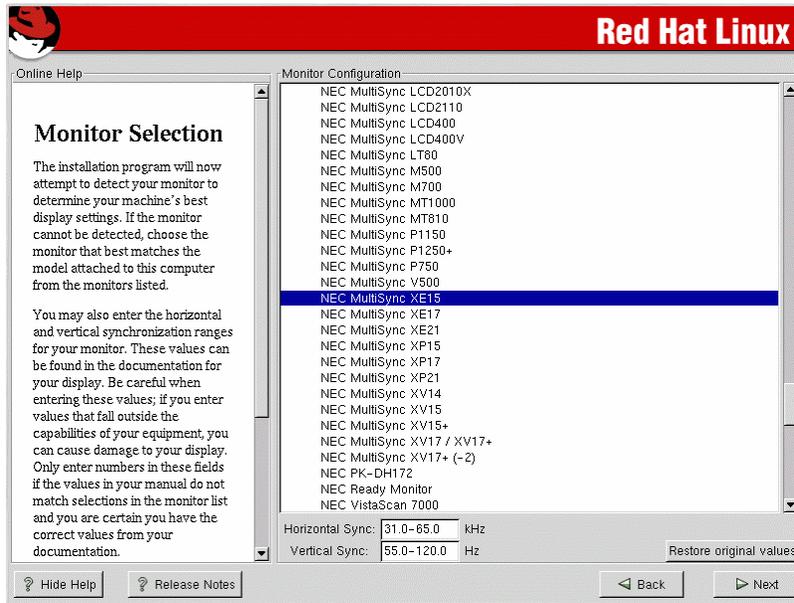


Figure 18. Monitor Selection

If your monitor isn't in the list, select a generic model. Click **Next** when you have finished configuring your monitor.

The next screen allows you to customize X Windows. You can set the color depth and screen resolution and then test it (see Figure 19. *X Customization*).

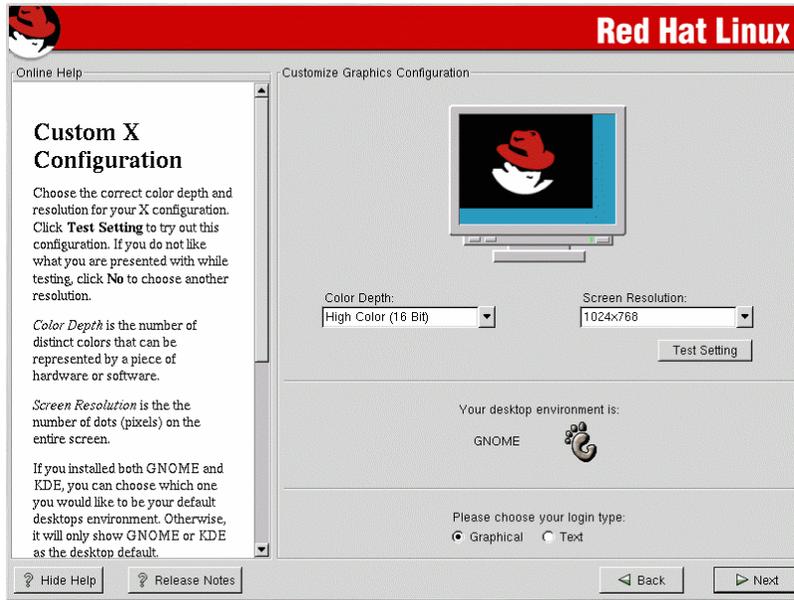


Figure 19. X Customization

You can also choose whether you want to boot your computer into a text or graphical environment. Booting into a graphical environment is recommended.

Installation Complete

You have now completed the installation process. Make sure that you remove any disks from the drive or CD in the CD-ROM drive. When the computer reboots you should see a graphical boot loader prompt that shows the following choices:

- Press [Enter] – This causes the default boot entry to be booted.
- Select a boot label, and then press [Enter] – This causes the boot loader to boot the operating system that you selected.
- Do nothing – This causes the boot loader to automatically boot the default boot entry.

You should now see a lot of text scroll by. Eventually, you will see a GUI login screen.