

USER MANUAL

DHP-312

VERSION 1.0



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Package Contents

- D-Link DHP-312 Powerline HD Ethernet Adapter
- CAT5 Ethernet Cable
- Power Cord
- CD-ROM with Software and Manual
- Quick Install Guide



System Requirements

- Windows Vista® or XP (with Service Pack 3)
- PC with 233MHz Processor, 64MB Memory
- Ethernet Adapter (100MBit/s)

Introduction

D-Link announces a fast, 200Mbps* Powerline HD Ethernet Adapter which allows you to connect your home computers, networking devices and gaming devices through the most pervasive medium in your house - the electric powerlines - and share Internet connections, printers, transfer files, play games, and more. This adapter can be used to network multiple Ethernet-enabled devices with a 10/100Base-T adapter through powerlines.

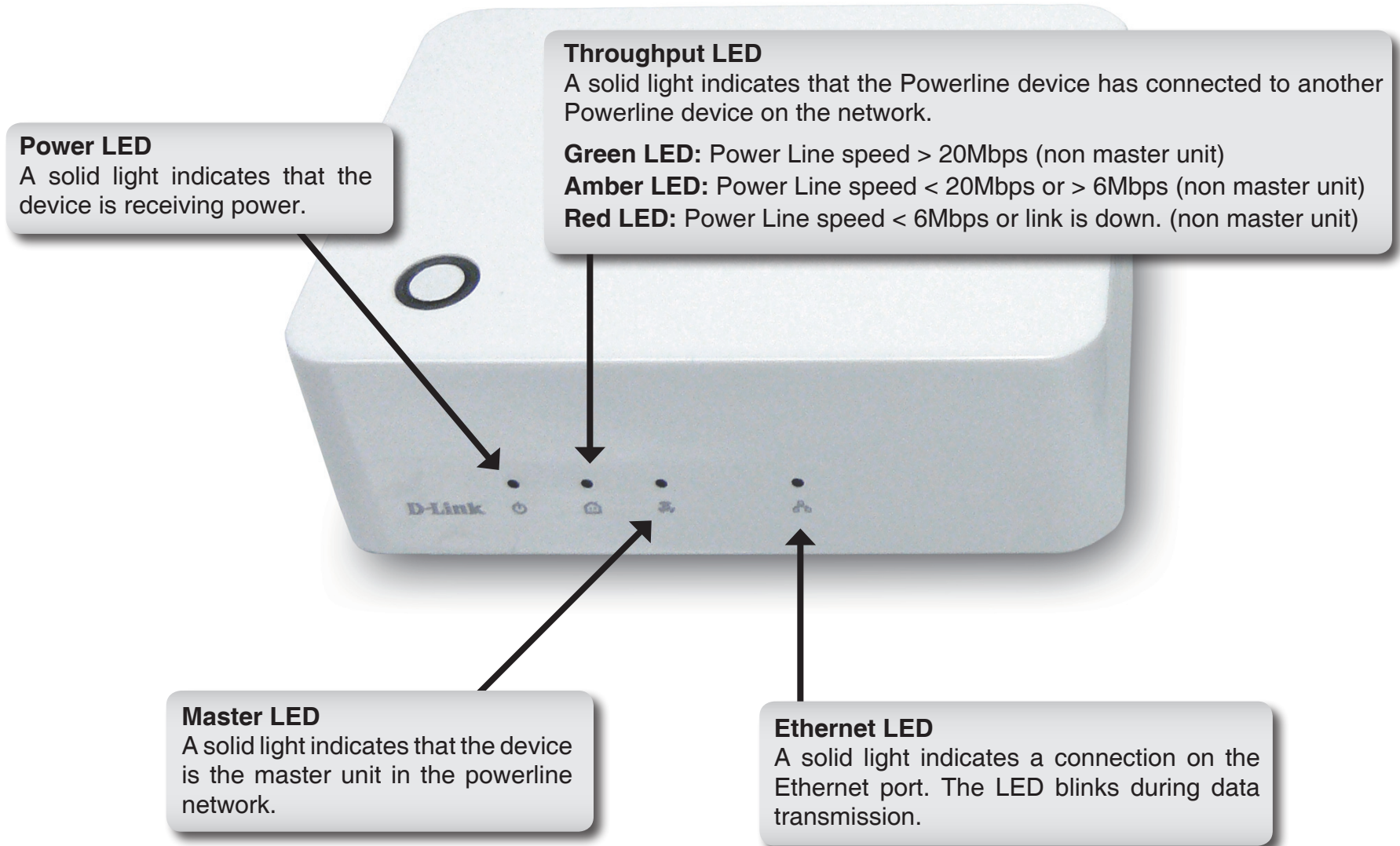
Features

- Provides Ethernet to Powerline Connection
- Fast Data Transfer Rate of Up to 200Mbps*
- One 10/100 Ethernet port
- Plug & Play, Easy Installation
- Easy to use Management Utility
- Configurable QoS for video streaming, VoIP and Gaming
- Firmware Upgrade Support
- Push button security
- Throughput LED
- Power Saving mode
- LLTD Support (Windows Vista®)
- Desktop design with external power cord to avoid outlet conflict

* Maximum throughput based on theoretical transmission PHY rate. Actual data throughput will vary. Network conditions and environmental factors, including volume of traffic and network overhead, may lower actual data throughput rate. Interference from devices that emit electrical noise, such as vacuum cleaners and hair dryers, may adversely affect the performance of this product. This product may interfere with devices such as lighting systems that have a dimmer switch, short wave radios, or other powerline devices that do not follow the Universal Powerline Association (UPA) standard.

Hardware Overview

LEDs



Hardware Overview

Connection

Push Button Security

Press to secure your network. Refer to page 8 for more information.



Ethernet Port

Connect CAT5 Ethernet cable to the DHP-312 Ethernet port.

Power Receptor

Connect the supplied power cord to the power receptor.

Hardware Installation

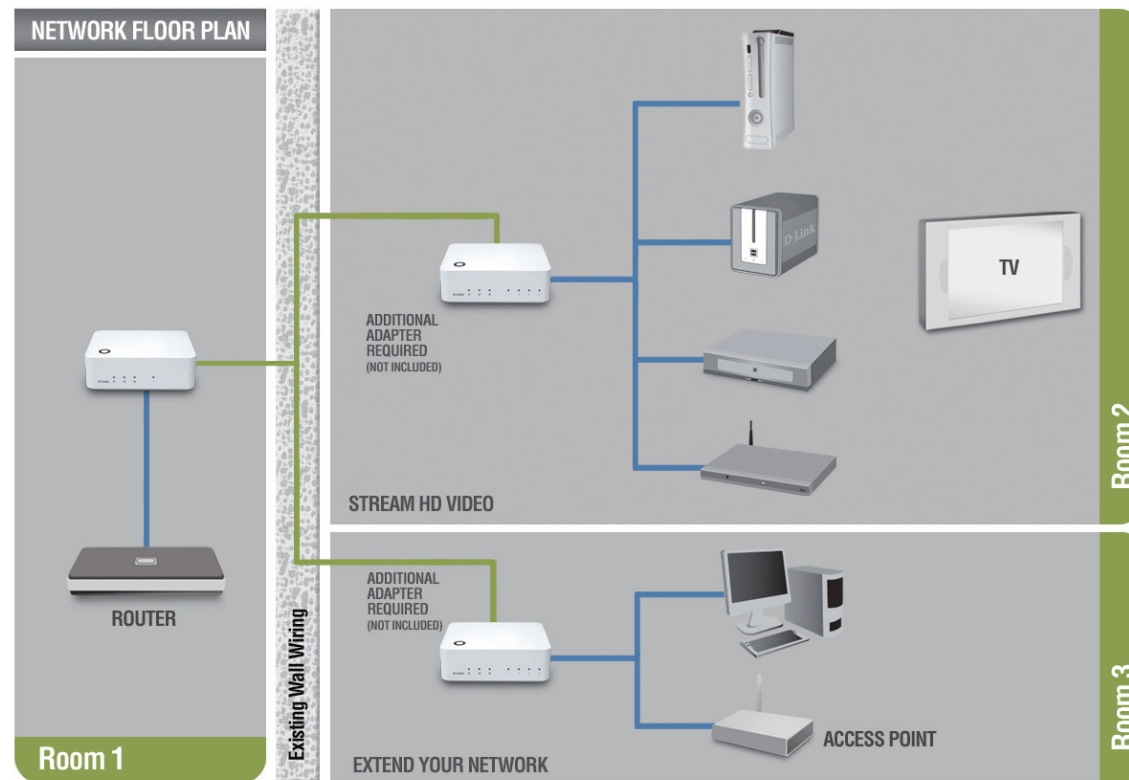
Power

Plug in the DHP-312 into an AC wall outlet or power strip.

Note: Power source is confirmed when the green LED Power Indicator on the DHP-312 is illuminated.

Connect the Ethernet Cable

Connect the included Ethernet cable to the network cable connector located on the DHP-312 and attach the other end of the Ethernet cable to the network or PC. Network Connectivity is confirmed when the Throughput and Ethernet LED Indicators on the DHP-312 are illuminated.



*A minimum of two D-Link PowerLine HD Network Adapters are required to create a network.

Push Button Security

1. All Adapters

Plug in all the adapters to be configured.

2. First Adapter

Select the first adapter to be configured as the master unit. Press and hold the button until the master LED starts flashing.

Note: It is recommended to choose a Powerline adapter directly connected to a router or a Media Center PC to be the master unit. There must be only one master unit in the network.

The adapters memorize their security settings even after power is removed from the units. The security settings of any adapter can be cleared by pressing the button until its Master LED is off. This will reset the unit back to the factory default settings.

3. First Adapter

Wait until the Master LED stops flashing (up to 30 seconds).

4. First Adapter

The Master LED remains on and is now ready to start registering new adapters.

5. First Adapter

Press the button until its Master LED starts flashing and continue to the new adapter.

6. New Adapter

Press and hold the button in the new adapter until the Master LED starts flashing.

7. New Adapter

The new adapter's Master LED will turn off indicating that it is securely configured and its throughput LED will indicate the link quality.

8. First Adapter

After registering the new adapter, the Master LED of the first adapter remains on and its throughput LED will indicate the link quality.

Note: When adding more adapters, repeat steps 5 to 8. At the end of this process, only one adapter should have the Master LED on.

Using the Setup Wizard

Follow the simple steps below to run the Setup Wizard to guide you quickly through the installation process.

Insert the **D-Link DHP-312** CD into your CD-ROM drive. If the CD Autorun function does not automatically start on your computer, click **Start > Run**.

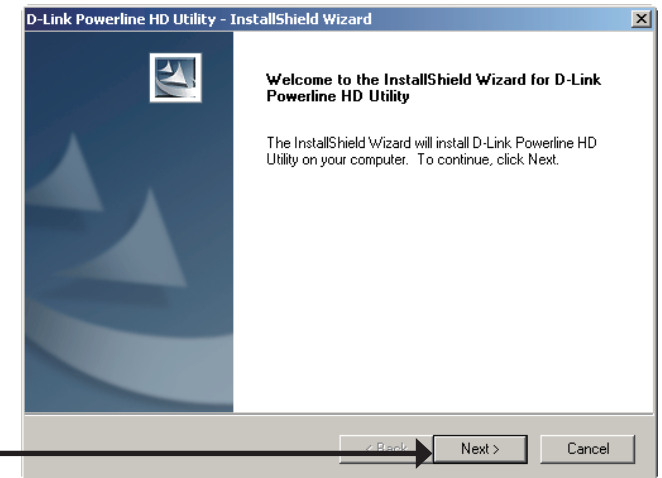
In the Run command box type "**D:\DHP312.exe**", where D: represents the drive letter of your CD-ROM. If it does start, proceed to the next screen.

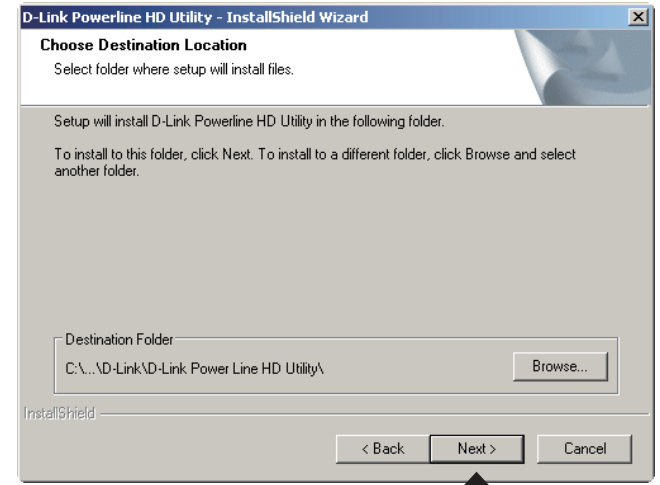
Click on **Install Utility**



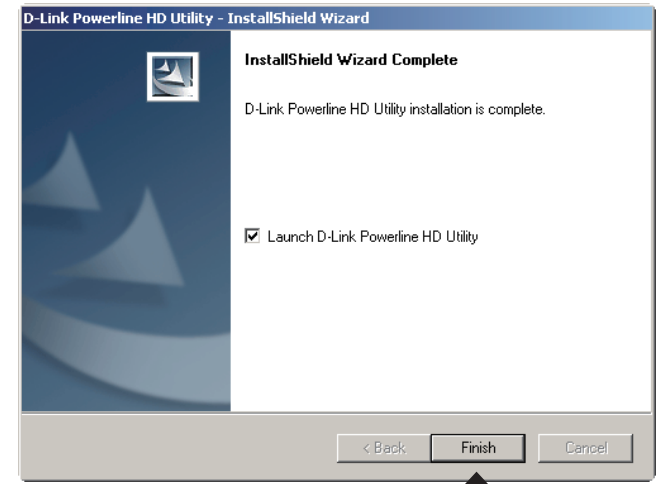
The InstallShield Wizard will begin the DHP-312 software installation.

Click **Next**





Click Next



Click Finish

Configuration

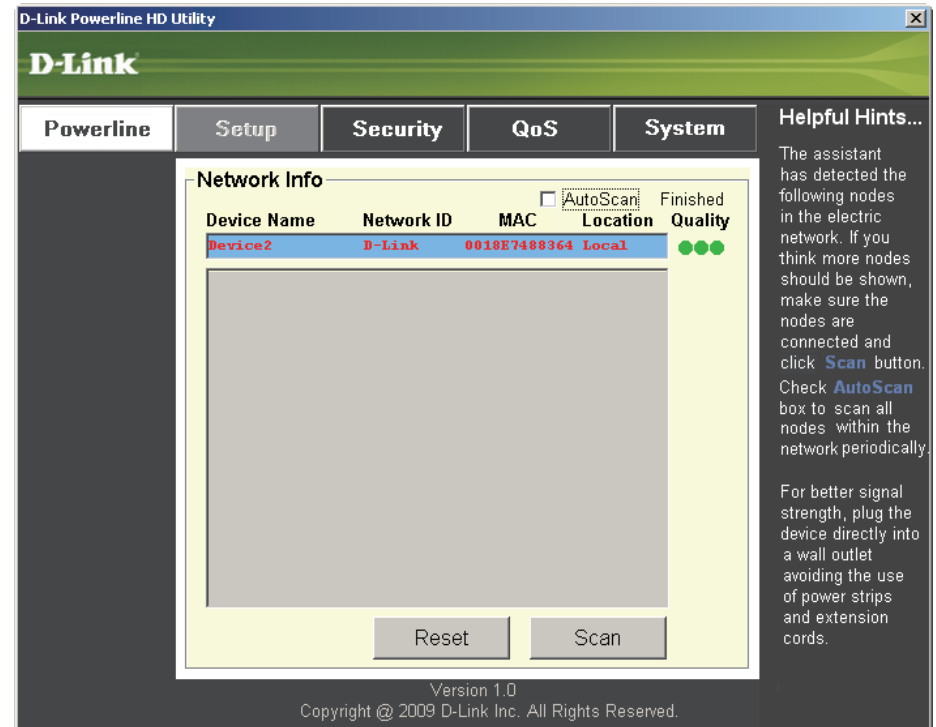
After you have completed the D-Link Powerline Utility installation wizard, double-click the *D-Link Powerline HD Utility* icon on your desktop to start the configuration of the DHP-312.

Double-click the **D-Link Powerline HD Utility** icon



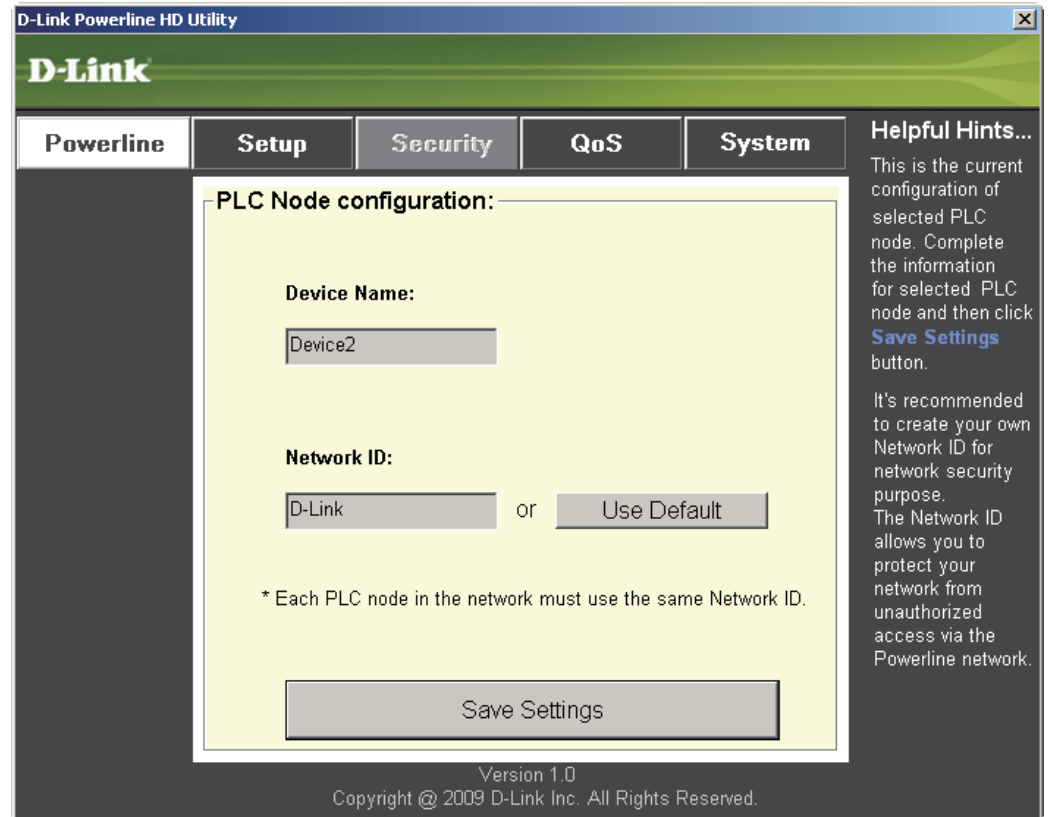
The utility provides you with the option of setting your own unique Network ID and the ability to prioritize traffic passing through the network. The color of text on the **Device Name**, **Network ID**, **MAC**, and **Location** columns represent the status of powerline network.

- **Green text** - Powerline network is encrypted with a non-default Network ID.
- **Red text** - Powerline network is encrypted with the default Network ID (D-Link).
- **Grey text** - Powerline network is not connected due to a different Network ID.

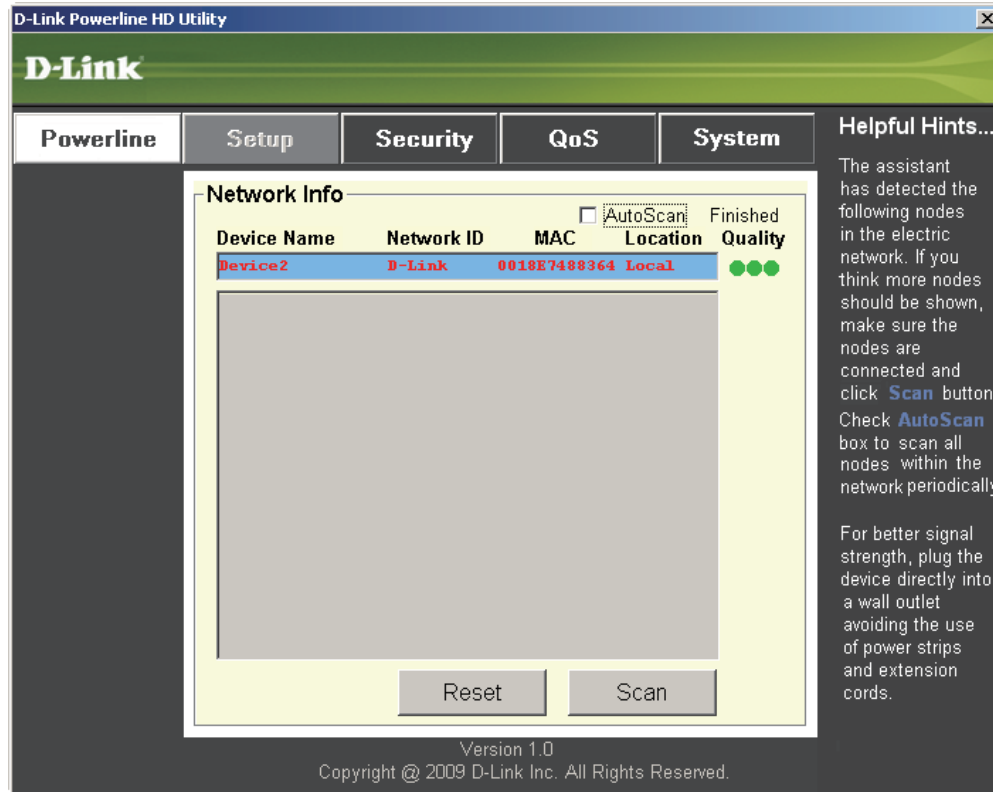


Red text on the **Device Name**, **Network ID**, **MAC** & **Location** columns mean that the powerline network is encrypted with the default Network ID (D-Link). Follow the steps below to encrypt the network with a non-default Network ID:

- Single-click on the nodes that you want to change.
- Once all the nodes you want to encrypt with a non-default Network ID are highlighted, click the **Security** page.
- Change to different Network ID.
- Press **Save Settings**.



Setup



This screen shows the current configuration of the DHP-312.

Device Name: Show name of devices that have been discovered. Default is Device 1, Device 2 etc (Max 16 characters, 0-9, A-Z, case sensitive) ie. Living room, Bedroom, etc.

Network ID: Powerline Network Name. The default ID is **D-Link** (Max 10 characters, 0-9, A-Z, case-sensitive).

MAC: MAC Address of detected node.

Location: Local or Remote nodes.

Quality: Network connection quality of the connected node.

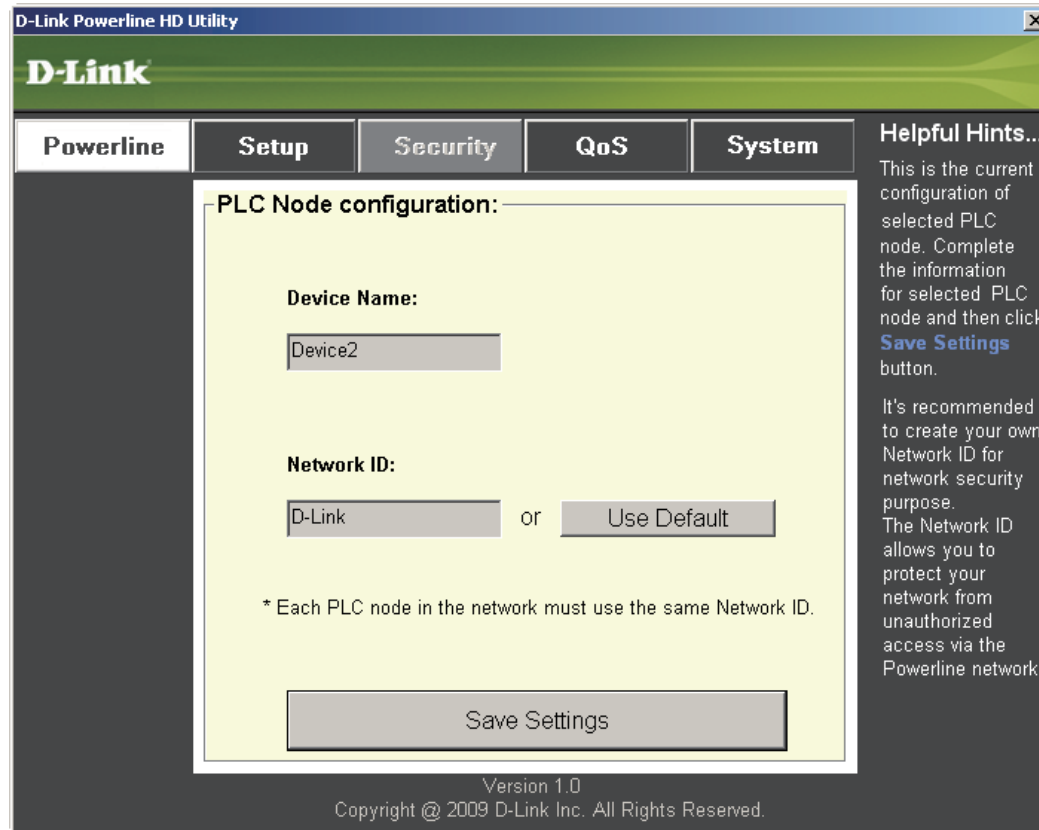
- Three circles - Best powerline connection. Suitable for HD video stream connection.
- Two circles - Better powerline connection. Suitable for SD video stream connection.
- One circle - Good powerline connection. Suitable for data and Internet activity connection.

Scan: Scan the powerline network for PLC nodes. Check the **AutoScan** box to scan the network periodically.

Note: *Network ID can be changed to prevent unauthorized access to your powerline network. Make sure the **Network ID** of the devices within your powerline network are the same to enable data transmission.*

Security

This section shows the security configuration of the DHP-312. You can modify any of the parameters and click **Save Setting** to save your configuration.

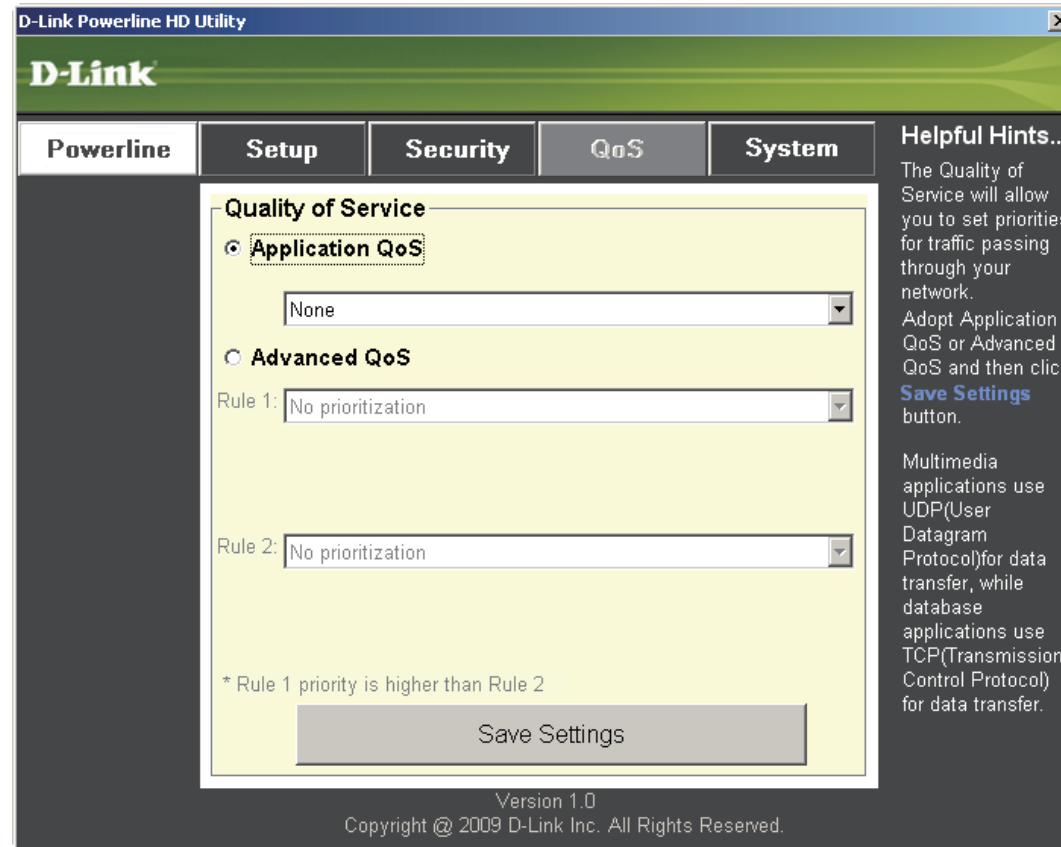


Device Name: Show name of devices that have been discovered. Default is Device 1, Device 2 etc (Max 16 characters, 0-9, A-Z, case sensitive) ie. Living room, Bedroom, etc.

Network ID: Powerline Network Name (Max 10 characters, 0-9, A-Z, case sensitive). Default is **D-Link**.

Use Default button: Select to reset the Network ID to the default value.

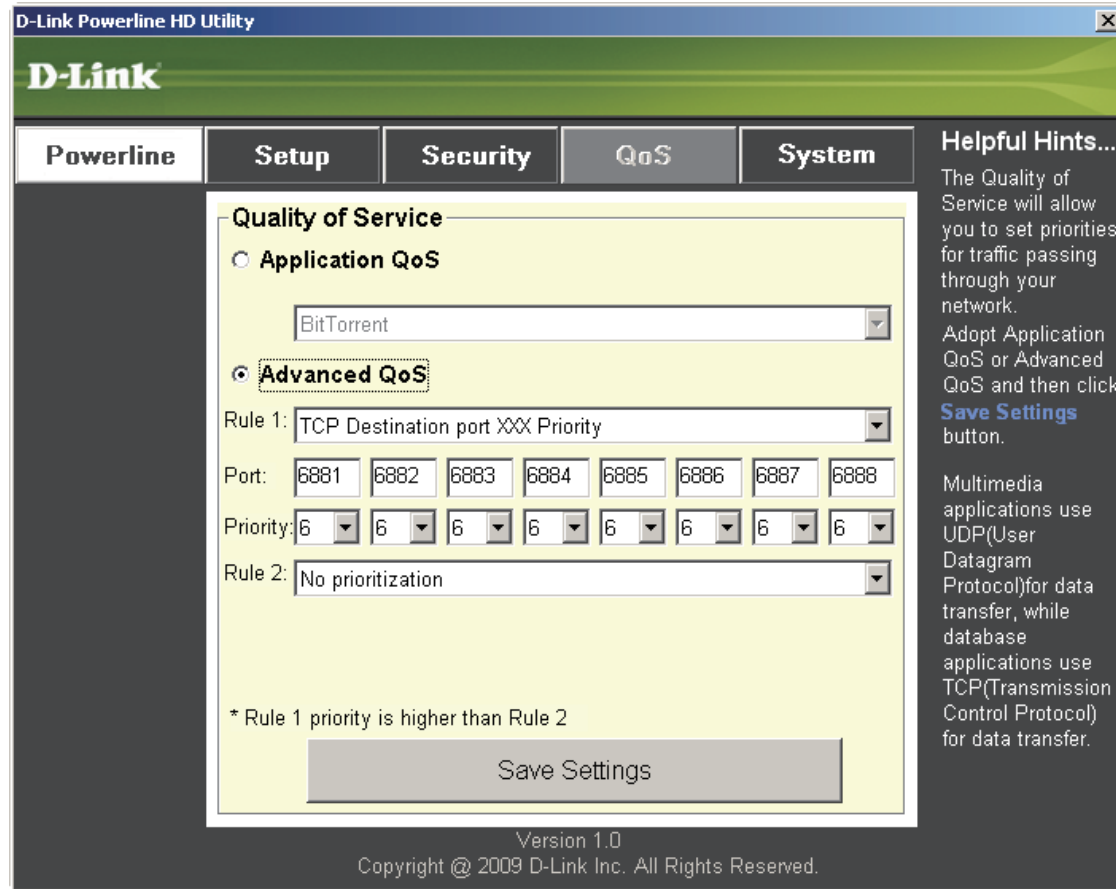
Application QoS



The Quality of Service (QoS) screen will allow you to set priorities for traffic passing through your network. By default all types of traffic are assigned the same priority. Multimedia applications use UDP (User Datagram Protocol) for data transfer, while database applications use TCP (Transmission Control Protocol) for data transfer.

Application QoS: Select an application from the drop-down menu of predefined QoS rules to apply QoS automatically. Click the **Save Settings** button to apply your settings.

Advanced QoS



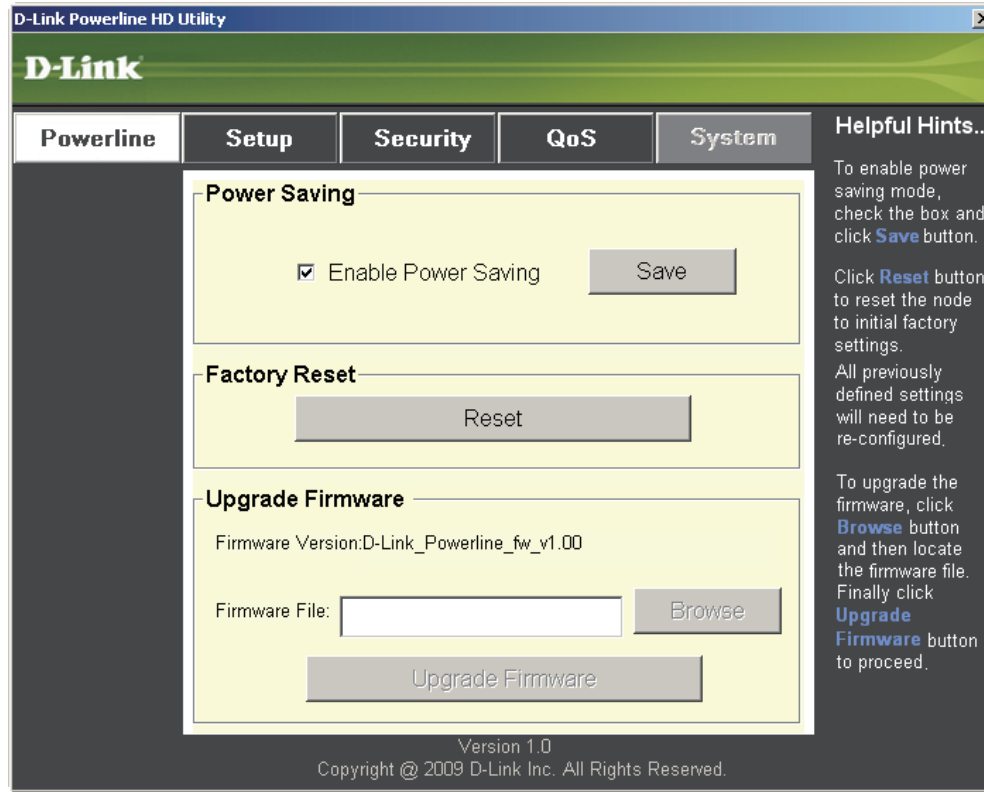
Rule: Select the traffic type (UDP or TCP) to have priority. 802.1p use prioritization bits in Layer-2 frames.

Port: Input the port number to have priority.

Priority: Input port priority from 1 to 6. The highest priority is 6, and the lowest is 1.

Note: Rule 1 has priority over Rule 2

System



With the power saving mode enabled and the ethernet link activity being down for 15 minutes, the DHP-312 will automatically go into stand-by mode. When the master unit is in stand-by mode, the throughput LED will blink red intermittently.

To reset your configuration password, please click **Reset** to restore the password to the factory default value.

Troubleshooting

- **DHP-312 Powerline HD utility does not start correctly:**

Reinstall the utility.

- **DHP-312 Powerline HD utility does not detect the PowerLine HD Ethernet Adapter:**

Please make sure your Powerline HD Ethernet Adapter is correctly plugged and connected to the computer or network device.

- **I can't configure any parameter of the PowerLine HD Ethernet Adapter, an error is shown when I try to configure it:**

Please make sure you have not unplugged the PowerLine HD Ethernet Adapter while configuring it.

- **I changed the connection cable to another Ethernet adapter and now the utility does not work correctly:**

Please restart the utility each time you disconnect the connection cable.

- **I'm having a lot of problems configuring my network:**

If you are having many problems configuring the network with two or more PowerLine HD Ethernet Adapter, please make a reset to all of the Ethernet adapters, reset the utility and start configuring the adapter again.

Technical Specifications

Network Port

- 10/100 Ethernet port

EMC

- FCC Part 15 Class B
- CE Class B
- C-Tick

AC Input

- 100 ~ 240VAC 50~60Hz

Safety

- UL 60950

Encryption

- 3DES

Operation Temperature

- 0°C ~ 40°C

Storage Temperature

- -10°C ~ 70°C

Humidity

- Operation: 10% ~ 90% RH
- Storage: 5% ~ 90% RH