

D-Link DNS-312H

Network Attached Storage

Manual

D-Link[®]

Building Networks for People

Ver.1.00

(12/02/2004)

Contents

Introduction 5

Specifications.....	5
Package Contents	8
LEDs	9
Physical Connections	10

Getting Started 11

D-Link Storage Utility	11
Double-click the D-Link Storage Utility icon.....	11
Setup Wizard	15
Enter the default IP	15
Enter the default user name	16
Start the wizard	16
Enter system information.....	17
Enter networking information.....	18
Setup time settings	20
Setup network file protocol	21
Finish the settings.....	23
LAN Setup	25
Changing server name	26

Advanced Setup 27

User Management	27
Creating new user	27
Editing user information.....	29
Deleting a user.....	30
Group Management.....	30
Creating a new group	30

Editing group information.....	32
Deleting a group	33
Share Management	33
Creating a new share	33
Editing share information.....	36
Deleting a share	37
Hard Drive Hibernation	38
USB Disk	39
USB Printer.....	40

Tools.....43

Time Setup	43
Set the time manually.....	43
Connecting to an NTP server	44
Backup Configurations	45
Backup system settings.....	45
Restore system settings	47
Restore factory default settings	47
Format Hard Drive	48
Networking and Encoding.....	49
Firmware Update	52
E-mail Notifications.....	54
Service.....	55

Device Status.....57

Device Information.....	57
Logs	58
Clear the log	59
Save the log.....	60
Refresh the log	61

Online Help 62

 Individual Help 62

 Overall Help 63

Introduction

With the emergence of increasingly large multimedia files, the need for bigger, more dependable storage for personal computers grows rapidly as well. **D-Link DNS-312H** is designed to meet your need for multimedia file storage and immediate play back.

As it is attached to your home network environment, you don't have to take apart your computer to expand the storage like was previously the case when adding an additional hard drive to your PC. All you have to do is plug in the network cable of the device running **D-Link DNS-312H** to your computer, or the hub or switch in the same network environment, and then you are ready to start storing your home entertainment files in the device.

Configuring the device and getting it running is amazingly simple. A browser-based wizard only takes a few steps for the initialization settings to take effect.

Specifications

Networking			
Network Types	Network File Protocols	Protocols	Client types
Microsoft network	CIFS, SMB	TCP/IP	Windows 98, ME, NT 4.0, 2000, XP
Apple Macintosh	AFP	AppleTalk, TCP/IP	Apple Macintosh 7.x, 8.x, 9.x, OS X

network			
LAN port setting			
Type	Manual configuration		
	DHCP		
Management			
User/ Group/ Share			
Maximum user number	32		
Maximum group number	4		
Maximum share number	16		
Logs / Notification			
Available log type	System log Connection log Current connection		
E-mail notification			
Encoding			
Available codepage	U.S. English (Code Page 437) Greek (Code Page 737) Western European (Code Page 850) MS-DOS Latin 2 (Code Page 852) Icelandic (Code Page 861) Cyrillic (Code Page 866) Japanese SJIS (Code Page 932) Simplified Chinese (Code Page 936)		

Korean Hangul (Code Page 949)

Traditional Chinese (Code Page 950)

USB Support

USB Disk

USB Printer

Miscellaneous

Online help

Hard drive usage overview

Firmware update

HDD format

System configuration backup and restore

Network Time Protocol (NTP) support

HDD Hibernation

Usability

Initialization wizard

Web-based management UI

Package Contents



Contents of package:

- One D-Link DNS-312H Media Storage Server device
- One Category 5 cable
- One power switch with power cord
- One CD-ROM
- One QIG

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

Important Warning:

Tampering with any components inside the product other than those specifically mentioned in this manual or the accompanying QIG will automatically invalidate the product warranty.

LEDs



Power: A solid light indicates a proper connection. No light indicates the power is off.

LAN: A solid light indicates a proper connection to LAN port. A blinking light indicates that data is being transferred. No light indicates the port is disconnected.

HDD: A blinking light indicates the HD is in read/write mode. No light indicates the read/write mode is not engaged.

HDD Full: A solid light indicates the HD is completely full (100%). A blinking light indicates the HD is almost full (95%). No light is the normal condition.

USB: A solid light indicates that the USB flash/HDD is properly connected. A blinking light indicates that data is being received. No light indicates that there is neither a USB Flash nor a USB HDD connected.

Physical Connections



USB Ports for Printer Server/USB HDD: Please use the USB printer cable to connect the DSM-312H's USB Port (for printer server) or USB HDD for additional volume.

Reset: Pressing this button restores the DSM-312H to its original factory default settings.

LAN Port: Please use the Ethernet cable to connect the DSM-312H and the router/switch/hub in the network.

Power Adapter: Receptor for power adapter.

Warning:

The two USB ports support:

- a. Two USB HDDs or
- b. One USB printer and One USB HDD.

Please note that the USB ports do not support a USB Hub

Getting Started

D-Link Storage Utility

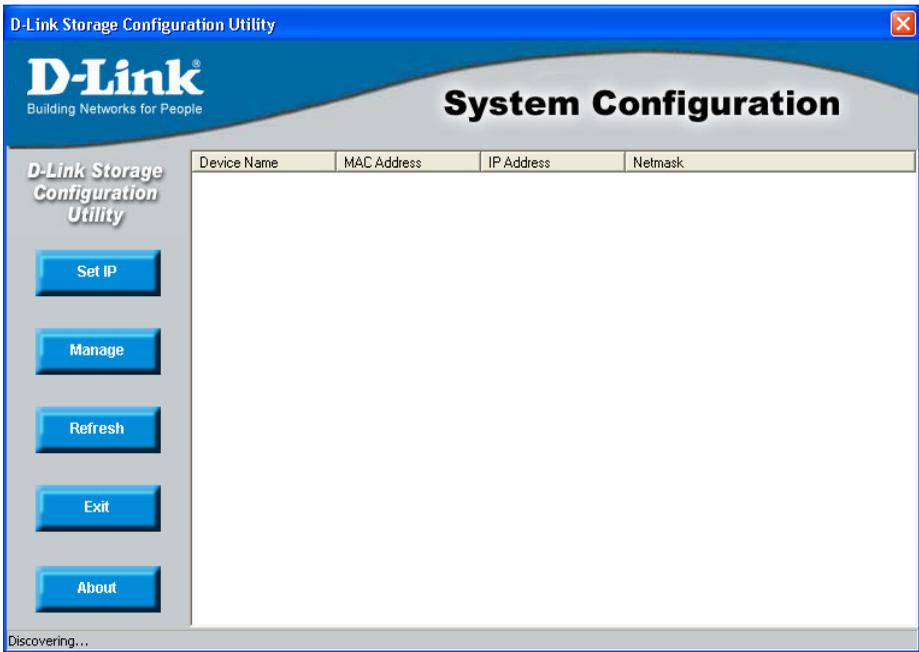
D-Link Storage Utility is a tool to connect and use the DNS-312H Network Attached Storage device.

Double-click the D-Link Storage Utility icon

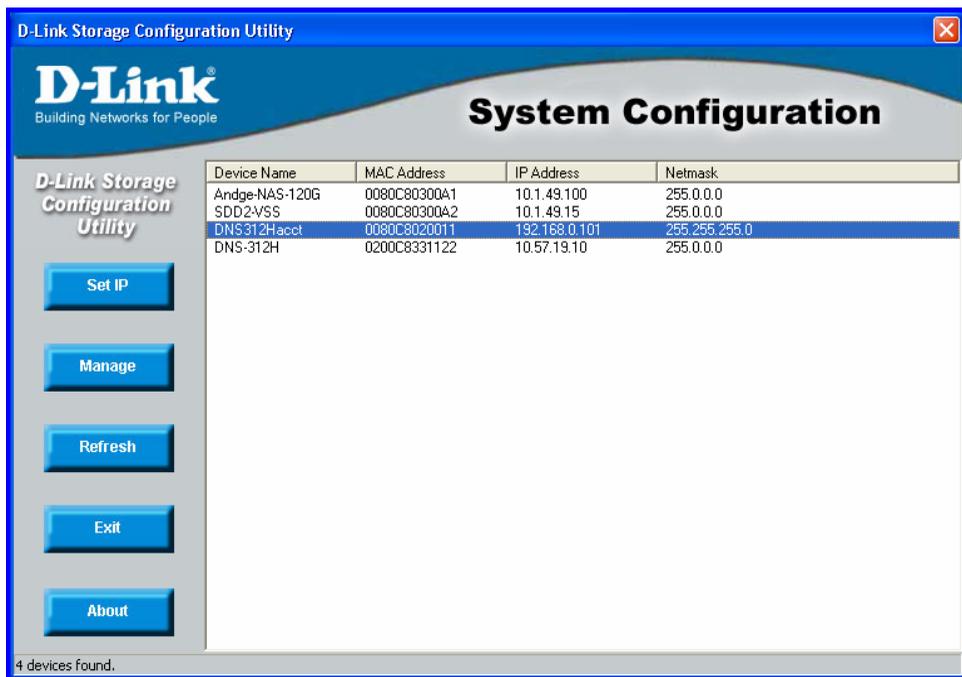
Double-click the D-Link Storage Utility icon.



This will automatically detect all servers on the network at the moment by displaying the following **System Configuration** window:



After it is finished searching, a detailed list will be shown, as below. This includes Device Name, MAC Address, IP Address, and Netmask.



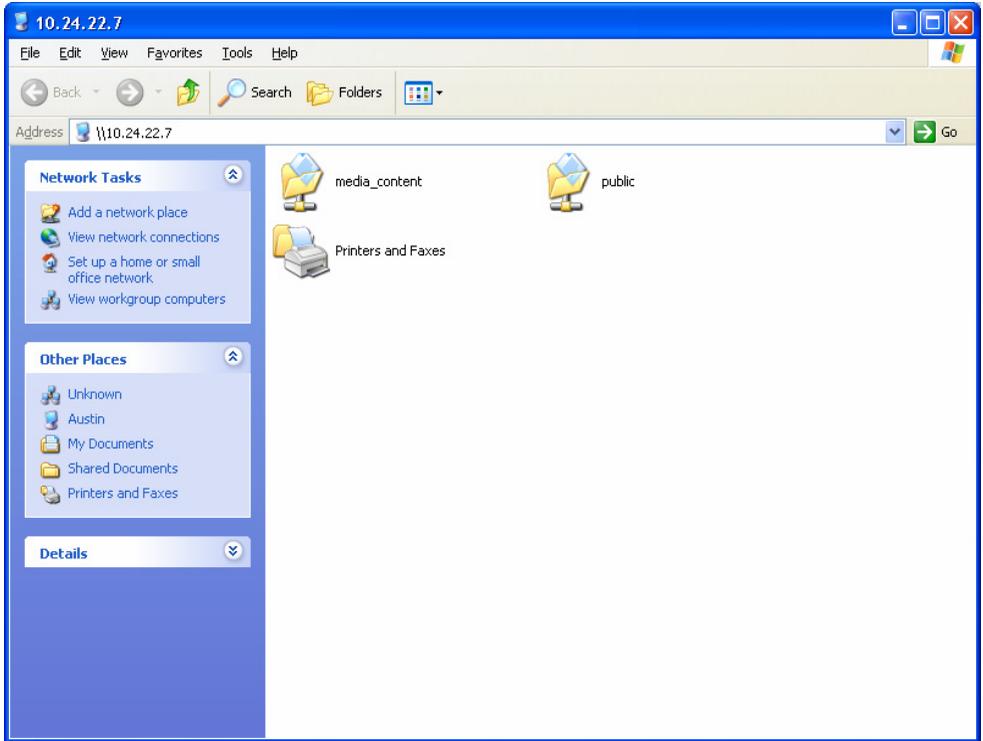
Note:

The default IP address of the DNS-312H is 192.168.0.101.

You now are able to set the IP address of the DNS-312H by clicking the **Set IP** button on the **System Configuration** window. Enter the appropriate information in the following pop-up dialogue and input admin password then click **OK**.



Clicking the correct server name from the list displayed in the **System Configuration** window will open the default file folders provided for the user account.



Please note that in order for media files to be displayed, they must be placed in the “media_content” folder rather than the “public” folder.

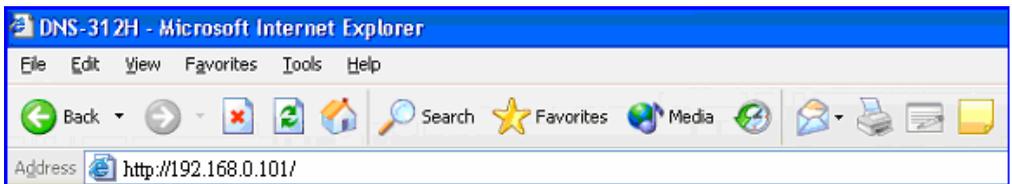
Clicking the **Manage** button on the **System Configuration** window will cause your browser to open. This is described in more detail later in the manual.

Setup Wizard

Please follow the steps below to run the initialization wizard:

Enter the default IP

1. Connect the device running **D-Link DNS-312H** to the network.
2. Power the device on.
3. Open the browser, using Opera, Microsoft IE Browser, (Version 6.0 or above is recommended.), or another suitable Web browser.
4. Enter the device default IP “192.168.1.101” (or the new address you set using the D-Link Storage Configuration Utility) the address bar.
5. Click **Go** to continue.



Enter the default user name

In the authentication dialogue please enter the default user “admin,” leave the password field blank, and click **OK**.



Start the wizard

The Setup Wizard will help you configure the basic settings of the device in a few steps. The settings will not take effect until you click the **Finish** button in the last page.

Click the **Run Wizard** button to start.



Wizard

LAN

DHCP

Home

Advanced

Tools

Status

Help

Setup Wizard

The setup wizard will help you configure the basic settings of the system in a few steps. The settings will not take effect until you click the [Finish] in the last page.

Click [Run Wizard] to start and follow the instructions on each page to complete the settings.

Run Wizard



Enter system information

1. Enter the server name in the “Server Name” field so you can quickly access the storage capabilities of this system either from a Windows or a Mac OS by searching for the server name.
2. Enter the new password. If you don’t enter a password, it will remain blank as the default value.
3. Click **Next**.



Wizard

LAN

DHCP

Home Advanced Tools Status Help

Setup Wizard

Steps **System** > LAN > Time > Network File Protocols

Please enter the server name.

Server Name

Please enter the admin password.

Password

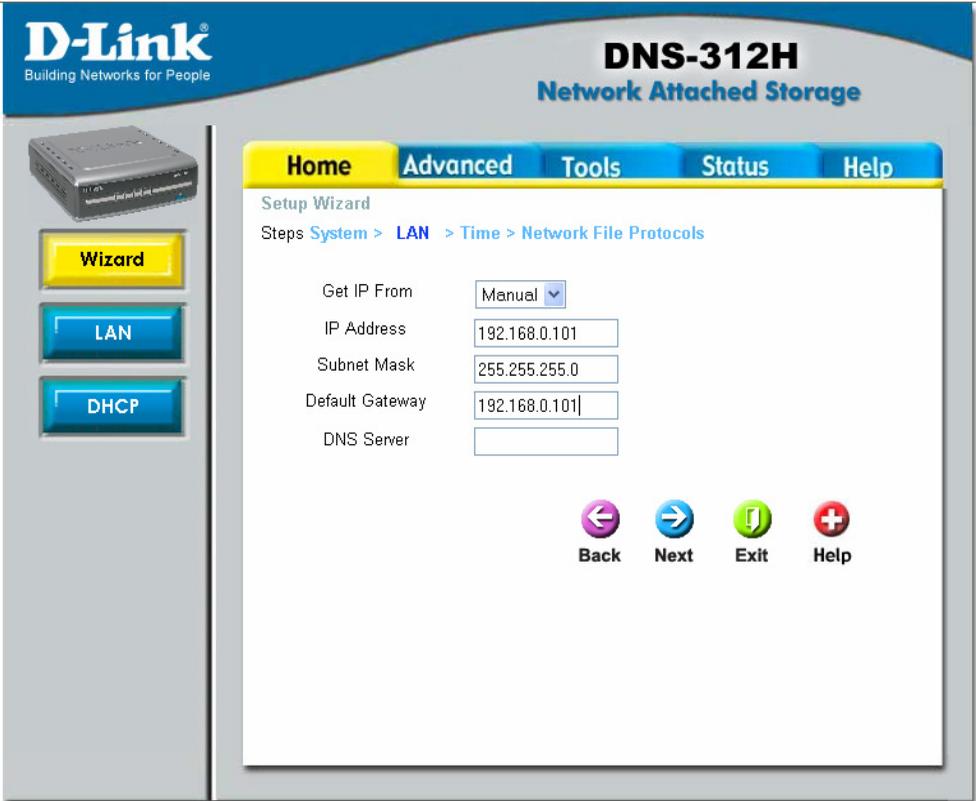
Confirm Password

Next Exit Help

Enter networking information

1. If a DHCP server is available in the same network environment and you prefer to obtain the networking settings for the system from the DHCP server, change the “Get IP From” drop-down menu from *Manual* to *DHCP* and then click **Next**.



2. Since this is the first time you configure the device, the following networking settings will be adopted by default:

IP: 192.168.0.101

Subnet mask: 255.255.255.0

Default gateway: 192.168.0.101

DNS server: empty

You can modify the settings to fit your need.

Setup time settings

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

Note:

In the drop-down menu, please select (GMT-08:00) Pacific Time (US & Canada); Tijuana so that the log-in time will be correctly shown in the “Set device date and time” section.

2. Choose to enable network time synchronization protocol (NTP) or manually set the system time.
3. Click **Next**.

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DNS-312H
Network Attached Storage

Home Advanced Tools Status Help

Setup Wizard

Steps System > LAN > Time > Network File Protocols

Time Zone
GMT+08:00 Beijing, Chongqing, Hong Kong, Taipei

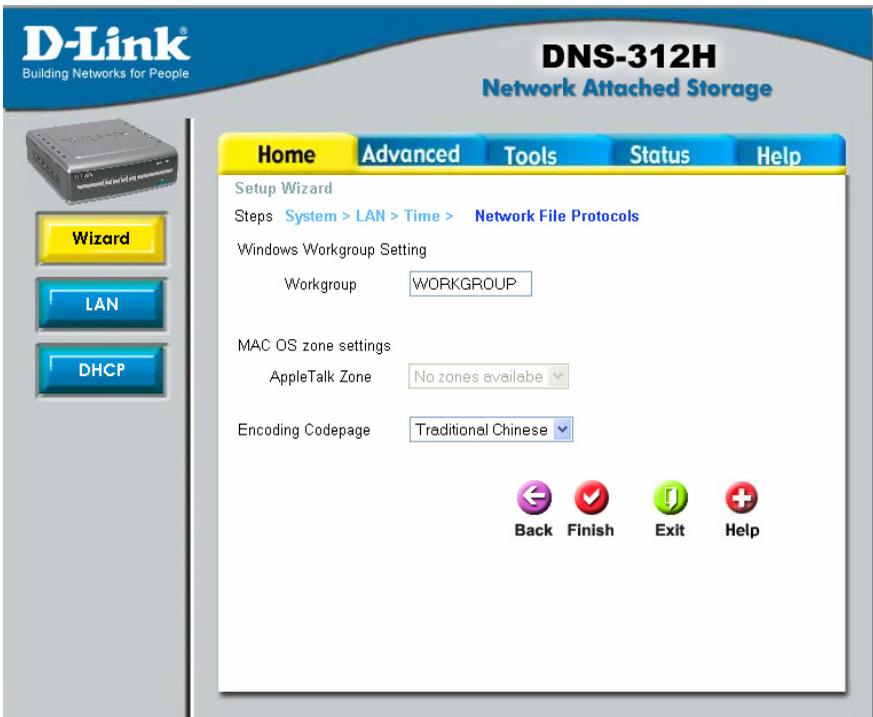
Enable network time synchronization
Time synchronization with NTP server
Period Daily
Network time server

Set device date and time
Year 2004 Month Nov Day 24
Hour 0 Minute 41 Second 48

Back Next Exit Help

Setup network file protocol

1. Determine the Workgroup here. The Workgroup should be 0 to 14 characters, in English only.
2. Choose the Mac OS zone. A zone is a logical grouping of devices in an AppleTalk network. Select the zone from the AppleTalk Zone drop-down menu.
3. Choose the appropriate encoding from the Encoding Codepage drop-down menu to help clients that don't have Unicode support installed correctly to access the system.
4. Click **Finish** for the settings to take effect.



Note:

a) If the local language is the only language used in your working environment, there is no need to change any settings for the encoding code page and you can just go ahead and load the defaults.

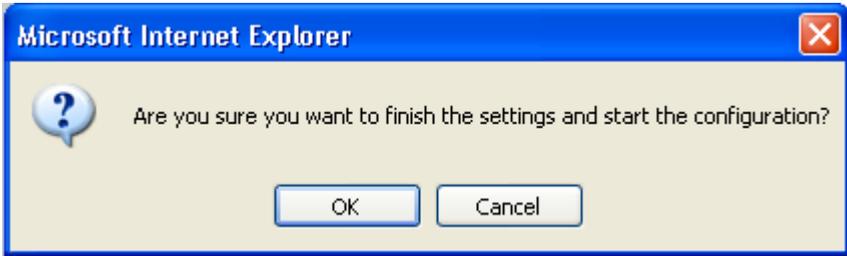
For example: If the local language is English, and all files or folders use English names, then it is unnecessary to change any settings here, just follow the defaults.

b) If it is necessary to recognize a second, non-local language, it is recommended that you select an encoding that recognizes the second language.

For example: If the local language is English but some files or folders use Japanese characters, please select “Japanese SJIS (Code Page 932)” in the Encoding Codepage drop-down menu.

Finish the settings

Click the **OK** button in the pop-up dialogue.



The following window will be displayed to indicate the DNS-312H is preparing your new settings:



The page will then be directed to the summary page—which is described later in this manual—so you can review the settings that have been set.



Device Info

Logs

Home Advanced Tools **Status** Help

Device Information

Current Firmware Version: 1.00

Network

MAC address 00:80:c8:02:00:11
IP address 10.24.22.7
Subnet mask 255.0.0.0
DNS server
Default gateway 10.1.1.254
Workgroup WORKGROUP
WINS server

Time

Network time server
Time zone GMT+08:00 Beijing, Chongqing, Hong Kong, Taipei

USB

Port1
Port2

HDD drive

Disk number 1
Disk model SAMSUNG SV1604E
Total size 152044.7 M
Used size: 0.6 M  Unused size: 152044.1 M

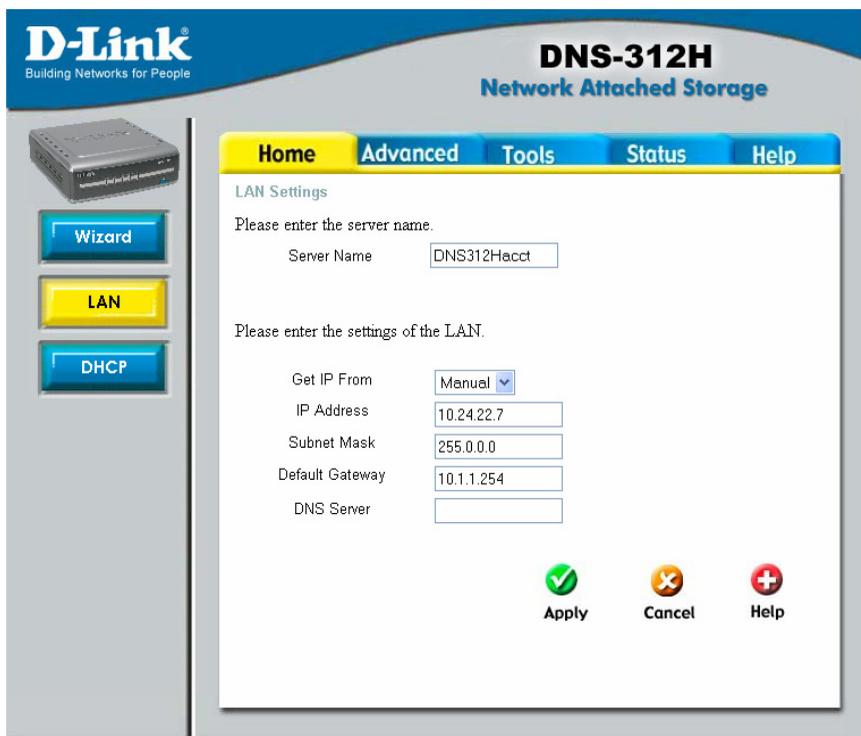


Help

LAN Setup

If you need to make any modification of the LAN setting, follow the steps below:

1. Click the **Home** tab on the top of window.
2. Click the **LAN** button on the left. A new window will open.
3. Enter the new LAN settings.
4. Click **Apply**.



The screenshot shows the D-Link DNS-312H Network Attached Storage web interface. The top navigation bar includes tabs for Home, Advanced, Tools, Status, and Help. On the left sidebar, there are buttons for Wizard, LAN (highlighted in yellow), and DHCP. The main content area is titled "LAN Settings" and contains the following fields:

- Server Name:
- Get IP From:
- IP Address:
- Subnet Mask:
- Default Gateway:
- DNS Server:

At the bottom right of the form, there are three buttons: Apply (with a green checkmark icon), Cancel (with a red X icon), and Help (with a red plus icon).

Note:

To make sure email notifications are delivered correctly through the SMTP server, you need to enter the IP of the DNS server.

Changing server name

1. Click the **Home** tab on the top.
2. Click the **LAN** button on the left. A new window will open.
3. Enter the new server name.
4. Click **Apply**.

Note:

The server name should be 1 to 15 characters in English (single-byte characters only).

Advanced Setup

User Management

You can create up to 32 users, excluding the system default account "guest." The user name is case sensitive and should be 1 to 15 characters (English, Asian, or other languages), the user description can be any displayable characters and can be 0 to 128 characters; the password is case sensitive and should be 0 to 12 displayable bytes, including space.

Creating new user

1. Enter the user name, description, and password.

The screenshot shows the D-Link DNS-312H Network Attached Storage web interface. The top navigation bar includes 'Home', 'Advanced' (highlighted), 'Tools', 'Status', and 'Help'. The 'User Setup' page contains the following fields and options:

- User Name:
- User Description:
- Password:
- Confirm Password:
- Disk Quota: M
- Enable Time Policy
- Expired Date Year: Month: Day:

At the bottom of the form are three buttons: 'Apply' (green checkmark), 'Cancel' (orange X), and 'Help' (red plus). Below the form is a 'Guest Quota set' button and a 'User List' table with columns: Name, Description, Expired Date, Used Capacity(M), and Action.

2. Click **Apply**.

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DNS-312H
Network Attached Storage

Home **Advanced** Tools Status Help

User Setup

User Name

User Description

Password

Confirm Password

Disk Quota Unlimited M

Enable Time Policy

Expired Date Year 2004 Month Jan Day 1

Guest Quota set

User List

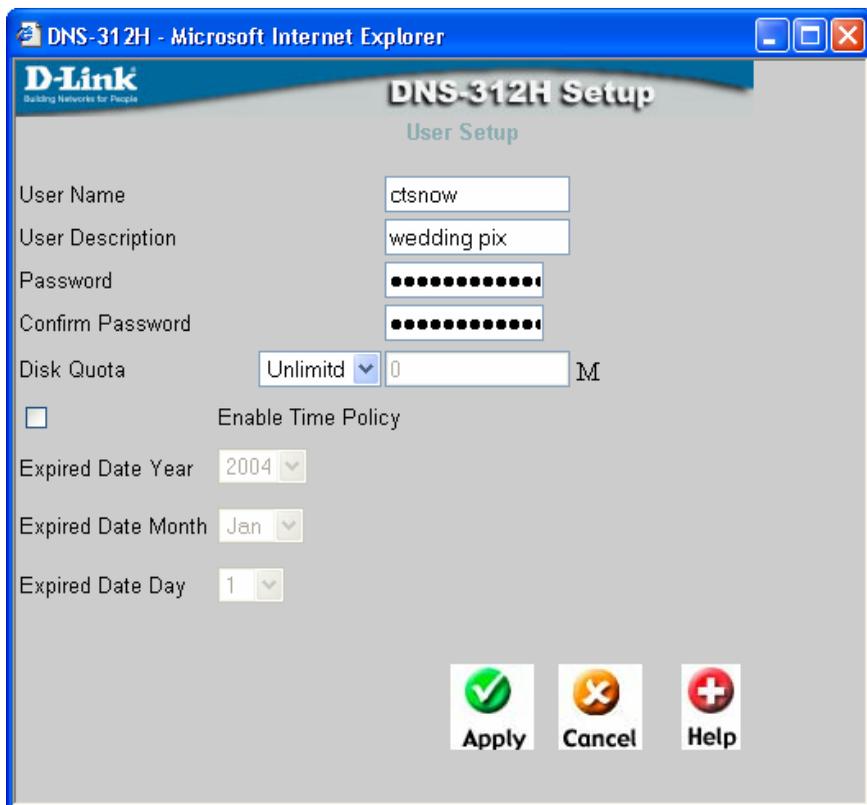
Name	Description	Expired Date	Used Capacity(M)	Action
ctsnow	wedding pix		Unlimited	

Note:

If the user details, including "User Name," "User Description," "Password," and "Confirm Password," are not empty when you try to create a new user, click the **Cancel** button to clear the data before proceeding.

Editing user information

1. Click the  graphic after the user you want to edit to load the user details. The following window will open:



DNS-312H Setup
User Setup

User Name: ctsnow

User Description: wedding pix

Password:

Confirm Password:

Disk Quota: Unlimited 0 M

Enable Time Policy

Expired Date Year: 2004

Expired Date Month: Jan

Expired Date Day: 1

Apply Cancel Help

2. Edit the data.
3. Click **Apply**.

Deleting a user

Click the  graphic after the user you want to delete and click **OK** after the confirm dialogue pops up.



Group Management

You can create up to four user groups. The group name is case sensitive and should be 1 to 15 characters (English, Asian, or other languages). The group description can be any displayable characters (0 to 64 Unicode characters).

Creating a new group

1. Enter the group name and description.
2. Choose the members that you plan to add to this group from the Users list on the left side of the window.
3. Click the **Add>>** button.
4. Click **Apply**.



Admin

User

Group

Share

Hibernation

USB Disk

USB Printer

Home

Advanced

Tools

Status

Help

Group Setup

Group Name
Group Description
Disk Quota M

Users

ctsnow

Add >>

<< Remove

Members



Apply



Cancel



Help

Group List

Name	Description	Members	Action
------	-------------	---------	--------

Note:

If the group details are not empty when you try to create a new group, click the **Cancel** button to clear the data before proceeding.

Editing group information

1. Click the  graphic after the user you want to edit to load the group details. The following window will open:



DNS-312H - Microsoft Internet Explorer

D-Link
Building Networks for People

DNS-312H Setup

Group Setup

Group Name:

Group Description:

Disk Quota: M

Not members

Members
ctsnow

2. Edit the group details in the Group Setup section.
3. Click **Apply**.

Deleting a group

Click the  graphic after the group you want to delete and click **OK** after the confirm dialogue pops up.



Share Management

A Share is a logical unit you can open access to the user accounts with by setting appropriate privileges. You can create up to 16 shares, in addition to the system default share and the USB disk share. The share name is case sensitive and should be 1 to 31 characters (English, Asian, or other languages). The share description is case sensitive and should be 0 to 64 characters (English, Asian, or other languages).

Creating a new share



- [Admin](#)
- [User](#)
- [Group](#)
- [Share](#)
- [Hibernation](#)
- [USB Disk](#)
- [USB Printer](#)

Home
Advanced
Tools
Status
Help

Share Setup

Share Name

Share Description

Disk Quota Unlimited M

Allow everybody read and write

Users&Groups

ctsnov	Read Only>>
	<<Remove
	Writeable>>
	<<Remove

RO Privileges

RW Privileges

The ones started with @ are groups.

Apply

Cancel

Help

Share List

Name	Description	Members	Action
media_content	media files	Allow everybody read and write	

1. Enter the Share Name and Share Description.
2. Enter the desired Disk Quota.

3. Choose the user or group from the Users & Groups list.

Note:

Items that start with “@” are groups.

4. Choose the access privileges you want to apply to the selected user or group.

Note:

There are two different types of privileges that can be set:

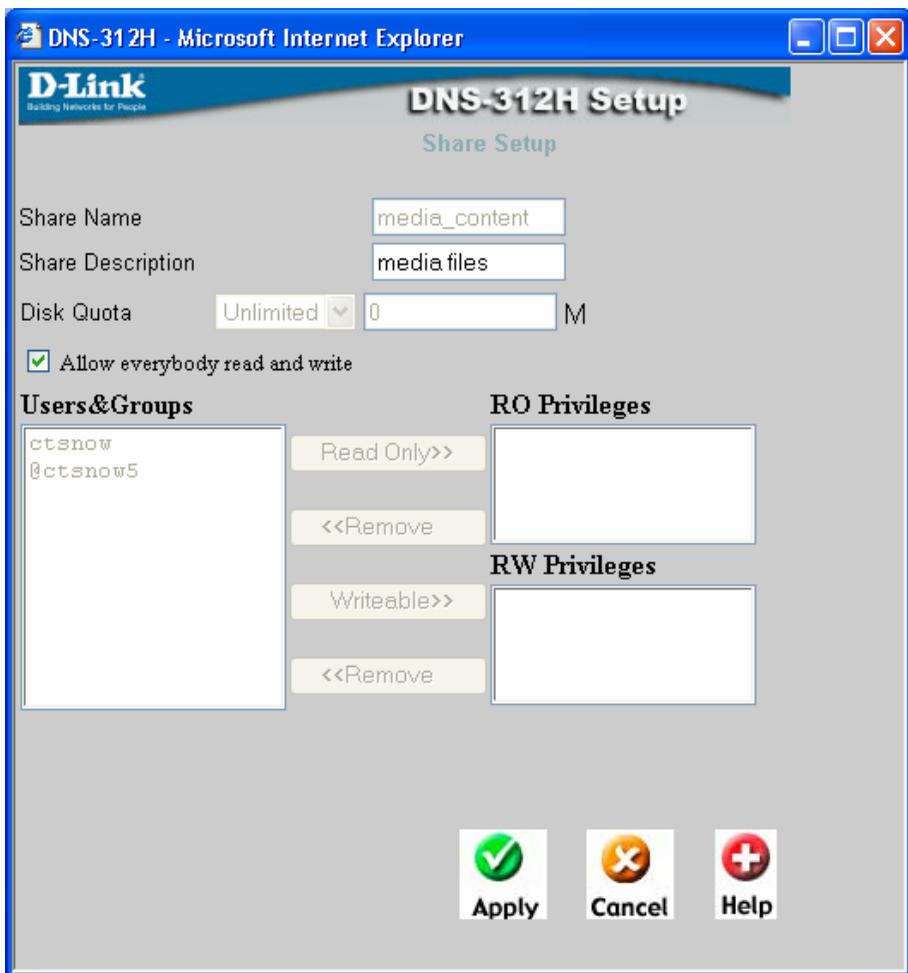
Read Only (RO) – Except the “Read” privilege, no other access privilege will be granted for this option.

Writeable (RW) – All access privileges will be granted for this option.

5. Click **Apply** to finish.

Editing share information

1. Click the  graphic after the share you want to edit to load the share details.



DNS-312H - Microsoft Internet Explorer

D-Link
Building Networks for People

DNS-312H Setup
Share Setup

Share Name:

Share Description:

Disk Quota: M

Allow everybody read and write

Users&Groups

RO Privileges

RW Privileges

2. Edit the share details below the Share Setup section.
3. Click **Apply**.

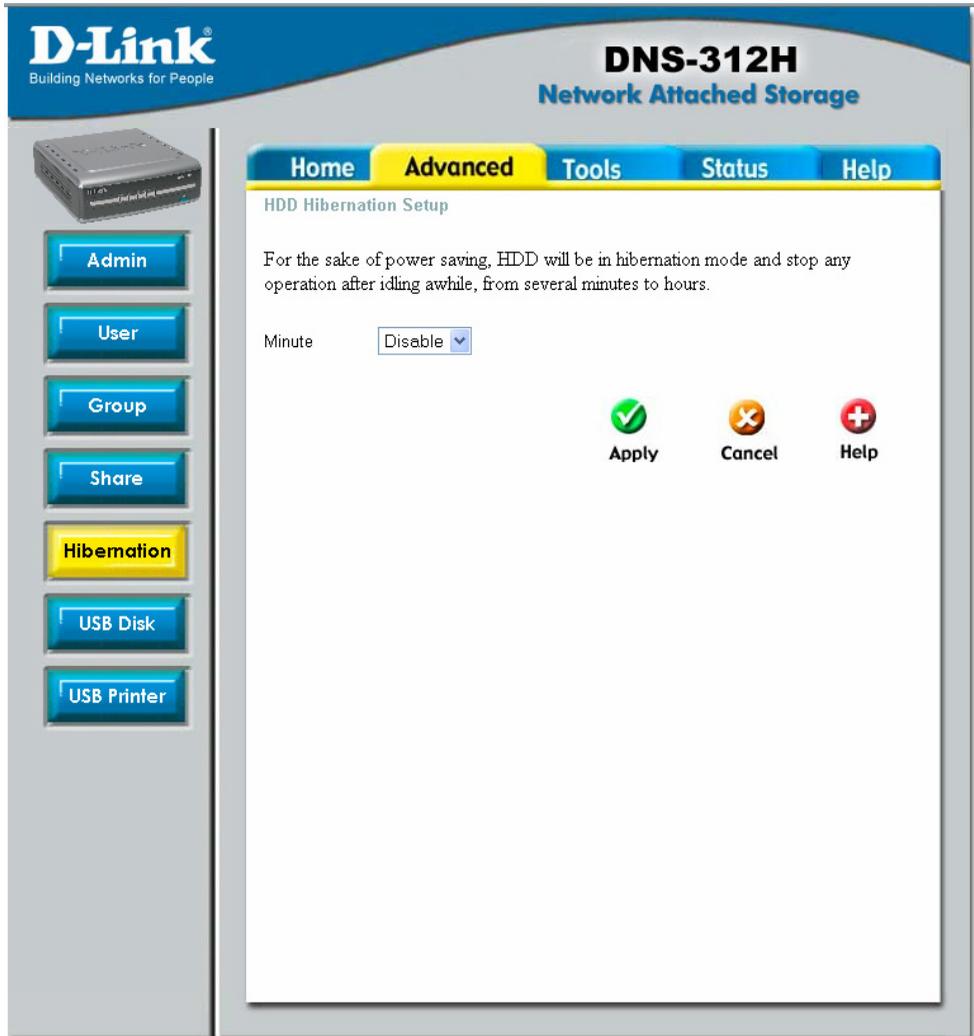
Deleting a share

Click the  graphic after the share you want to delete and click **OK** after the confirm dialogue pops up.



Hard Drive Hibernation

To save power, the HDD will be in hibernation mode and stop any operation after the specified idle time. To set an idle time, choose the idle time from the drop-down menu and then click **Apply** to finish the setting.



The screenshot shows the web interface for a D-Link DNS-312H Network Attached Storage device. The interface has a blue header with the D-Link logo and the product name. A navigation bar includes tabs for Home, Advanced (selected), Tools, Status, and Help. On the left, there is a sidebar with buttons for Admin, User, Group, Share, Hibernation (highlighted in yellow), USB Disk, and USB Printer. The main content area is titled "HDD Hibernation Setup" and contains the following text: "For the sake of power saving, HDD will be in hibernation mode and stop any operation after idling awhile, from several minutes to hours." Below this text, there is a "Minute" label and a dropdown menu currently set to "Disable". At the bottom right of the main area, there are three buttons: "Apply" with a green checkmark icon, "Cancel" with an orange 'X' icon, and "Help" with a red plus icon.

USB Disk

By connecting a USB disk to the system, you will be able to share the USB disk capacity through a system created share prefixed with "usbshare". The share will be removed automatically when the USB disk is ejected from the system.

1. The USB Disk will be automatically detected and then its relevant info (Share name, Manufacturer, Device, Type, and Used/Size) will be shown.

The screenshot displays the web interface of a D-Link DNS-312H Network Attached Storage (NAS) device. The interface is divided into several sections:

- Header:** The top left features the D-Link logo with the tagline "Building Networks for People". The top right displays the model name "DNS-312H" and "Network Attached Storage".
- Navigation:** A horizontal menu bar contains tabs for "Home", "Advanced" (which is currently selected), "Tools", "Status", and "Help".
- Left Sidebar:** A vertical column of buttons provides navigation options: "Admin", "User", "Group", "Share", "Hibernation", "USB Disk" (highlighted in yellow), and "USB Printer".
- Main Content Area:**
 - USB Disk Manager:** The main heading for the current page.
 - Instructions:** "Please select the USB disk to manage."
 - Table:** A table with a blue header and a currently empty body, intended for displaying detected USB disks.
 - Labels:** To the right of the table, labels indicate the columns: "Share", "Manufacturer", "Device", "Type", and "Used/Size".
 - Eject Button:** A button labeled "Eject" is located below the table.
 - Warning:** A red text warning states: "WARNING: All data will be deleted if you decide to format."
 - Format Instructions:** "Please select file system while format:"
 - Format Selection:** A dropdown menu is set to "Windows(FAT32)", and a "Format" button is next to it.
 - Refresh and Help:** At the bottom right, there are "Refresh" and "Help" buttons.
 - Table Headers:** A light blue header row for the table lists: "Partition", "File system", "Used", "Available", and "Mounted on".

2. If the capacity of the USB Disk is less than 1GB, then the DNS-312H does not provide the function to format this USB disk.

Warning!!

All data on your disk will be deleted by formatting. It cannot be restored, so please take care before formatting.

3. If you want to remove the USB device, please click the **Eject** button in the top half of the window **before** removing the device from the disk station.

USB Printer

By connecting the USB printer to DNS-312H, you would be able to share the USB printer through the network and USB printer status will become active in this page.

Refresh the USB printer's status

Click **Refresh** to update the printer status.

Eject the USB printer

We suggest clicking the **Eject** button before you remove the printer.

Steps for configuring USB printer in Windows

1. Open **My Network Places** and connect to the DNS-312H.
2. Double-click **usb1p** and the system will prompt you to install a correct driver.
3. Click **Finish** to start using the printer.

Steps for setting up USB printer in Mac OS X running AppleTalk

1. Follow the **Go > Applications > Utilities** path to find the Printer Setup Utility.
2. Click to open a dialog box.
3. Select **Add** for setting up a new printer.
4. Select the correct hostname object and choose the type AppleTalk.
5. Select proper printer model or Generic.
6. Click **Add** to finish.

Steps for setting up USB printer in Mac OS X running TCP/IP

1. Follow the **Go > Applications > Utilities** path to find the Printer Setup Utility.
2. Click to open a dialog box.
3. Select **Add** for setting up a new printer.
4. Enter the printer IP Address and Queue Name and choose the type IP printing.
5. Select proper printer model or Generic.
6. Click **Add** to finish.

Tips for Mac OS 9 setup

1. Click on **Chooser**.
2. Under LaserWriter8, click the hostname object.
3. Click **Setup** and choose a proper PostScript Printer Description (PPD) file or Generic.
4. Finish.



Admin

User

Group

Share

Hibernation

USB Disk

USB Printer

Home

Advanced

Tools

Status

Help

USB Printer Manager

Manufacturer

Product

Please press [Eject] first if you want to remove USB printer.

Eject



Refresh



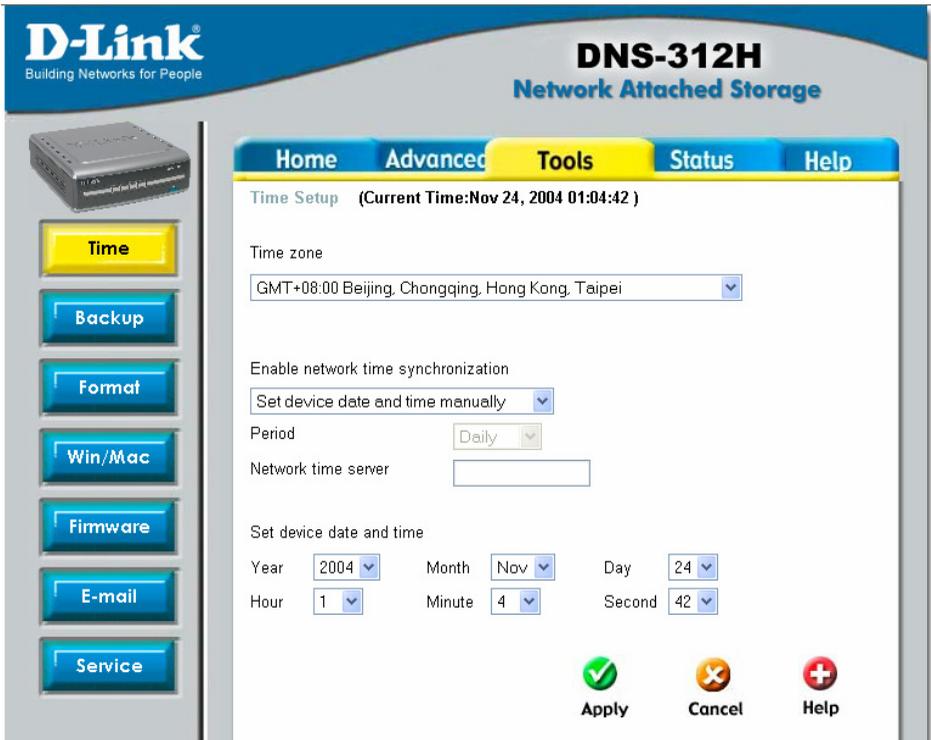
Help

Tools

Time Setup

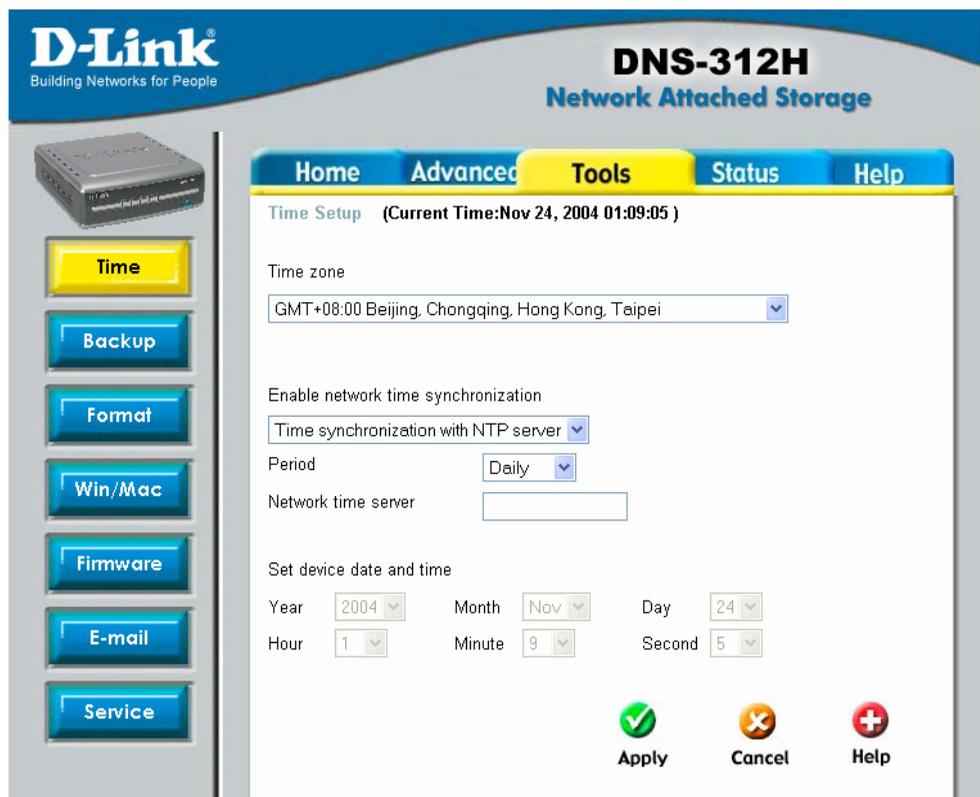
Set the time manually

1. Choose the correct time zone.
2. Choose the “Set device date and time manually” option from the drop-down menu.
3. Click **Apply**.



Connecting to an NTP server

1. Choose the correct time zone.
2. Choose the “Time synchronization with NTP server” option from the drop-down menu.
3. Choose the desired synchronization period and enter the time server IP address.
4. Click **Apply**.



The screenshot displays the web management interface for a D-Link DNS-312H Network Attached Storage device. The interface features a blue header with the D-Link logo and the product name. A navigation bar includes tabs for Home, Advanced, Tools (selected), Status, and Help. On the left, a vertical sidebar contains buttons for Time, Backup, Format, Win/Mac, Firmware, E-mail, and Service. The main content area is titled "Time Setup (Current Time: Nov 24, 2004 01:09:05)". It contains the following settings:

- Time zone:** A dropdown menu showing "GMT+08:00 Beijing, Chongqing, Hong Kong, Taipei".
- Enable network time synchronization:** A dropdown menu set to "Time synchronization with NTP server".
- Period:** A dropdown menu set to "Daily".
- Network time server:** An empty text input field.
- Set device date and time:** A grid of dropdown menus for Year (2004), Month (Nov), Day (24), Hour (1), Minute (9), and Second (5).

At the bottom right, there are three buttons: "Apply" (with a green checkmark icon), "Cancel" (with a red X icon), and "Help" (with a red plus icon).

Backup Configurations

You can backup the device configurations for future restoration.

Items that will be restored are listed below:

Time	Time zone; NTP settings
Host name	Server name
Language	Encoding codepage
Mail	SMTP; E-mail settings
Share	Each share information except USB share
User	Each user's information except the password of Admin
Group	Apple: Apple Zone
	Windows: Work Group, Windows Server
HD Sleep	Idle time
FTP	

Backup system settings

1. Click **Back up** under Save Settings to Local Hard Drive.



Time

Backup

Format

Win/Mac

Firmware

E-mail

Service

Home

Advanced

Tools

Status

Help

System Settings

Save Settings to Local Hard Drive

Back up

Load Settings From Local Hard Drive

Browse...

Restore

Restore to Factory Default Settings

Factory Reset



Help

ii

2. Click **Save** on the prompt dialogue.
3. Choose the location to save the backup file and click **Save** to finish.

Restore system settings

1. Enter the location of the system settings to restore under Load Settings From Local Hard Drive or click **Browse** and select the backup file.
2. Click **Restore**.
3. Follow the on-screen prompts including checking the “Overwrite on setting conflict” option if you don’t want the conflict setting to be skipped.
4. Click **Apply** to finish.

Restore factory default settings

Click **Factory Reset** under Restore to Factory Default Settings to cause the DNS-312H to return to its original settings.

Warning!!

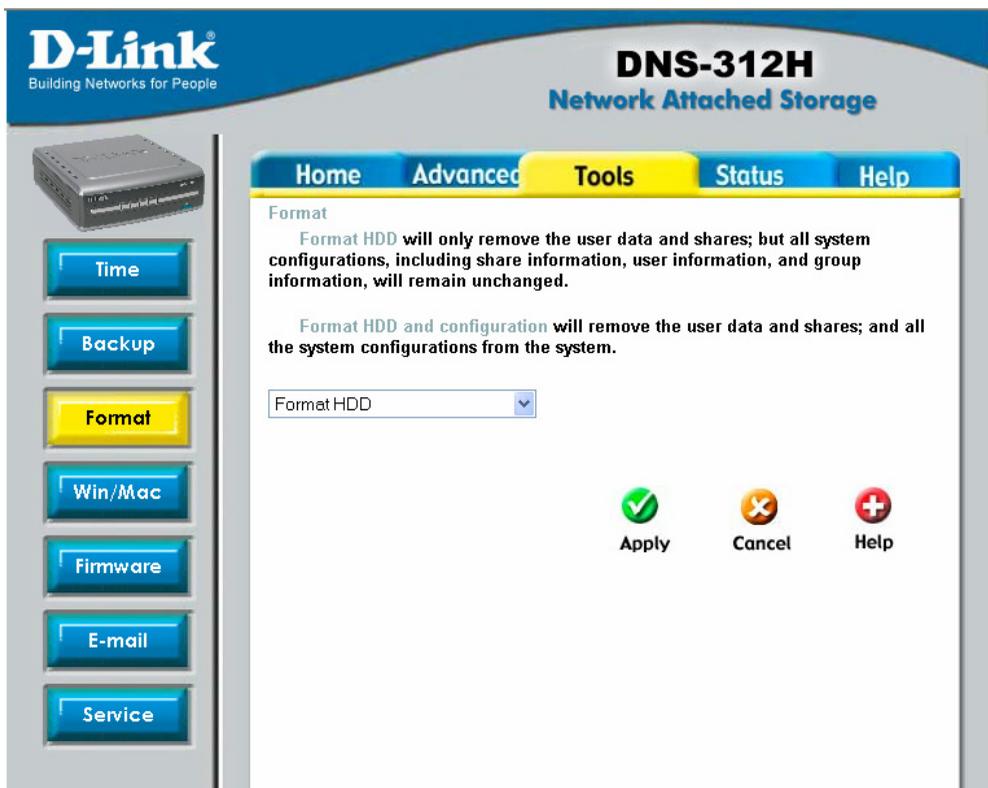
When this action is completed, all data on your hard drive will be **deleted** and will not be able to be restored.

Format Hard Drive

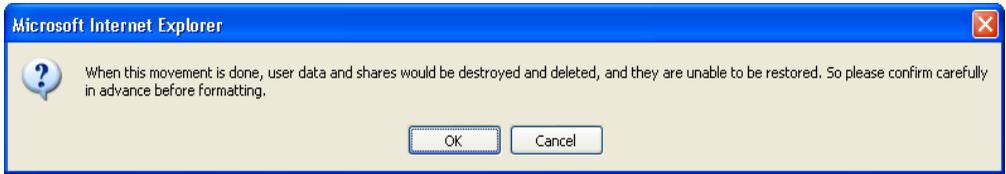
You can remove the data on the system by formatting the hard drive. There are two options for you to choose from on the drop-down menu:

Format HDD – This option will only remove the user data and shares; but all system configurations, including share information, user information, and group information, will remain unchanged.

Format HDD and configuration – This option will remove the user data and all the system configurations from the system.



Click **Apply** to initiate formatting.



Please click **OK** at the pop-out warning message to continue formatting.

Networking and Encoding

Windows Network

You can determine the Workgroup and WINS server IP here. The Workgroup should be 1 to 15 characters (English, Asian, or other languages.)

Apple Network

A zone is a logical grouping of devices in an AppleTalk network. Select the zone from the drop-down menu and click **Apply** for it to take effect.

Encoding

Choose the appropriate encoding from the Encoding Codepage drop-down menu so that clients that don't have Unicode support installed correctly can access the device.

Note:

a) If the local language is the only language used in your working environment, there is no need to change any settings for the encoding code page and you can just go ahead and load the defaults.

For example: If the local language is English, and all files or folders use English names, then it is unnecessary to change any settings here, just follow the defaults.

b) If it is necessary to recognize a second, non-local language, it is recommended that you select an encoding that recognizes the second language.

For example: If the local language is English but some files or folders use Japanese characters, please select “Japanese SJIS (Code Page 932)” in the Encoding Codepage drop-down menu.



Time

Backup

Format

Win/Mac

Firmware

E-mail

Service

Home

Advanced

Tools

Status

Help

Windows Network

Workgroup

WINS Server

MAC OS zone settings

AppleTalk Zone

Encoding Codepage



Apply



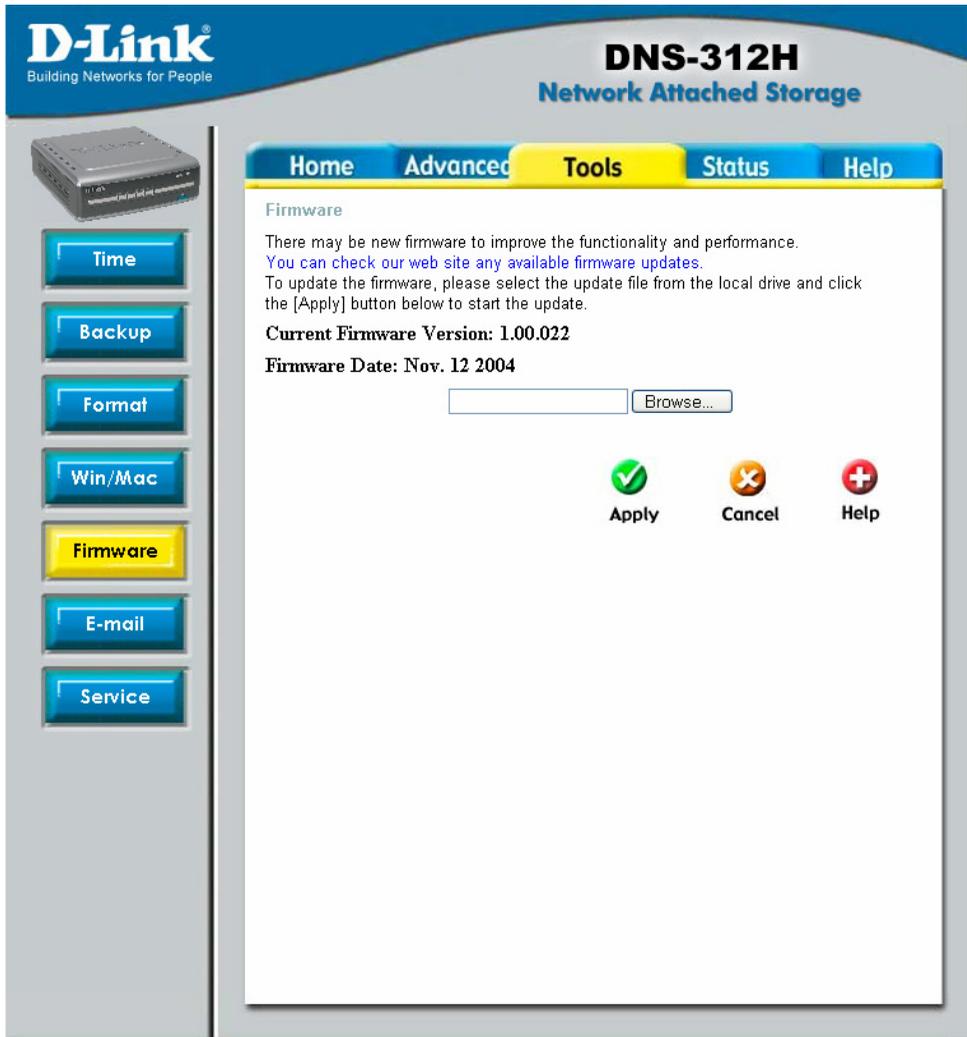
Cancel



Help

Firmware Update

1. Click the **Browse** button.



The screenshot shows the D-Link DNS-312H Network Attached Storage web interface. The top navigation bar includes 'Home', 'Advanced', 'Tools' (highlighted), 'Status', and 'Help'. On the left sidebar, there are buttons for 'Time', 'Backup', 'Format', 'Win/Mac', 'Firmware' (highlighted), 'E-mail', and 'Service'. The main content area is titled 'Firmware' and contains the following text:

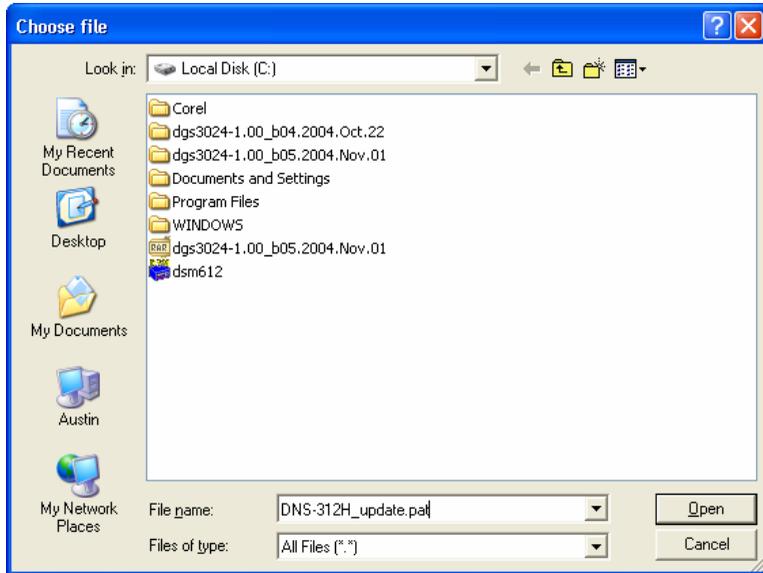
Firmware

There may be new firmware to improve the functionality and performance. [You can check our web site any available firmware updates.](#)
To update the firmware, please select the update file from the local drive and click the [Apply] button below to start the update.

Current Firmware Version: 1.00.022
Firmware Date: Nov. 12 2004

Below the text is an empty text input field followed by a 'Browse...' button. At the bottom of the main content area, there are three buttons: 'Apply' (with a green checkmark icon), 'Cancel' (with an orange 'X' icon), and 'Help' (with a red plus icon).

2. Choose the file from the local hard drive.



3. Click **Apply**.

E-mail Notifications

E-mail notifications will be sent to notify you when important and critical events or errors occur. Please enter the SMTP server and the e-mail address the notifications should be sent to. You can assign up to two e-mail addresses.

If the SMTP server is assigned by host name rather than IP address, please make sure a valid DNS server has been assigned on the [Home > LAN] page.

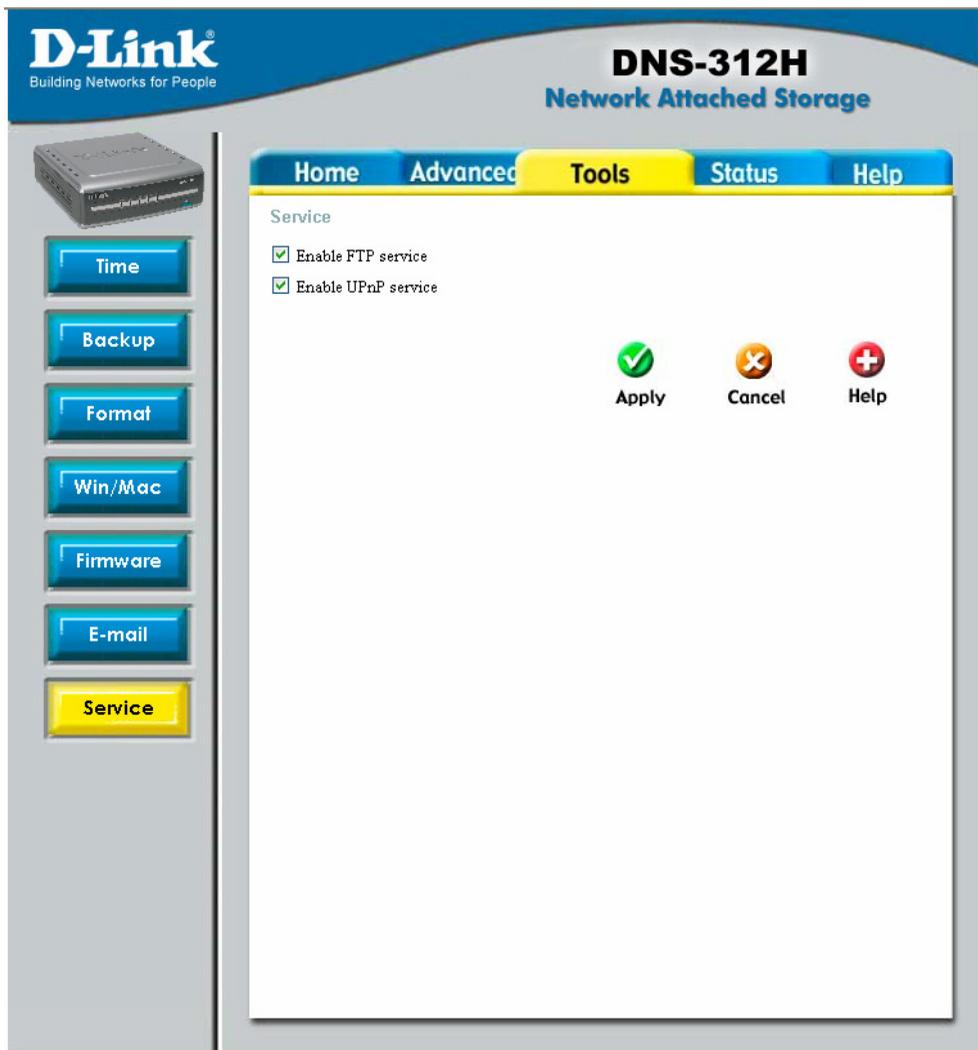


The screenshot shows the web interface for a D-Link DNS-312H Network Attached Storage device. The interface has a blue header with the D-Link logo and the product name. A navigation menu includes Home, Advanced, Tools (highlighted), Status, and Help. On the left, there is a sidebar with buttons for Time, Backup, Format, Win/Mac, Firmware, E-mail (highlighted), and Service. The main content area is titled 'E-mail' and contains the following text: 'The server will send you an e-mail about any important events or errors occurred.' Below this, there are three input fields for 'SMTP Server', 'Primary e-mail address', and 'Secondary e-mail address'. A checkbox labeled 'Send test message' is checked. At the bottom right, there are three buttons: 'Apply' (green checkmark), 'Cancel' (orange X), and 'Help' (red plus sign).

Service

Here is a facility for uploading various kinds of data easily and efficiently.

1. Select “Enable FTP service” or “Enable UPnP service.”



The screenshot displays the web management interface for a D-Link DNS-312H Network Attached Storage device. The interface features a blue header with the D-Link logo and the product name. A navigation bar includes tabs for Home, Advanced, Tools (which is currently selected), Status, and Help. On the left side, there is a vertical menu with buttons for Time, Backup, Format, Win/Mac, Firmware, E-mail, and Service (which is highlighted in yellow). The main content area is titled "Service" and contains two checked options: "Enable FTP service" and "Enable UPnP service". Below these options are three buttons: "Apply" (with a green checkmark icon), "Cancel" (with an orange 'x' icon), and "Help" (with a red plus icon).

2. Click **Apply** to Finish

Note:

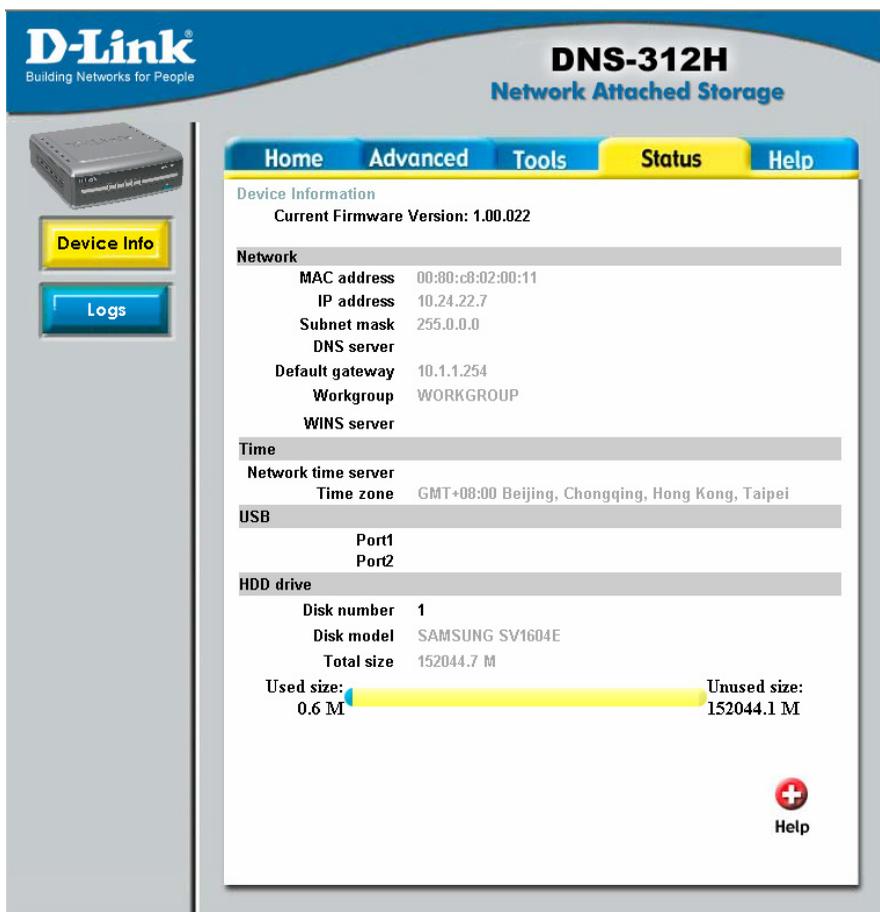
File Transfer Protocol (FTP) is a convenient way for users to download, upload, or transfer files from one computer to another. Also, FTP is a special way to login to a certain site for the purpose of retrieving and sending files.

Microsoft IE Version 6.0 or above is recommended.

Device Status

Device Information

On this page you can overview the device information. This is solely for overview purposes. If you want to change any setting, please go to the page of the setting you want to change.



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DNS-312H
Network Attached Storage

Home Advanced Tools **Status** Help

Device Information
Current Firmware Version: 1.00.022

Network

MAC address	00:80:c8:02:00:11
IP address	10.24.22.7
Subnet mask	255.0.0.0
DNS server	
Default gateway	10.1.1.254
Workgroup	WORKGROUP
WINS server	

Time

Network time server	
Time zone	GMT+08:00 Beijing, Chongqing, Hong Kong, Taipei

USB

Port1	
Port2	

HDD drive

Disk number	1
Disk model	SAMSUNG SV1604E
Total size	152044.7 M

Used size: 0.6 M  Unused size: 152044.1 M


Help

Logs

On this page you can view, clear, and save System Log, Connection Log, and Current Connection. The maximum size or number of each kind of log is 32K bytes or 320 logs, depending on which criterion is reached first.

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DNS-312H
Network Attached Storage

Home Advanced Tools **Status** Help

Logs Information

System Log
Logs of the historical operations and events of the system.

Connection Log
Logs of the connection records, include time, user names, and events.

Current Connection([Samba connection](#),[Ftp connection](#))
List of users who are now accessing the system resources.

Warning!!

When this action is completed, all data of logs will be **deleted**. They will not be able to be restored.

Clear the log

1. Click on the log page that you want to clear the log for.



The screenshot shows the D-Link DNS-312H Network Attached Storage web interface. The top navigation bar includes 'Home', 'Advanced', 'Tools', 'Status', and 'Help'. The 'Status' tab is selected. On the left sidebar, there are buttons for 'Device Info' and 'Logs'. The main content area is titled 'View Log' and contains a table of log entries. Below the table, there are navigation buttons: 'First Page', 'Last Page', 'Previous', 'Next', 'Clear', and 'Save'. A 'Help' button with a red plus icon is also present. The log table has three columns: 'time', 'type', and 'message'. The entries show various system events, including IP address changes and service starts.

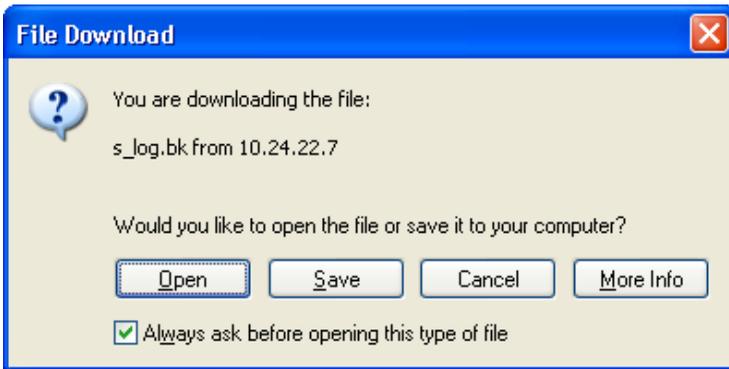
time	type	message
Nov 18 21:23:28	user.info	IP address changed to 10.57.19.123
Nov 18 21:23:28	user.info	ftp Start
Nov 18 21:23:30	user.info	nmbd Start
Nov 18 21:23:31	user.info	smbd Start
Nov 18 21:23:32	user.info	netatalk Start
Nov 18 21:24:41	user.info	IP address changed to 10.57.19.123
Nov 18 21:24:41	user.info	ftp Start
Nov 18 21:24:43	user.info	nmbd Start
Nov 18 21:24:44	user.info	smbd Start
Nov 18 21:24:44	user.info	netatalk Start
Nov 18 21:55:38	user.info	IP address changed to 192.168.0.101
Nov 18 21:55:38	user.info	ftp Start
Nov 18 21:55:40	user.info	nmbd Start
Nov 18 21:55:41	user.info	smbd Start
Nov 18 21:55:41	user.info	netatalk Start

page 1 of 6

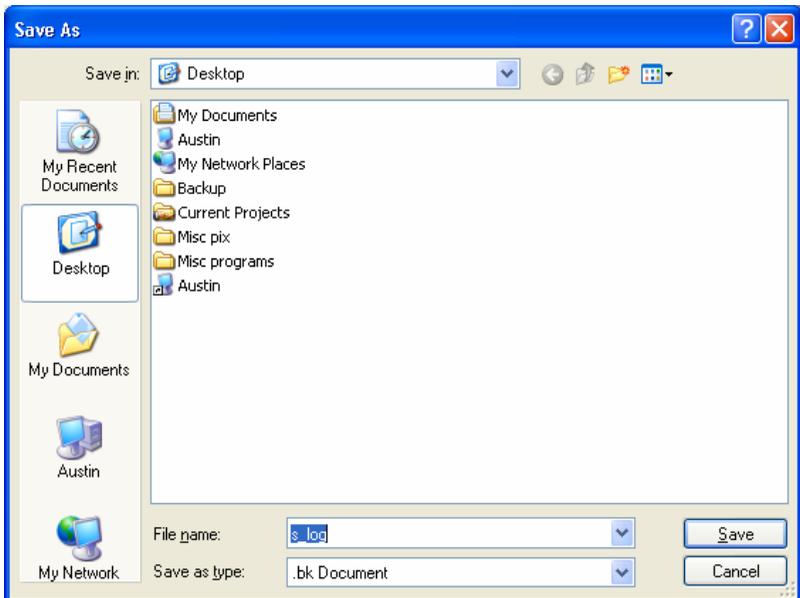
2. Click the **Clear** button.

Save the log

1. Go to the log page that you want to save the log for.
2. Click the **Save** button.
3. Click the **Save** button again from the **File Download** prompt.



4. Choose a local location and click **Save** to finish.



Refresh the log

When you view a log, you can click the **Refresh** button to refresh the page so the most updated information will be displayed.

Online Help

Individual Help

If there are questions during the set up of the device, please click the **Help** button that is found at the bottom of each page. This will provide you with access to a help topic for each page.

WARNING: Max 110Giga space per harddisk partion be permitted when format with windows(FAT).



Refresh

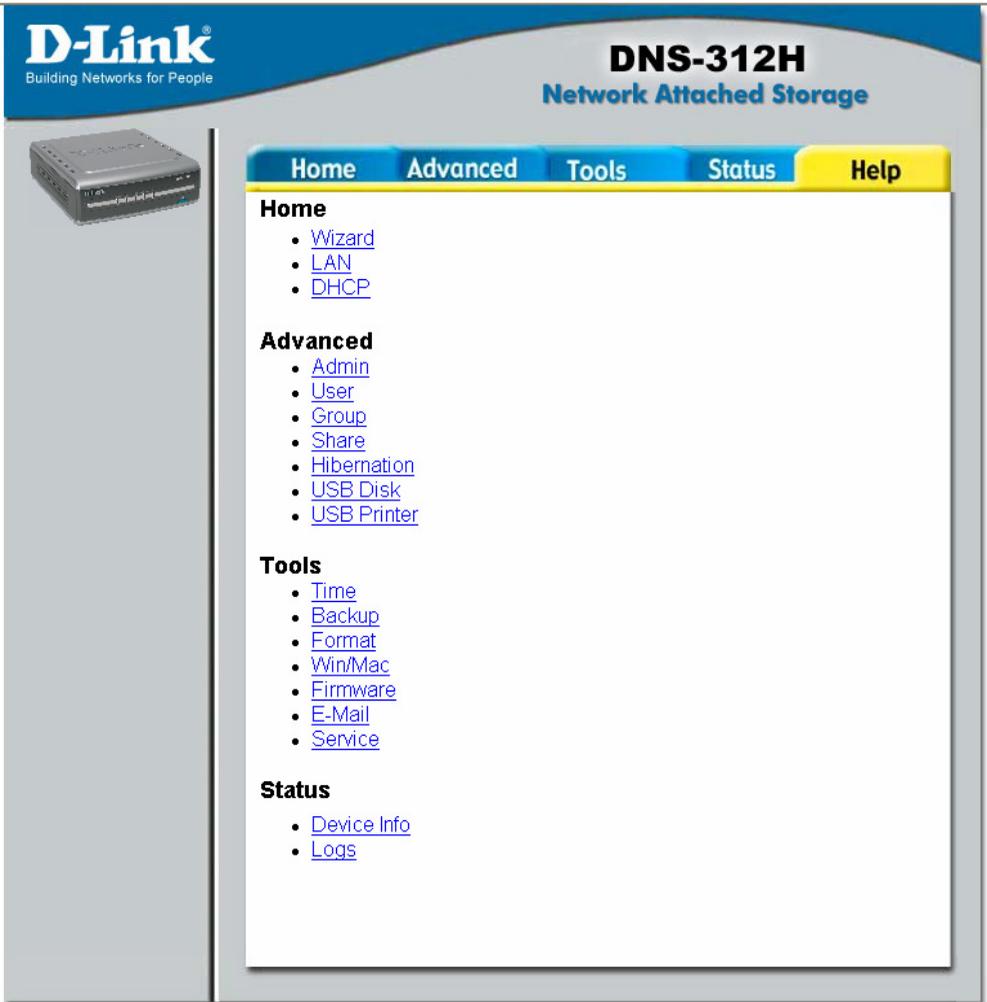


Help

Partition	Filesvstem	Used	Available	Mounted on
-----------	------------	------	-----------	------------

Overall Help

Click the **Help** tab at the top of every page to view all help topics.



D-Link
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DNS-312H
Network Attached Storage

Home Advanced Tools Status **Help**

Home

- [Wizard](#)
- [LAN](#)
- [DHCP](#)

Advanced

- [Admin](#)
- [User](#)
- [Group](#)
- [Share](#)
- [Hibernation](#)
- [USB Disk](#)
- [USB Printer](#)

Tools

- [Time](#)
- [Backup](#)
- [Format](#)
- [Win/Mac](#)
- [Firmware](#)
- [E-Mail](#)
- [Service](#)

Status

- [Device Info](#)
- [Logs](#)



Limited Warranty (USA Only)

Subject to the terms and conditions set forth herein, D-Link Systems, Inc. ("D-Link") provides this Limited warranty for its product only to the person or entity that originally purchased the product from:

- D-Link or its authorized reseller or distributor and
- Products purchased and delivered within the fifty states of the United States, the District of Columbia, U.S. Possessions or Protectorates, U.S. Military Installations, addresses with an APO or FPO.

Limited Warranty: D-Link warrants that the hardware portion of the D-Link products described below will be free from material defects in workmanship and materials from the date of original retail purchase of the product, for the period set forth below applicable to the product type ("Warranty Period"), except as otherwise stated herein.

1-Year Limited Warranty for the Product(s) is defined as follows:

- Hardware (excluding power supplies and fans) One (1) Year
- Power Supplies and Fans One (1) Year
- Spare parts and spare kits Ninety (90) days

D-Link's sole obligation shall be to repair or replace the defective Hardware during the Warranty Period at no charge to the original owner or to refund at D-Link's sole discretion. Such repair or replacement will be rendered by D-Link at an Authorized D-Link Service Office. The replacement Hardware need not be new or have an identical make, model or part. D-Link may in its sole discretion replace the defective Hardware (or any part thereof) with any reconditioned product that D-Link reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. Repaired or replacement Hardware will be warranted for the remainder of the original Warranty Period from the date of original retail purchase. If a material defect is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to repair or replace the defective Hardware, the price paid by the original purchaser for the defective Hardware will be refunded by D-Link upon return to D-Link of the defective Hardware. All Hardware (or part thereof) that is replaced by D-Link, or for which the purchase price is refunded, shall become the property of D-Link upon replacement or refund.

Limited Software Warranty: D-Link warrants that the software portion of the product ("Software") will substantially conform to D-Link's then current functional specifications for the Software, as set forth in the applicable documentation, from the date of original retail purchase of the Software for a period of ninety (90) days ("Warranty Period"), provided that the Software is properly installed on approved hardware and operated as contemplated in its documentation. D-Link further warrants that, during the Warranty Period, the magnetic media on which D-Link delivers the Software will be free of physical defects. D-Link's sole obligation shall be to replace the non-conforming Software (or defective media) with software that substantially conforms to D-Link's functional specifications for the Software or to refund at D-Link's sole discretion. Except as otherwise agreed by D-Link in writing, the replacement Software is provided only to the original licensee, and is subject to the terms and conditions of the license granted by D-Link for the Software. Software will be warranted for the remainder of the original Warranty Period from the date of original retail purchase. If a material non-conformance is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to replace the nonconforming Software, the price paid by the original licensee for the non-conforming Software will be refunded by D-Link; provided that the non-conforming Software (and all copies thereof) is first returned to D-Link. The license granted respecting any Software for which a refund is given automatically terminates.

Non -Applicability of Warranty: The Limited Warranty provided hereunder for hardware and software of D-Link's products will not be applied to and does not cover any refurbished product and any product purchased through the inventory clearance or liquidation sale or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product and in that case, the product is being sold "As-Is" without any warranty whatsoever including, without limitation, the Limited Warranty as described herein, notwithstanding anything stated herein to the contrary.

Submitting A Claim: The customer shall return the product to the original purchase point based on its return policy. In case the return policy period has expired and the product is within warranty, the customer shall submit a claim to D-Link as outlined below:

- The customer must submit with the product as part of the claim a written description of the Hardware defect or Software nonconformance in sufficient detail to allow D-Link to confirm the same.

- The original product owner must obtain a Return Material Authorization (“RMA”) number from the Authorized D-Link Service Office and, if requested, provide written proof of purchase of the product (such as a copy of the dated purchase invoice for the product) before the warranty service is provided.
- After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package. Do not include any manuals or accessories in the shipping package. D-Link will only replace the defective portion of the Product and will not ship back any accessories.
- The customer is responsible for all in-bound shipping charges to D-Link. No Cash on Delivery (“COD”) is allowed. Products sent COD will either be rejected by D-Link or become the property of D-Link. Products shall be fully insured by the customer. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped to the customer via UPS Ground or any common carrier selected by D-Link, with shipping charges prepaid. Expedited shipping is available if shipping charges are prepaid by the customer and upon request.
- Return Merchandise Ship-To Address
USA: 17595 Mt. Herrmann, Fountain Valley, CA 92708
Canada: 2180 Winston Park Drive, Oakville, ON, L6H 5W1 (Visit <http://www.dlink.ca> for detailed warranty information within Canada)

D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link’s reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming.

What Is Not Covered: This limited warranty provided by D-Link does not cover: Products, if in D-Link’s judgment, have been subjected to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, repair or service in any way that is not contemplated in the documentation for the product, or if the model or serial number has been altered, tampered with, defaced or removed; Initial installation, installation and removal of the product for repair, and shipping costs; Operational adjustments covered in the operating manual for the product, and normal maintenance; Damage that occurs in shipment, due to act of God, failures due to power surge, and cosmetic damage; Any hardware, software, firmware or other products or services provided by anyone other than DLink; Products that have been purchased from inventory clearance or liquidation sales or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product. Repair by anyone other than D-Link or an Authorized D-Link Service Office will void this Warranty.

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CE Mark Warning: This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

FCC Statement: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution:

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment; such modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For detailed warranty outside the United States, please contact corresponding local D-Link office.

Register your D-Link product online at <http://support.dlink.com/register/>