
Fedora 12

Installation Quick Start Guide

Downloading and installing Fedora 12 on most desktop and laptop computers



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Abstract

This document shows you how to download and install Fedora. It does not cover every possible scenario, but describes steps that will work in most situations on most common hardware.

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1. Introduction

This guide shows you how to download a Fedora 12 live CD image, burn this image to a disc, and use this disc to install Fedora 12 on a typical desktop or notebook computer. This guide is not a complete description of the installation process and all its options — for greater detail, refer to the *Fedora 12 Installation Guide*, available from <http://docs.fedoraproject.org/install-guide/f12/>.

2. Requirements

To create a Fedora live CD, you need:

- a broadband connection to the Internet.
- a computer with a CD or DVD burner.
- software that allows you to create a CD from an image file.
- a blank, writeable CD.

If you do not have a fast Internet connection, or if you have a problem creating boot media, downloading may not be an option. Fedora DVD and CD distribution media is available from a number of online sources around the world at a minimal cost. Use your favorite Web search engine to locate a vendor, or refer to <http://fedoraproject.org/wiki/Distribution>.

The computer on which you intend to install Fedora 12 from the live CD should have:

- a CD or DVD drive, and the capability to boot from this drive.
- a 400 MHz processor or faster
- at least 256 MB of memory (RAM)
- at least 10 GB of permanent storage (hard drive) space.

These specifications represent a bare minimum to use Fedora in graphical mode. Almost any laptop or desktop computer manufactured during the past ten years will meet these requirements. For more details of the hardware requirements for Fedora 12, refer to the *Fedora 12 Release Notes*, available from <http://docs.fedoraproject.org/release-notes/f12/>.

If your computer does not have a CD or DVD drive, or is not capable of booting from this drive, then you might be able to install Fedora from a USB storage device such as a USB flash drive. Refer to the *liveusb-creator* page at <https://fedorahosted.org/liveusb-creator/> for instructions.



Do you already have Fedora 12 on CD, DVD, or live USB media?

If you already have Fedora 12 on CD, DVD, or live USB media, you can still use this guide, because many steps will be similar. Skip ahead to *Section 5, “Boot your computer from the CD”*, then

- continue through the instructions in order if you have a Fedora 12 live CD or live USB device.
- skip ahead to *Section 7, “Welcome to Fedora”* if you have a Fedora 12 DVD or set of six CDs.

3. Download the Fedora live CD image file

The image file for the Fedora 12 live CD is available from <http://download.fedoraproject.org/pub/fedora/linux/releases/12/Live/i686/Fedora-12-i686-Live.iso>. Download and save this file to your computer.

4. Burn the image file to CD

The exact series of steps that produces a CD from an image file varies greatly from computer to computer, depending on the operating system and disc burning software installed. Use this procedure as a general guide. You might be able to omit certain steps on your computer, or might have to perform some of the steps in a different order from the order described here.

Make sure that your disc burning software is capable of burning discs from image files. Although this is true of most disc burning software, exceptions exist.

In particular, note that the CD burning feature built into Windows XP and Windows Vista cannot burn CDs from images and that earlier Windows operating systems did not have any CD burning capability installed by default. Therefore, if your computer has a Windows operating system installed on it, you need a separate piece of software for this task. Examples of popular CD burning software for Windows that you might already have on your computer include **Nero Burning ROM** and **Roxio Creator**. If you use a Windows operating system on your computer and do not have disc burning software installed

(or you are not sure that the software can burn discs from image files) **InfraRecorder** is a suitable alternative available from <http://www.infrarecorder.org/>, and is free and open-source.

The **Disk Utility** software installed by default with Mac OS X on Apple computers has the capability to burn CDs from images built into it already. Most widely-used CD burning software for Linux, such as **Brasero** and **K3b**, also includes this capability.

1. Insert a blank, writeable CD into your computer's CD or DVD burner. On some computers, a window opens and displays various options when you insert the disc. If you see a window like this, look for an option to launch your chosen disc burning program. If you do not see an option like this, close the window and launch the program manually.
2. Launch your disc burning program. On some computers, you can do this by right-clicking (or control-clicking) on the image file and selecting a menu option with a label like **Copy image to CD**, or **Copy CD or DVD image**. Other computers might provide you with a menu option to launch your chosen disc burning program, either directly or with an option like **Open With**. If none of these options are available on your computer, launch the program from an icon on your desktop, in a menu of applications such as the **Start** menu on Windows operating systems, or in the Mac **Applications** folder.
3. In your disc burning program, select the option to burn a CD from an image file. For example, in **Nero Burning ROM**, this option is called **Burn Image** and is located on the **File** menu.

Note that you can skip this step when using certain CD burning software; for example, **Disk Utility** on Mac OS X does not require it.

4. Browse to the Fedora live CD image file that you downloaded previously and select it for burning.
5. Click the button that starts the burning process.



Check the CD

After the burning process completes, browse to the CD and check its contents. If you have burned the disc correctly, it should contain a number of files and folders, including **GPL**, **README**, **LiveOS**, **EFI**, and **isolinux**. If you see only a single file named **Fedora-12-i686-Live.iso**, you have burned the image file itself to the CD, rather than burning a CD from the image file. In this case, you cannot use the CD and must try again.

5. Boot your computer from the CD

Switch on your computer, load the Fedora 12 live CD into the CD or DVD drive, and restart the computer with the disc still in the drive. Ideally, you should soon see the Fedora boot screen and a ten-second countdown:



Figure 1. The Fedora live CD boot screen

If you do not see this screen, you might need to select an option manually to make your computer boot from the CD. Power your computer on, and watch the initial BIOS screen for a prompt that indicates which key to use for either:

- a boot menu, or
- the BIOS setup utility

The boot menu option is preferable. If you cannot see such a prompt, consult your manufacturer's documentation for your computer system, motherboard, or mainboard for the correct keystroke. On many systems, the required key will be **F12**, **F2**, **F1**, **Esc**, or **Delete**.

6. Log in to the Fedora live system

After a ten-second countdown, your computer loads the Fedora live system and presents you with a login screen:

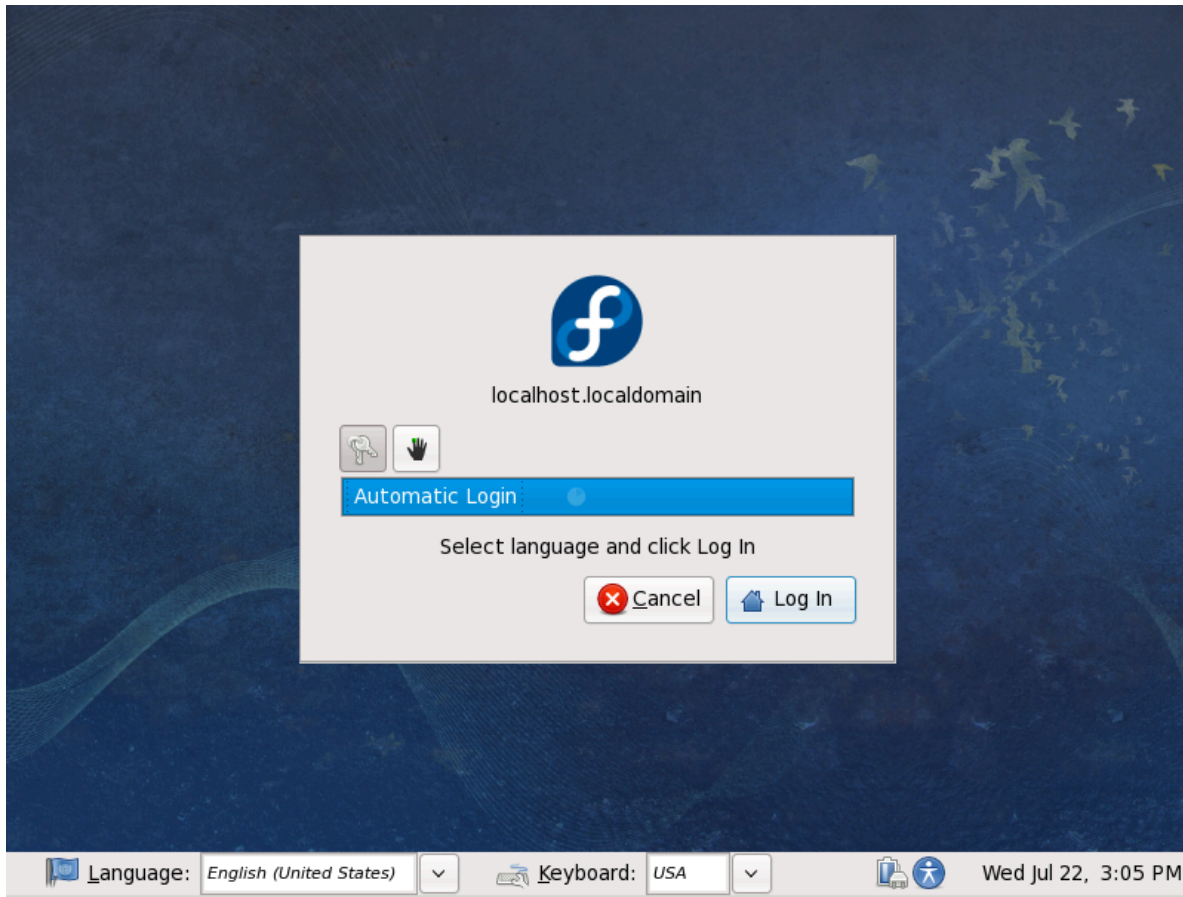


Figure 2. The Fedora live system login screen

1. Click on the menus in the gray bar at the bottom of the screen to select your language and keyboard layout.
2. Click the **Log In** button. The Fedora live system desktop loads.

The Fedora live system desktop consists of menu bars at the top and bottom of the screen, plus four icons on the desktop. Double-click the icon marked **Install to Hard Drive** to launch the installation program.

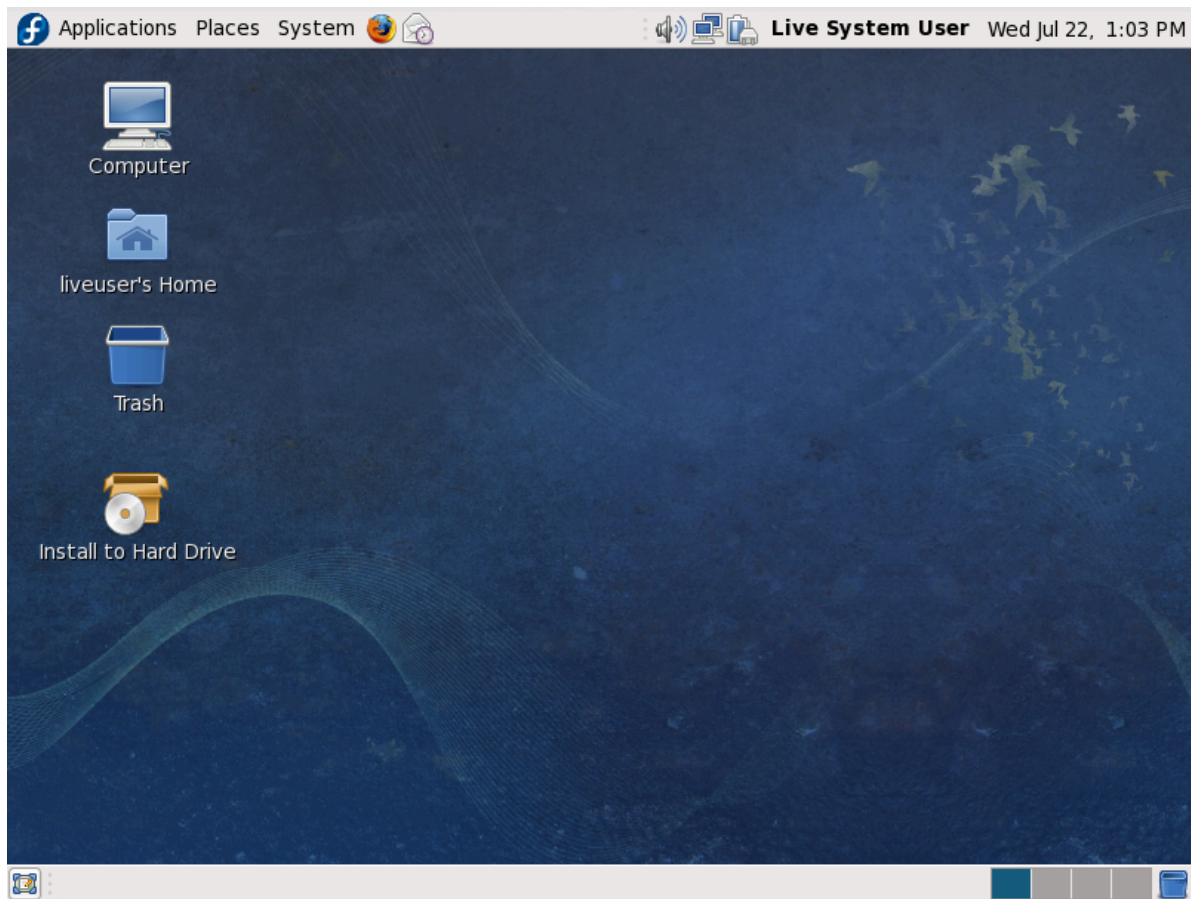
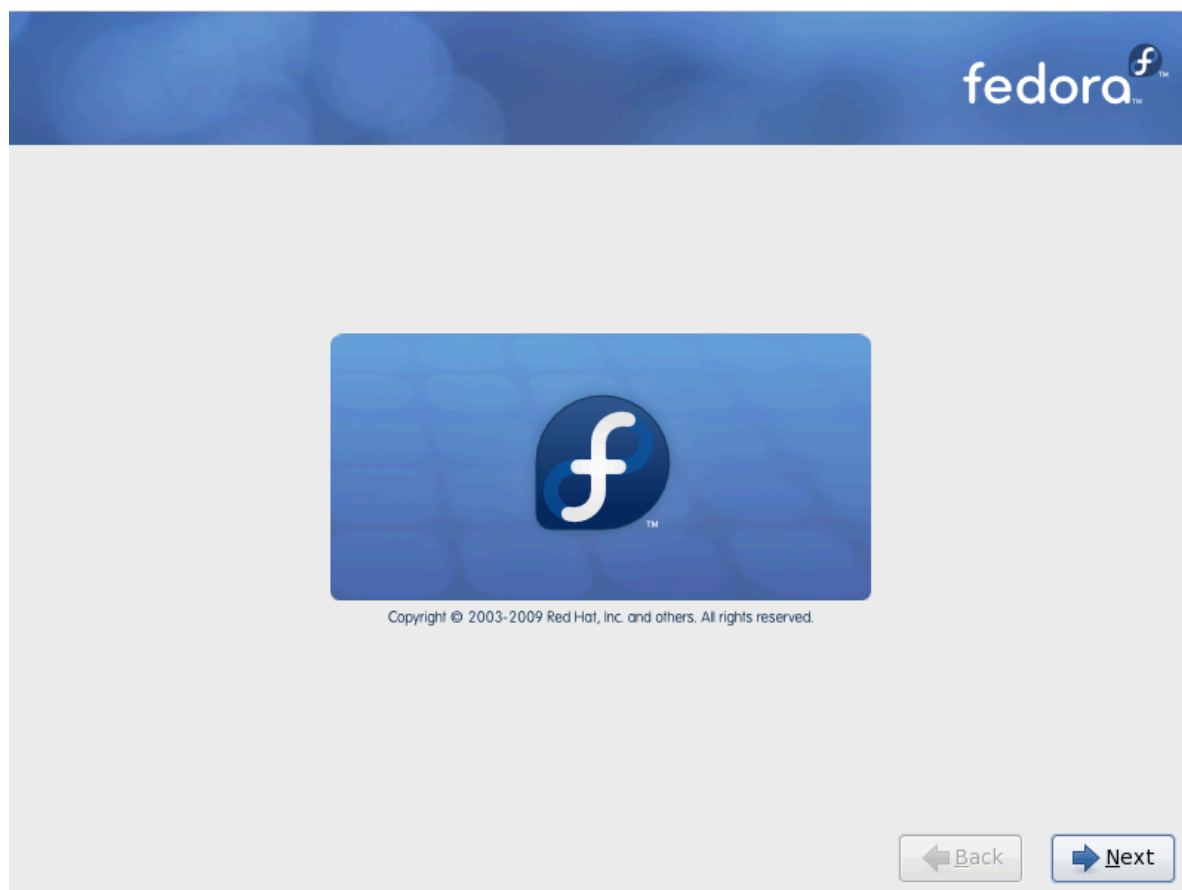


Figure 3. The desktop of the Fedora live system

7. Welcome to Fedora

The **Welcome** screen does not prompt you for any input.



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

8. Language Selection

Using your mouse, select a language to use for the installation (refer to [Figure 4, “Language Selection”](#)).

The language you select here will become the default language for the operating system once it is installed. Selecting the appropriate language also helps target your time zone configuration later in the installation. The installation program tries to define the appropriate time zone based on what you specify on this screen.

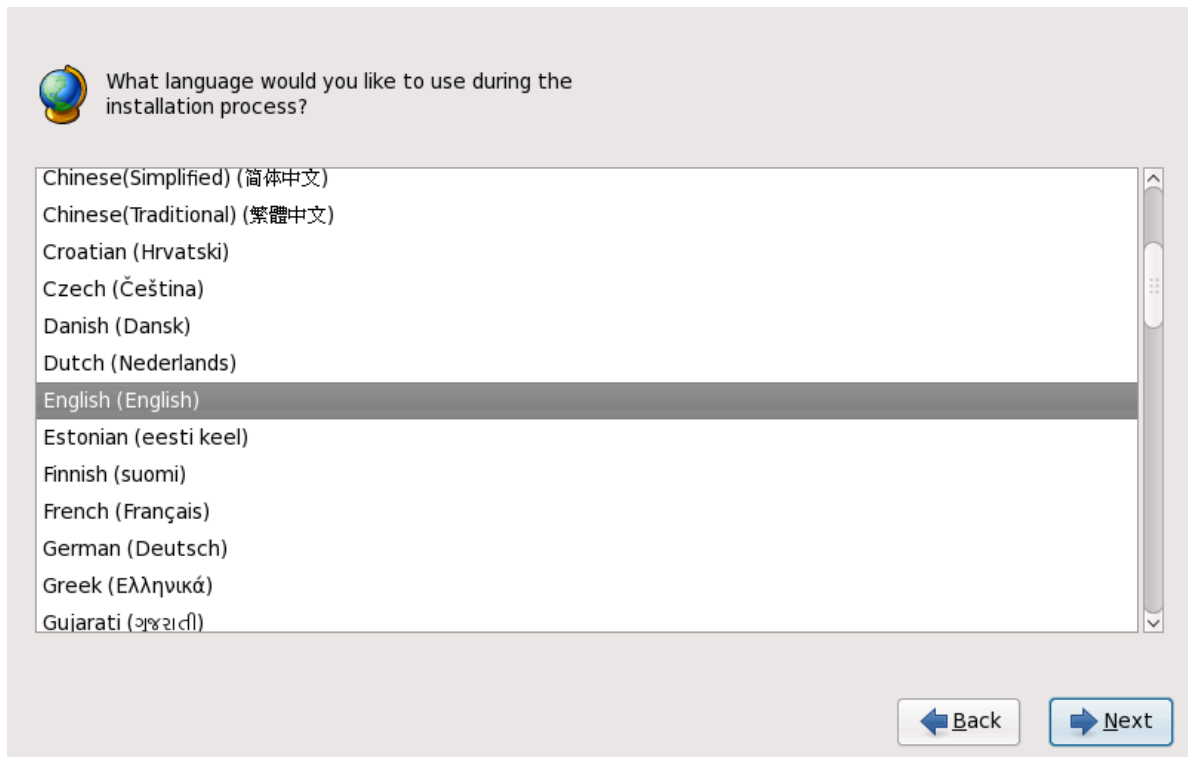


Figure 4. Language Selection

Once you select the appropriate language, click **Next** to continue.

9. Keyboard Configuration

Using your mouse, select the correct layout type (for example, U.S. English) for the keyboard you would prefer to use for the installation and as the system default (refer to the figure below).

Once you have made your selection, click **Next** to continue.

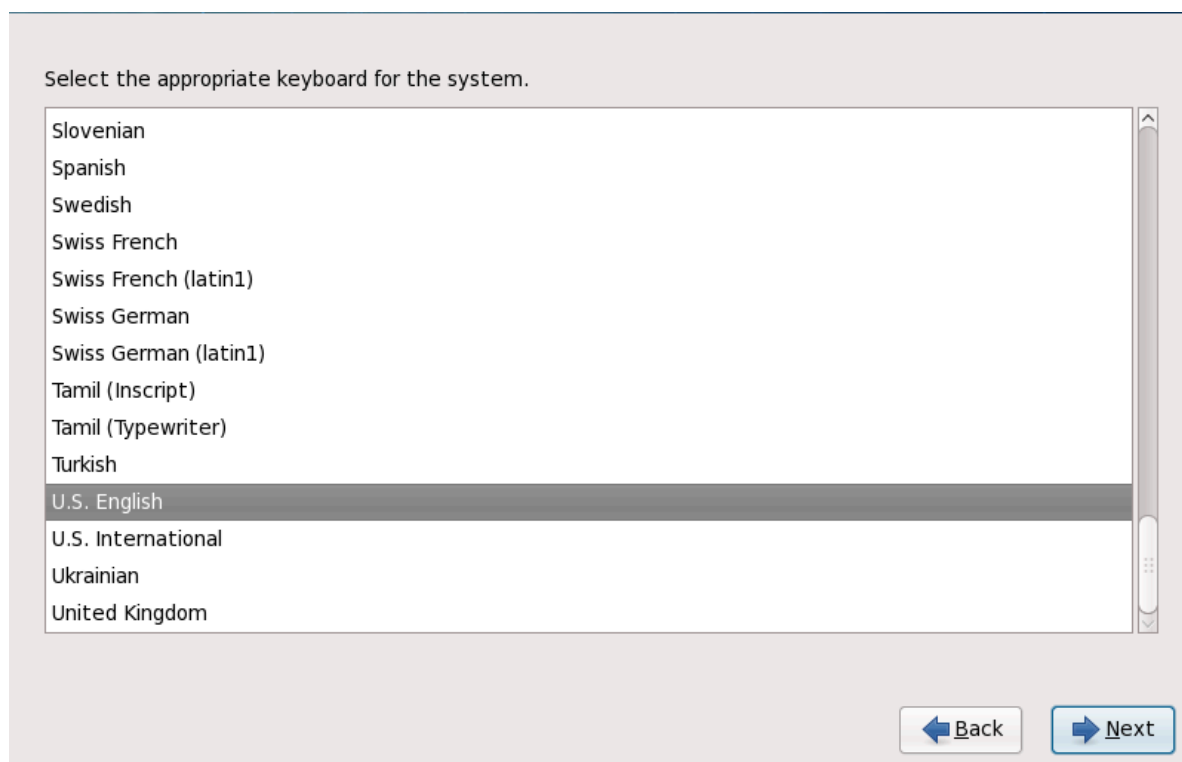


Figure 5. Keyboard Configuration

10. Initializing the Hard Disk

If no readable partition tables are found on existing hard disks, the installation program asks to initialize the hard disk. This operation makes any existing data on the hard disk unreadable. If your system has a brand new hard disk with no operating system installed, or you have removed all partitions on the hard disk, click **Re-initialize drive**.

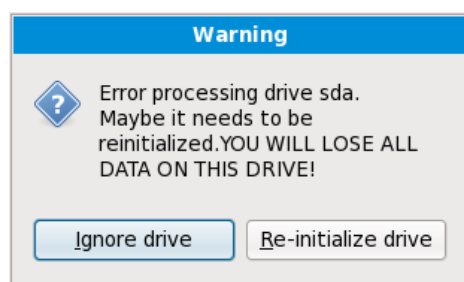


Figure 6. Warning screen – initializing hard drive

11. Upgrading an Existing System

If your system contains a Fedora or Red Hat Linux installation, a dialog appears asking whether you want to upgrade that installation. To perform an upgrade of an existing system, choose the appropriate installation from the drop-down list and select **Next**.

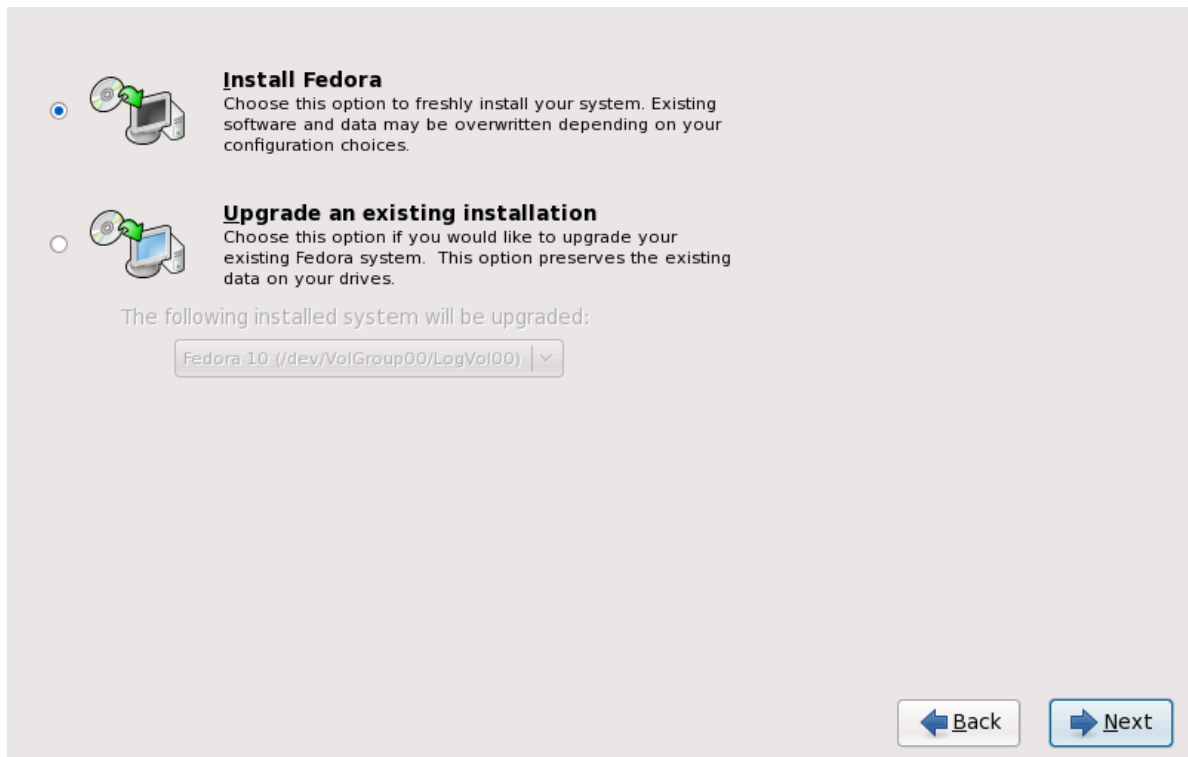


Figure 7. The upgrade screen

12. Network Configuration

Setup prompts you to supply a host name and domain name for this computer, in the format *hostname.domainname*. Many networks have a DHCP (Dynamic Host Configuration Protocol) service that automatically supplies connected systems with a domain name, leaving the user to enter a hostname.

Unless you have a specific need to customize the host name and domain name, the default setting **localhost.localdomain** is a good choice for most users.

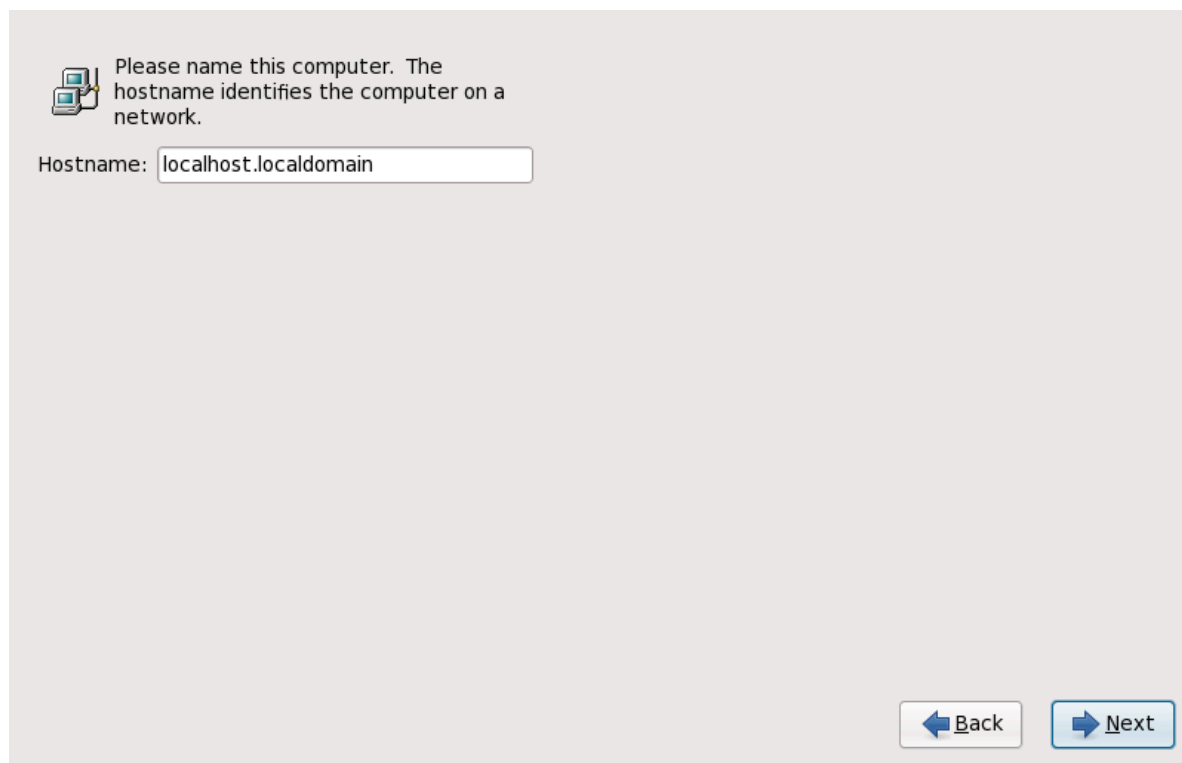


Figure 8. Setting the hostname

13. Time Zone Configuration

Set your time zone by selecting the city closest to your computer's physical location. Click on the map to zoom in to a particular geographical region of the world.

From here there are two ways for you to select your time zone:

- Using your mouse, click on the interactive map to select a specific city (represented by a yellow dot). A red **X** appears indicating your selection.
- You can also scroll through the list at the bottom of the screen to select your time zone. Using your mouse, click on a location to highlight your selection.

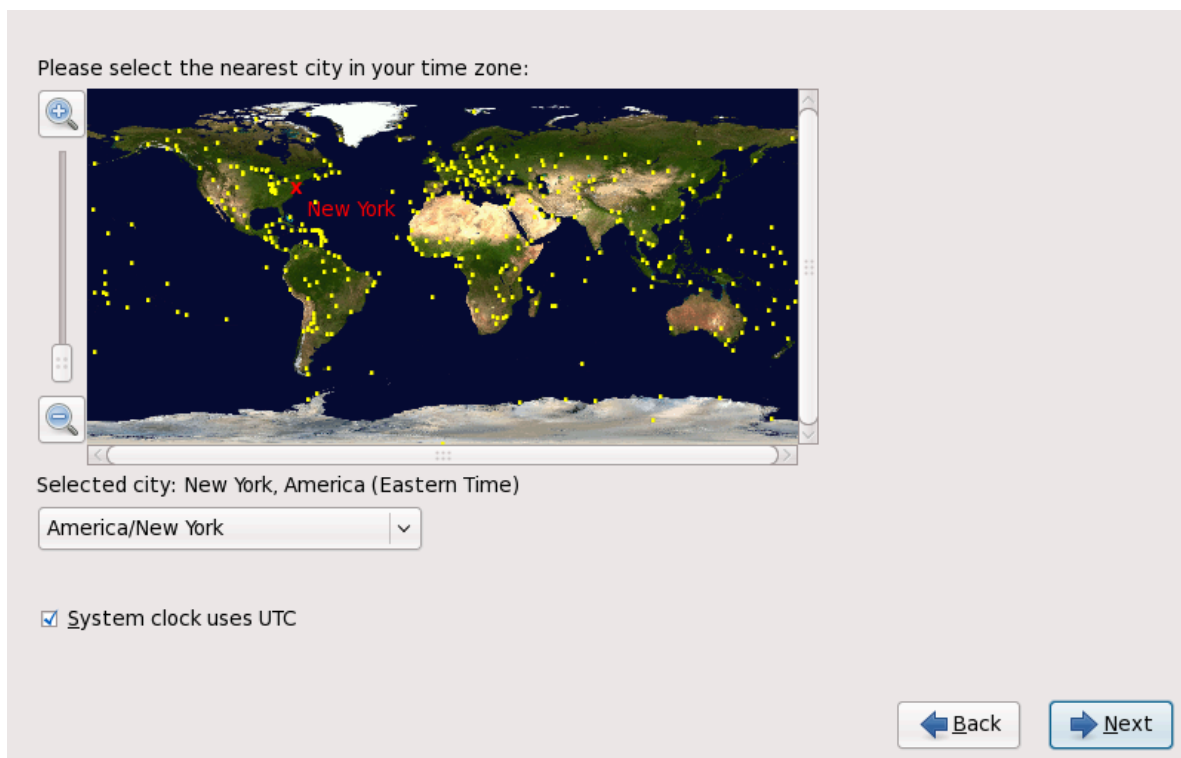
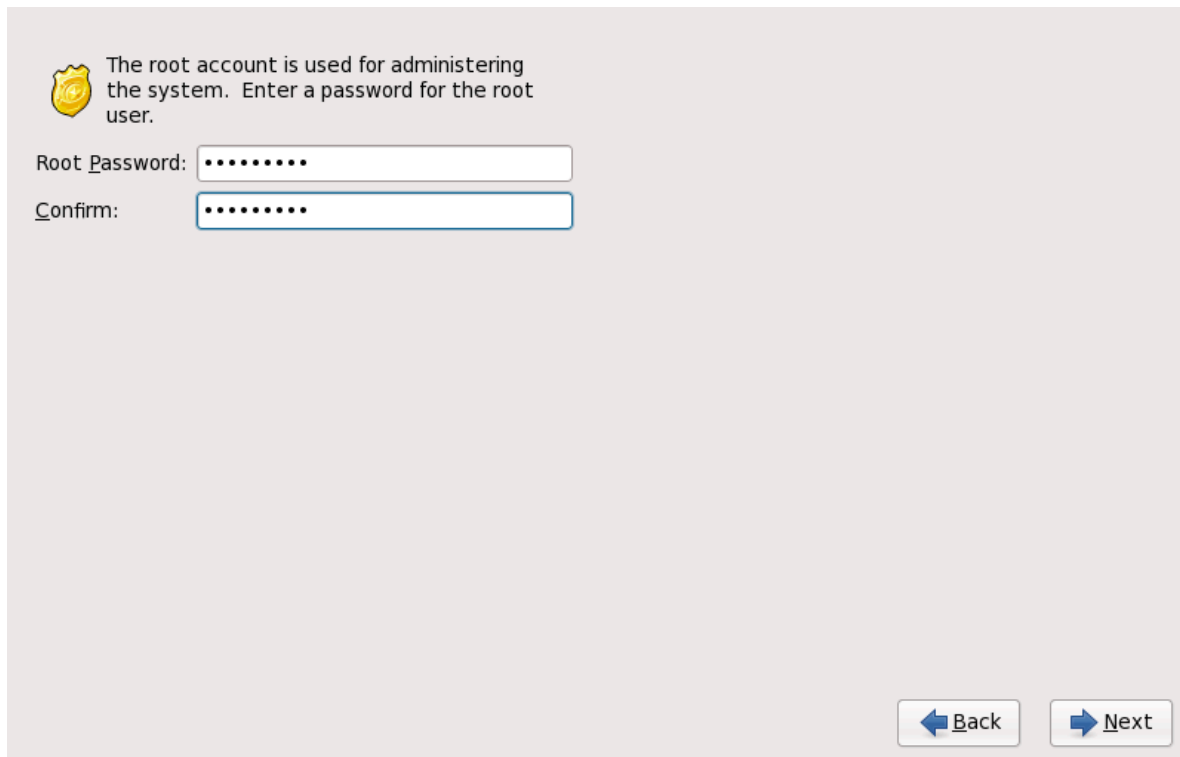


Figure 9. Configuring the Time Zone

Select **Next** to proceed.

14. Set the Root Password

Setting up a root account and password is one of the most important steps during your installation. Your root account is similar to the administrator account used on Microsoft Windows machines. The root account is used to install packages, upgrade RPMs, and perform most system maintenance. Logging in as root gives you complete control over your system.



The screenshot shows a window with a light gray background. In the top left, there is a yellow shield icon with a 'C' inside. To its right, the text reads: "The root account is used for administering the system. Enter a password for the root user." Below this, there are two text input fields. The first is labeled "Root Password:" and the second is labeled "Confirm:". Both fields contain seven asterisks. At the bottom right of the window, there are two buttons: "Back" with a left-pointing arrow and "Next" with a right-pointing arrow.

Figure 10. Root Password

Enter the root password into the **Root Password** field. Fedora displays the characters as asterisks for security. Type the same password into the **Confirm** field to ensure it is set correctly. After you set the root password, select **Next** to proceed.

15. Disk Partitioning Setup

On this screen you can choose to create the default layout or choose to manual partition using the **Create custom layout** option.

The first four options allow you to perform an automated installation without having to partition your drive(s) yourself. If you do not feel comfortable with partitioning your system, it is recommended that you *do not* choose to create a custom layout and instead let the installation program partition for you.

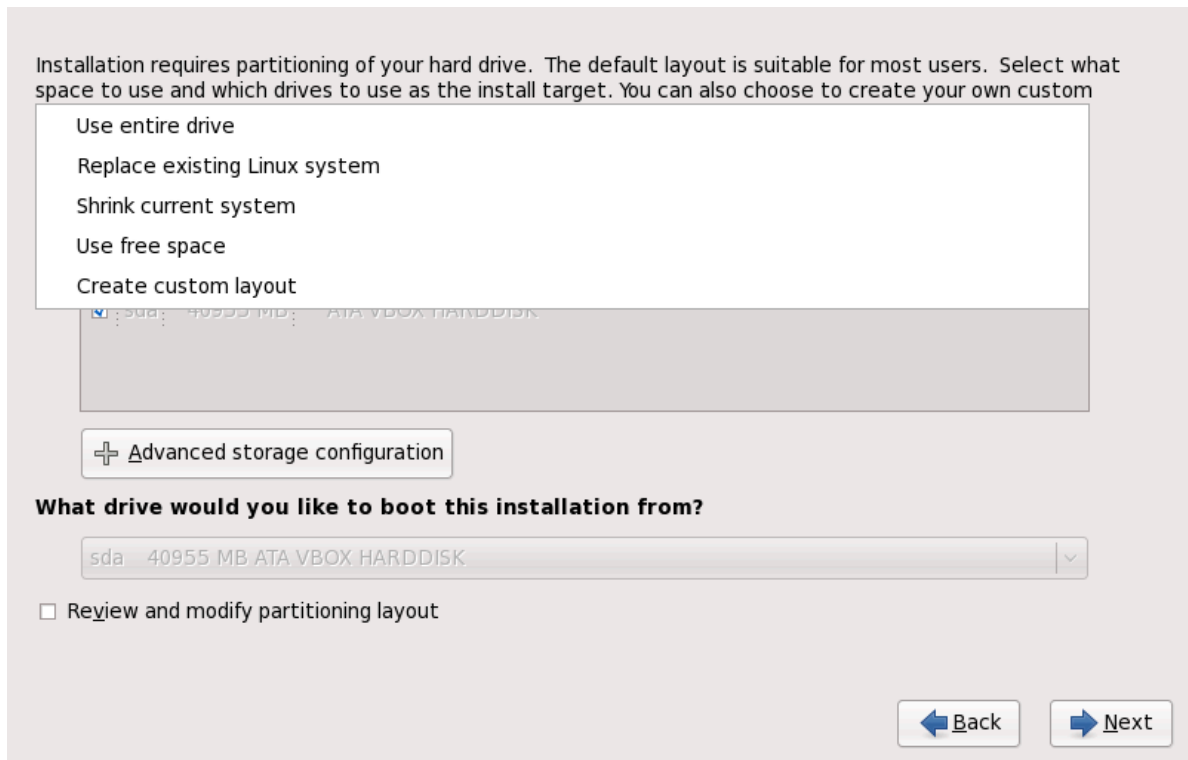


Figure 11. Create Default Layout

Create default layout allows you to have some control concerning what data is removed (if any) from your system. Your options are:

- **Use entire drive** — select this option to remove all partitions on your hard drive(s) (this includes partitions created by other operating systems such as Windows VFAT or NTFS partitions).



Warning

If you select this option, all data on the selected hard drive(s) is removed by the installation program. Do not select this option if you have information that you want to keep on the hard drive(s) where you are installing Fedora.

- **Replace existing Linux system** — select this option to remove only Linux partitions (partitions created from a previous Linux installation). This does not remove other partitions you may have on your hard drive(s) (such as VFAT or FAT32 partitions).
- **Shrink existing system** — select this option to resize your current data and partitions manually and install a default Fedora layout in the space that is freed.



Warning

If you shrink partitions on which other operating systems are installed, you might not be able to use those operating systems. Although this partitioning option does not destroy data, operating systems typically require some free space in their partitions. Before you resize a partition that holds an operating system that you might want to use again, find out how much space you need to leave free.

- **Use free space** — select this option to retain your current data and partitions, assuming you have enough free space available on your hard drive(s).

Using your mouse, choose the storage drive(s) on which you want Fedora to be installed. If you have two or more drives, you can choose which drive(s) should contain this installation. Unselected drives, and any data on them, are not touched.

Click **Next** once you have made your selections to proceed.

16. Write changes to disk

The installer prompts you to confirm the partitioning options that you selected. Click **Write changes to disk** to allow the installer to partition your hard drive and install Fedora.

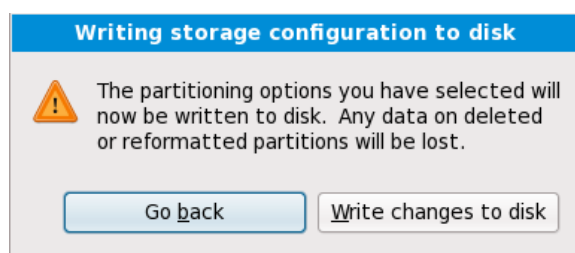



Figure 12. Writing storage configuration to disk

If you are certain that you want to proceed, click **Write changes to disk**.



Last chance to cancel safely

Up to this point in the installation process, the installer has made no lasting changes to your computer. When you click **Write changes to disk**, the installer will allocate space on your hard drive and start to transfer Fedora into this space. Depending on the partitioning option that you chose, this process might include erasing data that already exists on your computer.

To revise any of the choices that you made up to this point, click **Go back**. To cancel installation completely, switch off your computer. To switch off most computers at this stage, press the power button and hold it down for a few seconds.

After you click **Write changes to disk**, allow the installation process to complete. If the process is interrupted (for example, by you switching off or resetting the computer, or by a power outage) you will probably not be able to use your computer until you restart and complete the Fedora installation process, or install a different operating system.

17. Boot Loader Configuration

Some partitioning options cause the boot loader configuration screen to appear. If you do not see this screen, skip to [Section 18, “Package Group Selection”](#).

GRUB (GRand Unified Bootloader), which is installed by default, is a very powerful boot loader. GRUB can load a variety of free operating systems, as well as proprietary operating systems with chain-loading (the mechanism for loading unsupported operating systems, such as DOS or Windows, by loading another boot loader).

☒ Install boot loader on /dev/sda. [Change device](#)

☐ Use a boot loader password [Change password](#)

Boot loader operating system list

Default	Label	Device
<input checked="" type="checkbox"/>	Fedora	/dev/VolGroup00/LogVol00

[Add](#)
[Edit](#)
[Delete](#)

[Back](#) [Next](#)

Figure 13. Boot Loader Configuration

If there are no other operating systems on your computer, or you are completely removing any other operating systems the installation program will install **GRUB** as your boot loader without any intervention. In that case you may continue on to [Section 18, “Package Group Selection”](#).

If you have other operating systems already installed, Fedora attempts to automatically detect and configure **GRUB** to boot them. You may manually configure any additional operating systems if **GRUB** does not detect them.

To add, remove, or change the detected operating system settings, use the options provided.

Add

Select **Add** to include an additional operating system in GRUB.

Select the disk partition which contains the bootable operating system from the drop-down list and give the entry a label. **GRUB** displays this label in its boot menu.

Edit

To change an entry in the GRUB boot menu, select the entry and then select **Edit**.

Delete

To remove an entry from the GRUB boot menu, select the entry and then select **Delete**.

Select **Default** beside the preferred boot partition to choose your default bootable OS. You cannot move forward in the installation unless you choose a default boot image.

18. Package Group Selection

If you install from a Fedora Live image, you cannot make package selections. This installation method transfers a copy of the Live image rather than installing packages from a repository. To change the

package selection, complete the installation, then use the **Add/Remove Software** application to make desired changes.

If you are installing Fedora from a DVD or set of six CDs, refer to [Appendix A, Package Group Selection](#) for details of package selection.

19. Installing Packages

At this point there is nothing left for you to do until all the packages have been installed. How quickly this happens depends on the number of packages you have selected and your computer's speed.

After installation completes, select **Reboot** to restart your computer. Fedora ejects any loaded discs before the computer reboots.

20. Firstboot

Firstboot launches the first time that you start a new Fedora system. Use **Firstboot** to configure the system for use before you log in.



Figure 14. Firstboot welcome screen

Select **Forward** to start **Firstboot**.

21. License Agreement

This screen displays the overall licensing terms for Fedora. Each software package in Fedora is covered by its own license. All licensing guidelines for Fedora are located at <http://fedoraproject.org/wiki/Legal/Licenses>.

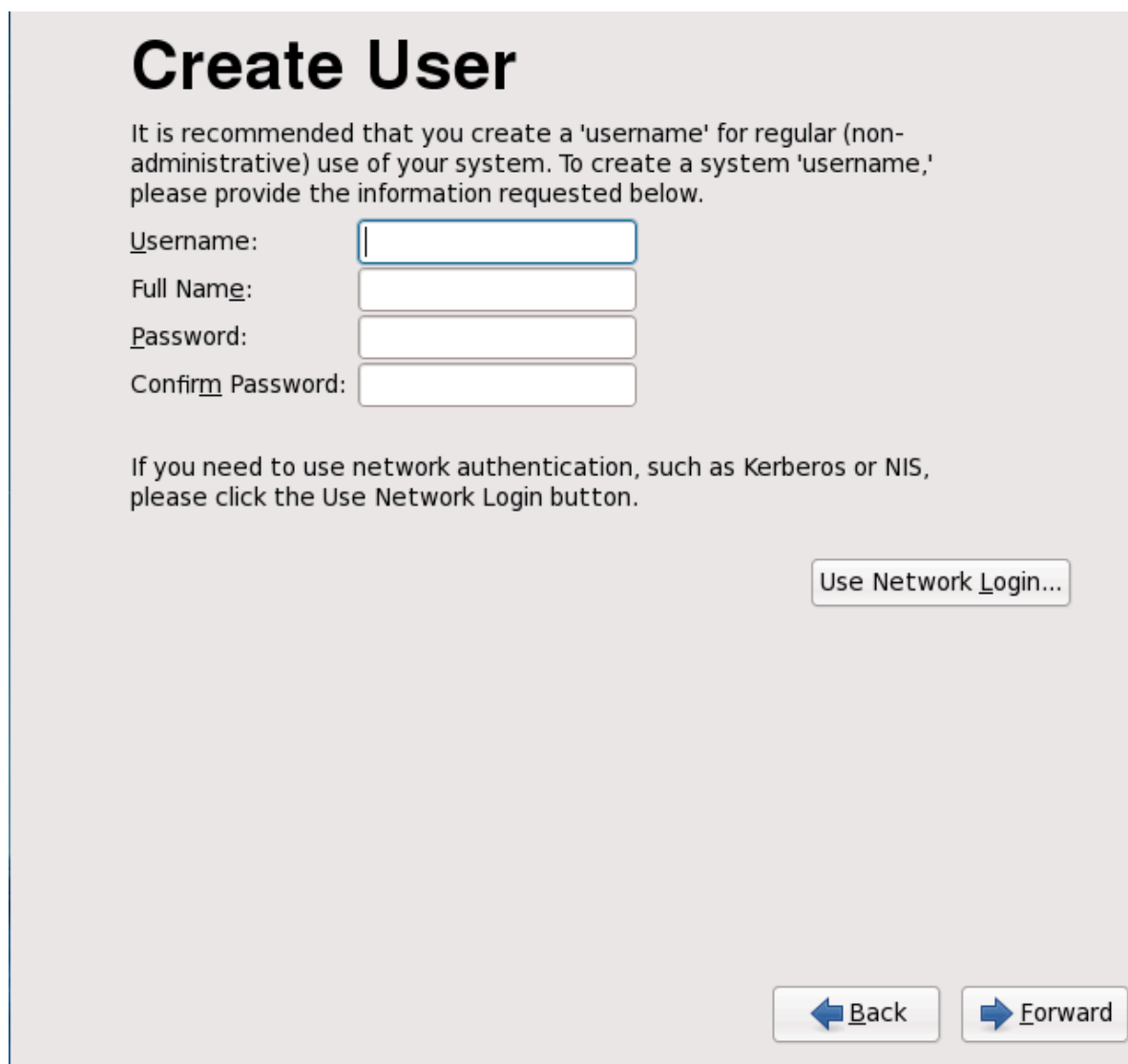


Figure 15. Firstboot license screen

If you agree to the terms of the licence, select **Forward**.

22. System User

Create a user account for yourself with this screen. Always use this account to log in to your Fedora system, rather than using the root account.



The image shows a 'Create User' screen from the Firstboot utility. It has a light gray background. At the top, the title 'Create User' is in a large, bold, black font. Below the title, a paragraph of text reads: 'It is recommended that you create a 'username' for regular (non-administrative) use of your system. To create a system 'username,' please provide the information requested below.' There are four input fields: 'Username:' with a blue border, 'Full Name:', 'Password:', and 'Confirm Password:'. To the right of the 'Confirm Password:' field is a button labeled 'Use Network Login...'. At the bottom right, there are two buttons: 'Back' with a left-pointing arrow and 'Forward' with a right-pointing arrow.

Create User

It is recommended that you create a 'username' for regular (non-administrative) use of your system. To create a system 'username,' please provide the information requested below.

Username:

Full Name:

Password:

Confirm Password:

If you need to use network authentication, such as Kerberos or NIS, please click the Use Network Login button.

Use Network Login...

Back Forward

Figure 16. Firstboot create user screen

23. Date and Time

If your system does not have Internet access or a network time server, manually set the date and time for your system on this screen. Otherwise, use *NTP* (Network Time Protocol) servers to maintain the accuracy of the clock. *NTP* provides time synchronization service to computers on the same network. The Internet contains many computers that offer public *NTP* services.

Date and Time

Please set the date and time for the system.

Date & Time

Network Time Protocol

Date

< March > < 2009 >

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4
5	6	7	8	9	10	11

Time

Current Time : 17:07:00

Hour : 17

Minute : 4

Second : 50

Back

Forward

Figure 17. Firstboot date and time screen

24. Hardware Profile

Firstboot displays a screen that allows you to submit your hardware information anonymously to the Fedora Project. Developers use these hardware details to guide further support efforts. You can read more about this project and its development at <http://smolts.org/>.

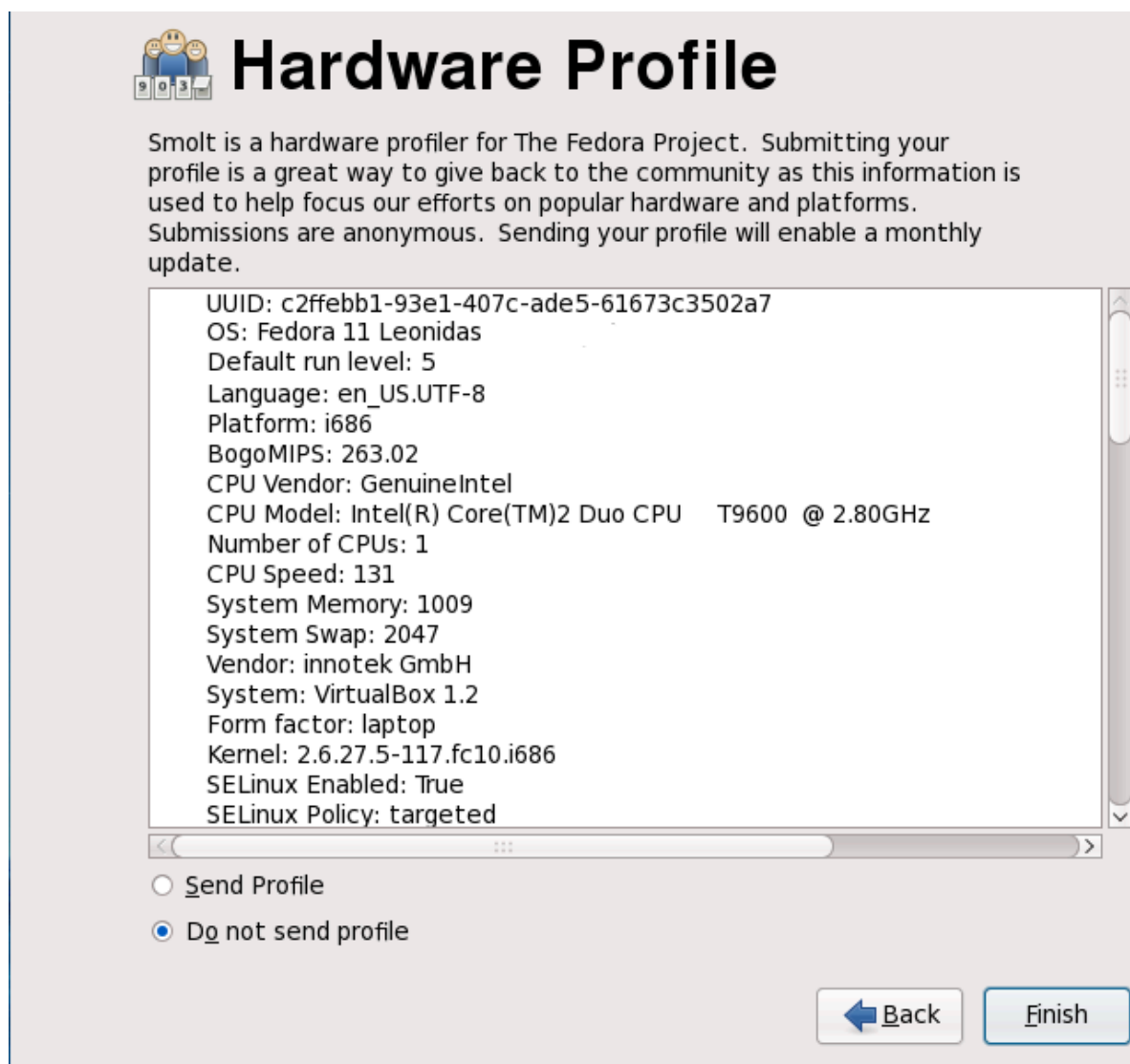


Figure 18. Firstboot hardware profile screen

To opt in to this important work, select **Send Profile**. If you choose not to submit any profile data, do not change the default. Select **Finish** to continue to the login screen.

25. Your installation is complete

Fedora is now installed on your computer. Log in with the username and password that you created during the installation process.

To learn more about Fedora, visit the Fedora Project website at <http://fedoraproject.org/>. If you need help installing or using Fedora, visit <http://fedoraproject.org/en/get-help>.

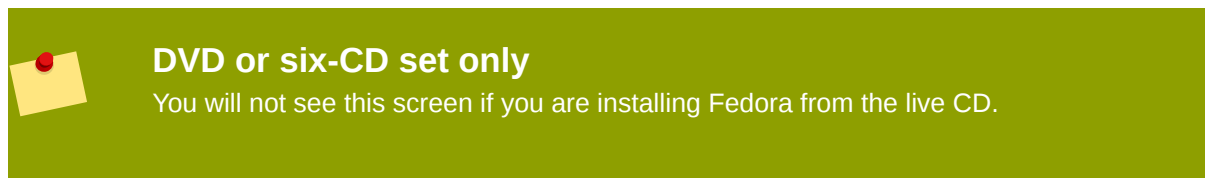
26. We Need Feedback!

If you find a typographical error in this manual, or if you have thought of a way to make this manual better, we would love to hear from you! Please submit a report in Bugzilla: <http://bugzilla.redhat.com/bugzilla/> against the product **Fedora Documentation**.

When submitting a bug report, be sure to mention the manual's identifier: *installation-quick-start-guide*

If you have a suggestion for improving the documentation, try to be as specific as possible when describing it. If you have found an error, please include the section number and some of the surrounding text so we can find it easily.

A. Package Group Selection



The **Package Installation Defaults** screen appears and details the default package set for your Fedora installation.

Figure A.1. Package Group Selection

By default, the Fedora installation process loads a selection of software that is suitable for a desktop system. To include or remove software for common tasks, select the relevant items from the list:

Office and Productivity

This option provides the OpenOffice.org productivity suite, the Planner project management application, graphical tools such as the GIMP, and multimedia applications.

Software Development

This option provides the necessary tools to compile software on your Fedora system.

Web server

This option provides the Apache Web server.

To customize your package set further, select the **Customize now** option on the screen. Clicking **Next** takes you to the **Package Group Selection** screen.

A.1. Customizing the Software Selection

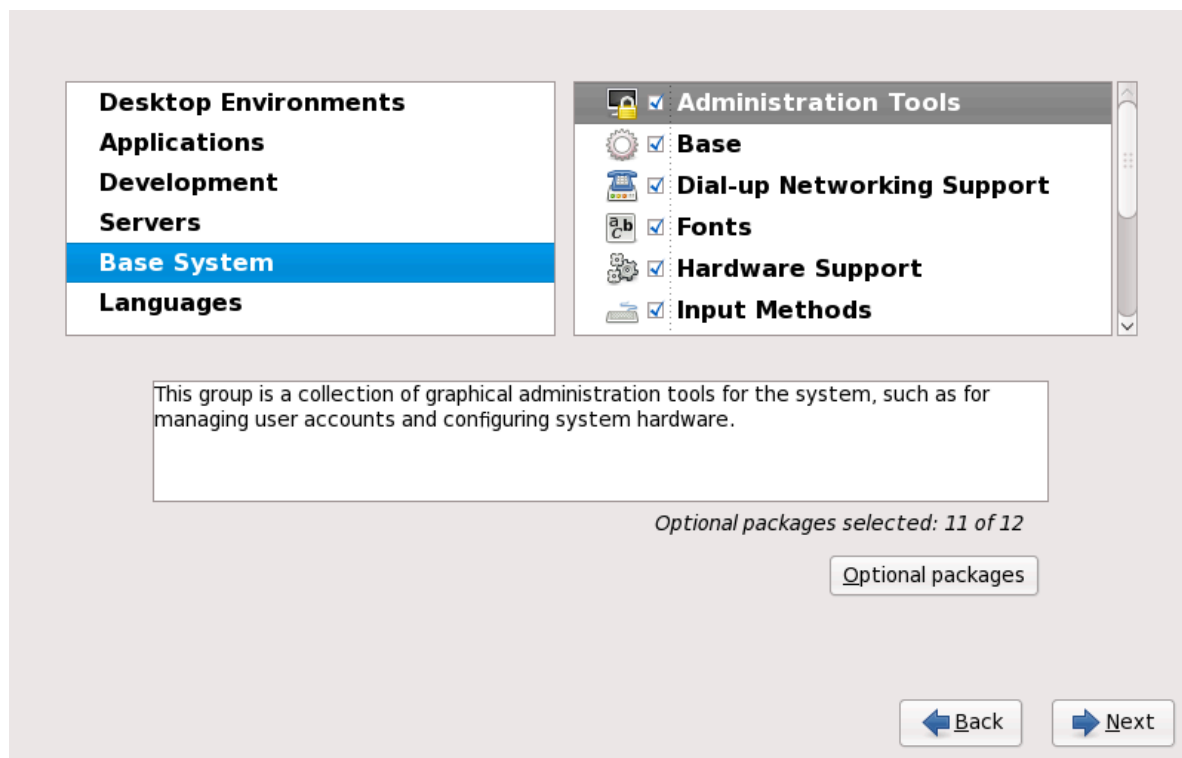


Figure A.2. Package Group Details

Fedora divides the included software into *package groups*. For ease of use, the package selection screen displays these groups as categories.

You can select package groups, which group components together according to function (for example, **X Window System** and **Editors**), individual packages, or a combination of the two.

After you choose the desired packages, select **Next** to proceed. Fedora checks your selection, and automatically adds any extra packages required to use the software you select. When you have finished selecting packages, click **Close** to save your optional package selections and return to the main package selection screen.

B. Revision History

Revision 1.1 Tue Sep 29 2009

Rüdiger Landmann

Update for Fedora 12

Revision 0.1 Tue Jul 14 2009

Rüdiger Landmann

Initial version with sections copied from Fedora 11 Installation guide and Readme: Live Images