

USER MANUAL

DNS-323

VERSION 1.3



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Product Overview

Package Contents

- D-Link DNS-323 2-Bay Network Storage Enclosure
- CD-ROM with Manual and Software
- Quick Installation Guide
- Power Adapter
- Power Cable Clip
- CAT5 Ethernet Cable



Note: Using a power supply with a different voltage than the one included with the DNS-323 will cause damage and void the warranty for this product.

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

System Requirements

For best results, the following system requirements are recommended:

- 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
- 3.5" SATA Hard Drive(s)
- Windows® XP (with Service Pack 2) or Vista®

Introduction

The D-Link DNS-323 2-Bay Network Storage Enclosure shares your documents, photos, music, and videos across the network and on the Internet (via FTP server) so family members, friends, or employees can access them. This enclosure, which can hold two 3.5" SATA hard drives of any capacity¹, creates a central network point for backing up valuable files. The built-in RAID 1² mirroring technology protects these files from drive failure. Other options such as Standard, JBOD, and RAID 0 are also available.

The DNS-323 shares files over the Internet via the built-in FTP server³. Users and groups can be created and assigned to folders with either read or read/write permissions. Quotas can be set per user or group to restrict space usage. In addition, the DNS-323 can be used to stream photos, music, and videos to UPnP AV compatible network media players⁴.

The included CD contains D-Link's Easy Search Utility. This utility allows you to locate the DNS-323 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-323 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 and high performance features, the DNS-323 is an organized solution for any network. Free up drive space on computers and centralize data on your network with the DNS-323 2-Bay Network Storage Enclosure!

¹ Hard Drive(s) not included.

² RAID 1 mirroring requires the use of 2 internal SATA drives.

³ Note that use of an FTP Server to access files over the Internet does not provide for secure or encrypted transmissions.

⁴ 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.

Features

The DNS-323 is designed for easy installation and allows remote access to important data via your local network or the Internet.

- Two Hard Drive Bays for 3.5" SATA Hard Drives of Any Capacity¹
- Simplified Hard Drive Installation Process – No Tools Required
- Four Hard Drive Configurations: Standard, JBOD (Linear), RAID 0, and RAID 1²
- High Performance Gigabit Ethernet Connectivity (Up to 23/15MBps or 184/120Mbps Read/Write)³
- Built-in FTP Server for File Access from the Internet⁴
- Scheduled Downloads from Web or FTP Sites
- Full or Incremental Backups
- Real Time Backups With the Included Backup Software
- Users and Groups Can Be Assigned to Folders with Read or Read/Write Permissions
- Quotas For Users and Groups
- 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 Players⁵
- iTunes® Software will be able to automatically find and play music directly from the DNS-323
- Built-in USB Print Server for printing from any PC on the Network
- D-Link Easy Search Utility
- Configurable by Web Browser
- Supports Jumbo Frames
- Enables you to change from Non-RAID to RAID 1 configuration without losing data on the hard drives.
- Supports Bit Torrent

1 Hard Drive(s) not included.

2 RAID 1 mirroring requires the use of 2 internal SATA drives.

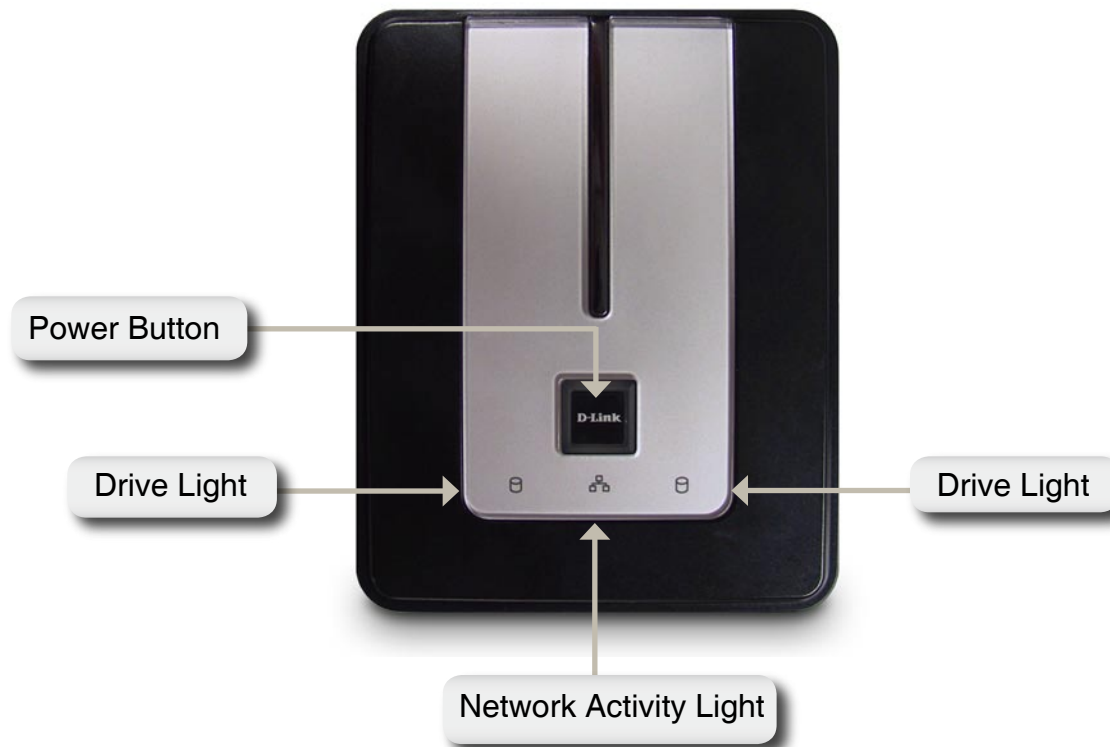
3 Speed results will vary depending on the benchmark utility, hard drive configuration, and the network environment used for testing.

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

5 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.

Hardware Overview

Front View



Power Button:

Press once to power on the DNS-323. Press and hold the button until it begins to blink to power down the DNS-323.

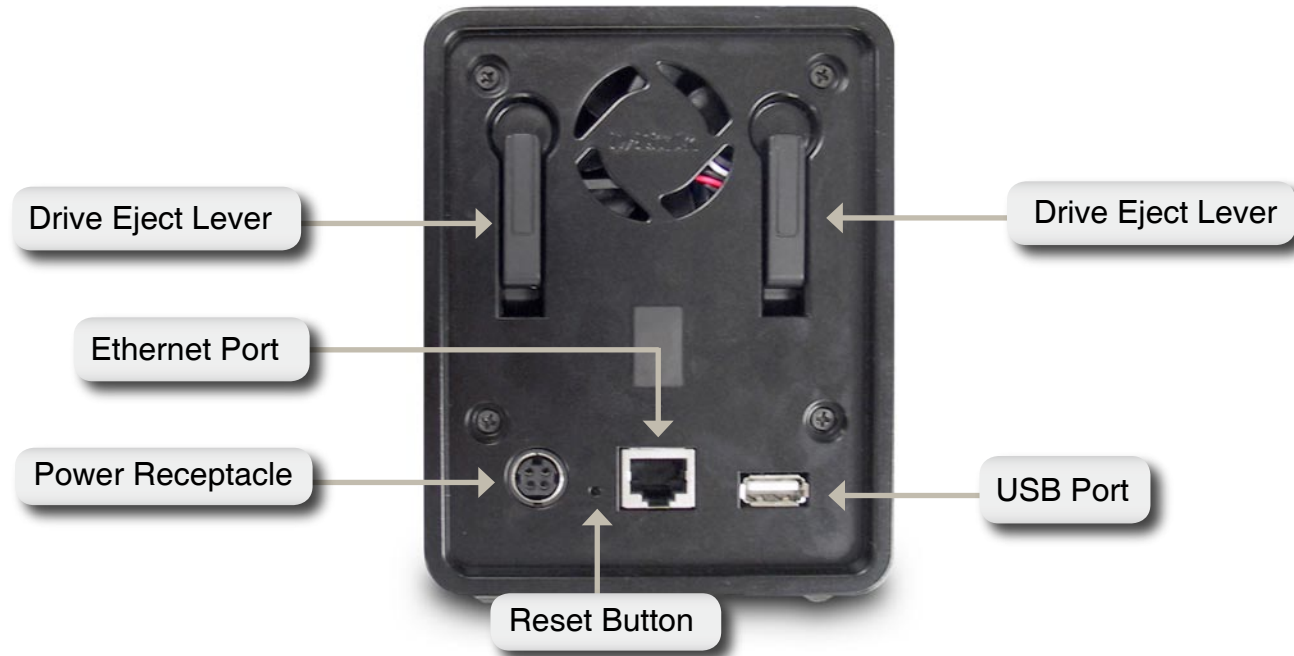
Drive Lights:

These lights will be solid BLUE when drives are connected but inactive. The lights will blink when the drives are being accessed, formatted or synchronized. They will illuminate AMBER if a drive has failed.

Network Activity Light:

The Activity Light will be solid BLUE when there is an Ethernet connection. It will blink to indicate LAN traffic.

Rear Panel (Connections)



Power Receptacle:

The 12V 3A / 5V 3A power supply connects here.

Ethernet Port:

A Gigabit Ethernet port that connects the DNS-323 to a network.

USB Port:

USB Print Server port for connecting a USB printer.

Drive Eject Lever:

Use the levers to eject the hard drives. The front panel must be removed before ejecting the drives.

Reset Button:

A pinhole button located beside the Ethernet socket is used to reset the DNS-323 to the factory default settings.

Note: After resetting the unit's configuration you will still have access to the data on your hard drive(s).

Installation

Hardware Setup

This section provides unpacking and installation information for the DNS-323. Open the shipping carton for the DNS-323 and carefully unpack its contents. To install the DNS-323 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 bays.



3. Insert a 3.5" SATA hard drive into each available drive bay. Make sure to align the drive connectors to the SATA connectors on the bottom edge inside the drive bay of the DNS-323. Gently push the drive in until it connects. When a drive is inserted properly, you will feel it "seat" into the connector. Some hard drives that are thin or oddly shaped may need to be guided carefully into position. If a drive is not properly seated, the light will not illuminate after powering on the device.



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-323 to your local network via a router or switch, or directly to a computer for configuration.



6. Connect the power adapter to the power receptacle.

7. Connect a USB printer. (Optional)



Configuration

Easy Search Utility

When first powered on, during the initial boot sequence, the DNS-323 will wait to be assigned an IP address via DHCP. If it does not receive an assigned IP address, by default it will have a self-assigned IP address of 192.168.0.32. It is recommended to use the included D-Link Easy Search Utility when accessing and configuring the DNS-323 for the first time. If you want to change the IP address before logging in or are unable to connect to the DNS-323 IP address, you can use the Easy Search Utility provided on the product CD to locate the device on your network and make any needed changes.

Network Storage Device The Easy Search Utility displays all available DNS-323 devices on the network here.

Refresh Refresh the device list.

Configuration Click **Configuration** to access the Web-based utility of the DNS-323.

Language Click **Language** if you wish to store non-English character files. Refer to page 74.

BitTorrent Click **BitTorrent** to use the built-in BitTorrent manager to upload and download Torrents. Refer to page 59.

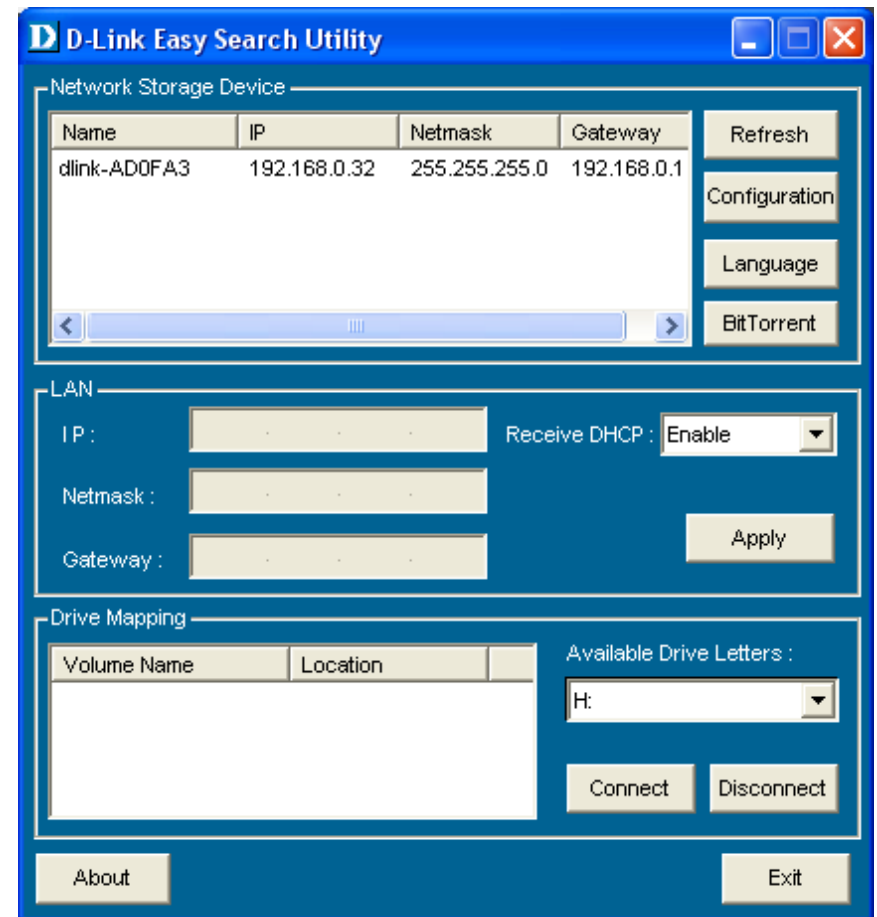
LAN Configure the LAN Settings for the DNS-323 here.

Apply Click **Apply** to save and activate the changes to the LAN Settings.

Drive Mapping Volumes available for mapping are displayed here.

Available Drive Letters Choose an available drive letter. Click **Connect** to map the selected volume. Click **Disconnect** to disconnect the selected mapped volume.

Exit Click **Exit** to close the utility.



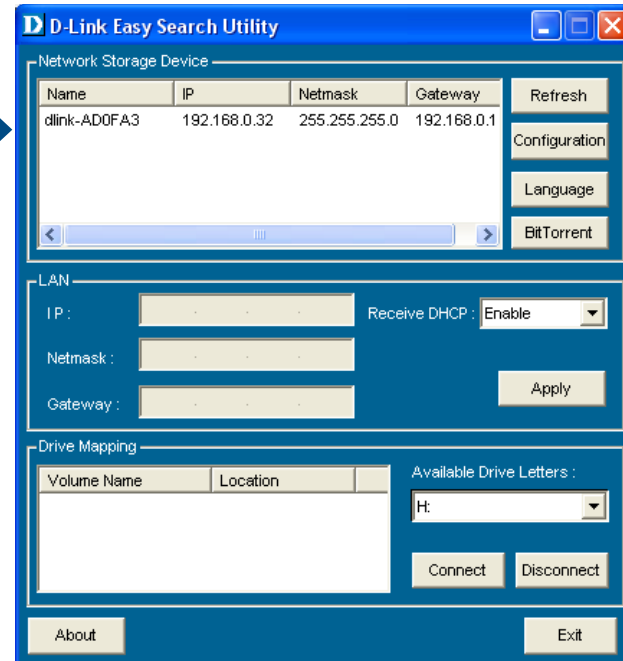
Getting Started

To run the Easy Search Utility, insert the DNS-323 CD into your CD-ROM drive:

Click **Easy Search Utility**.



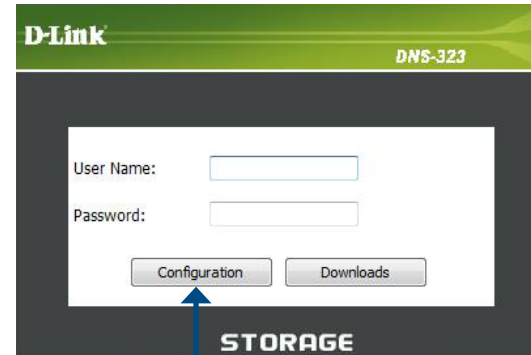
Highlight an available DNS-323 and click **Configuration** to access the web-based utility.



The Login screen will appear:

Type **admin** for the username and leave the password field blank.

Click **Configuration**

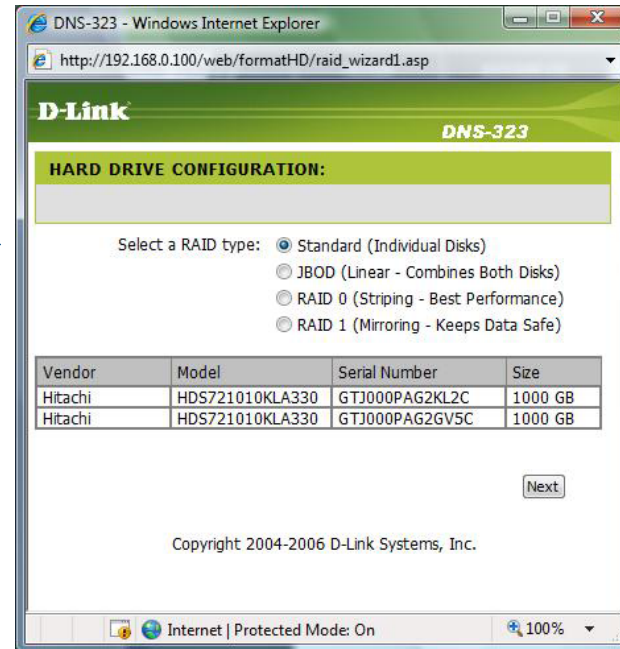


When logging into the DNS-323 for the first time, you will be asked to choose a drive configuration type and format the drives. There are four configuration options: **Standard**, **JBOD**, **RAID 0** and **RAID 1**. Standard configures each disk as a separate volume, while JBOD combines both disks into a single volume, as well as RAID 0 and RAID 1. See page 47 for more details on using the RAID configurations.

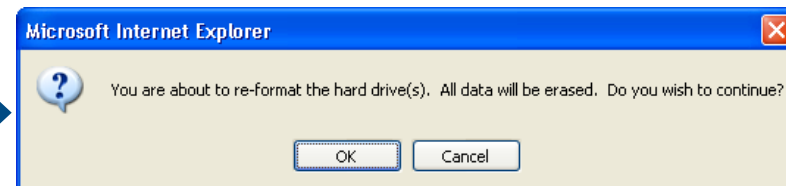
Note: All data will be erased during the format process.

When prompted to configure the Hard Drive Settings:

Select the configuration type of your hard drive, **Standard, JBOD, RAID 0 or RAID 1**.

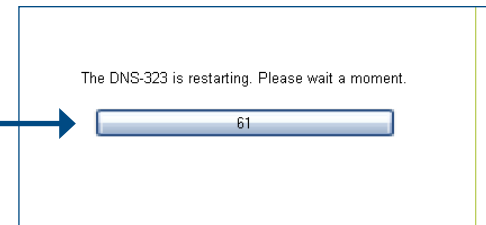


A warning message informing you that your drives will be formatted and all data will be erased. Click **OK** to continue.



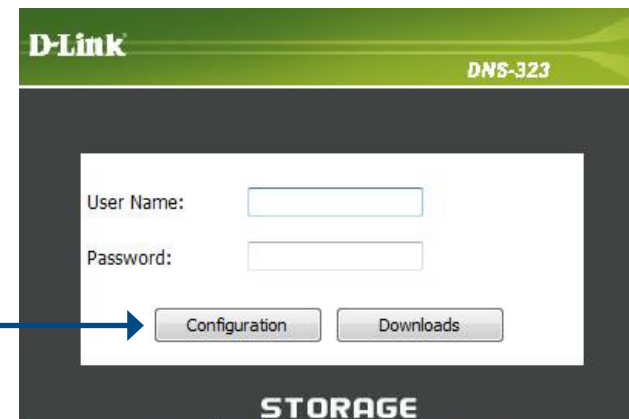
When formatting of the drive completes, the DNS-323 will prompt the user to restart. A restart countdown screen will appear. When restart is complete, a login screen will appear:

Press **OK** to restart the DNS-323.



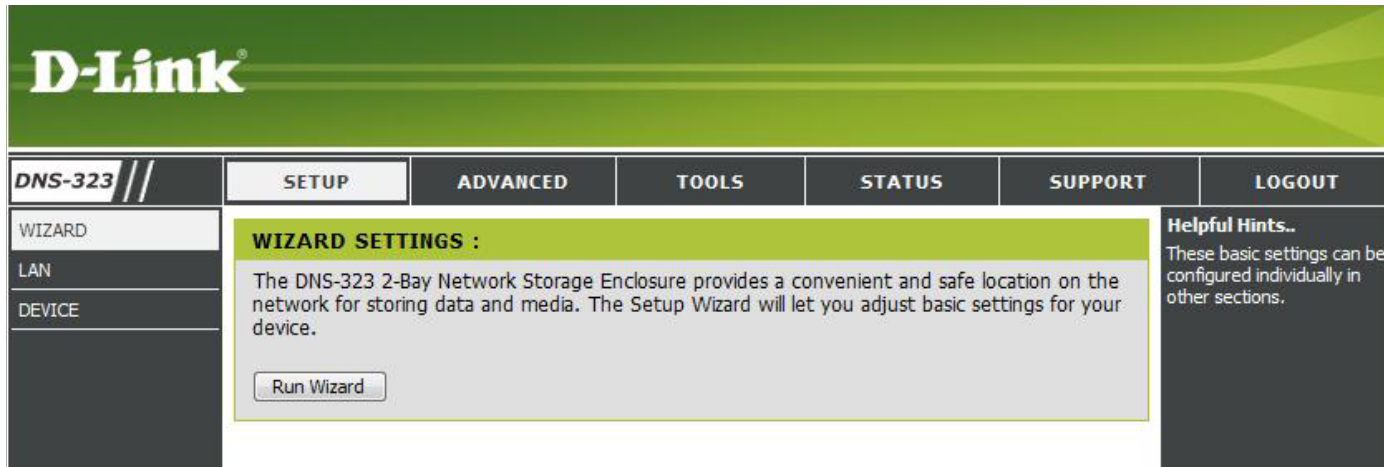
Type **admin** for the username and leave the password field blank.

Click **Configuration**



Note: After logging in to the DNS-323 for the first time it is recommended to add a password to the admin account. (See p. 39 for details.)

After logging in, you will be redirected to the DNS-323 web UI:



Web UI

The DNS-323 web UI defaults to the *Setup* page. The main categories for configuration are located in the menu tabs at the top of the page. These categories include:

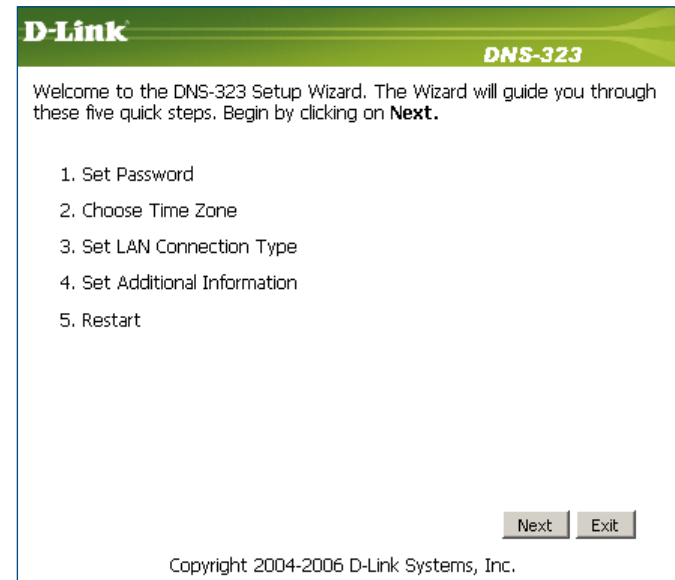
- **Setup** - Contains the DNS-323 setup wizard, as well as the LAN configuration settings and device settings.
- **Advanced** - Allows the DNS-323 administrator to configure users, groups of users and their storage quotas. The UPnP AV server, iTunes server, FTP server, LLTD, and DHCP server settings are all contained here as well.
- **Tools** - Contains configuration options for the Admin account, time and system settings, and e-mail alerts. Settings for Power management, RAID configuration, and DDNS are also available from the Tools page.
- **Status** - Contains a summary of DNS-323 information.
- **Support** - Contains the DNS-323 help files.
- **Logout** - Clicking this button will log the admin out and end the DNS-323 configuration session.

These pages and their configuration options will be discussed in detail in the following pages of this manual.

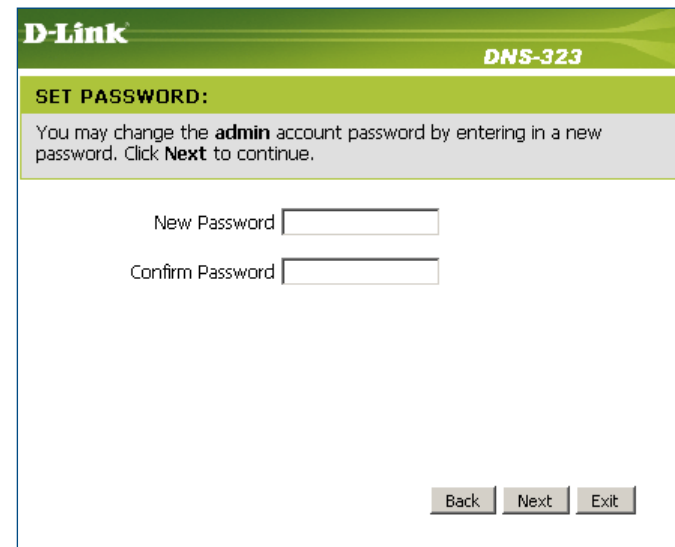
Setup Wizard

The DNS-323 has a setup Wizard that allows you to quickly configure some of the basic device settings.

When running the DNS-323 setup wizard, the welcome screen details the five steps of the wizard. Click **Next** to continue.



It is recommended you set an admin password here. Enter the new password and re-enter it for confirmation. Click **Next** to continue.



Set the appropriate **Time Zone** and **Daylight Savings Time**. Click **Next** to continue.

D-Link **DNS-323**

CHOOSE TIME ZONE:
Select the appropriate time zone for your location and click **Next** to continue.

Time Zone
(GMT-08:00) Pacific Time (US &Canada);Tijuana

Daylight Saving Time None

Back Next Exit

Edit or change the DNS-323 LAN information or keep the current settings. Click **Next** to continue.

D-Link **DNS-323**

SELECT LAN CONNECTION TYPE:
Select your connection type and fill out the IP information if necessary. Click **Next** to continue.

DHCP Client
 Static IP

IP Address 192.168.0.32
Subnet Mask 255.255.255.0
Gateway IP Address 192.168.0.1
DNS1
DNS2

Back Next Exit

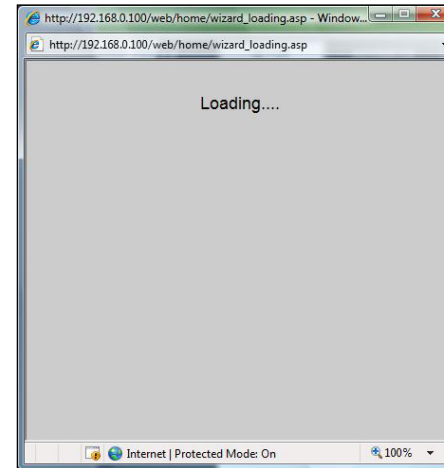
Enter your workgroup, name and description for the DNS-323, or leave the default values and click **Next** to continue.

The screenshot shows the 'Set Additional Information' screen of the D-Link DNS-323 configuration wizard. The title bar includes the D-Link logo and 'DNS-323'. Below the title is a green header with the text 'Set Additional Information:'. The main content area contains a grey box with the instruction: 'Enter your Workgroup, Name, and Description for the DNS-323 if necessary. Otherwise you may accept the default values and click **Next** to continue.' Below this are three input fields: 'Workgroup' with the value 'workgroup', 'Name' with the value 'dlink-AD04C1', and 'Description' with the value 'DNS-323'. At the bottom right, there are three buttons: 'Back', 'Next', and 'Exit'.

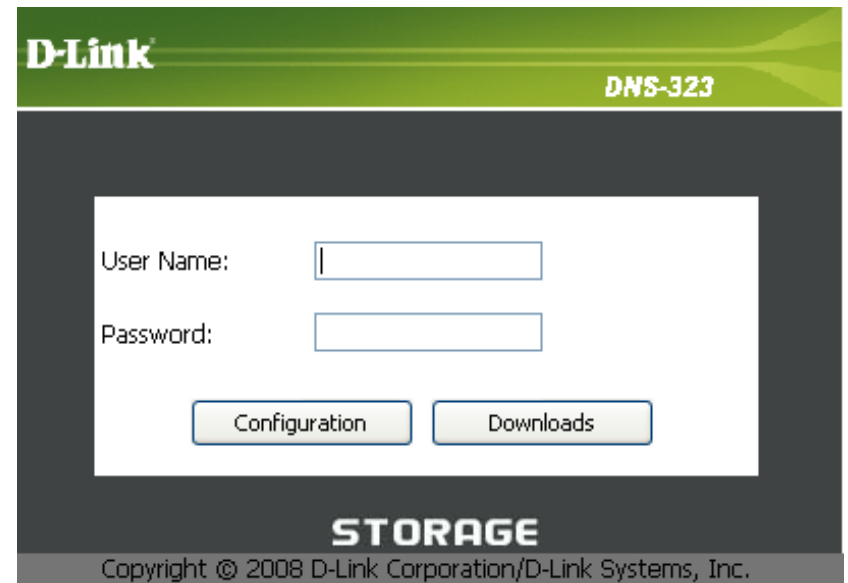
When the wizard completes, click **Back** to go back and make changes or click **Restart** to restart the DNS-323 and save the configuration.

The screenshot shows the 'SETUP COMPLETED' screen of the D-Link DNS-323 configuration wizard. The title bar includes the D-Link logo and 'DNS-323'. Below the title is a green header with the text 'SETUP COMPLETED:'. The main content area contains a grey box with the instruction: 'The Setup Wizard is complete. Click **Back** to make any changes. Click **Restart** to save the current settings and restart the DNS-323.' Below this are three buttons: 'Back', 'Restart', and 'Exit'. At the bottom of the screen, there is a copyright notice: 'Copyright 2004-2006 D-Link Systems, Inc.'

The DNS-323 will restart.



When the login prompt appears, login using the new administrator password. Click **Configuration**.



LAN

The Local Area Network settings for the DNS-323 are configured on the LAN page.

Link Speed The LAN Link Speed is set to Auto by default, but can be manually set to 100Mbps or 1000Mbps.

DHCP Client Selecting DHCP Client will cause the DNS-323 to obtain an IP address from the local DHCP server.

Static IP Selecting Static IP requires you to assign the IP information for the DNS-323 manually.

Jumbo Frame Settings Click the **Enable** radio button next to **Status** to enable jumbo frames.

MTU Select an MTU rate that your network can support and then click **Apply** to activate the new setting.

The screenshot displays the LAN configuration interface for a D-Link DNS-323 device. The interface is divided into several sections:

- Navigation:** Includes tabs for SETUP, ADVANCED, TOOLS, STATUS, SUPPORT, and LOGOUT. A left sidebar contains WIZARD, LAN, and DEVICE options.
- LAN SETTINGS :**
 - Instruction: "Select your connection type and fill out the IP information if necessary."
 - Buttons: "Save Settings" and "Don't Save Settings".
 - Speed: 1000 Mbps
 - Link Speed: Radio buttons for Auto (selected), 100, and 1000, with an "Apply" button.
 - Connection Type: Radio buttons for DHCP Client (selected) and Static IP.
 - IP Address: Text input field containing 192.168.0.32
 - Subnet Mask: Text input field containing 255.255.255.0
 - Gateway IP Address: Text input field containing 192.168.0.1
 - DNS1: Text input field
 - DNS2: Text input field
- JUMBO FRAME SETTINGS :**
 - Status: Radio buttons for Enable and Disable (selected)
 - MTU: Dropdown menu showing 3000 and an "Apply" button
- Helpful Hints..** (Right sidebar): "A Static IP is recommended if you will be using the FTP server."

Device

The device settings page allows you to assign a workgroup, name and description to the DNS-323.

Workgroup Assigns a workgroup name to the DNS-323.

Name Assigns a unique name to the DNS-323. The name can be used to access the device from a web browser instead of using the IP address.

For example: *http://dlink-xxxxxx*

This is useful if there are more than one DNS-323 on the network. By default the device name is dlink-xxxxxx, where xxxxxx is the last six digits of the MAC address.

Description Assigns a device description to the DNS-323.

Advanced Users and Groups

The DNS-323 supports up to 64 unique users. The users can be added to a group, or individually. The users and groups are created to allow access to specific folders on the DNS-323, via FTP or your local network.

User and Group Creation

This section contains required attributes for creating a new user or group.

Select **User** or **Group**. Enter a user or group name and password. Click **Add**.

Select a group from the drop-down menu.

Select Group

Users that are assigned to the selected group will be listed here.

Users in Group

Displays the list of users that you may assign to the selected group.

List of All Users

To add a user to the selected group, click the user and then click **Add >>**.

To remove a user from the group, click the user and then click **<< Remove**.

User List

Displays all created user accounts. You may modify the password or delete the user account by clicking on the right icon.

Group List

Displays all created group accounts. You may modify the password or delete the account by clicking on the right icon.

The screenshot shows the D-Link DNS-323 web interface. The top navigation bar includes 'D-Link', 'DNS-323', and tabs for 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', 'SUPPORT', and 'LOGOUT'. The left sidebar lists various configuration sections: 'USERS / GROUPS', 'QUOTAS', 'NETWORK ACCESS', 'FTP SERVER', 'UPnP AV SERVER', 'iTunes SERVER', 'DHCP SERVER', and 'LLTD'. 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 form 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 it are two lists: 'List of all users' (containing 'vista') and 'Users in group' (empty). Between these lists are 'Add >>' and '<< Remove' buttons. There is also an 'All accounts' checkbox.
- USER LIST:** A table with columns 'No.', 'User Name', and 'Group Name'. It contains one entry: '1 vista'. To the right of the table are icons for 'Change Password' and 'Delete'.
- GROUPS LIST:** A table with columns 'No.', 'Group Name', and 'User Name'.

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."

Quotas

The DNS-323 supports storage quotas for both groups and individual users. Assigning a quota to a group or user will limit the amount of storage they are allocated. By default, users and groups do not have a quota.

User Quota Settings

User quotas are displayed here. Quotas can be edited by clicking on the notepad icon.

Group Quota Settings

Group quotas are displayed here. Quotas can be edited by clicking on the notepad icon.

Quota Status

Displays the current status of the quota feature. The quota function can be started or stopped here.

D-Link

DNS-323 // SETUP **ADVANCED** TOOLS STATUS SUPPORT LOGOUT

USERS / GROUPS
 QUOTAS
 NETWORK ACCESS
 FTP SERVER
 UPnP AV SERVER
 iTunes SERVER
 DHCP SERVER
 LLTD

QUOTAS SETTINGS :
 Assign hard drive space quotas for users or groups.

USER QUOTA SETTINGS :

No.	User Name	Volume_1		Volume_2		Edit
		Used	Limit	Used	Limit	
1	vista	unlimited		unlimited		

GROUP QUOTA SETTINGS :

No.	Group Name	Volume_1		Volume_2		Edit
		Used	Limit	Used	Limit	

QUOTA STATUS :

Status: Stopped

Helpful Hints..
 The hard drives must be finished synchronizing before quotas can be set.

Configuring Quotas

By default, all users and groups are displayed on the Quota Settings page. Users and groups are automatically listed on this page, and cannot be deleted. The default quota setting is “Unlimited”.


To add a quota:

Click the notepad icon of the user you want to add a quota to.

Set a quota amount (MB) for the user and click **Apply**.

QUOTAS SETTINGS :
Assign hard drive space quotas for users or groups.

USER QUOTA SETTINGS :

No.	User Name	Volume_1		Volume_2		Edit
		Used	Limit	Used	Limit	
1	vista		unlimited		unlimited	


QUOTAS SETTINGS :
Assign hard drive space quotas for users or groups.

USER QUOTA SETTINGS :

User Name


Volume_1 Quota Amount MB

Volume_2 Quota Amount MB

No.	User Name	Volume_1		Volume_2		Edit
		Used	Limit	Used	Limit	
1	vista		unlimited		unlimited	

The user, their amount of storage used, and their storage limit are displayed.

USER QUOTA SETTINGS :

No.	User Name	Volume_1		Volume_2		Edit
		Used	Limit	Used	Limit	
1	vista	0 MB	20000 MB	0 MB	15000 MB	

Click **Enabled** to turn quota monitoring on.

GROUP QUOTA SETTINGS :

No.	Group Name	Volume_1		Volume_2		Edit
		Used	Limit	Used	Limit	

QUOTA STATUS :

Status: Stopped

Once enabled, the status will change to Started.

QUOTA STATUS :

Status: Started

Network Access

The Network Access settings allow you to assign users and groups to specific folders or volumes. By default, all volumes are open to anyone on the local network with read/write access. Before specific user or group rules can be created, the default rules must be deleted.

Network Access Settings Assign permissions for users and groups on the local network.

Category Determines whether the access rule will apply to a group or individual user.

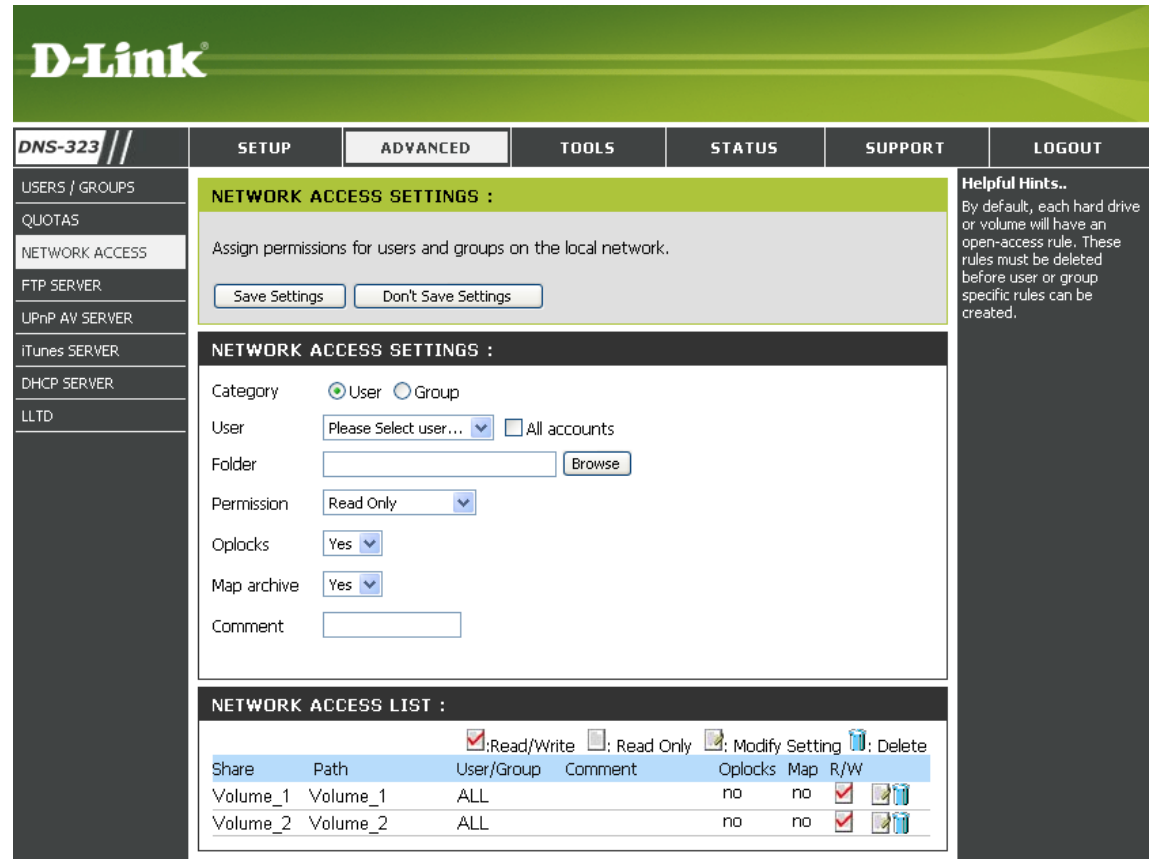
User / Group Select the user or group the access rule will apply to or you can select **All Accounts**.

Folder Browse to and select the folder or directory you are controlling access to.

Permission Set the user or group permission to **Read Only** or **Read/Write**.

Oplocks Opportunistic locks (oplocks) are a characteristic of the LAN Manager networking protocol implemented in the 32-Bit Windows family. Oplocks are guarantees made by a server for a shared logical volume to its clients. These guarantees inform the Client that a file's content will not be allowed to be changed by the server, or if some change is imminent, the client will be notified before the change is allowed to proceed.

Oplocks are designed to increase network performance when it comes to network file sharing however when using file-based database applications it is recommended to set the share oplocks to **No (off)**.



Helpful Hints..
By default, each hard drive or volume will have an open-access rule. These rules must be deleted before user or group specific rules can be created.

Share	Path	User/Group	Comment	Oplocks	Map	R/W
Volume_1	Volume_1	ALL		no	no	Read/Write
Volume_2	Volume_2	ALL		no	no	Read/Write

By default, Windows Vista® has Oplocks enabled and can not be disabled. If you are having network performance issues with applications sharing files from the DNS-323 you may try to improve performance by setting Oplocks to **No (off)**.

Map Archive When enabled, the file attribute "Archive" will be copied as the file is being stored on the DNS-323. Certain backup software attach this attribute to files that are being stored as backups.

Comment Enter a comment for reference or description of the rule.

Network Access List Lists all defined access rules.

FTP Server

The DNS-323 is equipped with a built in FTP Server, which is easy to configure. It allows users access to important data whether they are on the local network or at a remote location. The FTP server can be configured to allow user access to specific directories, and will allow up to 10 users to access the DNS-323 at a time.

FTP Server Settings This section contains the configuration settings for the DNS-323 FTP Server.

FTP Access List The FTP access for users and groups can be added and edited here.

FTP Server Status The current settings and status of the DNS-323 FTP Server are displayed here.

Category Determines whether the FTP server rule will apply to an individual user or a group.

User / Group Select the group or user the FTP server rule will apply to.

Folder Browse to and select the folder or directory you are granting FTP access to. Select **root** to grant access to all volumes.

Permission Set the user or group permission to **Read Only** or **Read/Write**.

D-Link

DNS-323 // SETUP ADVANCED TOOLS STATUS SUPPORT LOGOUT

FTP SERVER SETTINGS :

Assign permissions for users and groups who will be accessing the FTP server from over the Internet.

FTP ACCOUNT SETTINGS :

Category User Group
 User Please Select user... All accounts
 Folder root
 Permission Read Only

FTP SERVER SETTINGS :

Max User 10
 Idle Time 2 (1~10 Minutes)
 Port 21 (1~65535,Default:21)
 Flow Control Unlimited x 10 KBs
 Client Language Western European

FTP ACCESS LIST :

:R/W : Read/Write :Read Only :Modify settings :Delete

Path	User/Group	R/W
DNS-323_SHARE	anonymous	<input checked="" type="checkbox"/>

FTP SERVER STATUS :

Port 21
 Max. User 10
 Flow Control Unlimited
 Idle Time 2
 Client Language Western European

Helpful Hints..
 If your DNS-323 is connected to a router, you will need to forward port 21 (in the router configuration) to the IP address of the DNS-323. From the outside world, remember to access this FTP server by using the WAN address of your router.

FTP Server Settings

- Max User** Sets the maximum amount of users that can connect to the FTP server.
- Idle Time** Sets the amount of time a user can remain idle before being disconnected.
- Port** Sets the FTP port. Default is 21.
- Flow Control** Allows you to limit the amount of bandwidth available for each user.
- Client Language** Most standard FTP clients like Windows FTP, only support Western European codepage when transferring files. Support has been added for non standard FTP clients that are capable of supporting these character sets.
- FTP Access List** Lists all defined FTP Rules.

FTP SERVER SETTINGS :

Max User	10 ▾	
Idle Time	2 (1~10 Minutes)	
Port	21 (1~65535,Default:21)	
Flow Control	<input checked="" type="radio"/> Unlimited <input type="radio"/> <input type="text"/> x 10 KBs	
Client Language	Western European ▾	<input type="button" value="Apply"/> <input type="button" value="Cancel"/>

FTP ACCESS LIST :

:R/W : Read/Write
 :Read Only
 :Modify settings
 :Delete

Path	User/Group	R/W
DNS-323_SHARE	anonymous	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

If you are behind a router, you will need to forward the FTP port from the router to the DNS-323. Additional filtering and firewall settings may need to be modified on your router to allow FTP Access to the DNS-323 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.

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 following:

- Name** Name the DNS-323 FTP server rule.
- IP Address** Enter the IP address of the DNS-323.
- Public Port** Enter the public FTP port. By default, the port is 21.
- Private Port** Enter the private FTP port. By default, the port is 21.
- Traffic Type** Set the traffic type to TCP.

Product Page: WBR-2310 Hardware Version: A1 Firmware Version: 1.01

D-Link

WBR-2310 // SETUP ADVANCED TOOLS STATUS SUPPORT

VIRTUAL SERVER RULES :

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.

Save Settings Don't Save Settings

20 - VIRTUAL SERVER RULES

	Name	IP Address	Port	Traffic Type	Schedule
<input checked="" type="checkbox"/>	DNS-323_FTP	192.168.0.32	Public 21	TCP	Always
<input type="checkbox"/>			Public	TCP	Always

Helpful Hints..

- 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.dns323.com:3000, where the FTP port is 3000).

UPnP AV Server

The DNS-323 features a UPnP AV Server. This server provides the ability to stream photos, music and videos to UPnP AV compatible network media players. If the server is enabled, the DNS-323 will be automatically detected by UPnP AV compatible media players on your local network.

UPnP AV Server Select **Enable** or **Disable** to enable or disable the DNS-323 UPnP AV server.

Folder Specifies the folder or directory that will be shared by the UPnP AV server. Select **root** to share all files on all volumes, or click **Browse** to select a specific folder.

Auto Refresh Set the device to auto refresh your media every 5 minutes up to every 24hrs. Select **None** to disable this feature.

Refresh Click the **Refresh** button after adding new files to be used by UPnP AV compatible devices.

The screenshot displays the D-Link DNS-323 web interface. The top navigation bar includes 'DNS-323 //', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', 'SUPPORT', and 'LOGOUT'. The left sidebar lists various settings categories: 'USERS / GROUPS', 'QUOTAS', 'NETWORK ACCESS', 'FTP SERVER', 'UPnP AV SERVER', 'iTunes SERVER', 'DHCP SERVER', and 'LLTD'. The main content area is titled 'UPnP AV SERVER SETTINGS :'. It contains a section for setting a media path with 'Save Settings', 'Don't Save Settings', and 'Refresh' buttons. Below this, the 'UPnP AV SERVER SETTINGS :' section shows the following configuration:

UPnP AV Server	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Folder	<input checked="" type="checkbox"/> root dlink-AD0FA3_SHARE
Auto Refresh	none <input type="button" value="v"/>

On the right side of the interface, there is a 'Helpful Hints..' section with the text: 'After adding new media content to the DNS-323, click the refresh button.'

iTunes Server

The DNS-323 features an iTunes Server. This server provides the ability to share music and videos to computers on the local network running iTunes. If the server is enabled, the DNS-323 will be automatically detected by the iTunes program and the music and videos contained in the specified directory will be available to stream over the network.

iTunes Server Select **Enable** or **Disable** to enable or disable the DNS-323 iTunes server.

Folder Specifies the folder or directory that will be shared by the iTunes server. Select **root** to share all files on all volumes, or click **Browse** to select a specific folder.

Password Sets password for the iTunes server. (Optional)

Auto Refresh Set the device to auto refresh your media every 5 minutes up to every 24hrs. Select **None** to disable this feature.

Refresh Click **Refresh** after adding new files to be used with iTunes.

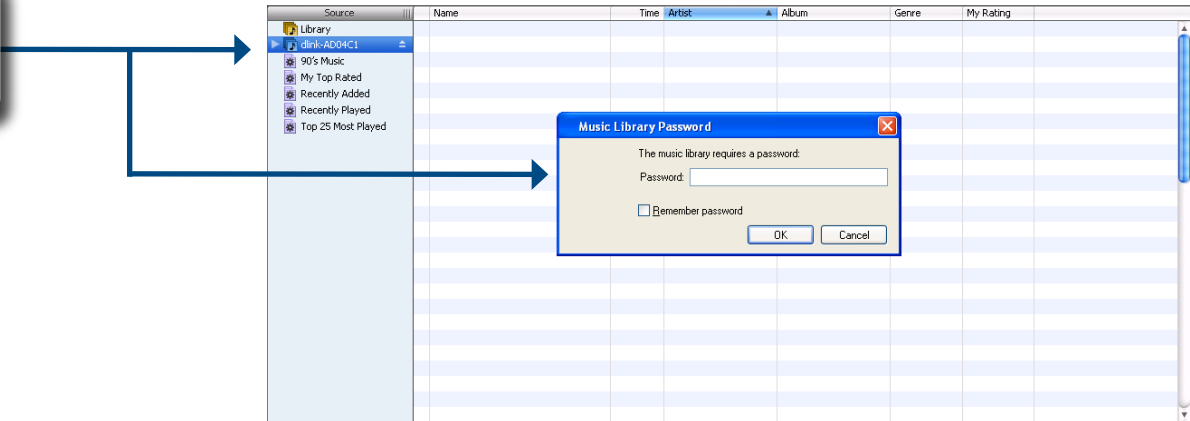
The screenshot displays the D-Link DNS-323 web interface. The top navigation bar includes tabs for SETUP, ADVANCED, TOOLS, STATUS, SUPPORT, and LOGOUT. The left sidebar lists various configuration sections: USERS / GROUPS, QUOTAS, NETWORK ACCESS, FTP SERVER, UPnP AV SERVER, iTunes SERVER (highlighted), DHCP SERVER, and LLTD. The main content area is titled "iTunes SERVER SETTINGS :" and contains the following configuration options:

- iTunes Server:** Radio buttons for Enable and Disable.
- Folder:** A checked checkbox for root, with a text input field containing "dlink-AD0FA3_SHARE".
- Password:** An empty text input field.
- Auto Refresh:** A dropdown menu currently set to "none".

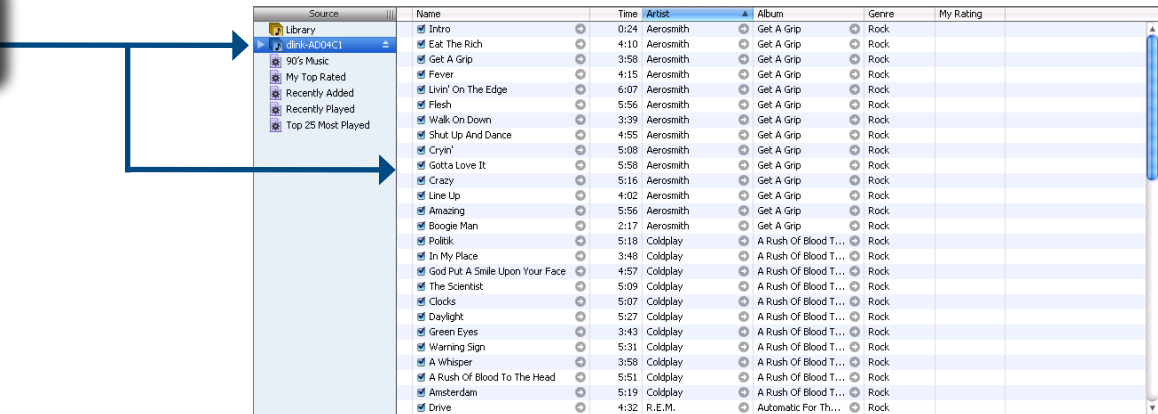
Below the settings are three buttons: "Save Settings", "Don't Save Settings", and "Refresh". On the right side of the interface, there is a "Helpful Hints.." section with the text: "iTunes will automatically detect the DNS-323 on the network. It will be listed on the left side of the program, below Library."

After enabling the iTunes server on the DNS-323, launch iTunes. When iTunes detects the DNS-323, select it and you will be prompted to enter the iTunes server password if required.

Select the DNS-323. When prompted, enter the iTunes server password. Click **OK**.



Media stored on the DNS-323 will be available for use in iTunes.



DHCP Server

The DNS-323 can be used as a DHCP Server. As a DHCP server, it can be used to serve IP addresses to other devices on your local network. However, this feature should not be enabled if you already have a DHCP server, such as a router on your local network.

DHCP Server Click the **Enabled** or **Disabled** radio button to enable or disable the DNS-323 DHCP server.

Starting IP Address Enter the starting IP address for the range of addresses assigned by the DHCP server.

Ending IP Address Enter the ending IP address for the range of addresses assigned by the DHCP server.

Lease Time Sets the duration of time that an IP address will remain assigned to a device.

DHCP Client List Displays the Hostname, IP address, MAC address and Expired Time of the clients that have received a DHCP address from the DNS-323.

D-Link

DNS-323 // SETUP ADVANCED TOOLS STATUS SUPPORT LOGOUT

USERS / GROUPS

QUOTAS

NETWORK ACCESS

FTP SERVER

UPnP AV SERVER

iTunes SERVER

DHCP SERVER

LLTD

DHCP SERVER SETTINGS :

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

Save Settings Don't Save Settings Refresh

DHCP SERVER :

DHCP Server : Enabled Disabled

Starting IP Address :

Ending IP Address :

Lease Time :

DHCP CLIENT LIST :

Host name	IP Address	MAC Address	Expired Time
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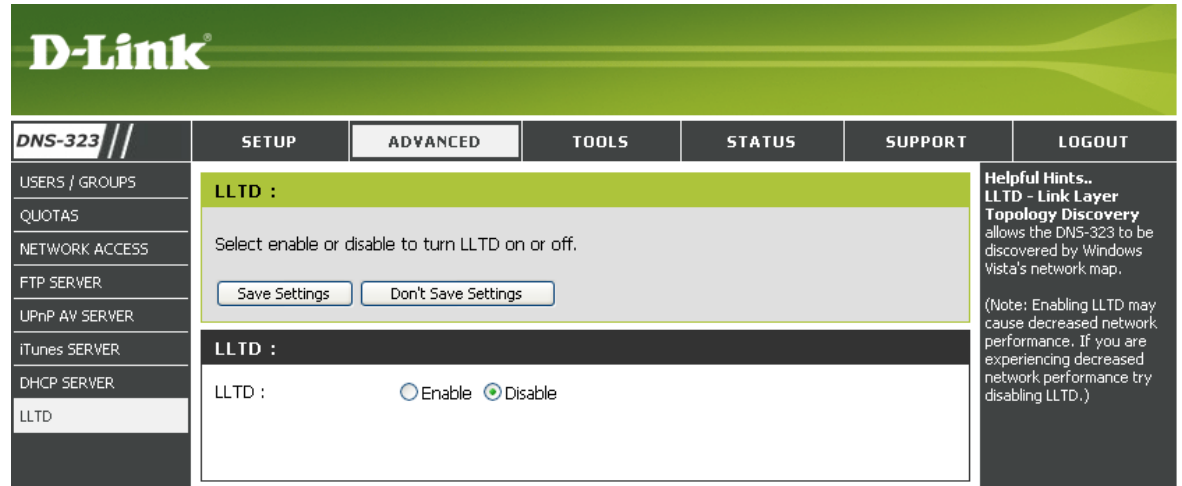
Helpful Hints..

If you already have a router assigning DHCP to the network, do not enable this feature. The DHCP server should be used when no other DHCP server is available.

LLTD

The DNS-323 supports LLTD. LLTD stands for Link Layer Topology Discovery and is used by the Network Map application that is included in Windows Vista®.

LLTD Click the **Enable** or **Disable** radio button to enable or disable the DNS-323 LLTD service



The screenshot shows the D-Link DNS-323 web interface. The top navigation bar includes tabs for SETUP, ADVANCED, TOOLS, STATUS, SUPPORT, and LOGOUT. The left sidebar lists various configuration options, with LLTD selected. The main content area is titled 'LLTD :' and contains the following text: 'Select enable or disable to turn LLTD on or off.' Below this text are two buttons: 'Save Settings' and 'Don't Save Settings'. At the bottom of the main content area, there is a section for 'LLTD :' with two radio buttons: 'Enable' and 'Disable'. The 'Disable' radio button is selected. On the right side of the interface, there is a 'Helpful Hints..' section with the following text: 'LLTD - Link Layer Topology Discovery allows the DNS-323 to be discovered by Windows Vista's network map. (Note: Enabling LLTD may cause decreased network performance. If you are experiencing decreased network performance try disabling LLTD.)'

Tools

Admin Password

The Admin menu allows you to set a password for your admin account. It is recommended to set a password when first configuring the DNS-323.

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

Password Enter the current password. (Leave this blank if you have not set a password yet.)

New Password Enter a new password.

Confirm Password Enter the new password again for confirmation.

The screenshot shows the D-Link DNS-323 Admin Web Interface. The top navigation bar includes the D-Link logo and a menu with options: SETUP, ADVANCED, TOOLS (selected), STATUS, SUPPORT, and LOGOUT. The left sidebar lists various configuration categories: ADMIN PASSWORD (selected), TIME, SYSTEM, FIRMWARE, E-MAIL ALERTS, POWER MANAGEMENT, RAID, and DDNS. 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'. On the right side, there is a 'Helpful Hints..' section with the following text: 'For security reasons, it is recommended that you change the Password for the Administrator . Be sure to write down the new Passwords to avoid having to reset the DNS-323 in the event that they are forgotten.'

Click **Save Settings** to save the new password.

Time

The DNS-323 Time page contains several different options for setting the device's internal clock. It is important to set an accurate time so that backups and downloads can be accurately scheduled.

NTP Server Network Time Protocol (NTP) synchronizes the DNS-323 with an Internet time server.

D-Link provides two time servers for your convenience. Choose the one closest to your location.

Time Zone Select your time zone from the drop-down menu.

From My Computer This option will synchronize the DNS-323 clock with your computer.

Click **Set Time** to sync with the local computer.

Set Time Manually This option allows you to set the time and date manually.

Enter the appropriate time and date and click **Set Time**.

Daylight Saving Time Available Daylight Saving Time options are **None**, **USA**, or **EU** (Europe).

Select the appropriate option and click **Set Time**.

D-Link

DNS-323 // SETUP ADVANCED TOOLS STATUS SUPPORT LOGOUT

ADMIN PASSWORD

TIME

SYSTEM

FIRMWARE

E-MAIL ALERTS

POWER MANAGEMENT

RAID

DDNS

SYSTEM TIME SETTINGS :
Set the system time by synching with NTP, synching with your computer, or manually entering it.

Time: 11:07:29 Date: 04/14/08

NTP SERVER :

NTP Server << Select NTP Server

Time Zone
(GMT) Greenwich Mean Time: Lisbon, London

FROM MY COMPUTER :

Set time from my computer.

SET THE DATE AND TIME MANUALLY :

Month Day Year

Hour Minute Second

DAYLIGHT SAVING TIME :

Daylight Saving Time :

Helpful Hints..
Using the NTP option will guarantee the time to be accurate provided that the DNS-323 is connected to the Internet and your DNS values (in SETUP > LAN) are valid.

System

The DNS-323 System menu provides options for system restarts, saving and loading configuration settings, and setting idle times.

Restart Click **Restart** to reboot the DNS-323.

Restore Defaults Click **Restore** to reset the DNS-323 to its factory default settings. This will erase all previous configuration changes.

Shutdown Click **Shutdown** to turn off the DNS-323.

Configuration Settings Click **Save** to save the current DNS-323 configuration settings to a file on the local computer. If at a later time you need to reload this configuration after a system reset, browse to the file and click **Load**.

Idle Time Enter the time (in minutes) that the administrator will be allowed to remain idle while accessing the DNS-323 configuration settings or that users will be allowed to remain idle while accessing the download schedule settings.

Click **Apply** to save the settings.

D-Link

DNS-323 // SETUP ADVANCED **TOOLS** STATUS SUPPORT LOGOUT

ADMIN PASSWORD
TIME
SYSTEM
FIRMWARE
E-MAIL ALERTS
POWER MANAGEMENT
RAID
DDNS

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

Helpful Hints..
If you restore to factory defaults, all current settings will be erased.

Firmware

The DNS-323 Firmware menu makes it simple to check for new firmware releases and upload them to the device.

Firmware Upgrade

This section provides a link to check for new firmware on the D-Link support website.

If a new firmware is available, download the file to your local computer.

Current Firmware Info

This section provides information about the current DNS-323 firmware.

When upgrading the firmware, click **Browse** to select the new firmware file on your local computer.

Click **Apply** to begin the firmware upgrade process.

The screenshot shows the D-Link DNS-323 web interface. The top navigation bar includes the D-Link logo and tabs for SETUP, ADVANCED, TOOLS, STATUS, SUPPORT, and LOGOUT. The left sidebar lists menu items: ADMIN PASSWORD, TIME, SYSTEM, FIRMWARE, E-MAIL ALERTS, POWER MANAGEMENT, RAID, and DDNS. The main content area is divided into two sections:

FIRMWARE UPGRADE :

A new firmware upgrade may be available for your DNS-323. It is recommended to keep your DNS-323 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-323, 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.

Buttons:

CURRENT FIRMWARE INFO :

Current Firmware Version : 1.05
 Firmware Date : 04/07/2008
 File Path :

Helpful Hints..

Firmware updates are released periodically to maintain and improve the functionality of your DNS-323 and also to add features. If you run into a problem with a specific feature of the DNS-323, check our support site by clicking on the [D-Link Support Page](#) link and see if an updated firmware is available for your DNS-323.

E-Mail Alerts

With the DNS-323 E-Mail Alerts, you can configure e-mails to be sent alerting you to certain operational conditions and drive status conditions. These alerts can prove helpful with the management and safeguarding of important data.

Alert Settings This section contains the configuration settings for the your e-mail account and alert preferences.

Once configured, use the **Test E-Mail** button to send a test e-mail and confirm your settings are correct.

Alert Types This section contains the alert options and their configuration settings.

D-Link

DNS-323 //

SETUP ADVANCED TOOLS STATUS SUPPORT LOGOUT

ADMIN PASSWORD
TIME
SYSTEM
FIRMWARE
E-MAIL ALERTS
POWER MANAGEMENT
RAID
DDNS

E-MAIL ALERTS :
E-mail yourself alerts for certain conditions or for drive space status updates.
Save Settings Don't Save Settings Clear Saved Settings

E-MAIL ALERT SETTINGS :

Login Method : Account Anonymous
User Name :
Password :
SMTP Server :
Sender E-mail :
Receiver E-mail :
Test E-Mail

ALERT TYPES :

Space Status Interval: 0 (Hours) 0 (Minutes)
 A Volume Is Full
 A Hard Drive Has Failed
 The Administrator's Password Has Been Changed
 Firmware Has Been Upgraded
 System Temperature Has Exceeded 140 °F
Enabling this feature will cause the DNS-323 to shut down after the selected temperature is exceeded and an e-mail is sent.

Helpful Hints..
The SMTP server is your outgoing mail server. If you aren't sure what this is, contact the company that provides e-mail services for you.

E-Mail Alert Settings

Login Method Select either **Account** or **Anonymous**. Choosing Anonymous does not require a User Name or Password.

User Name Enter the appropriate user name for your e-mail account.

Password Enter the appropriate password for your e-mail account.

SMTP Server Enter the IP address or domain name of your outgoing mail server. If you are unsure of this value, contact your e-mail provider.

Sender E-Mail Enter the “from” e-mail address (e.g. alerts@dns323.com). This field does not require a valid e-mail address. However, if your e-mail client is filtering spam, make sure you allow this address to be received.

Receiver E-Mail Enter the e-mail address that will receive the alerts. This address must correspond with the SMTP server configured above.

Test E-Mail Click the **Test E-Mail** button to send a test alert and confirm your settings are correct.

E-MAIL ALERT SETTINGS:

Login Method : Account Anonymous

User Name :

Password :

SMTP Server :

Sender E-mail :

Receiver E-mail :

E-MAIL ALERT SETTINGS:

Login Method : Account Anonymous

SMTP Server :

Sender E-mail :

Receiver E-mail :

E-Mail Alert Types

- Space Status** Select an interval in hours and minutes to have a status of space remaining on the drives e-mailed.
- A Volume Is Full** An alert will be sent when the hard drive is full.
- A Hard Drive Has Failed** An alert will be sent if a critical error occurs on one of the drives.
- Administrator Password Change** An alert will be sent if the admin password is changed.
- Firmware Upgraded** An alert will be sent if the firmware is upgraded.
- System Temperature Exceeded** An alert will be sent if the DNS-323 device temperature exceeds the set threshold. After the alert has been sent, the DNS-323 will power off for safety.

ALERT TYPES :

Space Status Interval: (Hours) (Minutes)

A Volume Is Full

A Hard Drive Has Failed

The Administrator's Password Has Been Changed

Firmware Has Been Upgraded

System Temperature Has Exceeded °F

Enabling this feature will cause the DNS-323 to shut down after the selected temperature is exceeded and an e-mail is sent.

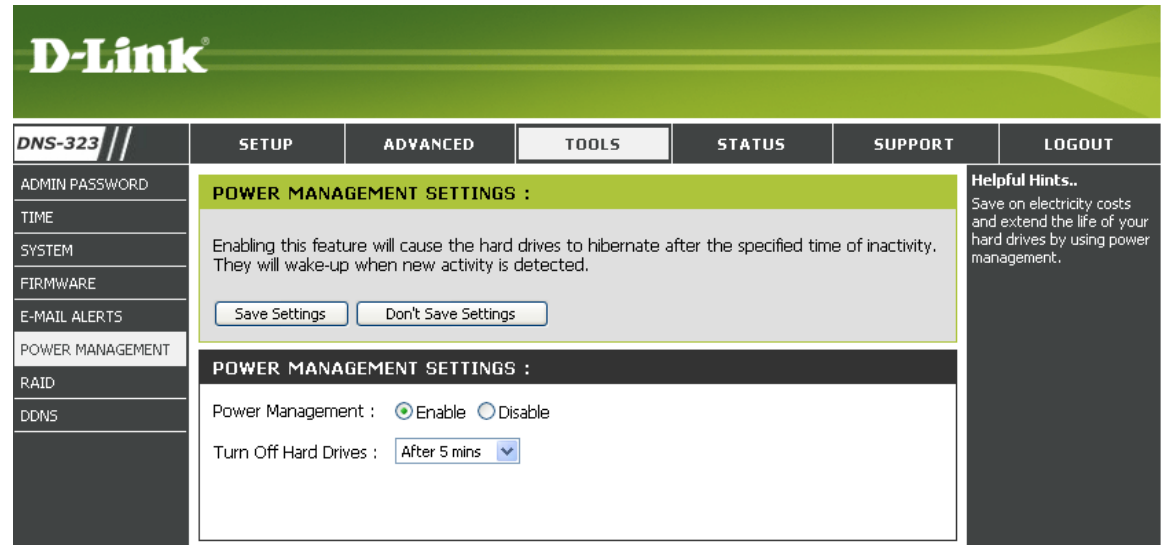
Power Management

The DNS-323 Power Management feature allows you to configure the drives to shut down while power remains constant to the device. The drives will power up again when data is accessed.

Power Management **Enable** or **Disable** Power Management on the DNS-323 by clicking the appropriate radio button.

Turn off Hard Drives Set the amount of time before idle drives will shut down.

Click **Apply** to save the settings.



D-Link

DNS-323 // SETUP ADVANCED TOOLS STATUS SUPPORT LOGOUT

ADMIN PASSWORD
TIME
SYSTEM
FIRMWARE
E-MAIL ALERTS
POWER MANAGEMENT
RAID
DDNS

POWER MANAGEMENT SETTINGS :

Enabling this feature will cause the hard drives to hibernate after the specified time of inactivity. They will wake-up when new activity is detected.

Save Settings Don't Save Settings

POWER MANAGEMENT SETTINGS :

Power Management : Enable Disable

Turn Off Hard Drives : After 5 mins

Helpful Hints..
Save on electricity costs and extend the life of your hard drives by using power management.

RAID

The DNS-323 supports four different disk configuration types: **Standard**, where each drive is a unique volume, **JBOD**, which combines both drives in a linear fashion to create one volume, as well as **RAID 0** and **RAID 1**.

RAID Settings Click **Set RAID Type and Re-Format** to change the current drive configuration.

If you already have one drive installed, and intend to install the second drive, the DNS-323 allows you to change the drive configuration from Standard to RAID 1, which you can mirror the data from the 1st drive to the 2nd drive to protect your valuable data. This will erase all the data in the new 2nd drive.

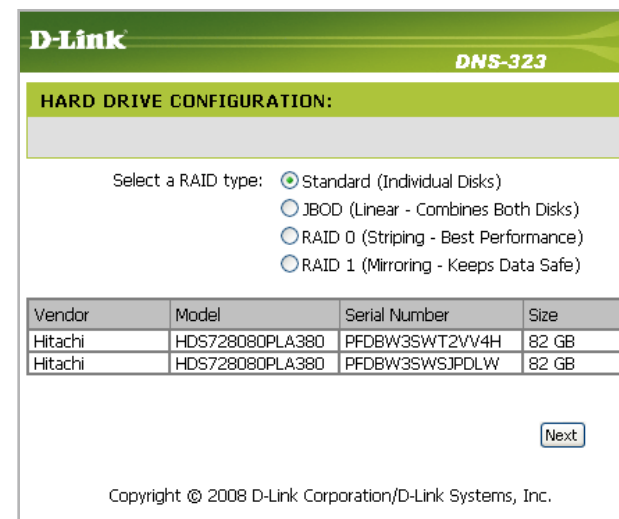
If you have installed a 2nd drive and “skipped” the configuration, you will see there is an additional option allowing you to configure the 2nd Hard Drive. This will erase all the data stored on the 2nd Hard Drive.



A pop-up window will appear with the drive configuration options.

Choose the RAID option you want to implement, by clicking the appropriate radio button and press **Next** button.

The steps for configuring RAID are identical to the steps carried out earlier from the **Getting Started** section of the manual.



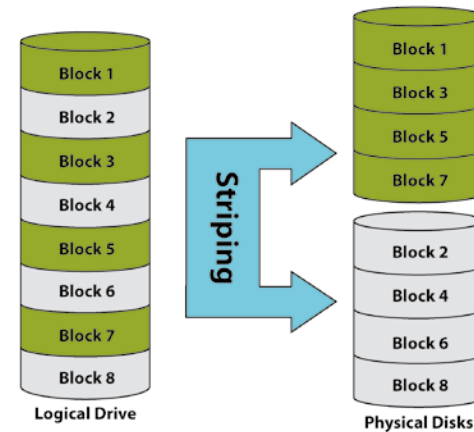
What is RAID?

RAID, short for Redundant Array of Independent Disks, is a combination of two or more disks with the aim of providing fault tolerance and improving performance. There are several different levels of RAID, with each providing a different method of sharing or distributing data amongst the drives. The DNS-323 supports RAID levels 0 and 1.

RAID 0 RAID 0 provides *data striping*, which spreads out blocks of data over both drives, but does not provide data redundancy.

Although performance is improved, the lack of fault tolerance means that if one drive fails, all data in the array will be lost.

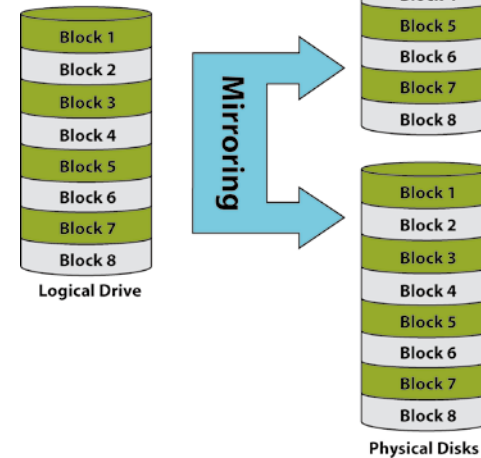
RAID 0



RAID 1 RAID 1 provides *mirroring* over both disks, with the same read/write speed of a single disk. A RAID 1 array can only be as large as its smallest member disk.

Because the data is stored on both disks, RAID 1 provides fault tolerance and protection, in addition to performance advantages.

RAID 1



DDNS

The DDNS 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 domain name to connect to your server no matter what your IP address is.

DDNS Select **Enable** or **Disable**.

Server Address Enter the DDNS server address or select from the drop-down menu.

Host Name Enter your DDNS host name.

Username or Key Enter your DDNS username or key.

Password or Key Enter your DDNS password or key.

Verify Password or Key Re-enter your password or key.

Timeout The time between periodic updates to the Dynamic DNS, if your dynamic IP address has not changed. The timeout period is entered in hours

Status Displays your DDNS status.

D-Link

DNS-323 // SETUP ADVANCED TOOLS STATUS SUPPORT LOGOUT

ADMIN PASSWORD

TIME

SYSTEM

FIRMWARE

E-MAIL ALERTS

POWER MANAGEMENT

RAID

DDNS

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)

Save Settings Don't Save Settings

DDNS SETTING :

DDNS Enable Disable

Server Address << Select Dynamic DNS Server

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

Username or Key

Password or Key

Verify Password or Key

Timeout (hours)

Status Disconnected

Helpful Hints..

To use this feature, you must first have a Dynamic DNS account from one of the providers in the drop down menu.

Status

Device Information

LAN Info Displays the local network settings of the DNS-323.

Device Info Displays the workgroup, name, description and current temperature of the DNS-323.

Printer Info Displays information for a connected USB printer.

If your computer is having problems printing to the DNS-323, you can click the **Clear Print Queue(s)** button to remove any print jobs that may be causing your computer to be unable to print.

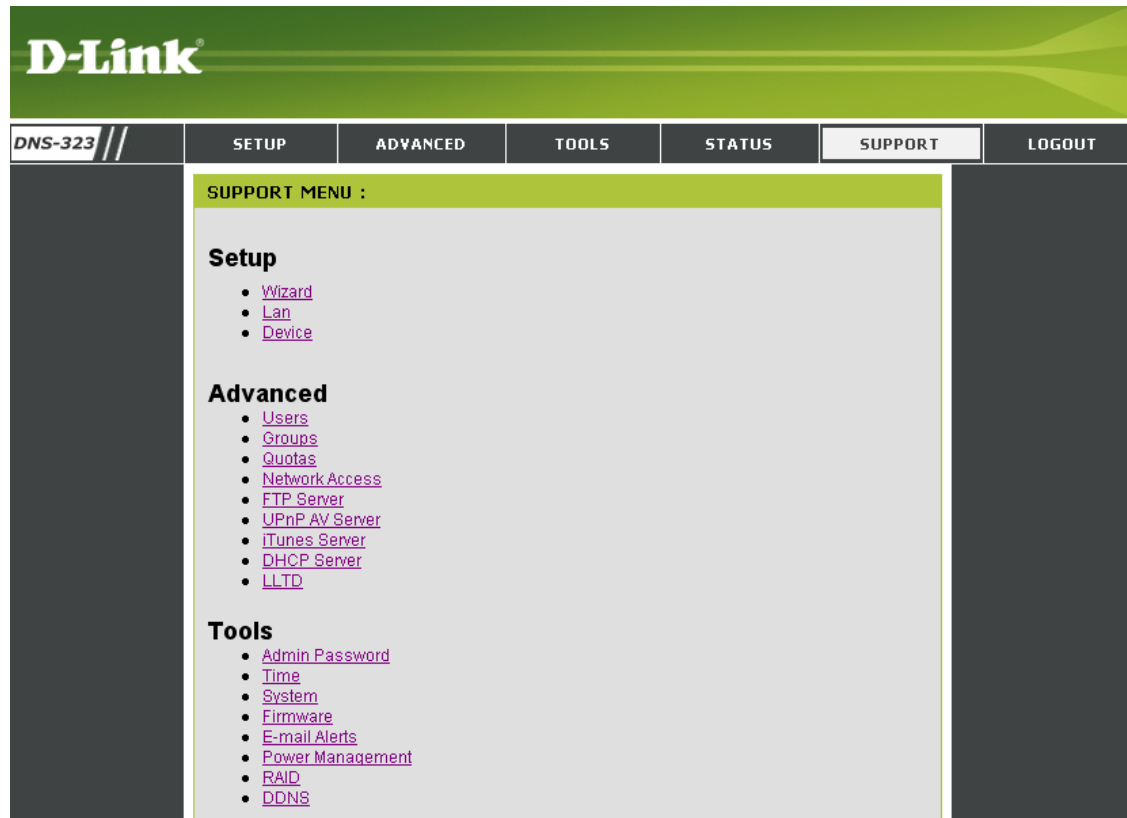
Hard Drive Info Displays the hard drive information, including the disk mode, total size, used and remaining drive space.

The screenshot shows the D-Link DNS-323 web interface. The top navigation bar includes links for SETUP, ADVANCED, TOOLS, STATUS (selected), SUPPORT, and LOGOUT. The main content area is titled 'DEVICE INFORMATION' and contains several sections:

- LAN INFO :**
 - IP Address: 192.168.0.32
 - Subnet Mask: 255.255.255.0
 - Gateway IP Address: 192.168.0.1
 - Mac Address: 00:17:9A:AD:0F:A3
 - DNS1:
 - DNS2:
- DEVICE INFO :**
 - Workgroup: workgroup
 - Name: dlink-AD0FA3
 - Description: DNS-323
 - System Temperature: 113 F/ 45 C
- PRINTER INFO :**
 - Manufacturer: None
 - Product: None
 - Clear print queue(s) button
- HARD DRIVE INFO :**
 - Total Drive(s): 2
 - Volume Name: Volume_1
 - Total Hard Drive Capacity: 79997 MB
 - Used Space: 24 KB
 - Unused Space: 79997 MB
 - Volume Name: Volume_2
 - Total Hard Drive Capacity: 79997 MB
 - Used Space: 24 KB
 - Unused Space: 79997 MB

Support

The DNS-323 Support page provides a menu of Support topics explaining the features of the device.



Mapping a Drive

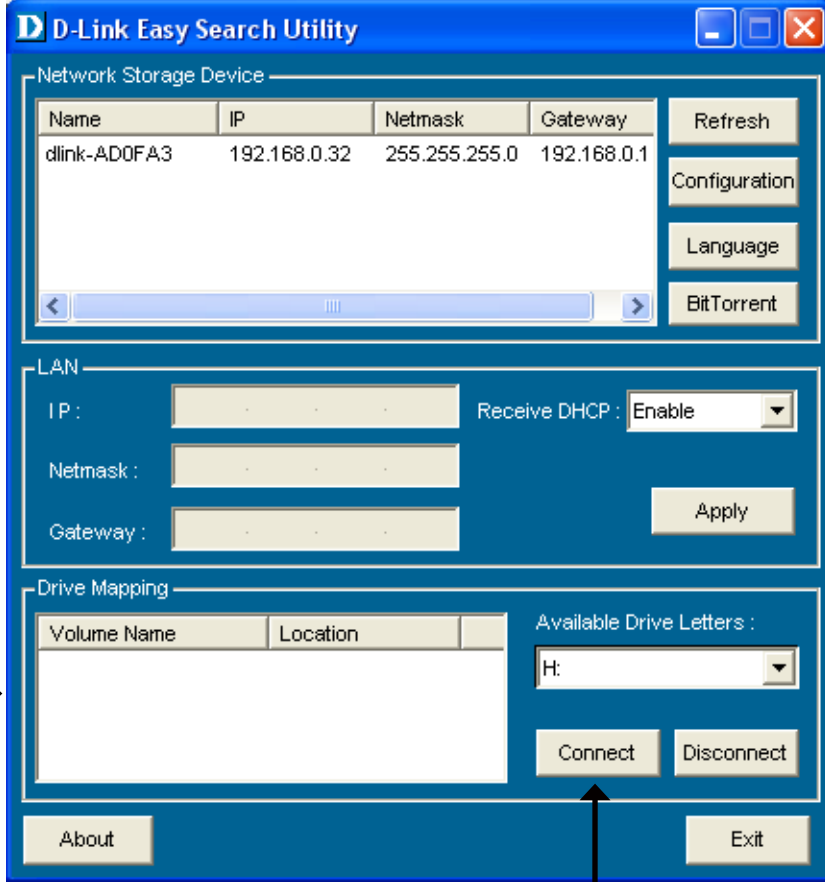
You can use the D-Link Easy Search Utility to map drives to your computer. Insert the DNS-323 CD into your CD-ROM drive.

Click **Easy Search Utility**.



The Easy Search Utility will load and detect any DNS-323 devices that are on the local network.

If the DNS-323 you are working with does not show up in the device list, click **Refresh**.



The screenshot shows the D-Link Easy Search Utility window. It has three main sections: Network Storage Device, LAN, and Drive Mapping. The Network Storage Device section contains a table with columns for Name, IP, Netmask, and Gateway. The LAN section has input fields for IP, Netmask, and Gateway, along with a dropdown for Receive DHCP and an Apply button. The Drive Mapping section has a table for Volume Name and Location, a dropdown for Available Drive Letters, and Connect/Disconnect buttons. Callout boxes point to the Refresh button, the Drive Mapping table, and the Available Drive Letters dropdown.

Highlight an available DNS-323.

All available volumes will be displayed under **Drive Mapping**. Highlight the volume you want to map to your computer.

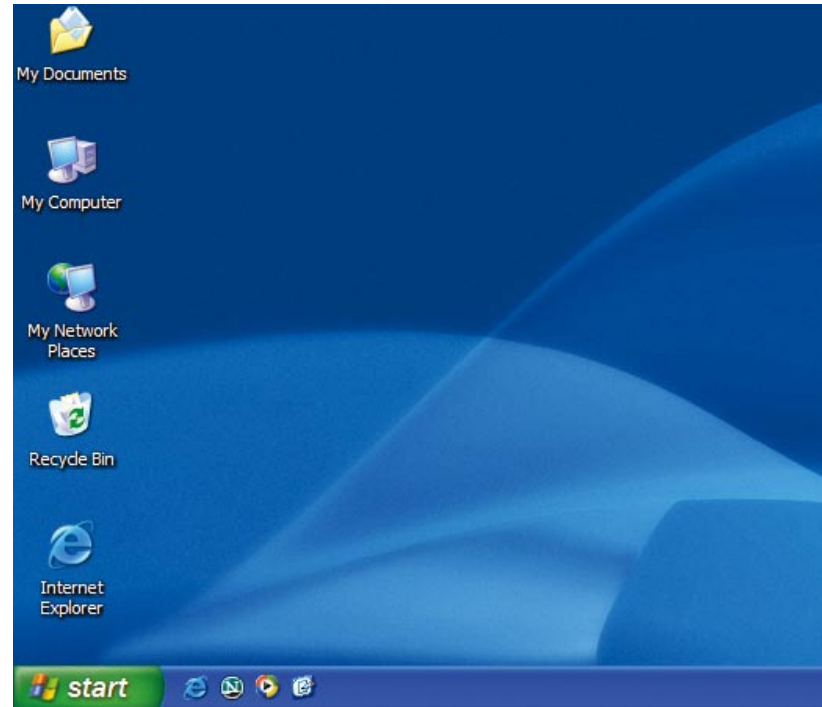
Select an available drive letter from the drop-down menu and click **Connect**.

Name	IP	Netmask	Gateway
dlink-AD0FA3	192.168.0.32	255.255.255.0	192.168.0.1

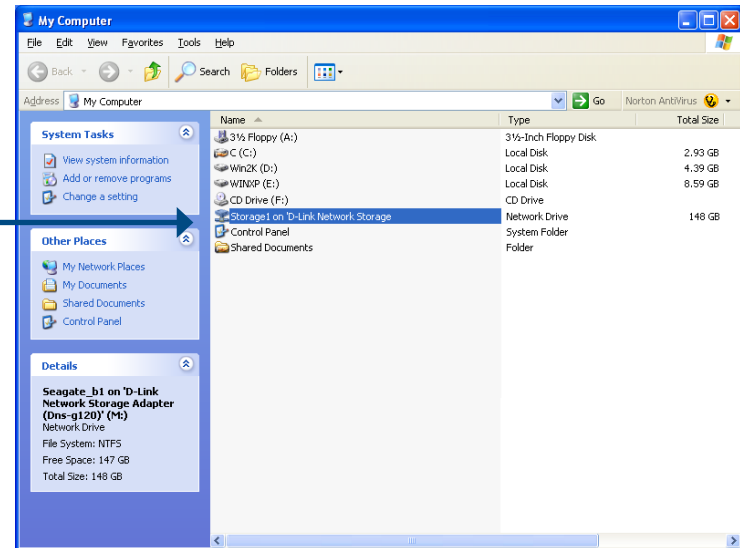
Volume Name	Location
-------------	----------

Once connected, your mapped drive(s) will appear in **My Computer**.

Double-click the **My Computer** icon on your desktop.



Double-click on the mapped drive to access the files and folders.



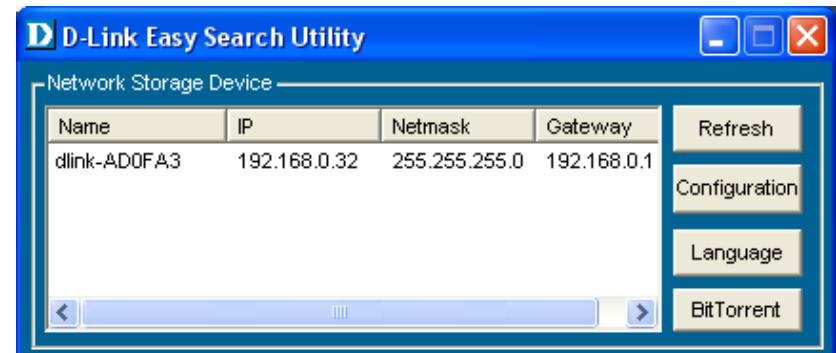
Download Scheduling

The DNS-323 Download Scheduling feature allows you to schedule folder or file downloads and backup sessions.

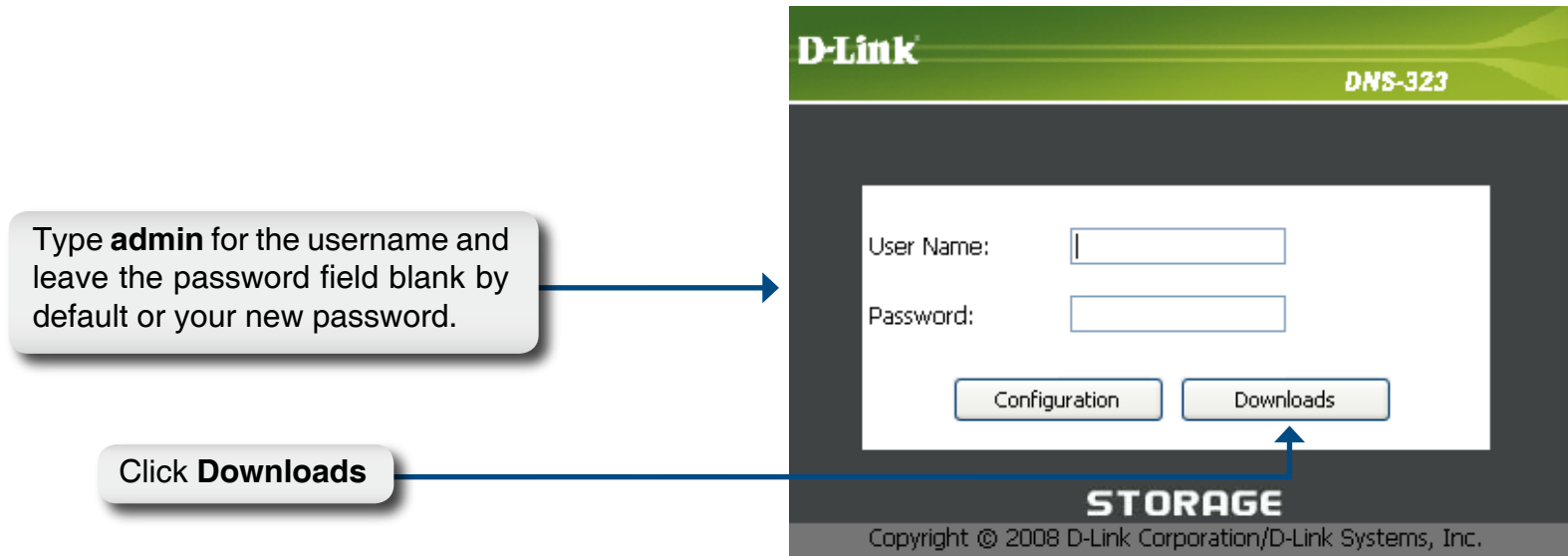
Begin by accessing the web-based configuration utility of your DNS-323:

Click **Easy Search Utility**.

Highlight an available DNS-323 and click **Configuration** to access the web-based utility.



The DNS-323 login screen will appear:



The DNS-323's **Download Scheduling** configuration page will appear.

Schedule Downloads

Scheduling Settings

Configure download and backup schedules here.

Schedule List

The Schedule List will display all completed, active, and pending scheduled downloads and backups.

D-Link

DNS-323 // Schedule Downloads BitTorrent Support Logout

SCHEDULING SETTINGS :

Schedule downloads of files and folders from an FTP server, web server, or local network share.

Save Settings Don't Save Settings

SCHEDULING SETTINGS :

Login Method Account Anonymous

User Name *****

Password *****

Type File

URL Test Local

Save To Browse

When Date : 04 / 22 / 2008

Time : 11 : 28

Recurring Backup None 00 : 00

Incremental Backup (Only for local backup)

SCHEDULE LIST :

Status	Download Path	Save To	Time	Del
Refresh				

Helpful Hints..
Always test the URL before applying changes. This will help to ensure a successful download.

Scheduling Settings

Login Method 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.

Type Select **File** or **Folder**, depending on what you want to download or backup.

URL 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

Test Click **Test** to test the URL is valid and the user name and password are correct.

Local Click **Local** to set the source file or folder from one of the internal drive volumes. Click **Browse** to select the file or folder, and click **Ok** to accept the network path.

Save To Enter a valid destination drive on the DNS-323, or click **Browse** to select the destination.

When Enter the date and time you want the scheduled backup or download to occur.

Recurring Backup Designate the interval and time you want the backup or download to run unattended.

Incremental Backup By default all local backups and file/folder downloads are in **Overwrite** mode, meaning that identical files in the destination folder will be overwritten by the source files. Checking **Incremental Backup** will have the DNS-323 compare identical file names at the source and destination. Files will only be overwritten if the source file is more recent edited.

BitTorrent

The DNS-323 features a built-in BitTorrent Manager allowing you to Download and Upload Torrents with the DNS-323.

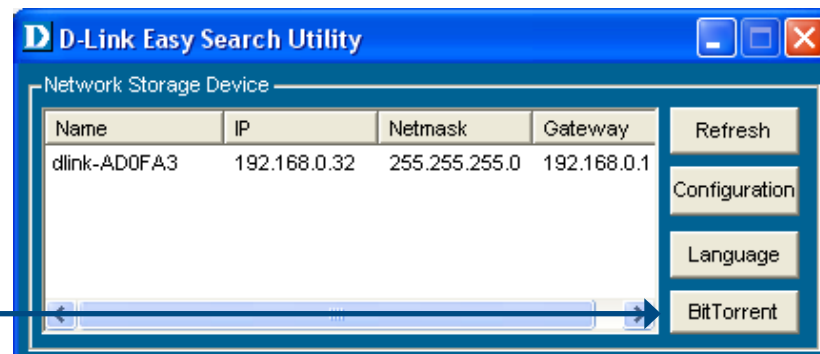
Installing BitTorrent

To install the BitTorrent program, insert the DNS-323 CD into your CD-ROM and launch the Easy Search Utility.

Click **Easy Search Utility**.



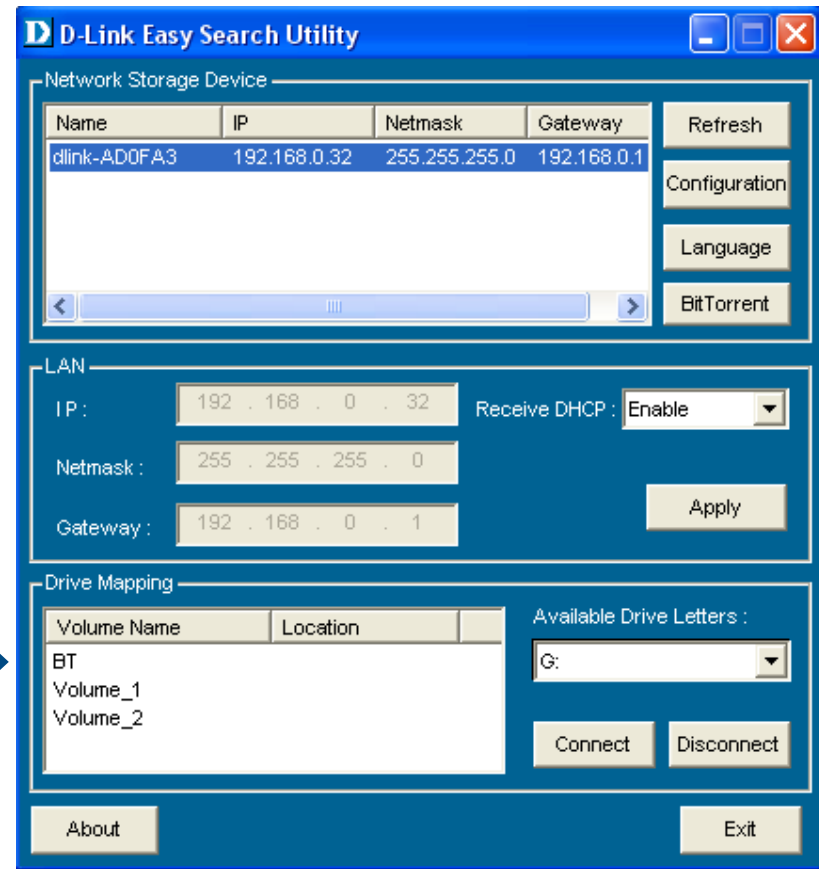
Highlight the DNS-323 and click the **BitTorrent** button



When the BitTorrent installation has completed, the following window will appear to indicate that the DNS-323 is restarting.

After restarting, the Easy Search utility will show the BitTorrent as a volume on the DNS-323.

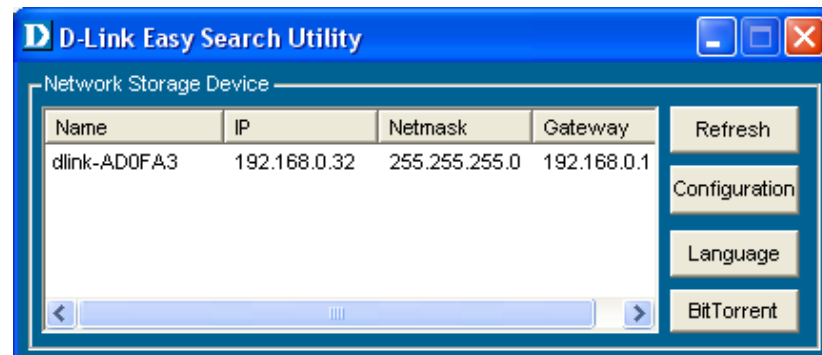
BitTorrent is appearing as a volume.



BitTorrent Configuration

After installing the BitTorrent program, you can access the DNS-323 built-in BitTorrent menu by inserting the DNS-323 CD into your CD-ROM and launching the Easy Search Utility.

Highlight an available DNS-323 and click **Configuration** to access the web-based utility.



The DNS-323 login screen will appear:

Type **admin** for the username and leave the password field blank by default or your new password.

Click **Downloads**.



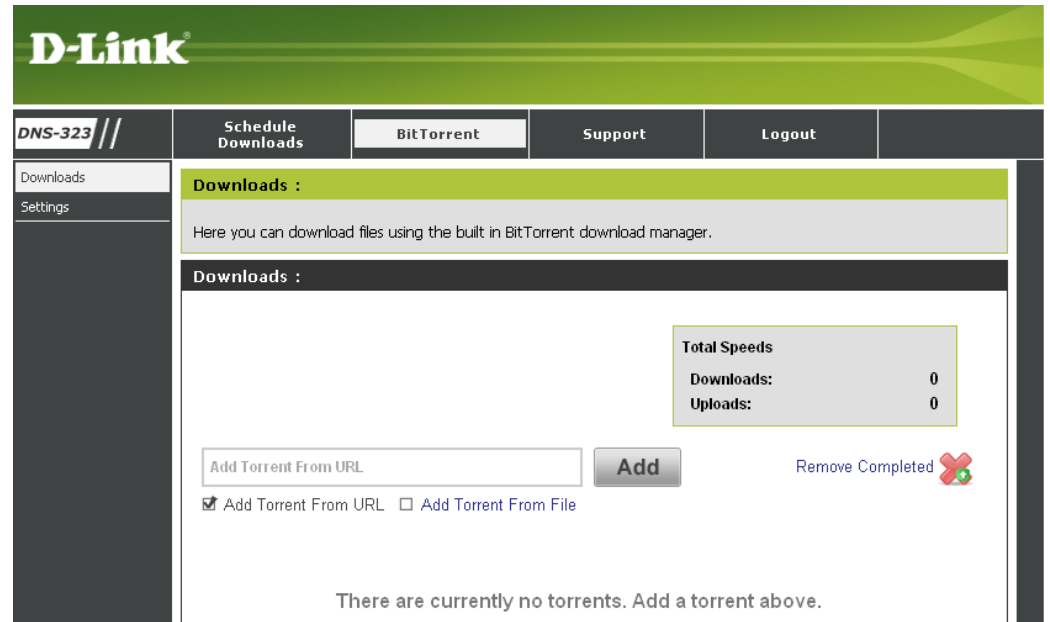
Click on the **BitTorrent** tab to access the BitTorrent settings. You can add Torrents from either a URL or from a file on your PC.

Adding a Torrent From URL

To add a Torrent from a URL

- Click the **Add Torrent from URL** checkbox.
- Type in the URL of the website where you will download the Torrent from and click the **Add** button.

The Torrent will now appear in the Downloads list.

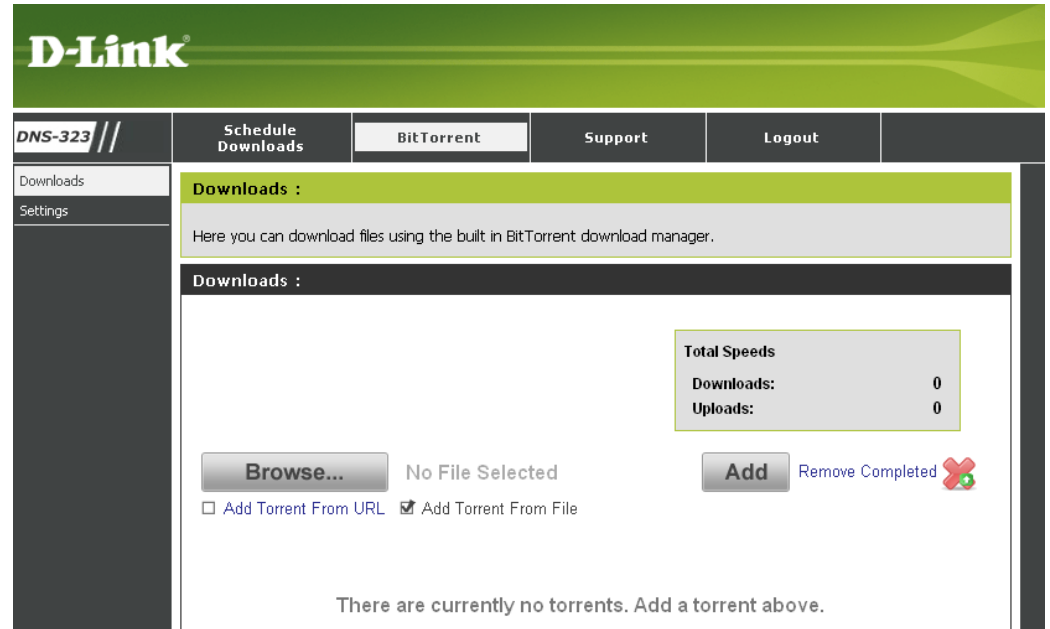


Adding a Torrent From File

To add a Torrent from a File

- Click the **Add Torrent from File** checkbox.
- Click the **Browse** button.
- Navigate to the folder where the Torrents are located on your PC and click the **Add** button.

The Torrent will now appear in the Downloads list.



The screenshot displays the D-Link DNS-323 BitTorrent web interface. The top navigation bar includes 'DNS-323 //', 'Schedule Downloads', 'BitTorrent', 'Support', and 'Logout'. The left sidebar shows 'Downloads' and 'Settings'. The main content area is titled 'Downloads :'. Below the title, it states 'Here you can download files using the built in BitTorrent download manager.' A 'Downloads :' section is currently empty. On the right, a 'Total Speeds' box shows 'Downloads: 0' and 'Uploads: 0'. A 'Browse...' button is present, with 'No File Selected' next to it. Below the button, there are two checkboxes: 'Add Torrent From URL' (unchecked) and 'Add Torrent From File' (checked). An 'Add' button and a 'Remove Completed' link with a red 'X' icon are also visible. At the bottom, a message reads 'There are currently no torrents. Add a torrent above.'

Torrent Settings

Click the Settings link in the **BitTorrent** menu to change the Bit Torrent settings.

You can use the radio buttons on this screen to customize the Bit Torrent Settings of the DNS-323.

Port Settings 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.

Bandwidth Management To manually set the Bandwidth Management click the **Manual** radio button and type in the Maximum download rate, Maximum upload rate and Maximum upload rate when seeding in the appropriate text boxes.

Seeding Select the appropriate seeding option from the radio buttons.

D-Link

DNS-323 // Schedule Downloads BitTorrent Support Logout

Downloads 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

Downloads Support

The DNS-323 features support files to help you with the Downloads features.

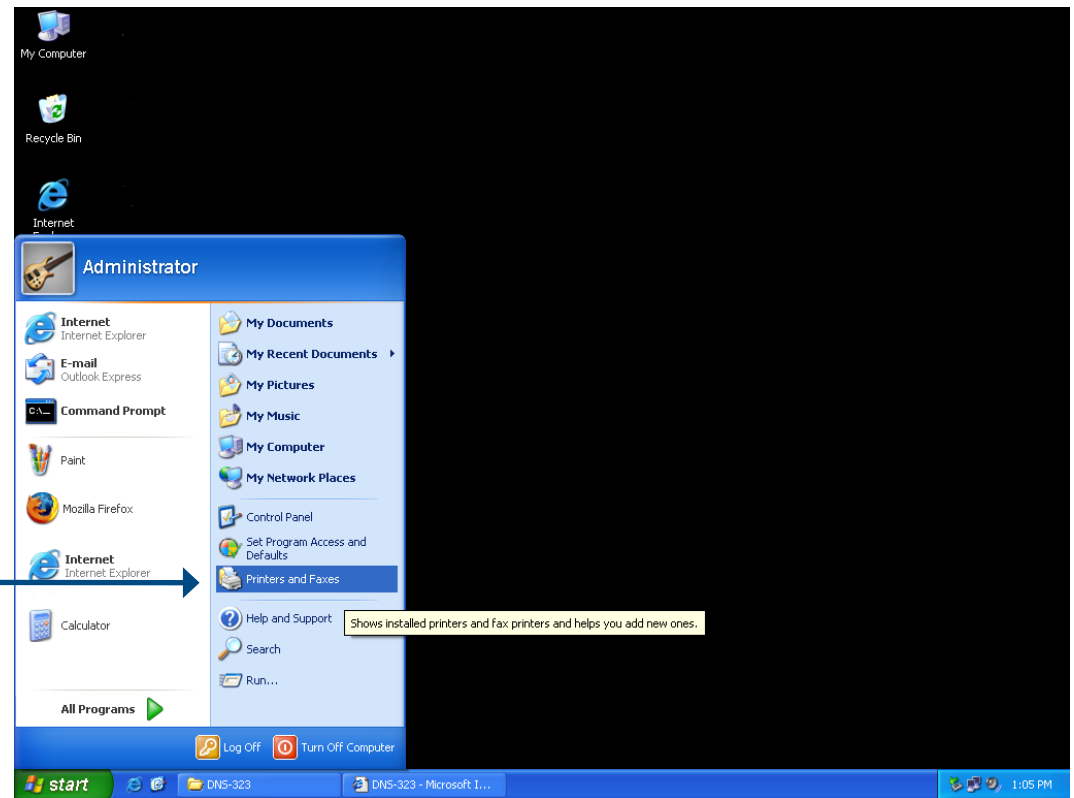


USB Print Server

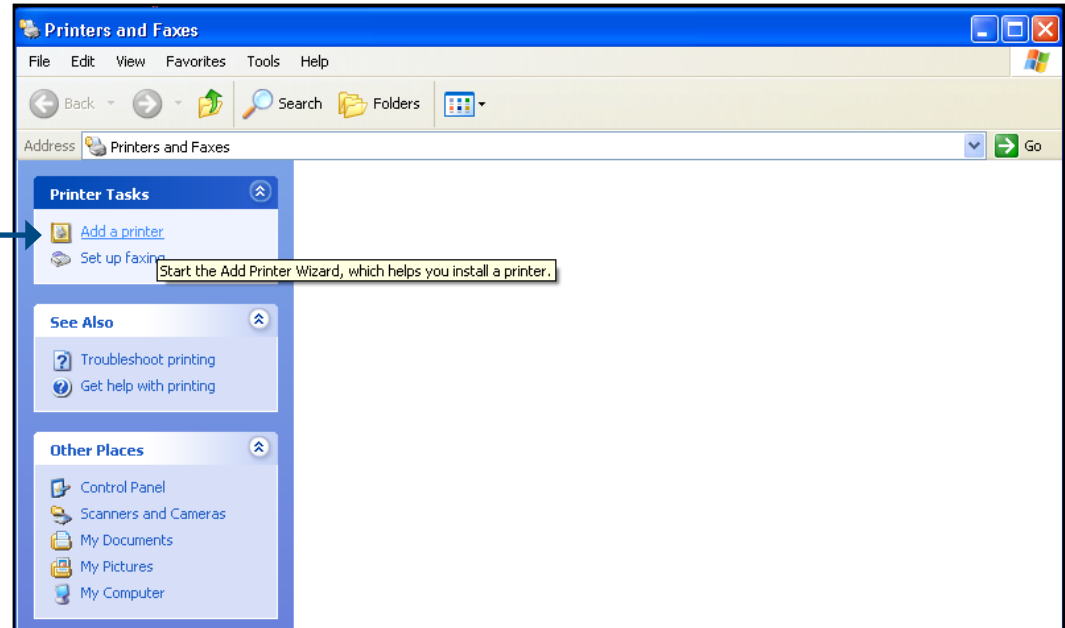
The DNS-323 features a built-in USB print server, giving users the ability to share a printer on their local network. Connect a USB printer to the USB port on the back of the DNS-323. It is important to ensure that any of the printer manufacturer's drivers are already installed on any computer you want to print from.

To add a printer:

Click **Start**, and select Printers and Faxes.



Select **Add a printer**

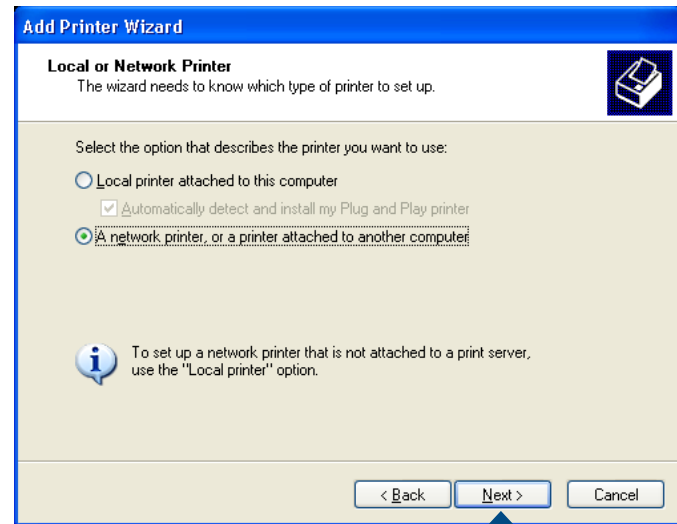


The Windows® Add Printer Wizard will launch:

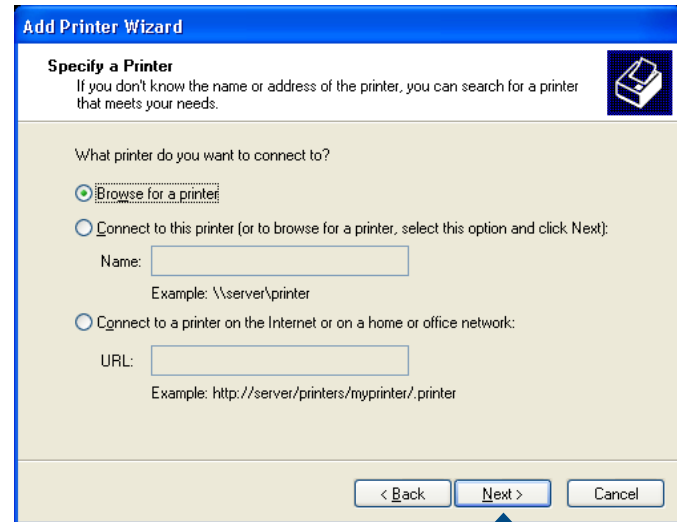


Click **Next** to continue.

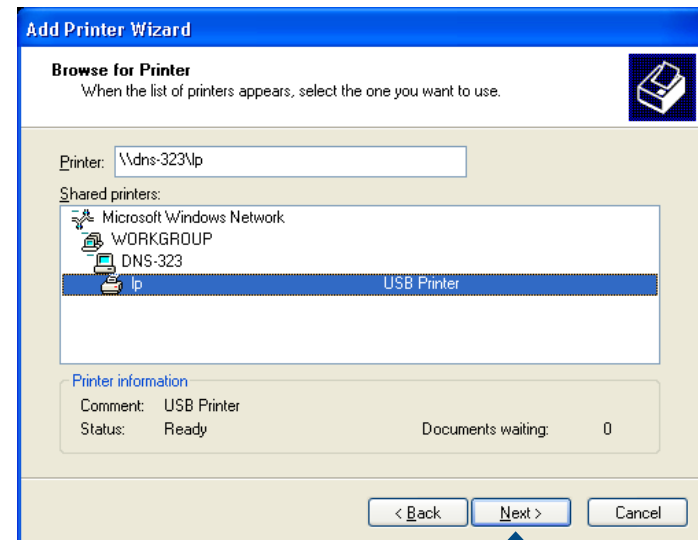
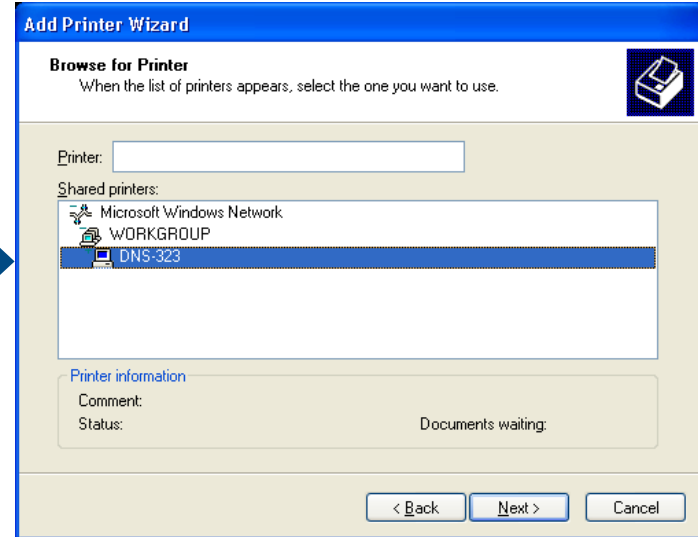
When prompted to choose a local, or network printer, select **A network printer, or a printer attached to another computer**. Click **Next** to continue.



Select **Browse for a printer** and click **Next** to continue.

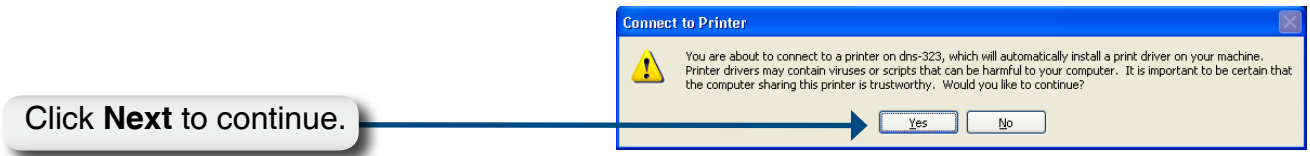


Double-click **DNS-323** from the Shared Printers list to expand the tree.

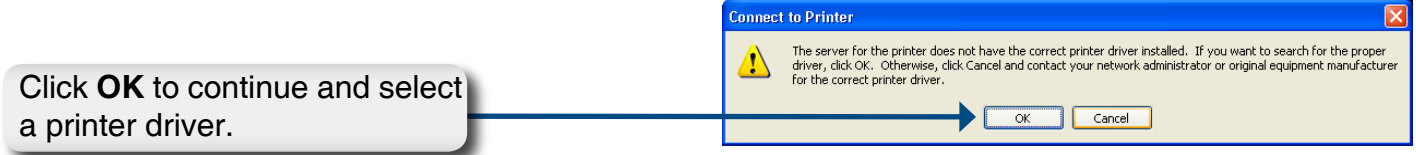


Select the available USB printer, and click **Next** to continue.

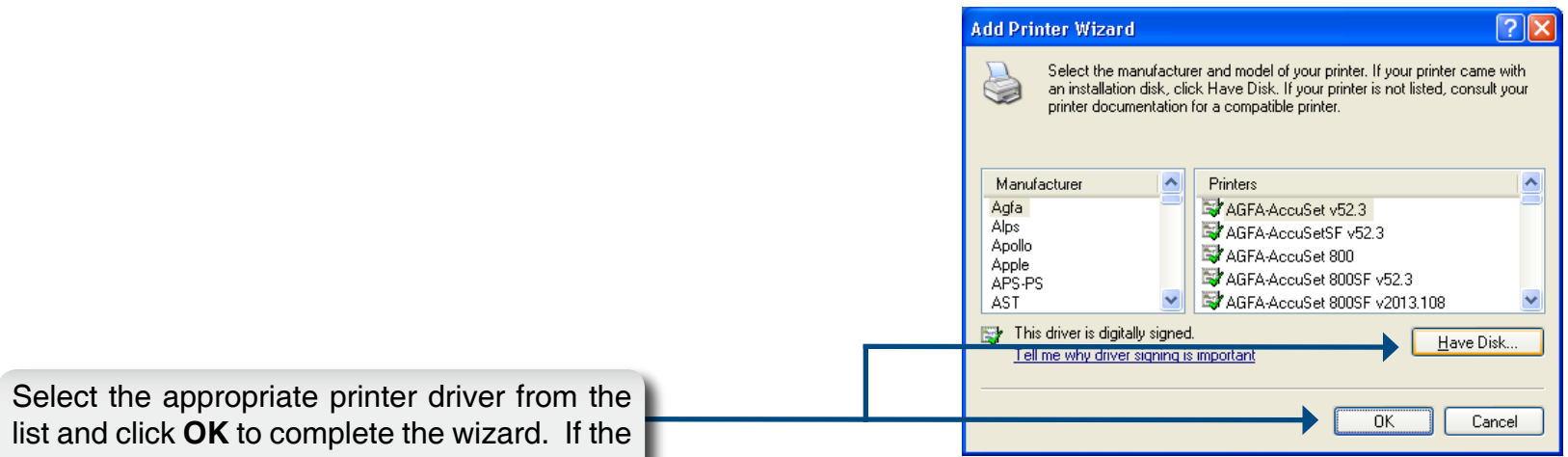
The following printer driver messages will appear:



Click **Next** to continue.

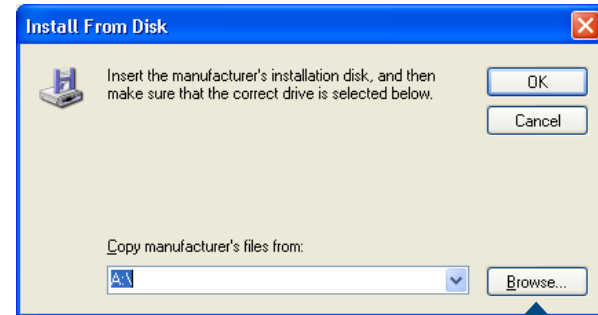


Click **OK** to continue and select a printer driver.

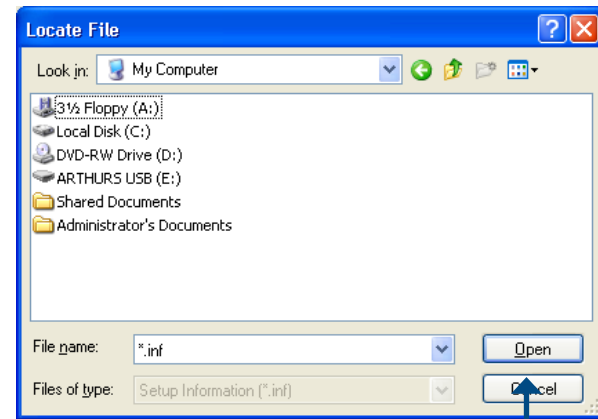


Select the appropriate printer driver from the list and click **OK** to complete the wizard. If the driver is not in the list, select **Have Disk**.

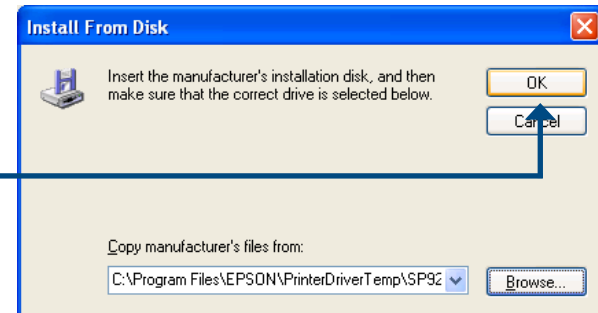
Insert the print driver CD or browse to the appropriate directory.

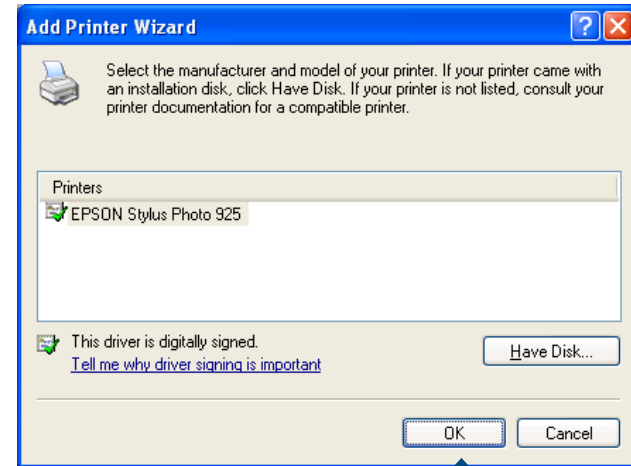


Select the appropriate driver file, and click **Open** to continue.

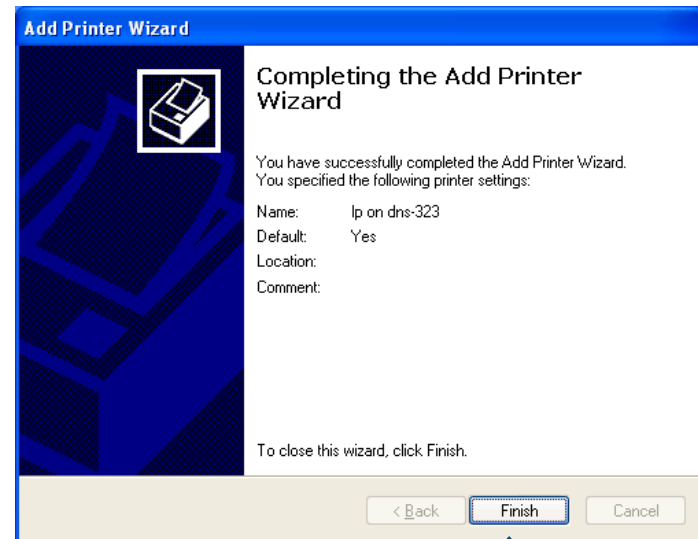


Click **OK** to continue.



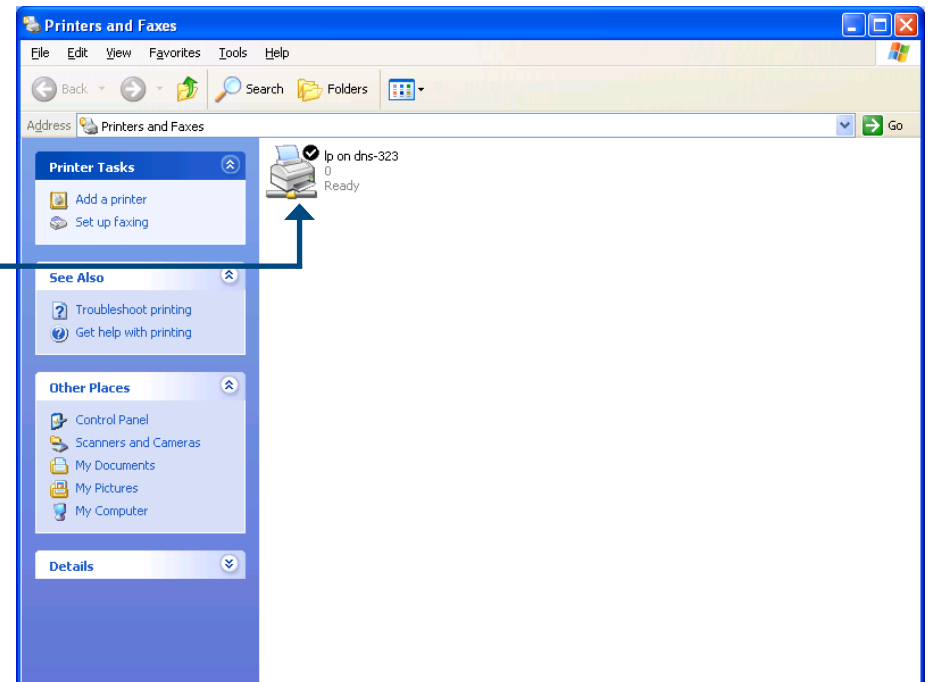


Verify if the driver is correct, and click **OK** to continue.



The wizard will install the printer drivers, and return a completion screen. Click **Finish**.

The printer should now appear as an available printer.



Storing non-English Character Files

If you are using firmware 1.04 or later, by default the DNS-323 will support Unicode which is an industry standard allowing computers to consistently represent and manipulate text expressed in most of the world's writing formats. However, if you were using an earlier version of firmware (1.03 or earlier) and have just upgraded to 1.04 or higher, Unicode will not be supported until you have reformatted the hard drives in your DNS-323. If you wish to store non-English character files but do not want to reformat your hard drives, you will need to change the Language setting of the device to ensure compatibility with those files.

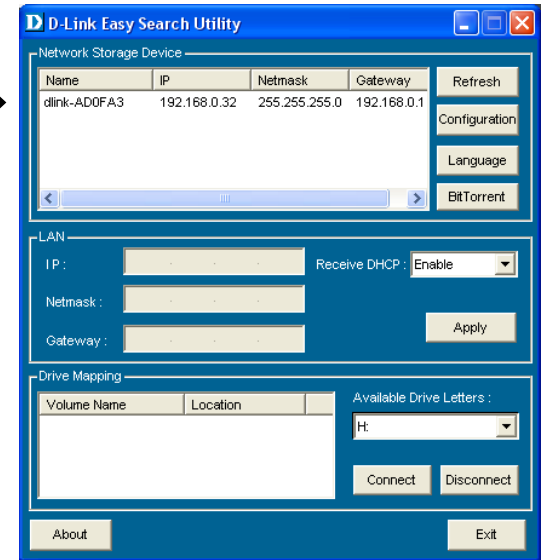
Follow the Easy Search Utility steps below to change the language of your device if you have chosen to not reformat your hard drives.

Insert the DNS-323 CD into your CD-ROM drive.

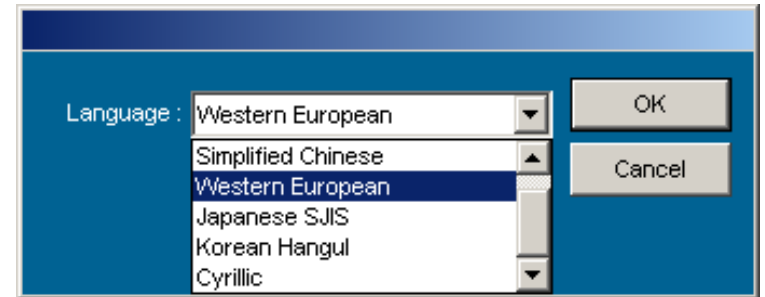
Click **Easy Search Utility**.



Highlight an available DNS-323 and click **Language**.

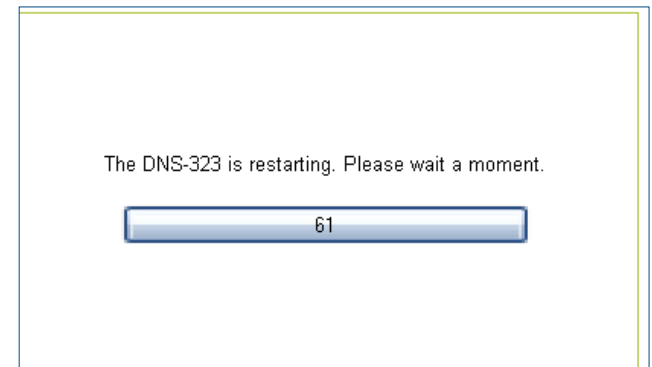


Select the appropriate language from the drop-down menu and click **OK**.



The DNS-323 will restart.

Note: Changing the language setting will NOT change the display language of the user interface. It is only for supporting non-English character file names.



Replacing or Adding a New Hard Drive

It is recommended that you backup your important files before replacing or adding a new hard drive to the DNS-323.

Replacing a Hard Drive:

Please make sure the power is off before replacing a hard drive. After you install the new drive, turn on the DNS-323 and then connect to the Web UI. The DNS-323 will prompt you to format the new drive (Standard, RAID 1 mode) or both drives (JBOD, RAID 0 mode).

Adding a New Hard Drive:

The DNS-323 is able to work with one single hard drive under Standard mode. Please make sure the power is off before installing a second hard drive.

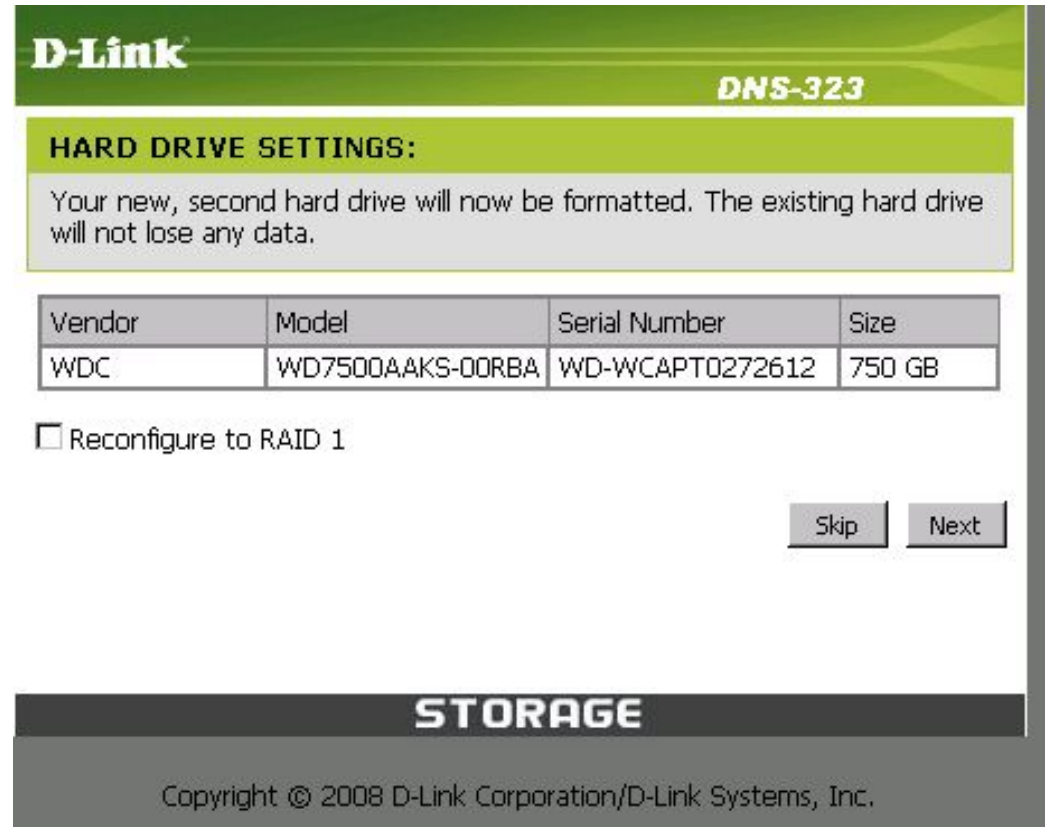
After you install the new drive, turn on the DNS-323 and then connect to the Web UI. The DNS-323 will prompt you to format the new drive.

Note: Formatting a hard drive will erase the data stored on the hard drive. Please backup important data before formatting a hard drive.

After you install the new drive, turn on the DNS-323 and then connect to the Web UI. The DNS-323 will prompt you to format the new drive.

You will now have two choices for your disk configuration:

- If you want to configure the new disk as a separate volume, press the **Next** button.
- If you want to configure the new disk in the DNS-323 to use RAID 1, click the **Reconfigure to RAID 1** check box and click the **Next** button.



D-Link **DNS-323**

HARD DRIVE SETTINGS:

Your new, second hard drive will now be formatted. The existing hard drive will not lose any data.

Vendor	Model	Serial Number	Size
WDC	WD7500AAKS-00RBA	WD-WCAPT0272612	750 GB

Reconfigure to RAID 1

Skip Next

STORAGE

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Note: Formatting a hard drive will erase the data stored on the hard drive. Please backup important data before formatting a hard drive.

The following message will display when the formatting has completed:

Press the **Restart** button to continue.

D-Link **DNS-323**

FORMAT RESULTS

Volume Name	File System	Format Result
Volume_2	EXT2	SUCCESS

STORAGE

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Version 1.3
June 6, 2008