D-Link DNS-300

Network Attached Storage

Manual

D-Link

Building Networks for People

Ver.1.00

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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-300*** 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-300*** 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 network	AFP	AppleTalk, TCP/IP	Apple Macintosh 7.x, 8.x, 9.x, OS X

LAN port setting	
Type	Manual configuration
	DHCP
Management	
User/ Group/ Share	
Maximum user number	32
Maximum group number	16
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-300 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. To power off the DNS-300, hold down the power button for about 6 seconds.

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 DNS-300 USB Port (for printer server) or USB HDD for additional volume.

Reset: Pressing this button restores the DNS-300 to its original factory default settings.

LAN Port: Please use the Ethernet cable to connect the DNS-300 and the router/switch/hub in the network.

Power Adapter: Receptor for power adapter.

Getting Started

Setting Up the Hard Disk Drive

Step 1: Loosen the screws on the back of the DNS-300.

Step 2: Remove the cover.

Step 3: Plug the IDE/ATA cable into the HDD.

Step 4: Connect the power connector to the HDD.

Step 5: Tighten the HDD to the metal bracket with the screws provided.

The DNS-300 packing materials include four screws, which are used in Step 5.

Step 6: Replace the cover and tighten the screws.

The DNS-300 is now ready to be plugged in and powered on.

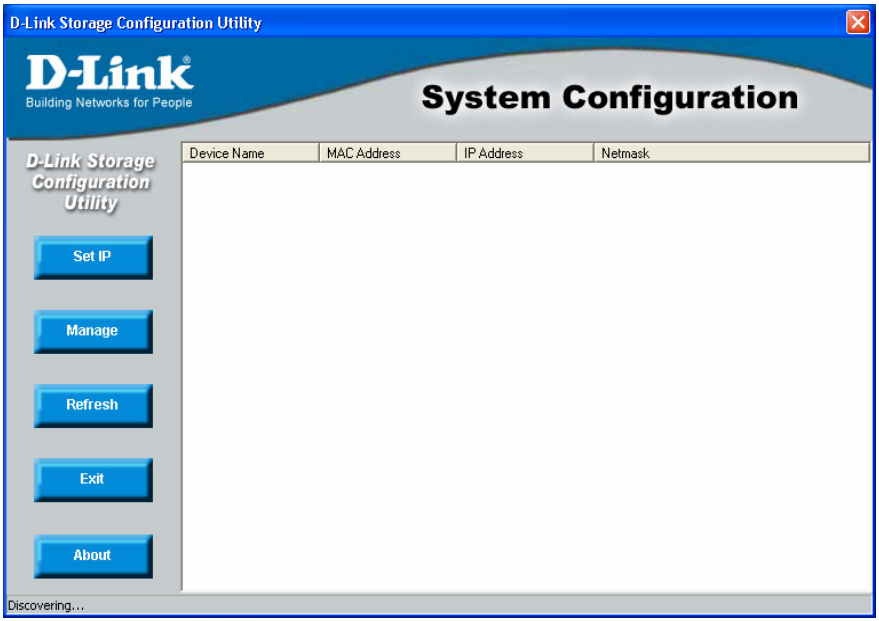
Formatting the Hard Disk Drive

If you are setting up the Hard Disk Drive for the first time, you need to format it with the D-Link Storage Configuration Utility (see the next section in this manual for more detailed information).

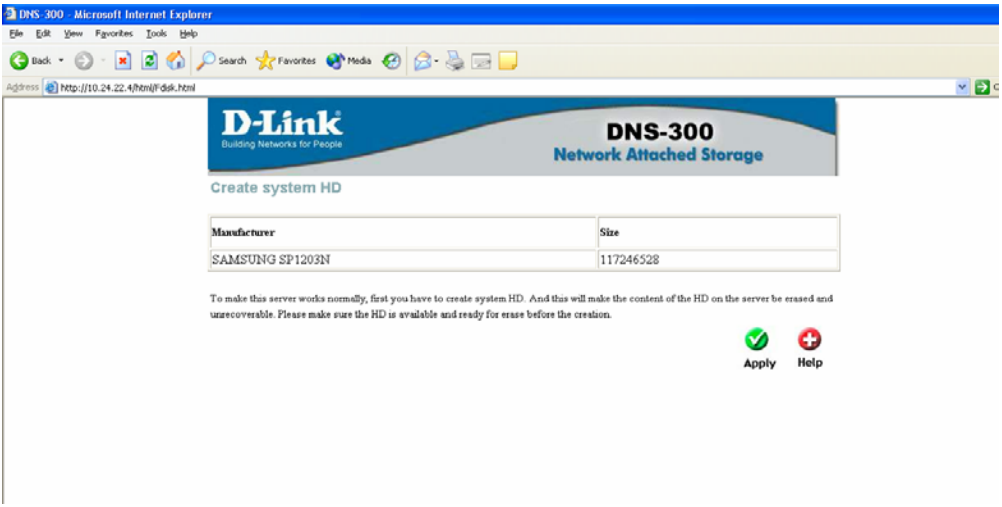
Follow these easy steps:

1. Open the D-Link Storage Configuration Utility by clicking on the icon that is installed on your desktop (when you first place the CD that comes with the DNS-300 in your CD-ROM drive).

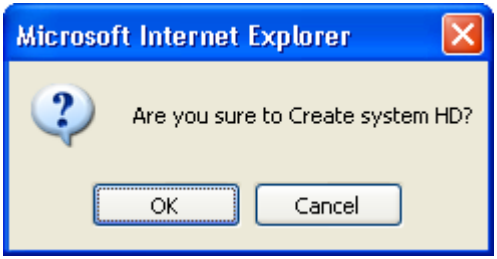
2. Select “DNS-300” under the Device Name column (click **Refresh** if it doesn’t appear automatically) and then click the **Manage** button.



This will cause your default Web browser to open the following window:

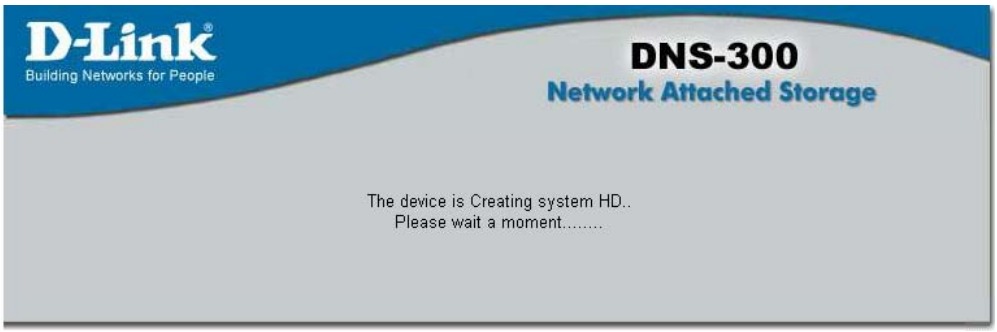


Click **Apply**.



Click **OK** to proceed with the creation of the system HD.

The following window will be displayed:



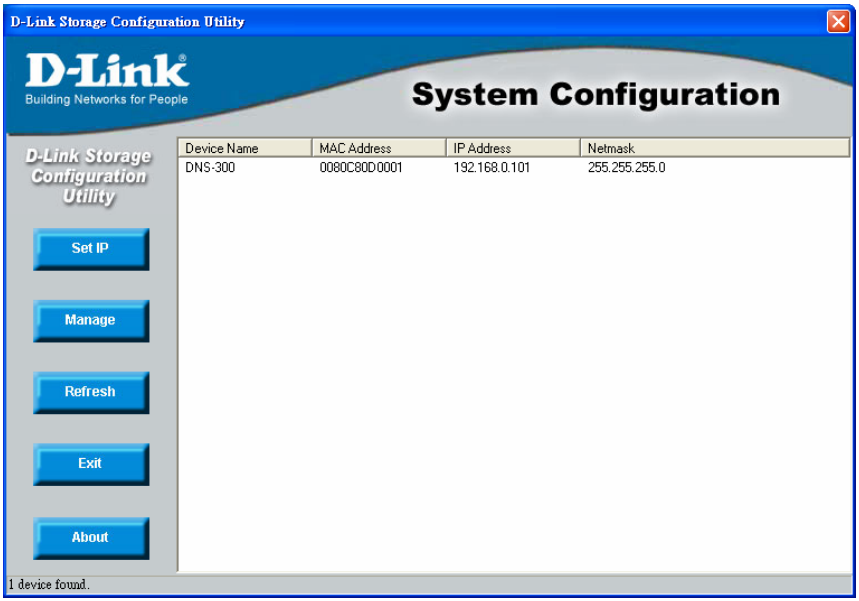
D-Link Storage Utility

D-Link Storage Utility is a tool to connect and use the DNS-300 Network Attached Storage device.

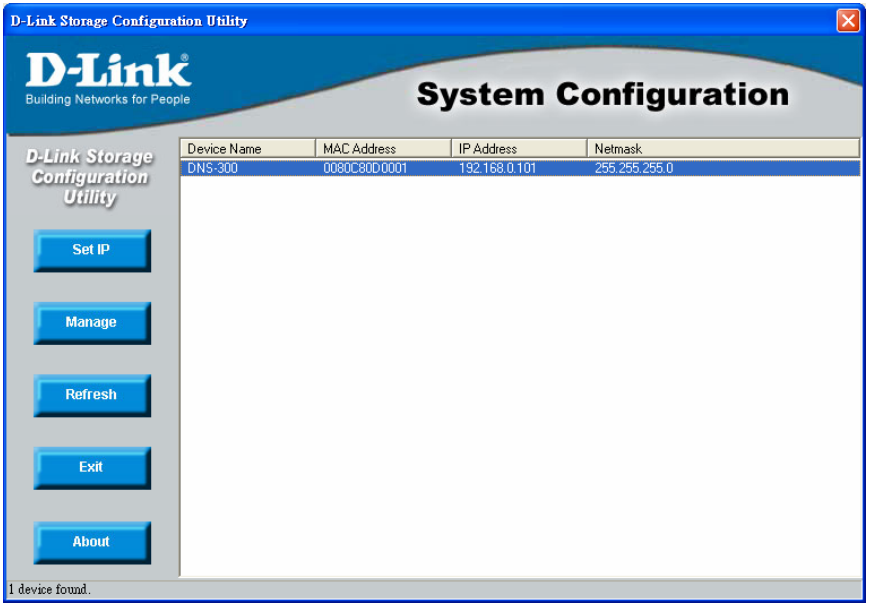
Double-click the D-Link Storage Utility icon

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:



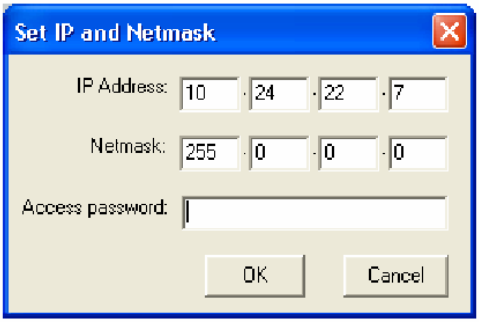
After it is finished searching, a detailed list will be shown, as above. This includes Device Name, MAC Address, IP Address, and Netmask. Select the DNS-300 from this list. Please note that you can rename the device later if desired.



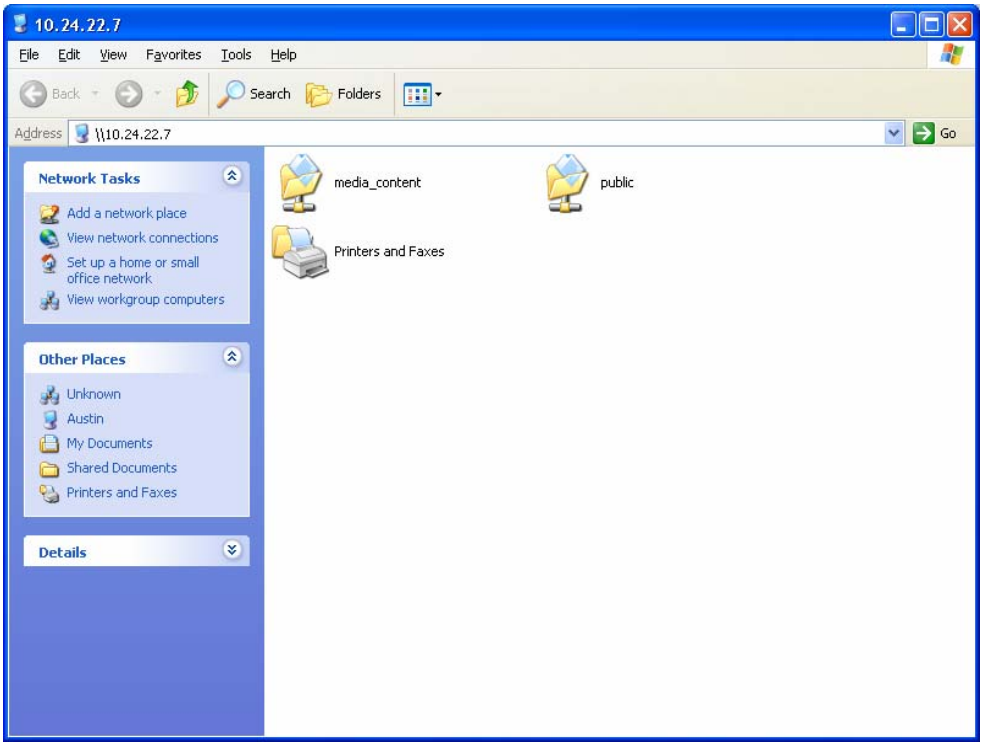
Note:

The default IP address of the DNS-300 is 192.168.0.101.

You now are able to set the IP address of the DNS-300 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.

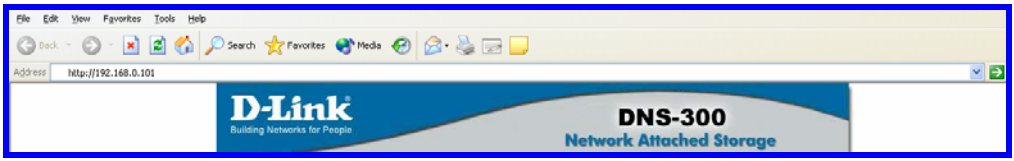
Clicking the **Manage** button on the **System Configuration** window will cause your browser to open. This is described in more detail later in the manual.

Setup Wizard

Please follow the steps below to run the initialization wizard:

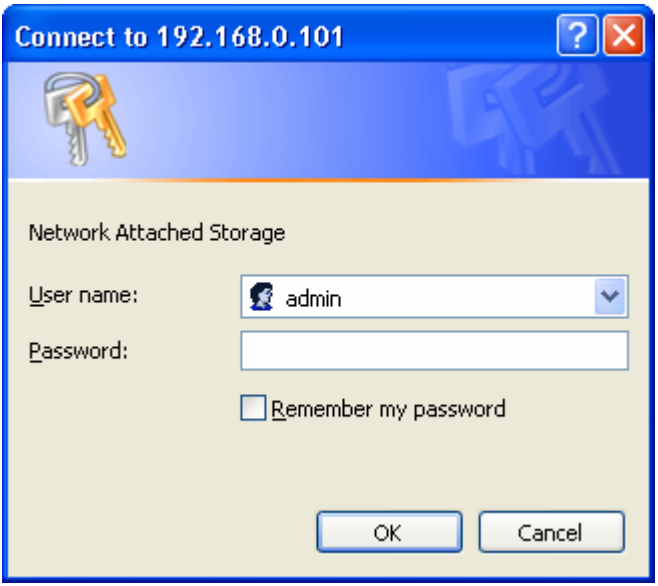
Enter the default IP

1. Connect the device running ***D-Link DNS-300*** to the network.
2. Power the device on.
3. Open the browser, using Microsoft IE (version 6.0 or above is recommended) or another suitable Web browser.
4. Enter the device default IP “192.168.0.101” (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

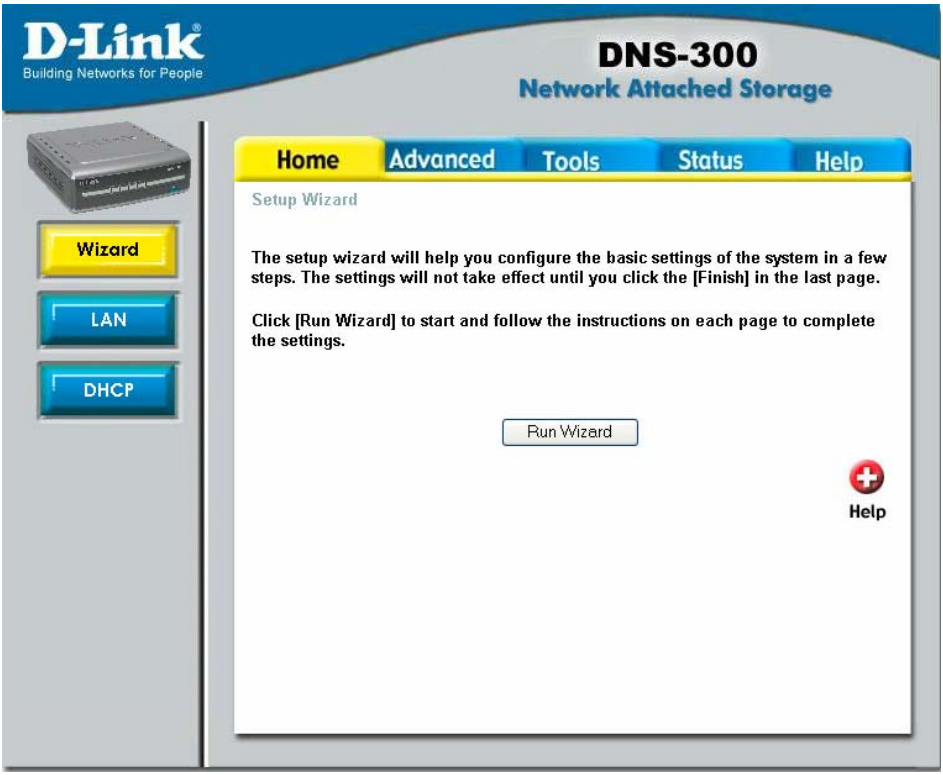
In the authentication dialog, please enter “admin” for the default user name and leave the password blank, and then click **OK**.



Start the wizard

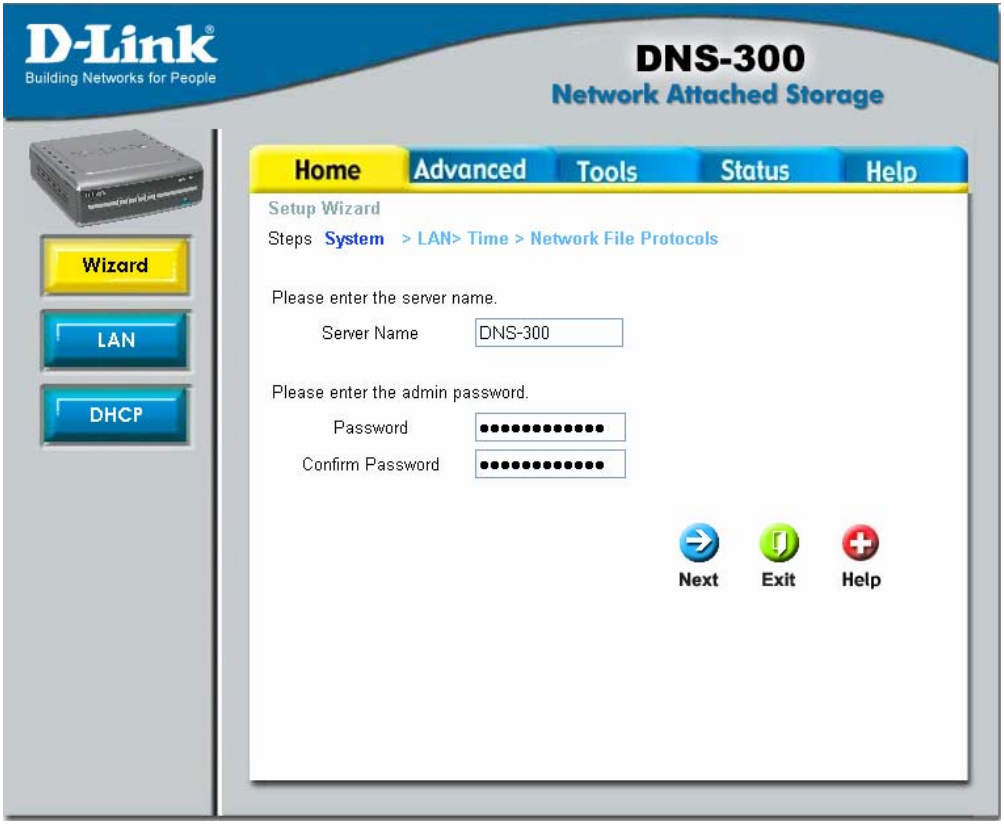
The Setup Wizard will help you configure the basic settings of the device in a few steps. The settings will not take effect until you click the **Finish** button in the last page.

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



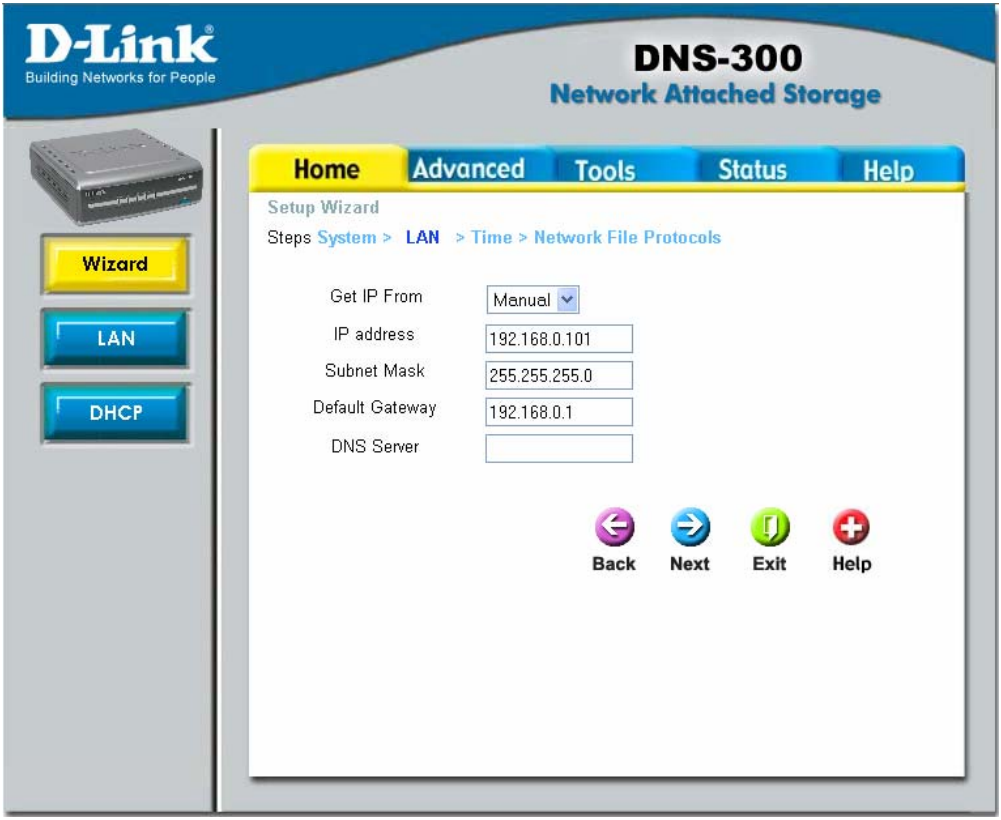
Enter system information

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**.



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: 192.168.0.1

   DNS server: empty

You can modify the settings to fit your need.

Setup time settings

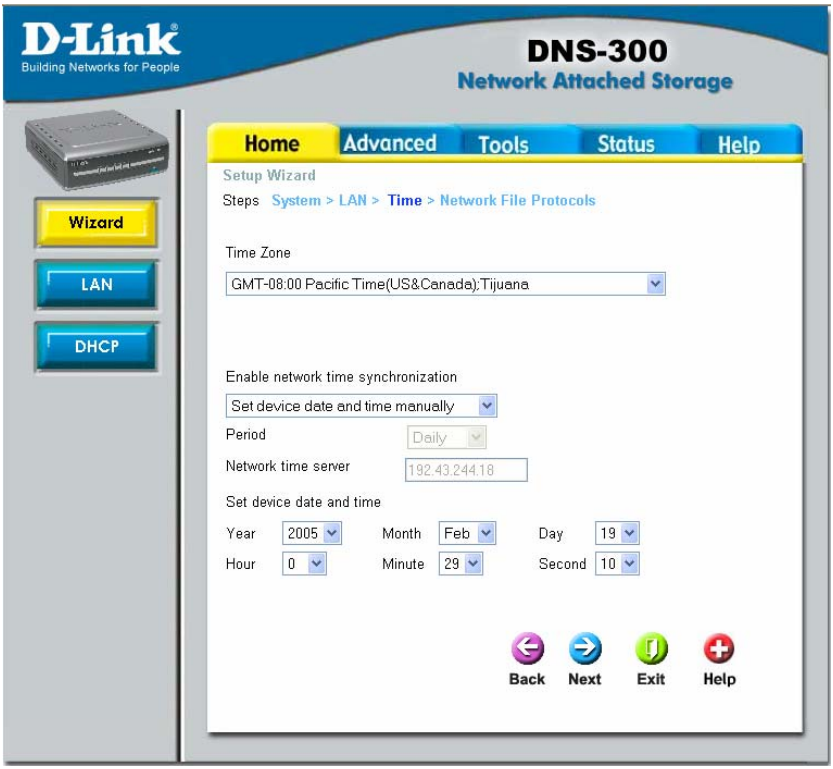
1. Select your time zone from the Time Zone drop-down menu.

   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**.



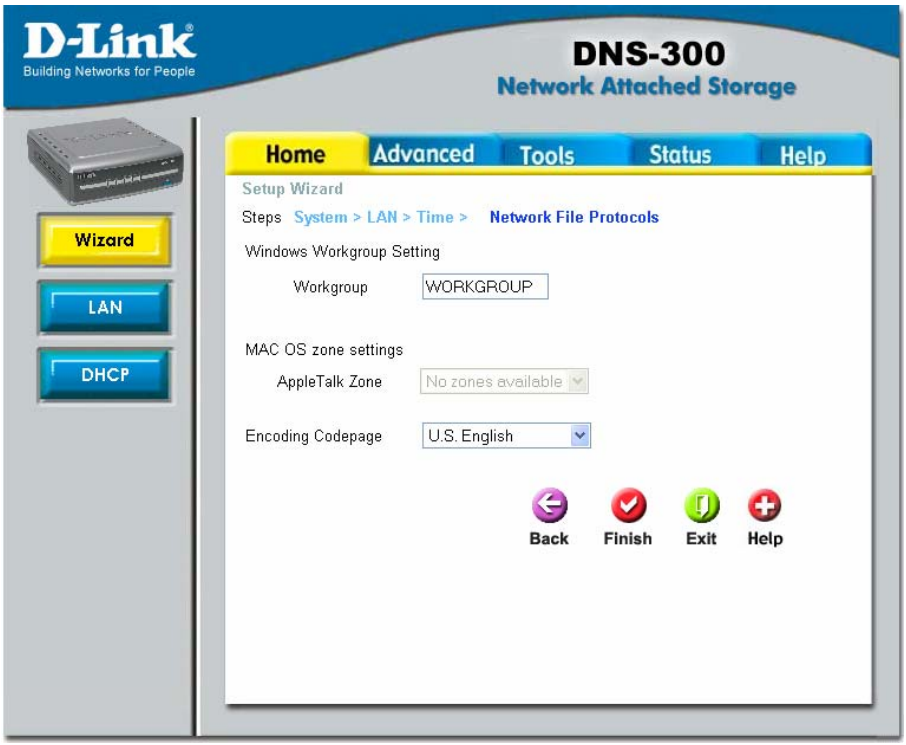
Setup network file protocol

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 Apple Talk 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.



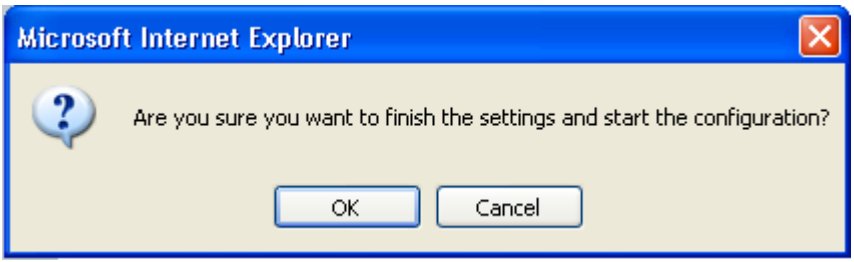
Note:

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.

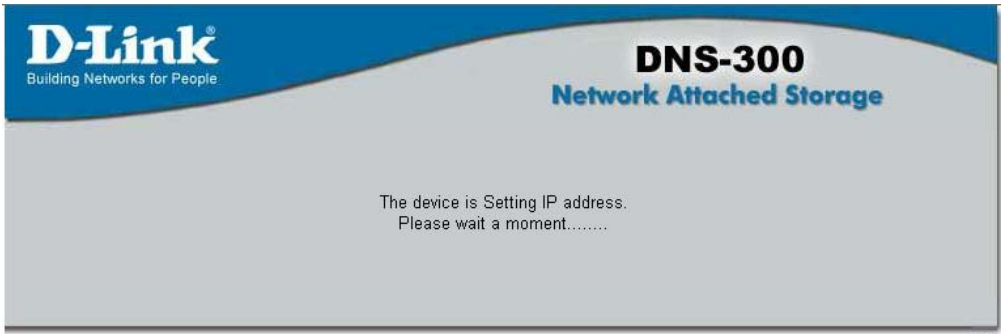
b) If it is necessary to recognize a second, non-local language, it is recommended that you select an encoding that recognizes the second language.
For example: If the local language is English but some files or folders use Japanese characters, please select “Japanese SJIS (Code Page 932)” in the Encoding Codepage drop-down menu.

Finish the settings

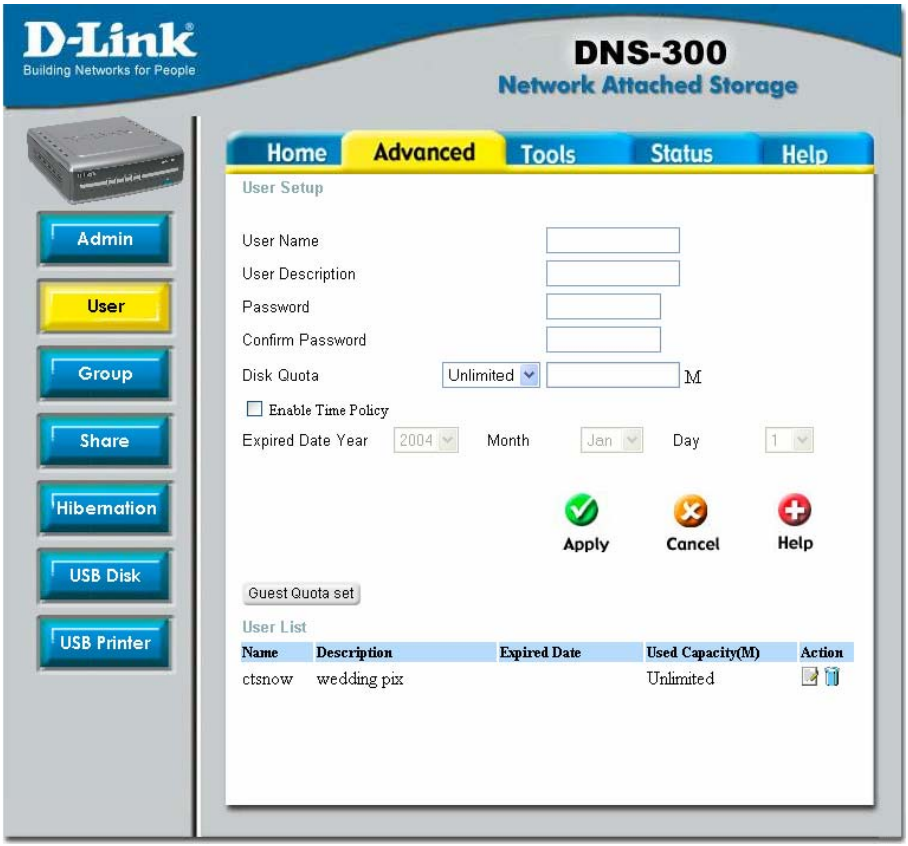
Click the **OK** button in the pop-up dialogue.



The following window will be displayed to indicate the DNS-300 is preparing your new settings:



The page will then be directed to the User page (on the **Advanced** tab)—which is described later in this manual—so you can review the settings that have been set.



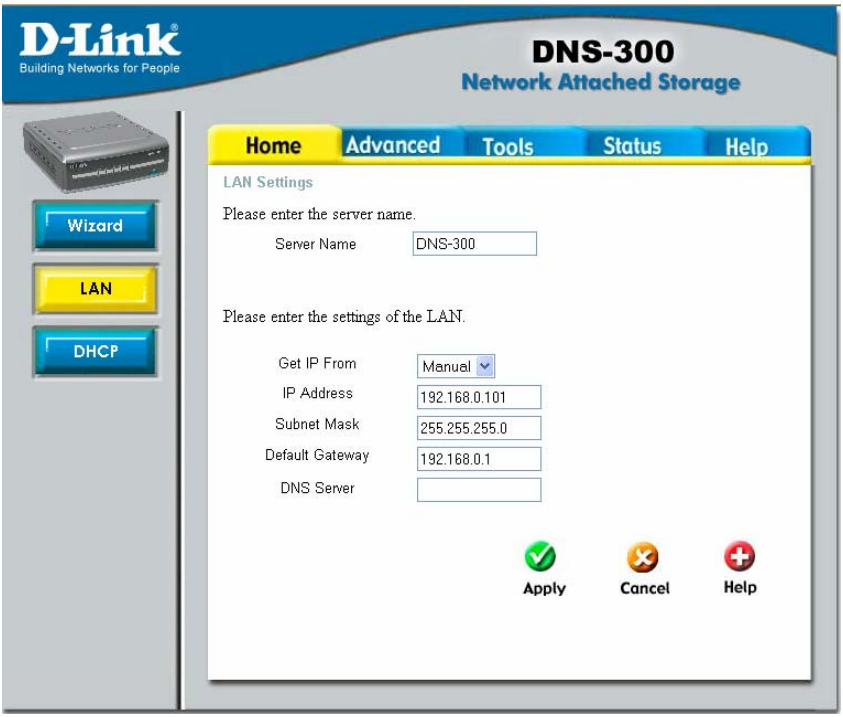
LAN Setup

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**.

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 English characters, which may consist of letters, numbers, underscores, and minus signs (single-byte characters only).

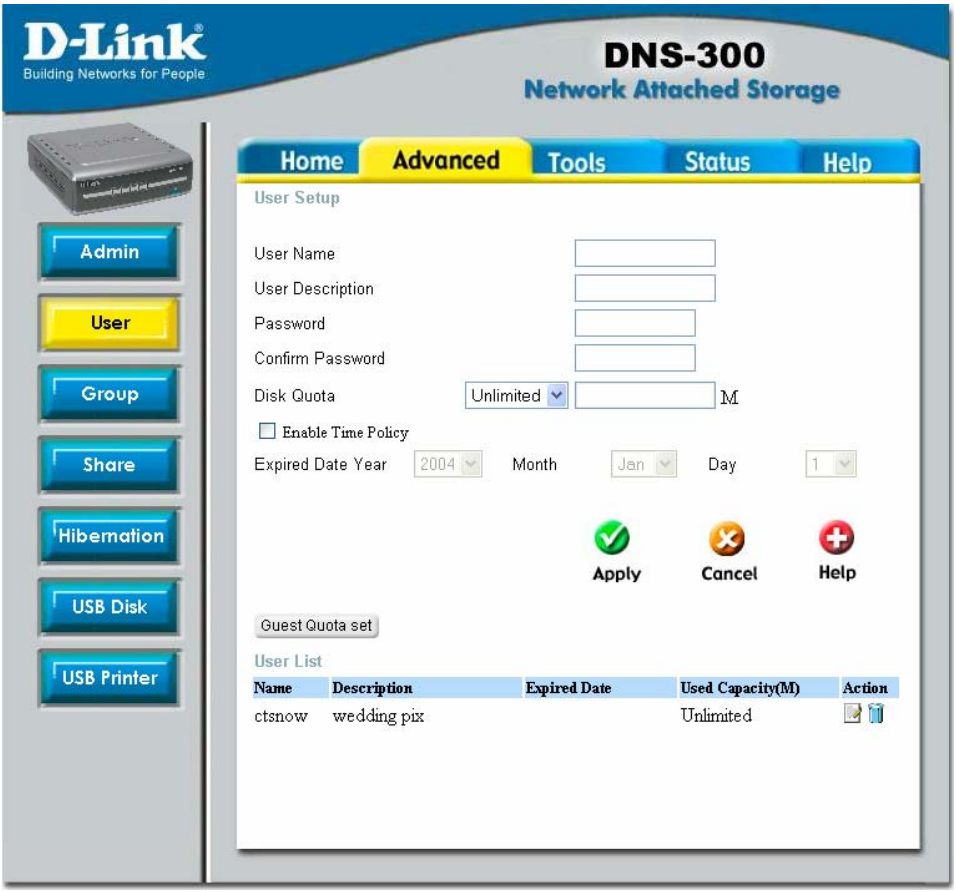
Advanced Setup

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 15 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.



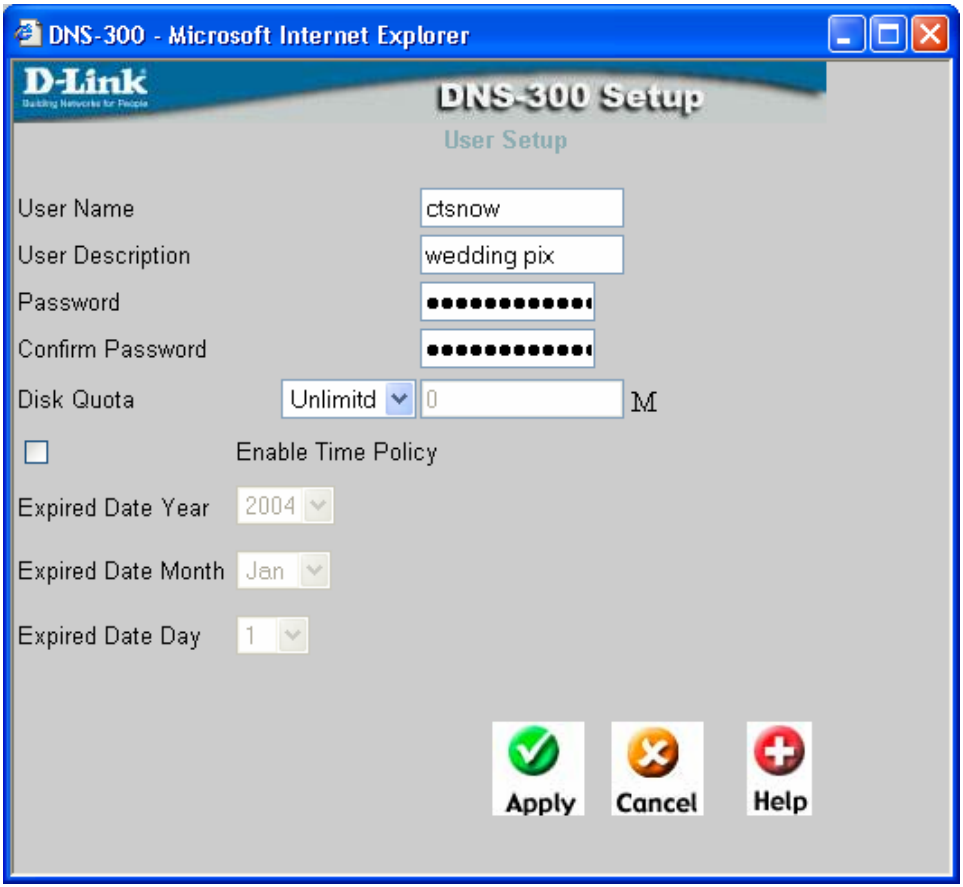
Note:

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.

2. Click **Apply**.

Editing user information

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

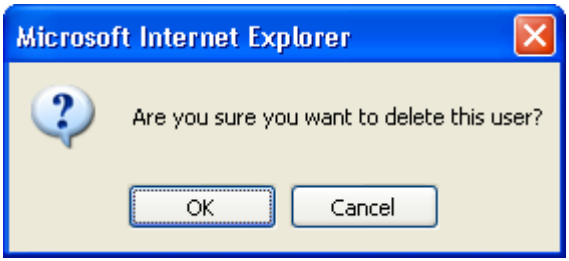


2. Edit the data.

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.

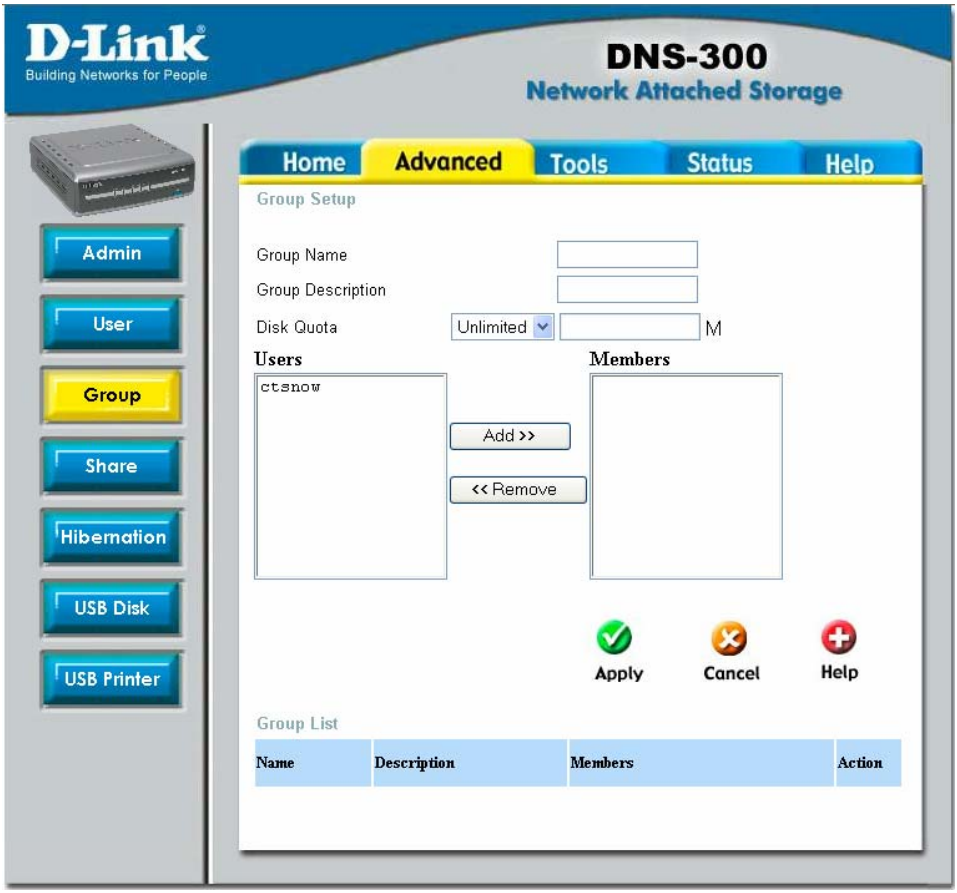


Group Management

You can create up to 16 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 15 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**.

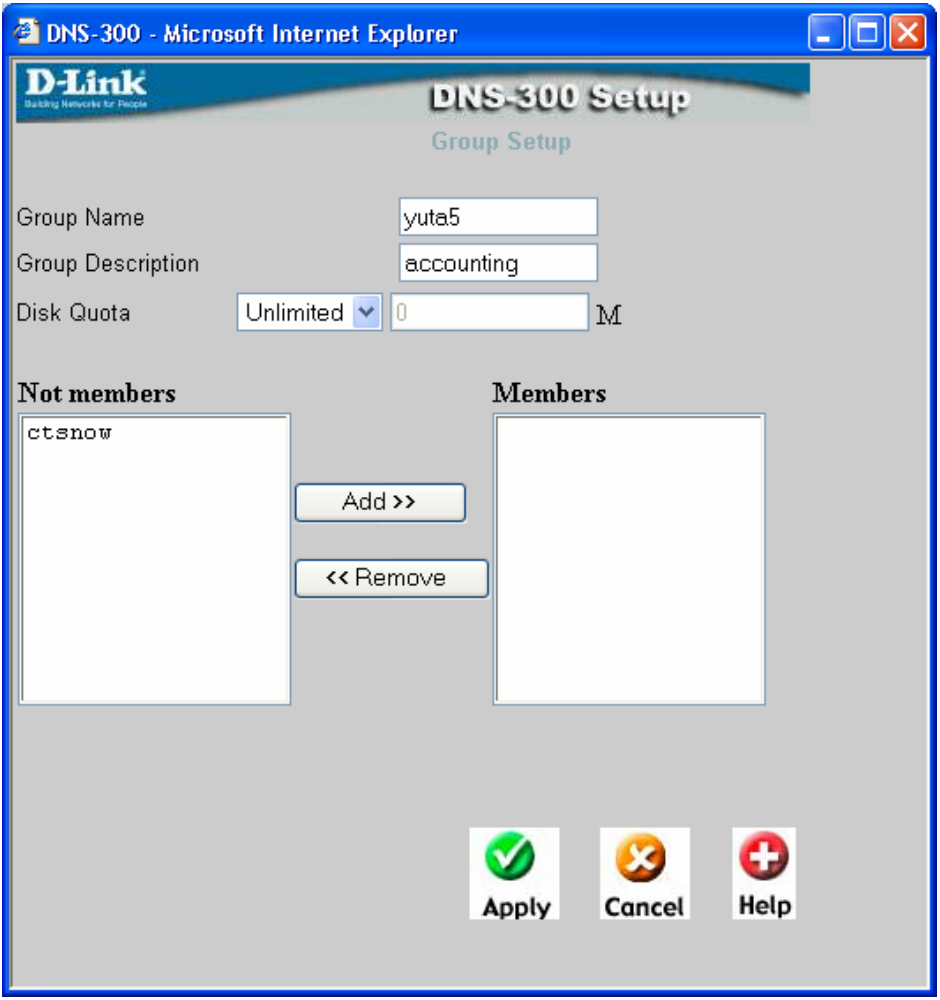


Note:

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:

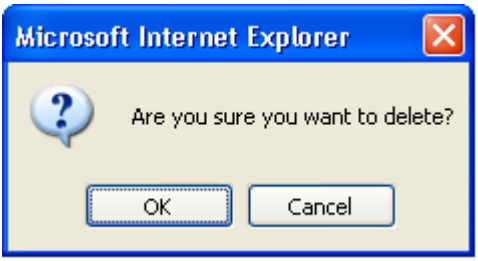


2. Edit the group details in the Group Setup section.

3. Click **Apply**.

Deleting a group

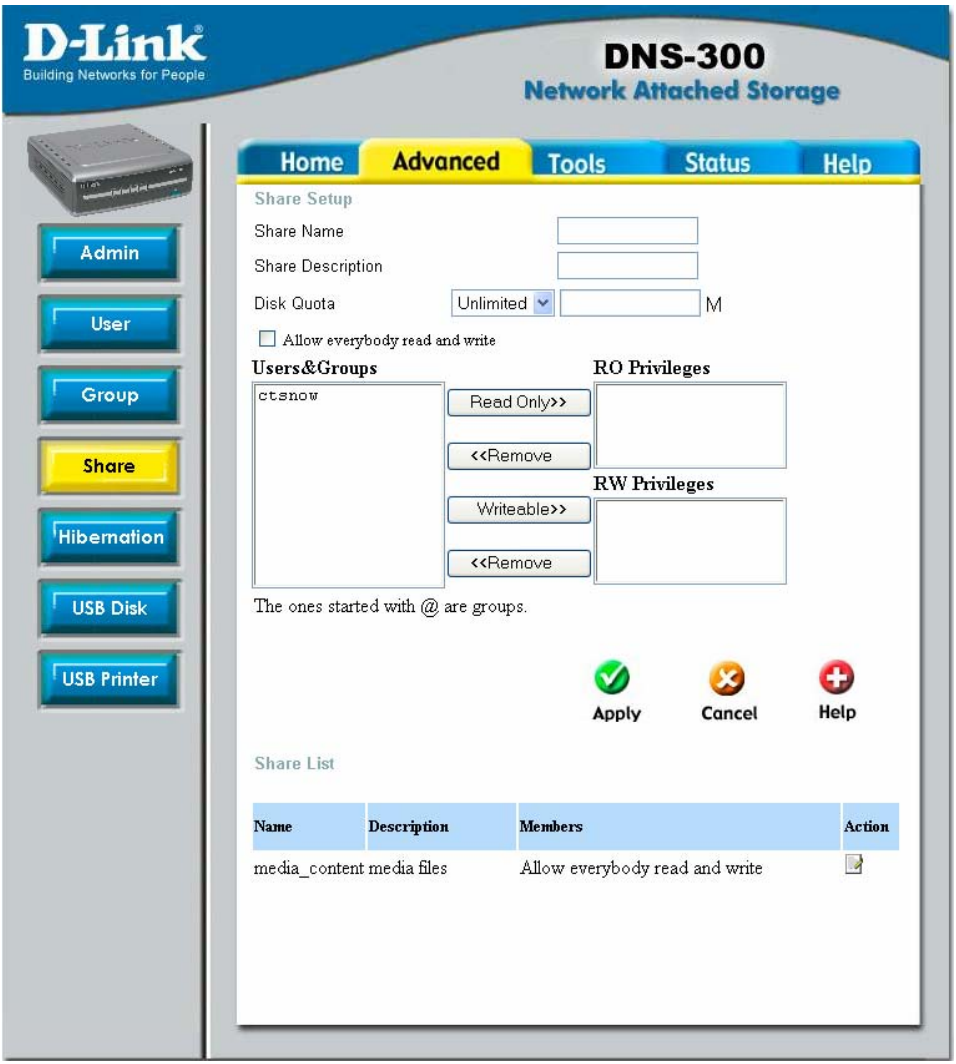
Click the graphic after the group you want to delete and click **OK** after the confirm dialogue pops up.



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 15 characters (English, Asian, or other languages). The share description is case sensitive and should be 0 to 15 characters (English, Asian, or other languages).

Creating a new share



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.

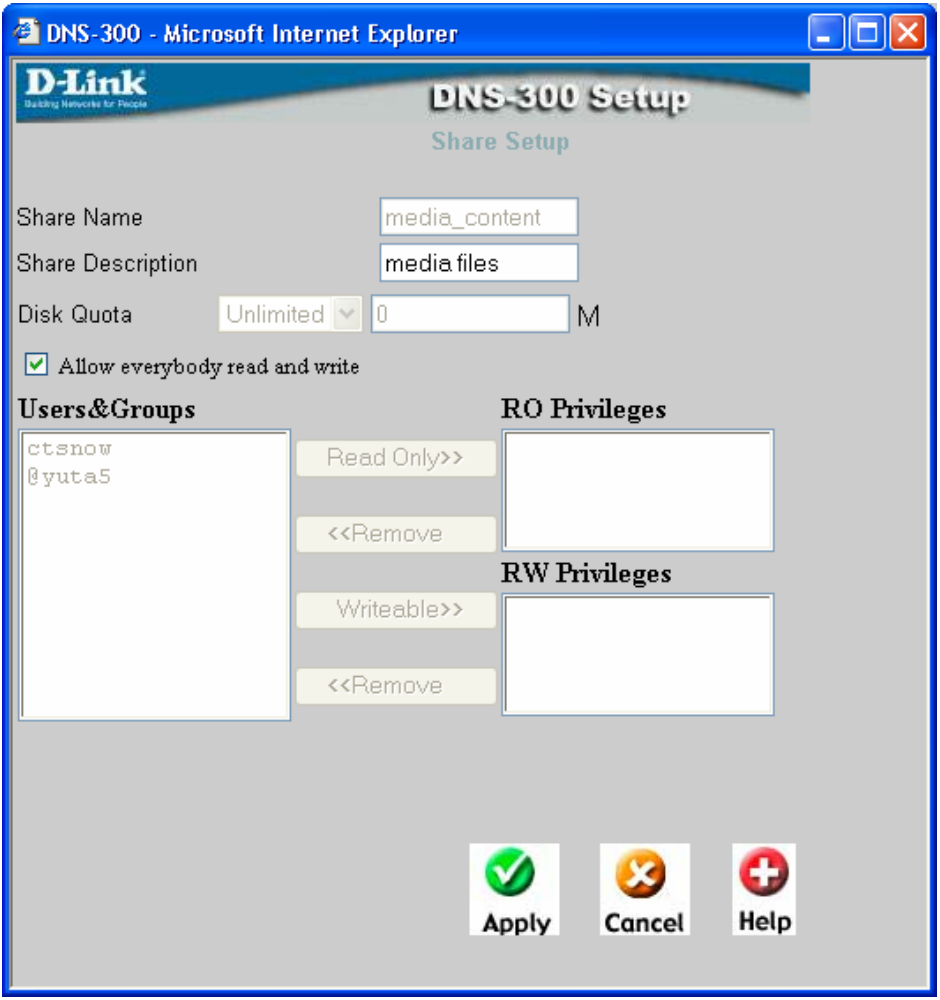
   Note:

   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.

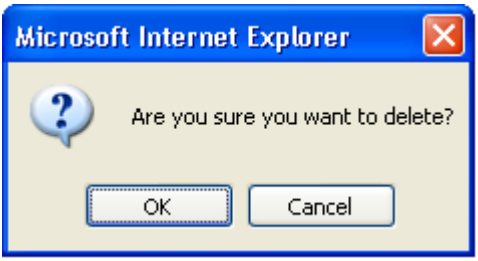


2. Edit the share details below the Share Setup section.

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.



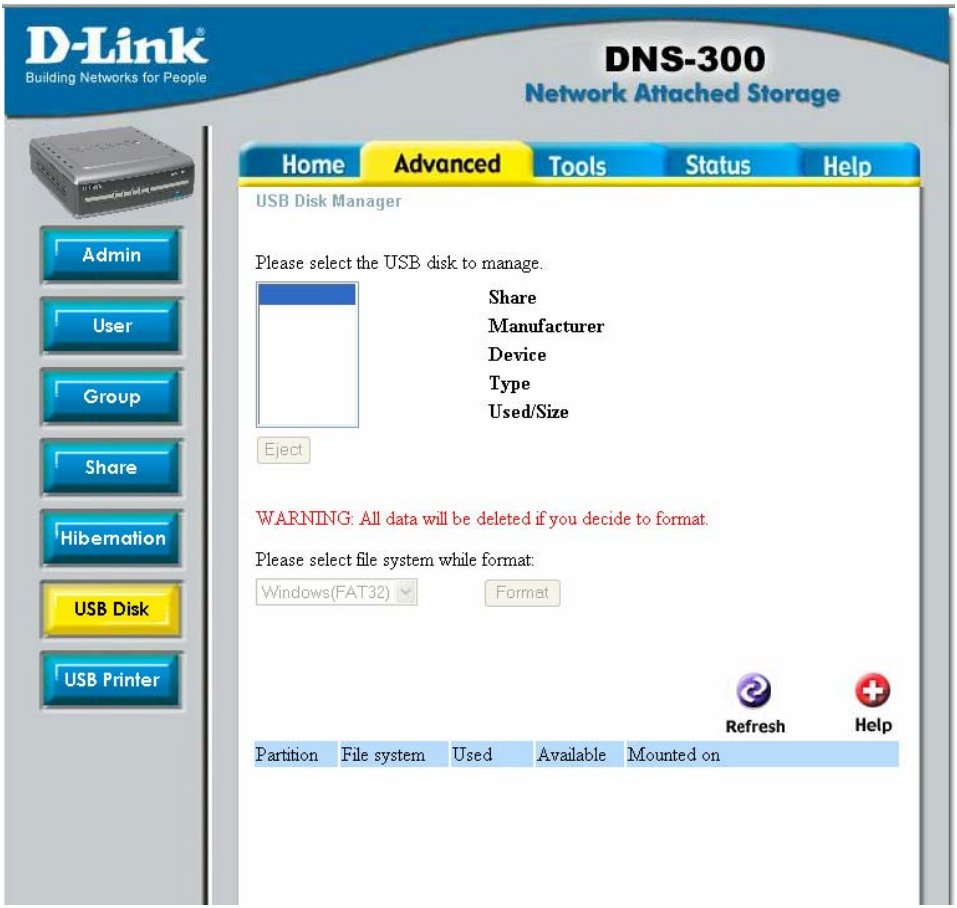
Hard Drive Hibernation

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.

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 "USB Port." 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.



Warning!!

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

2. 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.

Note:

To take advantage of the D-Link USB Fast Copy function, insert your USB Flash device into the USB port and push the Power button after 3 to 4 seconds have elapsed. This will initiate a Fast Copy to your NAS.

USB Printer

By connecting the USB printer to DNS-300, 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-300.

2. Double-click **lp** 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 **Print Center**.
3. Select **Add Printer** for setting up a new printer.
4. Select the correct hostname object and choose the type AppleTalk.
5. Select the printer called **lp** from the Printer List.
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 **Print Center**.
3. Select **Add Printer** for setting up a new printer.
4. Enter the printer IP Address and Queue Name and choose “LPR Printers using lp”.
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.

D-Link
Building Networks for People
DNS-300
Network Attached Storage
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

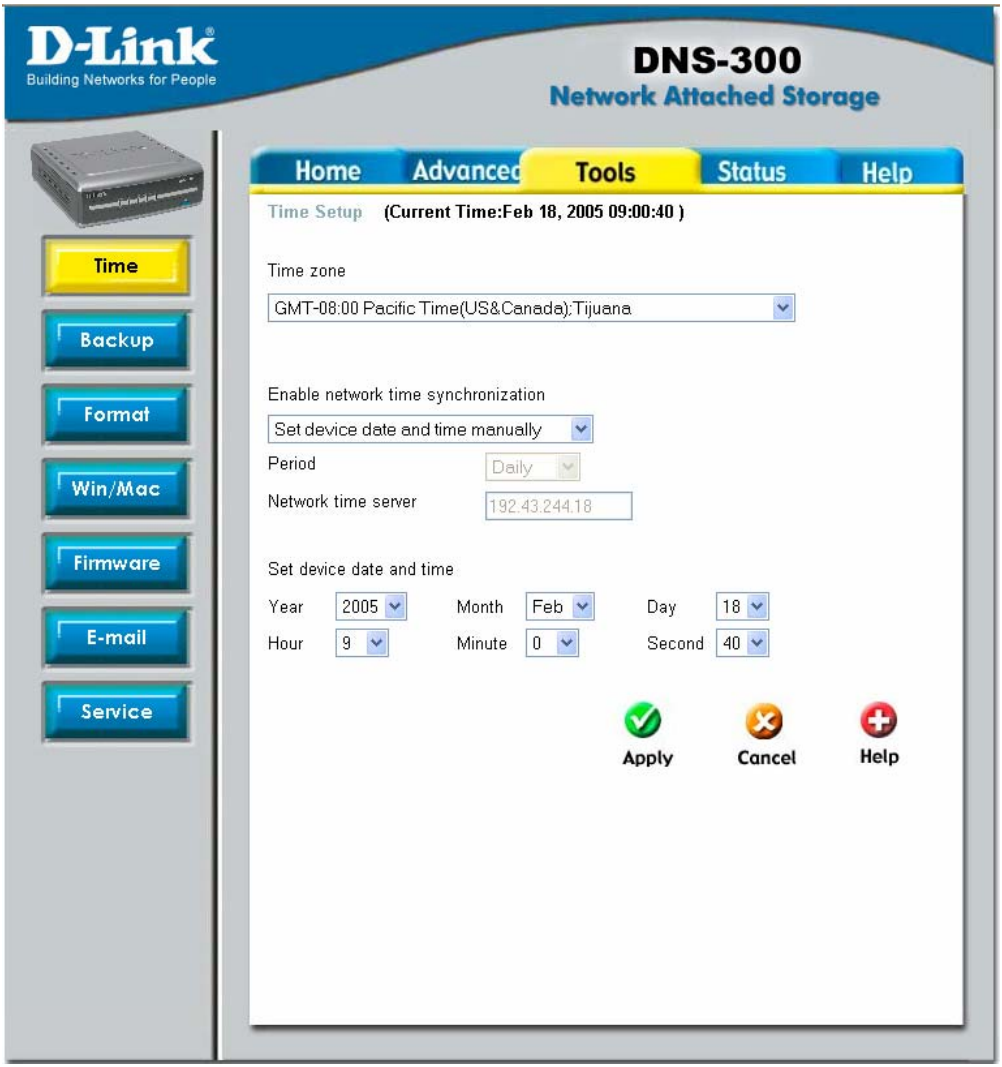
Time Setup

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**.

Backup Configurations

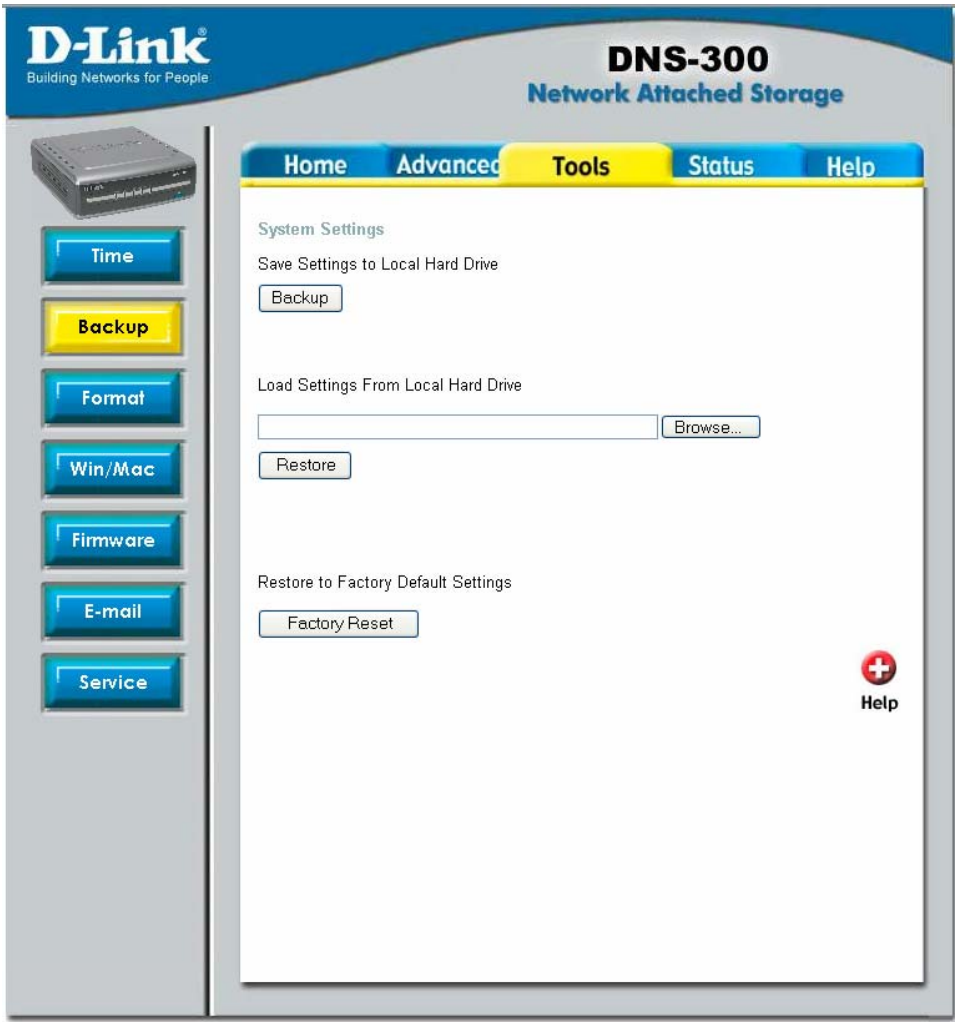
You can backup the device configurations for future restoration.

Items that will be restored are listed below:

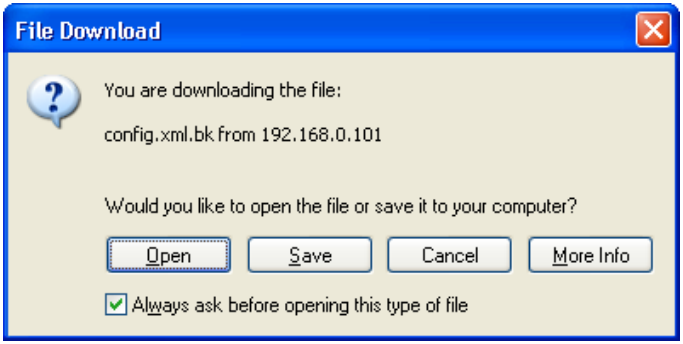
Time	Time zone; NTP settings
Host name	Server name
Language	Encoding codepage
Mail	SMTP; E-mail settings
Share	Each share information except USBPort
User	Each user's information except the password of Admin
Group	Apple: Apple Zone
	Windows: Work Group, Windows Server
HD Sleep	Idle time
UPnP Service	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

Backup system settings

1. Click **Backup** under Save Settings to Local Hard Drive.



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

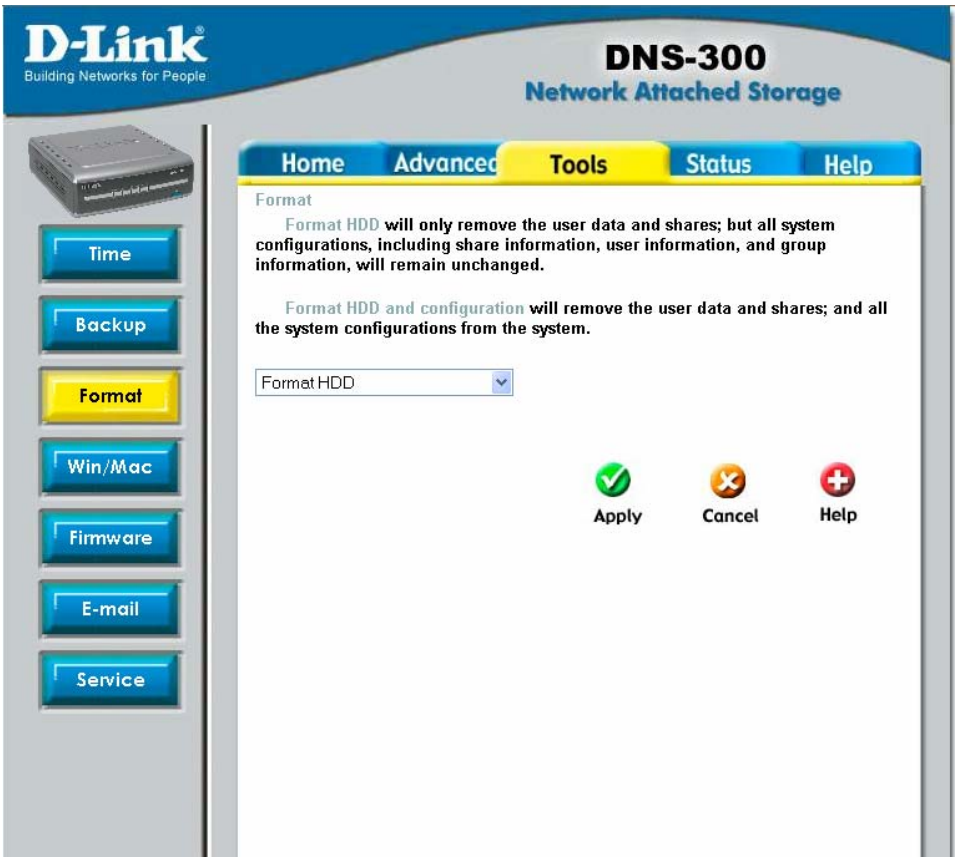
Click **Factory Reset** under Restore to Factory Default Settings to cause the DNS-300 to return to its original settings.

Format Hard Drive

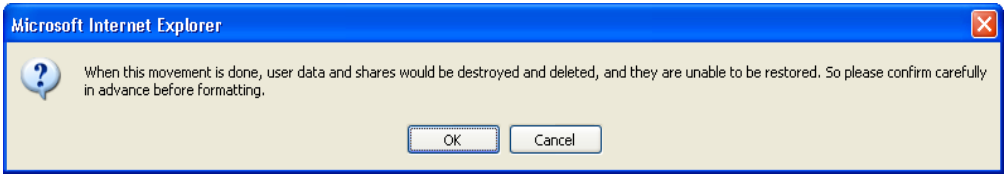
You can remove the data on the system by formatting the hard drive. There are two options for you to choose from on the drop-down menu:

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:

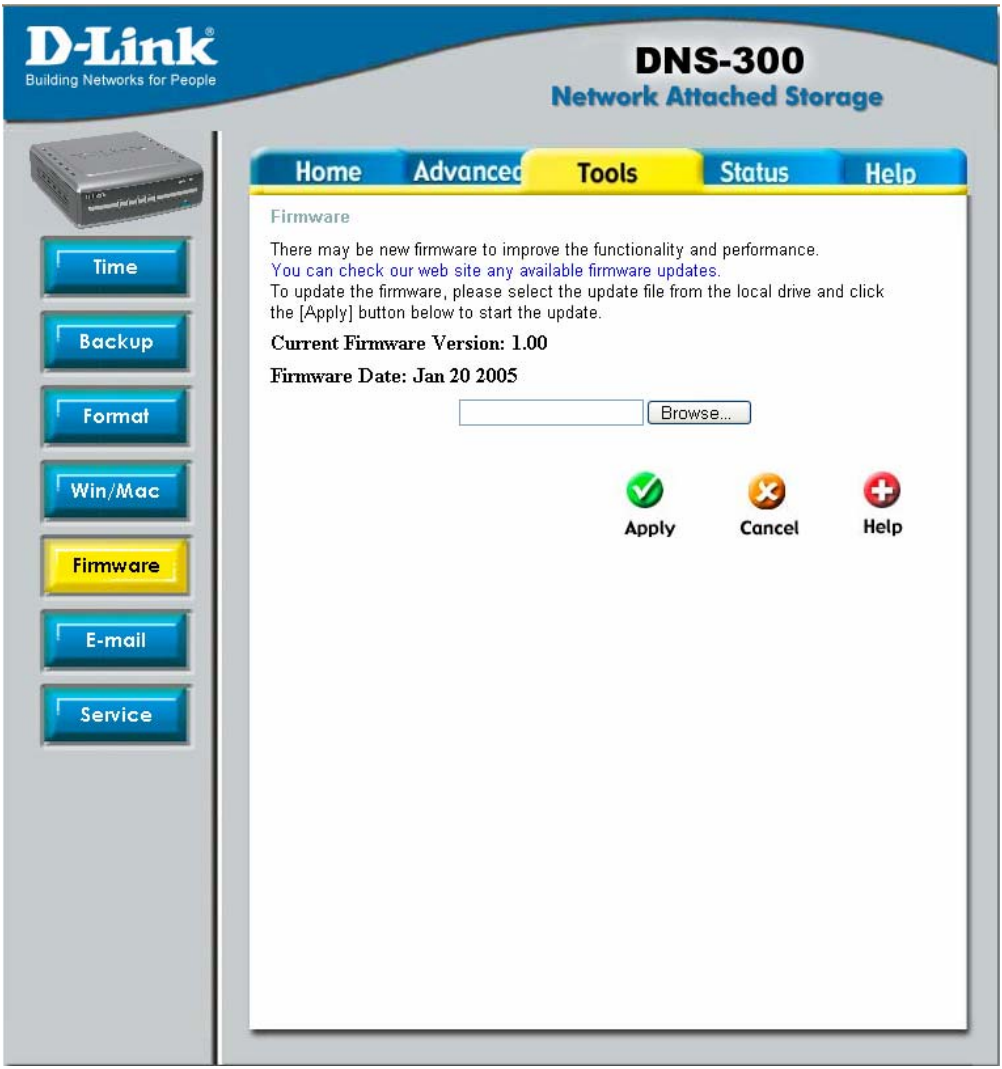
a) If the local language is the only language used in your working environment, there is no need to change any settings for the encoding code page and you can just go ahead and load the defaults.
For example: If the local language is English, and all files or folders use English names, then it is unnecessary 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.

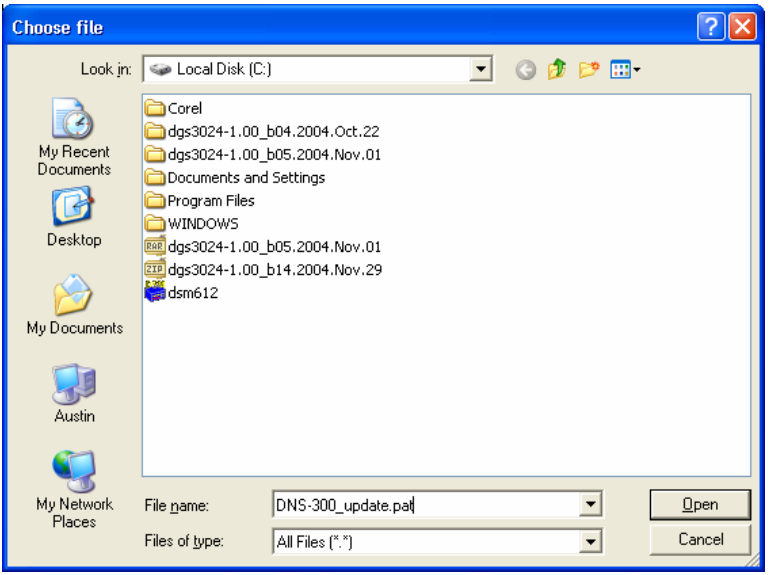
D-Link
Building Networks for People
DNS-300
Network Attached Storage
Home
Advanced
Tools
Status
Help
Time
Backup
Format
Win/Mac
Firmware
E-mail
Service
Windows Network
Workgroup
WORKGROUP
WINS Server
MAC OS zone settings
AppleTalk Zone
No zones availabe
Encoding Codepage
Traditional Chinese
Apply
Cancel
Help

Firmware Update

1. Click the **Browse** button.



2. Choose the file from the local hard drive.

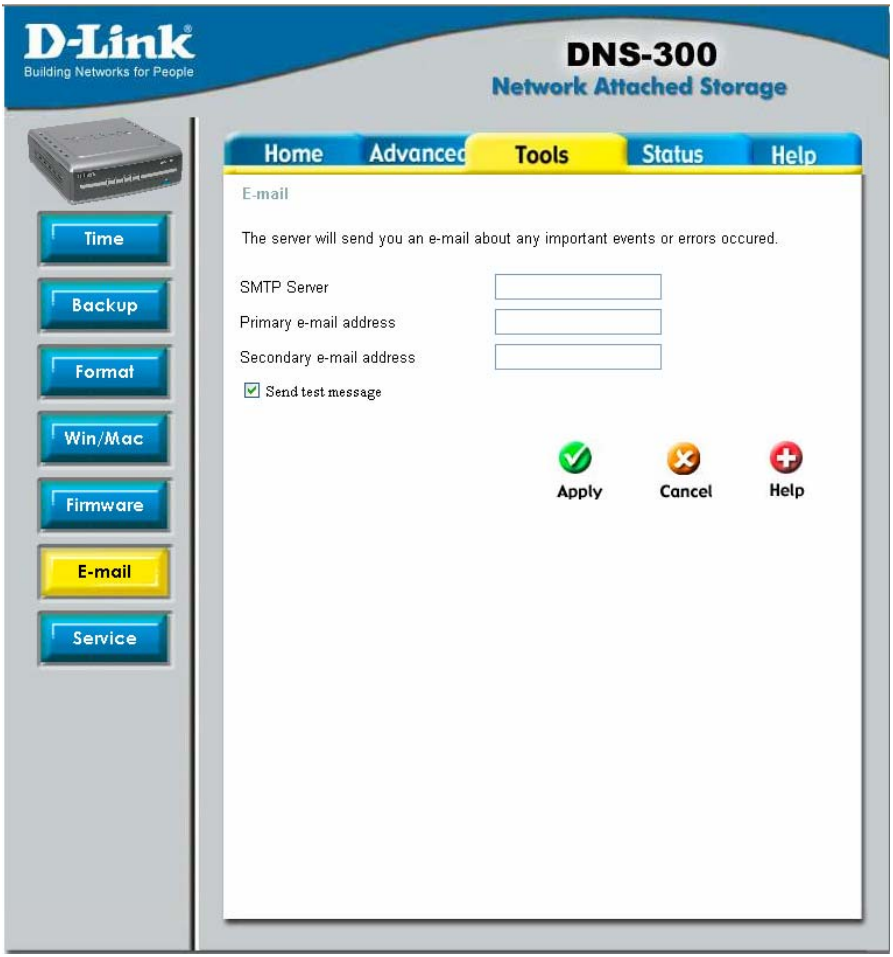


3. Click **Apply**.

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.

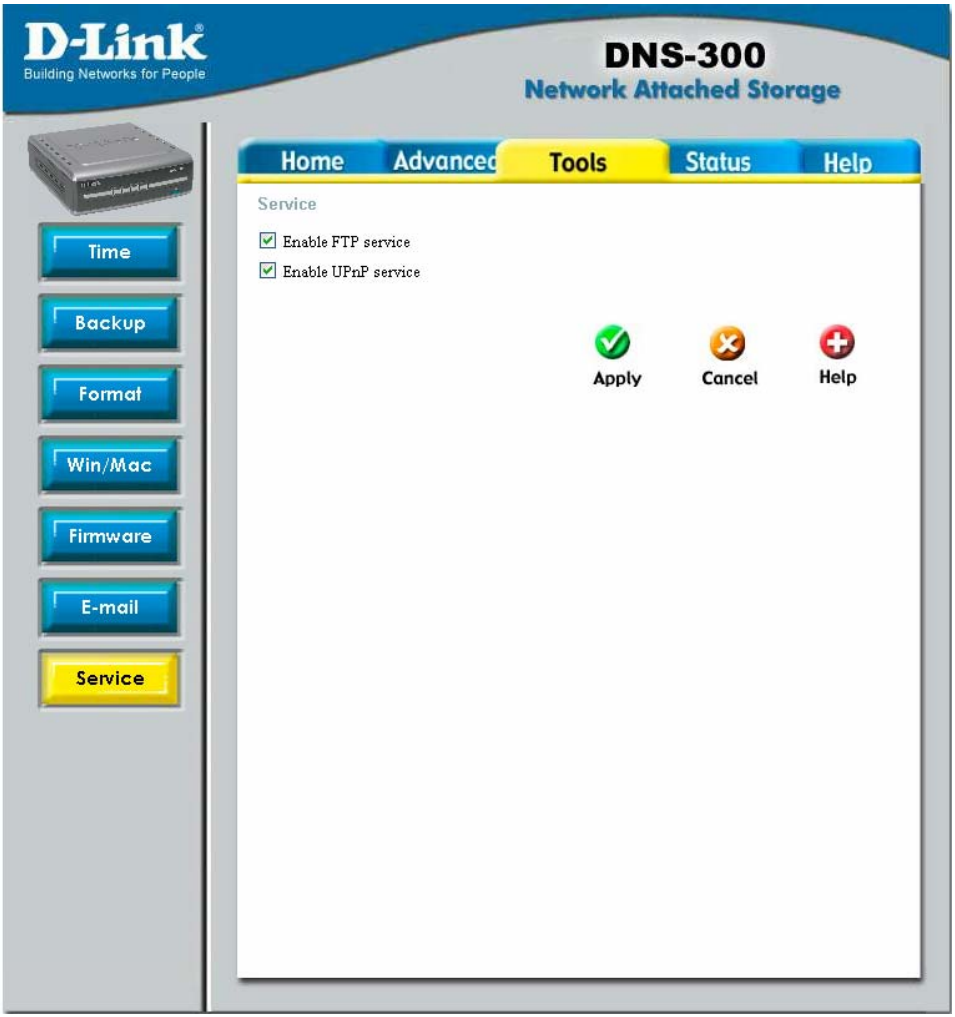
If the SMTP server is assigned by host name rather than IP address, please make sure a valid DNS server has been assigned on the [**Home > LAN**] page.



Service

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

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



2. Click **Apply** to Finish

Note:

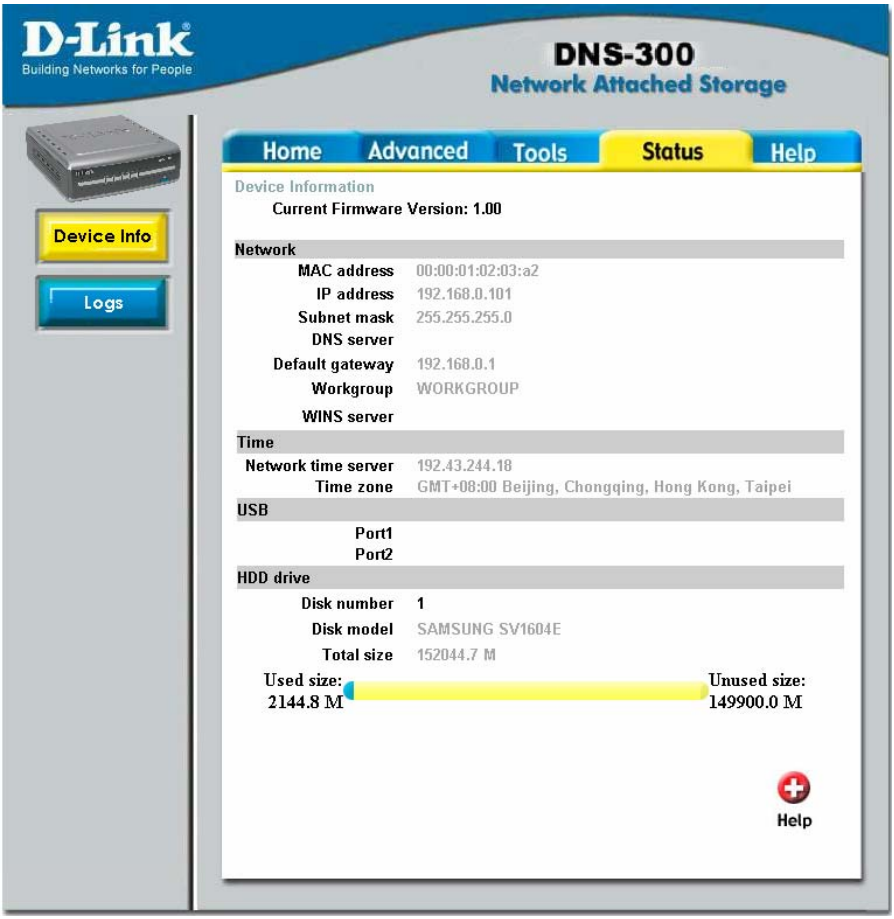
File Transfer Protocol (FTP) is a convenient way for users to download, upload, or transfer files from one computer to another. Also, FTP is a special way to login to a certain site for the purpose of retrieving and sending files.

Microsoft IE Version 6.0 or above is recommended.

Device Status

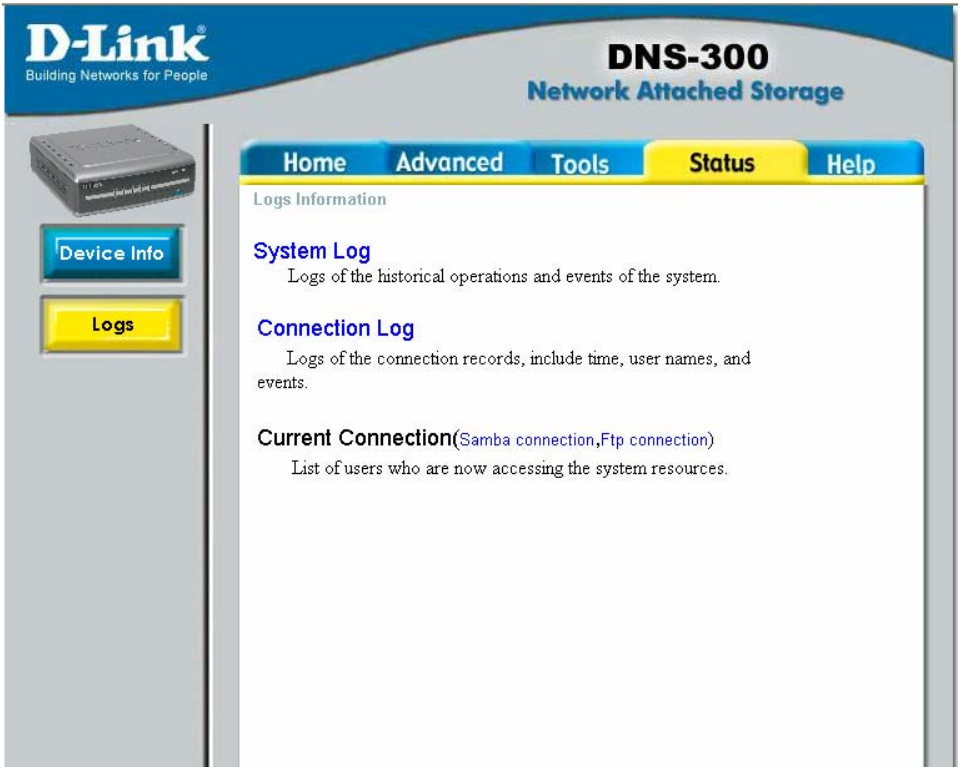
Device Information

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.



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.

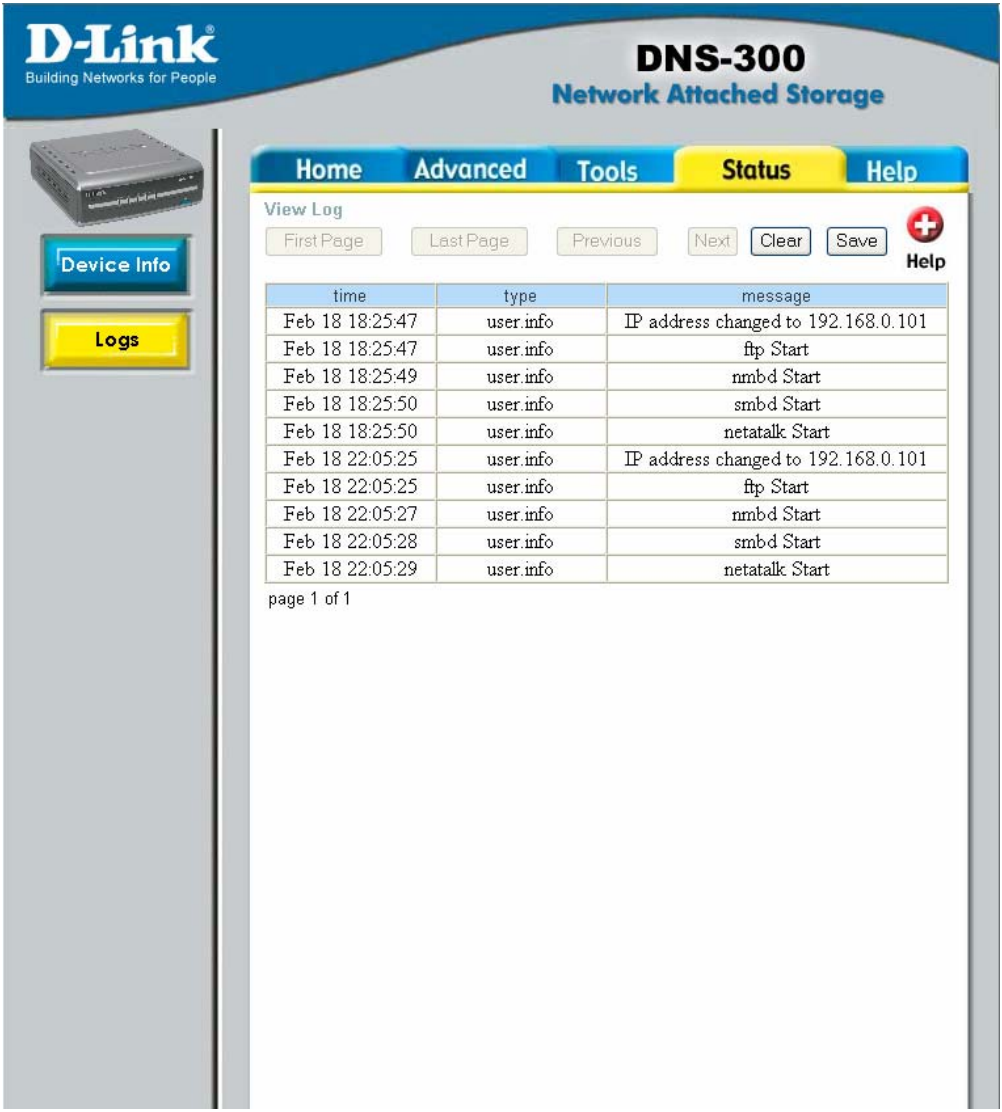


Warning:

The DNS-300 automatically retains logs for seven days. Afterwards, they will be **deleted** and there will not be any way to restore your data.

Clear the log

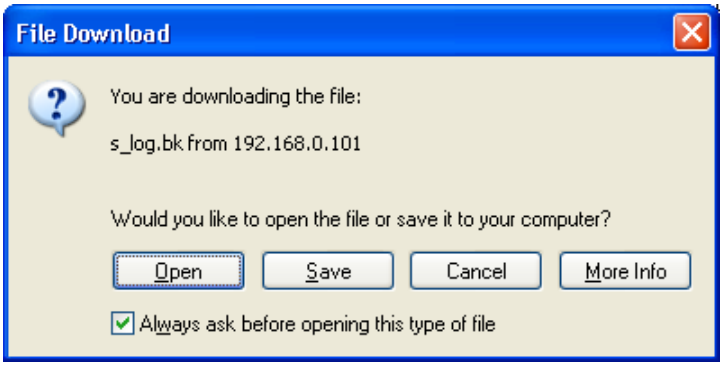
1. Click on the log page that you want to clear the log for.



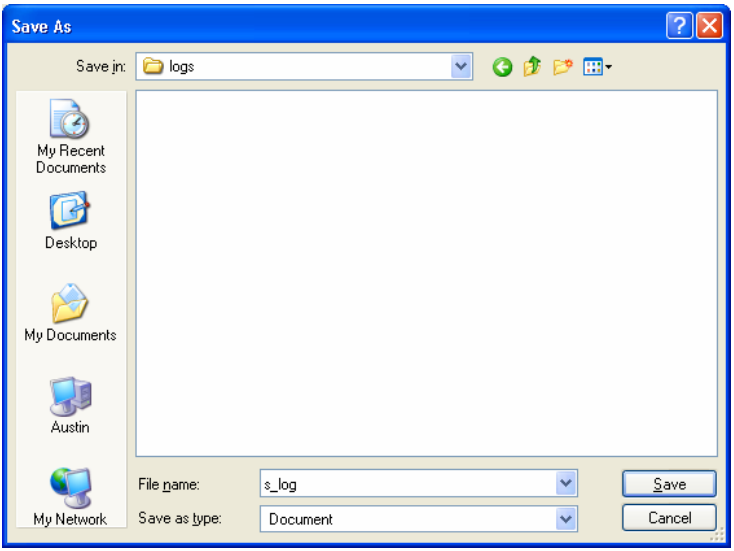
2. Click the **Clear** button.

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.



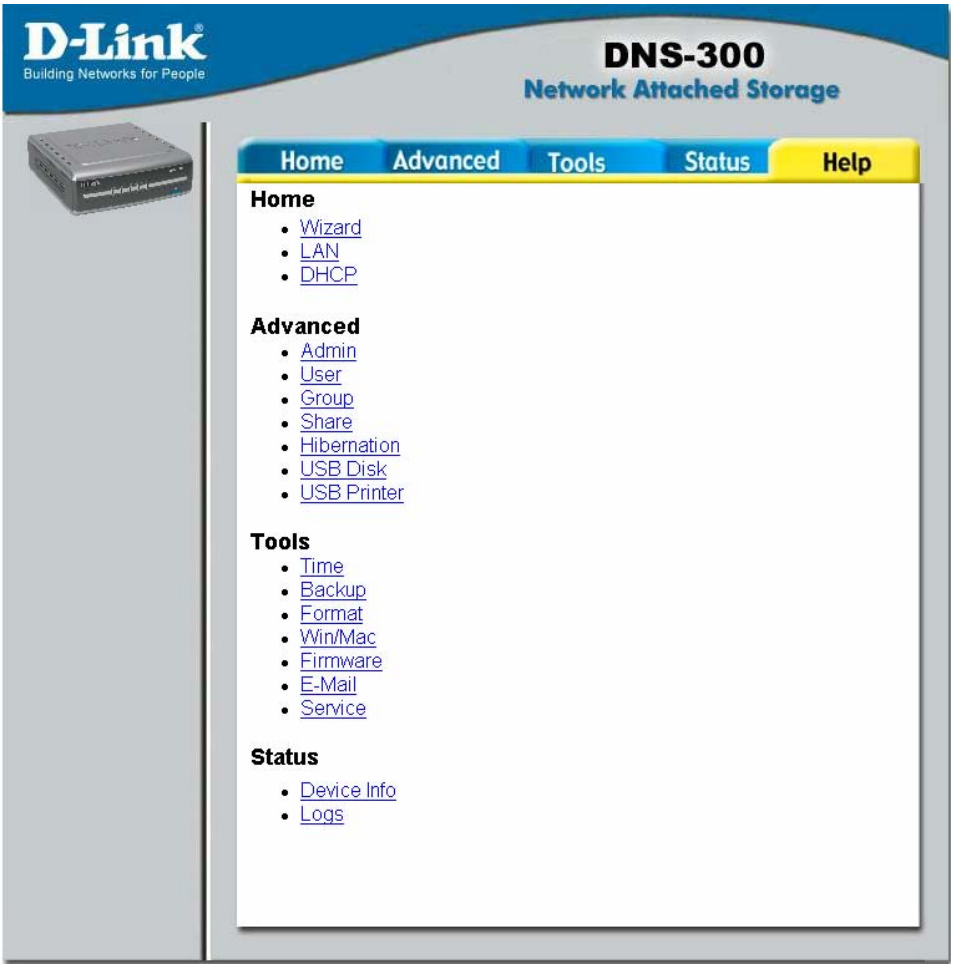
4. Choose a local location and click **Save** to finish.



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.

Overall Help

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