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#### 1. YOUR HERCULES ROUTER

Your Hercules Router opens up the doors of WiFi for you, allowing you to discover a new way of communicating between several computers, sharing Internet access, peripheral devices, data and more... all without the constraints of cables.

Great care has been taken in designing your product. Both simple to operate and user-friendly, it is well suited to beginners and advanced users alike.

And now, it's time to learn about your new product and join in the Wireless Attitude™!

#### 1.1. Recommendations

- Never open up your Hercules Router, as you risk damaging its internal components.
- In order to avoid the risk of fire or electrical discharge, keep your router away from:
  - rain or humidity, as well as all fluids (water, chemical products and any other liquids),
  - sources of heat such as radiators, stoves and any other heat-producing devices (including amplifiers),
  - direct sunlight.
- Do not cover your router.
- Unplug the router's power cable if you do not plan on using it again for an extended period of time. To unplug the power cable, take hold of and pull on the plug. Never pull on the cable itself.
- Disconnect the router before cleaning. Use a soft cloth for cleaning and avoid using aerosol cleaners.

#### 1.2. Specifications

Your Hercules Wireless G Router, referred to hereafter in the manual as the Hercules Router, is equipped with several functionalities: (1) WiFi 802.11g wireless router, (2) 10/100 LAN switch, and (3) Internet firewall.

- WAN mode support (PPPoE, automatic DHCP, static IP)
- LAN mode support
- Router mode support
- 802.11g wireless access point
- RF specification: frequency band = 2400-24835MHz
- Max. transmission power: 100mW
- One internal antenna, one slewable external antenna
- 4 RJ-45 connectors for 10/100Mbps LAN Ethernet connection
- Auto MDIX support (automatic detection of crossed cabling)
- Complies with the IEEE 802.3u standard
- Supports IEEE 802.3x flow control in Full Duplex mode
- Security functions: WEP/WPA-PSK/WPA2-PSK/Mixed WPA-WPA2, filtering by MAC address
- SPI firewall
- External CC power, input: 200~240V, 50/60Hz, output: 9 V CC/1 A



- Green LEDs on front face.
- Software (firmware) update via Ethernet port

#### 1.3. System requirements

To access configuration settings:

- Intel Pentium III, AMD Athlon/AMD-K6
- 64MB RAM
- 10/100 RJ45 Ethernet network adapter
- CD-ROM drive
- Operating system: Microsoft Windows 98 SE, Me, 2000. XP. Vista

#### To access the Internet-

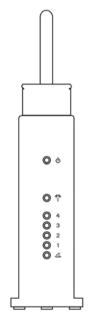
- Active Internet line
- Internet Explorer 6.0, Netscape Navigator 4.7 or Mozilla Firefox 1.0 or higher
- ADSL Ethernet modem, cable modem, Internet box (Livebox, Freebox...)

#### 1.4. Box contents

Please verify that all of the following elements are present in your Hercules Router box:

- Hercules Wireless G Router
- Vertical base
- CD-ROM containing Installation Assistant and user manual in pdf format
- Quick Start Guide in English
- Ethernet cable
- Power adapter

#### 1.5. Front face overview



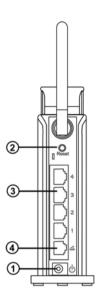
- இ ் : Power LED

: WiFi LED: lights up when WiFi connection is active, flashes during data transfer

- : 4 LEDs corresponding to the 4 Ethernet ports: each LED lights up when a peripheral is connected to the corresponding port, and flashes during data transfer

: Internet LED: lights up when ADSL line is active, flashes during data transfer

## 1.6. Connectivity overview



- ① Power plug to connect power adapter
- 2 Restore factory default settings button
- ③ Four Ethernet ports allowing the Hercules Router to be connected to 4 desktop computers and/or laptop computers and/or game consoles equipped with Ethernet (RJ-45) ports and/or devices (webcam...) in order to create a network
- ♠ RJ-45 port, allowing you to connect an ADSL modem, a cable modem or an Internet "box" to your Hercules Router

#### 2. INSTALLING YOUR HERCULES ROUTER

To simplify this task, Hercules proposes launching an Assistant which will verify with you, step by step, that the installation of your router is carried out correctly.

## 2.1. Launching the Hercules Router Installation Assistant

The Assistant, available on the CD-ROM included with the router, will guide you through the different steps of the installation procedure. To help you with the installation, each of the steps is described below.

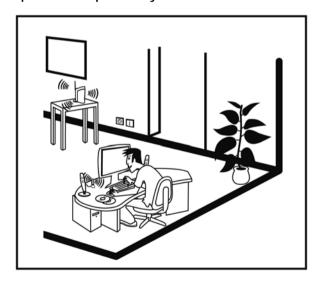
- Insert the included CD-ROM into your CD-ROM drive.

The Installation Assistant appears automatically.

#### If the installation menu does not launch automatically:

- Double-click My Computer.
- Double-click
- Double-click Setup.exe, if necessary.

#### 2.2. Step 1: How to position your router



Remove the router and the power adapter from the box...

To help you select the best spot to position your Hercules Router, we are pleased to offer you the following tips, which you may adapt according to your environment (the number of rooms, computers, floors in your home, the presence of any obstacles, the locations of power and telephone plugs...).

Position the router near your modem (ADSL, cable or Internet "box") and a power outlet.

- Try to place your router in a room centrally located in relation to your other computers and WiFi devices.
- Keep a minimum distance of 2m between the router and any computers and WiFi devices.
- If you have several computers or WiFi devices on different floors in your home (on the ground floor and the second floor, for example), you should ideally try to place your Hercules Router on the ground floor.

Your router's WiFi performance may be greatly affected by certain obstacles, such as the presence of paper (a bookcase), metal, water (an aquarium) or a wall made of reinforced concrete between the Hercules Router and any WiFi adapters.

For better stability, attach the included base to the bottom of the router, as shown below.





The antenna must always be positioned vertically.

#### 2.3. Step 2: How to connect your router

# 2.3.1. Uninstalling your modem or disabling the automatic connection to your modem

If you already have an Internet "box" or an Ethernet modem connected to your computer, we recommend that you uninstall it or disable the automatic connection to this modem. The objective of this procedure is to establish the Internet connection via the local area TCP/IP network created by the Hercules router, and no longer directly via your old ADSL modem.

This procedure only applies if you connect to the Internet via an Ethernet modem. If you have a USB modem, you cannot connect the USB modem to your Hercules router and create a local area WiFi network.

#### You choose to uninstall the modem's drivers:

- Switch off your modem and then disconnect it from your computer's Ethernet port.

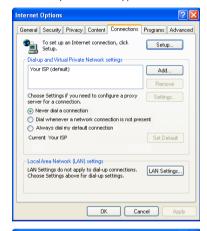
- Uninstall the software furnished by your service provider, as well as the modem's drivers. For more information, please refer to your modem's user manual.
- Now connect your modem to the Internet port on your Hercules router.

#### You choose to disable the automatic connection to the modem:

In order to avoid software conflicts, please follow the procedure outlined below:

- Launch your Internet Explorer browser.
- Click Tools/Internet Options..
- Select the Connections tab.

The Internet Options window appears.



Scenario 1: your ISP appears in the Internet Options window.

- Disable the automatic connection to your modem by selecting the Never dial a connection option.
- Click OK.



Scenario 2: your ISP does not appear in the Internet Options window.

The automatic connection is managed directly by the software furnished by your ISP.

 Refer to the user manual for your ADSL modem or for the software furnished by your ISP for details on how to disable the automatic connection and/or for the Internet connection to be established via a local area network (TCP/IP).

Reminder: it is the Hercules Router that will create a local area network through which the computers will access the Internet.



You can also find information on our website (FAQs etc.): www.hercules.com.

## 2.3.2. Getting past the Content Advisor (parental control)

If you have enabled the **Content Advisor** in your Internet browser in order to control access to certain sites which may include contents of a violent or otherwise undesirable nature, you will not be able to immediately connect to WiFi Manager.

After launching QuickAccess, the Content Advisor will ask you for authorization to view the site <a href="http://192.168.2.1">http://192.168.2.1</a>. This site corresponds to the WiFi Manager interface on your router. To access the site, simply give your authorization to Always allow this Web site to be viewed. Once you have done so, the router's address will be stored in your Internet browser and you will then be able to access WiFi Manager directly.

## 2.3.3. Connecting the router

- 1. Connect your modem to port **②** on your Hercules router using an RJ-45 cable and switch on the modem.
- Connect the Hercules Router's power cable to the power plug 
   and plug the power adapter into an electrical outlet.

The power LED lights up and the initialization sequence begins. Initialization may take a few seconds, during which time the WAN and Internet LEDs will light up or flash in succession.

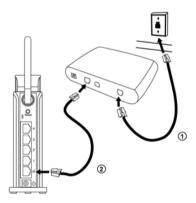
Initialization is complete once the power, Internet 

(if your Internet line is active) and WiFi

(the stay lit.)

You may now connect the included Ethernet cable (gray cable 3) to one of your Hercules Router's 4
 Ethernet ports and the Ethernet (RJ-45) port on your computer's network adapter.

The LED corresponding to the number of the Ethernet port you have selected lights up.



 The Assistant prompts you to install "Hercules QuickAccess", a utility for quick connection to the WiFi Manager application.

If you do not wish to install this utility, you will only be able to access your router by manually entering its address (please see chapter 3.1. Opening the door to WiFi Manager).

## 3. WIFI MANAGER, THE VERSATILE UTILITY

With WiFi Manager, nothing could be easier than connecting your high-speed Internet modem to the Hercules Router and thereby sharing your Internet access with all of the computers in your home or small business, or simply creating a wireless network.

WiFi Manager is the interface which allows you to communicate with your Hercules Router and configure your wireless network or Internet firewall.

#### 3.1. Opening the door to WiFi Manager

The Installation Assistant you have launched from the CD-ROM has installed a connection utility on your Desktop, called "Hercules QuickAccess". This utility will bring you straight to the door (locked with a key, for the moment) to WiFi Manager.



 To access the door to enter WiFi Manager, simply double-click the Hercules QuickAccess icon on your Desktop.

The connection window to the router appears.



#### Or, if you have chosen not to install the QuickAccess icon:

- Open up the browser of your choice (Internet Explorer, Mozilla Firefox or Netscape Navigator) and enter the address http://192.168.2.1.

You are now at the door to enter WiFi Manager, which you must open using a password.

- To open the door, enter the default password or enter your own password if you have already defined one (for information on how to define your own password, please refer to chapter 3.2. Changing the WiFi Manager password).
- Click Connection.

The password ensures that you are the only one who can access your WiFi Manager, and therefore your Hercules Router's settings. For this reason, it is important that you change the password when using WiFi Manager for the first time (see below).

## 3.2. Changing the WiFi Manager password

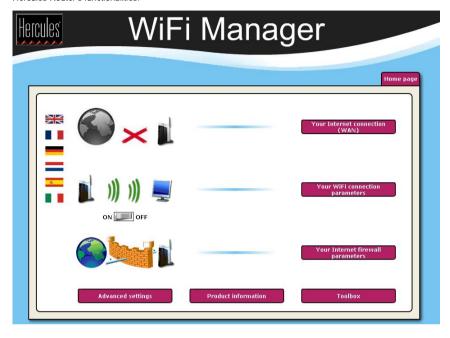
When opening the door to WiFi Manager for the first time, we recommend that you change the default password, password, directly via the Connection to router window.

Change the password now



- Click the Change the password now button.
- Enter the old password (password, if you are doing this for the first time), the new password, which you will select, and then confirm the new password.
- Click Confirm and Connect to store your new password and connect.

The door to WiFi Manager opens to the **Home page** depicted below. You can now explore all of your Hercules Router's functionalities



## 3.3. Navigating within the WiFi Manager interface

The **WiFi Manager** interface has been designed to simplify navigation through the different menus. Nevertheless, should you ever feel a bit lost, you can always click the **Home page** button at any time to return to the Home page, the starting point for all of your Hercules Router's functionalities.

## 3.4. Sharing your Internet connection via the router

You can easily associate your Hercules router with your modem, thereby allowing you to use your Internet connection with your other computers and/or game consoles.

Once your router's initialization is complete, your WiFi connection and your firewall are enabled. However, you must still select your Internet connection type (via Ethernet modem, box or other) and enter the requested information. To do so, all you need is all the information provided by your ISP, generally found in your confirmation of membership email or letter (username (or login), connection password...).

## 3.4.1. Selecting your Internet connection

With WiFi Manager, you don't have to be a computer expert share your Internet connection via WiFi using your router. Simply gather together the information sent to you by your Internet service provider.

- On the Home page, click **Your Internet** connection (WAN).
- Select the Internet connection mode: ADSL Ethernet Modem or Internet "Box", Cable Modem or Router.

If you have selected mode 1) ADSL Ethernet Modem)

 In the Your Internet connection (WAN) page, enter your Connection Username (Login) and your Connection Password in the corresponding fields.

This information is found in your confirmation of membership email or letter sent to you by your ISP.

 If you wish, you can Always stay connected, which ensures that your Internet connection is always active.

If you have selected mode 2) Internet "Box", Cable Modem or Router

- In the **Your Internet connection (WAN)** page, the settings are assigned automatically.
- You can still select Static IP assignment if you have subscribed to an Internet line with a fixed IP address.

This information is found in your confirmation of membership email or letter sent to you by your ISP.

Once you have selected your connection mode, don't forget to click the **Apply and Save** button to save your settings.





## 3.4.2. Testing your Internet connection

Once you've chosen your Internet connection mode for your Hercules Router, you can carry out a first test of your connection and verify that you have access to the Internet.



During this test, leave the Ethernet cable connected to your Hercules router.



- Launch an Internet browser (Internet Explorer, Netscape Navigator or Mozilla Firefox) on your computer.
- Enter the address www.hercules.com.

The Hercules website's home page should be displayed.

#### If your Internet connection is working properly:

It is now time for you to learn how to master your WiFi network (please refer to chapter 3.5. Mastering your WiFi network at your fingertips).

Do not disconnect your Ethernet cable just yet; since your WiFi network has not yet been created, you will still need the cable to communicate with your router.

# 3.4.3. Resolving any difficulties in accessing WiFi Manager or the Internet

If you have not managed to connect to the WiFi Manager interface or to the Internet, your computer's settings may not be properly configured. The instructions below will help you to resolve this problem.

**Note:** the access paths mentioned below may vary slightly if you have modified the default display configuration in Windows XP or Vista (meaning the **Start** menu properties and **Control Panel** display).

#### Windows XP or Vista



- Click Start/Control Panel. Double-click Network Connections.
- In the LAN or High-Speed Internet section, right-click the icon corresponding to your network adapter (or network bridge, if you have created one) and select Properties.
- In the General tab of the Local Area Connection Properties window, scroll through the list and highlight Internet Protocol (TCP/IP).

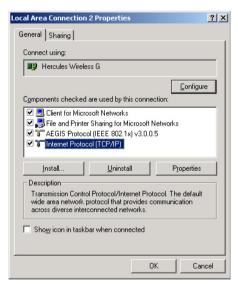


- Click Properties, select Obtain an IP address automatically and Obtain DNS server address automatically.
- Click OK to close the windows, then exit the Control Panel.

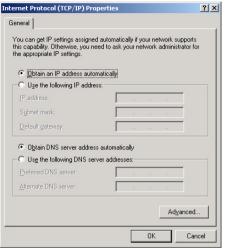
The Hercules Router will now be able to assign an IP address to your computer.

An IP address is a unique address assigned by the router to the computer. Each computer has its own identity, via its IP address, allowing it to be identified within the network.

#### Windows 2000



- 1. Click Start/Settings/Control Panel. Doubleclick Network and Dial-Up Connections.
- 2. Right-click the appropriate connection and select **Properties**.
- 3. In the General tab, highlight Internet Protocol (TCP/IP).

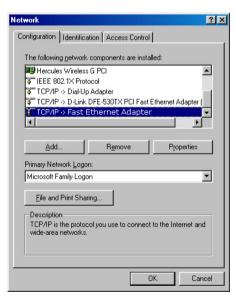


- Click Properties and select Obtain an IP address automatically and Obtain DNS server address automatically.
- 5. Click **OK** to close the windows, then exit the **Control Panel**.

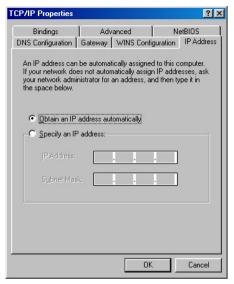
The router will now be able to assign an IP address to your computer.

An IP address is a unique address assigned by the router to the computer. Each computer has its own identity, via its IP address, allowing it to be identified within the network.

#### Windows 98 SE/Me



- Click Start/Settings/Control Panel. Doubleclick Network.
- In the Configuration tab of the Network window, highlight the name of your network adapter.



- 3. Click Properties and select Obtain an IP address automatically in the IP Address tab.
- Click OK to close the windows, then exit the Control Panel.

The router will now be able to assign an IP address to your computer.

An IP address is a unique address assigned by the router to the computer. Each computer has its own identity, via its IP address, allowing it to be identified within the network.

## 3.5. Mastering your WiFi network at your fingertips

In this chapter, you will learn how to personalize your WiFi network and secure it against unwelcome intrusion attempts.

Configuration of your network is carried out via the Ethernet cable connecting your router to your computer. Once you have finished, you can disconnect this cable and explore all the subtleties of WiFi, described in chapter 4. Welcome to the Wireless Attitude™!

## 3.5.1. Personalizing your WiFi network

When the wireless access point (your Hercules Router's WiFi function) is enabled. WiFi Manager displays the name of your network and the Radio Frequency (RF) channel used. These settings may be modified, under certain conditions.

Should you decide to modify certain settings, we recommend that you take care to follow the recommendations below.

#### To personalize your WiFi network:

Your WiFi connection parameters

WiFi network enabled: 📈

The name of your network is: Hercules

The Radio Frequency (RF) channel used is:



Apply and Save

- On the Home page, select Your WiFi connection parameters.

The name of your network and the RF channel used are displayed.

- Before personalizing your WiFi network, verify that the WiFi network enabled box is ticked.
- If you wish, you may personalize The name of your network, or SSID (Hercules, by default).

The SSID (Service Set Identifier) is the unique name shared by the WiFi adapters and the access point in a wireless network. Make sure that you do not lose or forget this name, as you will need it to connect your WiFi devices.

- If necessary, change the Radio Frequency (RF) channel used by the local area WiFi network to communicate (from 1 to 13).

Change this setting only if another transmitter is using the same channel, which may result in a drop in your router's WiFi performance.

- Click the Apply and Save button to validate your settinas.

The access point restarts. All computers or devices connected via WiFi are disconnected. The ADSL connection, however, remains active.

## 3.5.2. Securing your WiFi network using the Assistant

Creating a WiFi network is very useful if you have several wireless computers or devices, but how can you avoid having someone on the outside connect to your network without permission or intercept your unencrypted data exchanges? Thanks to the WiFi Security Assistant, you can define your own security choices step by step. To help you select the best level of security for your network, we invite you to consult the table below, which sums up the **5 types of security** supported by WiFi Manager.

Туре	Level of security	Key used	Authentication	
WEAK (WEP 64)	The lowest level of security, whereby single encryption is carried out on exchanged data. Each wireless client in the network must use the same key to decode the transmission.	64-bit (10 character) key in hexadecimal format.  A hexadecimal key is composed of numbers 0 to 9 and letters A to F (example: A123BCD45E for a 64-bit key).	Open (no authentication), Shared (authentication method via shared key) or Auto (authentication when requested by the device).	
MEDIUM (WEP 128)	Level of security identical to that of WEP 64. Only the key length is different.	128-bit (26 character) key in hexadecimal format.  A hexadecimal key is composed of numbers 0 to 9 and letters A to F.	Open (no authentication), Shared (authentication method via shared key) or Auto (authentication when requested by the device).	
Туре	Level of security	Key used	Encryption type	
HIGH (WPA- PSK)	Latest-generation heightened level of security, specially designed for environments such as a small office or the home, based on a pre-shared key.	Password with a minimum of 8 alphanumeric characters.  An alphanumeric character corresponds either to a number (0-9), or to a letter (a-z or A-Z).	TKIP	
VERY HIGH (WPA2)	Latest-generation very high level of security, specially designed for environments such as a small office or the home, based on a pre-shared key.	Password with a minimum of 8 alphanumeric characters.  An alphanumeric character corresponds either to a number (0-9), or to a letter (a-z or A-Z).	AES	
WPA or WPA2  Level of security selected by the router according to the maximum security level supported by devices on the network.		Password with a minimum of 8 alphanumeric characters.  An alphanumeric character corresponds either to a number (0-9), or to a letter (a-z or A-Z).	TKIP or AES	

lacktriangle You must not select a level of security in WiFi Manager more advanced than that supported by your computers or other WiFi devices. For example, if your computers or other WiFi devices only support the WEAK (WEP 64) or MEDIUM (WEP 128) levels, you should not select the HIGH (WPA-PSK) or VERY HIGH (WPA2) levels

#### WiFi network enabled: 🗸







- 1. Before enabling security for your WiFi network, verify that the WiFi network enabled box is ticked.
- 2. To open the Assistant, enable WiFi security by ticking the YES box in the Your WiFi connection parameters window, then click the Assistant button located in the lower lefthand corner of the window.
- 3. Read the text explaining the concept of security.
- 4. Select your level of security: WEAK (WEP 64), MEDIUM (WEP 128), HIGH (WPA-PSK), VERY HIGH (WPA2) or WPA or WPA2 according to the explanations provided by the text.
- 5. Click Next.

## If you have selected "WEAK (WEP 64)" or "MEDIUM (WEP 128)" security:



- 6. Read the text explaining the concept of authentication.
- 7. Select the authentication type: Auto (authentication carried out when requested by the device), Open (no authentication) or Shared (authentication via shared key).

We recommend that you keep the default authentication type.

8. Click Next.



- Enter a WEP security key according to the level of security you have selected: 10 hexadecimal characters for a 64-bit WEP key, 26 hexadecimal characters for a 128-bit WEP key.
- A hexadecimal character is composed of numbers 0 to 9 and letters A to F (example: A123BCD45E for a 64-bit key).
- 10. Click **Finish** to validate these settings.
- 11. Click **Apply and Save** to apply and save these settings.

## If you have selected "HIGH (WPA-PSK)", "VERY HIGH (WPA2)" or "WPA or WPA2" security:



- Read the text explaining the concept of a WPA-PSK and WPA2 key.
- 7. Enter the **password** of your choice (minimum of 8 alphanumeric characters).

An alphanumeric character corresponds either to a number (0-9), or to a letter (a-z or A-Z).

- 8. Click Finish.
- Click Apply and Save to apply and save these settings.

If you have mastered the concept of WiFi security, you can use the (less user-friendly) method of directly entering your security parameters. In this case, don't forget to click the **Apply and Save** button, or else your choices will not be applied or saved.

# 3.5.3.Limiting access to your WiFi network to certain WiFi computers and devices

Filtering by MAC address is a complement to your security parameters, allowing you to select the wireless computers and devices authorized to connect to your local area WiFi network.

A MAC address is a unique address created by the builder of the network device (WiFi or Ethernet), serving to identify this element within a network.



Before enabling filtering, we recommend that you connect via WiFi all computers you wish to authorize.

#### To enable filtering by MAC address:

#### <u>WiFi network enabled:</u> 🗹



- Before you can enable filtering by MAC address, verify that your **WiFi network** is also enabled.

- MAC address filtering enabled:
- YES
- □ NO
- Tick the Yes box next to MAC address filtering enabled.

#### To add a computer or a WiFi device (webcam, game console or other) to the list:



- Click the ADD button.

The Add MAC Filtering Assistant is launched. A text explaining the concept of filtering by MAC address is displayed.

- Click Next.

## If you are using this function for the first time:

The list of all WiFi computers or devices currently connected to your network is displayed in the first table.

- Tick the Select box next to the names of the connected computers and devices that you wish to authorize.
- If a computer is not connected, you can add it manually in the second table.
- Click Finish

The list of all WiFi computers and devices authorized to connect to your network is displayed in the table.

- Click the **Apply and Save** button to validate your settings.



Apply and Save



## If you have already created a filtering list:

Any new computer or device must be added manually.

- Manually enter its MAC address (in AAAAAAAAAAA format, without separators).
- Click Finish

This address has been added to the list of WiFi computers and devices authorized to connect.



- Click the **Apply and Save** button to validate your settings.

Once you have enabled the filtering by MAC address function, **only** the computers and devices appearing in this list will be authorized to connect to your Hercules Router.

If friends come to visit with their own WiFi computer or device, or if you wish to connect new WiFi devices, don't forget to add their MAC address to the filtering list, or else they will never be able to connect.

## To remove a computer or a WiFi device (webcam, game console or other) from the list:



- In the **Remove** column, click the **X** next to the computers or devices you wish to remove from the filtering list.
- Click Apply and Save.

#### 3.5.4. Disabling your WiFi network

If you wish to use your Hercules router as a wired router only (that is to say, connected to the computer via the Ethernet port and not by WiFi), simply un-tick the **WiFi network enabled** box. The WiFi LED  $^{\odot \diamondsuit}$  on the router switches off.

# 3.6. The firewall: your ultimate protection against Internet attacks

Like a secure fortress, your network is protected by a drawbridge and ramparts that are impossible to scale. On top of this, all of your defenses are in a state of alert to repel any intrusion attempts. It is possible, however, to lower these defenses from time to time, in order to authorize your computers to access specific Internet services (P2P, web/FTP servers, IP or WiFi camera...), to simply limit access on a specific computer or device to certain Internet services, or to redirect all Internet requests to a computer designated for this purpose. For more information, please refer to chapters 5.2.1 Opening doors in your firewall to put your camera online or authorize access to a computer for certain Internet services, 5.2.2. Limiting access of one of your network computers to Internet services and 5.2.3. Redirecting Internet requests to a specific computer.

If your computer is equipped with a **software firewall** (Norton Personal Firewall, Windows Service Pack 2 Firewall, McAfee Personal Firewall...), **disable it** when you connect to the router, as your router's firewall is sufficiently strong on its own, or adopt the same configuration settings as those established for your router in order to avoid any possible conflicts. If you go somewhere else with your computer, however, or have to connect to other networks. You can **re-enable** your software firewall.

#### Be careful not to confuse a firewall with an antivirus program!

An **antivirus program** analyzes the contents of your computer, your emails, files you have downloaded from the Internet, etc., and detects, blocks and/or removes any viruses, worms and Trojans in order to ensure that your computer functions properly.

Your **firewall** hides your computer on the network, monitors the Internet data arriving at your computer and blocks intrusion attempts to stop computer hackers from stealing your personal information.

#### 4. WELCOME TO THE WIRELESS ATTITUDE™!

Now that you have mastered the main functionalities of WiFi Manager, it is time to move on to a few practical applications. In the following chapters, we will show you how wireless computing is closely linked to user-friendliness and ease of use. Sharing your folders, your printer, or letting friends use your ADSL connection for online gaming are some examples of the things we will help you to do. Enter the world of wireless and join in the Wireless Attitude™!

# 4.1. A few important points to bear in mind before getting started

We advise you to follow the instructions provided hereinafter for each of your computers:

- The procedures described in this chapter differ according to the various operating systems discussed. Please ensure that you refer to the chapters corresponding to your operating system.
- These procedures also apply to the computers or devices directly connected to your router via an Ethernet cable.
- To share an Internet connection, your Hercules Router and your modem (ADSL Ethernet, cable or Internet "box") must be connected and switched on and your Internet line must be active.

Reminder: the WiFi network you have just finished setting up is an Infrastructure type network (as opposed to Ad hoc mode), as it is composed of an access point and one or more computers.

# 4.2. Computers running Windows Vista: Connecting to a wireless network

**Note**: The procedure described hereafter is deliberately intuitive and non-exhaustive. If you have mastered Windows Vista, you will note that there are other ways to achieve the same results. You will find our procedure set out in the pages that follow, although you are free to choose your own preferred method.

Once your computer is switched on, your WiFi adapter automatically detects the wireless networks available and displays them in a specific window.

Some manufacturers of WiFi adapters supply their own connection software (example: *Hercules WiFi Station* bundled with Hercules WiFi adapters). We recommend that you refer to their user manual for help on establishing your connection.

To view the detected wireless networks:

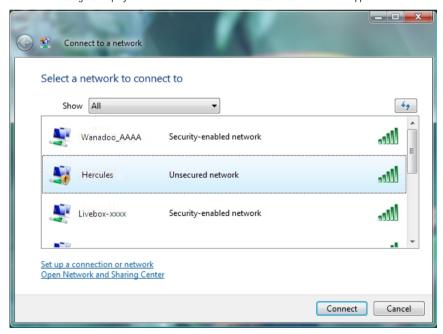
- In the Windows Vista taskbar, click the network icon, which includes both wireless and wired networks.



The message Wireless networks are available is displayed once your WiFi adapter has detected wireless networks



- Click this message to display the list of networks. The Connect to a network window appears.



- Browse through the list and select your wireless network (here, the **Hercules** network, highlighted in blue). You will note that this network is unsecured. You will therefore not be asked to provide a key.

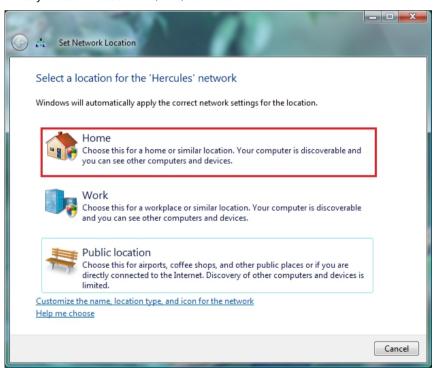
**Note:** If you select a **security-enabled** network, you must enter the **key** in the window. To do so, you must know the key defined when setting up your wireless network.

- Click the Connect button.



Wait a few moments. Once the connection to the Hercules network has been established, you can save this network in your favorites by ticking the Save this network box and Start this connection automatically, if you wish. In that case, your computer will always attempt to connect to this network at the start of each new session.

- Select **your network location**: Home, Work, Public location.



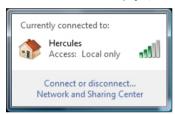
For our purposes, we will consider that you will be using your network at **home**, which will allow you as well as other network users to view the computers present on the network (the "See and be seen" principle, indispensable to be able to share folders, a printer and an ADSL connection).

**Note:** If you prefer to connect to a public hotspot, while you are in a railway station, for example, please refer to the explanations provided by Windows Vista.

Windows Vista may not prompt you to select your network location at this point and select a **public** location for you by default (this will typically be the case if you are already connected to a network). To select another location, you must click the **Customize** link located opposite the name of your network in the **Hercules (public network)** zone of the **Network and Sharing Center**.

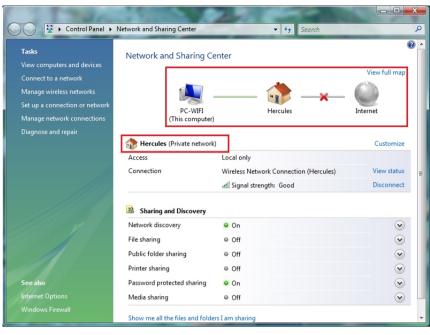
Windows Vista prompts you to confirm your connection choice.

- Click I confirm the connection request, then Continue.
- Click Close.
- In the taskbar, click the network connection icon to verify that you are connected to the **Hercules** network (the message **Currently connected to: Hercules** should be displayed).



- Click the Hercules network to access its properties.

The **Network and Sharing Center** appears. In the top part of the window, you will see that your computer called **PC-WIFI** is connected to the **Hercules** network, which is itself connected to the **Internet**.

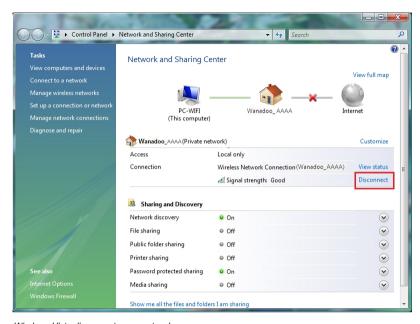


By default, your computer is part of a **private network** (as opposed to a **public network**). For information on the differences between **private and public networks**, please refer to the **Computers running Windows Vista: Sharing folders**, a **printer or an ADSL connection** section.

## 4.3. Disconnecting from a wireless network

Once you are connected to a network, you can disconnect via the **Network and Sharing Center**, for example. Via the **Network and Sharing Center**:

- Click the Disconnect link



Windows Vista disconnects your network.

## 4.4. Managing your favorite networks

A favorite is a group of settings for connecting to a known Infrastructure or Ad hoc network (your own, a neighbor's, a friend's). The Windows Vista **Network and Sharing Center** allows you to save the settings for a network, or add or remove favorites.

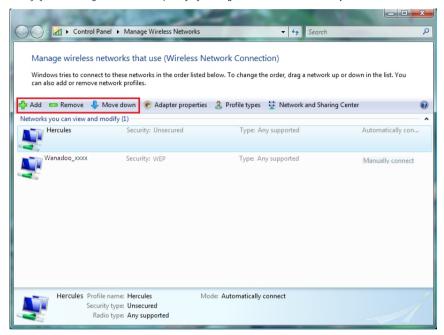
To display your favorite networks, or add or remove a network, click the **Manage wireless networks** link in the **Tasks** zone.



For example, to remove the Hercules network to which you have just connected, select it in the list (it is then highlighted in blue), then click the **Remove** button.

To add a network, click the **Add** button. Windows Vista launches the manual connection to a wireless network assistant. Follow the on-screen instructions.

Finally, you can change the connection priority by clicking the **Move down** or **Move up** buttons.



# 4.5. Computers running Windows Vista: Sharing folders, a printer or an ADSL connection

To create a network of computers, share data, a printer or an ADSL connection between computers running Windows Vista, it is not imperative that the computers belong to the same workgroup. However, if you wish to share between Windows Vista and an earlier operating system, make sure to define the same workgroup on all computers. For information on how to create a workgroup, please refer to the manual of your Hercules product.

**Note:** The access paths described hereafter may vary slightly if you have modified the default display in Windows Vista (that is to say, the Start menu properties and the Control Panel display).

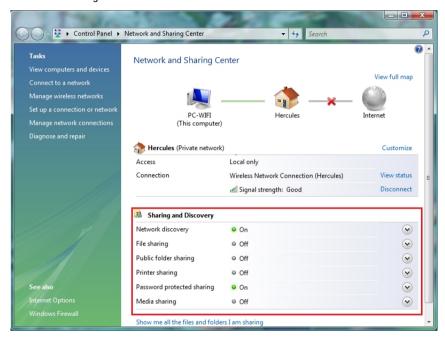
You have connected your computer to a **private network** (as opposed to a **public network**). Therefore, the **discovery** options (namely, the ability to view outside devices and computers and to be seen by other networks) are enabled, but **sharing** options are not. You must therefore enable them manually before you can share your folders, your Internet connection or your printer.

## 4.5.1. Enabling sharing

Before setting up sharing for your folders, your printer or your Internet connection, you must enable sharing in the **Network and Sharing Center**.



Note: To open the Network and Sharing Center, click the network icon in the Windows taskbar, then the Network and Sharing Center link.



#### Enabling file sharing

- In the Sharing and Discovery zone, click the Off link or the  $\stackrel{\bigodot}{}$  button located opposite File sharing.
- Select the Turn on file sharing radio button.



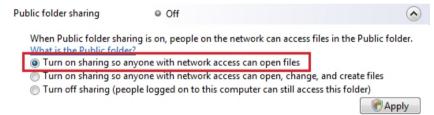


- Click Apply. In the Windows Vista confirmation window, click Continue.

#### Enabling public folder sharing

**Note:** A public folder is a folder which can be shared by other users of the same computer or of the same network.

- In the Sharing and Discovery zone, click the Off link or the  $\bigcirc$  button located opposite Public folder sharing.
- Select the Turn on sharing so anyone with network access can open files radio button (they will only be able to consult files) or select Turn on sharing so anyone with network access can open, change, and create files (there will be no limitations on the contents of these folders in terms of viewing, making changes and additions or other actions).

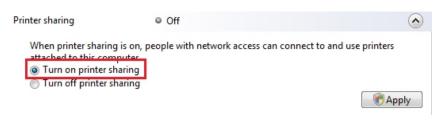


- Click **Apply**. In the Windows Vista confirmation window, click **Continue**.

#### Enabling printer sharing

**Note:** To enable printer sharing, you must first have installed a printer.

- In the **Sharing and Discovery** zone, click the **Off** link or the  ${\color{orange} igodow{}}$  button located opposite **Printer sharing**.
- Select the **Turn on printer sharing** radio button.



- Click Apply. In the Windows Vista confirmation window, click Continue.

#### Enabling media file sharing

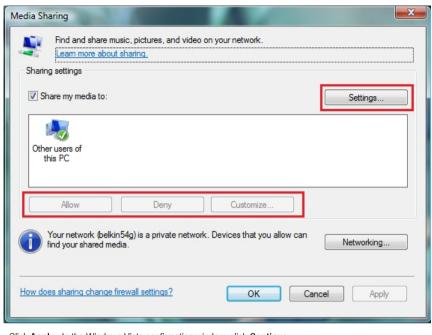
Note: This option allows you to enable sharing of your music, videos and images.

- In the Sharing and Discovery zone, click the Off link or the web button located opposite Media sharing.
- Click Change...

When media sharing is on, people and devices on the network can access shared music, pictures, and videos on this computer, and this computer can find those types of shared files on the network.

Change...

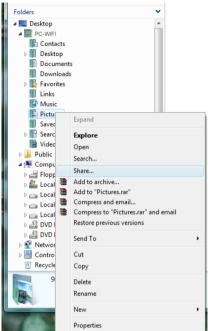
- In the Media Sharing window that appears, tick the Share my media box.



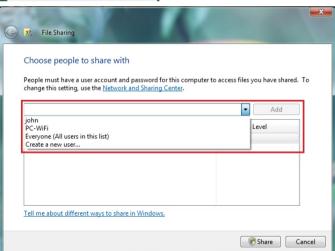
- Click Apply. In the Windows Vista confirmation window, click Continue.
- In the following window, you can define the different **settings**, such as: authorize or refuse groups of users, set parental controls, select media types to be shared, and so on.
- When you're done, click Apply, then OK.

## 4.5.2. Windows Vista: Sharing public or personal folders

Reminder: In Windows Vista, there are two types of folders: personal or local folders and public folders. A personal folder is a folder belonging to a specific user created on the computer, whereas a public folder is a folder that can be shared by any other user of the same computer or the same network. In essence, a public folder is shared, and therefore available to everyone for viewing (minimum authorization level). For sharing personal folders (your folder of your own images, for example), you must select the users who will be able to access their contents and set the authorization level, as indicated in the following procedure.



- Select the folder that you wish to share, without opening it. Here, your Pictures folder.
- 2. Right-click the folder. Select Share.



3. In the File Sharing window, select the user(s) who will be able to access this folder, then click Add.

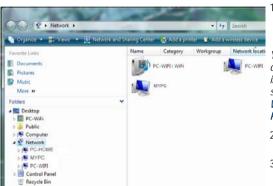
Note: You can provide access to all users with no restrictions (Everyone entire) or select specific

**Note:** You can provide access to all users with no restrictions (Everyone option) or select specific users previously created on your PC. You can also create new users by clicking Create a new user... in the drop-down list.

- Select the Permission Level you wish to assign by clicking on the line for that user: Reader (authorization
  to view only), Contributor (authorization to view, add and delete) or Co-owner (authorization to view,
  modify, add and delete).
- Click Share. Be sure to note the path indicated, which will allow for access to the shared folder on the network from another computer. For example: \\PC-WIFI\Users\My documents\Shared Pictures Folders.
- 6. Click Done.

The folder is now shared. You can now display all shared folders and files on the computer or the shared files on the network by clicking the links in the **Network and Sharing Center**.

# 4.5.3. Computers running Windows Vista: Accessing shared folders



 In the file explorer, accessible via Start/Computer, double-click Network

You access the list of the computers on the same network. Use the path indicated by Windows when setting up sharing (for example: IIPC-WIFIUSers\My documents\Shared Pictures Folders).

- 2. Double-click the computer sharing the folders you wish to access.
- If a password has been defined, enter your user name and your password.

All shared folders appear. Depending on your authorization level, you can display, modify, add and/or delete shared folders and files.

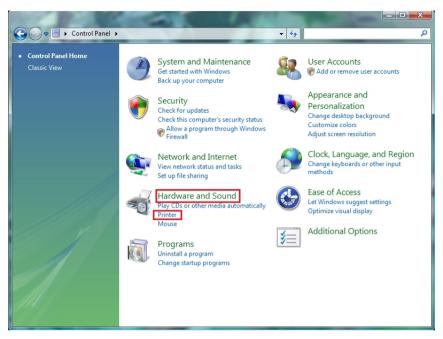
## 4.5.4. Windows Vista: Sharing a printer

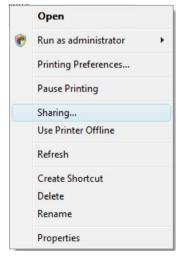
You can put a printer on the network and thereby share it with all computers in your home equipped with a WiFi adapter.

To access a printer on the network, sharing for the printer must first be set up in the **Network and Sharing Center** (please refer to chapter **4.5.1 Enabling sharing**). The printer must then be set up for sharing on the computer to which is connected and on which it is installed.

## On the computer connected to the printer:

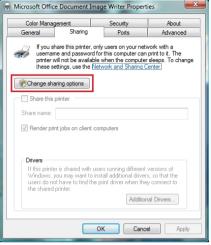
- Click Start/Control Panel.
- 2. Under the Hardware and Sound heading, click the Printer link.



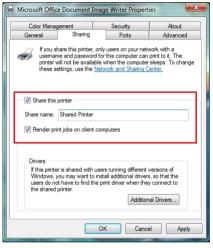


The list of installed printers is displayed.

Right-click the printer and select the Sharing... option.



- 4. In the **Printer Properties** window, click the **Change sharing options** button.
- In the Windows Vista confirmation window, click Continue

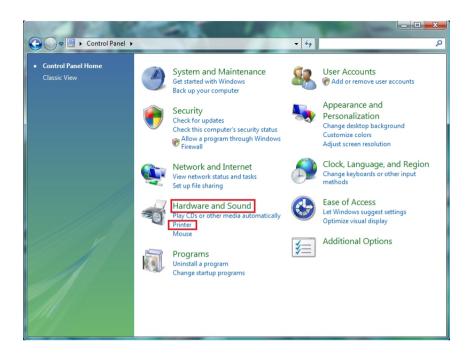


- 6. Tick the **Share this printer** box.
- 7. Select the name of the printer which will be displayed on the network under **Share name**.
- 8. Click Apply, then OK.

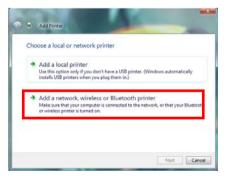
# 4.5.5. Computers running Windows Vista: Accessing the shared printer

## On the computers that will use the shared printer:

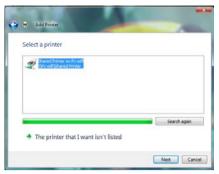
- 1 Click Start/Control Panel
- 2. Under the Hardware and Sound heading, click the Printer link.







- 3. Click the Add a printer button.
- The Add a printer assistant appears.
- Click Add a network, wireless or Bluetooth printer.



- Windows searches for the shared printers on your network. Select the shared printer.
- 6. Click Next.
- if required, accept installation of the printer's drivers when you are being prompted by Windows



- 8. Validate the name of your printer, then click Next.
- 9. Click **Finish** to close the assistant.

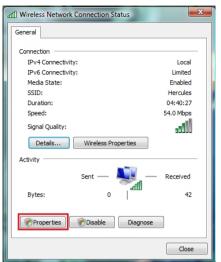
# 4.5.6. Windows Vista: Sharing an ADSL connection in an Infrastructure type network

Reminder: If you have a Livebox, a modem router or a router connected to a modem and one or more computers, your network will be in Infrastructure mode by default. In this mode, the WiFi adapters are connected to your access point, which might be your Livebox, your Hercules Modem Router or your Hercules Router connected to a modem. Infrastructure mode is ideal for exchanging data, playing online, and also for sharing an Internet connection and/or printer among several computers. Follow the instructions below to finally free yourself from the cable that connects you to your modem... without cutting the links to your ADSL connection. Viva the Wireless Attitude!

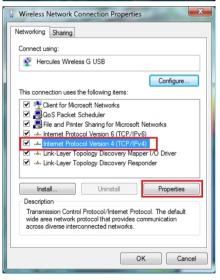
## Proceed as follows for each computer that will use the shared Internet connection:



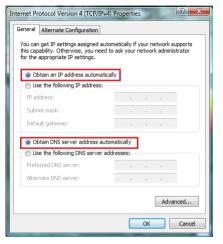
- 1. Connect to your wireless network (Hercules or Livebox\_AAAA, for example).
- Access the Network and Sharing Center. To do so, click the network icon on the Windows taskbar, then click the Network and Sharing Center link.
- 3. Click the View status link.



- 4. In the Wireless Network Connection Status window, click Properties.
- In the Windows Vista confirmation window, click Continue.



- In the Wireless Network Connection Properties tab, select Internet Protocol version 4 (TCP/IPv4).
- 7. Click Properties.



- 8. In the Internet Protocol version 4 (TCP/IPv4) window, select Obtain an IP address automatically and Obtain DNS server address automatically.
- 9. Click OK to validate.
- 10. Do the same for Internet Protocol version 6 (TCP/IPv6).

To access the Internet, simply launch your Internet browser.

# 4.6. Computers running Windows XP: Sharing folders, a printer or an ADSL connection

A simple solution for sharing folders, a printer or an ADSL connection in Windows XP is to use the **Network Setup Wizard**. This Wizard will help you create a real home network.

**Note:** the access paths mentioned below may vary slightly if you have modified the default display configuration in Windows XP (meaning the Start menu properties and Control Panel display).

# 4.6.1. Windows XP: Using the Network Setup Wizard in an Infrastructure network

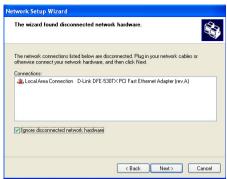
## Proceed as follows for each computer:



1. Click Start/All Programs/Accessories/ Communications/ Network Setup Wizard.

The Network Setup Wizard is launched.

Click Next twice.



Network Setup Wizard

Do you want to use the shared connection?

The wizard found a shared Internet connection on the computer "Unknown Internet Connection Sharing device."

Do you want to use the existing shared connection for this computer's Internet access?

Yes, use the existing shared connection for this computer's Internet access (recommended)

No, let me choose another way to connect to the Internet

Network Setup Wizard

Select a connection method.

Select the datement that best describes this computer:

Of this computer connects discolly to the Internet. The other computers on my network connect to the Internet through this computer.

View an example:

Of this computer connects to the Internet through another computer on my network or through a residential gateway.

View an example:

Office:

Learn more about home or small office network configurations:

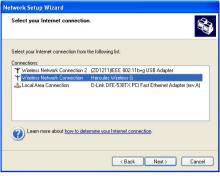
The window opposite may appear if **The Wizard found disconnected network hardware**.

3. If your Hercules Wireless Adapter wireless network connection is not displayed in the list, tick the Ignore disconnected network hardware box, then click Next. Otherwise, exit the Wizard by clicking Cancel and establish the connection from your network device to your router (if you use a Hercules Wireless G PCI, USB or PCMCIA adapter, please refer to the "The WiFi Station utility" chapter of your User Manual).

The window opposite may appear if The Wizard found a shared Internet connection on the computer.

4. Select No, let me choose another way to connect to the Internet, then click Next.

- 5. In the Select a connection method window, select the Other option.
- In the following window, select This computer connects to the Internet directly or through a network hub, then click Next.



 If the window opposite appears, select the Hercules Wireless G wireless network connection, then click Next.

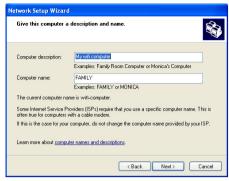


8. When this warning screen appears, ignore it by clicking **Next**.

If you are using the Hercules router, your computers are already protected by the integrated firewall.

- If your computer has at least three connections (or network devices), the window opposite appears. In this case, let the Wizard determine the appropriate connections.
- 10. Click Next.

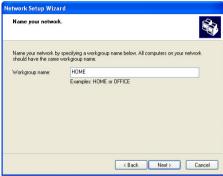




 Enter the computer name and a description, if required.

Give the computer a name that is unique and sufficiently distinctive, making it easy to recognize on your network (my-computer, wifi-computer or julie, for example).

12. Click Next.



 Enter the workgroup name (HOME, OFFICE or HERCULES, for example) and a description, if required.

The workgroup name must be identical (be sure to respect the case of letters) for all computers you wish to link together in a network.

- 14 Click Next
- 15. Verify the configuration settings you have entered in the window that appears, then click Next.

The Wizard configures the computer for the home network. This may take a few minutes.

16. Before completing the procedure, you may select the Create a Network Setup Disk option. This consists of copying this Wizard onto a storage medium (your choice of floppy disk or USB key) so that it can be launched on computers equipped with operating systems other than Windows XP.

This operation is carried out automatically, once you have selected a medium for saving the Wizard.





17. Click Finish to exit the Wizard.

Once the procedure is finished, Windows XP may prompt you to restart your computer.

The procedures described in this chapter are specific to Windows XP. For all other questions related to sharing folders, a printer or an Internet connection, or on using Windows, please refer to the Windows online help utility.

# 4.6.2. Windows XP: Sharing folders

After having configured all of your computers using the Network Setup Wizard, you can now share data located on different disk drives, as long as the user has authorized access.



1. Select the folder you wish to share, without opening it.



- 2. Right-click the folder. Select Sharing and Security.
- In the Network sharing and security section of the Sharing tab, tick the Share this folder on the network box.
- On the Share name line, enter the folder name as it will be displayed on the network (12 characters maximum to ensure compatibility with other operating systems).

You can also tick the **Allow network users to change my** files box. In this case, the user will be able to read files and save any changes. If this box is not ticked, the shared files can only be read, and not changed.

The [Shared folder name] Properties window is divided into two sections. Local sharing and security only allows for the sharing of files among several users on the same PC. The files are then placed in a Shared Documents folder. Network sharing and security, however, allows for the sharing of files among more than one computer.



Click Apply to validate your choices, then click OK to close the window.

An icon representing a hand beneath the folder indicates that the folder is now shared.

You can only share the contents of a folder, and not an individual file. We therefore recommend that you create a folder specifically for this purpose where you will put files to be shared.

## 4.6.3. Windows XP: Accessing shared folders

To easily access folders set up for sharing by several computers, it is preferable that the computers belong to the same workgroup. In Windows XP, the workgroup name has been defined using the Network Setup Wizard.



- 1. Click Start/My Computer.
- Click My Network Places, then click View workgroup computers.

You directly access the list of computers in your workgroup.

3. Double-click the computer that is sharing the folders you wish to access.

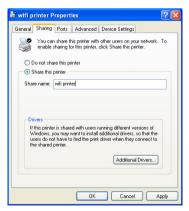
All shared folders appear.

# 4.6.4. Windows XP: Sharing a printer

It is possible to put a printer on the network and share it with all computers in the house equipped with a WiFi adapter.

To access a printer on the network, the printer must be set up for sharing on the computer where it is connected and installed.

## On the computer connected to the printer:



- Click Start/Control Panel/Printers and Other Hardware/ Printers and Faxes.
- 2. Right-click the printer and select **Sharing**.
- 3. In the **Sharing** tab, select the **Share this printer** radio button and enter a name for your printer.

Give the printer a name that is unique and sufficiently distinctive, making it easy to recognize (my-printer or home laser printer, for example). If one of your computers is running Windows 98 SE, we recommend that the sharing name not exceed 12 characters (without spaces) in order to ensure its compatibility with this operating system.

4. Click Apply, then OK.

## On the computers that will use the shared printer:



- Add Printer Wilzerd

  Local or Network Printer

  The researd needs by from which type of printer to set up.

  Select the only the decides the printer you want to use:

  O Local printer studeds to the computer

  Assumptional detect and result are Play and Play printer

  O A network printer, or a printer attached to another computer

  To set up a network printer that is not attached to a print server, use the PLocal printer Poston.

  ( Back. Need > Correct
- Add Printer Wizard

  Browne for Printer

  When the list of printer appears, telled the one you want to use.

  Piviter. Later printer

  Shave printer

  A Mount Windows Netmosk.

  Shave Shave

  Finds.

  Piviter information

  Comment.

  Shaku: Ready

  Documents waiting

  0



- Click Start/Control Panel/Printers and Other Hardware/ Printers and Faxes. In the Printer Tasks section, select Add a printer.
- 2. The Add Printer Wizard is launched. Click Next.
- 3. Select the A network printer, or a printer attached to another computer option, then click Next.
- 4. In the window that appears, click **Next** to launch the search for shared printers.

- 5. In the list displayed, double-click the computer connected to the printer.
- 6. Select the shared printer, then click Next.
- If you wish, set the shared printer as the default printer, then click Next.

8. Click Finish to exit the Wizard.

You can now use the network printer thanks to your WiFi connection. For more information on sharing a printer, please refer to your printer's manual.

# 4.6.5. Windows XP: Modifying a workgroup name

It may happen that you need to change the name of your workgroup (advanced users only). To do so, proceed as follows:



- Click Start/Control Panel/Performance and Maintenance/System.
- In the System Properties window, select the Computer Name tab.
- 3. Click the Change... button.



- In the Computer Name zone, enter a name sufficiently distinctive that it can easily be recognized in the list of computers for the workgroup (my-computer, wificomputer or julie, for example).
- 5. In the **Workgroup** zone, enter a name for the group (HOME, OFFICE or HERCULES, for example).

The workgroup name must be identical (be sure to respect the case of letters) for all computers you wish to link together in a network.

- A Windows message indicates that the task has been carried out successfully and that you must restart the computer.
- 7. Repeat this procedure for each computer.

# 4.6.6. Windows XP: Manually enabling or disabling your adapter's WiFi connection (advanced users)

You can manually enable or disable your adapter's WiFi connection for a variety of reasons: to temporarily avoid connecting to networks, save battery power, etc.



- Click Start/Connections/Show All Connections.

Verify that your Hercules Wireless G wireless network connection is listed.

- If its status is Disabled, right-click your Wireless Network Connection and select Enable.
- If its status is Enabled, right-click your Wireless Network Connection and select Disable.

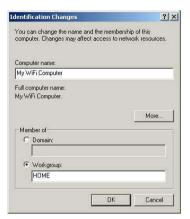
# 4.7. Computers running Windows 2000: Sharing folders, a printer or an ADSL connection

To create a network of computers, share data, a printer or an ADSL connection in Windows 2000, it is preferable that the computers belong to the same workgroup.

## 4.7.1. Creating a workgroup in Windows 2000



- 1. Click Start/Settings/Control Panel. Double-click System.
- In the System Properties window, select the Network Identification tab.
- 3. Click the Properties button.

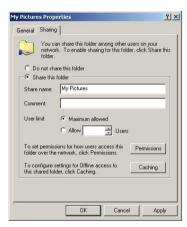


- In the Computer name zone, enter a name sufficiently distinctive that it can easily be recognized in the list of computers for the workgroup (my-computer, wificomputer or julie, for example).
- In the Workgroup zone, enter a name for the group (HOME, OFFICE or HERCULES, for example).

The workgroup name must be identical (be sure to respect the case of letters) for all computers you wish to link together in a network.

- Click OK. A Windows message indicates that the task has been carried out successfully and that you must restart the computer.
- 7. Click **OK** once more.

## 4.7.2. Windows 2000: Sharing folders



- 1. Select the folder you wish to share, without opening it.
- 2. Right-click the folder. Select **Sharing**.
- 3. In the Sharing tab, select Share this folder.
- On the Share name line, enter the folder name as it will be displayed on the network (12 characters maximum to ensure compatibility with other operating systems).

You can also limit access to the folder by selecting a limited number of users and the type of access by clicking the **Permissions** button.

5. Click **Apply**, then **OK**.

# 4.7.3. Windows 2000: Accessing shared folders



- 1. Click Start/Programs/Accessories/Windows Explorer.
- Double-click My Network Places, Entire Network, then Microsoft Windows Network.
- 3. Double-click your workgroup.

You access the list of the computers in your workgroup.

4. Double-click the computer that is sharing the folders you wish to access.

All shared folders appear.

# 4.7.4. Windows 2000: Sharing a printer

It is possible to put a printer on the network and share it with all computers in the house equipped with a WiFi adapter.

To access a printer on the network, the printer must be set up for sharing on the computer where it is connected and installed.

## On the computer connected to the printer:



- 1. Click Start/Settings/Printers.
- 2. Right-click the printer and select Sharing....
- 3. In the **Sharing** tab, select the **Shared as:** radio button and enter a name for your printer.

Give the printer a name that is unique and sufficiently distinctive, making it easy to recognize (my-printer or home laser printer, for example). If one of your computers is running Windows 98 SE, we recommend that the sharing name not exceed 12 characters (without spaces) in order to ensure its compatibility with this operating system.

4. Click Apply, then OK.

## On the computers that will use the shared printer:



- Click Start/Settings/Printers. Double-click the Add Printer icon
- 2. The Add Printer Wizard is launched. Click Next.
- 3. Select the Network printer option, then click Next.
- 4. Click Next to locate the shared printer.



- 5. In the list displayed, double-click the computer connected to the printer.
- 6. Select the shared printer, then click Next.

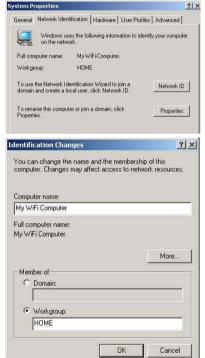


- If you wish, set the shared printer as the default printer, then click Next.
- 8. Click Finish to close the Wizard.

You can now use the network printer thanks to your WiFi connection. For more information on sharing a printer, please refer to your printer's manual.

# 4.7.5. Windows 2000: Modifying a workgroup name

It may happen that you need to change the name of your workgroup (advanced users only). To do so, proceed as follows:



- Click Start/Settings/Control Panel. Double-click System.
- In the System Properties window, select the Network Identification tab.
- Click the Properties button.
- In the Computer name zone, enter a name sufficiently distinctive that it can easily be recognized in the list of computers for the workgroup (mycomputer, wifi-computer or julie, for example).
- 5. In the **Workgroup** zone, enter a name for the group (HOME, OFFICE or HERCULES, for example).

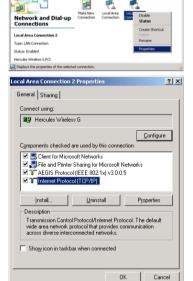
The workgroup name must be identical (be sure to respect the case of letters) for all computers you wish to link together in a network.

- Click OK. A Windows message indicates that the task has been carried out successfully and that you must restart the computer.
- 7. Repeat this procedure for each computer.

Network and Dial-up Conn

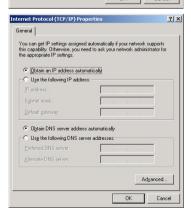
# 4.7.6. Windows 2000: Sharing an ADSL connection in an Infrastructure network

Proceed as follows for each computer that will use the shared Internet connection:



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- 1. Click Start/Settings/Network and Dial-up Connections.
- 2. Select the connection to the local area network corresponding to your Hercules Wireless G device.
- 3. Right-click the connection and select **Properties**.
- 4. In the Local Area Connection Properties window, select Internet Protocol (TCP/IP).
- 5. Click Properties.



- 6. In the Internet Protocol (TCP/IP) Properties window, select Obtain an IP address automatically and Obtain DNS server address automatically.
- Click **OK** to close the windows.

Windows may prompt you to restart your computer.

To access the Internet, you can now simply launch your Internet browser.

# 4.7.7. Windows 2000: Manually enabling or disabling your adapter's WiFi connection (advanced users)

You can manually enable or disable your adapter's WiFi connection for a variety of reasons: to temporarily avoid connecting to networks, save battery power, etc.

To manually enable or disable your Hercules Wireless G adapter's WiFi connection in Windows 2000:

- Access the **Device Manager**.
- Select your Hercules Wireless G adapter in the list of network adapters.
- Right-click your adapter and select Properties.
- To enable your adapter, select **Enable**. To disable it, select the **Disable** option.

For more information on manually enabling or disabling the adapter in Windows 2000, please refer to the Windows online help utility.

# 4.8. Computers running Windows Me: Sharing folders, a printer or an ADSL connection

A simple solution for sharing folders, a printer or an ADSL connection in Windows Me is to use the Home Networking Wizard. This Wizard will help you create a real home network.

# 4.8.1. Windows Me: Using the Home Networking Wizard in an Infrastructure network



1. Click Start/Programs/Accessories/Communications/ Home Networking Wizard.

The Wizard is launched.

2. Click Next.

If you have already used this Wizard on this computer, the Setup Options panel appears. Select I want to edit my Home Networking settings on this computer, then click Next.

- In the Internet Connection window, select the A direct connection to my ISP using the following device: option.
- Select your Hercules Wireless G adapter in the dropdown list, then click Next.



- If the Internet Connection Sharing window appears, select No, I do not want to share my Internet connection.
- 6. Click Next.

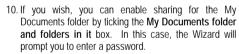
7. Enter the computer name.

Give the computer a name that is unique and sufficiently distinctive, making it easy to recognize in the list of workgroup computers (my-computer, wifi-computer or julie, for example).

 Select the Use this workgroup name option and enter the workgroup name (HOME, OFFICE or HERCULES, for example).

The workgroup name must be identical (be sure to respect the case of letters) for all computers you wish to link together in a network.

9. Click Next.



- 11. If you wish, you can enable sharing of your printer by selecting it in the list.
- 12. Click Next.
- 13. Before completing the procedure, you may copy this Wizard onto a setup disk so that it can be launched on computers equipped with operating systems other than Windows Me. In this case, select the Yes, create a Home Networking Setup disk option.

This operation is carried out automatically, once you have selected a medium for saving the Wizard.





14. Click Finish to exit the Wizard.

Once the procedure is finished, Windows Me prompts you to restart your computer. Once your computer has restarted, a message invites you to configure your other computers.

# 4.8.2. Windows Me: Sharing folders

After having configured all of your computers using the Home Networking Wizard, you can now share data located on different disk drives, as long as the user has authorized access.





- 2. Right-click the folder. Select Sharing.
- 3. In the Sharing tab, select Shared As.
- On the Share Name line, enter the folder name as it will be displayed on the network (12 characters maximum).

You can also limit access to the folder by selecting the type of access and a password.

If the **Sharing** tab does not appear, you must enable file sharing.



- Click Start/Settings/Control Panel. Double-click Network.
- 2. In the Network window, click the File and Print Sharing... button.
- 3. Tick the I want to be able to give others access to my files box.

Windows may prompt you to insert the installation CD-ROM.

## 4.8.3. Windows Me: Accessing shared folders

To easily access folders set up for sharing by several computers, it is preferable that the computers belong to the same workgroup. In Windows Me, the workgroup name has been defined using the Home Networking Wizard.



- 1. Click Start/Programs/Windows Explorer.
- 2. Double-click Network Neighborhood and expand it.

You access the list of the computers in your workgroup.

Double-click the computer that is sharing the folders you wish to access.

All shared folders appear.

# 4.8.4. Windows Me: Sharing a printer

It is possible to put a printer on the network and share it with all computers in the house equipped with a WiFi adapter.

To access a printer on the network, the printer must be set up for sharing on the computer where it is connected and installed.

## On the computer connected to the printer:



- 1. Click Start/Settings/Printers.
- Right-click the printer and select Sharing.
- 3. In the **Sharing** tab, select the **Shared As** radio button and enter a name for your printer.

Give the printer a name that is unique and sufficiently distinctive, making it easy to recognize (printer or wifi printer, for example).

4. Click Apply, then OK.

If the

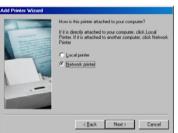
If the Sharing tab does not appear, you must enable file sharing.



- Click Start/Settings/Control Panel. Double-click Network.
- In the Network window, click the File and Print Sharing... button.
- 3. Tick the I want to be able to allow others to print to my printer(s) box.

Windows may prompt you to restart your computer.

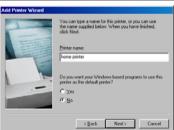
## On the computers that will use the shared printer:



- Click Start/Settings/Printers. Double-click the Add Printer icon.
- 2. The Add Printer Wizard is launched. Click Next.
- 3. Select the Network printer option, then click Next.
- 4. Click **Browse**... to locate the shared printer.



- 5. In the list displayed, double-click the computer connected to the printer.
- 6. Select the shared printer, then click **OK**.
- 7. Click Next.

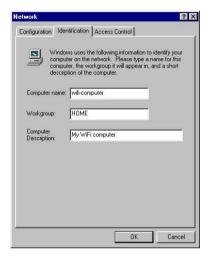


- If you wish, set the shared printer as the default printer, then click Next.
- 9. Click Finish to close the Wizard.

You can now use the network printer thanks to your WiFi connection. For more information on sharing a printer, please refer to your printer's manual.

# 4.8.5. Windows Me: Modifying a workgroup name

It may happen that you need to change the name of your workgroup (advanced users only). To do so, proceed as follows:



- Click Start/Settings/Control Panel. Double-click Network
- Select the Identification tab.
- In the Computer name zone, enter a name sufficiently distinctive that it can easily be recognized in the list of computers for the workgroup (mycomputer, wifi-computer or julie, for example).
- 4. In the **Workgroup** zone, enter a name for the group (HOME, OFFICE or HERCULES, for example).

The workgroup name must be identical (be sure to respect the case of letters) for all computers you wish to link together in a network.

- Click OK. A Windows message indicates that the task has been carried out successfully and that you must restart the computer.
- 6. Repeat this procedure for each computer.

# 4.8.6. Windows Me: Manually enabling or disabling your adapter's WiFi connection (advanced users)

You can manually enable or disable your adapter's WiFi connection for a variety of reasons: to temporarily avoid connecting to networks, save battery power, etc.

To manually enable or disable your Hercules Wireless G adapter's WiFi connection in Windows Me:

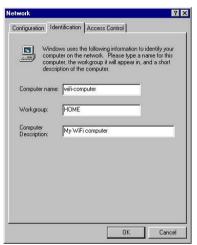
- Access the **Device Manager**.
- Select your Hercules Wireless G adapter in the list of network adapters.
- Right-click your adapter and select **Properties**.
- To enable your adapter, select **Enable**. To disable it, select the **Disable** option.

For more information on manually enabling or disabling the adapter in Windows Me, please refer to the Windows online help utility.

# 4.9. Computers running Windows 98 SE: Sharing folders, a printer or an ADSL connection

To create a network of computers, share data, a printer or an ADSL connection in Windows 98 SE, it is preferable that the computers belong to the same workgroup.

# 4.9.1. Windows 98 SE: Creating a workgroup



- Click Start/Settings/Control Panel. Double-click Network.
- 2. Select the Identification tab.
- In the Computer name zone, enter a name sufficiently distinctive that it can easily be recognized in the list of computers for the workgroup (my-computer, wificomputer or julie, for example).
- In the Workgroup zone, enter a name for the group (HOME, OFFICE or HERCULES, for example).

The workgroup name must be identical (be sure to respect the case of letters) for all computers you wish to link together in a network.

- Click OK. Windows prompts you to restart your computer.
- 6. Repeat this procedure for each computer.

**Note:** to modify the name of a workgroup, follow the same procedure.

## 4.9.2. Windows 98 SE: Sharing folders



- 1. Select the folder you wish to share, without opening it.
- Right-click the folder. Select Sharing.
- 3. In the Sharing tab, select Shared As.
- On the Share Name line, enter the folder name as it will be displayed on the network (12 characters maximum).

You can also limit access to the folder by selecting the type of access and a password.

If the sharing tab does not appear, you must enable file sharing.



- Click Start/Settings/Control Panel. Double-click Network.
- 2. In the Network window, click the File and Print Sharing... button.
- 3. Tick the I want to be able to give others access to my files box, then click OK.
- 4. Click OK to close the window.

Windows may prompt you to insert the installation CD-ROM and restart the computer.

# 4.9.3. Windows 98 SE: Accessing shared folders



- 1. Click Start/Programs/Windows Explorer.
- 2. Double-click Network Neighborhood and expand it.

You access the list of the computers in your workgroup.

3. Double-click the computer that is sharing the folders you wish to access.

All shared folders appear.

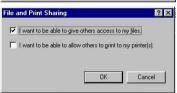
# 4.9.4. Windows 98 SE: Sharing a printer

It is possible to put a printer on the network and share it with all computers in the house equipped with a WiFi adapter.

To access a printer on the network, the printer must be set up for sharing on the computer where it is connected and installed.

## On the computer connected to the printer:





- 1. Click Start/Settings/Printers.
- 2. Right-click the printer and select **Sharing**.
- 3. In the **Sharing** tab, select **Shared As** and enter a name for your printer.

Give the printer a name that is unique and sufficiently distinctive, making it easy to recognize (printer or wifi printer, for example).

4. Click Apply, then OK.



- Click Start/Settings/Control Panel. Double-click Network.
- In the Network window, click the File and Print Sharing... button.
- 3. Tick the I want to be able to allow others to print to my printer(s) box.

Windows prompts you to restart your computer.

## On the computers that will use the shared printer:



- Click Start/Settings/Printers. Double-click the Add Printer icon.
- 2. The Add Printer Wizard is launched. Click Next.
- 3. Select the **Network printer** option, then click **Next**.
- 4. Click Browse... to locate the shared printer.



- 5. In the list displayed, double-click the computer connected to the printer.
- 6. Select the shared printer, then click **OK**.
- 7. Click Next.



- If you wish, set the shared printer as the default printer, then click Next
- 9. Click Finish to close the Wizard.

You can now use the network printer thanks to your WiFi connection. For more information on sharing a printer, please refer to your printer's manual.

# 4.9.5. Windows 98 SE: Sharing an ADSL connection in an Infrastructure network

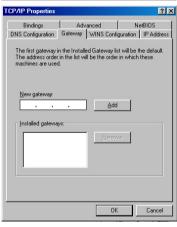
Proceed as follows for each computer that will use the shared Internet connection:



- Click Start/Settings/Control Panel. Double-click Network.
- In the Configuration tab of the Network window, select the TCP/IP -> Hercules Wireless G component.
- 3. Click Properties.



4. In the IP Address tab, select Obtain an IP address automatically.



- In the Gateway tab, if there are gateways installed, select them and click Remove.
- Click OK to close the windows.

Windows may prompt you to restart your computer.

To access the Internet, you can now simply launch your Internet browser.

# 4.9.6. Windows 98 SE: Manually enabling or disabling your adapter's WiFi connection (advanced users)

You can manually enable or disable your adapter's WiFi connection for a variety of reasons: to temporarily avoid connecting to networks, save battery power, etc.

To manually enable or disable your Hercules Wireless G adapter's WiFi connection in Windows 98 SE:

- Access the **Device Manager**.
- Select your Hercules Wireless G adapter in the list of network adapters.
- Right-click your adapter and select Properties.
- To enable your adapter, select Enable. To disable it, select the Disable option.

For more information on manually enabling or disabling the adapter in Windows 98 SE, please refer to the Windows online help utility.

## 5. WIFI MANAGER FOR ADVANCED USERS

WiFi Manager has been designed to respond to the needs of the widest cross-section of the public. Thus, after having explained the most useful functionalities in the previous chapters, we dedicate this chapter to users who wish to take advantage of the subtleties of WiFi, and explore their router's more advanced functionalities. But be careful! Modifying certain settings may have a negative impact on the proper functioning of your network, and therefore on your router. You should bear in mind, however, that nothing is irreversible, and that you can always return to the original configuration or reload a personalized configuration.

# 5.1. Configuring your WiFi network's advanced options

This window contains the settings which affect the functioning of your Hercules Router. If you do not know their functions, we recommend that you keep the default settings.

## **Advanced WiFi options**

Hide your network name (SSID):

WiFi mode:



name, tick the **Hide your network name (SSID)** box.

The SSID is hidden, and the network name is not

- If you do not want the network to broadcast its

 In the Your WiFi connection parameters window, click the Advanced WiFi options button located in

the lower left-hand corner of the window.

displayed during detection by a WiFi client (the Network name (SSID) field is blank in Hercules WiFi Station, for example).

Make sure that you do not lose or forget this name, as you will need it to connect your WiFi devices.

- Select the WiFi mode to be used by your router: Mixed, B only or G only.

If you select **B only**, 802.11 G devices will **not** be able to connect.

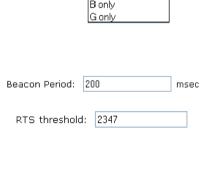
If you select **G only**, 802.11 B devices will **not** be able to connect.

If you select **Mixed**, 802.11 **B and G** devices will be able to connect.

- The **Beacon Period** allows you to define the wireless network detection interval.
- When an RTS threshold is defined, the wireless device asks the access point for authorization to transmit data, thereby avoiding data arriving simultaneously (risk of collision).

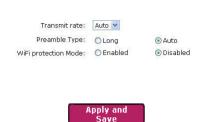
Modifying the RTS threshold may affect your router's performance.

- The **DTIM Period** corresponds to the interval between two synchronous frames containing information on the transmission messages.



Mixed Mixed

DTIM Period: 2



- The **transmit rate** is the rate at which data packets are transferred when sending and receiving. It is set to **Auto** by default, but may be adjusted from 1 **Mbps** (min) to **54 Mbps** (max).
- Define a **preamble type**: **Long** or **Auto**. An **Auto** preamble type allows you to guarantee optimal transmission of your data.
- Enable or disable the WiFi protection Mode.
- Click **OK**, then **Apply and Save** to validate and save your settings.

# 5.2. Configuring your Internet firewall

In this chapter, you will learn how to lower certain defenses in order to authorize access to your computers or your IP or WiFi camera for specific Internet services (P2P, web/FTP servers, viewing of the camera via the Internet ...), or shore up other defenses to limit access on a specific computer to certain remote services or the Internet. Finally, you will also be able to redirect all Internet requests to a computer whose address you will specify.

# 5.2.1. Opening doors in your firewall to put your camera online or authorize access to a computer for certain Internet services

If you would like to put a camera online, or if you want your computers to be able to either provide specific Internet services (P2P, web/FTP servers...), or access specific services, you will have to open up minidrawbridges (referred to as ports) in your firewall using **port forwarding**.

## To put your IP or WiFi camera online:





- On the Home page, select **Your Internet firewall parameters**.
- Click the **Port Forwarding** button.
- In the Webcam or IP camera zone, click the Add a camera button.
- Enter the camera's name in the Location or number field, then select its IP address out of the devices already connected (you can also enter it manually after selecting "Other" in the list).
- Select the **protocol** (TCP or UDP) and enter the **communication port**.

To find out your camera's IP address, protocol and communication port, please refer to the manufacturer's instructions.



- Click the Add button.

The camera is added to the list of webcams or IP cameras. You can then modify or remove it or preview its contents.

- Click the **Apply and Save** button to validate your settings and then click the "Close" button to return to the Home page.

You can now access your IP or WiFi camera from any computer on the Internet by simply launching a web browser and entering Public IP address (the address assigned to your Router's Internet connection by your service provider) followed by ":" and the number of the communication port.

To find out your public IP address, open the **Your Internet connection (WAN)** window (click the Your Internet connection (WAN) button on the Home page). The IP address is displayed on the bottom right.

To authorize access to one or more of your computers for specific Internet services:



- On the Home page, select **Your Internet firewall parameters**.
- Click the Port Forwarding button.



- In the Server zone, click the Add a server button.
- Enter the name of the service (for example, ftp server) in the **Service name** field, then select the IP address of the computer hosting the service out of the devices already connected (you can also enter it manually after selecting "Other" in the list).
- Select the **protocol** (TCP or UDP).
- Enter a value for the **Start port**, **End port** and **Computer's internal port** (between 1 and 65536).

If you only open one port, the Start port and End port (external ports) have the same value. The Computer's internal port corresponds to the port used by the service provided by the computer and is generally equal to the Start port.

- Click the Add button.
- Click the Add button.

The server is added to the list of servers. You can then modify or remove  $\times$  a server from the list.

- Click the **Apply and Save** button to validate your settings and then click the "Close" button to return to the Home page.



# 5.2.2. Limiting access of one of your network computers to Internet services

By default, the computers are able to access all Internet services. If you wish to limit access on one specific computer to certain Internet services, however (Internet access, Peer to Peer sites...), you can use the IP address filtering system.

To limit access on a specific computer to an Internet service:



IP Filterina





- On the Home page, select **Your Internet firewall parameters**.
- Click the **IP Filtering** button.
- Click the Add a rule button
- Enter the **service name** (for example, ftp services).
- Enter the IP address or the range of IP addresses of the computers in question.
- In the drop-down list, select the Type of service to be blocked.
- Select the **protocol** (TCP or UDP.
- Enter a value in the **Start port** and **End port** fields.

If you only open one port, the **Start port** and **End port** (external ports) have the same value.

- Click the Add button.

The service is added to the list of servers. You can then **modify** or **remove**  $\times$  a service from the list.

- Click the **Apply and Save** button to validate your settings and then click the "Close" button to return to the Home page.

## 5.2.3. Redirecting Internet requests to a specific computer

To protect the computers on your network from any unwanted Internet requests, you can create a demilitarized zone (or DMZ) that will redirect these requests, on whatever port they may be made, to a specific computer. This computer will process the requests according to its type (game server, FTP server...).

Although this procedure allows you to protect the computers on your network, the computer to which the requests are directed then becomes vulnerable to attack itself.



- On the home page, select **Your Internet** firewall parameters.
- Select Port Forwarding.



- Tick the  $\mbox{\it Create}$  a  $\mbox{\it DMZ}$  box, located at the bottom of the window.
- Enter the **IP address** of the computer to which Internet requests will be directed.

# 5.3. A toolbox with multiple facets

WiFi Manager functions as a toolbox which can help you to correct any mistakes you might make.

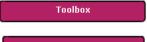
# 5.3.1. Restarting the Hercules Router

The **Restart the router** function cuts off all of the Hercules Router's functions (WiFi and ADSL connection, firewall, router) and restarts WiFi Manager.



All computers or devices connected via WiFi or Ethernet will be disconnected.

### To restart the router:



- On the Home page, click the **Toolbox** button.
- Restart the modem router Select Restart the router.

An explanatory text details the function of this button.

Restart now

- Click the Restart now button.



The router restarts with the last settings saved. No data is lost.

# 5.3.2. Restoring your original settings

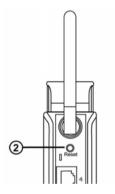
If you have modified certain settings – whether intentionally or not – and wish to restore the original settings, follow the instructions below.

During the restoration, all settings that you have previously modified (Internet connection mode, WiFi security key, filtering by MAC address...) will be lost!

#### Toolbox

Restore original settings





- On the Home page, click the **Toolbox** button.
- Select Restore original settings.
- Click the Restore now button

## You can also use the Reset button located on the router:

- Disconnect the router.
- Press the **Reset button** @ for 5 seconds using the tip of a pen or pencil while reconnecting the router.
- Release the button and wait.

Your router will load its original settings and reinitialize itself.

# 5.3.3. Updating the router's firmware

If you wish to take advantage of new functionalities or improved functionalities for your Hercules Router, we recommend that you regularly visit the www.hercules.com website to check whether any firmware updates are available.

We strongly recommend that you carry out firmware updates while connected by the gray Ethernet cable (and not via WiFi).

During the update, all settings that you have previously modified (Internet connection settings, WiFi security key...) will be lost!

## If a firmware update is available:

- On the www.hercules.com website, click Support/Updates and Downloads.

- Follow the on-screen instructions provided. Then:



- On the WiFi Manager Home page, click the **Toolbox** button.
- Select Update firmware.
- Click the Browse... button.
- Select your firmware file, then click Open.
- Click Update to import the data.

Your Hercules Router will now use this new firmware version.

## 5.4. Other advanced options

# *5.4.1. Configuring the DHCP server*

This chapter will show you how to configure the internal DHCP server, which manages your computers' IP addresses.





- On the Home page, click the **Advanced settings** button.
- Select Router addressing.
- You can modify the IP Router address (192.168.2.1, by default) and its Subnet mask (255.255.255.0, by default).

Make absolutely sure to write down this IP address! Without it, you will not be able to reconnect to your router.



- If you leave the Internal DHCP server enabled box ticked, you can modify the Start IP address (192.168.2.2, by default), the End IP address (192.168.2.128, by default) and the Validity duration (60 minutes, by default) of these addresses.
- If you tick the **Internal server disabled** box, you as a user decide to now assign the IP address for each computer yourself.

# 5.4.2. Linking an IP address to a dynamic domain name server

Thanks to WiFi Manager's **Dynamic DNS** (or DDNS) function, your IP address is always known to your domain name server. All you have to do is enter the password and identifier supplied and the Dynamic DNS service takes care of regularly returning your router's public IP address (the address assigned to your router's Internet connection by your access provider).

Note: You must already be registered with a Dynamic DNS service.

	your domain name par vill advise your DDNS se		rour Web or FTP internal Public IP address
	Enable DDNS fun	ction: 🗹	
DDNS Server:	EuroDNS	V	www.eurodns.com
Your Username:			
Your password:			

Router is not connected to a DDNS server.

Host name:

Status:

Advanced settings

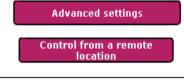
- On the Home page, click the **Advanced** settings button.
- Select Dynamic DNS.
- Tick the Enable the DDNS function box.
- Select the **DDNS** server to which you have subscribed, and then enter the required information (identifier, password and host name).

This information was provided to you when registering for the service.

# 5.4.3. Controlling your Hercules Router from a remote location via the Internet

WiFi Manager's Control from a remote location function allows a computer outside of your local network to connect to the Hercules Router and configure it.

## To authorize remote control of your router:





- On the Home page, click the **Advanced settings** button.
- Select Control from a remote location.
- Tick the **Remote control enabled** box.
- Click the **Apply and Save** button to validate your settings.

To access your router remotely, you must enter your Internet connection's public IP address (the address assigned to your Router's Internet connection by your service provider) in the Internet browser of the remote computer.

To find out your public IP address, open the **Your Internet connection (WAN)** window (click the Your Internet connection (WAN) button on the Home page). The IP address is displayed in the lower right-hand corner.

## 5.4.4. Changing the Hercules Router's password

For reasons of confidentiality or security, you may wish to change your **password**. WiFi Manager allows you to select a new password when you are connecting (please refer to chapter 3.2. Changing the WiFi Manager password) or via the Advanced settings window (see below).

You can also specify an automatic disconnection after a certain period of inactivity, if you ever forget to disconnect manually, for example. This will prevent any external computers from accessing your network.

## To change the password or define a period of inactivity:



- On the Home page, click the **Advanced** settings button.
- Select Password.
- Enter Your new password, and then confirm it.
- Click the **Apply and Save** button to validate your settings.

## 5.5. Product information

WiFi Manager allows you to consult all information relating to the functioning of your Hercules Router.

## To consult the product information:



- On the Home page, click the  $\mbox{\sc Product}$  information button.



The following information is displayed: the Hercules Router's MAC address, the status of the ADSL connection, of the local area network and of the wireless network, as well as the firmware and hardware versions.

## 6. GLOSSARY

#### 802.11

Standard established in 1997 by the IEEE (Institute of Electrical and Electronics Engineers, an American organization), defining wireless networks in the 2.4 – 2.48GHz frequency range and offering transfer speeds of between 1 and 2Mbits/s. Revisions have been made to the original standard in order to optimize transfers (this is the case for the 802.11a, 802.11b and 802.11g standards, referred to as physical 802.11 standards) or to ensure better security or improved interoperability of equipment.

#### 802.11b

Standard established by the IEEE (Institute of Electrical and Electronics Engineers, an American organization) in the 802.11 family, allowing for theoretical transfer rates of 11Mbits/s in the 2.4GHz frequency range with a physical range of up to 300m in an environment free from obstructions. The frequency range used is the 2.4GHz band, with 3 radio channels available.

## 802.11g

Standard established by the IEEE (Institute of Electrical and Electronics Engineers, an American organization) in the 802.11 family, allowing for theoretical transfer rates of 54Mbits/s in the 2.4GHz frequency range with a physical range of up to 300m in an environment free from obstructions. The 802.11g standard offers backwards compatibility with the 802.11b standard, which means that equipment compliant with the 802.11g standard will also work with 802.11b.

#### 802.11i

Standard established by the IEEE (Institute of Electrical and Electronics Engineers, an American organization) in the 802.11 family, whose goal is to improve security by integrating WPA-PSK authentication into AES encryption. This Hercules client is compatible with this standard.

## Access point

The access point is the heart of your local WiFi network. The system access point is a wireless router whose function is to bring several clients together, which is to say link together all computers equipped with WiFi adapters, thanks to its radio antenna.

### Ad hoc mode

Mode allowing several computers equipped with WiFi to communicate directly with one another. This mode is also referred to as Peer to Peer.

### ADSL (Asymmetric Digital Subscriber Line)

This equipment, connected to a standard telephone line, offers great speed in terms of sending and receiving data.

#### AES (Advanced Encryption Standard)

A symmetrical block-based encryption standard supporting different key lengths, this is a powerful, quick and efficient encryption method.

### ATM (Asynchronous Transfer Mode)

High-speed transfer mode for fixed-size data.

### CCK (Complementary Code Keying)

Advanced encoding scheme for radio waves in wireless networks allowing for high transfer speeds.

#### Client

Computer equipped with a PCI, USB or PCMCIA WiFi adapter.

## **DHCP (Dynamic Host Configuration Protocol)**

Protocol managing the allocation of IP addresses to computers.

## DSSS (Direct Sequence Spread Spectrum)

Technique for using radio frequencies in broad-spectrum wireless networks meant to increase the range of transmissions.

### ESSID (Service Set Identifier)

8 to 32-character identifier, often abbreviated as SSID, serving as the unique name for a network shared by clients and the access point.

## Ethernet port (or RJ-45)

Port allowing for the connection of two devices via a cable, such as a PC and a router, in order to exchange data packets without collision.

#### Filter

Device placed between the telephone plug and the modem to improve the quality of telephone communications, which are often degraded by ADSL signals.

#### Firewall

Combination of software and security devices protecting a network connected to the Internet.

#### Infrastructure mode

Communication mode consisting of grouping together several computers equipped with WiFi in a network via a wireless access point such as the Hercules ADSL router.

#### IP address

Unique computer address assigned by the router. Each computer has its own IP address, allowing it to be identified within the network.

## LEAP (Lightweight Extensible Authentication Protocol)

Security protocol developed by the company Cisco for the world of Windows. The format used is identifier/password.

## MAC address (Message Authentication Code)

Unique address created by the builder of the client adapter or router, serving to identify this element within a network.

### NAT (Network Address Translation)

Technique allowing for the masking of IP addresses of local area network computers with respect to the Internet.

### OFDM (Orthogonal Frequency Division Multiplexing)

Radio transmission technique providing very high transfer speeds widespread within DSL technology, in the wireless terrestrial distribution of television signals and adopted for the high-speed 802.11 wireless communication standard.

## PPPoA (Point-to-Point Protocol over ATM)

Protocol allowing for connection to the Internet of computers linked over an ATM network, while still identifying the user.

## PPPoE (Point-to-Point Protocol over Ethernet)

Protocol allowing for connection to the Internet of computers linked over an Ethernet network via a high-speed modem.

### Static IP

Permanent IP address assigned to a computer by the service provider.

#### Subnet mask

Part of an IP address indicating the class of the network used (class C, type 255.255.255.0 for a local area network).

## TKIP (Temporal Key Integrity Protocol)

The WPA standard uses the TKIP protocol, which consists of regenerating new keys for each data packet, whereas WEP uses a system based on a fixed key.

## UPnP (Universal Plug n' Play)

Protocol allowing for the connection to one another of many computers and peripherals available on a network

## WEP (Wired Equivalent Privacy)

Security protocol for wireless networks using encryption based on a 64-bit, 128-bit or 256-bit fixed key used only once, at the start of the decryption phase. To decode a transmission, each wireless network client must use the same 64, 128 or 256-bit key. WEP is part of the 802.11 standard with a view to ensuring authentication (access is only authorized for those who know the WEP key) and confidentiality (encryption). An encryption key is composed of numbers 0 to 9 and letters A to F (example: A123BCD45E).

## WiFi (Wireless Fidelity)

An abbreviation of Wireless Fidelity, WiFi is the commercial name adopted by the WECA (Wireless Ethernet Compatibility Alliance), an organization responsible for maintaining the interoperability of equipment in a wireless local area network (WLAN) compliant with the IEEE 802.11 standard. Thus, a WiFi network is actually a 802.11 network. In practice, WiFi allows for the connection of laptop computers, desktop computers or Personal Digital Assistants (PDAs) many tens of meters distant from one another via an access point, allowing them to communicate with one another without any cables and exchange data at high speeds.

### WiFi Manager

Utility developed by Hercules to configure and view settings for the Hercules Wireless G Router.

#### WiFi Router

Device installed at the heart of a WiFi network, allowing for the connection of several computers equipped with WiFi adapters for the exchange of data.

#### WiFi Station

Utility developed by Hercules to define, verify and configure all connection and security settings regarding your WiFi installation.

## WLAN (Wireless Local Area Network)

Wireless local area network, generally employing the 802.11b or q standard.

## Workgroup

Group of computers with which you wish to communicate or share resources such as folders, a printer or an Internet connection. To be part of a workgroup, computers must have the same group name.

#### WPA (WiFi Protected Access)

Wireless network security standard put in place by manufacturers, employing a data encryption algorithm relying on dynamic key management, which was lacking in WEP, the difference being that once communication is established, the key changes randomly for enhanced security.

#### WPA2 (WiFi Protected Access 2)

Network security standard based on the WPA standard, conforming to the IEEE 802.11i specification, offering a superior level of protection.

## WPA-PSK (WiFi Protected Access-Pre-Shared Key)

Latest-generation heightened security protocol specially designed for use in environments such as a small office or the home, based on a pre-shared key (a single password). This key is also used for TKIP or AES data encryption.

Log on now to our website (<a href="www.hercules.com">www.hercules.com</a>) to download the latest driver and software versions, consult the list of Frequently Asked Questions (FAQs) relating to your product and access User Manual updates. You can also discover the entire Hercules range and get information on upcoming products.

## 7. TECHNICAL SUPPORT

If you encounter a problem with your product, please go to <a href="http://ts.hercules.com">http://ts.hercules.com</a> and select your language. From there you will be able to access various utilities (Frequently Asked Questions (FAQ), the latest versions of drivers and software) that may help to resolve your problem. If the problem persists, you can contact the Hercules products technical support service ("Technical Support"):

#### Bv emai

In order to take advantage of technical support by email, you must first register online. The information you provide will help the agents to resolve your problem more quickly.

Click Registration on the left-hand side of the Technical Support page and follow the on-screen instructions.

If you have already registered, fill in the Username and Password fields and then click Login.

#### By telephone:

United Kingdom	08450800942 Charges at local rate	Monday to Friday from Noon to 4pm and 5pm to 10pm Saturday from 9am to Noon and 1pm to 7pm Sunday from 9am to Noon and 1pm to 4pm
Denmark	<b>80887690</b> Free	Monday to Friday from 1pm to 5pm and 6pm to 11pm (English) Saturday from 9am to 1pm and 2pm to 8pm Sunday from 10am to 1pm and 2pm to 5pm
Sweden	<b>0200884567</b> Free	Monday to Friday from 1pm to 5pm and 6pm to 11pm (English) Saturday from 9am to 1pm and 2pm to 8pm Sunday from 10am to 1pm and 2pm to 5pm
Finland	<b>0800 913060</b> Free	Monday to Friday from 2pm to 6pm and 7pm to Midnight (English) Saturday from 10am to 2pm and 3pm to 9pm Sunday from 11am to 2pm and 3pm to 6pm

## 8. WARRANTY

Worldwide, Guillemot Corporation S.A. ("Guillemot") warrants to the consumer that this Hercules product will be free from material defects and manufacturing flaws for a period of two (2) years from the original date of purchase. Should the product appear to be defective during the warranty period, immediately contact Technical Support, who will indicate the procedure to follow. If the defect is confirmed, the product must be returned to its place of purchase (or any other location indicated by Technical Support).

Within the context of this warranty, the consumer's defective product will, at Technical Support's option, be either repaired or replaced. Where authorized by applicable law, the full liability of Guillemot and its subsidiaries (including for indirect damages) is limited to the repair or replacement of the Hercules product. The consumer's legal rights with respect to legislation applicable to the sale of consumer goods are not affected by this warranty.

This warranty shall not apply: (1) if the product has been modified, opened, altered, or has suffered damage as a result of inappropriate or abusive use, negligence, an accident, normal wear, or any other cause not related to a material defect or manufacturing flaw; (2) in the event of failure to comply with the instructions provided by Technical Support; (3) to software not published by Guillemot, said software being subject to a specific warranty provided by its publisher.

## 9. FNVIRONMENTAL PROTECTION RECOMMENDATION

At the end of its working life, this product should not be disposed of with standard household waste, but rather dropped off at a collection point for the disposal of Waste Electrical and Electronic Equipment (WEEE) for recycling.

This is confirmed by the symbol found on the product, user manual or packaging.



Depending on their characteristics, the materials may be recycled. Through recycling and other forms of processing Waste Electrical and Electronic Equipment, you can make a significant contribution towards helping to protect the environment.

Please contact your local authorities for information on the collection point nearest you.

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## Declaration of conformity with EU directives

This device can be used in: AT, BE, CZ, DK, EE, FI, FR, DE, GR, HU, IE, IT, LU, NL, PL, PT, ES, SE, GB, IS, NO, CH, BG, RO, TR.

Hereby ,GUILLEMOT CORPORATION, Carentoir France, declares that this *Hercules Router 802.11G-54* is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. The Declaration of Conformity can be consulted at this website address:

ftp://ftp.hercules.com/wifi/DoC/RouterG/DoC-eng\_Hercules\_Router\_80211G54.pdf

CE 0470 ①

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#### EUROPEAN USERS:

This equipment has been tested and found to comply with Directive 1999/5/CE of the European Parliament and of the Council on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity. After assessment, the equipment has been found to comply with the following standards: EN 300.328 (radio), EN 301 489-1, EN 301 489-17 (electromagnetic compatibility) and EN 60950 (safety). This equipment may be used in all European Union countries and in all countries applying Directive 1999/5/CE, without restriction, with the exception of the following countries:

#### FRANCE:

When this equipment is used outdoors, output power is limited to within the frequency bands listed below. For more information, consult the ART website: www.art-telecom.fr.

Location	Frequency band (MHz)	Power (EIRP)
Indoor (no restrictions)	2400 – 2483.5	100mW (20dBm)
Outdoor	2400 – 2454	100mW (20dBm)
	2454 – 2483.5	10mW (10dBm)

Operation of this equipment in a residential environment may give rise to radio interference; if so, it is incumbent upon the user to rectify the situation.

### ITALY:

This device complies with the National Radio Interface and the requirements of the Frequency Allocation Table. Use of this wireless product outside of the boundaries of the owner's property requires a general authorization. For more information, consult the website www.comunicazioni.t.

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