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Step by Step

Network Your Computers & Devices

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*Ciprian Adrian Rusen
and 7 Tutorials*



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The smart way to network your home computers with Windows® 7—one step at a time!

Teach yourself how to use the networking features in Windows 7 to connect your home computers, even if they use different operating systems. With *Step by Step*, you set the pace—building and practicing the skills you need, just when you need them!

- Network your Windows 7-based PCs and set up security
- Add a Mac or Linux-based computer
- Share printers, devices, and files with everyone in your home
- Stream media over your network or to a remote PC
- Tweak your network and sharing settings
- Troubleshoot problems and perform easy maintenance

1 Follow the easy numbered steps

2 Use screenshots to check your work

3 Get helpful tips and pointers

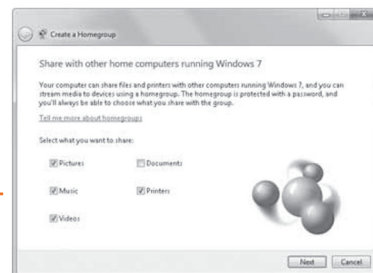
4 Follow the book's practice exercises

Chapter 3 Manage Your Network

1. In Control Panel, under **Network and Internet**, click **Choose homegroup and sharing options**.

See Also For information about changing the resources shared with your homegroup, see "Sharing Files on Your Network" later in this chapter.

2. In the **HomeGroup** window, click **Create a homegroup**.
The Create A Homegroup wizard starts.



By default, all libraries other than the Documents library are selected for sharing.

Tip Homegroups are new in Windows 7 and are not accessible to computers running earlier versions of Windows or a non-Windows operating system.

SET UP Open Windows Defender.

1. Click **Tools**.

The Tools And Settings window opens.

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Network Your Computers & Devices

Step by Step

**Ciprian Adrian Rusen
and 7 Tutorials**

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Step by Step

**Ciprian Adrian Rusen
and 7 Tutorials**

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To the people who enlighten my life with their candid smiles.

Also, to Seth Godin and Ed Bott for being subtle but important influences in my decision to write and publish this book, thus making one of my biggest dreams come true.

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Last but not least, I would like to thank Ken Brown, the senior editor on this project. He's been a really great guy to work with. We had an outstanding collaboration, and I can't wait for us to hopefully work together on future projects.

Introducing Home Networking

In a modern home, it is no longer unusual for family members to own multiple computers and network devices. In most houses, you can find at least a desktop computer, which is generally used for more performance-intensive tasks such as gaming or professional work of any kind. Parents bring home their work laptops or notebooks, which they use to connect to their business network and do a bit of work outside the office, when needed. Children also have their own systems, usually a mobile computer that they can easily take to school or university. All of these computers probably have different operating systems, depending on the year when they were purchased and the preference of each person. Some family members might be Windows users, while others might prefer the Mac computers from Apple. Some people who are very fond of free software might use the latest version of Ubuntu Linux. In addition to computers, a family may own other devices such as printers, scanners, consoles, mobile phones with network connectivity via Bluetooth wireless, and so on.

With the help of a router and a few network cables, you can create your own home network and connect all these computers and devices together. The list of advantages for doing so is very long and includes:

- The possibility to easily exchange data between all computers and devices.
- Sharing devices between all the computers on the home network. For example, you can share the home's printer or an external hard disk drive that everyone can use to back up their most important data, and so on.
- Media streaming between computers.
- Paying for only one Internet connection and sharing it with all the computers and devices on your network.
- Wireless access to the network and the Internet throughout your entire house.
- Playing multiplayer games via your home network.

This book covers all you need to know about setting up your home network and taking advantage of all its capabilities. Included in the book are chapters about setting up and using the networking features in Windows 7, making different operating systems work together on the network, and streaming your media over the network and the Internet. It also covers sharing devices in the network, the tools and features you need to use to keep your network secure, and setting up parental controls for your children. Last but not least, it also provides guidance on how to troubleshoot network and Internet problems by yourself.

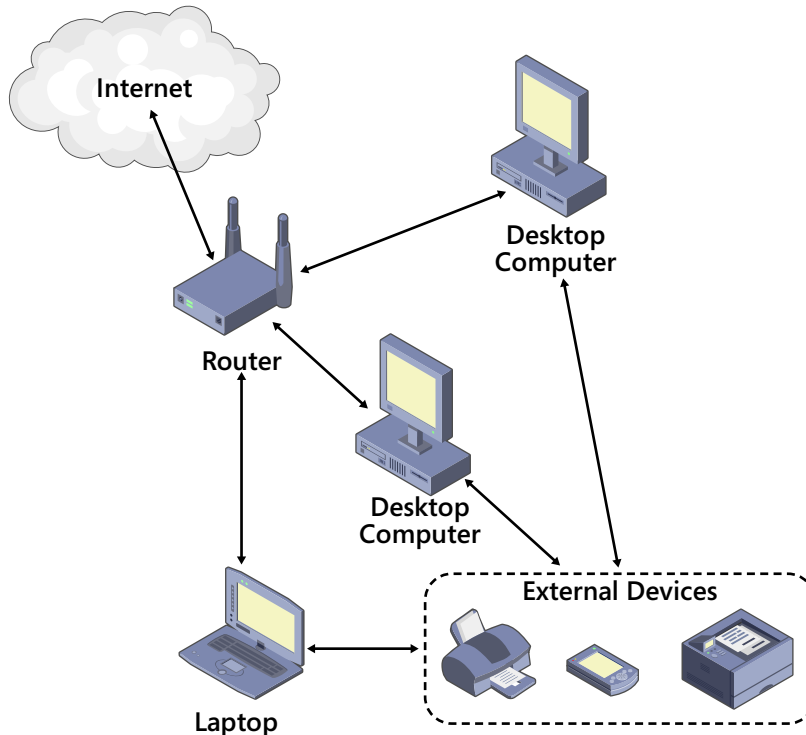
Operating Systems Covered in the Book

This book is focused mostly on Windows 7 and shows how to use the network-related features included in this operating system. However, there are dedicated sections that cover network interoperability between Windows 7 and the following operating systems: Windows XP Service Pack 3, Windows Vista Service Pack 2, Mac OS X v10.6 (Snow Leopard), and Ubuntu Linux v10.10 (Maverick Meerkat).

Assumptions

The exercises in this book assume that you know the basics of computing and that some of your computers have Windows 7 already installed and configured. The exercises do not cover Windows 7 installation and personalization tasks. They dive directly into networking features and configuration settings.

This book explains how to install, configure, and manage a home network setup similar to the one shown in the following diagram.



In your home, there are several computers (desktops and laptops or notebooks), each with an operating system installed and all connected to the router. Also, there are several external devices (such as printers, scanners, and so on) connected to any of the computers in your network that you would like to share with the network.

Minimum System Requirements

To run Windows 7 and work your way through the exercises in this book, your computer must meet certain specifications.

Windows 7

To run Windows 7, including the Aero desktop experience features, your computer needs to meet the following minimum requirements:

- 1 gigahertz (GHz) or faster 32-bit (x86) or 64-bit (x64) processor
- 1 gigabyte (GB) of system memory (RAM) for 32-bit systems; 2 GB for 64-bit systems
- 16 GB of available hard disk drive space for 32-bit systems; 20 GB for 64-bit systems
- Support for DirectX 9 graphics with Windows Display Driver Model (WDDM) 1.0 or higher driver and 128 megabytes (MB) memory (to enable the Aero theme)
- Internal or external DVD drive
- Monitor with a minimum of 1024 × 768 screen resolution
- Keyboard and mouse or compatible pointing device
- Internet connection for product activation, accessing online Help topics, and any other Internet-dependent processes

Some features of Windows 7 work only if you have the hardware or network connections to support them. For descriptions of the system requirements for specific features of Windows 7, visit windows.microsoft.com/en-us/windows7/products/system-requirements/.

Completing the Exercises

In addition to the hardware and Internet connection required to run Windows 7 and the other operating systems in your home network, you will need the following to successfully complete the exercises in this book:

- A home router with wireless capabilities.
- Ethernet network cable.

- Any version of the Windows 7 operating system.
- Access to the following peripheral devices:
 - Printer
 - Speakers
 - External storage device: USB memory stick or external hard disk drive
- Your own practice files and folders. Simply choose what you want to use from your own computer to complete the exercises and back them up before starting the exercises.

Some exercises cover operating systems other than Windows 7. However, it is not mandatory to have them in your home network. The exercises simply show what you would need to do in case the computers in your home network have a wide variety of operating systems installed.

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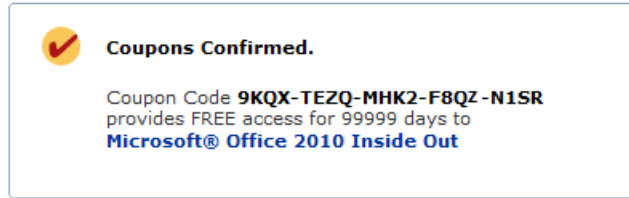
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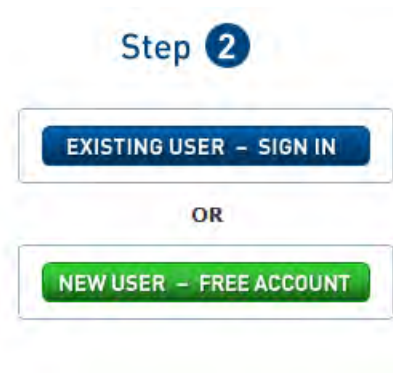
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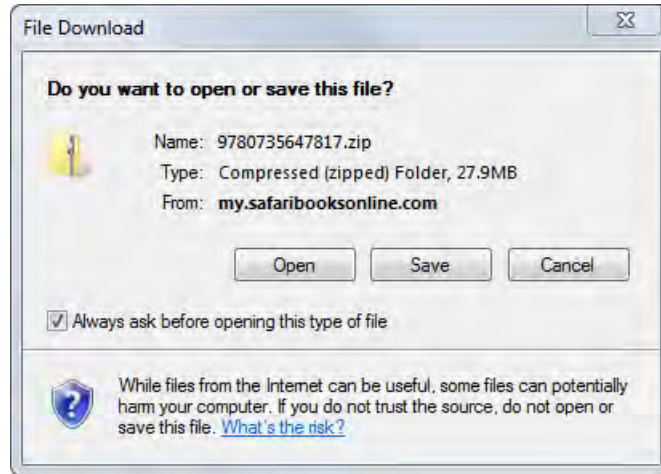
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Features and Conventions of This Book

This book has been designed to lead you step by step through all the tasks that you're most likely going to perform while networking your computers and devices. If you start at the beginning and work your way through all the exercises, you'll gain enough proficiency to be able to work with all the common types of network devices. However, each topic is self-contained. If you've set up a network previously, or if you completed all the exercises and later need help remembering how to perform a procedure, the following features of this book will help you locate specific information:

- **Detailed table of contents** Search the listing of the topics and sidebars within each chapter.
- **Chapter thumb tabs** Easily locate the beginning of the chapter you want.
- **Topic-specific running heads** Within a chapter, quickly locate the topic you want by looking at the running heads at the top of odd-numbered pages.
- **Glossary** Look up the meaning of a word or the definition of a concept.
- **Detailed index** Look up specific tasks and features in the index, which has been carefully crafted with the reader in mind.

You can save time when reading this book by understanding how the *Step by Step* series shows exercise instructions, keys to press, buttons to click, and other information.

Convention	Meaning
 SET UP	This paragraph preceding a step-by-step exercise indicates the practice files that you will use when working through the exercise. It also indicates any requirements you should attend to or actions you should take before beginning the exercise.
 CLEAN UP	This paragraph following a step-by-step exercise provides instructions for saving and closing open files or programs before moving on to another topic. It also suggests ways to reverse any changes you made to your computer while working through the exercise.
1. 2.	Blue numbered steps guide you through hands-on exercises in each topic.
1. 2.	Black numbered steps guide you through procedures in sidebars and expository text.

Convention	Meaning
See Also	This paragraph directs you to more information about a topic in this book or elsewhere.
Troubleshooting	This paragraph alerts you to a common problem and provides guidance for fixing it.
Tip	This paragraph provides a helpful hint or shortcut that makes working through a task easier.
Important	This paragraph points out information that you need to know to complete a procedure.
Menu and Command Shortcut	Information that simplifies the steps for selecting menus and commands to perform a task.
Bluetooth -> My devices -> New device	An arrow (->) between a menu and commands means that you should select the menu and command(s) in the order they appear. For example, "Bluetooth -> My devices -> New device" means go to the Bluetooth menu, then select the My devices command, then select the New device command."
Keyboard Shortcut	This paragraph provides information about an available keyboard shortcut for the preceding task.
Ctrl+B	A plus sign (+) between two keys means that you must press those keys at the same time. For example, "Press Ctrl+B" means that you should hold down the Ctrl key while you press the B key.
	Pictures of buttons appear in the margin the first time the button is used in a chapter.
Black bold	In exercises that begin with SET UP information, the names of program elements, such as buttons, commands, windows, and dialog boxes, as well as files, folders, or text that you interact with in the steps, are shown in black, bold type.
Blue bold	In exercises that begin with SET UP information, text that you should type is shown in blue bold type.

Getting Help

Every effort has been made to ensure the accuracy of this book. If you do run into problems, please contact the sources listed in the following topics.

Getting Help with This Book

If your question or issue concerns the content of this book or its practice files, please first consult the book's page, which can be accessed at:

<http://aka.ms/652163/files>

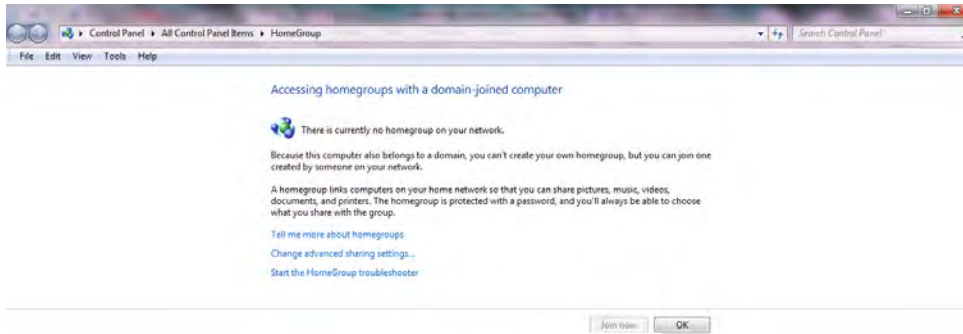
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mspinput@microsoft.com

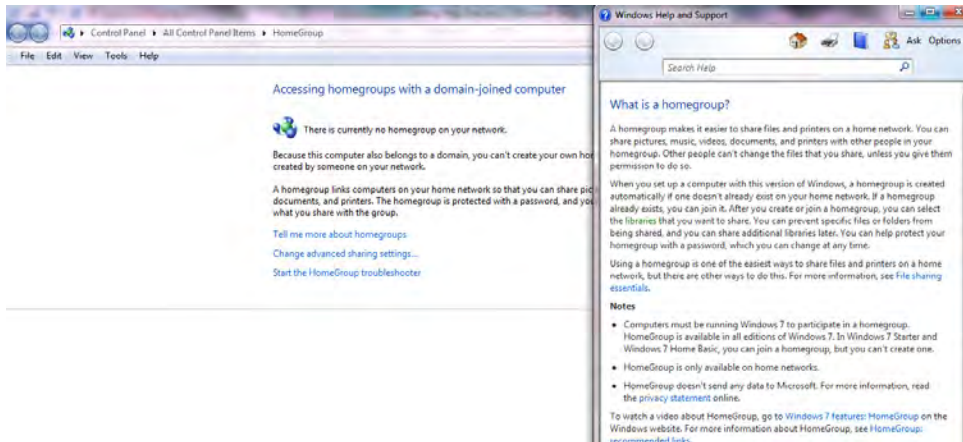
Getting Help with Windows 7 and Homegroup

If your question is about Windows 7, networking, and Homegroup, and not about the content of this book, your first recourse is the Windows 7 Help & How-to system. This system is a combination of tools and files stored on your computer when you installed Windows and, if your computer is connected to the Internet, information available from *windows.microsoft.com/en-US/windows7/help*. You can find general or specific Help information in the following ways:

- To find out about an item on the screen, you can display a ScreenTip. For example, to display a ScreenTip for a button, point to the button without clicking it. The ScreenTip gives the button's name, the associated keyboard shortcut if there is one, and unless you specify otherwise, a description of what the button does when you click it.
- You can also display help information when you select the Homegroup Control Panel. For example, after you open the Homegroup window, you'll see a list of topics, as shown in the illustration that follows.



Click a topic to open the Windows Help and Support window.



You'll also see a question mark (?) in the taskbar. This indicates that you have opened a Help window. Sometimes, videos and recommended links are available.

The screenshot shows the Windows 7 HomeGroup help page on the Microsoft website. The page features a search bar at the top, navigation links for Home, Discover Windows, Products, Shop, Downloads, and Help & How-to. Below the navigation, there are links for Windows 7 home, What is Windows 7, Compare, Features, and Videos. The main content area is titled "HomeGroup" and includes a "Windows 7 features" section with links to "Browse A to Z" and "Browse categories". A central image shows a Windows 7 desktop with a HomeGroup dialog box open, displaying options to share files and printers. To the right of the image, there is a "Compare editions" link, a "Get Windows 7" button, and a "Learn how" section with three links: "HomeGroup from start to finish", "Why network? How a computer network can make your life easier", and "Video: Sharing files with HomeGroup".

The screenshot shows the Windows Help and Support page for HomeGroup. The page has a search bar and a "Search Help" button. Below the search bar, there is a section titled "HomeGroup: recommended links" with a brief description of HomeGroup. A list of links is provided, including "Join a homegroup", "Add computers to a homegroup", "Share libraries with your homegroup", "Keep specific files and folders from being shared with a homegroup", "Access files and printers on other homegroup computers", "Where can I find my homegroup password?", and "Leave a homegroup". At the bottom of the page, there is a "Was this helpful?" section with buttons for "Yes", "No", and "Somewhat", and a link to "Read the privacy statement online".

The following resources can provide you with more in-depth help and support information. For additional Windows 7 support and Homegroup help, go to:

windows.microsoft.com/en-US/windows/help/contact-support

and

windows.microsoft.com/en-US/windows7/products/features/Homegroup

To practice getting help, you can work through the following exercise.

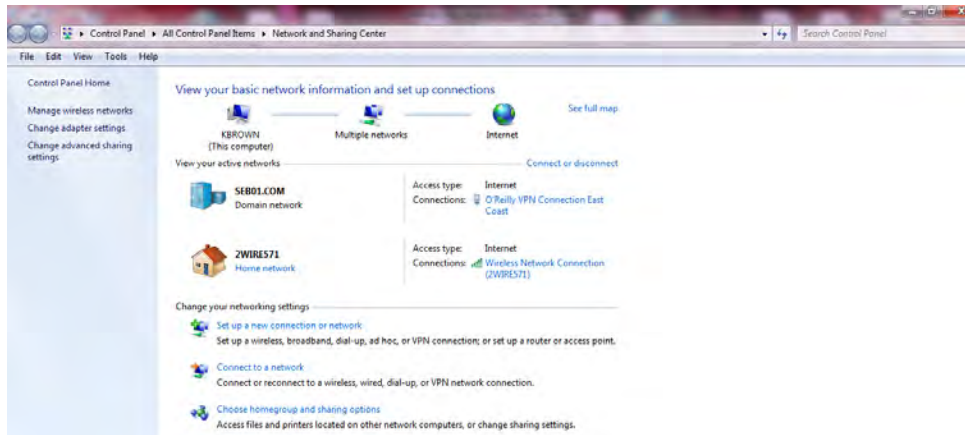


SET UP You don't need any practice files to complete this exercise. Start Windows 7 and then follow the steps.



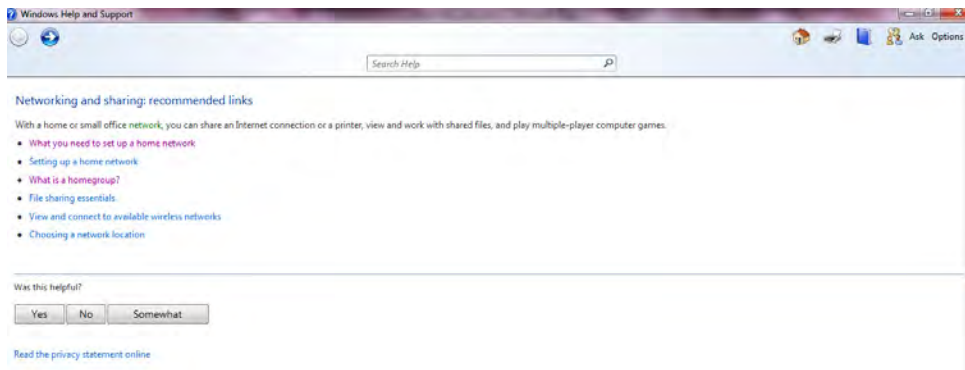
1. Click the **Start** menu. Choose **Control Panel** -> **All Control Panel Items** -> **Network and Sharing Center**.

The Network and Sharing Center window opens (the basic network information and setup connections for your computer will look different).



2. Click the **question mark (?)** on the far right side of the screen.

The Windows Help and Support window opens.



Tip You can maximize the window or adjust its size by dragging the handle in the lower-right corner. You can change the size of the font by clicking **Options -> Text Size** on the toolbar.

3. Below **Networking and sharing: recommended links**, you'll see a bulleted list of topics. Click **What you need to set up a home network**.

What you need to set up a home network

The variety of options for home networking can make buying decisions difficult. Before you decide what hardware to get, you should decide what type of network technology (the way computers in a network connect to or communicate with one another) to use. This article describes and compares the most common network technologies and lists hardware requirements for each.

Network technologies

The most common types of network technology are wireless, Ethernet, HomePNA, and Powerline. When choosing a network technology, consider the location of your computers and the desired speed of your network. The costs of these technologies are similar. The sections below compare these four technologies.

Wireless

Ethernet

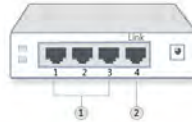
HomePNA

Powerline

Hardware requirements

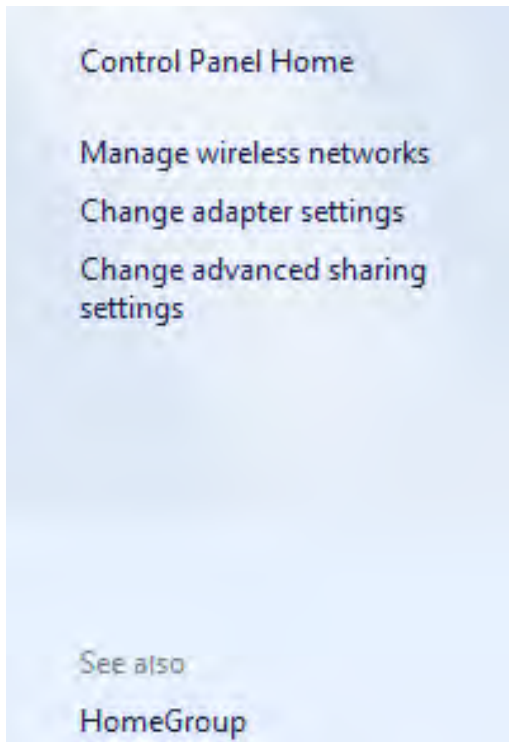
There are several kinds of hardware used in home networks:

- **Network adapters.** These adapters (also called network interface cards, or NICs) connect computers to a network so that they can communicate. A network adapter can be connected to the USB or Ethernet port on your computer or installed inside your computer in an available Peripheral Component Interconnect (PCI) expansion slot.
- **Network hubs and switches.** Hubs and switches connect two or more computers to an Ethernet network. A switch costs a little more than a hub, but it's faster.



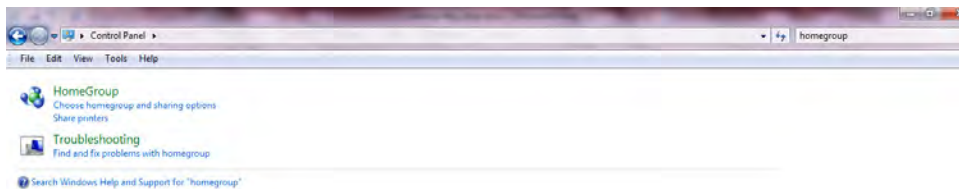
Windows Help and Support displays information that is related to setting up a home network. You'll also see a list of network technologies. You can click any network technology to display the corresponding information.

4. Click **Show all** to display all the information. Click **Hide all** to hide the information.
5. When you return to the **Network and Sharing Center**, below **Control Panel Home**, you'll see a few topics. Click one of them to display additional information.

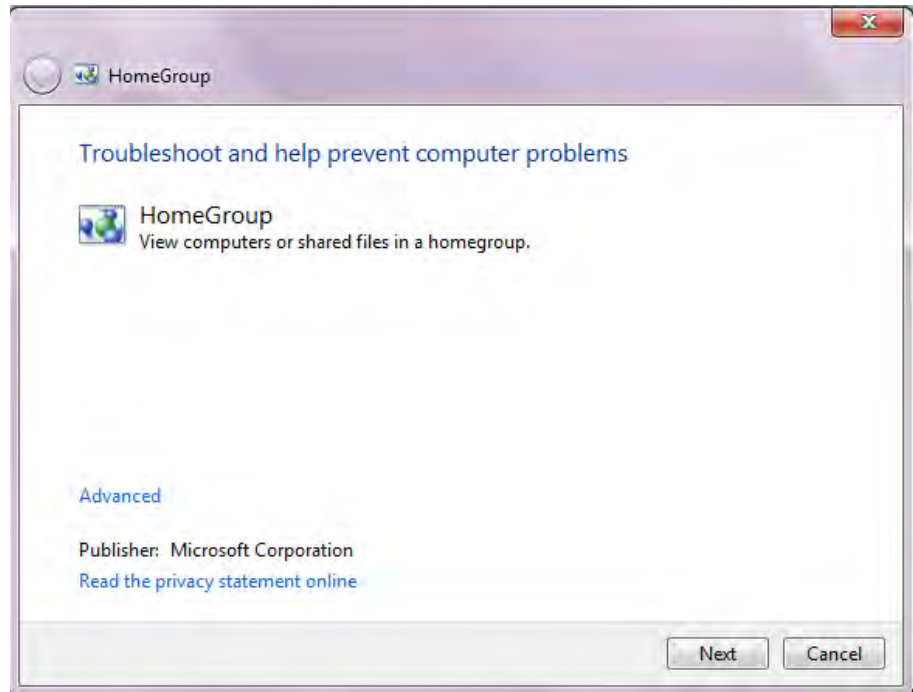


6. Click the **Back** and **Forward** buttons to move among the topics you have already viewed.
7. At the upper-right corner of the **Control Panel** window, click the **Search Control Panel** box, type **Homegroup**, and then press the **Enter** key.

The Windows 7 Help window displays categories and topics that are related to the word that you typed.



8. In the results list, click the **Find and fix problems with Homegroup** topic. The selected topic appears in the Windows 7 Help window.



9. Click **Next** to start the process of detecting the problem, or click **Cancel**.

✘ CLEAN UP Return to the Network and Sharing Center. Click the Close button in the upper-right corner of the Windows 7 window.

More Information

If your question is about Windows 7, networking, Homegroup, or another Microsoft software product and you cannot find the answer in the product's Help system, please search Microsoft Support at:

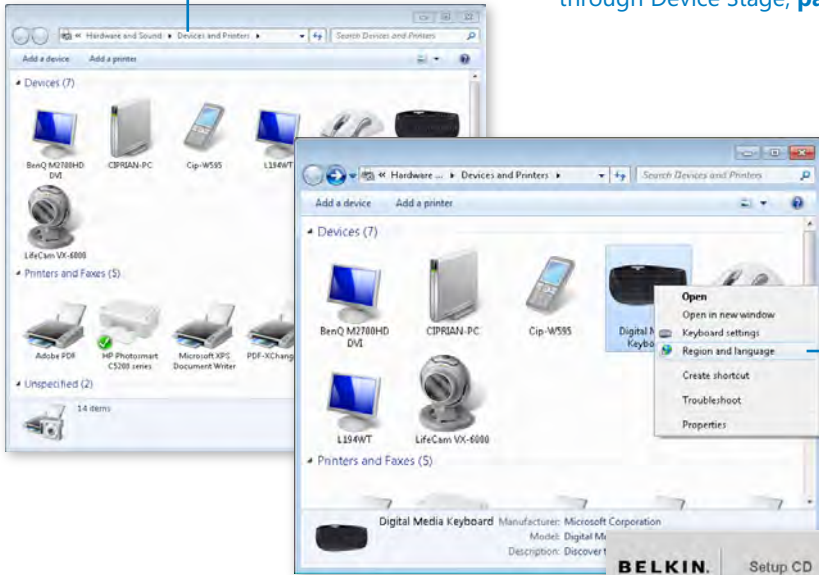
support.microsoft.com

In the United States, Microsoft software product support issues are addressed by Microsoft Product Support Services. Location-specific software support options are available at:

support.microsoft.com/gp/selfoverview/

Chapter at a Glance

Interact with external devices through Device Stage, [page 2](#)



Identify the use of a device with the Devices and Printers panel, [page 6](#)

Install and configure a Belkin N+ Wireless router, [page 10](#)



Install and configure a D-Link DIR-615 router, [page 24](#)



1 Setting Up a Router and Devices

In this chapter, you will learn how to

- ✓ Prepare to install and configure a router.
 - ✓ Install and configure a Belkin N+ Wireless router.
 - ✓ Install and configure a D-Link DIR-615 router.
-

As soon as you have Windows 7 installed and personalized on your computers, it's time to install the appropriate software and drivers for the hardware devices that you'll need to use: printers, network cards, keyboards and mice, mobile phones that you want to connect to your computers, and so on. Once this is all done, it is time to begin setting up your home network. The first step is to install and configure your router so that all your home computers can access each other and also share the same Internet connection.

In this chapter, you will learn how to manage and interact with hardware devices via the Device Stage feature in Windows 7 and how to install and configure your router.

Practice Files You won't need any practice files to complete the exercises in this chapter.

Installing Hardware and Drivers

Once the operating systems are installed and configured on all your computers, you need to configure your hardware properly, especially the devices used for your home network—such as wired and wireless network cards, the router, cable connections, printers, and so on.

Make sure that you install the drivers for all your network cards, including both Ethernet-based and wireless cards. The Ethernet network cards are used to connect to the network via cable while the wireless network cards are used on your notebooks (or netbooks) to connect to the network via wireless signals.

In most cases, Windows 7 will automatically detect the network cards and install drivers for them. However, it is best to install the latest driver version, either from the media provided by the manufacturer of the network card (as part of the packaging) or from the manufacturer's Web site.

If the correct drivers are installed, Windows 7 should be able to connect properly both via cable and wireless.

See Also If you experienced problems connecting to the network or the Internet, refer to [Chapter 15, "Troubleshooting Network and Internet Problems."](#)

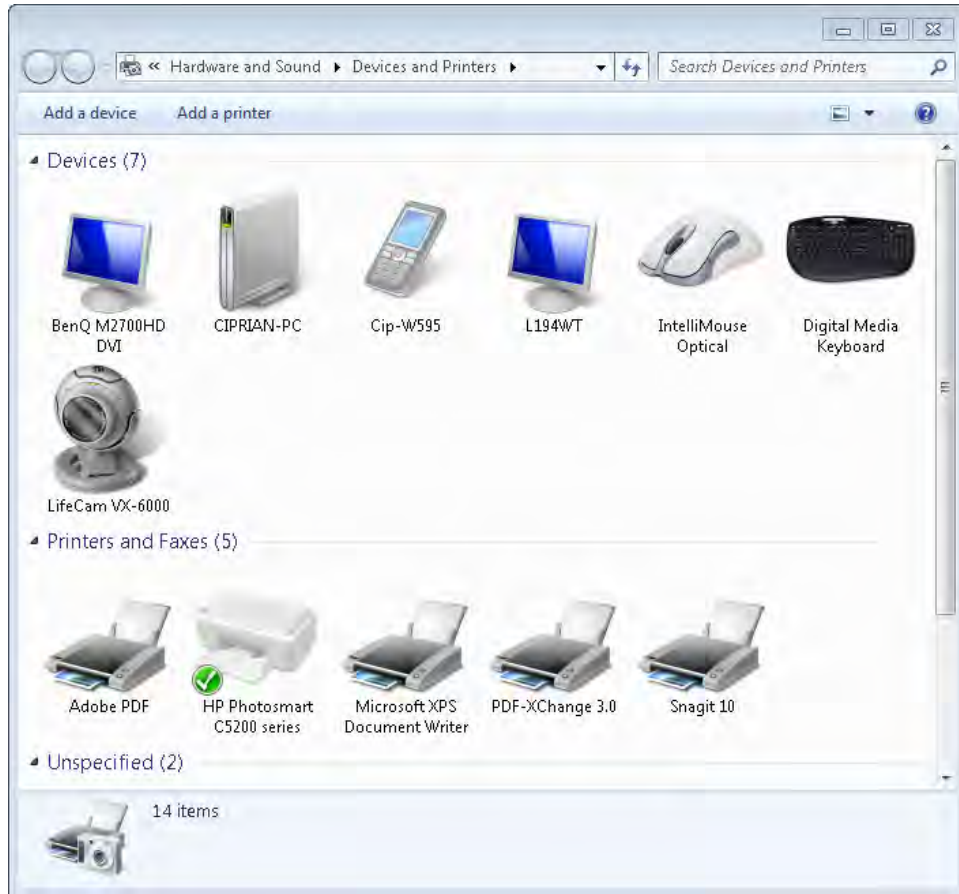
If you have other devices such as printers, scanners, phones, webcams, and so on, ensure that you connect them to the appropriate computers and install the correct drivers. Again, search the media provided by the manufacturer or the manufacturer's Web site for the latest driver versions.

Important You should only install drivers that are specifically designated for the operating system you are using. For example, don't install Windows XP drivers on computers that are running Windows 7, or vice-versa. This will surely crash your computer and cause further problems. Also, be careful to install 32-bit drivers for 32-bit operating systems and 64-bit drivers for 64-bit operating systems.

Interacting with External Devices Through Device Stage

Device Stage is a feature that aims to provide a friendly way of interacting with external devices connected to your computer. It can be accessed through the Devices And Printers panel in Windows 7 and provides a single location for managing your external devices.

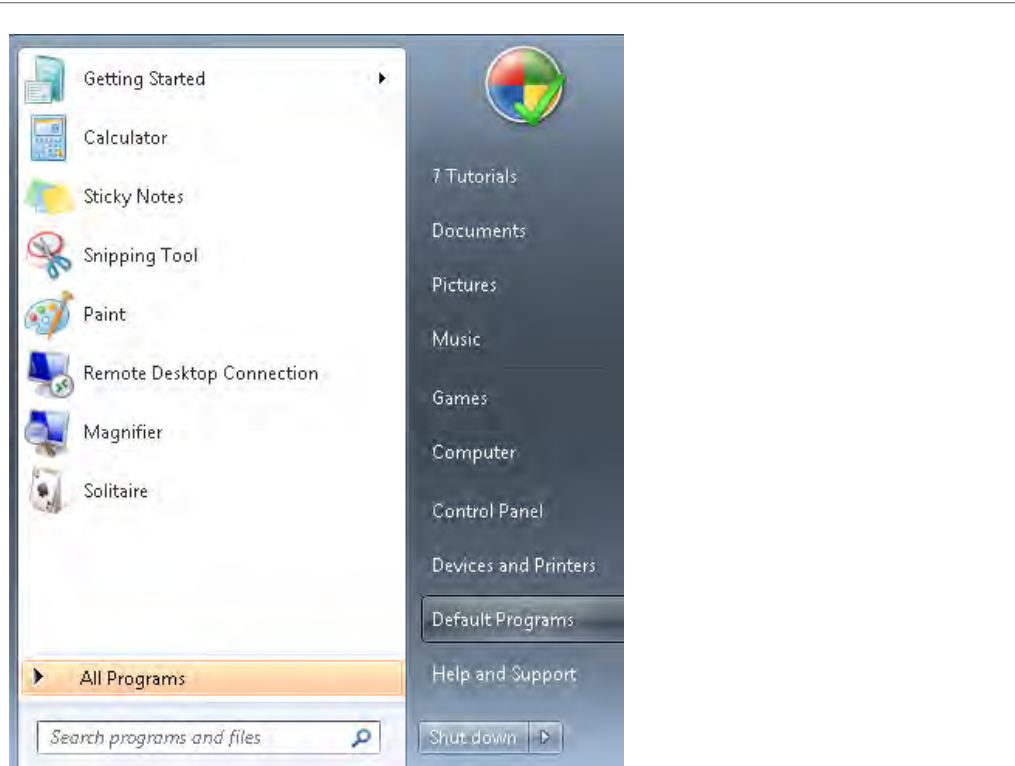
Unfortunately, this feature depends a lot on the drivers and support that are available for each device. Most new devices are compatible with Windows 7 and their drivers take advantage of Device Stage, providing benefits such as allowing you to completely manage them from the Devices and Printers panel. You can do everything you need from within one convenient window: see the status of devices, view information about them, share devices over the network, change their settings, synchronize them with your PC (for example, mobile phones), configure or use features of the device, perform troubleshooting, etc.



For older devices that cannot take advantage of this feature, Windows 7 still allows you to modify a basic set of configuration options and troubleshoot problems that might arise. While you might not enjoy all the benefits of a device that is fully compatible with Windows 7, it's still better than searching for hidden administrative tools and guessing where to go to change the device settings.

Finding the Device Stage

Device Stage is the official name of the feature but cannot be found under this name in Windows 7. In the operating system, it is actually named Devices and Printers, and by default, its shortcut can be found on the right side of the Start Menu.



Alternatively, you can go to Control Panel -> Hardware And Sound -> Devices And Printers.

Devices Included in Device Stage

Device Stage shows your own computer plus the external devices connected to it. The list of devices includes mobile phones, portable music players, digital cameras, webcams, monitors, keyboards, mice, printers, scanners, Bluetooth adapters, external hard drives, media extenders, and network devices connected to your computer.

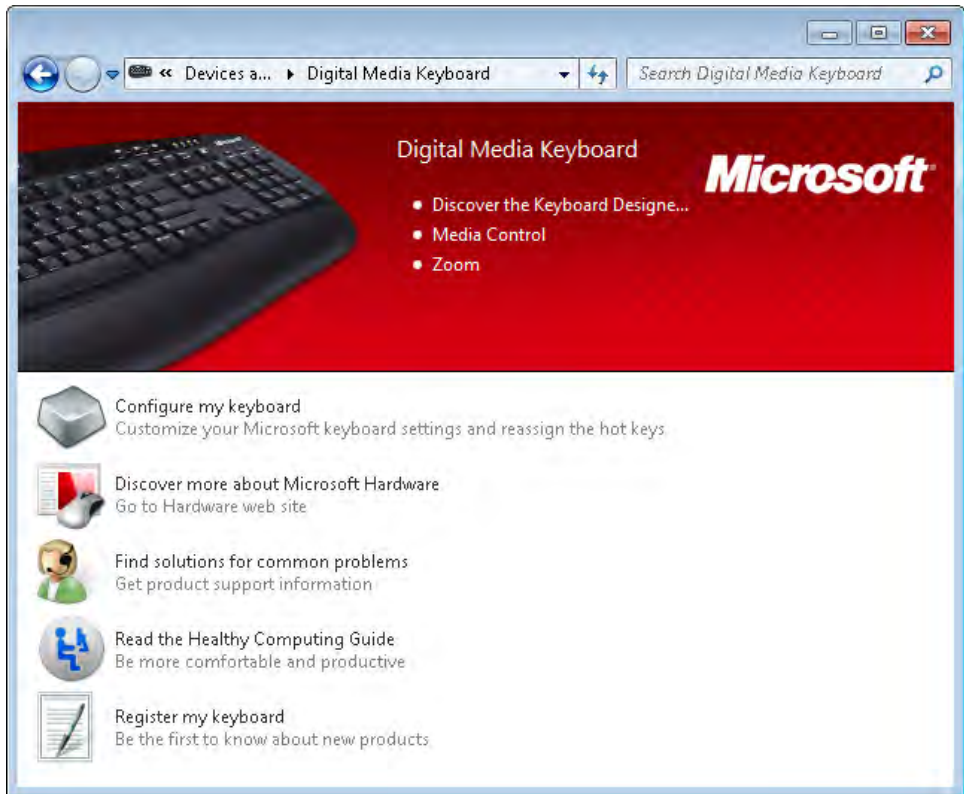
Devices Excluded from Device Stage

Device Stage will not show devices that are a part of the base components of your computer (those that are inside your computer case). This means that you will not see internal hard disk drives, CD/DVD/Blu-ray drives, sound cards, video cards, memory, processors, internal modems, internal network cards, and so on.

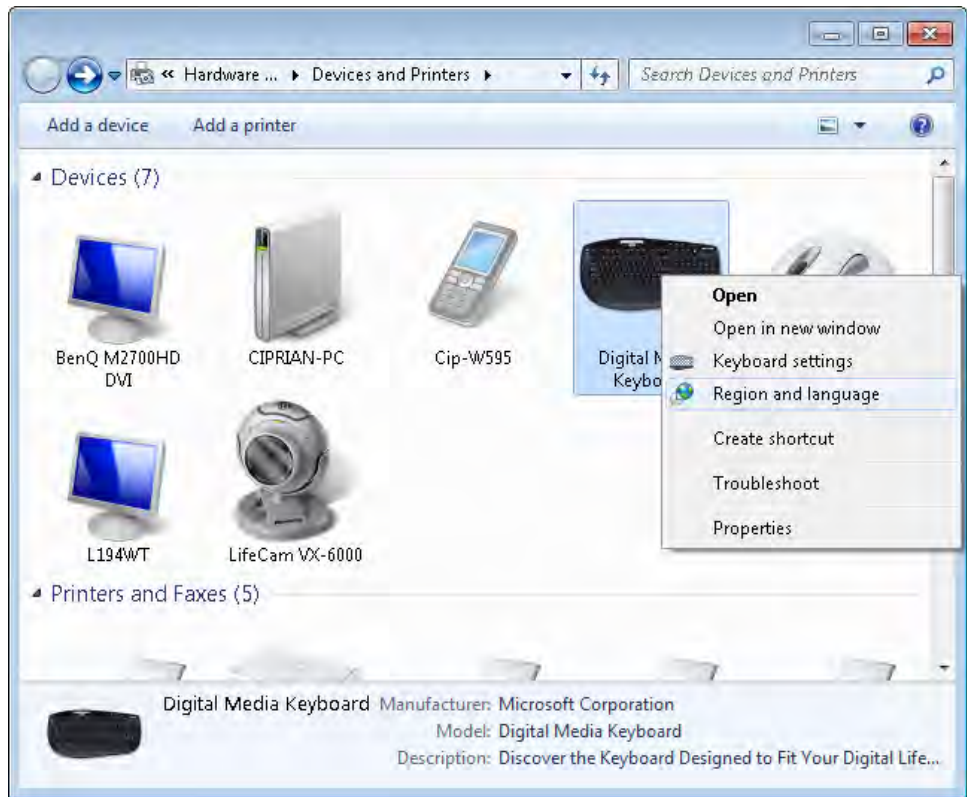
Some external devices are not included, as well. A couple of common examples include your speakers or an older mouse and keyboard.

Examples of Device Stage Usage Scenarios

What exactly you can do with a device that's listed in Devices and Printers depends on the level of support for Windows 7 that the manufacturer of the device provides. For example, when I access my Microsoft Digital Media Keyboard, I can quickly configure it, get support for issues, register it, or even access a guide for healthy computing practices.

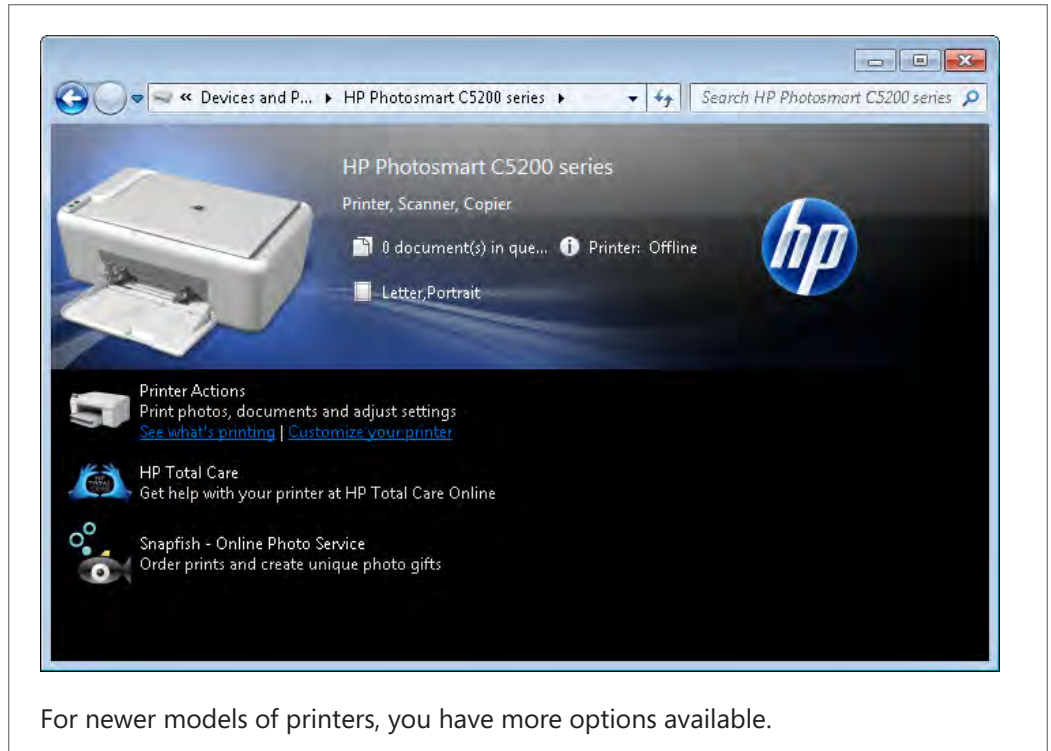


If I right-click the same keyboard, I quickly have access to configuration options such as the Region and Language used when typing.



For my old HP Photosmart C5200 printer, I have a small but useful set of options. From within its Devices and Printers window, I can quickly see how many files there are in the printing queue, if the printer is ready or not, and what the default setting for page size and orientation is.

I also have options for changing the printing properties and getting support for my device.



For newer models of printers, you have more options available.

Preparing to Install and Configure a Router

Installing and configuring your router is the most complex and important activity in setting up your home network. This device is used to connect the entire home network to your Internet service provider. Therefore, it must have the correct settings if it is to connect without problems. Once the router setup is complete, you must configure the settings of your home network so that all computers can connect to the router and the Internet. Lastly, you need to enable the wireless capability and configure it so that all notebooks and netbooks can connect to the home network.

Configuring the router depends a lot on the manufacturer and the specific model you have. There is no universal method for configuring a router, as each producer uses a different approach. Therefore, carefully read the user manual while going through this procedure. While you progress through the configuration, pay attention to the following details:

- **Internet WAN (Wide Area Network) settings** All of these settings are obtained from your Internet service provider (ISP) and are used to connect your home network to the Internet. You might need to contact your ISP to gather information you need to configure your router's connection to the Internet.
- **Connection type** What kind of connection will you be using? The most common connection types are the following:
 - **Dynamic** Your ISP will automatically assign an IP address to the router. This IP address is based on the Media Access Control (MAC) address of your router. A MAC address is a unique identifier used by most network adapters for identification. The MAC address can be found in the configuration screens of your router; it is composed using following format: XX-XX-XX-XX-XX-XX. The MAC address can be formed only with letters and numbers. One example is: 0A-19-5B-BC-D2-E1.
 - **Static IP address** The ISP will assign a static IP (Internet Protocol) address to your router. An IP Address is composed using the following format: XXX-XXX-XXX-XXX. The address is comprised only of numbers (for example, 86-34-233-84). When such a connection is used, you need to know the values for the IP Address, Subnet Mask, and Gateway Address. All these details share the format of the IP Address—they are formed only from numbers and can be given to you only by your ISP.
 - **Point-to-Point Protocol over Ethernet (PPPoE)** This is generally used by telephone companies that also provide Internet connections. PPPoE requires the ISP to create a user name and password for you. You need to enter these details into the router's configuration screens. This information is used to "dial" the connection to the servers of your ISP.
 - **Point-to-Point Tunneling Protocol (PPTP)** Mostly used in Europe, this is another type of connection that requires authentication through a user name and password. It provides similar levels of security to typical virtual private network products.
- **Domain Name Server (DNS)** A DNS has the function of translating the human-readable domain names we use for Web sites—for example, *www.google.com* or *www.7tutorials.com*—into the corresponding IP addresses that are used by network devices. You will need two DNS addresses: a primary and secondary. These addresses are the IP Addresses of two servers and you will obtain this information only from your ISP.

- **Local Area Network (LAN) Settings** These settings are applied to your home network. Most routers come with a predefined set of configurations. If this is the case with your router, go ahead and use them. There is no need to change them, as they will work properly right out of the box. The LAN settings define what kind of IP Addresses are assigned to your home computers and whether they are assigned dynamically or statically. For more information, consult the manual of your router and follow the recommendations of the manufacturer.
- **Wireless Settings** These settings are applied to all laptops or netbooks that access your home network via a wireless connection. First, you need to enable the wireless capability. Here there are a couple of details you should configure:
 - **Service Set Identifier (SSID)** This is the name that will be displayed when a laptop searches for wireless networks in your area. Here, it is best to give it a recognizable name so that people in your home know that it is your network. The name can contain letters, numbers, and underscores.
 - **Security Type** This setting defines the authentication and encryption methods (or lack of it) that are used to protect your network. Your options include WPA2-PSK (best protection method, highly recommended), WPA-PSK, WEP (very poor protection, easily cracked), or no security, which means everybody can freely connect to your network. If you select to enable any type of security, you must also type an access key (or password). Make sure this key combines letters, numbers, and special characters such as #, &, +, etc. Write this access key down, as you will need to know it in order to establish a wireless connection to your home network.

Once the router is configured correctly, make sure that all desktops are connected via cable and check if your drivers are installed correctly.

To help you understand how to configure your router, we also have two installation and configuration exercises, based on two different models: one from Belkin, and one from D-Link. If you look through both exercises, you will notice that the important elements are the same, irrespective of the router model. The number of steps might vary based on the approach the manufacturer uses, but the important aspects you need to pay attention to are the same.

Installing and Configuring a Belkin N+ Wireless Router

The first router we are using to demonstrate the installation and configuration process is a popular model: the Belkin N+ Wireless. This particular device has a good reputation for its reliable wireless coverage and signal strength.



In this exercise, you will learn how to set up your router so that all computers on your home network can connect to it and access the Internet. The steps in this exercise apply to most Belkin routers.



SET UP Be sure that you know the details you need to use for connecting your router to the Internet. Ask your ISP to provide them to you. Also, inform them that you are about to install a home router; the ISP might need to make some changes on their end in order for your router to connect to the Internet successfully. Once this is done, unpack your router carefully and identify the instruction manual and installation CD or DVD. Plug in the power adapter of your router and connect your computer to the router via the network cable provided in the package. Connect the router to the Internet using the cable from your Internet provider or from the modem your Internet provider has installed. Finally, insert the router's installation CD or DVD into your computer's CD/DVD-ROM drive and run the *SetupAssistant.exe* file.

1. Once the Belkin Setup CD window appears, you are asked to select what you want to do. Select **Run the Setup Assistant now**.



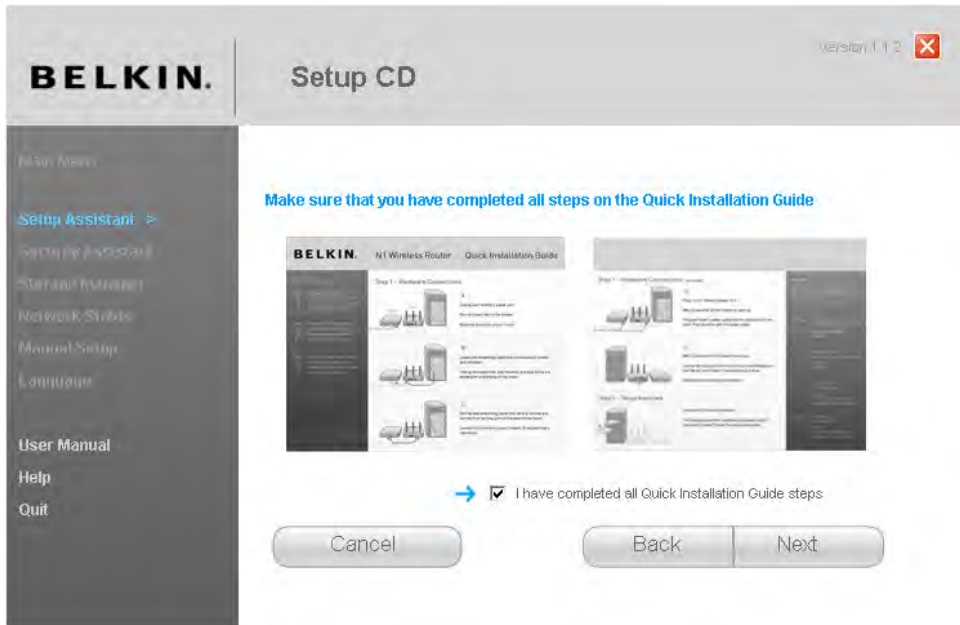
2. Click the **Go** button.

You are asked to select the country where the router will operate.



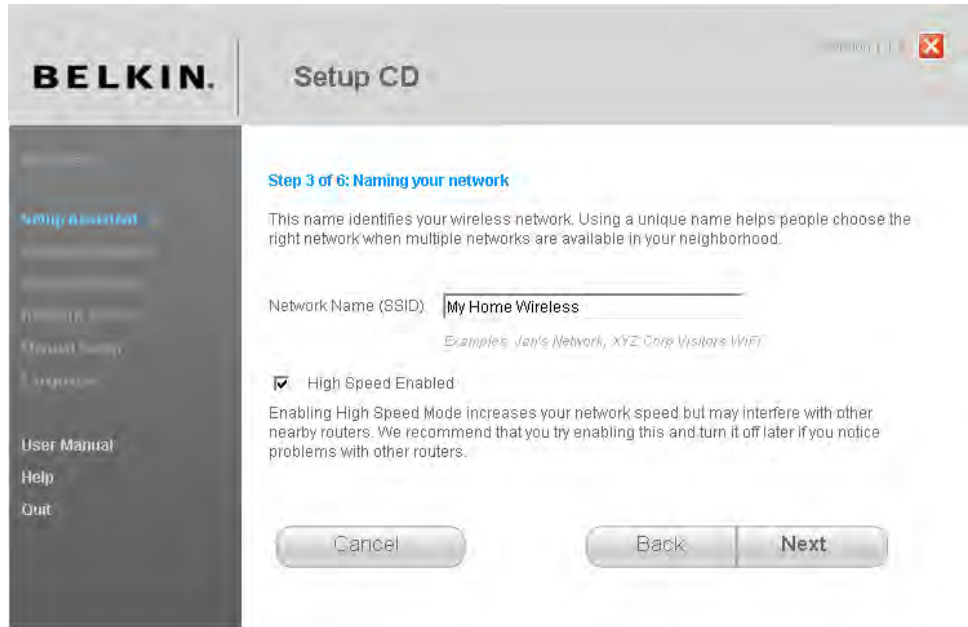
3. Select your country. If you cannot find it (in our case, Romania was not on the list of options), select **Other**.
4. Click the **Begin** button.

The Setup Assistant asks you to read the Quick Installation Guide found in the package of your router and confirm that all the steps outlined there have been completed.



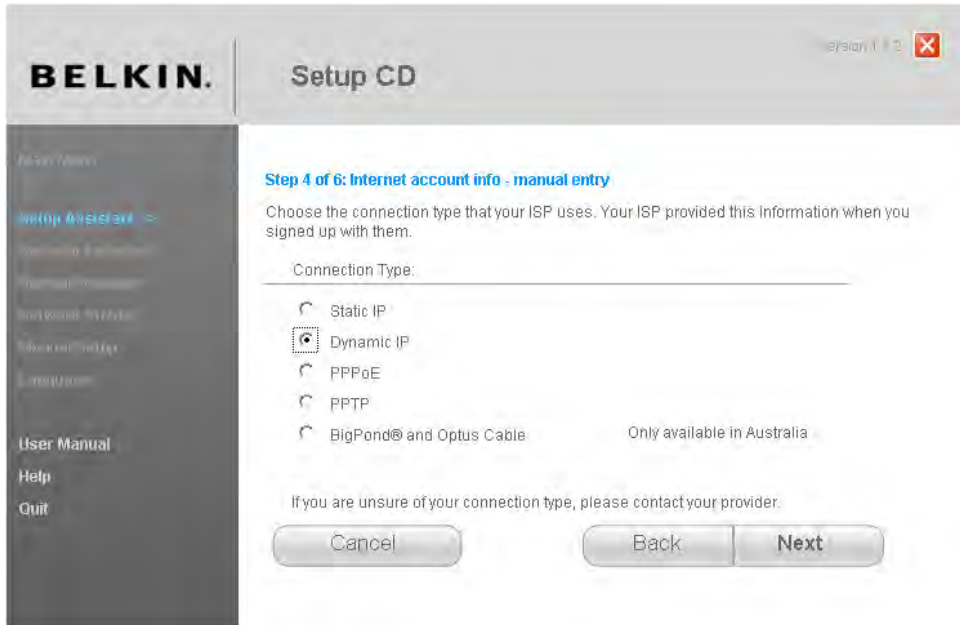
5. Read the Quick Installation Guide, follow all the steps, and when you have finished, select the **I have completed all Quick Installation Guide steps** check box.
6. Click **Next**.

The Setup Assistant takes a few seconds to connect to your router. It then asks you to name your home's wireless network.



7. In the **Network Name (SSID)** field, type the name that you want to apply to your home's wireless network.
8. Select the **High Speed Enabled** check box. This helps increase your wireless network speed.
9. Click **Next**.

The Setup Assistant begins a series of checks. When it is complete, you are asked to select the type of connection your ISP uses to connect your home to the Internet. Your choices are: Static IP, Dynamic IP, PPPoE, PPTP, or BigPond and Optus Cable.

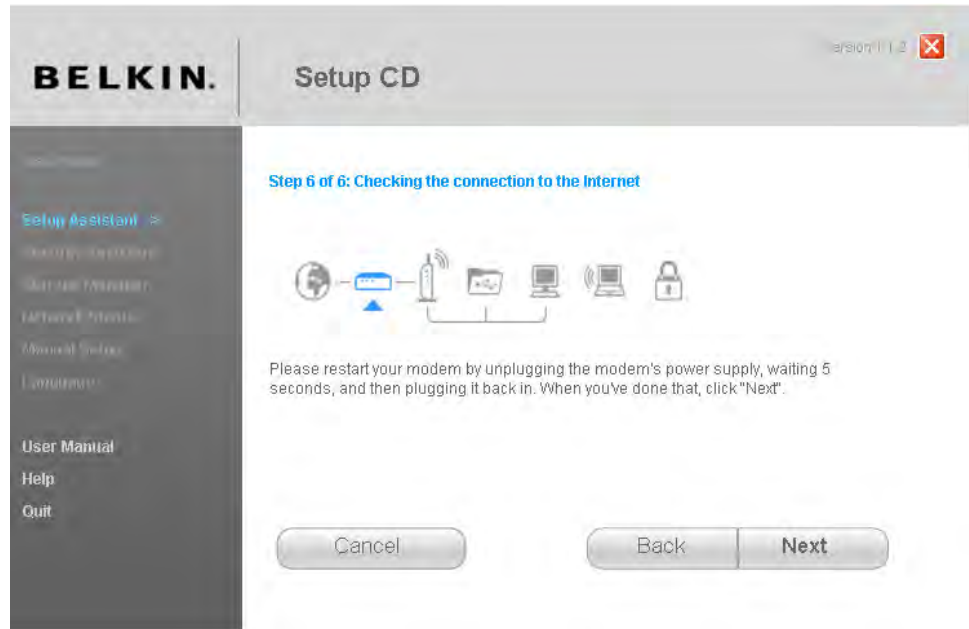


10. Select the appropriate type of connection, as provided by your ISP. In our case, we needed to select **Dynamic IP**.

11. Click **Next**.

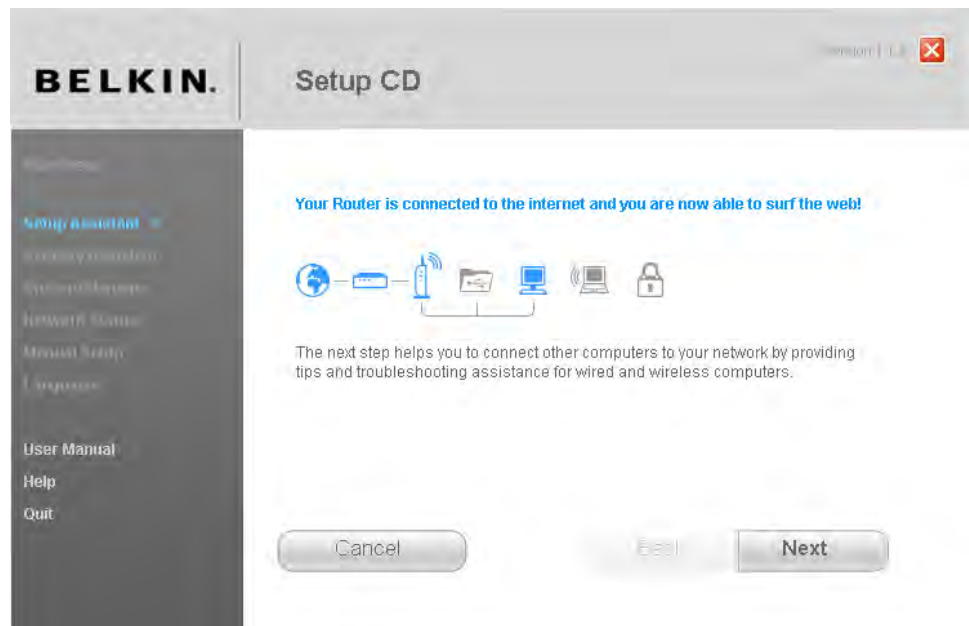
Depending on the choice you made, Setup Assistant might ask you to type certain connection details. For example, if you choose Static IP, you are asked to enter details such as the IP Address, Subnet Mask, Gateway, and DNS servers. For our exercise, we selected Dynamic IP, which means there's no need to type any details because the router will automatically receive them from the servers of our ISP.

12. Once you enter the connection details required, the Setup Assistant sends the data to the router. It then restarts the router so that the settings are applied and tries to connect to the Internet. In case you are using a modem to connect your router to the Internet, you are asked to unplug its power supply, wait for five seconds, and then plug it in again.



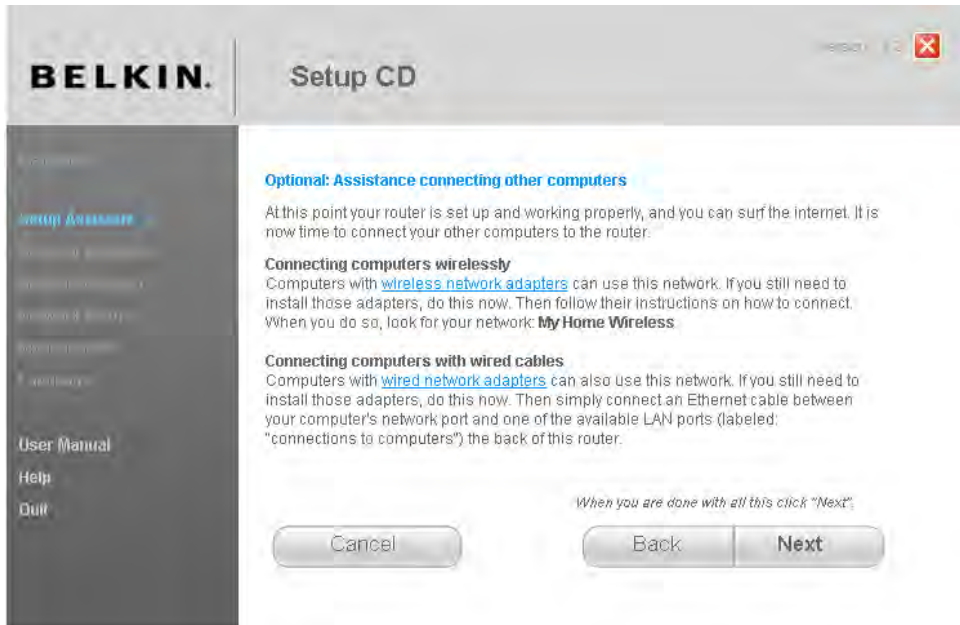
13. If you are using a modem to connect your router to the Internet, follow the instructions. If not, simply click **Next**.

The router tries again to connect to the Internet, then notifies you of the success of the operation.



14. Click **Next**.

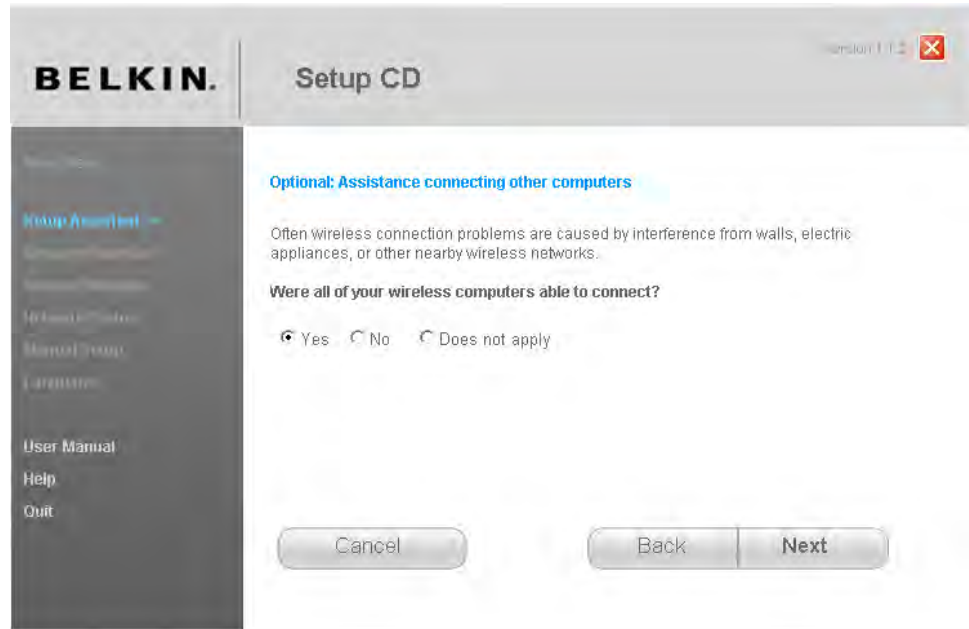
The Setup Assistant asks you to connect the other computers to the router.



15. Connect all the other desktops to the router via Ethernet network cables, similar to the one found in the package of the router. Establish wireless connections for any laptops or notebooks.

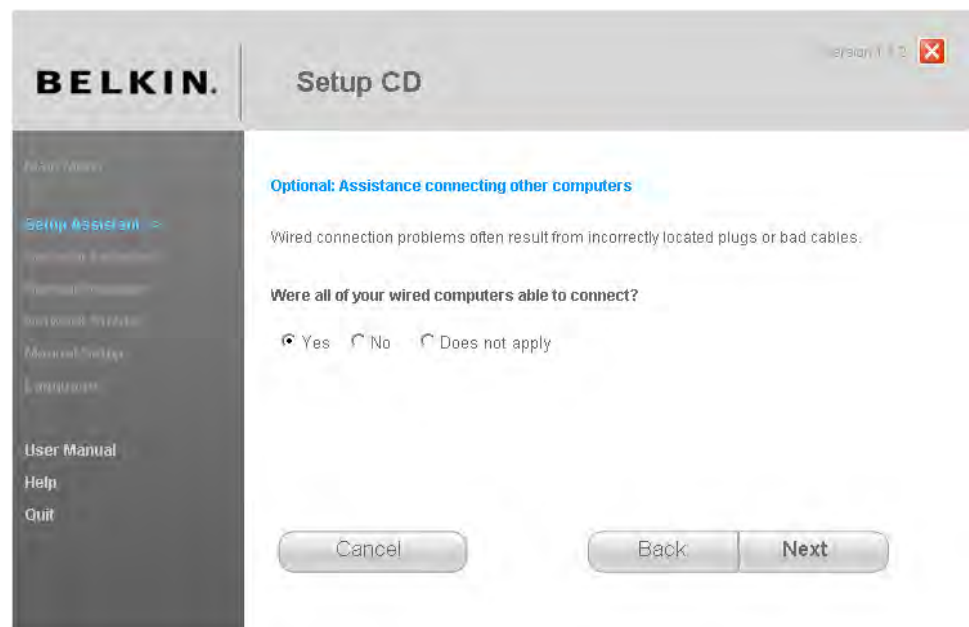
16. When you have finished connecting all the other computers, click **Next**.

You are asked if all your wireless computers are able to connect.



17. If you were able to connect the wireless computers, select **Yes**. If not, select one of the other answers that apply to your situation.
18. Click **Next**.

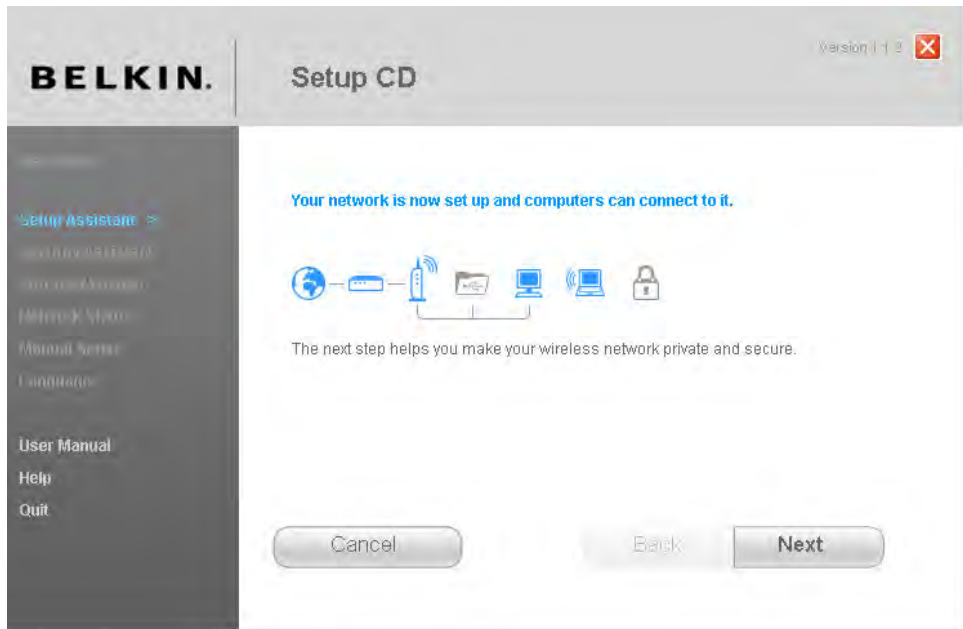
You are asked if all your wired computers are able to connect.



19. If you were able to connect the wired computers, select **Yes**. If not, select another answer that applies to your situation.

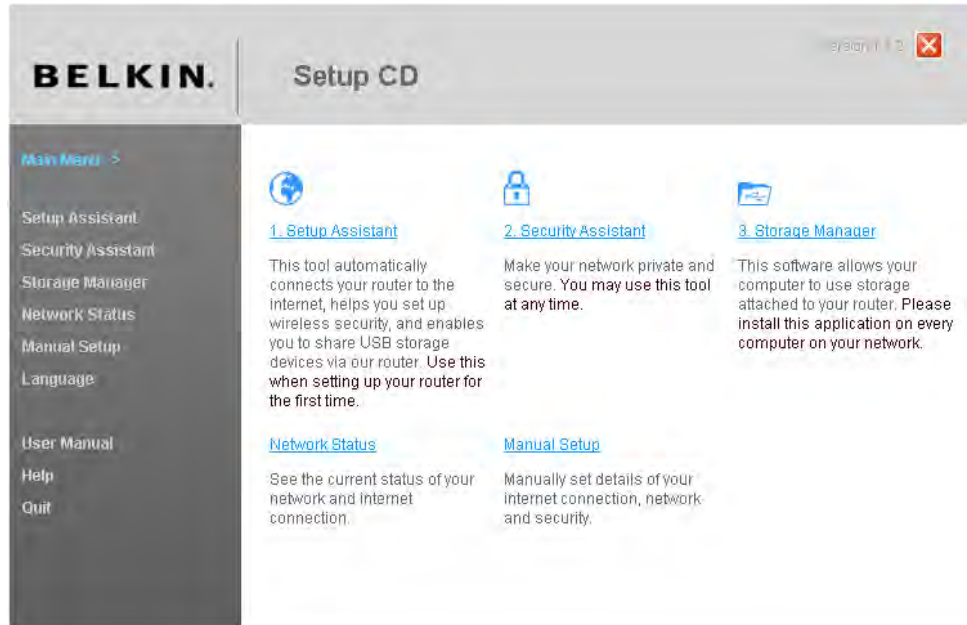
20. Click **Next**.

You are informed that the network is now set up and computers can connect to it.

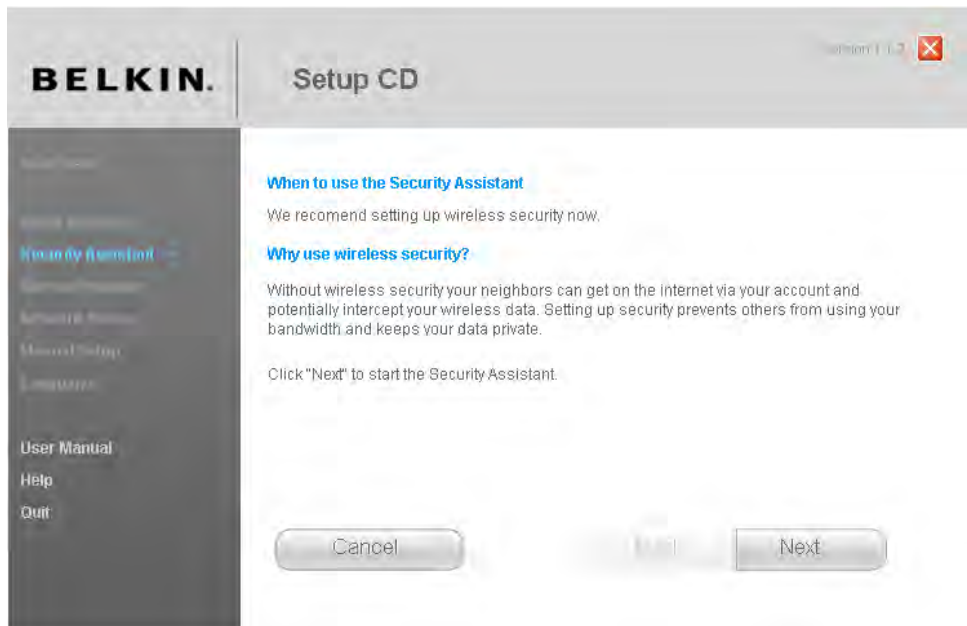


21. Click **Next**.

A window opens in which you can choose to start other configuration tools. Even though your network is now set up and fully functioning, there's one important thing missing: your wireless network is not secured and everybody can connect to it freely, including unauthorized users.



22. It's time to set up your network security. Click **Security Assistant**.



23. Click **Next**.

The Security Assistant starts and informs you about the steps it will follow.



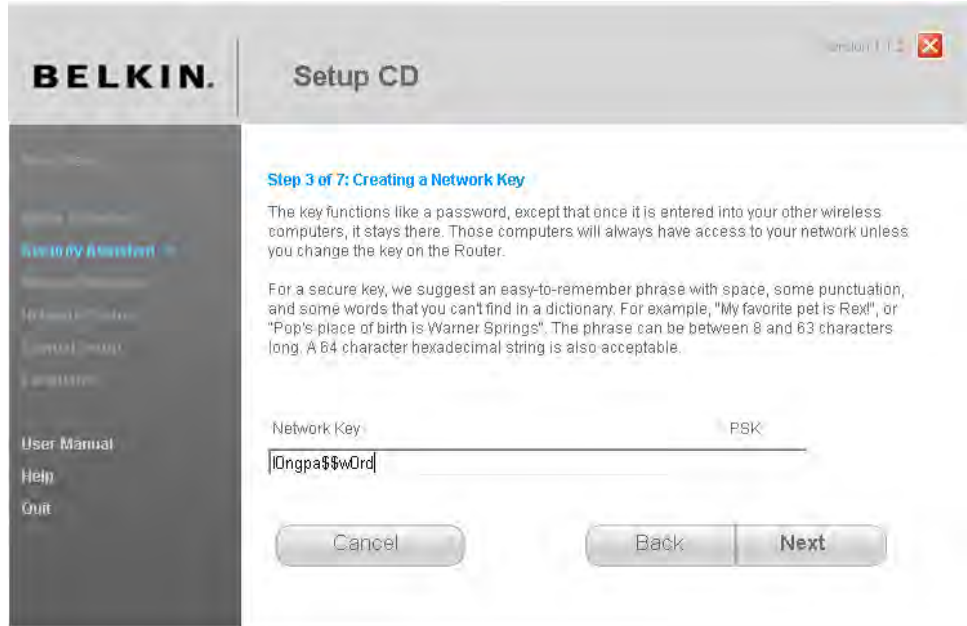
24. Click **Next**.

The Security Assistant checks for a connection to your router. Once found, it asks you to choose the type of security you want to use for your home's wireless network.



25. Choose WPA2—this is the most secure option—and then click **Next**.

You are asked to type the network key (or password) that will be used by other computers to connect to your home's wireless network.

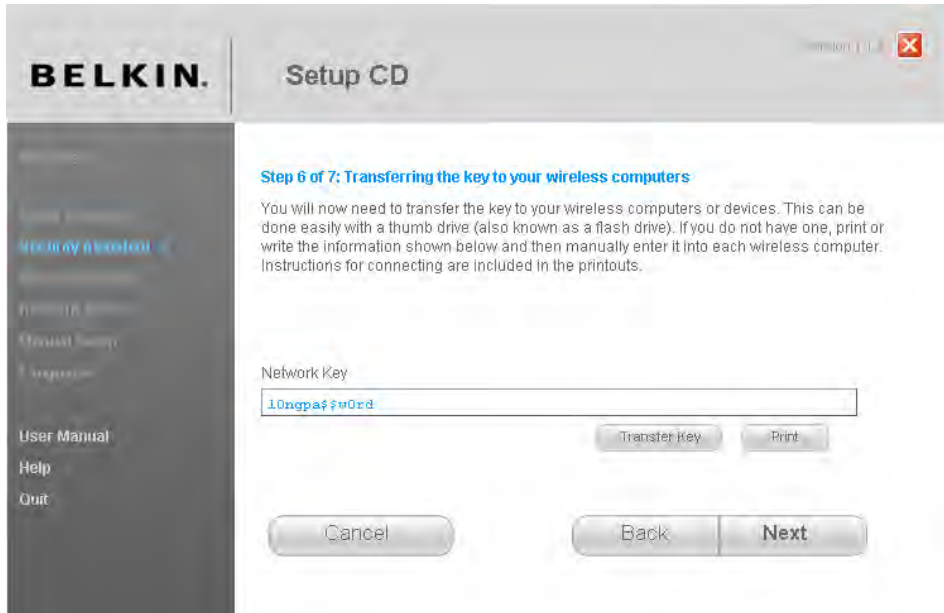


26. Type a network key.

The network key must be a minimum of 8 characters. Also, it should be made up of a combination of letters, numbers, and special characters (such as \$, #, +, and so on). This will make it harder for intruders to hack (decipher) your network key.

27. Click **Next**.

The Security Assistant sends the data to the router. When this is complete, it informs you about the network key being set.



28. You have the option to print the network key or transfer it to a USB memory stick. Click the appropriate button if either of these options is useful to you.
29. Click **Next**.

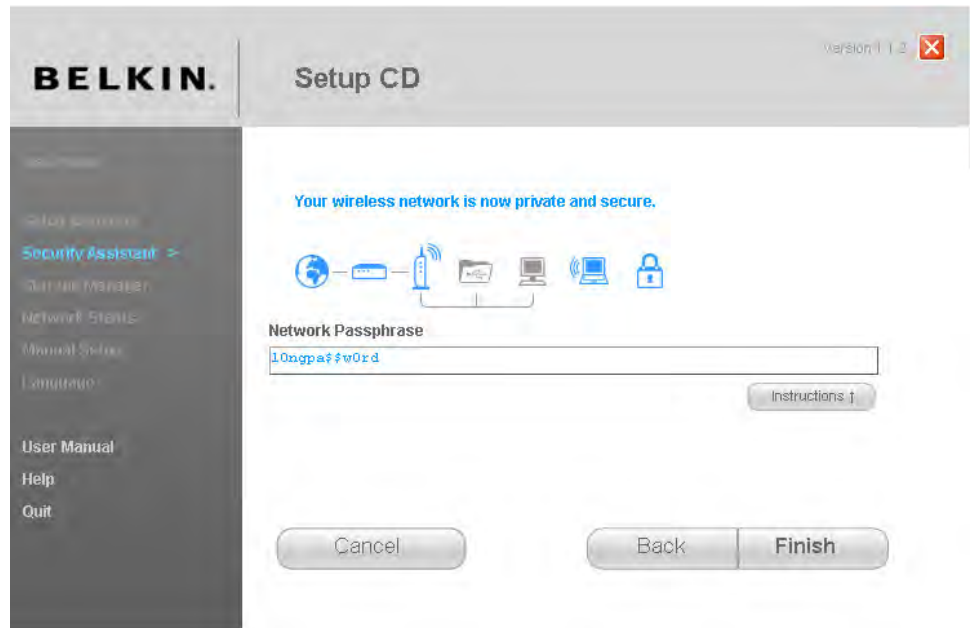
You are asked to verify if your wireless computers can connect to the network using the newly created network key.



30. If everything is working properly, select **All computers were able to connect successfully**.

31. Click **Next**.

You are informed that your wireless network is now private and secure.



32. Click **Finish**.

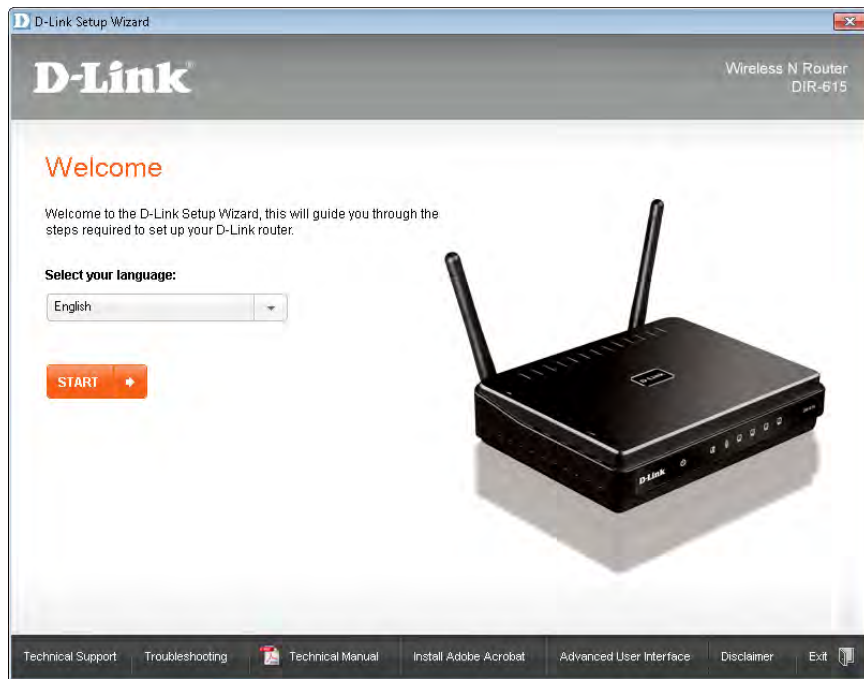
You are returned to the overall Setup CD window, where you can choose other tools you might want to launch.

Your home network is now set up and secured correctly. Both your wired and wireless computers are able to connect to it.

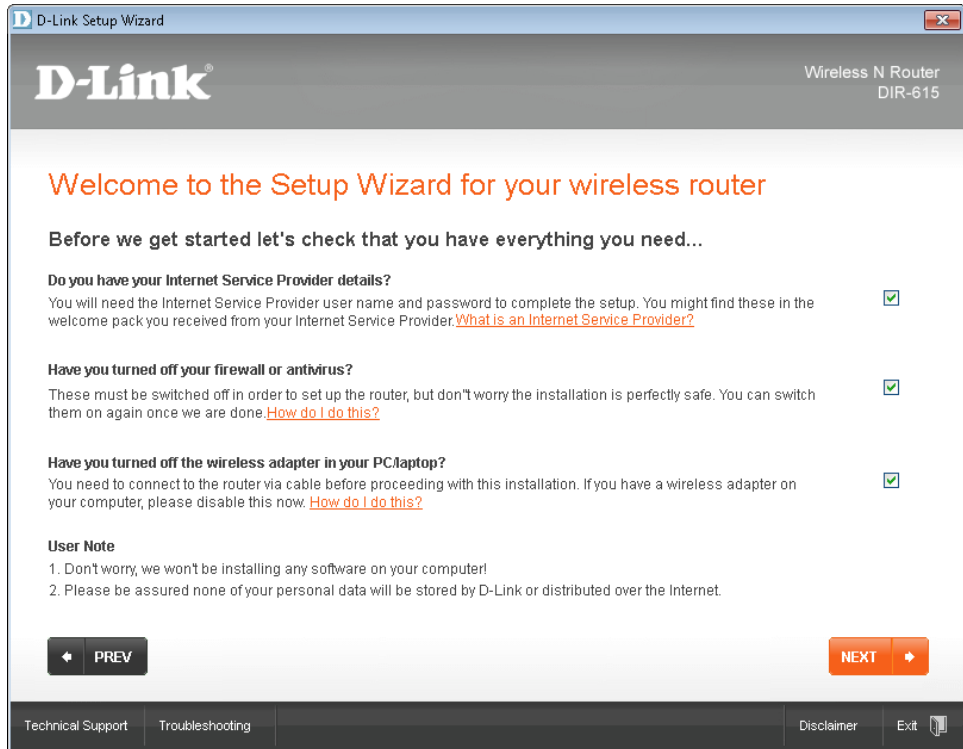
✘ CLEAN UP Close the Setup CD window.

Important If after the initial setup you want to configure any parameters for your Belkin N+ Wireless router, open your Internet browser and type <http://192.168.2.1>. When you want to change the settings of your router, you are asked for a password. Leave it blank and click Submit.

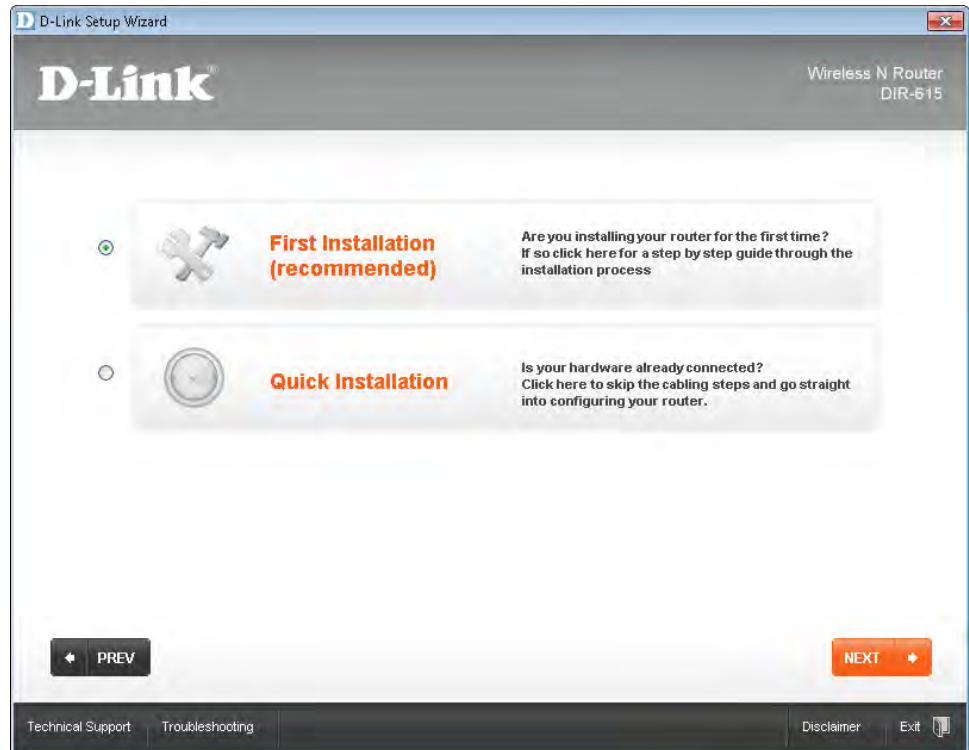
1. Once the D-Link Setup Wizard appears, you are asked to select your language. Select the language that you prefer to use.



2. Click the **Start** button.
You are asked a series of questions about what you must do prior to continuing with the setup.

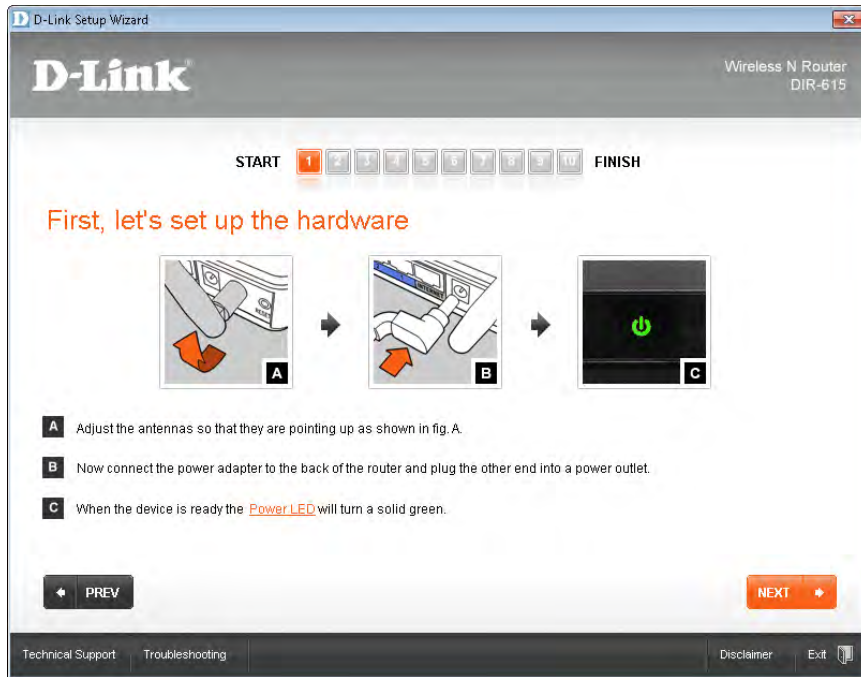


3. Follow the instructions recommended by the wizard and select the appropriate check boxes when done.
4. Click **Next**.
You are asked what kind of installation you want to perform.



5. Select **First Installation**, and then click **Next**.

The wizard now asks you to set up the hardware.

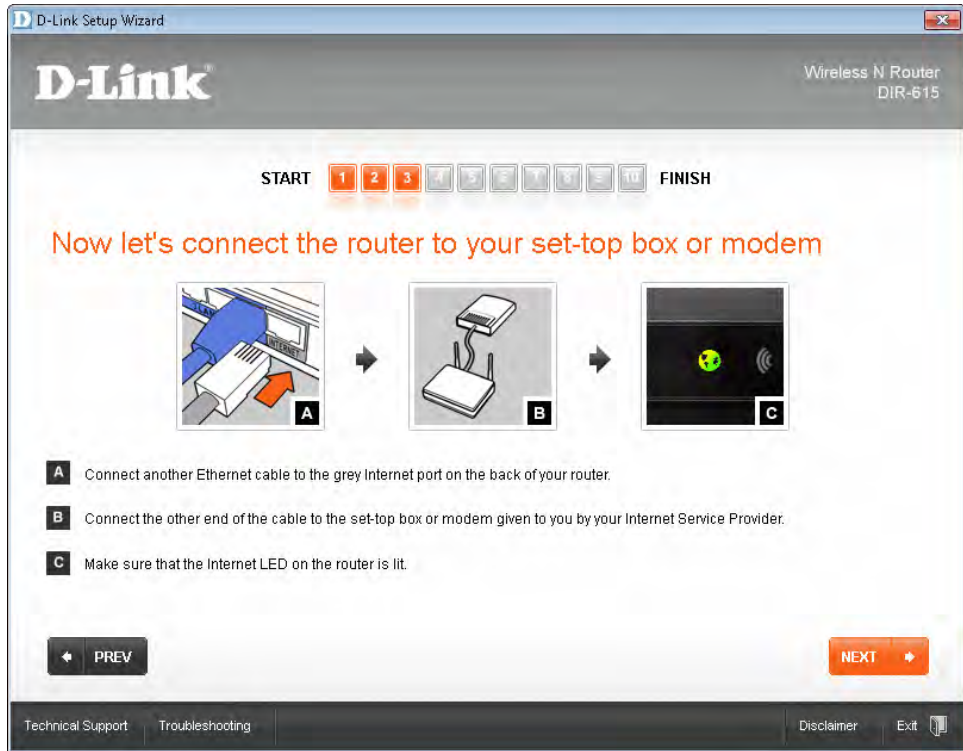


6. Follow the instructions shown. When you have finished, click **Next**.
You receive instructions about connecting your router to the computer.



7. Follow the instructions shown. When you have finished, click **Next**.

You are asked to connect the router to your set-top box or modem. Follow the instructions if your ISP provided such devices. If the connection is via a network cable, plug the cable into the gray Internet port on the back of your router.



8. When you have finished, click **Next**.

You are asked to create a password for your router. This will be the password for the administrative user on the router. You can use this later to set up your router's parameters, if needed.



9. Type the same password in both fields, then click **Next**.

The Setup Wizard checks your Internet connection. When it is complete, you are asked to select the type of Internet connection you have.

D-Link Setup Wizard

D-Link Wireless N Router DIR-615

START 1 2 3 4 5 FINISH

Now let's find out your Internet connection type

Please select your Internet Connection type from the below drop down menu.
This information should have been provided to you by your ISP, if you do not have this documentation you should contact them directly.

Static IP Address

WAN IP Address: 89 . 35 . 239 . 56

WAN Subnet Mask: 255 . 255 . 255 . 192

WAN Gateway: 89 . 35 . 239 . 77

Primary DNS: 193 . 138 . 193 . 1

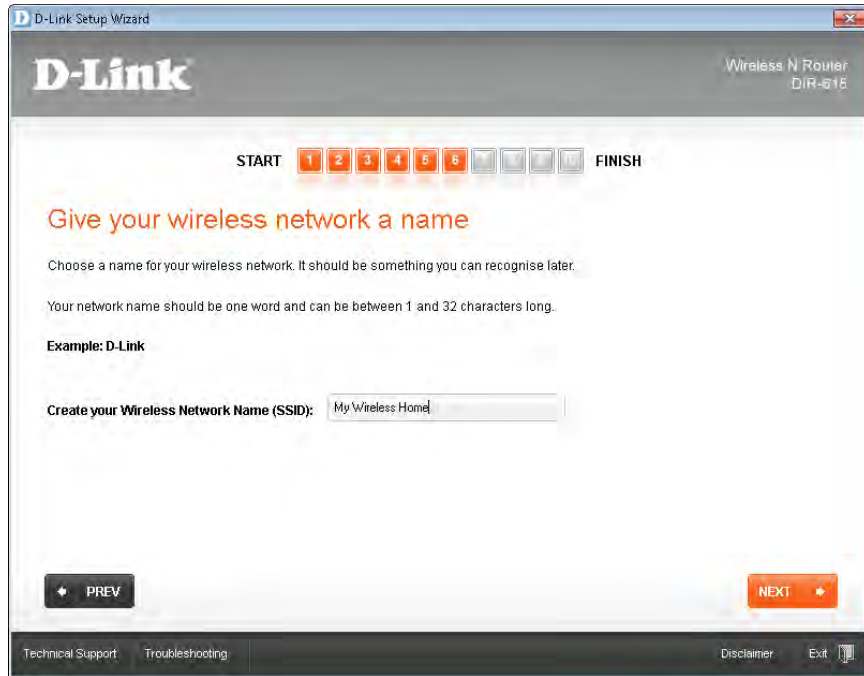
Secondary DNS: 193 . 138 . 193 . 2

PREV NEXT

Technical Support Troubleshooting Disclaimer Exit

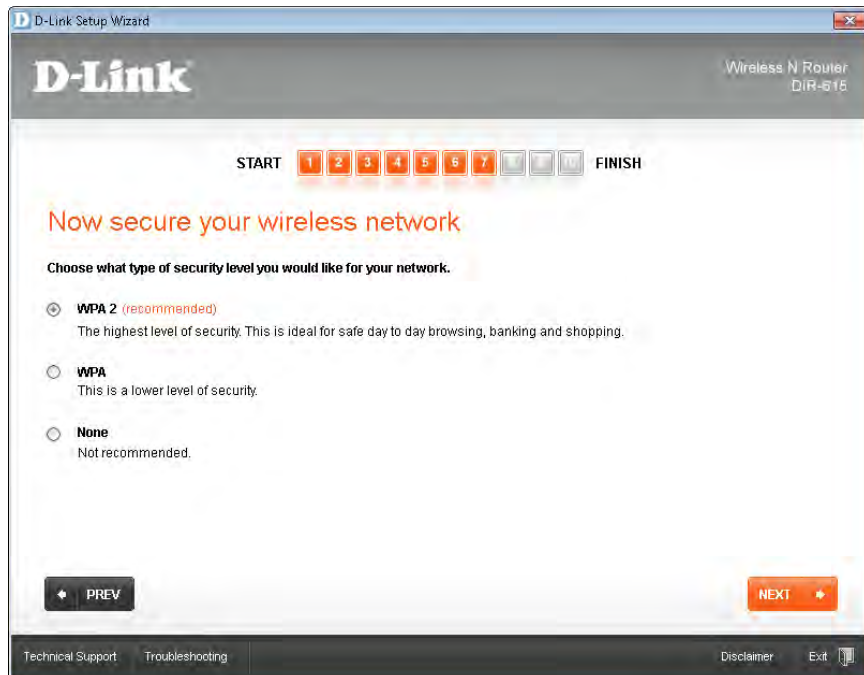
10. Select the appropriate Internet connection from the list. For our Internet connection, we had to use a Static IP Address connection.
11. Type the requested connection details. For our connection, we entered the IP Address to be used by the router to connect to the Internet, the Subnet Mask, the Gateway, and the primary and secondary DNS servers. Depending on your type of connection, you might be required to enter other types of connection details.
12. When you have finished entering all the details, click **Next**.

The Setup Wizard saves your settings and checks the Internet connection. If everything works well, you are asked to give a name for your home's wireless network.



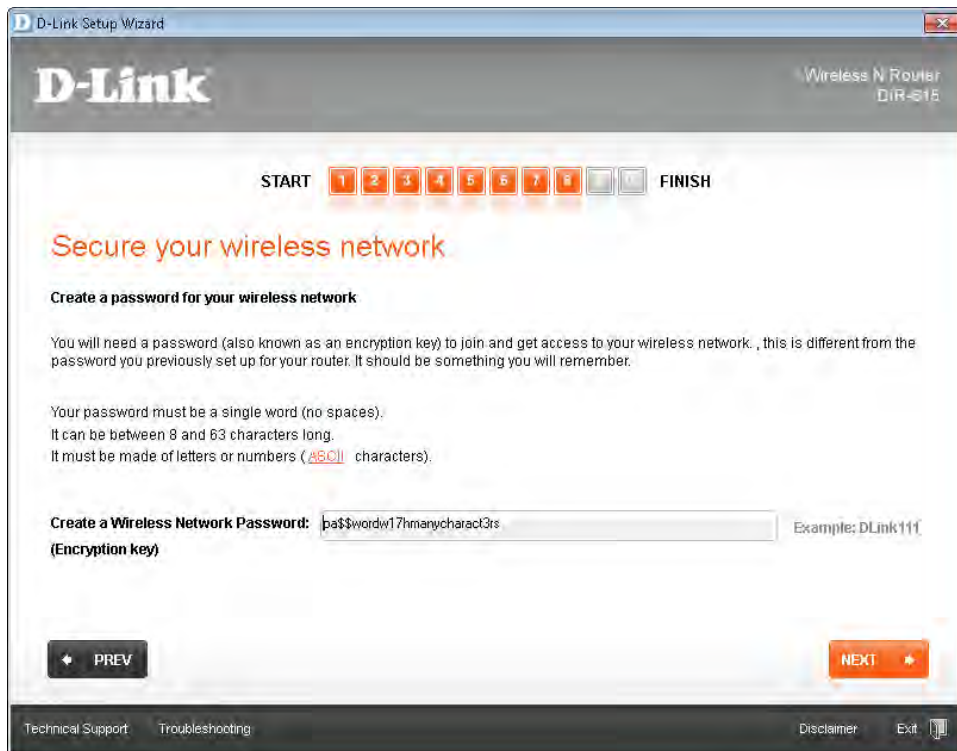
13. Type the name of the network, then click **Next**.

You are asked to select the type of security to be applied to your wireless network.



14. Select **WPA2**, then click **Next**.

You are now asked to type a wireless network password (also known as an encryption key or security key). This password will be used by all computers that connect to the wireless network.

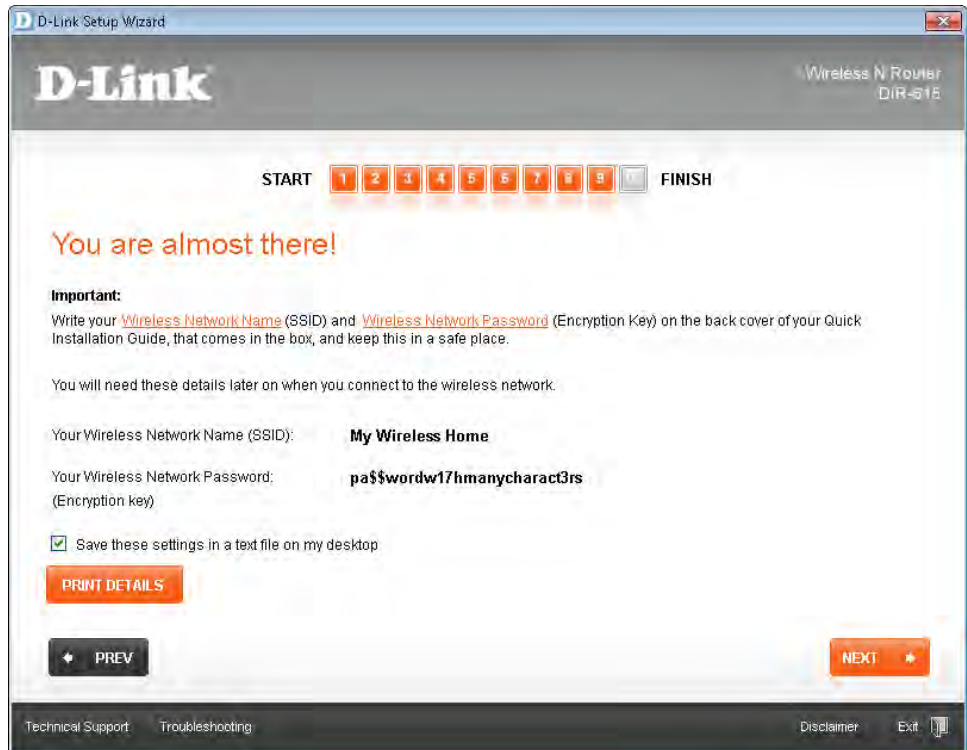


15. Type a network password.

The network password must be a minimum of 8 characters. Also, it should be made up of a combination of letters, numbers, and special characters (such as \$, #, +, etc.). This will make it harder for intruders to hack (decipher) your network key.

16. When you have finished, click **Next**.

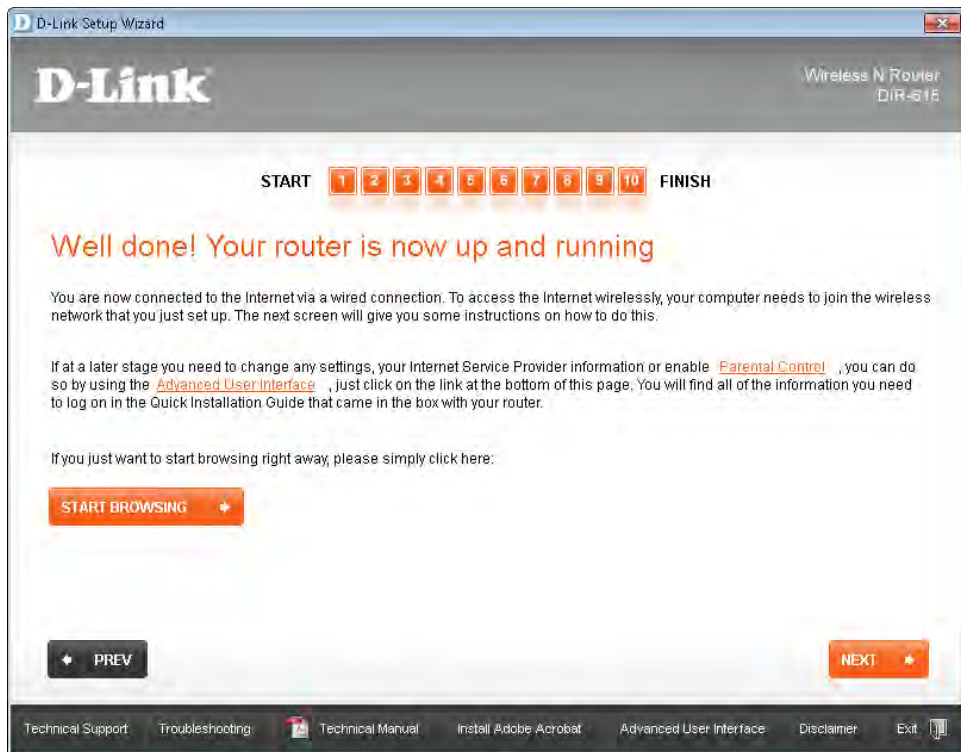
The Setup Wizard saves your wireless network settings. When it is complete, it informs you of the newly created wireless network name and password.



17. You can print these details by clicking the **Print Details** button. If you want the settings saved in a text file on your desktop, select the **Save these settings in a text file on my desktop** check box.

18. Click **Next**.

You are informed that your router is up and running.



19. Click **Next**.

The Setup Wizard has completed all of the steps. Finally, it informs you that you can join the newly created wireless network. Your home network is now set up and secured correctly. Both your wired and wireless computers should be able to connect to it.

✘ **CLEAN UP** Close the D-Link Setup Wizard.

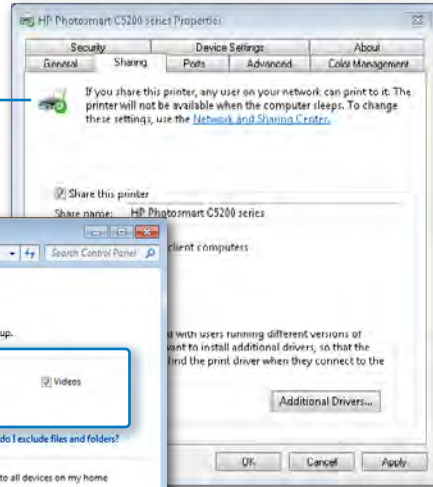
Important If after the initial setup you want to configure any parameters for your D-Link DIR-615 router, open your Internet browser and type <http://192.168.0.1>. This takes you to the logon window of the router. Type the user name **admin** and the password that you assigned in step 9. Once you log on, you can change all the settings of your router.

Key Points

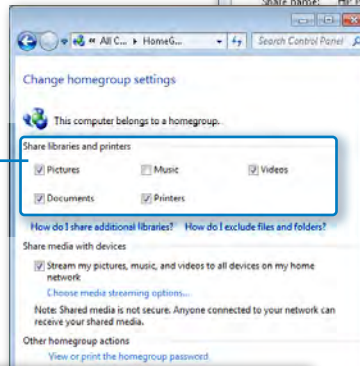
- It's very important to install all hardware devices and their appropriate drivers properly.
- Device Stage is a Windows 7 feature that allows you to interact with devices in a very friendly manner.
- Installing and configuring your router is the most important task in setting up your home network. When setting up your router, talk to your Internet service provider and obtain the list of settings that you need to configure it.

Chapter at a Glance

Share your printer with the network, **page 190**

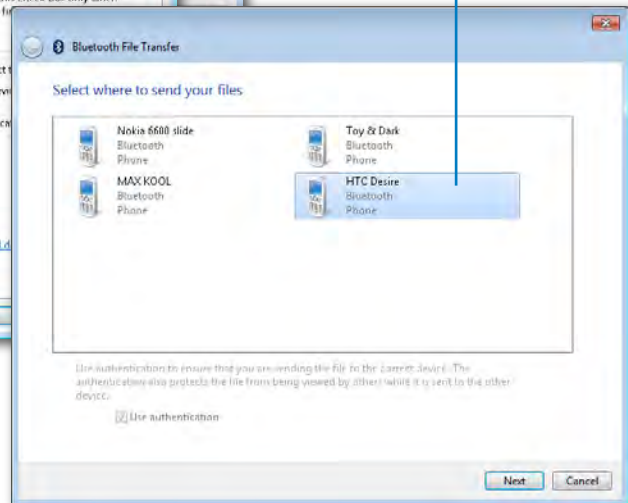
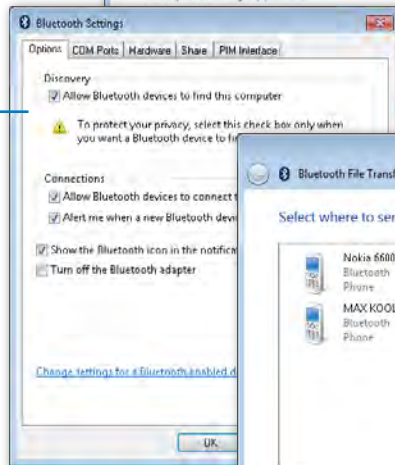


Share your printer with the Homegroup, **page 195**



Send files from your computer to your mobile phone via Bluetooth, **page 206**

Enable Bluetooth and allow connections, **page 199**



8 Sharing and Working with Devices

In this chapter, you will learn how to

- ✓ Share a printer with computers on your home network.
 - ✓ Enable Bluetooth on your computer and allow connections.
 - ✓ Pair your computer with your mobile phone.
 - ✓ Exchange files between your computer and your mobile phone.
 - ✓ Remove the pairing between your computer and your mobile phone.
-

In the previous chapter, you learned how to share libraries, folders, and files with the computers on your home network. Fortunately, the list of things you can share on your network does not end here. You can also share some of the devices connected to your computer, the most common being the printer. Other devices include scanners, removable disk drives (such as USB memory sticks), or external hard disk drives.

Another positive is that you can connect yet more devices to the computers on your network and transfer files between them. One great example is your mobile phone. With the use of Bluetooth technology, you can connect your laptop or notebook with your mobile phone and exchange files among them (photos, short videos, music, and so on).

In this chapter, you will learn how to share a printer with the network or Homegroup and how to stop sharing it when you no longer need to use it as a network printer. Then, you will learn how to share a removable disk drive and how to transfer files between your mobile phones and your Windows 7 computers using Bluetooth.

Practice Files You can use any of your printers, phones, and files to complete the exercises in this chapter. Until you get the hang of it, it is best not to use any important files. Also, back up the files you are about to use, just to make sure you don't lose them by mistake.

Sharing a Printer with Computers on Your Home Network

In Chapter 1, we talked a lot about Device Stage and how this feature allows you to interact with all the external devices attached to your computer. This feature comes in handy, especially when working with printers. Your printer is accessible in the Devices And Printers panel. From here, you can perform all the configuration tasks, including sharing it with the other computers on your home network.

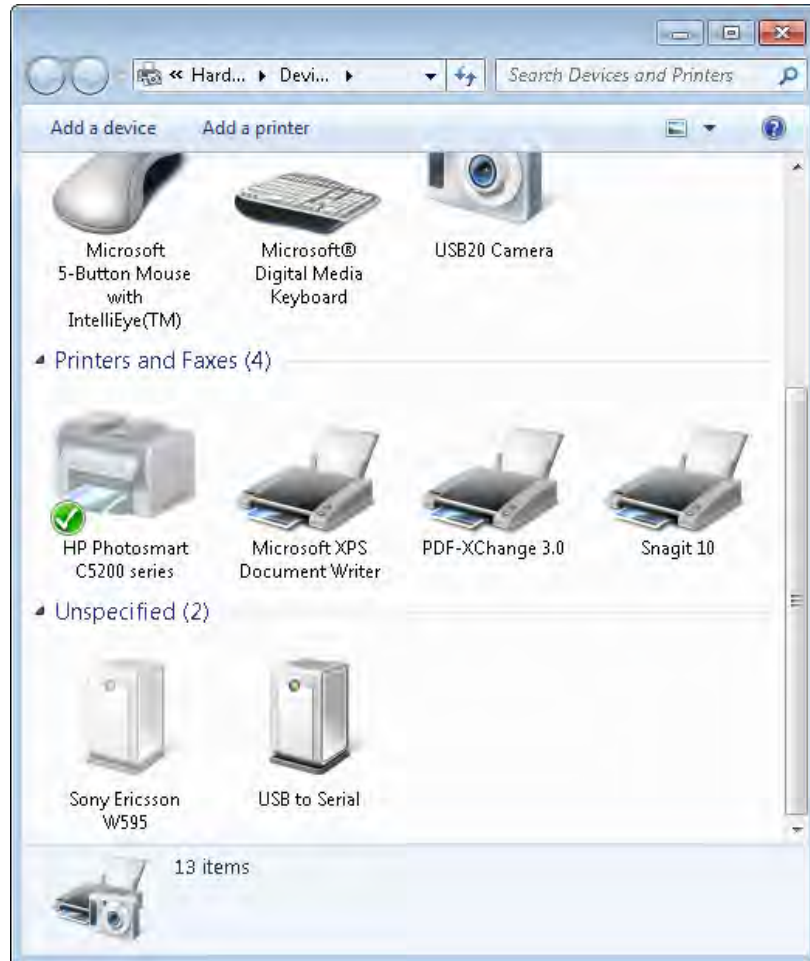
In this exercise, you will learn how to share a printer with your network in Windows 7. The exercise and illustrations were created using an HP Photosmart C5280 printer, but the same steps apply to any model of printer.



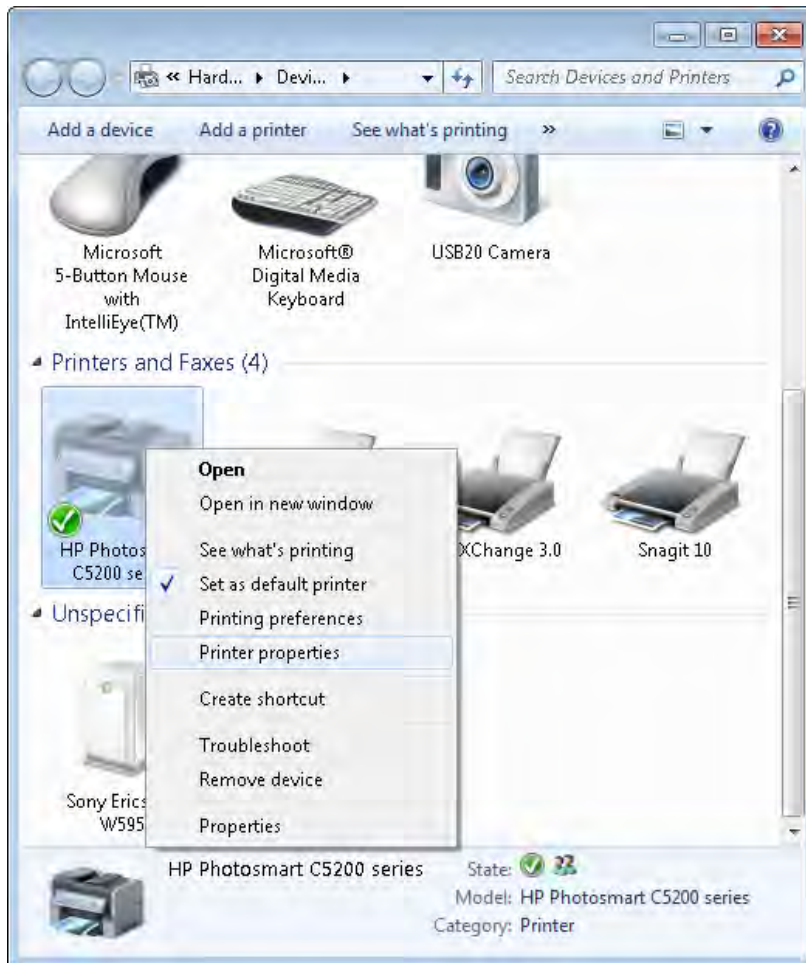
SET UP Connect the printer to your computer, start it, and install the latest drivers for it.

1. Open the **Start Menu** and click **Devices and Printers**.

The Devices And Printers panel opens, in which you can access all the external devices connected to your computer, including your printer.



2. Select your printer and right-click it.
The contextual menu for the printer opens.



3. Click **Printer properties.**

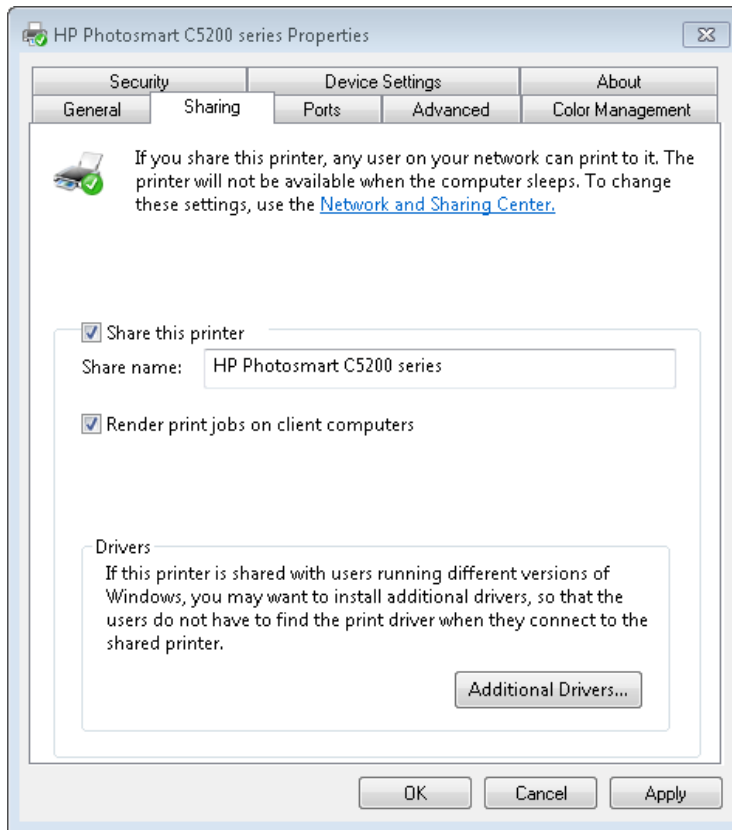
The Properties window for the selected printer opens.

4. Click the **Sharing tab.**

Here, you can see whether the printer is already shared.



5. Click the **Change Sharing Options** button.
The sharing fields can now be edited.
6. Select the **Share this printer** check box.



7. By default, the **Share name** of the printer is its model name. If you want to change it, type a new share name.
8. If you want a negligible performance increase on your computer, check **Render print jobs on client computers**.

When this option is enabled, printing jobs are no longer rendered on the computer to which the printer is attached but on the computers ordering the printing jobs. This prevents any performance impact on the host computer when the client computers start printing large files. However, modern computers are very powerful and the performance impact of this setting is negligible. It is up to you whether you want this setting enabled.

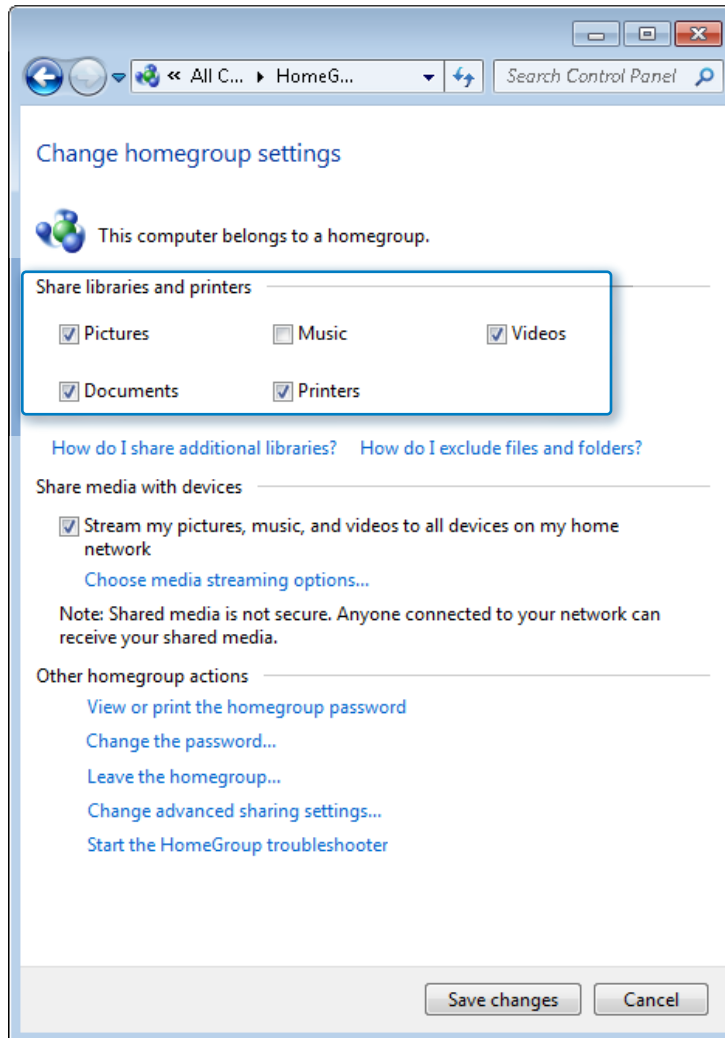
9. Click **OK**.

The printer is now shared with the computers on your network and they can install it and use it.

✕ CLEAN UP Close Devices And Printers.

Sharing a Printer with Your Homegroup

Sharing a printer with the Homegroup is extremely easy. Simply open the Homegroup settings window and, in the Share Libraries And Printers section, check Printers, and then click Save Changes.



See Also For more information about the Homegroup and how to find its settings window, see Chapter 6, “Creating the Homegroup and Joining Windows 7 Computers.”

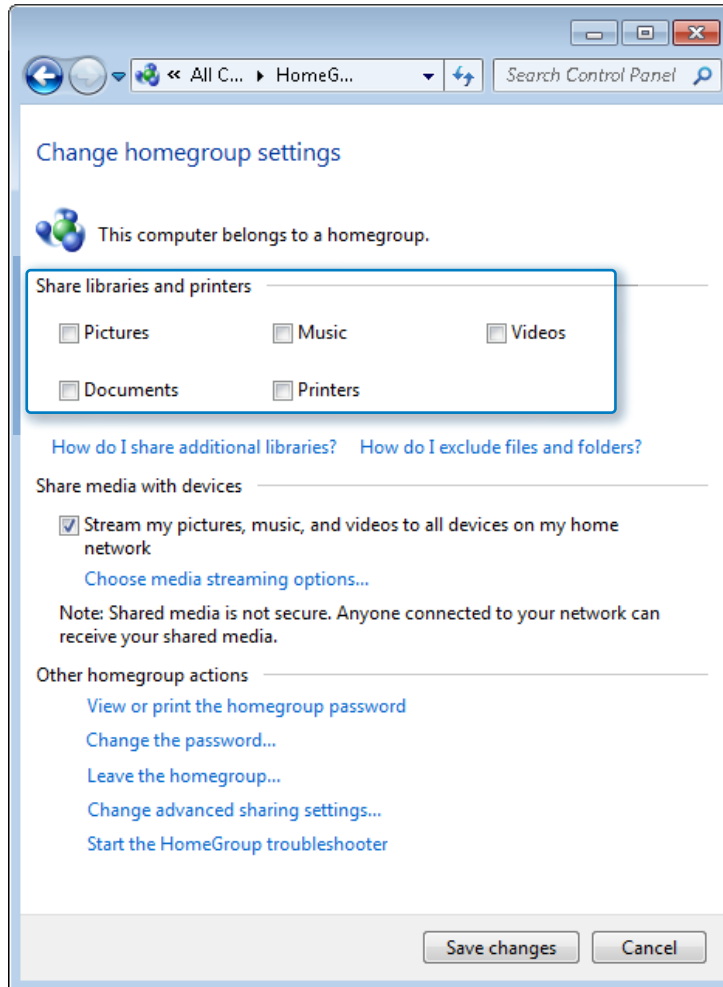
The printer will automatically show up in the Devices And Printers panel of all the computers that are part of the Homegroup and they will be able to use it.

Stop Sharing the Printer

If you want to discontinue sharing the printer with the network, follow steps 1 to 5, detailed in the “Sharing a Printer with Computers on Your Home Network” section on page 190. Clear the Share This Printer check box, then click OK.



The printer is no longer shared with the other computers on the network. This procedure stops sharing the printer with computers that are not a part of the Homegroup and that are running operating systems other than Windows 7. To stop sharing a printer with the Homegroup, open the Homegroup settings window, and in the Share Libraries And Printers section, clear the Printers check box, then click Save Changes.



See Also For more information about the Homegroup and how to find its settings window, see [Chapter 6](#).

The printer will no longer show up in the Devices And Printers panel of all the computers that are a part of the Homegroup.

Sharing a Removable Disk Drive

Removable disk drives (such as USB memory sticks or external hard disk drives connected through USB) are another type of device that you can share on your network. Sharing such devices is relatively easy—simply follow the instructions found in the “Using

Advanced Sharing to Share Your Folders or Partitions” section in Chapter 7, “Sharing Libraries and Folders.”



Unfortunately, sharing disk drives of any type cannot be done using the simple Sharing Wizard found in Windows 7. You can only share them by using Advanced Sharing.

Transferring Files Between Mobile Phones and Your Windows 7 Computer via Bluetooth

Bluetooth is a popular wireless technology used to exchange data between devices over short distances. One very common use for it is transferring files between two mobile phones or between a mobile phone and a laptop or netbook computer. An important downside of Bluetooth support for Windows 7 is the fact that some manufacturers do not provide full support for Windows 7 in their drivers. Therefore, you might experience problems connecting your mobile phone to your Windows 7 computer. This is especially true for older or less expensive mobile phones. Newer, more popular and expensive models generally benefit from good support and drivers that enable successful connections to Windows 7 computers.

Before trying to connect your computer to your mobile phone, it is highly recommended that you install the latest drivers for the Bluetooth device on your computer and the latest drivers for your phone. These usually come packaged in the PC suites created by the manufacturer of your phone (for example: Nokia Ovi Suite, Sony Ericsson PC Suite, Motorola Phone Tools, or Samsung PC Studio). Another aspect worth keeping in mind is that desktop computers generally are not equipped with Bluetooth devices, so you cannot use them to establish such connections. If you want to establish Bluetooth connections on your desktop computer, you need to purchase and install a separate adapter.

Also, not all mobile computers such as laptops or notebooks have Bluetooth devices. Therefore, it is best for you to check the configuration of your specific model and confirm whether it has Bluetooth support. If it does have a Bluetooth device, then read the next sections.

If your computer does not have a Bluetooth device, then your only solution is to connect your mobile phone via a computer cable. This is usually provided by the manufacturer of your phone in the original packaging.

See Also For instructions on how to connect your mobile phone to your computer via the computer cable, check the manual for your specific model.

Assuming that you have a Bluetooth device on your computer and the latest drivers are installed, you need to follow a series of steps—in the correct order—before you begin transferring anything via Bluetooth. These steps are covered comprehensively in the next sections, so read them carefully; otherwise, you might run into some problems.

Enabling Bluetooth on Your Computer and Allowing Connections

The first task is to enable Bluetooth, both on your computer and on your mobile phone. The procedure is not very complicated, but it does require attention—especially during the setup process—so pay attention to the steps described in this chapter.

In this exercise, you will learn how to enable Bluetooth on your Windows 7 laptop or netbook. You will also learn how to set it to allow connections from other devices such as your mobile phone.



Bluetooth Turned Off



Bluetooth Turned On



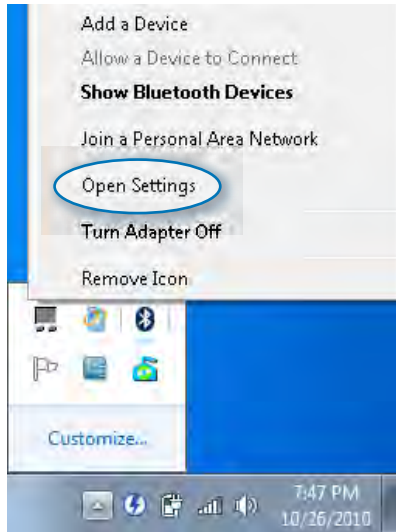
SET UP Install all the drivers provided by the manufacturer of your laptop, including those for Bluetooth. Then, make sure the Bluetooth device is turned on. To turn it on, locate the button on the side of your computer or above its keyboard. Typically, you can determine whether Bluetooth is enabled by an illuminated Bluetooth LED icon on the surface of your laptop or netbook. In addition, the Bluetooth icon from the taskbar turns from red (or completely missing) to white.

See Also For complete instructions on how to turn on the Bluetooth device on your laptop or netbook, read the instruction manual provided by the manufacturer.



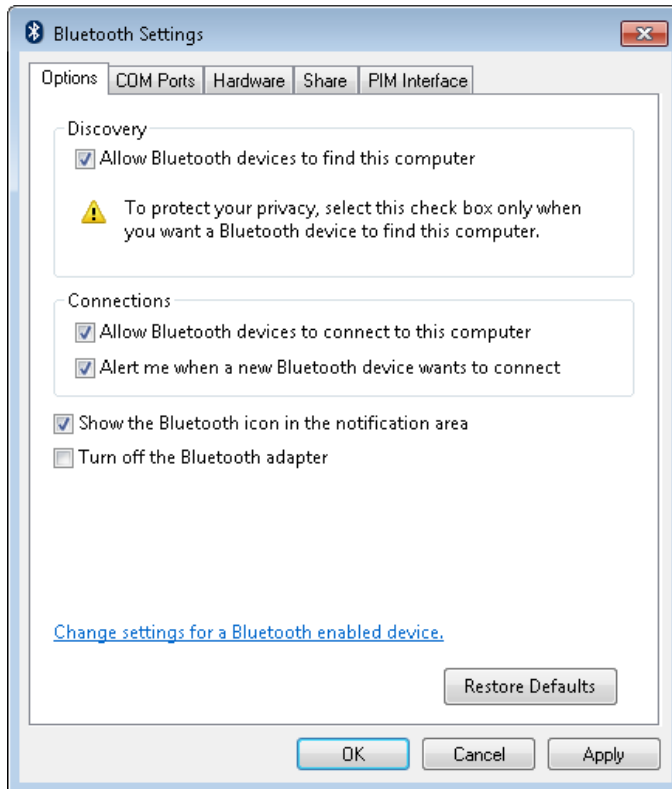
1. Go to the notification area of the Windows 7 taskbar and open the list of icons.
2. Right-click the **Bluetooth** icon.

The contextual menu, which contains a list of Bluetooth-related configuration options, opens.



3. Click **Open Settings**.

The Bluetooth Settings window opens.



Tip An alternative to steps 1 to 3 is to search for the word “bluetooth” in the search box of the Start Menu, then click the [Change Bluetooth Settings](#) search result.

4. In the Options tab, select the **Allow Bluetooth devices to find this computer** check box.

This allows your computer to be discovered by other Bluetooth devices.

5. Select **Allow Bluetooth devices to connect to this computer**.

If this setting is not enabled, other devices will not be able to connect to your computer.

6. Select **Alert me when a new Bluetooth devices wants to connect**.


With this setting enabled, you are notified when new—and possibly unauthorized—devices want to connect to your computer, which allows you to act, if needed.

7. Select **Show the Bluetooth icon in the notification area**.

This allows you to easily access the Bluetooth capabilities on your computer and use them as required.

8. Click **OK**.

The Bluetooth on your computer is now enabled, correctly configured, and ready to establish connections to and interact with other devices.

 **CLEAN UP** [No cleanup is required.](#)

Turning On Bluetooth on Your Mobile Phone

Now that your computer is correctly configured, it’s time to turn on Bluetooth on your mobile phone. How to do this depends on the type of phone you have. We will try to help by sharing a few examples.

On smartphones running the Android operating system (version 2.1 or 2.2), go to Settings -> Wireless & Networks, and then simply select the Bluetooth check box.

On Sony Ericsson phones, go to Settings -> Connectivity -> Bluetooth, and then choose Turn On.

For Nokia phones (which are more popular in Europe), the setup is very similar to Sony Ericsson: go to Settings -> Connectivity -> Bluetooth. Here you simply need to change the value of the Bluetooth field to On.

See Also [If you can’t find the Bluetooth settings on your phone, consult the instruction manual for guidance on how to turn it on.](#)

Pairing Your Computer with Your Mobile Phone, Starting from Your Phone

Before being able to transfer files, you need to pair the devices together. This procedure can be started from your mobile phone or from your computer. The end result is the same, so you can choose which one works best for you.

In this exercise, you will learn how to pair your computer with your mobile phone, starting from your phone.



SET UP Go to the Bluetooth configuration menu on your phone.

1. Set your phone to scan for Bluetooth devices.

This option is found in the same Bluetooth menus. On Nokia phones, go to Paired Devices -> Add New Device. On Android phones, go to Bluetooth Settings -> Scan For Devices. On Sony Ericsson phones, go to Bluetooth -> My Devices -> New Device. A scan process starts, and after a few seconds, the phone shows the results.

See Also To learn how to do this, refer to the manual provided by the manufacturer of your phone.

2. From the list of identified devices, select the computer to which you want to connect.
3. You are asked to type a personal identification number (PIN) code that will be used to establish the pair. Type the four-digit code you want to use. This can be any number you want.
4. Press **OK**.

On your computer, you are notified that a Bluetooth device is trying to connect.



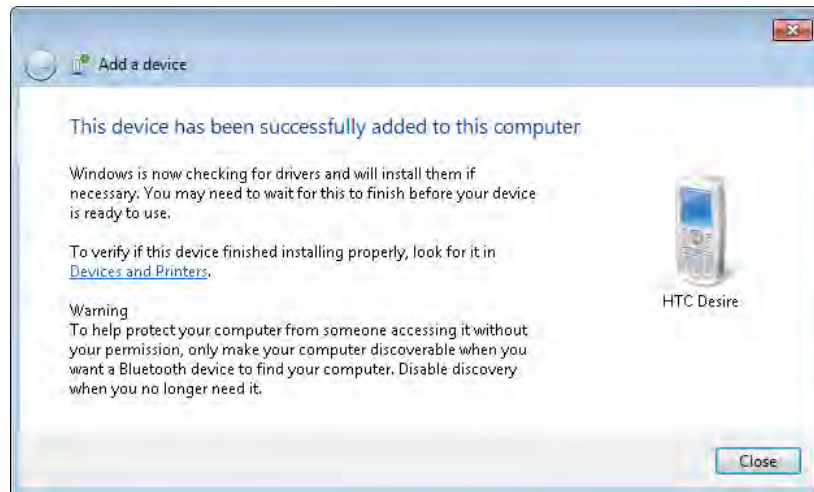
5. Click the notification.

The Add A Device Wizard opens, in which you are asked to type the pairing code.



6. Type the same PIN code you entered on your phone.
7. Click **Next**.

Windows 7 now starts installing the drivers for your phone. When the installation is complete, you are notified that the device has been successfully added.



Important If Windows 7 is not able to install the appropriate drivers, this procedure fails. In such scenarios, download and install the Windows 7 drivers for your phone prior to establishing the Bluetooth pairing. They are usually packed in the PC suites created by the manufacturer of your phone (for example, Nokia Ovi Suite, Sony Ericsson PC Suite, Motorola Phone Tools, or Samsung PC Studio). Installing these suites first will help solve the driver problems.

8. Click **Close**.

Your computer and mobile phone are now paired and can begin exchanging files.

✘ CLEAN UP Keep both devices turned on and do not change any of their settings.

Pairing Your Computer with Your Mobile Phone, Starting from Your Computer

As mentioned in the previous section, the pairing procedure can be started from any device.

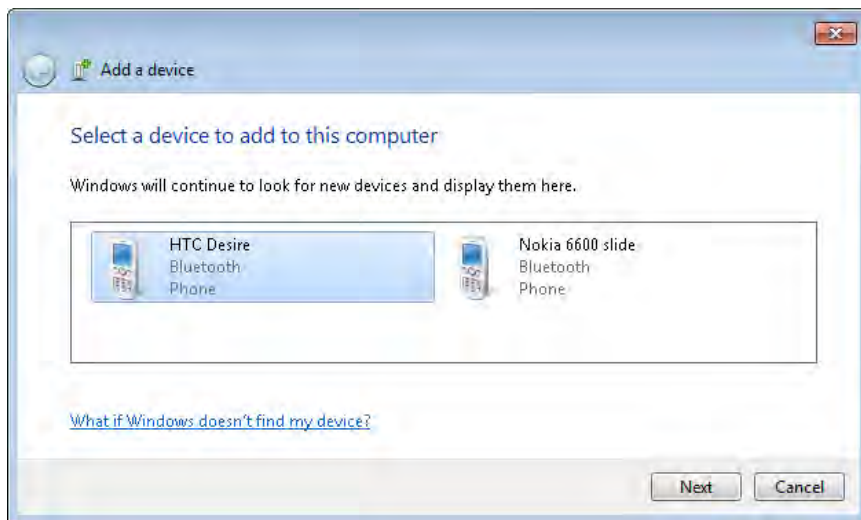
In this exercise, you will learn how to pair your computer with your mobile phone, starting from your computer.

➔ SET UP Go to the Bluetooth configuration menu on your phone and set your phone so that it can be discovered. Depending on your phone, this means turning on settings named Discoverable or setting your phone's visibility to "Shown to all." When you have finished, open the Devices and Printers panel on your computer.

See Also To learn how to make your phone discoverable via Bluetooth, refer to the manual provided by the manufacturer of your phone.

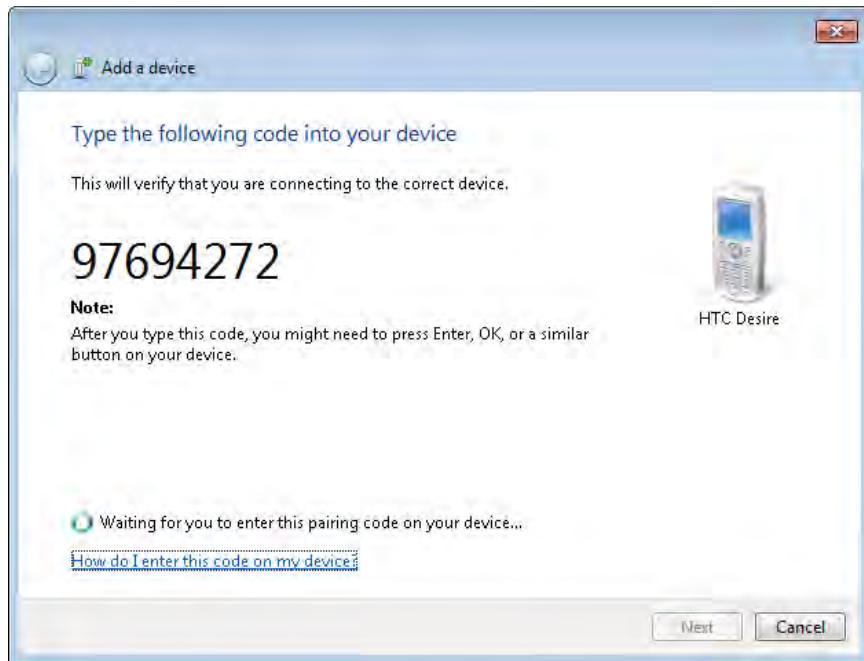
1. On your computer, click the **Add a device** button in the **Devices and Printers** panel.

This starts the Add A Device Wizard, which automatically scans for new devices, including Bluetooth devices.

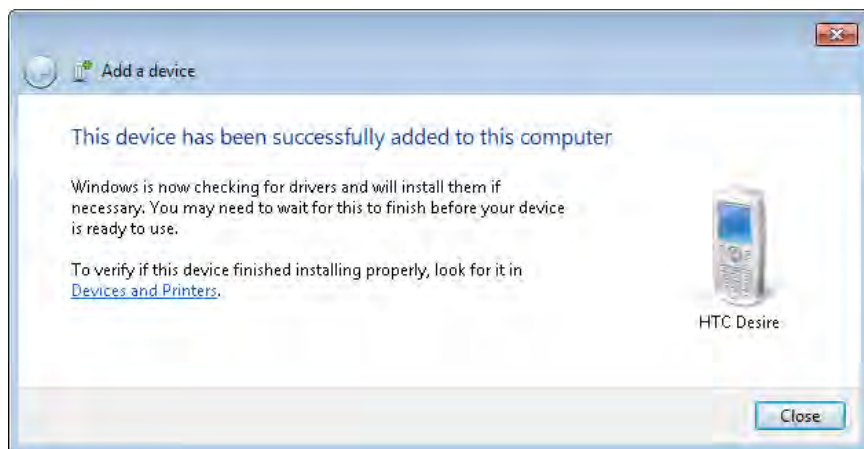


2. Once your mobile phone is detected, select it and click **Next**.

The wizard displays a code that you need to type on your mobile phone.



3. On your mobile phone, you are notified that the computer wants to connect via Bluetooth. Press **OK**, then type the code shown on your computer (from step 2). Once the code is entered, the pairing is created and Windows 7 automatically searches for drivers for your mobile phone, then installs them. When done, you are informed that the device has been successfully added to the computer.



4. Click **Close**.

Your computer and mobile phone are now paired and can begin exchanging files.

✘ CLEAN UP Close the **Devices And Printers** window.

Exchanging Files Between Your Computer and Your Mobile Phone

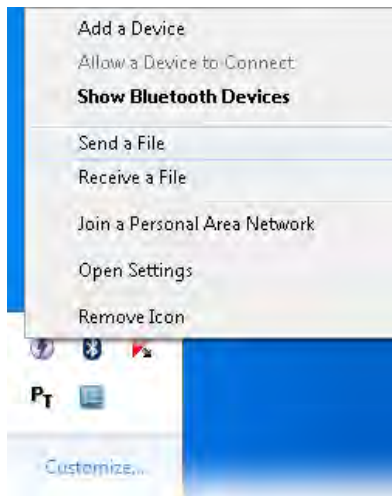
Your Bluetooth devices are finally ready to exchange files. You can now send files from your computer to the mobile phone and vice versa.

In this exercise, you will learn how to initiate file transfers from your computer to your mobile phone, via Bluetooth.

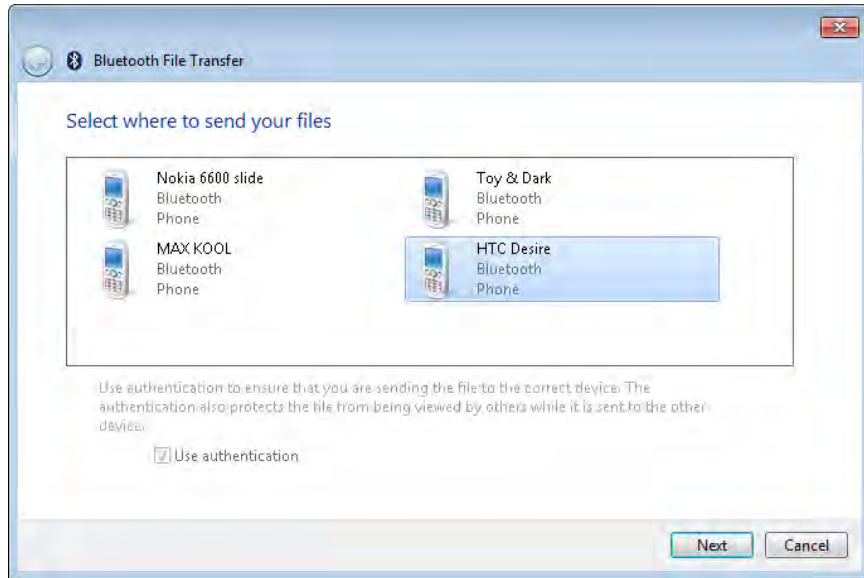
➔ SET UP Go to the notification area of your taskbar and identify the Bluetooth icon.

1. Right-click the **Bluetooth** icon.

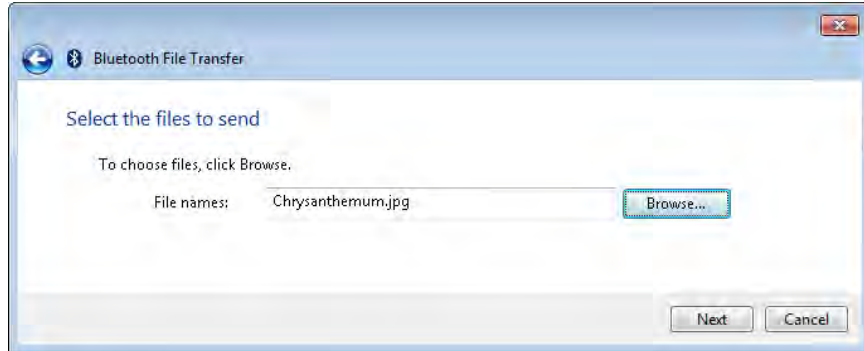
The contextual menu appears, containing a list of Bluetooth-related configuration options.

**2.** Click **Send a File**.

The Bluetooth File Transfer Wizard opens and shows you the list of Bluetooth devices with which your computer is paired.



3. Select the phone to which you want to send the file, then click **Next**.
You are asked to select the file that you want to send.

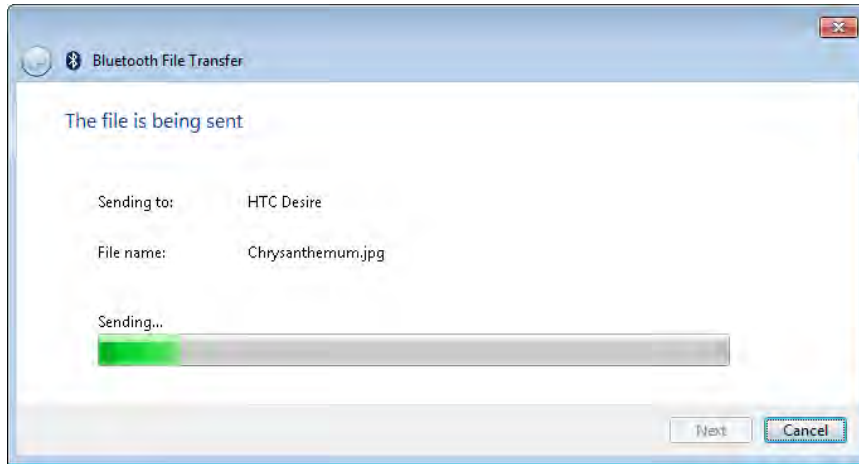


4. Click **Browse**, then select the file you want to transfer.

Tip To select more than one file, press and hold the **Ctrl** key on your keyboard while using your mouse to select the files you want to transfer. When you have finished, click **OK**.

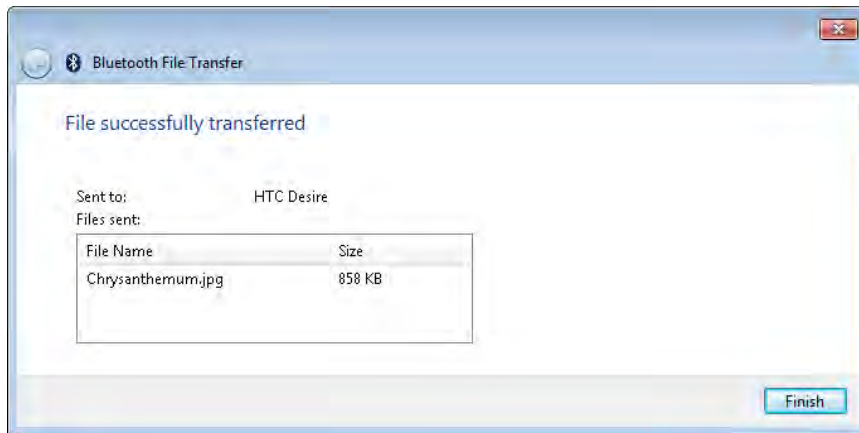
5. Click **Next**.

The file transfer process starts.



- Depending on your phone and how it is configured, the file transfer starts immediately and without user input, or it stops until you confirm on your phone that you want to allow the transfer. For example, on our Nokia phones, the transfer started immediately, while on our Android-based smartphones, we needed to confirm the transfer before it started.

Once the file transfer finishes, you are notified of its success.



- Click **Finish**.

The file is now transferred to your phone.

✖ CLEAN UP If you have finished transferring files, it is better to turn off Bluetooth on your mobile phone. This will save your battery. If you need to use it again, don't forget to turn it on first.

Exchanging Files Between Your Mobile Phone and Your Computer

As mentioned earlier in this chapter, the transfer of files can also be initiated from your mobile phone. If you've made some interesting pictures with your phone, a small video clip or anything else, you can transfer it to your computer.

In this exercise, you will learn how to initiate file transfers from your mobile phone to your computer, via Bluetooth.

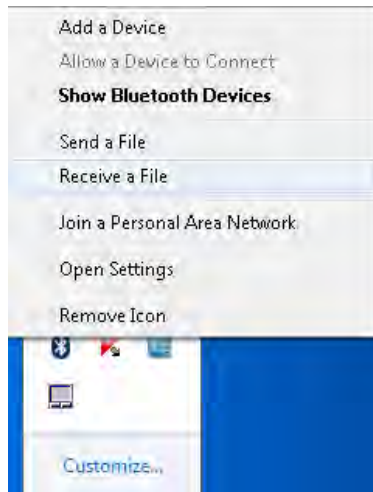


SET UP The first steps need to be done on your computer. Do not do anything on the phone yet. Go to the notification area of your taskbar and identify the Bluetooth icon.



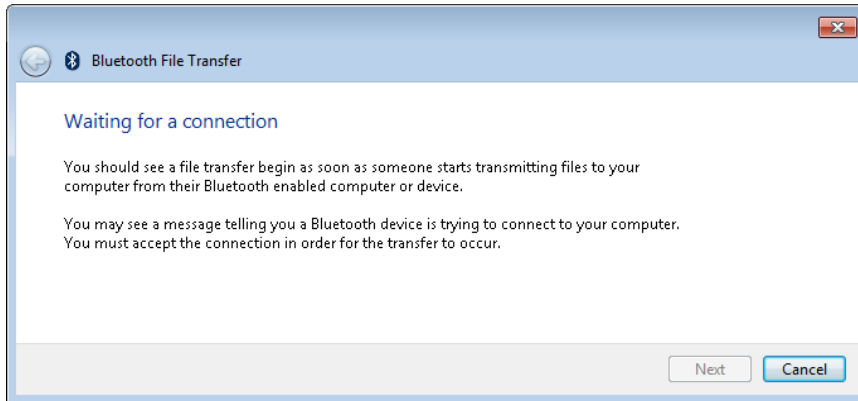
1. Right-click the **Bluetooth** icon.

The contextual menu opens, containing a list of Bluetooth-related configuration options.



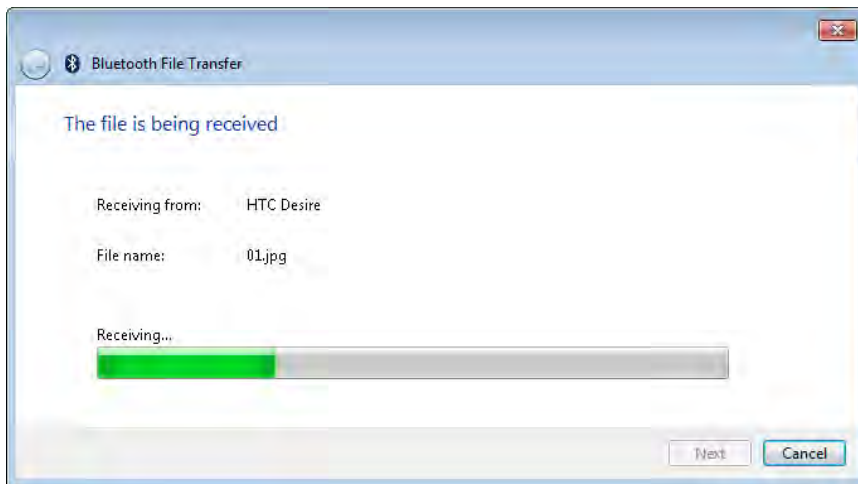
2. Click **Receive a File**.

The Bluetooth File Transfer Wizard opens and informs you that it is waiting for a connection. After this step (and only after this step), you can go to your phone and initiate the transfer.



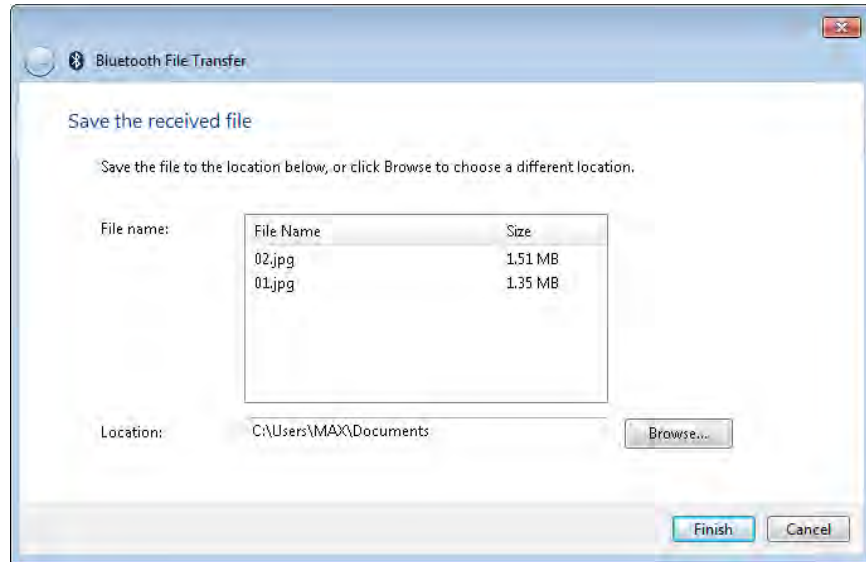
3. On your mobile phone, select the files you want to transfer.
4. Choose the options required to send the files via Bluetooth.
5. The phone asks you to select the Bluetooth device you want to send them to. Select your computer, then confirm your choice.

The file transfer automatically begins; you can see both your mobile phone and computer showing the progress of the operation.



6. Wait for the file transfer to end.

When it has finished, you are shown a summary of the transfer. The Bluetooth File Transfer Wizard lists the files that were received and asks for a location to save them to. The default location is your Documents folder for your user account.



7. To select a different location to save the received files, click **Browse**, then select the new location.

8. When you have finished, click **Finish**.

The data is now transferred to your computer.

✘ CLEAN UP If you finished transferring files, it is better to turn off Bluetooth on your mobile phone. This will save your battery. If you need to use it again, don't forget to turn it on first.

Removing the Pairing Between Your Mobile Phone and Your Computer

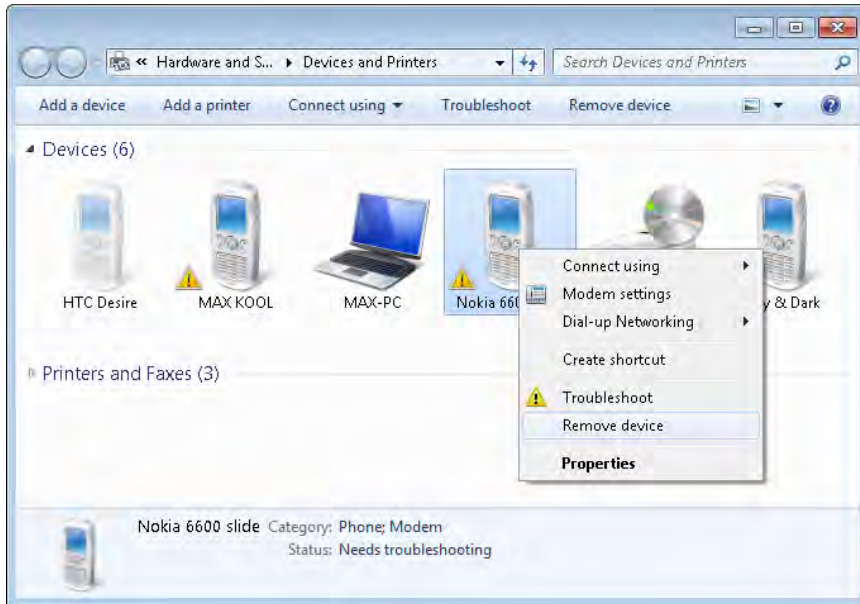
If you have changed your phone, it is broken, or you simply you don't need to use it anymore to transfer files via Bluetooth with your computer, you can remove the pairing you've created so that it no longer appears in the Devices and Printers panel.

In this exercise, you will learn how to remove the pairing between your computer and your mobile phone from your Windows 7 computer.

➔ SET UP Open the Devices and Printers panel on your computer.

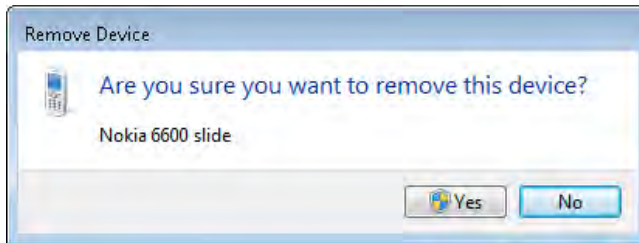
1. Right-click the phone that you want to remove.

The contextual menu opens, which contains options for the selected phone.



2. Click **Remove device**.

You are asked to confirm the deletion process.



3. Click **Yes**.

The removal process begins and the Remove Device progress window appears.



4. After a while, the progress window disappears and you are returned to the **Devices and Printers** window. The removal process for the pairing with the selected mobile phone is done.

 **CLEAN UP** Close the **Devices and Printers** window.

Key Points

- You can share your printer both with your Homegroup computers and the computers that are not a part of it but are part of the home network.
- Homegroup greatly simplifies the process of sharing your printer.
- Sharing a removable disk drive can be done only by using Advanced Sharing.
- Before using Bluetooth to transfer files between your mobile phone and your computer, you need to install all the appropriate drivers and enable Bluetooth on both devices.
- Pairing your devices can be initiated by either your computer or your mobile phone.
- Sending files via Bluetooth can be initiated by any of the paired devices.

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About the Authors

Ciprian Rusen



Ciprian Rusen is a Romania-based IT project manager for a major consumer goods corporation. During work hours, he manages complex rollouts of enterprise IT solutions, while in his spare time, he loves to experiment with the latest technologies, learn how best to use them, and share his knowledge with others. This book is the result of his work and experience in the field, in addition to the contributions that were made by the 7 Tutorials Team. Ciprian coordinates the team at www.7tutorials.com. Together, they write tutorials for Windows 7 users, helping them to obtain the best possible computing experience out of the operating system. The team also worked together on writing this book, each member contributing to its creation.

7 Tutorials Team

Florina Muntenescu is a computer science graduate and a programmer with a passion for Artificial Intelligence and mobile devices. She believes that anyone can approach and use computers in a familiar and casual manner, if they overcome their reluctance or fear of technology. She contributed to the chapters about user accounts and parental controls. Florina is based in Cluj-Napoca, Romania.

Jack Busch is a freelance writer and editor from Pittsburgh, Pennsylvania. Jack works with bloggers, Internet marketing firms, and web developers from around the world to craft compelling content for the Web. Technology plays a large role in making Jack's collaborative work possible, and he enjoys sharing tips that help both professional and personal users get the most out of Windows 7. He contributed to the chapters about Windows Media Player and the interoperability between Mac OS X and Windows 7.

George Grigorita is Editor-in-Chief of the Romanian edition of *PC World* computer magazine, which is published in 51 countries. A journalist with a major passion for technology, he does his best to share his knowledge of all things tech with everyday users. George contributed to the chapters about Ubuntu Linux and Windows 7 interoperability as well as the chapter about sharing and working with devices. He is based in Bucharest, Romania.

Chuck Houghton has been an IT professional for more than a dozen years, supporting businesses with as few as 3 employees as well as organizations as large as 2,000 employees. He has a passion for technology and maybe a greater passion for communicating its benefits and pitfalls. He acted as the book's technical reviewer and contributed to the step-by-step exercises in the book. Chuck is based in the U.S.

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