

NS312 User Guide

Version 1.0

SilverStone Technology Co., Ltd.

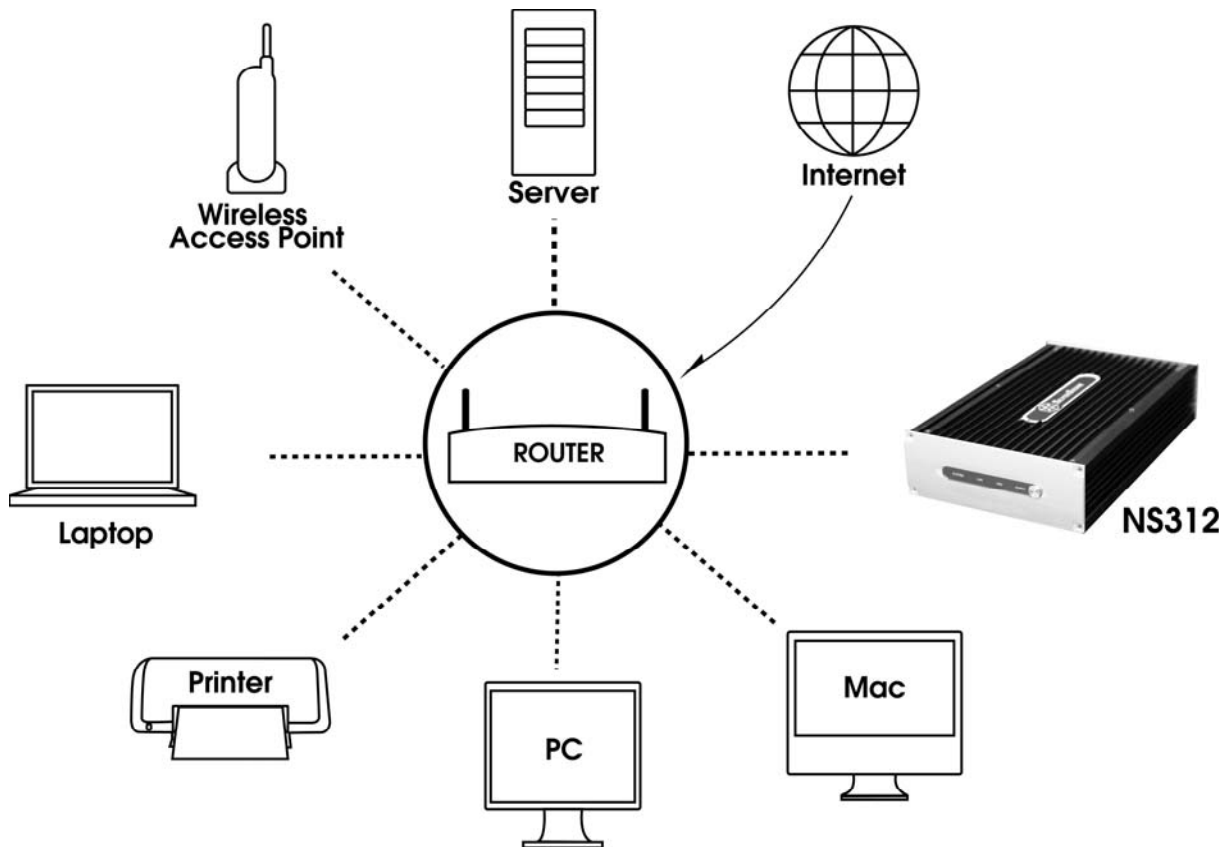
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What is NAS?

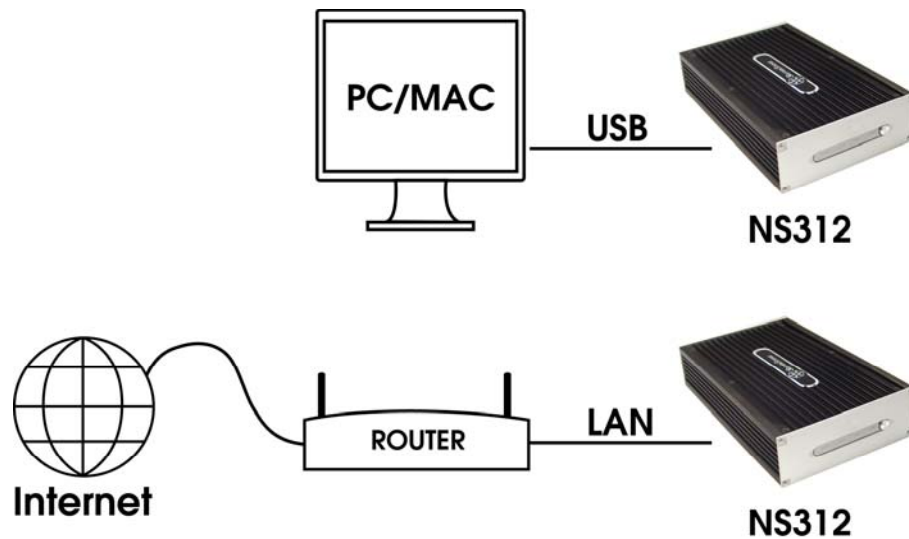


NAS is the abbreviation of Network Attached Storage, which represents a HDD based storage box can be connected with a RJ-45 network cable. It could be accessed by all the devices located on the same IP network range, some advanced version could be also connected by a outside device (i.e. another IP network range or WWW), and would be identified as an accessible storage disk through "Network Neighborhood" (Microsoft Windows) /Apple Macintosh OS or Linux Samba, with user/group privilege setting function equipped, it could even prevent important data/files from being accessed by unauthorized people.

Using a NAS, you don't have to keep your original datacenter PC server operating all day long anymore, a smaller size, more stable, less power-consumption, less heat, less cost, easier to build-up device would make your life more convenient!

SilverStone NS312 Introduction

What's the difference?



NS312, it's not only an ease of use network storage, with it's integrated USB client chip, it is a dual-function HDD box, users could use it as a NAS where network connection is available or bring it as a portable HDD external enclosure, accessing it via its USB 2.0 client jack. This dual-functionality design gives users a great deal of flexibility to access the unit anytime, anywhere.

First time Hardware Installation

Content Check List:



1. NS312 Main Unit



2. Quick Installation Guide



3. Installation CD-ROM



4. RJ-45 Network Cable



5. USB Connection Cable



6. Power Adapter

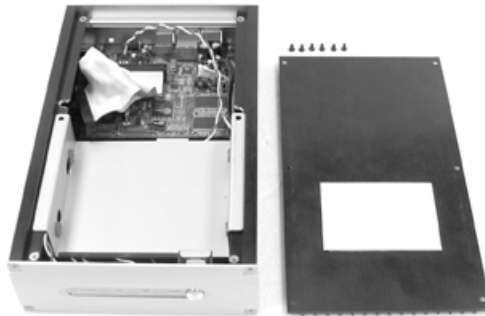
Hard disk drive may come pre-installed or leave to user's integration.

Booting up NS312

Assembly

1. Put in a hard disk drive, if the NS312 version you got already has hard disk drive installed. Please skip this step and jump to step 2.

(1) Open the upper cover of NS312 through the top 4 screws with your hands.



(2) Use the screws provided in the accessory packet, screw and secure the HDD on the bracket.



(3) Place the secured HDD in the bracket with lines all connected, and put it back into the case.





(4) Place the top panel and screw it back onto the case (Remember to place top panel so the heat absorbing pad is right above HDD and not above all the lines).



2. Plug the attached RJ-45 cable and power adapter core into the "LAN" and "DC IN" plugs.



3. Plug the other side of the RJ-45 cable into a network connection such as a cable modem, router, or a hub. This is how NS312 are able to be accessed by other users off a remote area.
(This is very important for NS312, when booting up, NS312 would automatically detect whether the operation mode is NAS function or USB hard disk drive external enclosure by identifying if there's any activity from RJ-45 network side.)



4. Plug the other side of the power core into the power plug.



5. Press the power switch at the front panel.



If NS312 is not connected to the internet, NS312 can be used as an external HDD storage device without using the network cable. Just plug USB cable, the B side to NS312, connect the other side to your computer's USB connection, that's all you need to do, no adjustment necessary!



Notice: Format Your HDD using NS312 Disk Utility format software.
After we boot up NS312 and enter the administration page, NS312 would inform us that our HDD needs to be formatted. (If we're not using a whole new HDD here, please go directly to Control Panel → Maintenance → Disk Utility to use NS312 format tool.) To using NS312 as both a NAS and USB 2.0 HDD external enclosure, we need to format our HDD here into FAT32 file system format, please don't use your Windows based PC/laptop to format the HDD, for Windows embedded format utility could only format a HDD partition no more than 32GB, it's quite inconvenient if you're using a large volume HDD in NS312.

How to set up NS312

1. After NS312 is booted up, use a web browser (i.e. Microsoft Internet Explorer) to login NS312, there would be some different steps needed to be taken accordingly.

A. For users have a DHCP server in your network environment, (home environment with DSL or cable modem router or office environment...)

please use the CD-ROM attached SearchNAS_for_silverstone145.exe executive file to automatically find the assigned IP address in your intranet for NS312. If you want to access NS312 for file transferring rather than managing it, simply type \\SSTNAS using web browser to enter NS312.

B. For users don't have a DHCP (Dynamic Host Configuration Protocol) based network environment (no internet access or direct connection to a computer...)

please make sure the IP address of your computer is located in 192.168.1.x range, if not, please change your original IP address within the 192.168.1.x address range, here, we use 192.168.1.34 for example.

- i. For Microsoft Windows users. (we use XP Home/Professional for your reference here)

- Please click "Start" → "Control Panel" → "Network Connections."
- Right-click the network connection you're using.
- Choose "Properties" → "General" tag, double-left-click Internet Protocol (TCP/IP) to enter the configuration window
- Choose "General" → "Using the following IP address," set your PC/NB IP address to 192.168.1.34, Netmask to 255.255.255.0
- Click "Ok" twice to complete the setting.
- Please jump to step 2 for advanced setting instruction.

- ii. For Apple Macintosh users. (we use OSX for your reference here)

- Select the "Open Transport Control Panel" from the "Control Panels" folder in the "Apple" or open the file directly with this path. "Local Macintosh Hard Disk" → "System Folder" → "Control Panels" → "TCP/IP")The control panel will look like this.
- Select "Using Static IP address," set your PC/NB IP address to 192.168.1.34, Netmask to 255.255.255.0
- Click "Ok" twice to complete the setting.
- Please jump to step 2 for advanced setting instruction.

2. Log in NS312 using its default IP address "192.168.1.209," (Non-DHCP based network), if you're under a DHCP based environment, use the delivery-attached SearchNAS_for_silverstone145.exe to find the NS312 IP address or directly type the default Network Neighbor name "SSTNAS" in your computer's file manager software to connect to NS312 user interface.

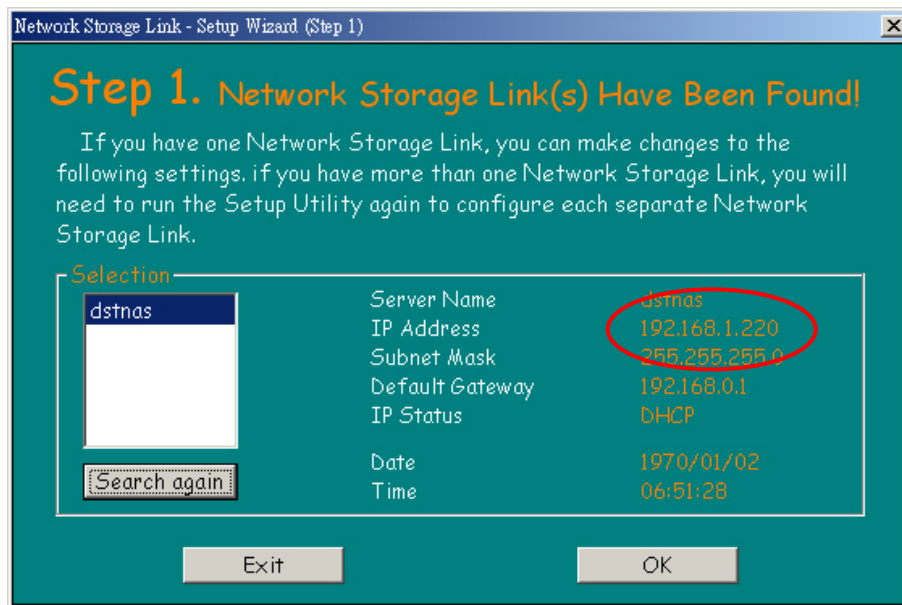
Identifying and using NS312 on your network

After completing the hard disk format procedure, the default enabled "Anonymous access" function would enable you identify NS312 on your windows based "Network Neighborhood." The default NetBEUI name of NS312 is "SSTNAS", you could type "SSTNAS" in a file browser and access its anonymous access area for file exchanging. Or you could simply use our SearchNAS_for_silverstone145.exe software in the attached CDROM, it would automatically find out the current NS312 locates in your LAN, double click on the NS312 being found to enter the administration page for proceeding related configurations.

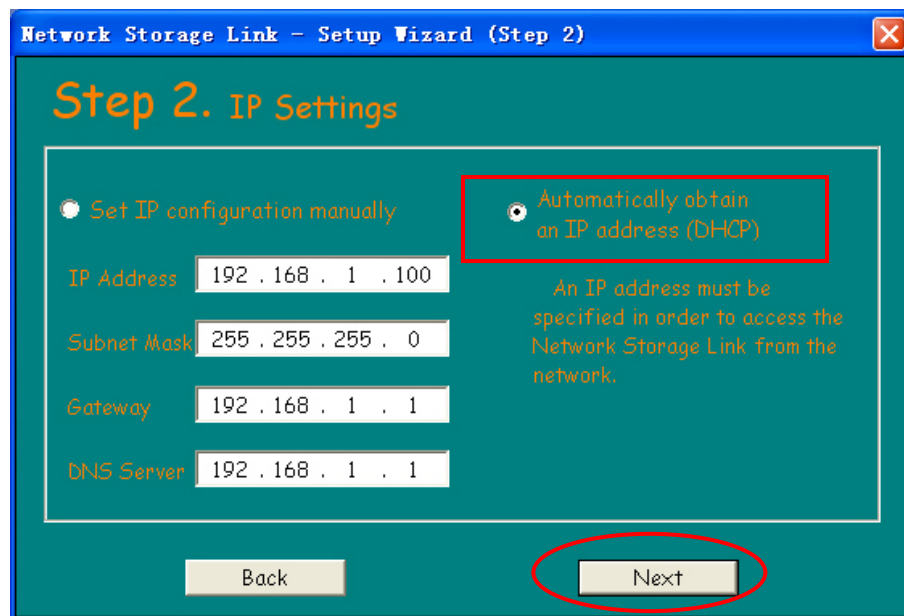
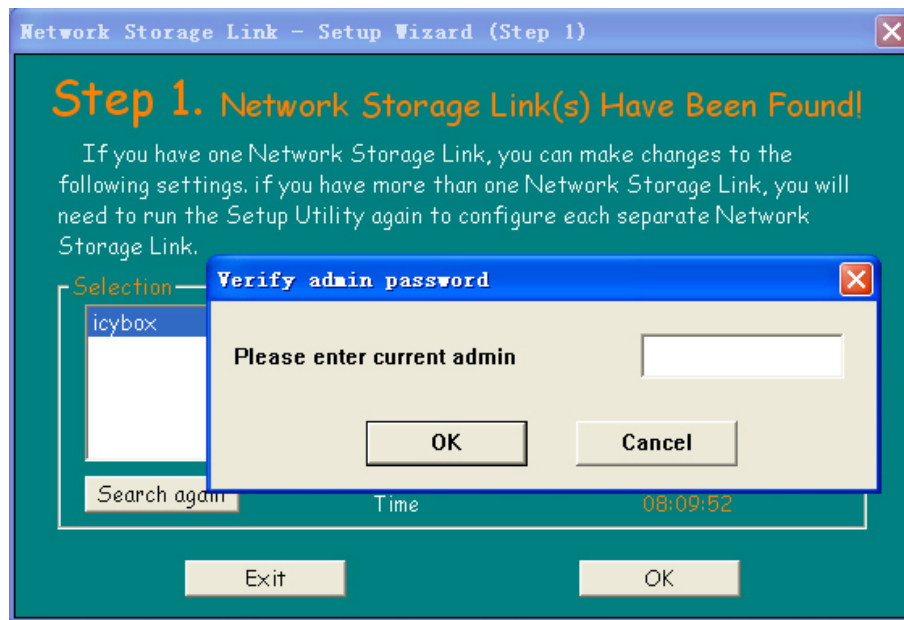
Insert the CD and choose "SEARCH NAS" program and click "SETUP"



There will be a set of IP ADDRESS showing up on the right side, write it down.



P Please enter pre-set password "admin"



Go to next step after time is set

Network Storage Link - Setup Wizard (Step 3)

Step 3. Date and Time

Time Zone: (GMT+08:00) Taipei

Date: 1970/ 1/ 1

Time: 上午 08:02:56

NTP Server: None

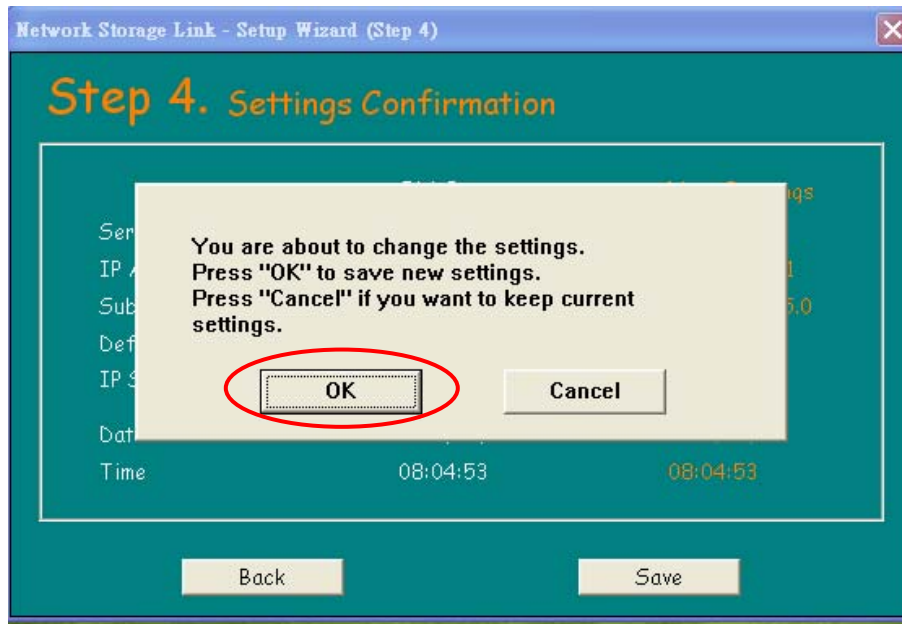
Back Next

Network Storage Link - Setup Wizard (Step 4)

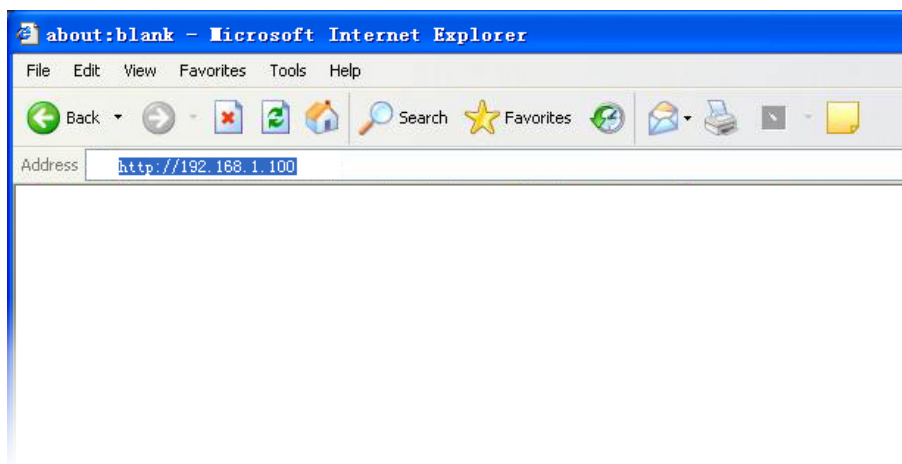
Step 4. Settings Confirmation

	Old Settings	New Settings
Server Name	icybox	icybox
IP Address	192.168.1.101	192.168.1.101
Subnet Mask	255.255.255.0	255.255.255.0
Default Gateway	192.168.1.1	192.168.1.1
IP Status	DHCP	DHCP
Date	1970/01/01	1970/01/01
Time	08:02:56	08:02:56

Back Save



Open the Internet Explorer and enter "http://IP ADDRESS you wrote down" and press "enter", afterward you will enter a web page, enter "admin" at the place it asks for your name and password, and you can enter setup page. ("Format HDD" after entering setup page).





Plug'n'Play Network Storage Application for Home
Network Attached Storage
Network Media / File Center
Portable USB 2.0 HDD External Enclosure

使用者名稱






密碼

Entering the system management page

Type in the default administrator account and password, the default account and password are both "admin" to log in, you can see the following screen



Basic **Control Panel** Personal Info

-  Users and Groups
-  File
-  System
-  Network Service
-  Maintenance
-  Log File

System Information

Hardware Name	PLN6800 Platform
Firmware Version	2.3.2.SS.1 (Oct. 23, 2006)
Hardware Version	Rev. B
Product Vendor	SilverStone Technology Co., Ltd.
IP Address	192.168.1.182

1. Manage the Users and Groups

You could manage the user accounts through "Control Panel" → "Users and Groups"

A. To add a user.

- i. Fill in the desired new user account and password (twice for confirming), you could decide whether the Private folder would be created or not, and enable/disable the disk quota.

The "Disk Quota" function are not supported by using FAT32 format HDD.

- ii. Click "Save" to create the account.

B. To delete a user.

- i. Click on the account you want to delete from the "Existing Users" list.
- ii. Click the "Delete User" on the bottom and click "Yes" to delete.

C. To place a user into a group.

- i. If you want to file an account into an existed Group, click the account in the "Existing Users" list and click "Groups" on the bottom, the screen would show the current existing Groups, you could use "Add" or "Remove" to manage the account adopting Groups level privileges, click "Save" to finish the Group setting.

P.S. You could manage your groups in the same way to add/remove an account.

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Control Panel Personal Info Logout

User Management

Existing Users: admin, admin, admin, hck, admin, admin

User Name:

Password: (Confirm)

Description (optional):

☐ Create Private Folder (Share)
Private Folder (Share) Location: /mnt/EB

☐ Enable Quota of MB

Save Close Form Groups Delete User

2. File Management

NS312 is a sharing center for you to share your data, files, music, movies with authorized users by your own. Here you can set the related information for your NS312 to be recognized on the intranet where it operates.

A. File Server

Through File Server settings, you could decide what and how the users created on NS312 to access it.

- i. Windows Setting.
- ii. You could “enable” this setting to let NS312 be recognized by other Microsoft Windows based PC/NB through the “Networking Neighborhood.” Just set NS312 into the same “Workgroup” as your PC/NB, then it could be identified automatically as a computer/device by your PC/NB when you try to explore any new computer through “Networking Neighborhood.” If you have a WINS server operating in your intranet, simply fill its IP address into the “WINS Server” column.

The screenshot displays the SilverStone web interface. At the top, the SilverStone logo and tagline "Designing Inspiration" are visible. Below the header, there is a navigation bar with "Control Panel" and "Personal Info" tabs, and a "Logout" button. A left-hand menu contains several categories: "Users and Groups", "File", "File Server" (which is highlighted), "Share Management", "System", and "Maintenance". The main content area is titled "File Server Setting" and is divided into several sections: "Windows Setting" with fields for "Enable" (checked), "Workgroup" (set to "XCSNAS"), "Description" (set to "NAS for XCS division"), and "WINS Server (Optional)" (empty); "FTP Server Setting" with "Enable" (checked) and "Port Number" (set to "21"); "NFS Server Setting" with "Enable" (checked); and "Guest Access Setting" with "Enable" (checked), "Enable Quota" (unchecked), and "Guest-user Quota" (empty). A "Save" button is located at the bottom right of the settings area.

B. FTP Server Setting

FTP (File Transfer Protocol) is a method for you to use FTP client logging into NS312 and upload/download files. You could enable/disable the service here by check/uncheck the square and specify the transfer port (FTP default transfer port is 21, while it's often attacked by hackers, we provide you the flexibility to change the port, 100~65535 would be recommended.)



Control Panel Personal Info Logout

- Users and Groups
- File
- File Server**
- Share Management
- System
- Maintenance

File Server Setting

Windows Setting

Enable ☒

Workgroup

Description

WINS Server (Optional)

FTP Server Setting

Enable ☒

Port Number

NFS Server Setting

Enable ☒

Guest Access Setting

Enable ☒

Enable Quota ☐

Guest-user Quota MB

C. NFS Server Setting

NFS (Network File System) is a service supported by Linux based system to let users access the other devices through network. NS312 supports NFS service so you can enable/disable it by check/uncheck the square here.



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Control Panel Personal Info [Logout](#)

- Users and Groups
- File
 - File Server**
 - Share Management
- System
- Maintenance

File Server Setting

Windows Setting

Enable ☒

Workgroup

Description

WINS Server (Optional)

FTP Server Setting

Enable ☒

Port Number

NFS Server Setting

Enable ☒

Guest Access Setting

Enable ☒

Enable Quota ☐

Guest user Quota MB

[Save](#)

D. Guest Access Setting

What if someone doesn't have an account on NS312 but wants to access it? You could enable/disable the Guest Access function to allow/forbid anonymous users entering NS312, furthermore, the "Enable Quota"

function could let you limit the storage capacity assigned for anonymous users. *The “Disk Quota” function are not supported by using FAT32 format HDD.*



The screenshot displays the SilverStone web management interface. At the top, the SilverStone logo and tagline "Designing Inspiration" are visible. Below the header, there are tabs for "Control Panel" and "Personal Info", and a "Logout" button. A left-hand navigation menu lists several categories: "Users and Groups", "File", "File Server" (which is currently selected), "Share Management", "System", and "Maintenance". The main content area is titled "File Server Setting" and contains several sub-sections: "Windows Setting" with fields for "Enable" (checked), "Workgroup" (set to "K2NAS"), "Description" (set to "NAS for K2 drives"), and "WINS Server (Optional)"; "FTP Server Setting" with "Enable" (checked) and "Port Number" (set to "21"); "NFS Server Setting" with "Enable" (checked); "Guest Access Setting" with "Enable" (checked); and "Enable Quota" (unchecked). Below the "Enable Quota" option is a "Guest-user Quota" field followed by "MB". A "Save" button is located at the bottom right of the settings area.

To complete the setting, please click “Save” at the bottom to implement the changes you’ve made.

E. Share Management

Share Management including the functions to manage “how” you share the data/files stored on NS312.

- i. You could simply create a Share Name and specify the actual path

- in your NS312, add a description on it.
- ii. Click “Windows, FTP Access” to grant the share you’ve created from being able to be accessed through Microsoft Windows Network Neighborhood and other FTP clients.
- iii. Click “NFS Access” to grant the share you’ve created from being able to be accessed through NFS service clients.
- iv. If you want to delete a share folder, select it from the “Existing Shares” list and click “Delete Share” at the bottom.



3. System Settings

Here come some settings for you to acquire the related information of NS312.

A. Network Setting

NS312 can automatically get its IP address under a DHCP based network environment, or it would operate with a default IP address 192.168.1.253. And you could change the IP address related settings here.

- i. Hostname. This is what NS312 would be identified in your network.
- ii. IP Address Setting.
- iii. The IP address related settings (DHCP/Static IP) and the DNS settings could be set up here.
- iv. You could also see the MAC address of NS312 here, sometimes you would need this information to set up NS312 in your network environment.
- v. Click "Save" to store the settings.

The screenshot shows the SilverStone Network Setting web interface. At the top, there is a header with the SilverStone logo and the tagline "Designing Inspiration". Below the header, there is a navigation bar with "Control Panel" and "Personal Info" tabs, and a "Logout" button. On the left side, there is a sidebar menu with the following items: "Users and Groups", "File", "System", "Network Setting" (which is highlighted), "Time Setting", "Turn off Server", "Information", "Disk Usage", and "Maintenance". The main content area is titled "Network Setting" and contains the following fields and options:

- Hostname:
- IP Address Setting: ☐ Obtain IP Address automatically, ☒ Use following IP Address
- IP Address:

192	168	1	220
255	255	255	0
- Subnet Mask:

192	168	1	254
-----	-----	---	-----
- Default Gateway:

192	168	1	254
-----	-----	---	-----
- Obtain DNS Server Address automatically: ☐ Obtain DNS Server Address automatically, ☒ Use following DNS Server Address
- Primary:

192	168	1	213
-----	-----	---	-----
- Secondary:

--	--	--	--
- Others:

--	--	--	--
- MAC Address: 00:14:D7:00:00:04
- Save:

B. Time Setting

You could manually set the time settings used by NS312 or specify an

existed NTP (Network Time Protocol) server in the Internet, it would automatically help you correct the time on NS312 (NTP function could ONLY work under the network environment which could connect onto Internet for correcting NS312 time)

The screenshot shows the SilverStone web interface. At the top, there is a logo with the text "SILVERSTONE® Designing Inspiration". Below the logo, there are two tabs: "Control Panel" and "Personal Info". The "Control Panel" tab is active, and a sidebar on the left lists various settings: "Users and Groups", "File", "System", "Network Setting", "Time Setting" (highlighted), "Turn off Server", "Information", "Disk Usage", and "Maintenance". The main content area is titled "Time Setting" and contains the following fields: "Date" (Month: Mon, Day: 28, Year: 2010), "Time" (Hour: 03, Min: 03, Sec: 00), "Time Zone" (GMT+08:00 Taipei), and "NTP Server" (Default: test.windows.com). There are radio buttons for "Default" and "User Define", and a "Save" button. Below these fields, the "MAC Address" is displayed as 00:14:D7:00:00:04, with a "Save" button next to it.


C. Turn Off Server

This function enables you to Restart or Turn off NS312 through remote side, simply click "Restart" or "Turn off" to execute the functions.

The screenshot shows the SilverStone web interface. At the top, there is a logo with the text "SILVERSTONE® Designing Inspiration". Below the logo, there are two tabs: "Control Panel" and "Personal Info". The "Control Panel" tab is active, and a sidebar on the left lists various settings: "Users and Groups", "File", "System", "Network Setting", "Time Setting", "Turn off Server" (highlighted), "Information", "Disk Usage", and "Maintenance". The main content area is titled "Turn off Server" and contains the following text: "To restart the server, click the Restart button." and "To turn off the server, click the Turn off button." Below the text, there are two buttons: "Restart" and "Turn off".

D. Information

Here you could get the NS312 related information, including the product name, model, firmware version for upgrading reference, hardware version, and the current IP address it uses.



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Basic **Control Panel** Personal Info Logout


- Users and Groups
- File
- System
- Network Service
- Maintenance
- Log File

System Information

Hardware Name	PLN6800 Platform
Firmware Version	2.3.2.SS.1 (Oct. 23,2006)
Hardware Version	Rev. B
Product Vendor	SilverStone Technology Co., Ltd.
IP Address	192.168.1.182

E. Disk Usage

Through this function, you could check the left capacity and the usage percentage of the HDD storage in NS312. You could view it from the whole HDD view or a single user usage view by selecting it from the up-right side roll-down menu.



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Control Panel Personal Info Logout

Last Checked: 12/28/2005 09:46:04

Disk Usage Please select statistics information:

Disk Name	Total	Used	Free	Used Percentage
/dev/hda	153295.34MB	135310.44MB	17984.91MB	88.27%

- Users and Groups
- File
- System
- Network Setting**
- Time Setting
- Turn off Server
- Information
- Disk Usage**
- Maintenance

4. Maintenance

A. Disk Utility

"Disk Utility" enables you to format or execute scandisk function. You could format the HDD in NS312 with ext2/ext3/FAT32 format.

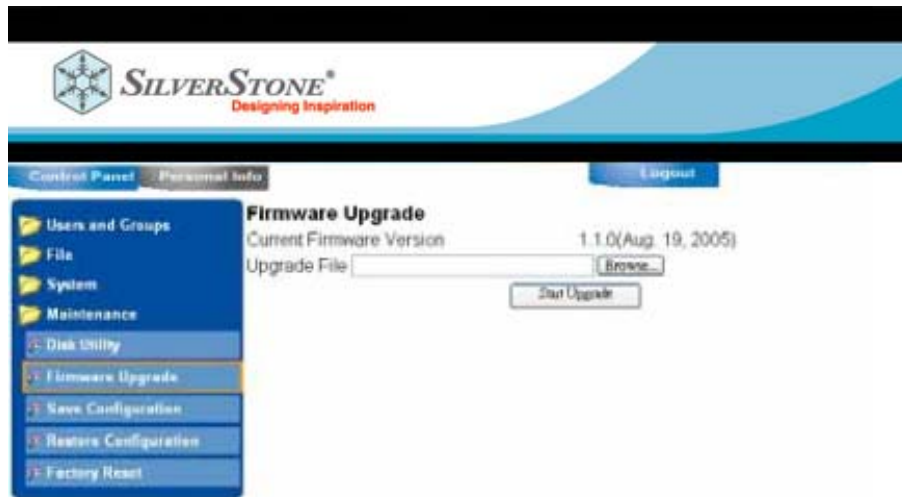
Microsoft NTFS format is not supported in NS312.

If you want to use NS312 as a USB 2.0 external enclosure for Windows systems, please format the HDD with FAT32 format, for ext2/ext3 could be recognized only for UNIX/Linux based systems.



B. Firmware Upgrade

You could upgrade the firmware from here. If you're not using a SilverStone certified file for upgrading and results in the damage of NS312, SilverStone would charge the customer for the RMA service.



C. Save Configuration

You could backup the settings you've done on NS312 onto your PC/NB by this function, click "Save" and choose the destination where you want to store the configuration settings on your PC/NB and click "OK" to download it.



D. Restore Configuration

If you want to restore the settings, click "Browse" to locate the previous configuration settings backup you've made and click "Restore" to execute the restore process.



E. Factory Reset


"Factory Reset" would reset all the settings on your NAS-100 back into the factory default value, please make sure you've made all the necessary information/data backed up.



Account Management

You could change the password, choose the preferred user interface language, get the account related storage usage information by entering "Personal Info" area.

Only an "Admin" account can access the NS312 system related configuration (Control Panel) for setting up it, a single user account can only enter "Personal Info" area for password changing and getting storage usage information.



SILVERSTONE®
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Control Panel Personal Info **Logout**

Personal Information
Account

Account Information - admin

Change Password: (Confirm)

Language Preference:

Description (Optional):

Disk Usage:

Quota	unlimited
Used	0.01MB
Percentage	-

Share List:

- movie (Writable)
- mp3 (Writable)
- public (Writable)

==== END LIST =====

Log Out

Remember to click "Log out" to keep unknown users accessing NS312 using your account.