

USER MANUAL

DNS-313

VERSION 2.0



D-Link[®]

STORAGE

Table of Contents

Product Overview	1	DHCP Server	40
Package Contents	1	Add Ons.....	41
System Requirements	1	Maintenance	42
Introduction	2	Administrator’s Password	43
Features.....	3	System	44
Hardware Overview	4	Firmware Upgrade.....	45
Front Panel	4	E-mail Alerts.....	46
Rear Panel (Connections).....	5	Power Management	47
Installation	6	Format	48
Hardware Setup	6	Scan Disk.....	48
Setup Utilities	9	Dynamic DNS	49
Click n’ Connect for New Hard Disk Install	10	Status	50
Easy Search Utility	16	Schedule Downloads	51
Mapping the Network Drive.....	22	BitTorrent.....	53
Configure the DNS-313	24	BitTorrent Settings.....	54
LAN Setup.....	25		
Device	26		
Time and Date.....	27		
Advanced Setup.....	28		
Users / Groups.....	29		
FTP Server Setup.....	30		
FTP Server Behind A Router	31		
Secure FTP Connections.....	32		
UPnP AV Server	38		
iTunes Server	39		

Product Overview

Package Contents

- D-Link DNS-313 Network Storage Enclosure
- CD-ROM with Manual and Software
- Quick Installation Guide
- Power Adapter (12V/ 3A)
- Power Cord
- USB Cable
- Cat5 Ethernet Cable



Note: Using a power supply with a different voltage than the one included with the DNS-313 will cause damage and void the warranty for this product.

If any of the above items are missing, please contact your reseller.

System Requirements

Note: The DNS-313 requires installation of a hard drive before it can be used. The hard disk must be a 3.5" SATA Hard Drive of any capacity.

For best results, the following minimum requirements are recommended on any system used to configure and use the DNS-313:

- Computer with: 1Ghz processor / 512 MB RAM / 200 MB available space / CD-ROM drive
- Internet Explorer version 6.0 or Mozilla Firefox 1.0 and above
- Windows® XP (with Service Pack 2) or Vista™
- 3.5" SATA Hard Drive

Introduction

The D-Link DNS-313 1-Bay Network Storage Enclosure enables you to share your documents, photos, music and videos across the network and on the Internet (via FTP server) so that family members, friends or employees can access them at anytime. This enclosure, which can hold one 3.5" SATA hard drive of any capacity, creates a central network point for backing up valuable files.

The DNS-313 shares files over the Internet via the built-in FTP server. Users and groups can be created and assigned to folders with either read or read/write permissions. In addition, the DNS-313 can be used to stream photos, music, and videos to UPnP AV compatible network media players.

The included CD contains D-Link's Easy Search Utility. After the initial installation and hard drive formatting is completed, this utility allows you to locate the DNS-313 on the network and map drives to your computer. Backup software is also included on the CD. This software allows you to backup your files from a computer to the DNS-313 manually, by a schedule, or in real-time. Real-time backups are a great way to safeguard against unfortunate accidents that may result in the loss of important files.

Combining ease of use with practical, high performance features, the DNS-313 is an organized solution for any network. Free up disk space on computers and centralize data on your network with the DNS-313 1-Bay Network Storage Enclosure.

Note: Please insert an Ethernet cable from your router to the DNS-313 and run the installation wizard included in the CD whenever you install a new Hard Drive to the DNS-313. When first powered on, during the initial boot sequence, the DNS-313 will wait to be assigned an IP address via DHCP. If it does not receive a DHCP assigned IP address, by default it will have a self-assigned IP address of 192.168.0.32.

Features

The DNS-313 network storage enclosure is an easy to install data storage platform used for remote access through a private network or from the Internet. Install a SATA hard drive of any size to employ the full benefits of the DNS-313 including the product features listed here:

- One hard drive bay for 3.5" SATA hard drive up to 1500GB capacity
- Simplified hard drive installation process – no tools required
- High performance gigabit Ethernet connectivity
- Built-in FTP server for file access from over the Internet
- Supports secure FTP over SSL and TLS (use with Mozilla Firefox FireFTP feature and similar software)
- Scheduled downloads from Web or FTP sites
- Full or incremental backups
- Real time backups with the included backup software
- Supports BitTorrent Download
- Users and groups can be assigned to folders with read or read/write permissions with automatic e-mail notifications
- Power management for conserving energy and extending hard drive life
- UPnP AV server for streaming music, photos, and video to compatible media players
- iTunes® software will be able to automatically find and play music directly from the device
- USB 2.0 port included for use as portable hard disk
- D-link easy search utility
- D-link Click'n Connect utility
- Web browser configuration
- Supports secure login using HTTPS

1. Hard Drive not included. Supports up to 1500GB SATA Hard drive as at time of print.

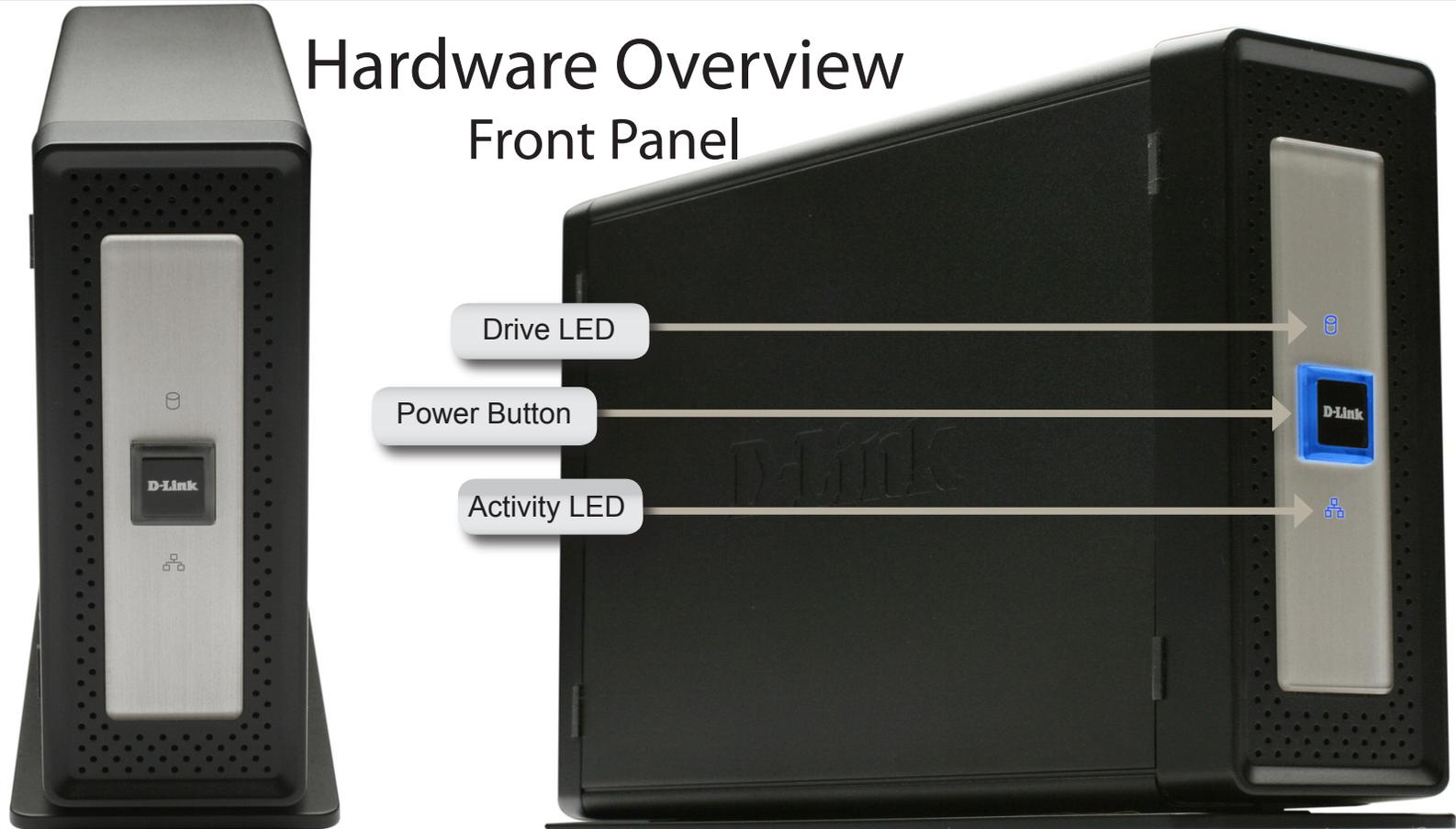
2. Note that use of an FTP Server to access files over the Internet does not provide for secure or encrypted transmissions.

3. D-Link cannot guarantee full compatibility or proper playback with all codecs. Playback capability depends on the codec support of the UPnP™ AV media player.

4. When using the DNS-313 as a USB 2.0 port portable drive, the Network Storage functionality will be disabled. To re-enable Network Storage functionality, please power off the DNS-313 and unplug USB cable. Then, plug in the Ethernet Cable and power back on the DNS-313.

Hardware Overview

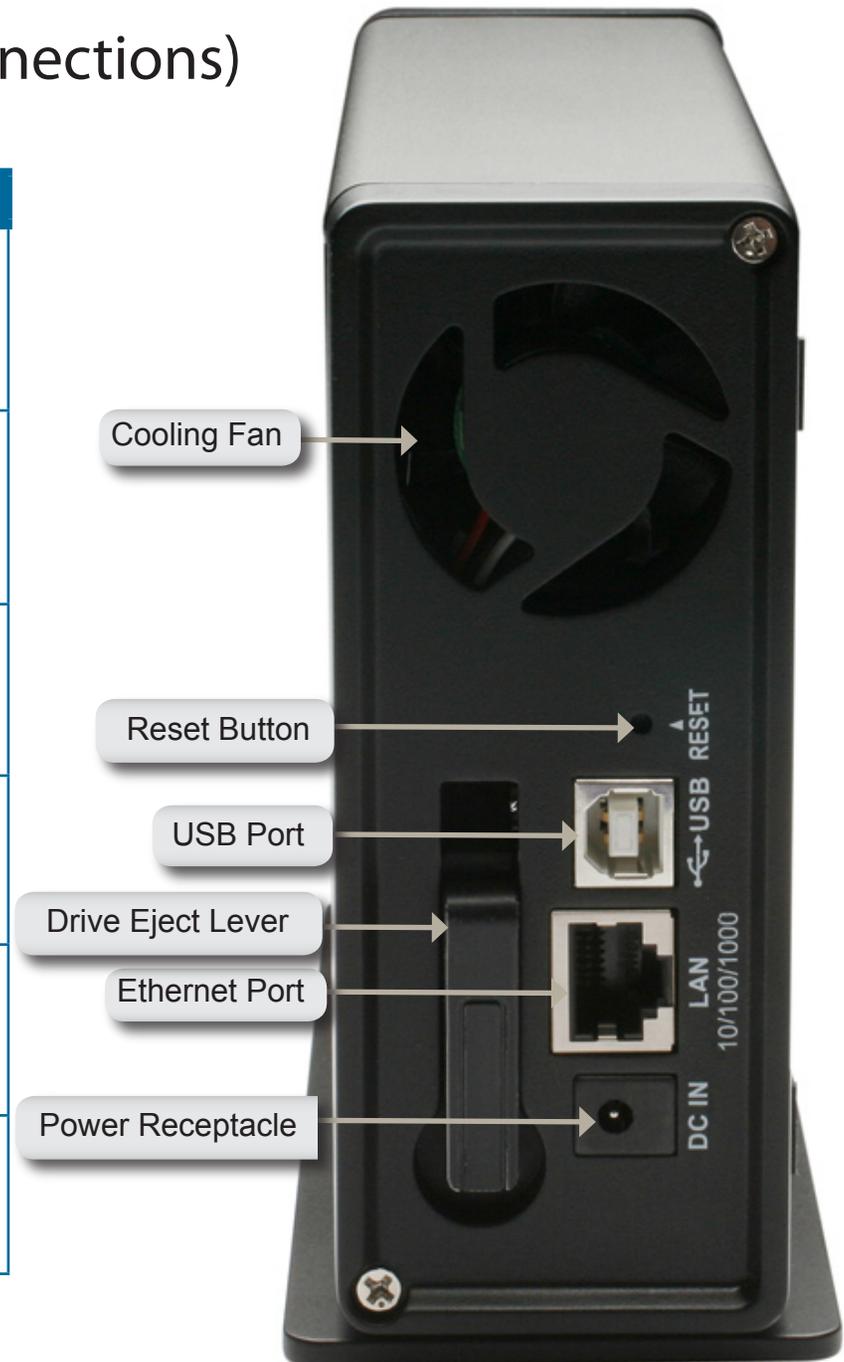
Front Panel



COMPONENT	DESCRIPTION
Drive LED	The LED will be solid BLUE when drive is connected but inactive. The LED will blink when the drive is being accessed, formatted or synchronized. The LED will be solid GREEN when the remaining capacity of the drive is less than 5%. It will illuminate RED if the drive has failed.
Power Button	Push in to power-on the DNS-313. The edges of the button will be illuminated with BLUE back lighting when the device is powered on. Press again to turn off. There is a few seconds delay during both power on and power off.
Activity LED	The Activity LED will be solid BLUE when there is an Ethernet connection. It will blink to indicate LAN traffic.

Rear Panel (Connections)

COMPONENT	DESCRIPTION
System Fan	The system fan is used to cool the hard drive when triggered on by the thermal sensor. It remains idle if not needed. Do not block this opening.
Reset Button	Use this to reset the DNS-313 to factory default settings. To reset, insert a ballpoint pen and hold the recessed button down for a few seconds.
USB Port	USB port for connecting to a desktop or notebook as a USB 2.0 portable drive.
Ethernet Port	A Gigabit Ethernet port that connects the DNS-313 to the local network.
Drive Eject Lever	Use the provided lever to eject the hard drive. The front panel must be removed before ejecting the drive.
Power Insert	The 12V/ 3A power supply connects here.



Installation

Hardware Setup

Follow the instructions below to install a hard drive, connect to the network and power on the DNS-313. Open the shipping carton for the DNS-313 and carefully remove and unwrap its contents. Follow the instructions below to setup the DNS-313. If this is the first time using the DNS-313 or if a new hard disk is installed, use the Easy Search utility located on the Installation CD and follow the instructions for setting up, configuring and formatting the new drive.

To install DNS-313 on your local network, refer to the steps below:

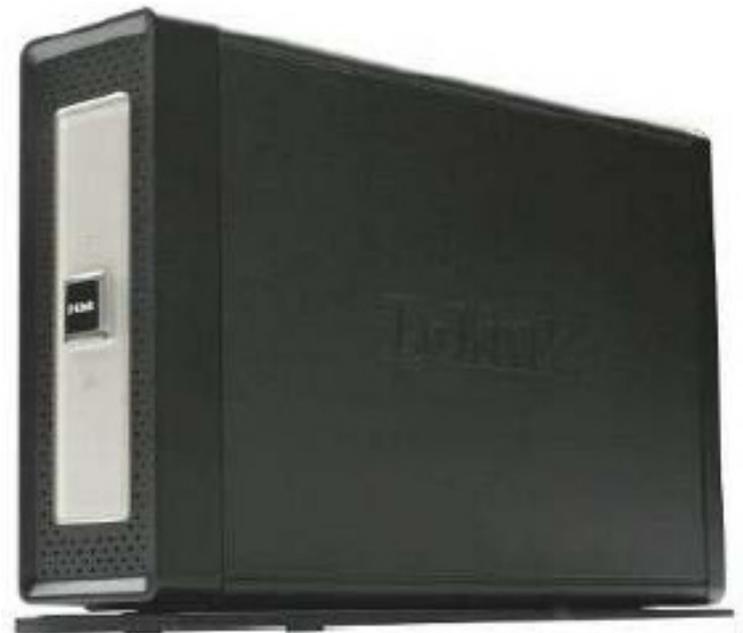
1. Access the drive bays by sliding the faceplate up until it unlatches from the device.
2. Once the faceplate is unlatched, pull it off the device, exposing the drive bay.



3. Insert a 3.5" SATA hard drive into an available drive bay. Make sure to align the drive connector to the SATA connector on the bottom edge inside the drive bay of the DNS-313. Gently push the drive in until it connects.



4. Attach the faceplate to the front of the device.



5. Connect an Ethernet cable to the available Ethernet port. This cable should connect the DNS-313 to your local network via a router or switch, or directly to a computer for configuration.



6. Connect the supplied power adapter to the power receptacle.

Note: When a hard disk is installed, the hard disk must first be formatted in the DNS-313 before it can be used. Insert the Installation CD into your computer's CD-ROM or DVD-ROM drive and follow the instructions below to use the Easy Search Utility to establish a network link to the DNS-313. Then use the web-based management software to format the new hard disk. **All installed hard disks must first be formatted in the DNS-313 before use.**



Setup Utilities

The Setup Utility on the Installation CD is used for first time setup of the DNS-313 or, after the hard disk has been formatted, use the Setup Utilities to establish a configure IP settings and map the drive to your Windows computer.

To use the Click n' Connect utility for initial setup, insert the Installation CD into your computer's CD-ROM drive and follow the instructions in the next section. After inserting the CD, the menu below should appear on the desktop after a few seconds. In addition to Click n' Connection Quick Installation, use this menu to launch the Easy Search Utility or any of the options listed in the bullet list in the right side panel.

The Click n' Connect utility will walk you through the complete installation including inserting a SATA hard drive, formatting the disk and mapping the drive to your computer. The Easy Search Utility can be used to establish IP settings, and later to map the network drive to your computer. The Easy Search Utility cannot be used with an unformatted hard drive, so use Click n' Connect for initial setup, then use Easy Search on any computer that will be using the network storage drive.

Click n' Connect for New Hard Disk Install

To use the D-Link **Click n' Connect** utility, choose the preferred language, then click on the **Quick Installation - Start** button in the menu. The button appears green when the cursor is placed cursor over it.

The Click n' Connect options for installation appear in a new menu. Choose the option that suits your purpose.

If this is a newly installed hard you are setting up, choose the **New Hard Drive Install** option and click on the **Next** button.

If you are modifying settings on a drive that has been previously configured, choose the **Modify existing DNS-313 settings** option and click on the **Next** button.

If you are attempting to complete an incomplete installation or need to re-install the DNS-313, choose the **Repair** option.



For new hard drive installs, the Click n' Connect menu illustrates how to install the SATA hard disk, if you have not yet done so, install the drive as shown. If you have already installed the hard disk, connected and powered on the device, ignore the hardware setup menus. Click on the **Next** button to proceed.



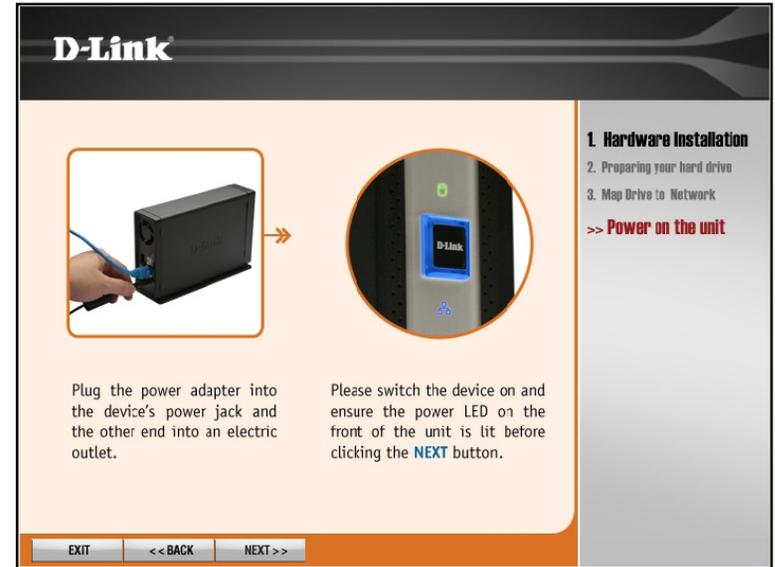
Connect the DNS-313 to the Ethernet port on your computer or router and click on the **Next** button to proceed to the last hardware setup illustration.



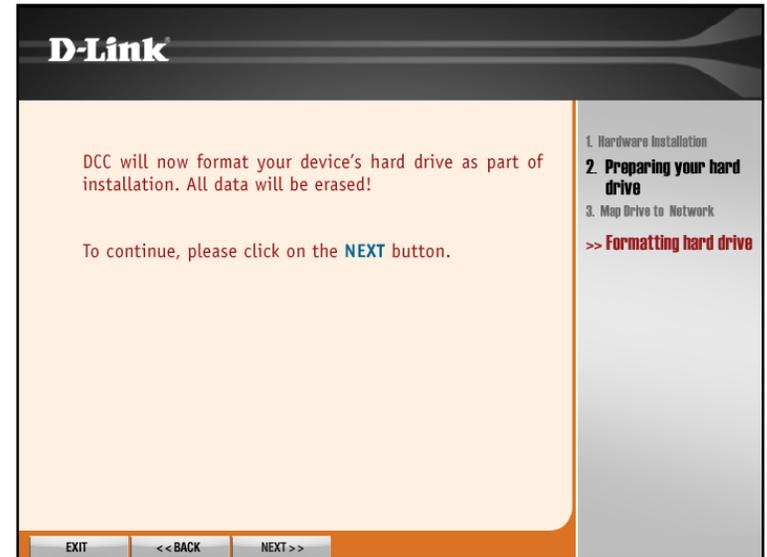
Connect the power and turn the DNS-313 on as shown. Click on the **Next** button to begin searching for the drive.

It might take a few seconds to detect the DNS-313 depending on network conditions.

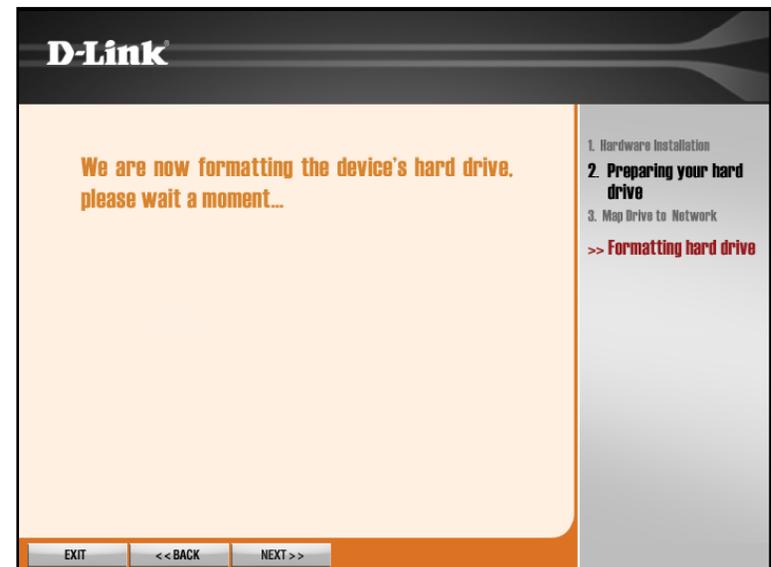
After the unformatted DNS-313 installation has been detected, a new menu appears.



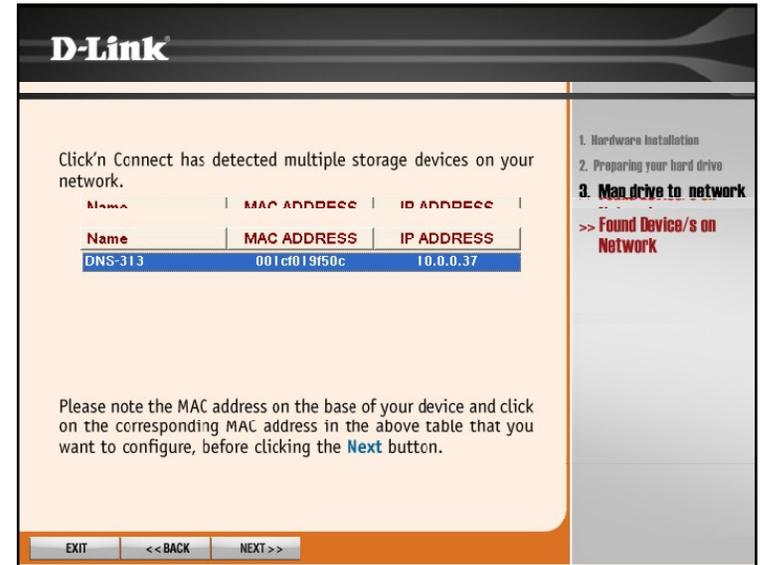
The hard disk is now ready to be formatted. To format the hard drive, click on the **Next** button. Remember that any data on the disk will be erased during the formatting.



Formatting might take several minutes if the drive is very large.



Choose the newly installed network drive from the list and click on the **Next** button. If there are other D-Link DNS Network Storage devices connected to the network, they will also appear in the list.



Note: If the DNS-313 has an IP address that does not allow your computer to connect to it, it will be necessary to change the IP address of the device. The drive must be in the same IP subnet as your computer to manage and use it. If you are using a DHCP server to supply IP settings on your network, this should not be a problem



The DNS-313 is now ready to be mapped to your computer where it will appear as a network storage device. Choose a Drive Letter from the pull-down list and type a **Name** for the drive that will appear listed in **My Computer** with other storage devices.

D-Link

Please choose a drive letter that will correspond to your network storage device.

Drive Letter: Available Drive Letters

Optionally, you can name your network storage device for easy identification before clicking **NEXT** to continue.

Device Name:

EXIT << BACK NEXT >>

1. Hardware Installation
2. Preparing your hard drive
3. Map drive to network
>> Map Device on Network

Finally a summary appears of the basic drive information to confirm that the setup is completed. Click **Exit** to close the menu or click **Advanced Options** to launch your web browser and connect to the web configuration manager to make other settings changes.

D-Link

You have successfully completed the installation of your DNS-313! You can now access this device from Windows via your network.

Name:	dlink-19f50c
MAC Address:	001cf019f50c
IP Address:	10.41.44.100
DRIVE LETTER:	Z:

Click on **EXIT** to exit the setup now or click on **Advanced Options** if you wish to access the device's advanced features (optional).

EXIT Advanced Options

1. Hardware Installation
2. Preparing your hard drive
3. Map drive to network
>> Setup Complete

Easy Search Utility

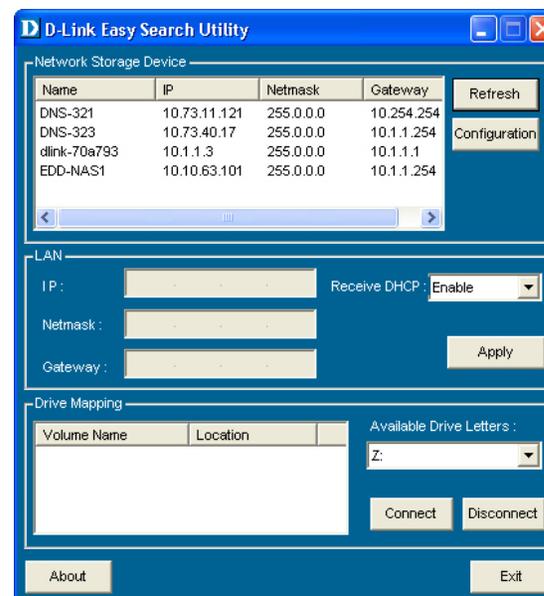
If the hard disk has not yet been formatted, follow the instructions below to change the device IP settings or to map the drive to your Windows computer using the Easy Search Utility. Then use the Easy Search Utility to map the drive to your computer.

Click the **Easy Search Utility** link. A new menu appears.



The DNS-313 will appear listed under **Network Storage Devices**. If none are listed, click the **Refresh** button. If a DHCP server is active on your network, the DNS-313 will receive an IP address by DHCP. If no DHCP server is present, the IP address 192.168.0.32 is used.

Note: When first powered on, during the initial boot sequence, the DNS-313 will wait to be assigned an IP address via DHCP. If it does not receive a DHCP assigned IP address, by default it will have a self-assigned IP address of 192.168.0.32.



Select the listed DNS-313 and click the **Configuration** button. This will launch the computer's default web browser and direct it to the IP address listed for the device. Make sure the browser is not configured to use a proxy server.

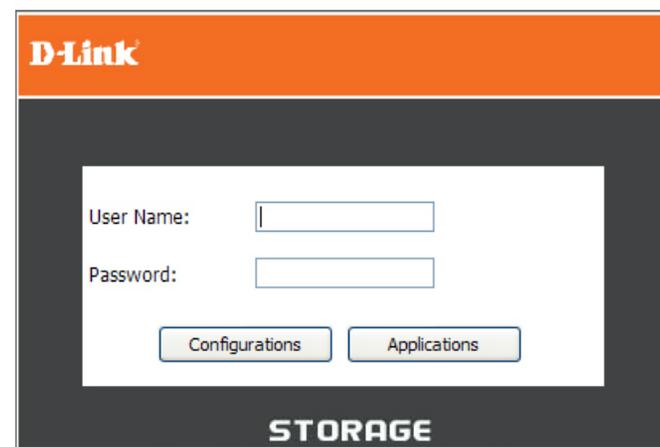
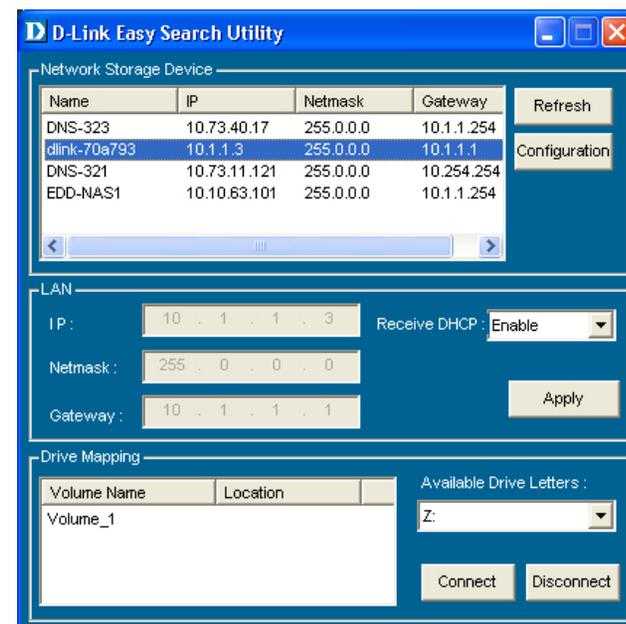
The first window that appears requires the user to login for **Configuration** menus or **Applications** menus. The Configuration menus are used for management and maintenance of the DNS-313. The Applications menus include BitTorrent downloading and Scheduled Downloading.

The login menu appears in the web page. Type the default **User Name** "admin" and click the **Configuration** button.

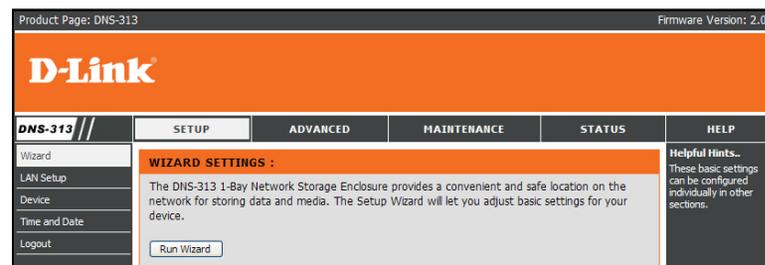
Note: The DNS-313 supports secure connection using HTTPS. To login using HTTPS, simply use HTTPS in the browser address bar and login with the User Name and Password for either Configurations or Applications menus.

If the web browser is unable to connect to the web manager of the DNS-313, check to make sure your computer is on the same subnet as the DNS-313. For example, if there is no DHCP server active, your computer will need an IP address in the 192.168.0.0 subnet. Your computer should have an IP address of 192.168.0.x where x equals a number from 1 to 31, or 33 to 254.

Note: The computer used to access the DNS-313 web-based configuration manager must be on the same subnet as the DNS-313. If your network is using a DHCP server and the computer receives IP settings from DHCP, the DNS-313 will automatically be in the same subnet.



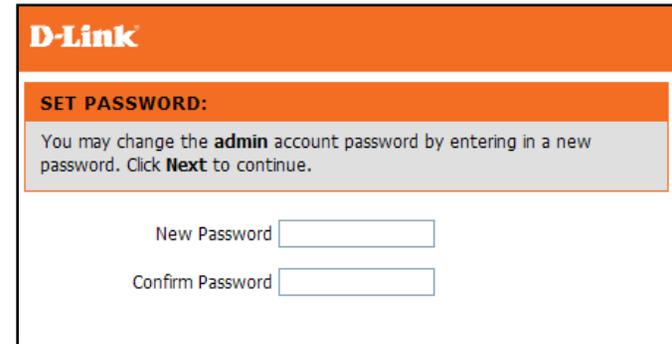
The first page of the web manager to appear is the Setup Wizard launch menu located in the Setup directory. If you would like to change basic settings including IP address, administrator password, device name or system time you can use the Wizard now. To launch the Wizard, click on the **Run Wizard** button and follow the instructions.



The first Wizard pop-up menu lists a summary of the setup steps. Click **Next** to proceed.

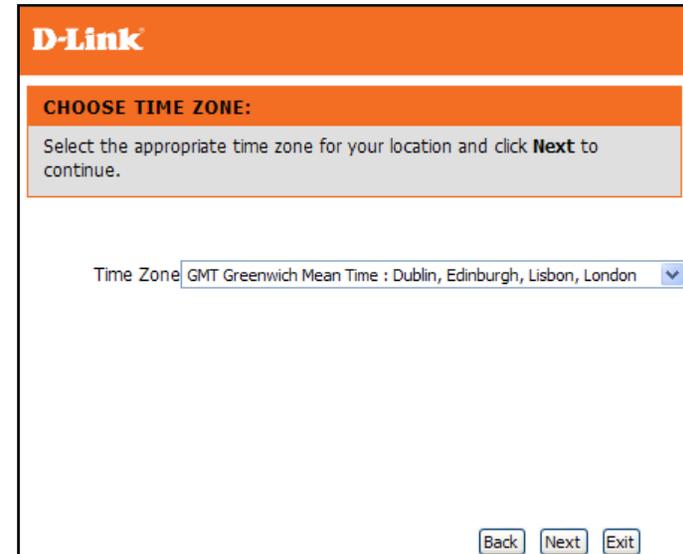


Create a password used to access the web manager. Type a **New Password** in the space provided and type again in Confirm Password. Click **Next** to continue.



The screenshot shows the D-Link web manager interface for setting a password. At the top is the D-Link logo. Below it is a section titled "SET PASSWORD:" with a grey background containing the instruction: "You may change the **admin** account password by entering in a new password. Click **Next** to continue." Below this are two text input fields: "New Password" and "Confirm Password".

Choose the **Time Zone** used for your network from the pull-down menu. Click **Next** to continue.



The screenshot shows the D-Link web manager interface for choosing a time zone. At the top is the D-Link logo. Below it is a section titled "CHOOSE TIME ZONE:" with a grey background containing the instruction: "Select the appropriate time zone for your location and click **Next** to continue." Below this is a pull-down menu labeled "Time Zone" with the selected option "GMT Greenwich Mean Time : Dublin, Edinburgh, Lisbon, London" and a downward arrow. At the bottom right are three buttons: "Back", "Next", and "Exit".

Configure IP settings for the device. If you are using DHCP for IP settings, the DNS-313 will have IP settings. The default setting DHCP Client requires a DHCP server for IP settings. If you prefer to assign a Static IP address, select the option and type the IP settings for the device. The DNS-313 supports LLTD for creating a graphical network map such as used in Windows Vista. To enable **LLTD**, click the **Enable** option to select it. Click **Next** to continue.

Use the last Wizard input menu to provide a **Workgroup** name, a device **Name** and **Description**. Click **Next** to continue to continue to the last Wizard menu.

If you are satisfied that the information provided in the Setup Wizard configuration is acceptable, click the **Finish** button to apply the new configuration settings. To change a setting click the **Back** button to go to previously displayed menus.

If the hard disk has not yet been formatted, use the web manager to format the hard disk. If the disk has been previously formatted in the DNS-313, the drive is now ready to be mapped to your computer. See below for instructions.

If you are satisfied that the information provided in the Setup Wizard configuration is acceptable, click the **Finish** button to apply the new configuration settings. To change a setting click the **Back** button to go to previously displayed menus.

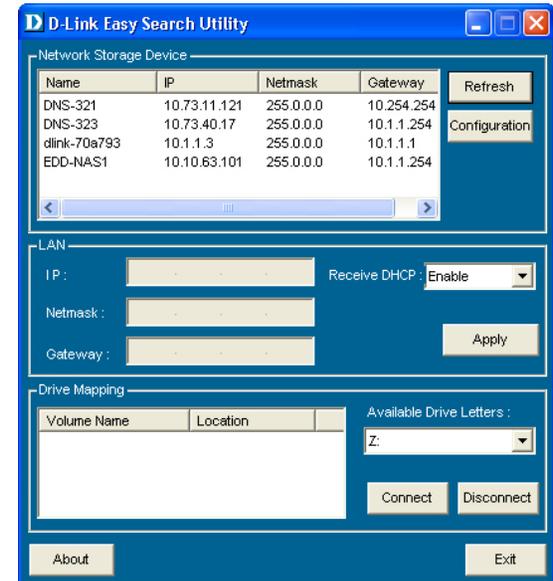
If the hard disk has not yet been formatted, use the web manager to format the hard disk. If the disk has been previously formatted in the DNS-313, the drive is now ready to be mapped to your computer. See below for instructions.



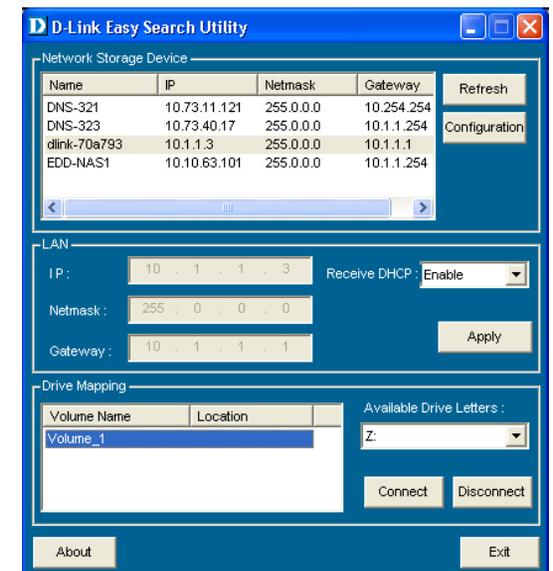
Mapping the Network Drive

The Easy Search Utility located on the Installation CD is used to map the DNS-313 to your Windows computer where it appears as a Network Storage Drive. Follow these steps to map the drive to your computer.

Launch the Easy Search Utility from the Installation CD. You will see the DNS-313 in the Network Storage Device list. If there are more than one D-Link Network Storage devices on your network, they will also be listed.



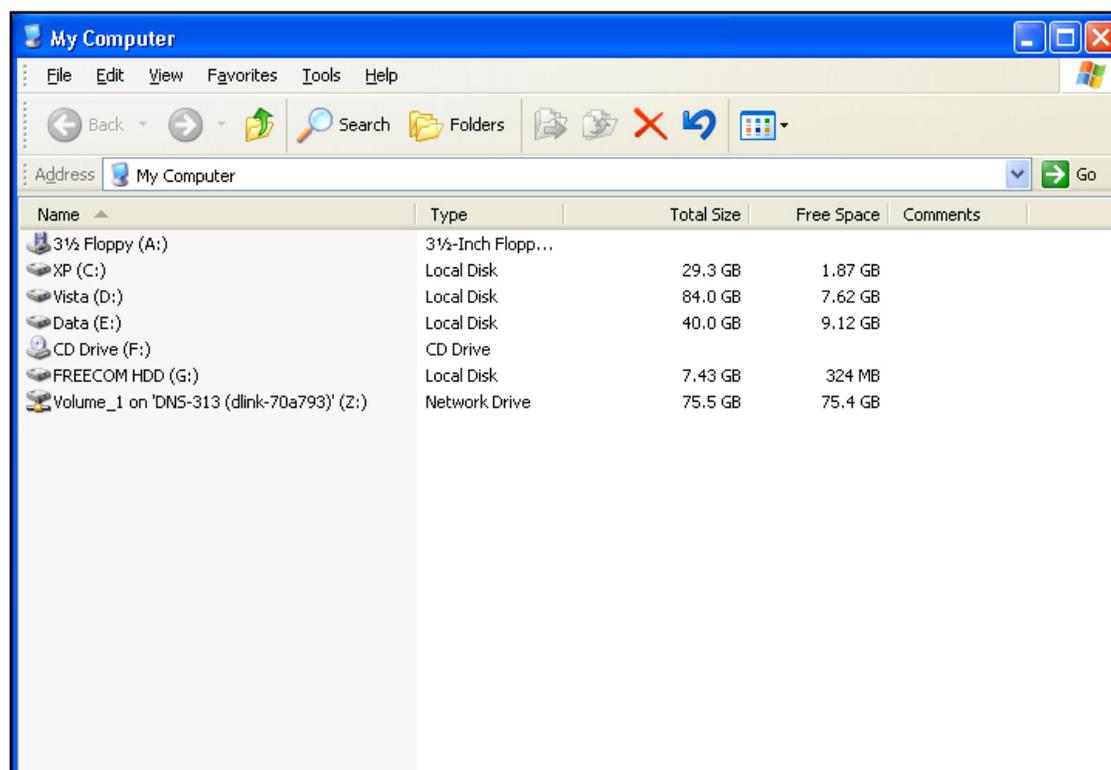
Select the DNS-313 you want to map to your system from the list. Any volumes located on the drive appear below in the Drive Mapping list. If this is the first time mapping the drive, the volume name **Volume_1** should appear listed.



Select the Volume to be mapped from the list and choose a drive letter to assign to it from the **Available Drive Letters** pull-down menu.

A confirmation dialog box will inform you if the drive has been successfully mapped. You can now view it using Windows Explorer. Click on the **My Computer** icon on the desktop to view the newly mapped network drive.

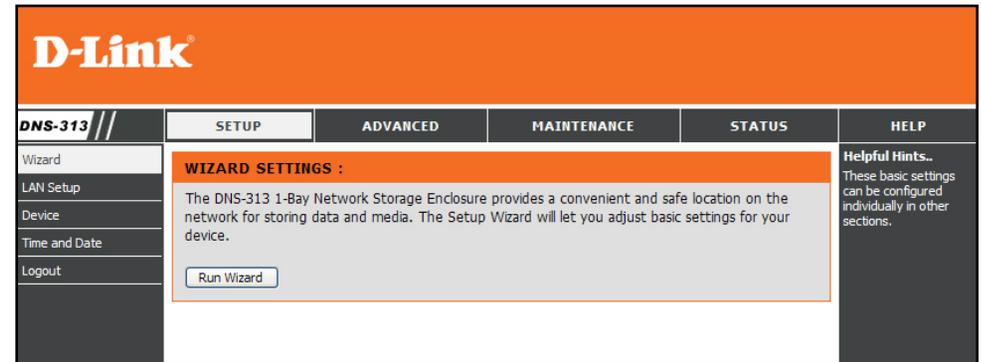
Note: To avoid possible conflicts with detachable storage devices such as USB flash memory sticks or external hard drives, that may have previously been configured on your Windows system, the Available Drive Letters menu begins with “Z” as the default. The pull-down menu lists drive letter options in reverse alphabetical order (Z to A). If you add more DNS-313s the next default will be “Y” then “X” and so on.



Configure the DNS-313

When you successfully connect to the web manager, the Setup Wizard launch page is displayed. To use the Wizard click the **Run Wizard** button and follow the instructions in the pop-up menus. The Wizard setup procedure is described in the preceding Setup Utility section.

The **Setup** menu directory contains menu links to basic configuration menus including **LAN Setup** for IP settings, the **Device** menu used for naming the drive, and the **Time and Date** menu for changing the system time and configuring NTP. These menus and the menus found in the **Advanced**, **Maintenance** and **Status** menu directories are described in this section.



LAN Setup

The LAN Settings menu is used to configure IP settings and DHCP client status of the network storage device. The default IP settings for the DNS-313 are initially as a DHCP Client. However, if no DHCP server is detected, the device will default to a Static IP address (192.168.0.32). When the DNS-313 is in DHCP Client mode, no further IP settings configuration is necessary. If the device requires use of DNS service, DNS server IP addresses can be entered in the **DNS1** and **DNS2** entry fields.

If a Static IP address is preferable, change the IP address and subnet mask to suit your network.

The LAN Settings menu is also used enable or disable the **LLTD** (Link Layer Topology Discovery) responder setting. This is used to provide information to network topology display monitors such as included with Windows Vista. Click on the **Save Settings** button to apply and save the new settings. If you are change the IP address or DHCP client status of the device, it will be necessary to log in again using the new IP address. If you do not know the new address (as would likely be the case when changing from a static IP address to DHCP client) use the Easy Search Utility on the Installation CD to learn the IP address of the device.

LAN SETTINGS :
Select your connection type and fill out the IP information if necessary.

LAN SETTINGS :

DHCP Client
 Static IP

IP Address :

Subnet Mask :

Gateway IP Address :

DNS1 :

DNS2 :

MTU : (bytes;90 to 1500,Default:1500)

LLTD SETTINGS :

LLTD Enable Disable

Device

Use the **Device Settings** menu to provide a **Workgroup** name, a device **Name** and a device **Description**. The Name given here is the name that appears for the device for various network services including shared libraries on iTunes and other media players. The **Workgroup** is used to by Microsoft Windows Network to organize networks groups.

Click on the **Save Settings** button to apply and save the new settings.

DEVICE SETTINGS :

Enter a workgroup, name, and description.

DEVICE SETTINGS :

Workgroup	<input type="text" value="workgroup"/>
Name	<input type="text" value="DNS-313"/>
Description	<input type="text" value="DNS-313"/>

Time and Date

The system time and date can be set from your computer, manually or configured from an NTP server. Use the **System Time Settings** menu to configure the time, date and time zone for the DNS-313.

SYSTEM TIME SETTINGS :

The Time configuration option allows you to configure, update, and maintain the correct time on the internal system clock. From this section you can set the time zone that you are in and set the NTP(Network Time Protocol) Server to periodically update your system time from the NTP Server. You can also use your computer's time as the system time.

Time : 15:27:07 Date : 04/27/09

TIME ZONE SETTINGS :

Time Zone

FROM MY COMPUTER :

Set time from my computer.

NTP SERVER :

NTP Server <<

SET THE DATE AND TIME MANUALLY :

Month Day Year

Hour Minute Second

Advanced Setup

Use the **Advanced** directory menus to setup access privileges, FTP service, configure UPnP AV and iTunes server and DHCP server.

The screenshot shows the D-Link DNS-313 Advanced Setup interface. The top navigation bar includes 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar lists various configuration options: Users / Groups, Network Access, FTP Server, UPnP AV Server, iTunes Server, DHCP Server, Add-Ons, and Logout. The main content area is titled 'USERS / GROUPS:' and contains the following sections:

- USERS / GROUPS:** A header section with instructions: "Create users and their passwords. Assign users to groups if desired. Create new groups that users can be assigned to."
- USER AND GROUP CREATION :** A section with radio buttons for 'User' (selected) and 'Group'. It includes input fields for 'User Name', 'Password', and 'Confirm Password', along with an 'Add' button.
- GROUP SETTINGS:** A section with a 'Select Group' dropdown menu (currently showing 'Please select a group'). Below this are two large empty boxes labeled 'List of all users' and 'Users in group'. Between these boxes are buttons for 'Add >>', '<< Remove', and a checkbox for 'All accounts'.

On the right side of the interface, there is a 'Helpful Hints..' section with the text: "User passwords must be at least five characters long. A user name can not be the same as a group name."

Users / Groups

The Users and Groups menu is used to create user accounts. These can be simply be used to create passwords for user access and read/write privileges for specified folders on the network drive (using the **Network Access** menu), or to setup FTP access and privileges. Up to 64 users and 10 groups can be created. All users by default have read and write access to all folders until access rules are created in the **Network Access** menu.

To create user names and passwords in the **User And Group Creation** menu, type a unique **User Name** for each user added, enter and confirm the user Password and click **Add** to create the new user. The user will be added to the User List and be available for assignment to a user group if you choose to create groups. To create a user group, select the Group option in the User And Group Creation menu, type a unique group name in the Add New Group space and click Add. The group will appear in the Group List and be available for user assignment in the **Group Settings** menu. To add a user to a user group, under **Group Settings**, use the **Select Group** pull-down menu to choose the group being added to, then highlight the user from the List of all users and click the **Add>>** button. The user now appears listed in the Users in the group list. To delete a user from a group, select the group, highlight the user to be removed and click the **<<Remove** button.

To remove a user or group from the User or Group lists, click the trash can icon for that group or user. To change a user password, click the note pad icon for the user.

USER AND GROUP CREATION :

User Group
 User Name
 Password
 Confirm Password

GROUP SETTINGS:

Select Group NewGroup02

List of all users

All accounts

Users in group

NewUser01
 NewUser02

USER LIST :

Change Password Delete

No.	User Name	Group Name	
1	NewUser01	NewGroup02	
2	NewUser02	NewGroup02	

GROUPS LIST :

No.	Group Name	User Name	
1	NewGroup01		
2	NewGroup02	NewUser01,NewUser02	

FTP Server Setup

Use the FTP Server menu to create rules that specify available folders and FTP access rules for users and groups.

To create an access rule, choose the **User** option to create an access rule for a single user or choose **Group** to create a rule applied to an entire user group. Select the **User** or **Group** as appropriate from the pull-down menu, click the **Browse** button, choose the folder or volume for which the rule applies, and select the access level with the Permission menu. By default all users have read only privileges until they are specified differently in this menu. Click on the **Add** button to create the new FTP account.

To create an access rule that is applied to all users, click to check mark the **All accounts** box and create the new rule. The root check box specifies access to all volumes and folders on the drive.

The FTP server can also be configured to put limits on the bandwidth dedicated for FTP or the number of users allowed access at one time. By default up to 10 separate simultaneous FTP downloads are allowed and there is no limit on FTP bandwidth. The **Client Language** pull-down menu is used to specify alternate input characters allowed for FTP connection requests.

If desired, the port used for FTP can be changed, however doing so requires that all incoming FTP connection requests specify a different, non-standard port.

Click on the **Start FTP Server** button to begin running the FTP server.

Note: If your Internet access is controlled through a router, or if your network uses a firewall device of any kind, it will likely be necessary to configure the router or firewall device to allow FTP requests from the Internet. The next section provides an example of how to configure a router to allow FTP connection requests.

FTP ACCOUNT SETTINGS :

Category User Group
 User All accounts
 Folder root
 Permission

FTP SERVER SETTINGS :

Max User
 Idle Time (1~10 Minutes)
 Port (1~65535,Default:21)
 Flow Control Unlimited x 10 KBs
 Client Language

FTP ACCESS LIST :

:Read/Write
 :Read Only
 :Modify Setting
 :Delete

Path	User/Group	R/W

FTP SERVER STATUS :

Status	Stopped
Port	21
Max User	10
Flow Control	Unlimited
Idle Time	2
Client Language	Unicode

FTP Server Behind A Router

If you are behind a router, you will need to forward the FTP port from the router to the DNS-313. Additional filtering and firewall settings may need to be modified on your router to allow FTP Access to the DNS-313 from the Internet. Once the port has been forwarded on the router, users from the internet will access the FTP server through the WAN IP address of the router. Typically a router will offer some means of forwarding FTP connection requests to a specified IP address on the LAN.

If you are using a D-Link router, such as the WBR-2310 used in the example below, your port forwarding rule should be similar to the

- Type a name for the DNS-313 FTP server rule.
- Enter the IP address of the DNS-313.
- Enter the public FTP port. By default, the port is 21.
- Enter the private FTP port. By default, the port is 21.
- Set the traffic type to TCP.

The screenshot displays the 'VIRTUAL SERVER RULES' configuration page on a D-Link WBR-2310 router. The page is titled 'VIRTUAL SERVER RULES' and includes a description: 'The Virtual Server option allows you to define a single public port on your router for redirection to an internal LAN IP Address and Private LAN port if required. This feature is useful for hosting online services such as FTP or Web Servers.' Below the description are 'Save Settings' and 'Don't Save Settings' buttons.

The main configuration area is a table with the following columns: Name, IP Address, Application Name, Computer Name, Port, Traffic Type, and Schedule. The table contains two rows:

	Name	IP Address	Application Name	Computer Name	Port	Traffic Type	Schedule
<input checked="" type="checkbox"/>	DNS-343_FTP	192.168.0.32	<< Application Name	<< Computer Name	Public 21	TCP	Always
<input type="checkbox"/>			<< Application Name	<< Computer Name	Public Private	TCP	Always

On the right side of the page, there is a 'Helpful Hints' section with the following text:

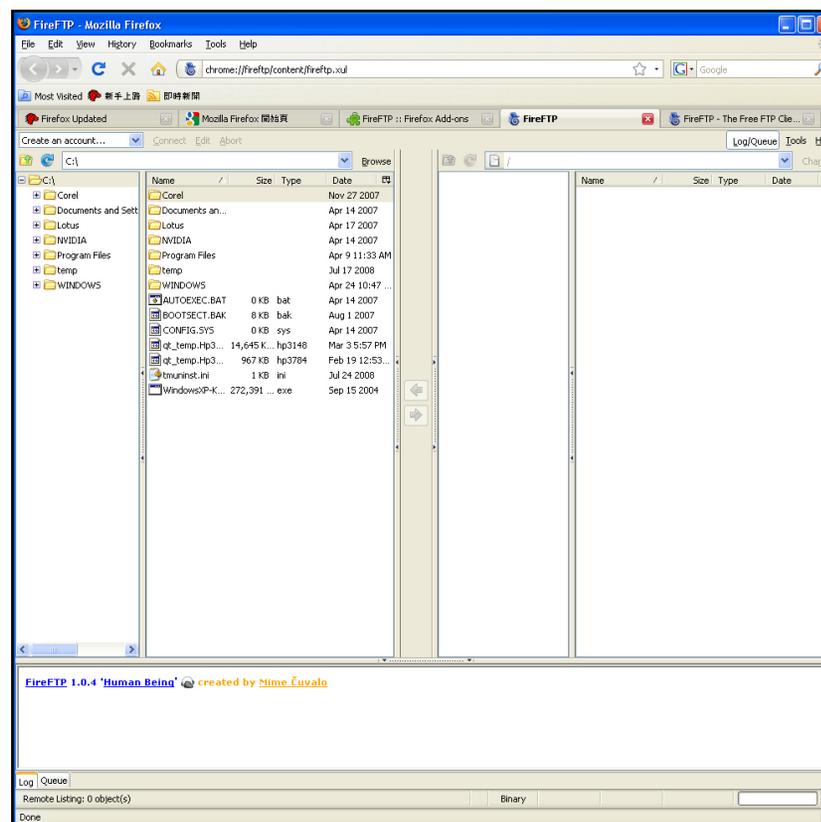
- Check the **Application Name** drop down menu for a list of pre-defined applications that you can select from. If you select one of the pre-defined applications, click the arrow button next to the drop down menu to fill out the appropriate fields.
- You can select your computer from the list of DHCP clients in the **Computer Name** drop down menu, or enter the IP address manually of the computer you would like to open the specified port to.
- In order to apply a schedule to a Virtual Server Rule, you must first define a schedule on the **Tools > Schedules** page.

If you use an FTP port other than 21, then users accessing the FTP server using an FTP client will have to specify the non-standard port, and users who are using a browser will have to specify the port in the URL (e.g. ftp://ftp.dns313.com:3000, where the FTP port is 3000).

Secure FTP Connections

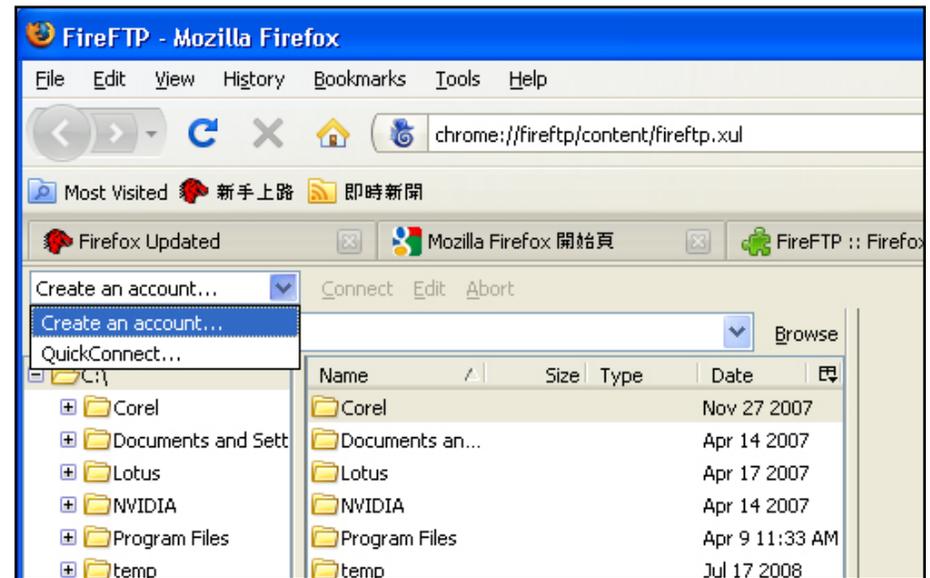
The DNS-313 supports secure FTP connection using SSL or TLS. Follow the instructions here to set up a secure FTP connection using FireFTP with the Firefox browser. An add on for the Mozilla Firefox browser, FireFTP, supports FTP connection over SSL and TLS.

Install the FireFTP add on for Firefox and restart the application. The FireFTP option appears in the **Tools** menu. Select the FireFTP option to launch it in a new window.

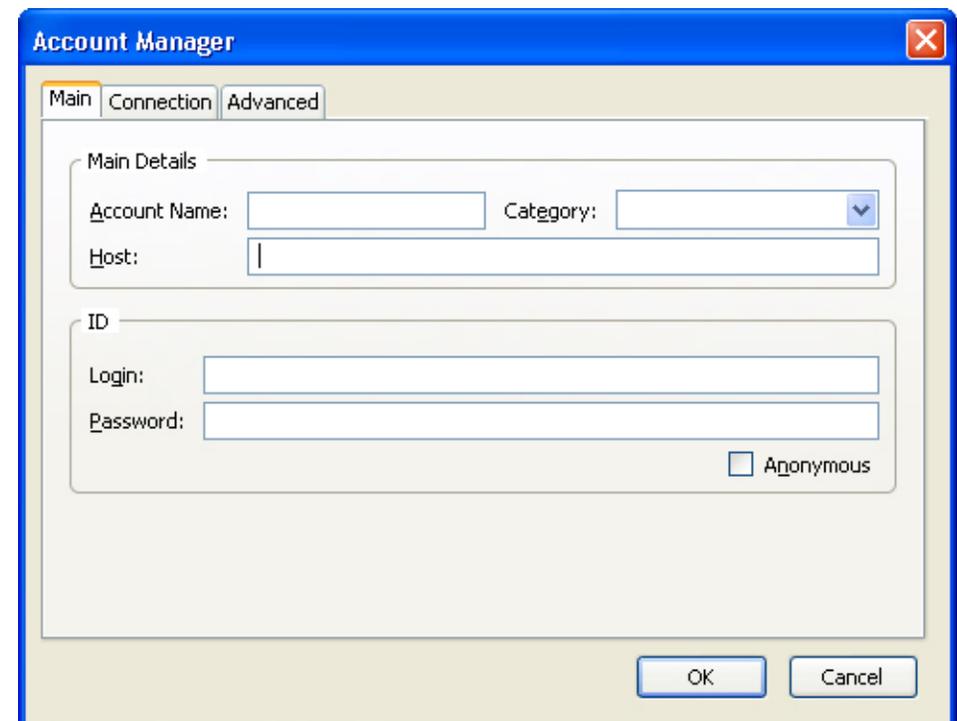


Use the **Create an account** pull down menu to create a new connection to the FTP server. The Account Manager menu appears.

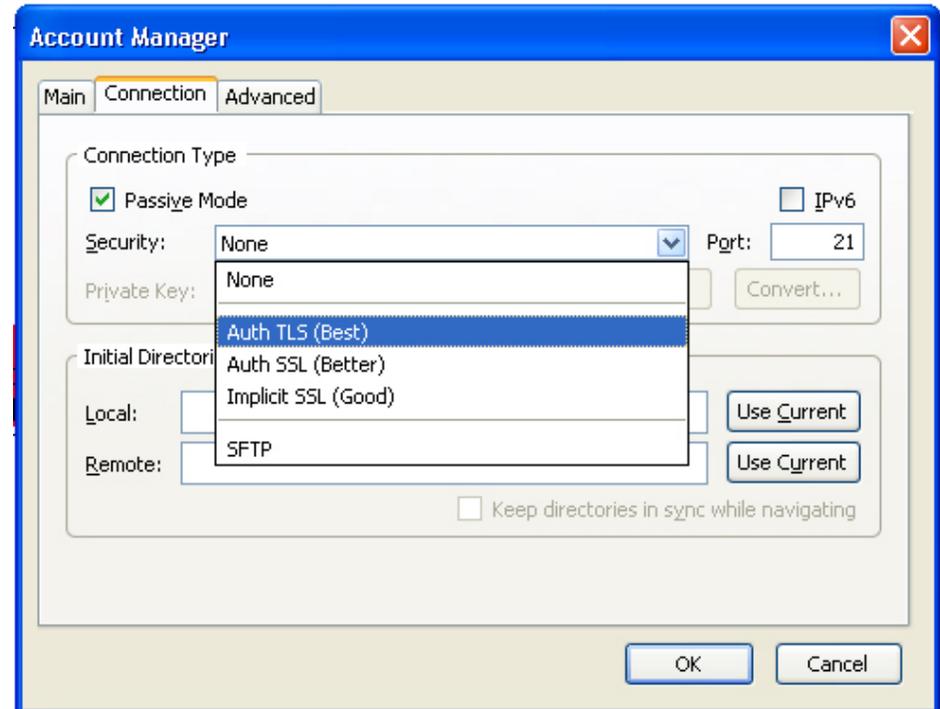
Note: A user account must also be created on the DNS-313 and the FTP server started in the FTP Server menu for the connection to succeed.



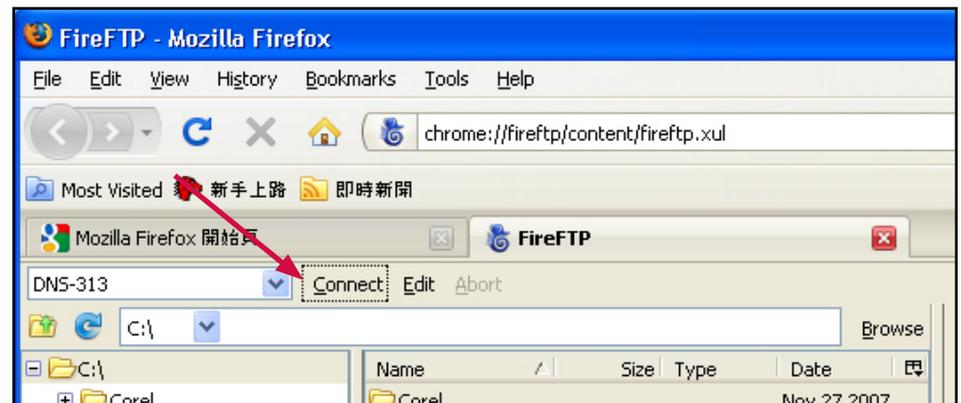
In the **Main** tab of the **Account Manager** menu enter the IP address of the DNS-313 in the **Host** entry field and enter an **Account Name** for the connection. Enter the user name and password of an existing FTP user account on the DNS-313 in the **Login** and **Password** fields. Click **OK** to apply the account settings. The newly created connection setting appears listed in the “Create an account” pull down menu.



In the **Connection** tab choose the security protocol to use and click **OK**. The connection is now ready to connect.



Click on **Connect** next to the connection name in the Firefox browser window.



A series of pop-up dialog boxes warning that the secure connection failed. Since this connection is from a trusted source on the LAN, you can make an exception to the normal security certification. Click the buttons to add an exception.

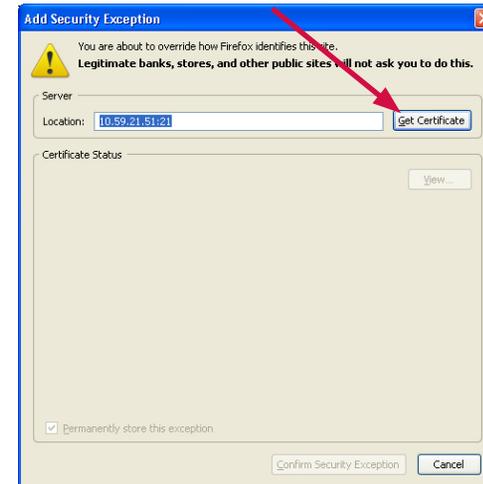
Click the **Or you can add an exception...** button.



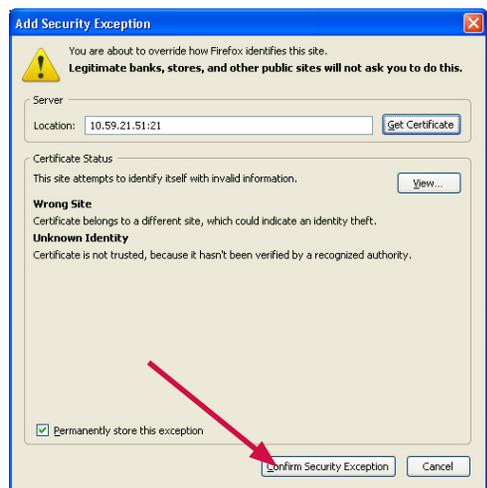
Click the **Add exception...** button.



Click the **Get Certificate** button.

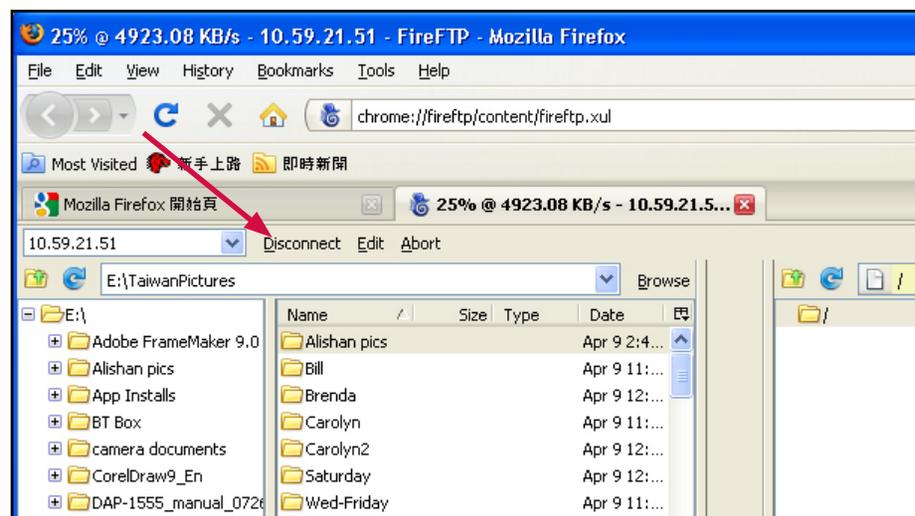


Finally, click the **Confirm Security Exception** button.
The browser is now ready for a secure FTP connection.

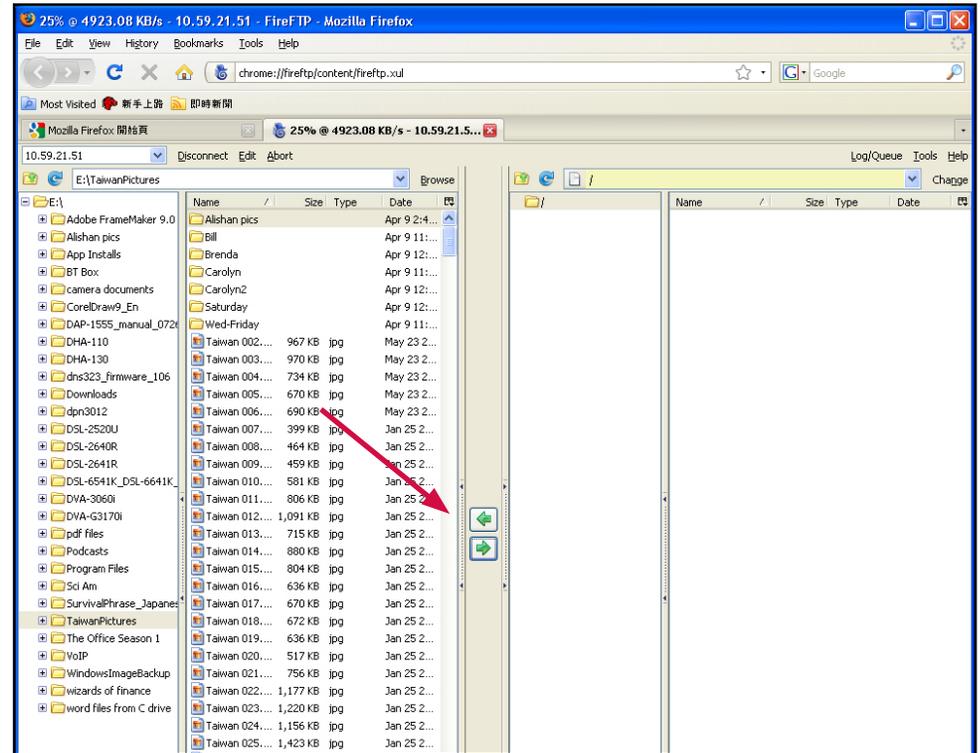


Click on **Connect** to establish the connection.

Note: A user account must also be created on the DNS-313 and the FTP server started in the FTP Server menu for the connection to succeed.



Depending on the Read/Write capabilities configured for the User associated with the connection, select the files to be transferred to or from the DNS-313.

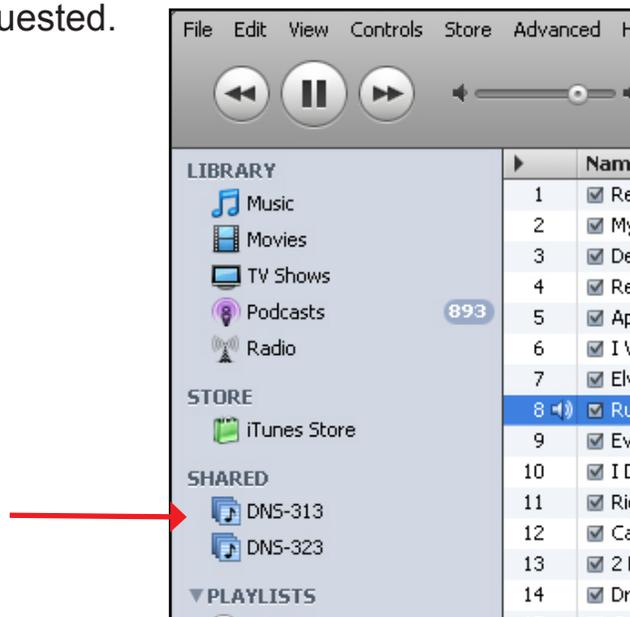


iTunes Server

The DNS-313 supports iTunes Server for use on the local network. Use the iTunes Server menu to select the media content to be made available. By default the iTunes Server is enabled. The root check box specifies access to media content on all volumes and folders on the drive. Click on the **Save Settings** button to apply and save the new settings.

When content is added or deleted from the available folders, click the Refresh button and the DNS-313 will scan for file updates. While the update scan is underway, the media will not be available for use by clients on the network.

If desired, a Password can be entered that will challenge iTunes clients attempting to gain access to the media folders. There is no default password. When users attempt to access the Shared library, a password is requested.



DHCP Server

The DNS-313 is capable of providing DHCP service to the local network. The DHCP server is disabled by default. This should only be used on networks that do not already have a functioning DHCP server.

To use the embedded DHCP server, choose the Enabled option and configure the IP address pool according to the IP settings needs of the network. Up to 253 addresses (one Class C subnet) can be configured for the IP address pool.

Click on the **Save Settings** button to apply and save the new settings.

DHCP SERVER SETTINGS :

Enable the DHCP server to distribute IP addresses on the network.

DHCP SERVER :

DHCP Server : Enabled Disabled

Previous Starting IP Address :

Previous Ending IP Address :

Starting IP Address :

Ending IP Address :

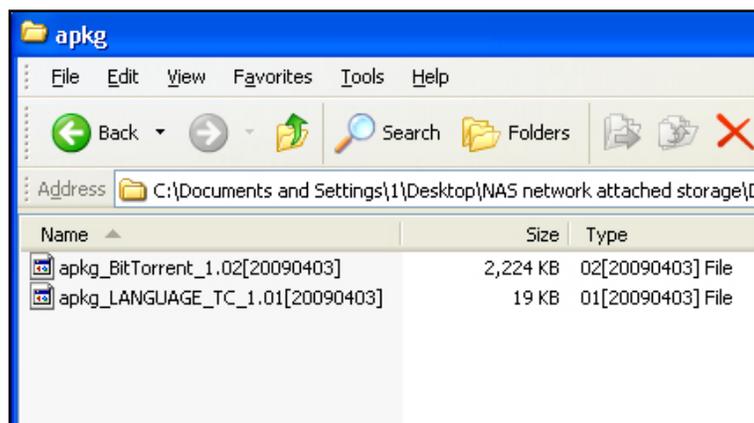
Lease Time :

DHCP CLIENT LIST :

Host name	IP Address	MAC Address	Expired Time
-----------	------------	-------------	--------------

Add Ons

The Add-Ons menu is used to install language packages and applications such as BitTorrent downloading. The files needed for these add-on features are located on the Installation CD shipped with the DNS-313. The file is zipped and located in a folder named **Apkg** on the CD. Copy this file to your computer and unzip the file **apkg**. The contents of the unzipped file should appear similar to the example here, the file is named “apkg_” and includes the function in the name.



To install an add-on, click the **Browse** button and locate it on your system, then click the **Apply** button. A successful installation is indicated by a message in the add-on menu. The newly installed add-on appears listed in the **Add-On Summary**. To activate an add-on, click the **Start** button for the add-on (the **Status** will appear as **Enable**). Click the **Stop** button to discontinue an add-on function. To remove an add-on, click on the trash can icon for the add-on.

Note: BitTorrent downloading cannot be done until the BitTorrent add-on is added and enabled.

Add-Ons:

This section allows you to install application packages onto your system. In addition, you can also install language packages to suit your local language needs.

APPLICATION PACK :

File Path :

Install successfully.

LANGUAGE PACK :

File Path :

ADD-ONS SUMMARY :

✔:Enable ⊘:Disable ▶:Start ⏹:Stop

NO.	Module Name	Version	Status	Start/Stop	Remove
1	BitTorrent	1.02	✔	▶	⏹

Maintenance

The **Maintenance** directory menus are used to upgrade device firmware, change the administrator's password and user name, create email alerts, configure power management and Dynamic DNS (DDNS) and perform a scan disk to check the physical hard drive for errors. This is also where the previously discussed format disk function is located.

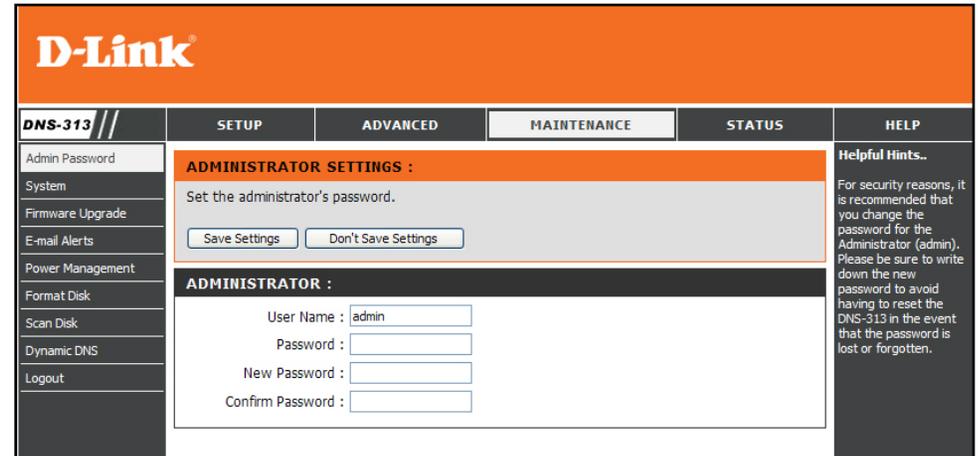
The screenshot displays the D-Link DNS-313 web interface. The top navigation bar includes the D-Link logo and tabs for SETUP, ADVANCED, MAINTENANCE (selected), STATUS, and HELP. A left sidebar lists menu items: Admin Password, System, Firmware Upgrade, E-mail Alerts, Power Management, Format Disk, Scan Disk, Dynamic DNS, and Logout. The main content area is titled 'ADMINISTRATOR SETTINGS :'. It contains the instruction 'Set the administrator's password.' and two buttons: 'Save Settings' and 'Don't Save Settings'. Below this is the 'ADMINISTRATOR :' section with input fields for 'User Name' (pre-filled with 'admin'), 'Password', 'New Password', and 'Confirm Password'. A 'Helpful Hints...' section on the right provides security advice: 'For security reasons, it is recommended that you change the password for the Administrator (admin). Please be sure to write down the new password to avoid having to reset the DNS-313 in the event that the password is lost or forgotten.'

Administrator's Password

The Admin menu allows you to set a password for the admin account. It is recommended to set an admin account password when first configuring the DNS-313.

The administrator user name is admin, and this cannot be changed.

To change the password, enter the current password in **Password**. (Leave this blank if you have not set a password yet.) Type a new password in **New Password**, and type the new password again for confirmation in **Confirm Password**.



The screenshot displays the D-Link DNS-313 web interface. The top navigation bar includes the D-Link logo and tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar lists menu items: Admin Password, System, Firmware Upgrade, E-mail Alerts, Power Management, Format Disk, Scan Disk, Dynamic DNS, and Logout. The main content area is titled 'ADMINISTRATOR SETTINGS :'. It contains the instruction 'Set the administrator's password.' and two buttons: 'Save Settings' and 'Don't Save Settings'. Below this is the 'ADMINISTRATOR :' section with four input fields: 'User Name' (pre-filled with 'admin'), 'Password', 'New Password', and 'Confirm Password'. A 'Helpful Hints..' section on the right provides security advice: 'For security reasons, it is recommended that you change the password for the Administrator (admin). Please be sure to write down the new password to avoid having to reset the DNS-313 in the event that the password is lost or forgotten.'

System

Use the **System Settings** menu to perform a simple device Restart or Shutdown. This is also where the DNS-313 can be reset to factory default settings, or save and load saved configuration files.

Factory Reset

Click the **Restore To Factory Default Settings** button under **Defaults** to restore the network storage drive to default settings. The DNS-313 will be reset to the factory default settings and restart. It will take about 2 minutes. When it restarts, use the default **User Name** “admin” with no password to log back in. The IP settings might change depending on how IP settings were previously configured. Upon restarting the DNS-313 is a DHCP client, therefore it might be necessary to use the Easy Search Utility to establish contact. If you are unable to log in using the same IP address, use the Easy Search Utility to find the device and connect to it. Restoring factory default settings will not change any data on the hard disk.

Save or load configuration setting to local hard drive

Once the DNS-313 is configured it is a good idea to back up the configuration settings file to your local hard disk. To back up the configuration settings file of the DNS-313, click on the **Save** button under **Configuration Settings** and choose a location on your computer to store the file. This file can later be loaded from your computer to use the same configuration settings.

To **Load Configuration Settings** from a previously saved file on your computer, click on the **Browse** button to locate the file, after locating it click the **Load** button to load the settings.

Idle Time

Use the Idle Time configuration to set the number of minutes of inactivity to allow before the user is logged off. The **Config Inactivity Timer** is used for the web management administrator activity. If there is no activity using the web manager for the set period, the administrator is logged off and must log in again to continue using it. The **Download Schedule Inactivity Timer** is used for users downloading files. Users are logged off after the set period of no activity.

SYSTEM SETTINGS :

Restart the system, restore to factory defaults, save or load configuration settings, and change the idle time.

RESTART :

System Restart.

DEFAULTS :

Restore To Factory Default Settings.

SHUTDOWN :

System shutdown.

CONFIGURATION SETTINGS :

Save Configuration Settings.

Load Configuration Settings.

IDLE TIME :

Config Inactivity Timer (Minutes)

Download Schedule Inactivity Timer

Firmware Upgrade

To upgrade the DNS-313 firmware to the latest available firmware, go the D-Link website and download the latest version. When the download is completed, use the **Browse** button to locate the firmware file on your computer and click the **Apply** button to begin loading the firmware.

FIRMWARE UPGRADE :

A new firmware upgrade may be available for your DNS-313. It is recommended to keep your DNS-313 firmware up-to-date to maintain and improve the functionality and performance of your storage device.

Click here [D-Link Support Page](#) to check for the latest firmware version available.

To upgrade the firmware on your DNS-313, please download and save the latest firmware version from the [D-Link Support Page](#) to your local hard drive. Locate the file on your local hard drive by clicking the Browse button. Once you have found and opened the file using the browse button, click the Apply button to start the firmware upgrade.

CURRENT FIRMWARE INFO :

Current Firmware Version : 2.00
Firmware Date : 04/03/2009
File Path :

E-mail Alerts

Use E-mail Alerts to send notifications to an email account about device status.

To configure E-mail Alerts, for an Account login type in the **User Name** and **Password** (an Anonymous login do not need this account information) **Sender E-mail** address, and **Receiver E-mail** address.

Include the **SMTP Server** IP address and click the **Test E-Mail** button to verify the correct settings. A pop-up window will display the success or failure of the test. Click on the **Save Settings** button for a successful test and choose the triggers or alert types used for alerts.

Use the **Alert Types** section to choose what alerts to send. The **System Temperature** alert will shut down the device if the chosen temperature is exceeded and send an alert. Click **Save Settings** to apply and save the new alert settings.

E-MAIL ALERTS :

This section allows you to configure the system so that e-mail alerts can be sent to you when certain operational and/or drive status conditions are present. These alerts can prove helpful in managing and safeguarding important data.

E-MAIL ALERT SETTINGS :

Login Method : Account Anonymous

User Name :

Password :

SMTP Server :

Sender E-mail :

Receiver E-mail :

ALERT TYPES :

Space Status Interval: (Hours) (Minutes)

A Volume Is Full

The Administrator's Password Has Been Changed

Firmware Has Been Upgraded

System Temperature Has Exceeded °F

Enabling this feature will cause the DNS-313 to shut down after the selected temperature is exceeded and an e-mail alert will be sent.

Power Management

Hard disk power management is used to conserve electricity and prolong the life of the hard disk. Choose to **Enable** or **Disable** power management (default = Enable) and, if enabled, the period of idle time allowed before the drive goes into hibernation mode. Click **Save Settings** to apply and save the new settings.

POWER MANAGEMENT SETTINGS :

Enabling the Power Recovery feature will automatically restart your system from a previously unexpected shutdown due to a power failure.

By setting a hibernation time, your hard drives will hibernate if there is no activity within the specified time. The hard drives will wake-up when new activity is detected. This will save on electricity costs and extend the life of your hard drives.

POWER MANAGEMENT SETTINGS :

Power Management : Enable Disable

Hibernate Hard Drive :

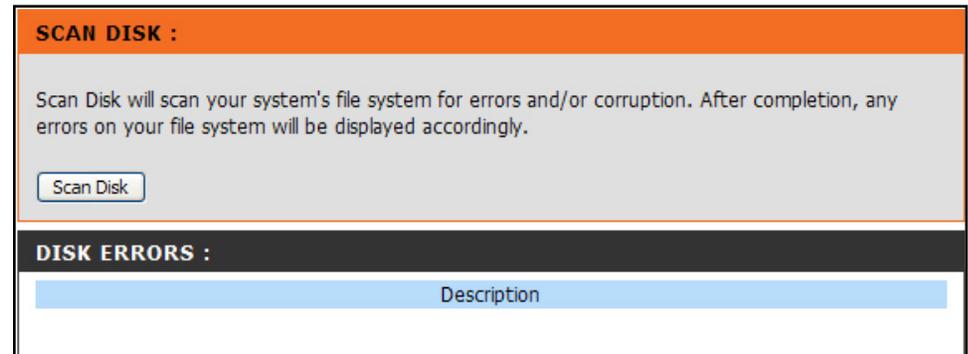
Format

The installed hard disk can be reformatted using the **Format Disk** menu in the web manager. To format click on the Confirm button. A dialog box warns that all data on the disk will be erased, be sure you want to format the disk. To proceed click the **OK** button, to cancel the format request click the **Cancel** button or close the dialog box. The format might take several minutes depending on the capacity of the hard disk. Disks are formatted with the Microsoft disk file format NTFS.



Scan Disk

To perform a standard **Scan Disk** check for errors on the hard disk, click the **Scan Disk** button. Any errors found will be listed along with a description and the available repair options.



Dynamic DNS

The DNS-313 supports DDNS (Dynamic Domain Name Service). The Dynamic DNS service allows a dynamic public IP address to be associated with a static host name in any of the many domains, allowing access to a specified host from various locations on the Internet. This is enabled to allow remote access to a host by clicking a hyper linked URL in the form hostname.dyndns.org, Many ISPs assign public IP addresses using DHCP, and this can make it difficult to locate a specific host on the LAN using standard DNS. If for example you are running a public FTP server, this ensures that the host can be located from the Internet if the public IP address changes. DDNS requires that an account be setup with one of the supported DDNS providers.

Note that DDNS requires that an account be setup with one of the supported DDNS servers prior to engaging it on the device. This function will not work without an accepted account with a DDNS server

DDNS SETTINGS :

The Dynamic DNS feature allows you to host a server (Web, FTP, Game Server, etc...) using a domain name that you have purchased (www.whateveryournameis.com) with your dynamically assigned IP address. Most broadband Internet Service Providers assign dynamic (changing) IP addresses. Using a DDNS service provider, your friends can enter your host name to connect to your game server no matter what your IP address is.

[Sign up for D-Link's Free DDNS service at www.DLinkDDNS.com.](http://www.DLinkDDNS.com)

DDNS SETTING :

DDNS Enable Disable

Server Address <<

Host Name (e.g.: me.mydomain.net)

Username or Key

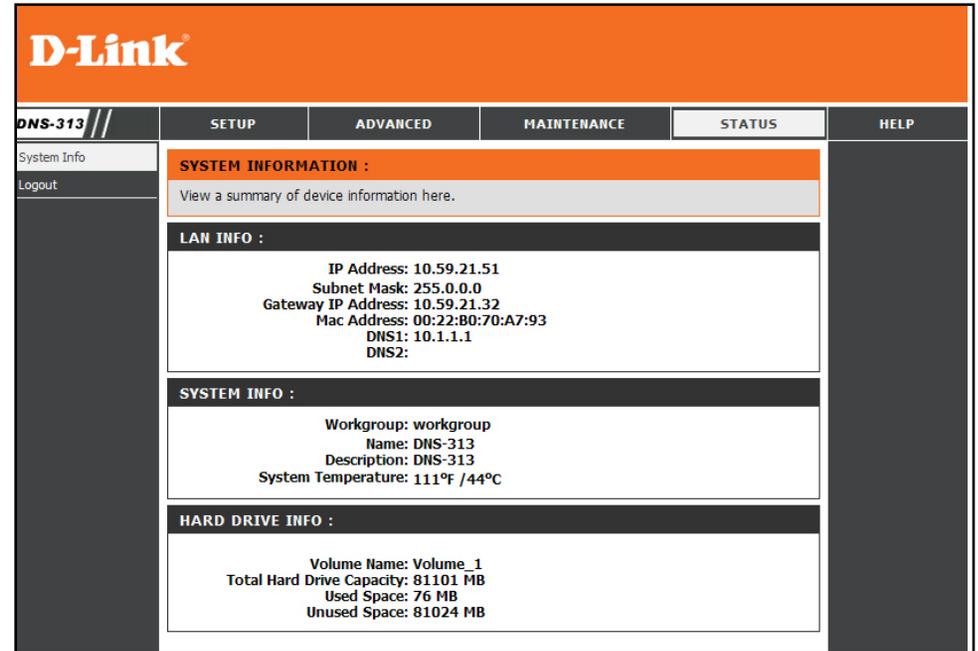
Password or Key

Verify Password or Key

Status

Status

The Status display lists basic network information and device information including hard drive capacity and available space as well as system temperature about the DNS-313.



D-Link

DNS-313 // SETUP ADVANCED MAINTENANCE **STATUS** HELP

System Info
Logout

SYSTEM INFORMATION :
View a summary of device information here.

LAN INFO :
IP Address: 10.59.21.51
Subnet Mask: 255.0.0.0
Gateway IP Address: 10.59.21.32
Mac Address: 00:22:B0:70:A7:93
DNS1: 10.1.1.1
DNS2:

SYSTEM INFO :
Workgroup: workgroup
Name: DNS-313
Description: DNS-313
System Temperature: 111°F / 44°C

HARD DRIVE INFO :
Volume Name: Volume_1
Total Hard Drive Capacity: 81101 MB
Used Space: 76 MB
Unused Space: 81024 MB

Schedule Downloads

To get to the **Schedule Downloads** and **BitTorrent** download applications menus, you must first logout of the configuration menus. If you are going to setup a BitTorrent download, make sure BitTorrent has been enabled. (See **Add Ons** menu)

In the Login menu, type the login User Name and Password and click on the **Applications** button. The **Schedule Downloads** configuration menu appears.

Use the **Scheduling Settings** menu to setup downloading and data back up schedule. The **Schedule List** display the pending, active and completed scheduled downloads.

Select the appropriate **Login Method** to access the files for download. If the site requires login credentials, select Account and enter a valid username and password.

Use the **Type** pull-down menu to select File or Folder, depending on what you want to download or backup.

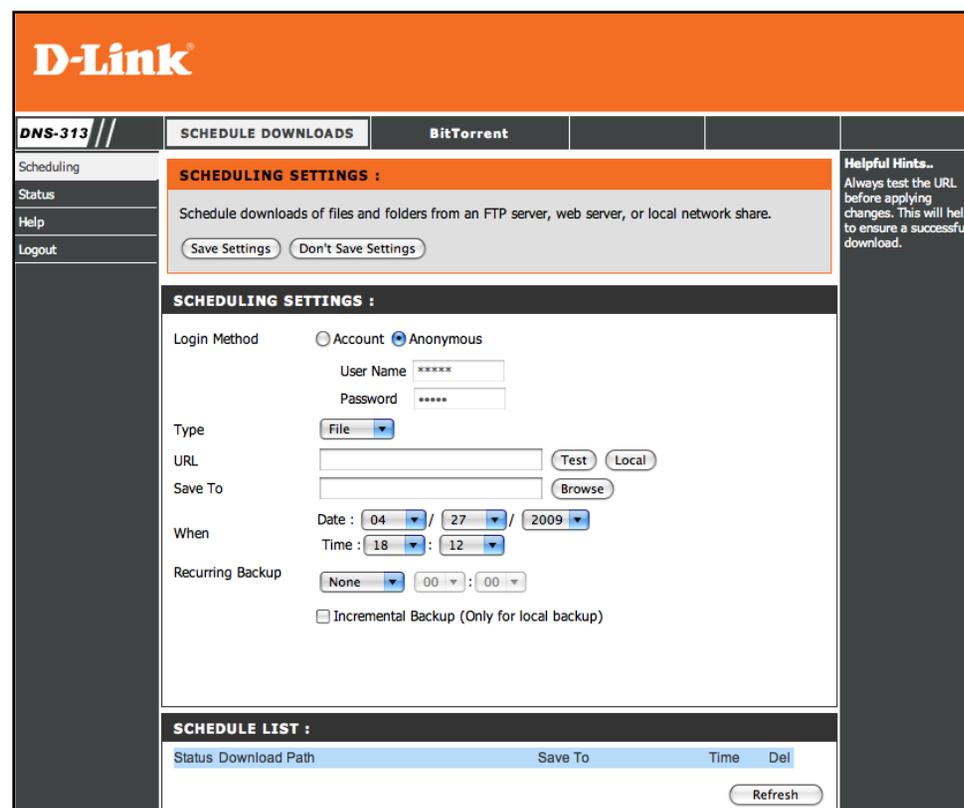
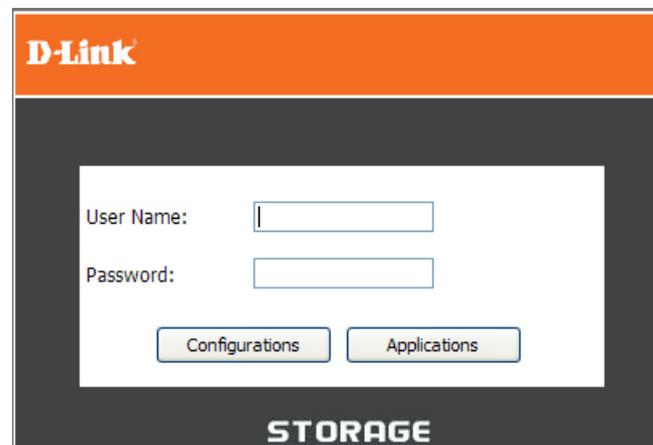
In the **URL** entry field, enter the URL of the site or server you are initiating a transfer from.

E.g. ftp://123.456.789/Test

ftp://123.456.789/test.txt

http://www.test.com/test.txt

Click the **Refresh** button to refresh the Schedule list.



BitTorrent

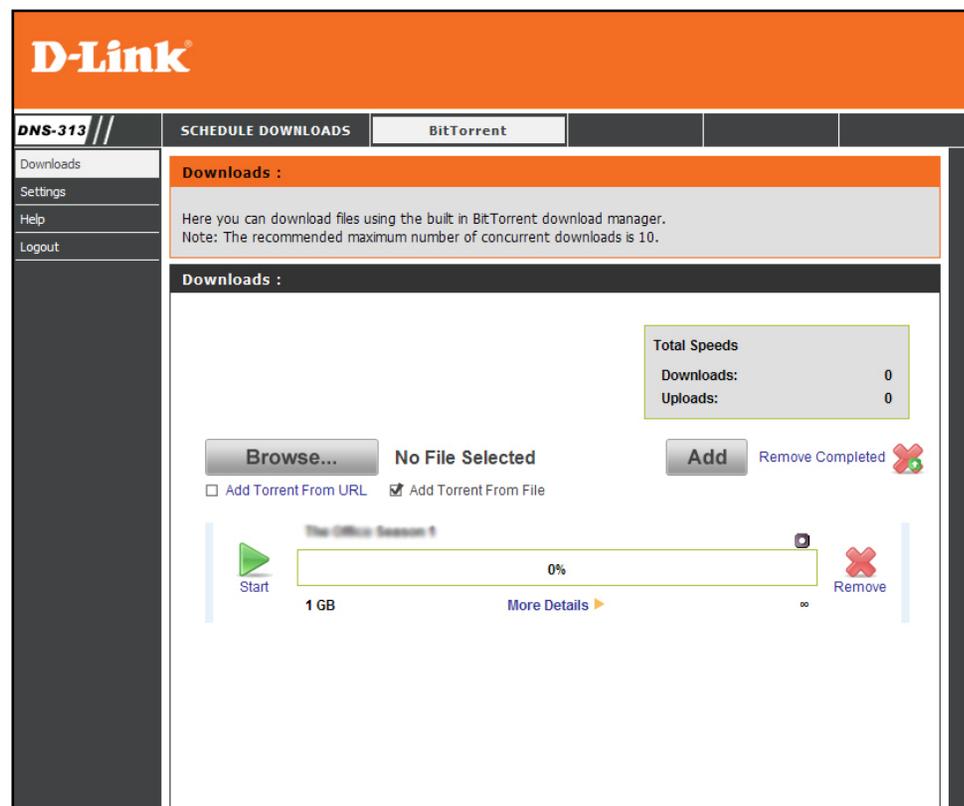
BitTorrent downloading can be completed and files stored on the DNS-313.

Note: In order to use the BitTorrent feature it first must be added and enabled using the Add Ons menu.

To begin downloading a BitTorrent file, select method used to provide the sharing and downloading information. Choose to **Add Torrent File From URL** or **Add Torrent File From File**.

- If you are using a URL link, copy the URL link, paste it into the space provided and click the Add button. After a few seconds the file will be listed below displaying the progress of the download.
- If you are using a Torrent File, Browse to locate the file on your computer and click the Add button. After a few seconds the file will be listed below displaying the progress of the download.

Click the **Start** button to begin transferring and sharing the file. Click **Stop** to pause the download and sharing. To remove a partial or complete file from active downloading and sharing, click the **Remove** icon for the file to be removed.



Note: The recommended maximum number of concurrent downloads is 10.

Note: The DNS-313 BitTorrent downloading application has been tested to function properly with Windows Internet Explorer and Mozilla Firefox web browser software. BitTorrent downloads might not work using other browser software.

BitTorrent Settings

Use the Settings menu to change the port used for BitTorrent, seeding preferences and bandwidth allocation.

Click **Save** to apply and save the BitTorrent settings.

Settings :

Here you can configure your BitTorrent download manager settings.

Settings :

Port Settings:

Default (6881)
 Custom
Incoming connections port:

Bandwidth Management:

Automatic
 Manual

Maximum download rate (kB/s): default: -1 (unlimited)
Maximum upload rate (kB/s): default: -1 (unlimited)
Max. upload rate when seeding (kB/s): default: -1 (unlimited)

Seeding:

Seed until removed
 Stop seeding when ratio reaches %
 Stop seeding after minutes

Save **Cancel**