# 1-Bay SATA NAS Server

## NAS-7102

## User's manual

**Version 1.0.0**

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## Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of 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 communications. 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:

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

## FCC Caution

To assure continued compliance. (example-use only shielded interface cables when connecting to computer or peripheral devices). Any changes or modifications not expressly approved by the party responsible for compliance 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.

## Federal Communication Commission (FCC) Radiation Exposure Statement

This equipment complies with FCC radiation exposure set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (8 inches) during normal operation.

## R&TTE Compliance Statement

This equipment complies with all the requirements of DIRECTIVE 1999/5/CE OF THE EUROPEAN PARLIAMENT AND THE COUNCIL OF 9 March 1999 on radio equipment and telecommunication terminal Equipment and the mutual recognition of their conformity (R&TTE)

The R&TTE Directive repeals and replaces in the directive 98/13/EEC (Telecommunications Terminal Equipment and Satellite Earth Station Equipment) As of April 8, 2000.

## Safety

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this and of the computer manufacture must therefore be allowed at all times to ensure the safe of the equipment.

## WEEE regulation

To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

## Revision

User's Manual for PLANET 4-Bay SATA NAS RAID Server

Model: NAS-7102

Rev: 1.0 (November. 2009)

Part No. EM-NAS7102V1.doc

# TABBLE OF CONTENTS

**Chapter 1: Introduction ..... 3**

1.1 Features ..... 3

1.2 Package Content ..... 4

1.3 Physical Detail ..... 4

**Chapter 2: Installation ..... 7**

2.1 System Requirement ..... 7

2.2 System Browser Support ..... 7

2.3 Getting Start ..... 7

2.4 Login NAS-7102 ..... 12
2.4.1 Login on a PC ..... 12
2.4.2 Install NAS Finder on a PC ..... 12

**Chapter 3: Web Configuration ..... 15**

3.1 Status ..... 15

3.2 IP Config ..... 19
3.3 Maintenance ..... 20
3.4 SMB Server ..... 23
3.5 FTP Server ..... 26
3.6 BT Configuration ..... 29
3.7 Printer ..... 31
3.7.1 Media Server ..... 31
3.7.2 Disk Utility ..... 33

**Chapter 4: Other Features and Exampls ..... 35**

4.1 File Access on a PC ..... 35
4.1.1 Windows Explorer ..... 35
4.1.2 Mapping a Network Drive ..... 36
4.1.3 Disconnecting a Network Drive ..... 37
4.1.4 FTP ..... 38

4.2 File Access on a Mac ..... 39
4.2.1 SMB ..... 39
4.2.2 FTP ..... 41

4.3 BitTorrent Download Manager ..... 42
4.3.1 Starting a Download ..... 42

4.4 Printer Server ..... 44
4.4.1 Installation on a PC ..... 44
4.4.2 Installation on a Mac ..... 49

4.5 Media Server ..... 51
4.5.1 Xbox 360 ..... 51
4.5.2 PlayStation 3 ..... 52
4.5.3 iTunes ..... 54

4.6 USB Device ..... 54

**Appendix A: Precautions ..... 56**

Precautions ..... 56

Trademarks ..... 57

**Appendix B: Specifications ..... 58**

**Appendix C: Importance Notice ..... 60**

**Appendix D: Technical Terms ..... 61**

**Appendix E: FAQ ..... 63**

# Chapter 1: Introduction

PLANET Technology's NAS-7102 is network attached storage (NAS) solution for external storage targeted for small and medium business (SMB) users and small office/home office (SOHO) users.

With a NAS-7102, users can save their work and have access to files over the network without having to carry around a disk drive or memory stick. The Administrator can manage access privileges for greater security. Multiple backup and synchronization functions protect your data.

Currently NAS-7102 offers above what you need. With a SATA II HDD bay, the NAS-7102 provides a way to simple plug and play to expand your storage of your own easily. Users can easily set up a system for all sorts of storage applications without MIS help by accessing the user friendly web-based interface.

With features of compact, economical and easy to use network storage server, it functions as a File and FTP server and provides an easy way for LAN users to backup data or share files through LAN and WAN. The embedded Bit-Torrent client feature brings you the most conveniences to download shared resources from the Internet. The NAS-7102 also supports Print Server function for the user to connect their printer to NAS-7102 directly and share. FTP server with Unicode supported, the device is compatible to multilingual file name.

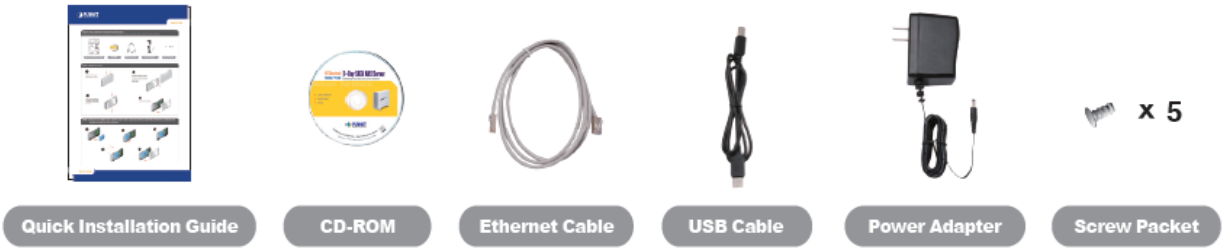
The NAS-7102 supports advanced user management functions such as, private HDD space, login account. It not only shares HDD space, but also provides a management device to handle each user. With NAS-7102, you'll get a simple yet effective way to expand data storage of your own, as well as for your network at home or office.

## 1.1 Features

- The Administrator can Limit the Amount of Available Disk Space Available to Individual Users
- 1 Standard USB 2.0 Port for External USB HDD and Print Server Sharing
- Supports Windows Utility and Web Base Management
- Share Music, Pictures, Movies and Data over Network
- Supports BT Download
- Interface: 10/100/1000Base-TX (Auto MDI/MDI-X), auto-negotiaiton
- Supports most popular OS including Windows VISTA/XP/2000, Mac OS x v10.2 or above.

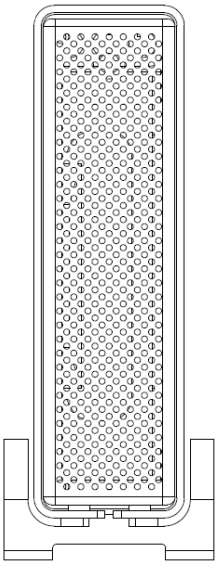
# 1.2 Package Content

- NAS-7102 x 1
- Quick Installation Guide x 1
- User's Manual CD x 1
- Ethernet Cable x 1
- USB Cable x 1
- Power Adapter x 1
- Screw Packet x 1




# 1.3 Physical Detail

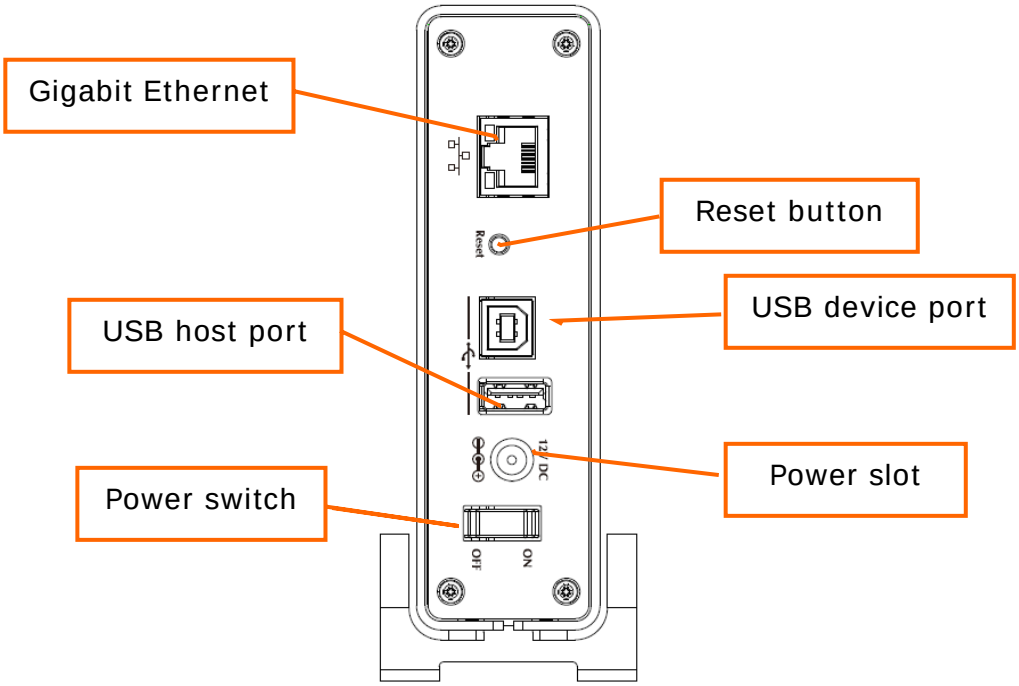
### Front Panel View



### Front LED Indication

| Item | LED Color | Status |
|---|---|---|
| Power LED | Blue | Power on |
| | Blinking | Data access |

## Rear Panel View



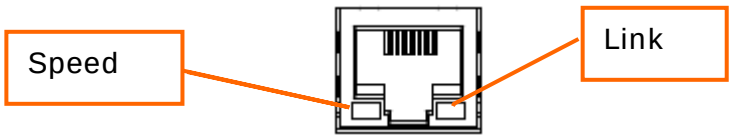

## Button Description

| Item | Description |
|---|---|
| Power: | Push to turn on or off NAS-7102 |
| Reset | If you don't know the administrator's password or after a firmware upgrade, press and hold the reset button, turn on the device and wait for about 30 seconds. Release the button and the device will reset all settings back to its factory default setup. SMB & FTP user accounts will still exist after a reset. |

## Physical Interfaces

| Item | Description |
|---|---|
| LAN Port | Connects to the Ethernet cable with RJ-45 connector |
| USB device port | Connects to PC (Type B) |
| USB host port | Connects to USB printers (Type A) |
| DC In jack: | Connects to the AC adapter |

## Rear Panel LED Indication




| Item | Operation | LED Color | Status |
|---|---|---|---|
| Ethernet LED | Speed | Off | 10Mpbs |
| | | Green | 100Mpbs |
| | | Orange | 1000Mpbs |
| | Link | Off | No connection |
| | | Green | Connection established |
| | | Orange | Data access |

# Chapter 2: Installation

## 2.1 System Requirement

- Minimum Intel Processor III 500MHz or Apple G4 processor, 128MB RAM
- PC: Windows 2000/XP/Vista
- Mac: Mac OS 10.2 or above
- 10, 100, 1000 or 10/100/1000Mbps fast Ethernet card
- One free Ethernet port on network switch or router

## 2.2 System Browser Support

Use the latest version of the following browsers to manage the NAS-7102:

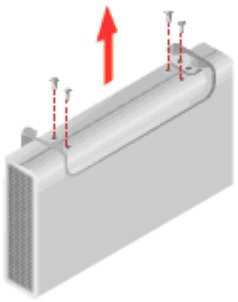
- Internet Explorer
- Netscape Navigator
- Mozilla
- Firefox
- Safari (Mac OS X)

## 2.3 Getting Start

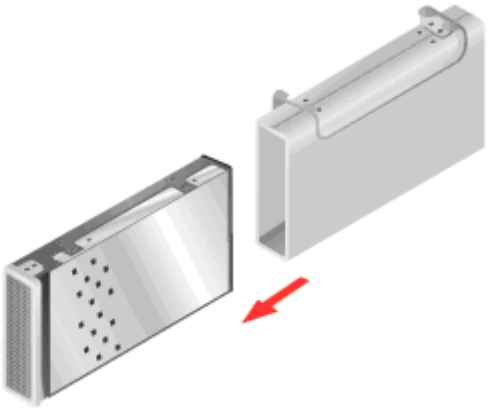
This chapter shows you how to configure these steps to connect NAS-7102.
Your unit might come with an installed hard drive. Before opening such an enclosure, please read the warranty and any other notes from your vendor carefully, as this might void your warranty. Be careful not to damage any cables or components during the installation.

**Step1: Open the case.**

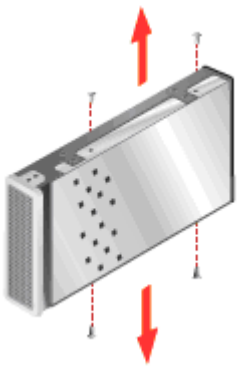
(1) Remove the 4 screws on the bottom of case.



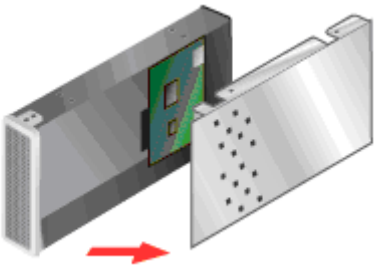
(2) Slide the case off the body. You do not need to remove the screws on the aluminum standard (feet).



(3) The metal shielding is mounted, and remove the 4 screws that are holding it in place.

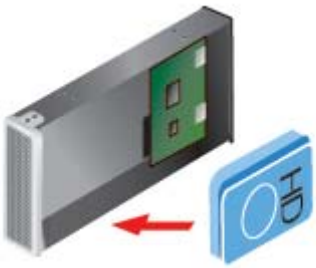


(4) Lift it up from the body.

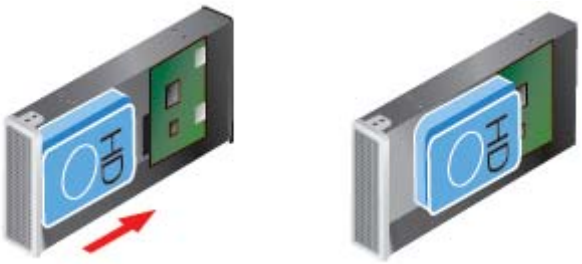


**Step2: Install the HDD into the body.**

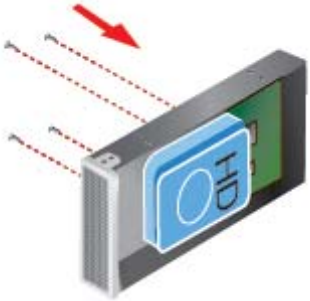
(1) Install the HDD into the body.



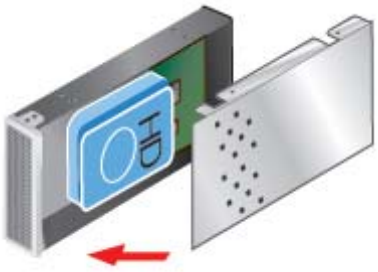
(2) Align the HDD to SATA/power pins on PCB board, and then push the HDD into the board.



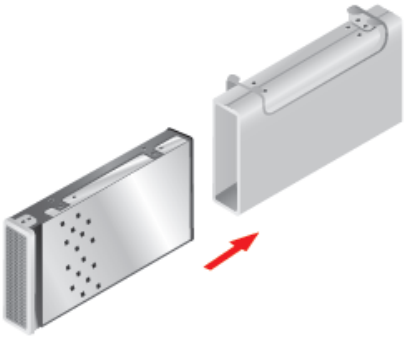
(3) Fasten the screws to hold the HDD in place.



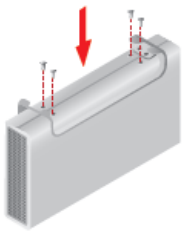
(4) Align the metal shielding with the body and fasten the screws to protect the HDD and system board.



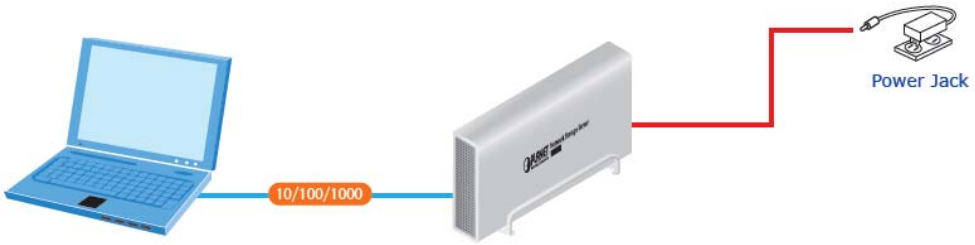
**Step3: Slide the case back to the body.**



**Step4: Fasten the screw on the case.**



**Step5: Connect PC with NAS and power on the NAS.**




**Step6: Insert the supplied CD-ROM.**

When the Welcome page appears, please click "**NAS Finder**" hyper link start up the program to search your NAS-7102.

---

✍**Note** Please Install JAVA program before using this application, please refer to http://www.java.com/ for more detail.

---

**Step7: Login NAS-7102.**

Please open Web browser and enter default user name and password to login.
User Name: **admin**
Password: **admin**

# 2.4 Login NAS-7102

Before attempting to access the device, make sure the USB cable has been disconnected and the drive is connected to the same local network as your computer.

**Default Login**
Username: **admin**
Password: **admin**

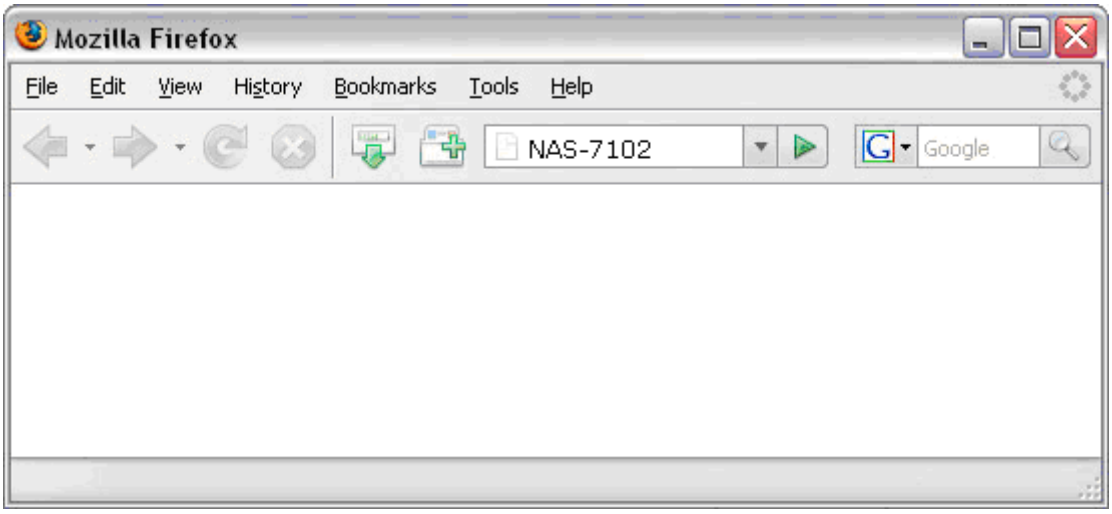
---

✍**Note** We strongly recommend changing the password as soon as you are logged in, to prevent unauthorized access.

---

## 2.4.1 Login on a PC

Open your web browser and type NAS-7102 or if connected directly to your computer, type "**192.168.0.1**" (Default IP) into the URL field and hit the Enter key to connect.




If you have more than one device connected, type NAS7102-xxxx, where the xxxx stands for the last four digits of the MAC address as seen on the bottom of your device (e.g. NAS-7102).

## 2.4.2 Install NAS Finder on a PC

If typing NAS-7102 in the address field of your web browser does not work, use the NAS Finder to search for the network drive instead.

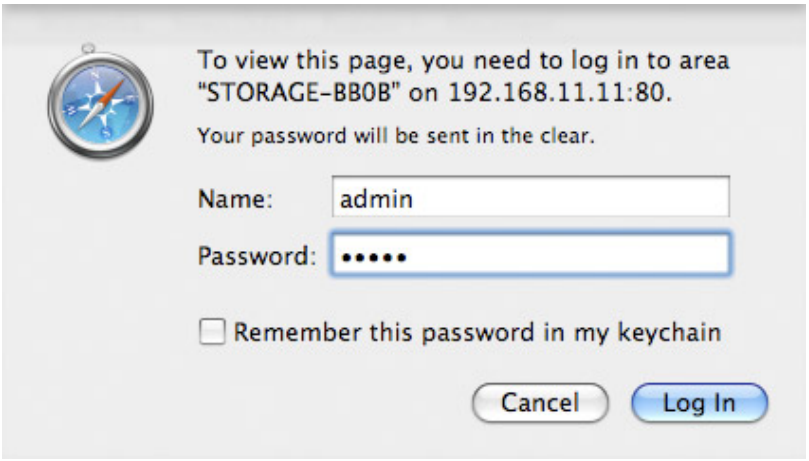
1. The utility requires the Java Runtime Environment (JRE). If JRE is not already installed on your computer, go to www.sun.com and download it.

2. Double click on the "**NAS Finder.exe**" to start the application.

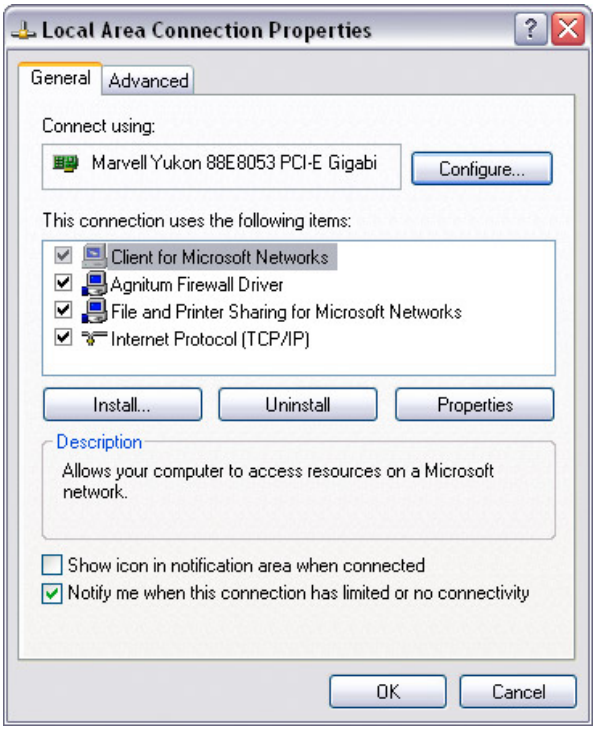
3. Click on "**Search Next**", the device will be listed automatically and it displays its IP address, device name and group name. If the information is not automatically displayed, make sure the network drive and your computer are connected to the same local network and assure that the NAS Finder is not blocked by the firewall (javaw.exe requires UDP out at port 14675).

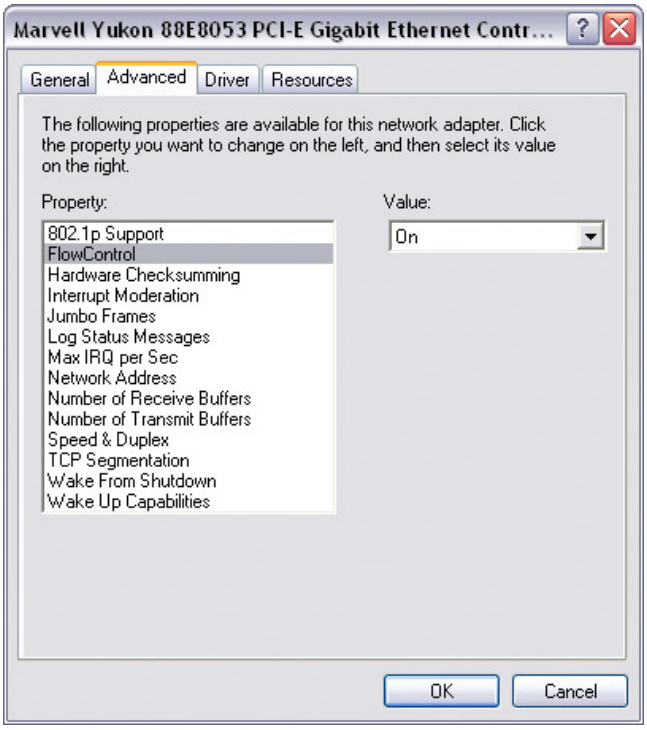
If you have more than one device connected and the current device is not the correct one, you can also press "**Search Next**". Otherwise, press "**Connect**" to open the web browser and login to configure your device.

Enter the user name and password to login. By default, the name and password is "**admin**".



**Note** If you experience slow transfer speeds, go to the **Advanced Properties** of your LAN card or network adapter and make sure the utility is enabled and the Speed is set to **Auto-Sense**.

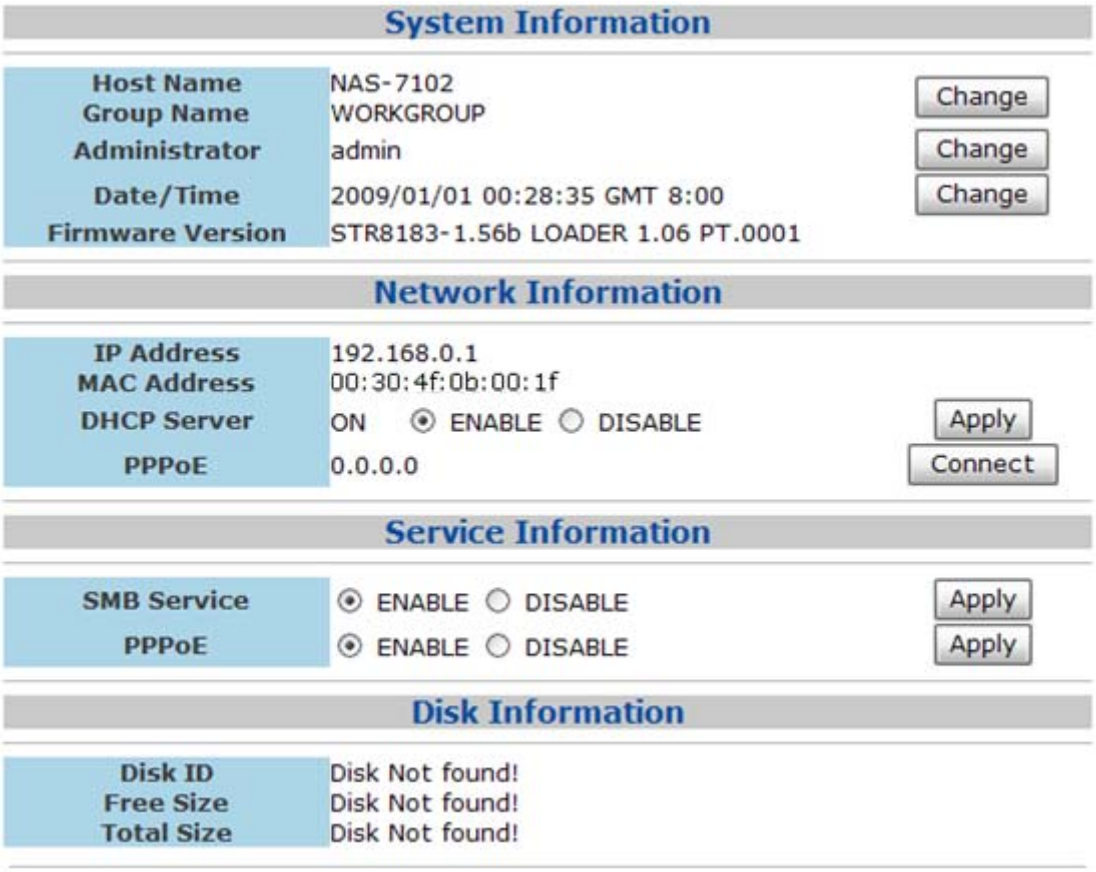


# Chapter 3: Web Configuration

To configure the settings of your network drive, you will need to use a web browser, enter the IP address of your device and then use the web configuration for further setup. If you don't know the IP address, see How to Login and use the NAS Finder. The default login is admin/admin.

## 3.1 Status




**Host Name**
This name is used to identify your device on the network. If you prefer a different name that is easier to remember, click on "**Change**" and type in a new name. When selecting a new hostname, make sure to use a unique name and not one that has already been used on the local network.

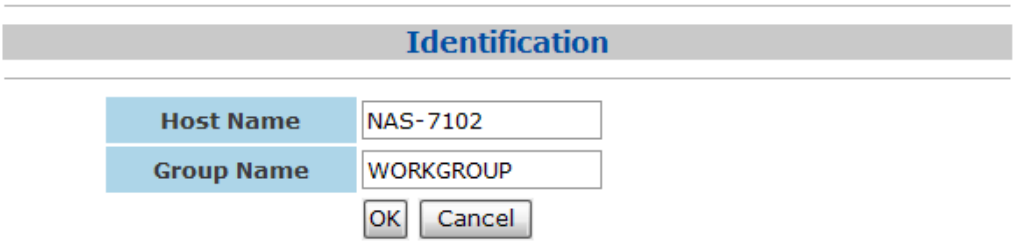
By default, the host name is set to NAS-7102.

**Group Name**

This should be the same name as your workgroup. In general, the default WORKGROUP will work, but if your workstation belongs to a different group, click on "**Change**" and modify it.

On a PC, right click on "**My Computer**" and choose "**Properties**". Go to the Computer Name tab to view your current workgroup.

For a Mac to join a Windows workgroup, open the directory access utility under Applications and Utilities. Select SMB and click Configure to modify the settings (administrator access is required to access this option).

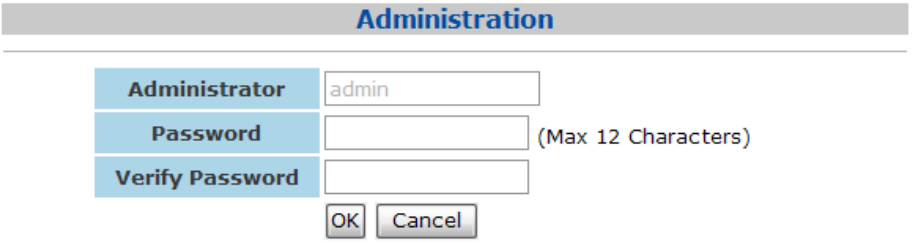



Note. First character cannot be number (0-9).

**Administrator**

This is the account used to manage the settings of your network drive. The admin user name can not be changed but we strongly recommend changing the password as soon as you have logged in for the first time, to prevent any unauthorized access.

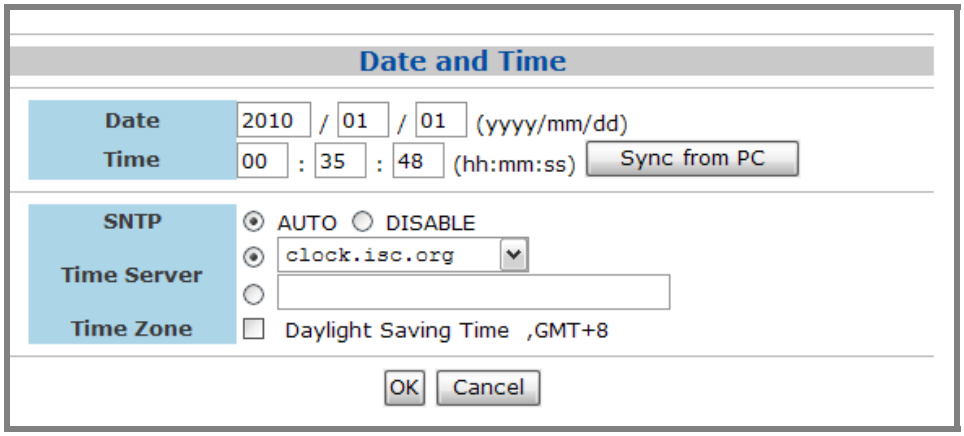
To change the password, click on Change, enter your new password and click OK to apply the changes. You will then be asked to login again with your new password.




**Date / Time**

Click on Change to setup the correct date and time.

- When SNTP is disabled, you can enter the date and time manually, then click "**OK**" to save the settings. Instead, you can also click on the "**Sync from PC**" button to synchronize the time with your computer.
- If Internet access is available, we recommend setting SNTP to AUTO instead. Select a time server from the list, enable daylight savings if required and then click "**OK**" to apply the new settings. It will automatically synchronize date & time with the time server.




**Note**

The date and time settings are only accurate as long as the power is turned on.

- If SNTP is disabled and you turn off or remove the power supply, the date and time have to be reset!
- If SNTP is set to Auto and a time server is selected, it will automatically synchronize the time at start up.

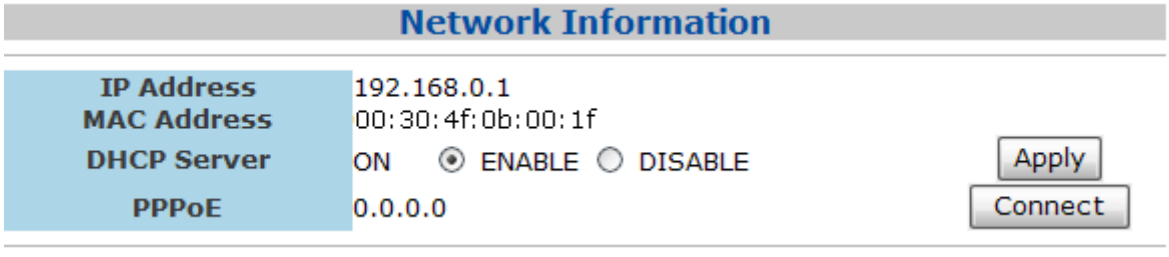
**Firmware Version**

Displays the current firmware and loader version. It is recommended to periodically check the website of PLANET for possible updates.

**Network Information**

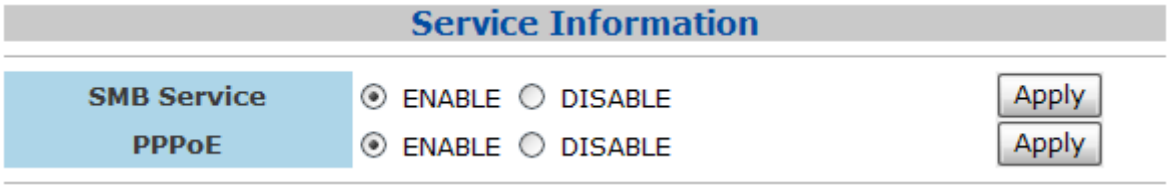
Displays the current IP address, MAC address and DHCP server status of your network drive. The DHCP server should be disabled in order not to interfere with your existing DHCP server.

In most cases, your router will be assigning the IP address or in the office, a dedicated DHCP server might already be running. When the network drive is connected directly to your computer via patch cable or if there is no other DHCP server on the local network, the DHCP server will be enabled automatically (IP 192.168.0.1, Mask 255.255.255.0, Gateway N/A).



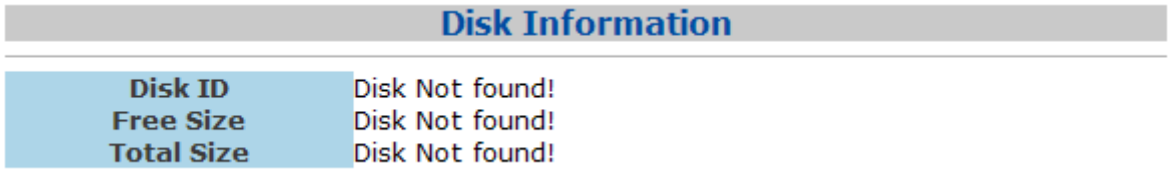

**Service Information**

By default, both Samba and FTP services are enabled, allowing you to transfer files via FTP or to mount the network drive using SMB. If you only use one of these services, we recommend disabling the other one for security reasons. You can always enable it again in the future.




**Disk Information**

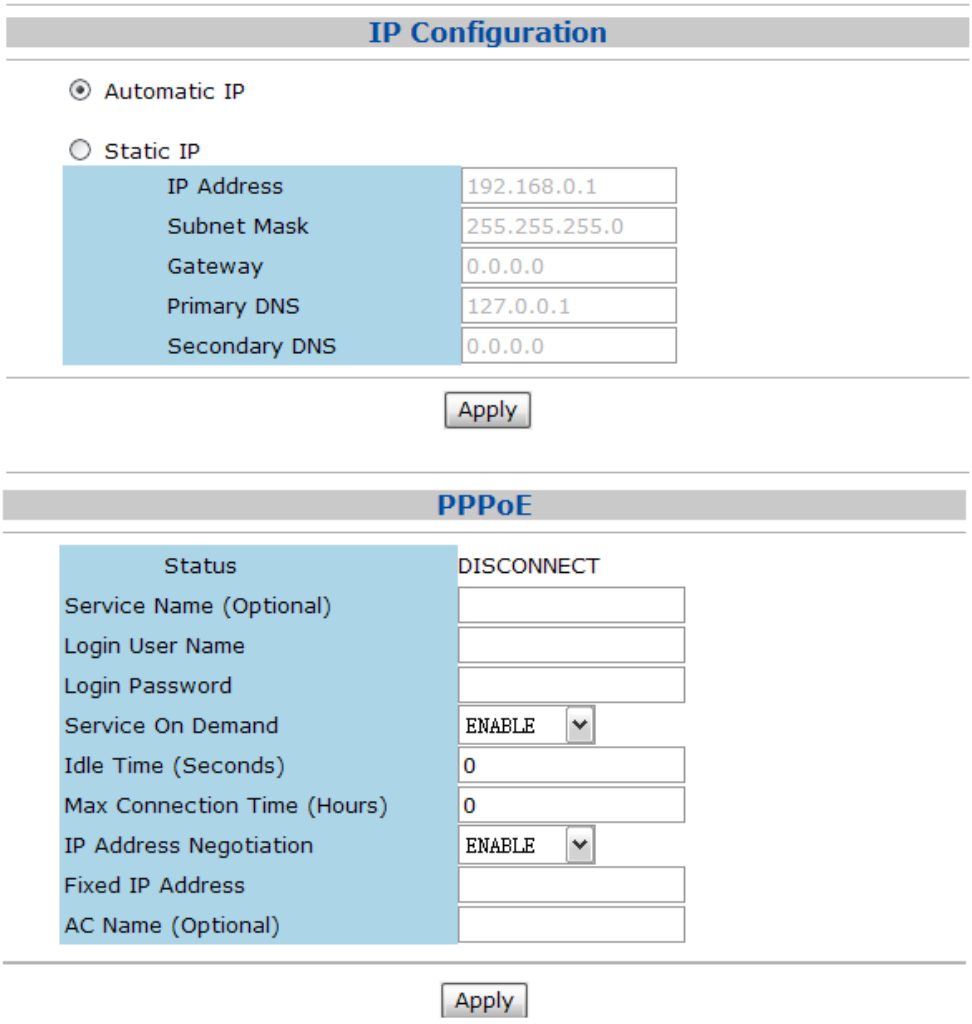
Displays details about the installed hard drive and the storage capacity. If you do not see these details, it is possible that the drive has not yet been installed or it has not been recognised because it has not yet been formatted. Make sure the hard drive has been installed properly and then use the disk utility to format it.



# 3.2 IP Config

By default, the IP Config is set to **Automatic IP**. This is the recommended setting and will allow the network drive to obtain its IP address automatically. If you prefer setting it manually, select the Static IP option, enter your own values and click **Apply** to confirm the new settings.

Setting it manually is useful when you need to have a static IP address in order to mount the network drive or set up port forwarding as an example. To find out the correct settings for a static IP setup, refer to your router settings or ask your system administrator.

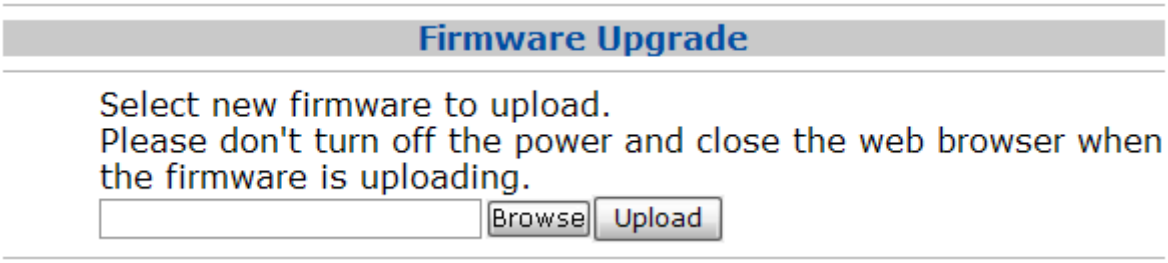


## 3.3 Maintenance

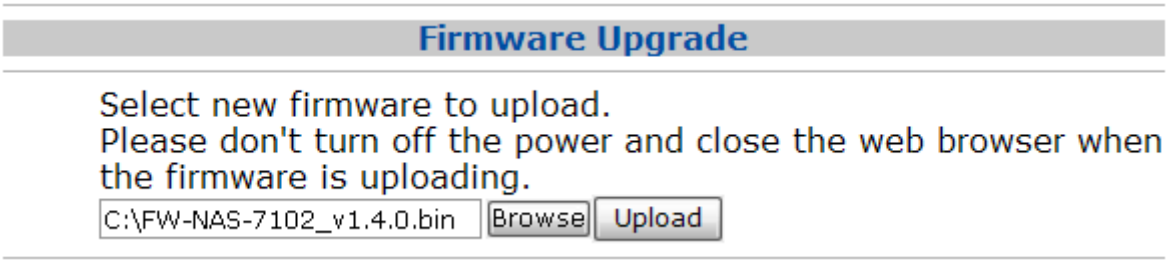
The tools found in the maintenance menu can be used to upgrade the firmware of your network drive and to reset the device to its factory default settings. Read the description of each tool for more details.

**Firmware Upload**
Here you can update the loader and firmware for your network drive. To do so:

1. Download the latest firmware and loader from your vendor's website.
2. Store the files on your computer and unzip them if necessary.
3. Click on **Browse** and locate the firmware (***.BIN** file).



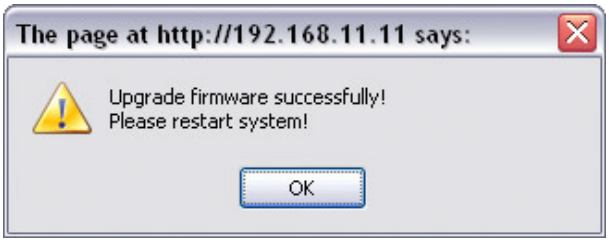

4. Click on **Upload**.




5. Click **OK** to confirm the pop-up message to start the upgrade.

6. During the upgrade process, take no other actions and make sure the power is left on! This might take a few minutes.

7. Once the upgrade process is completed you will be prompted to reboot the device.




8. Click on **Reboot** to restart the device.
9. After rebooting the device, wait approximately one minute and then proceed to the Status page to confirm the upgrade was successful.

---

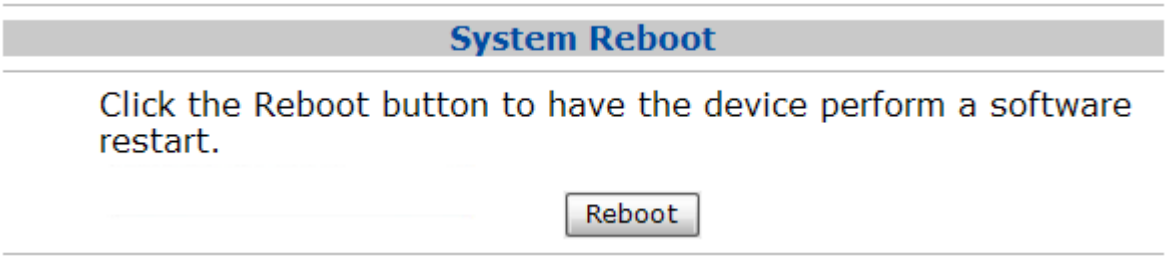
**Caution** Never turn off your device or remove the power during the firmware upgrade procedure as it may cause irreparable damage!

---

**System Reboot**

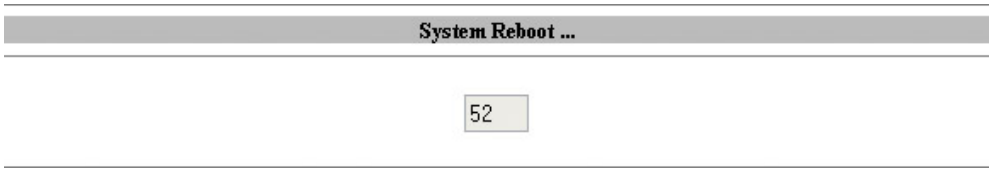
This can be used to restart the network drive after a firmware upgrade. Make sure all current operations are completed before rebooting the device.

1. Click on **Reboot**.



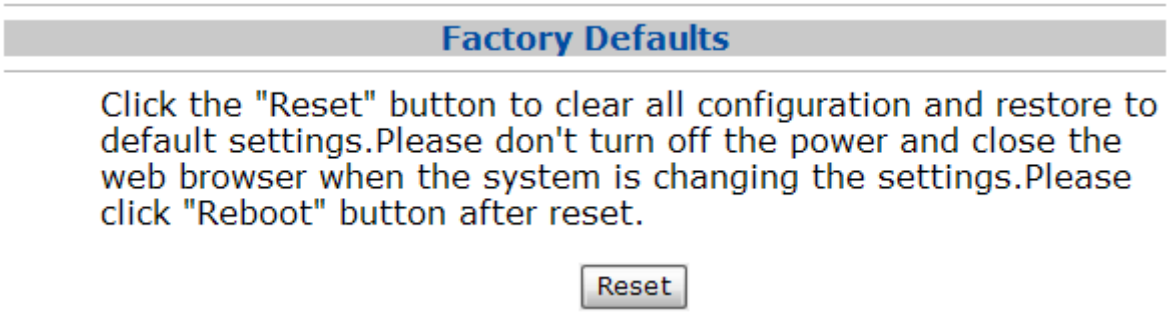

2. Confirm the pop-up message to restart the device.

3. After 60 seconds the page will automatically refresh.

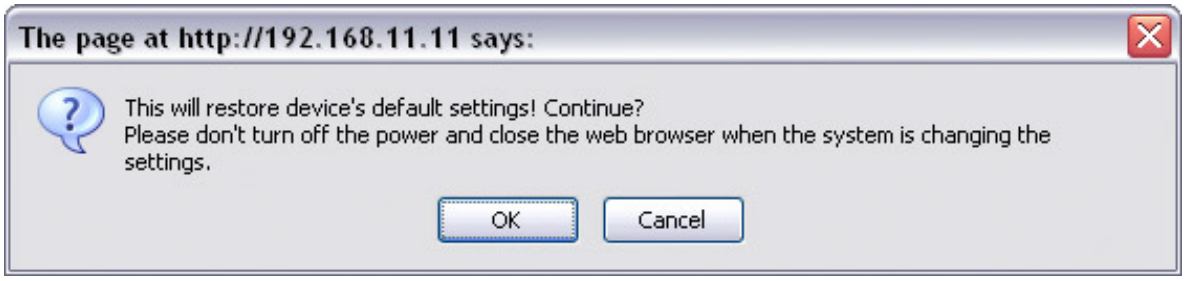



**Factory Defaults**
If you experience problems and after a firmware upgrade, it is recommended to reset all settings. Resetting the device will set all settings, except the SMB and FTP accounts, back to its original factory default settings.

1. Click on **Reset**.




2. Click **OK** to confirm the pop-up message to reset all settings.

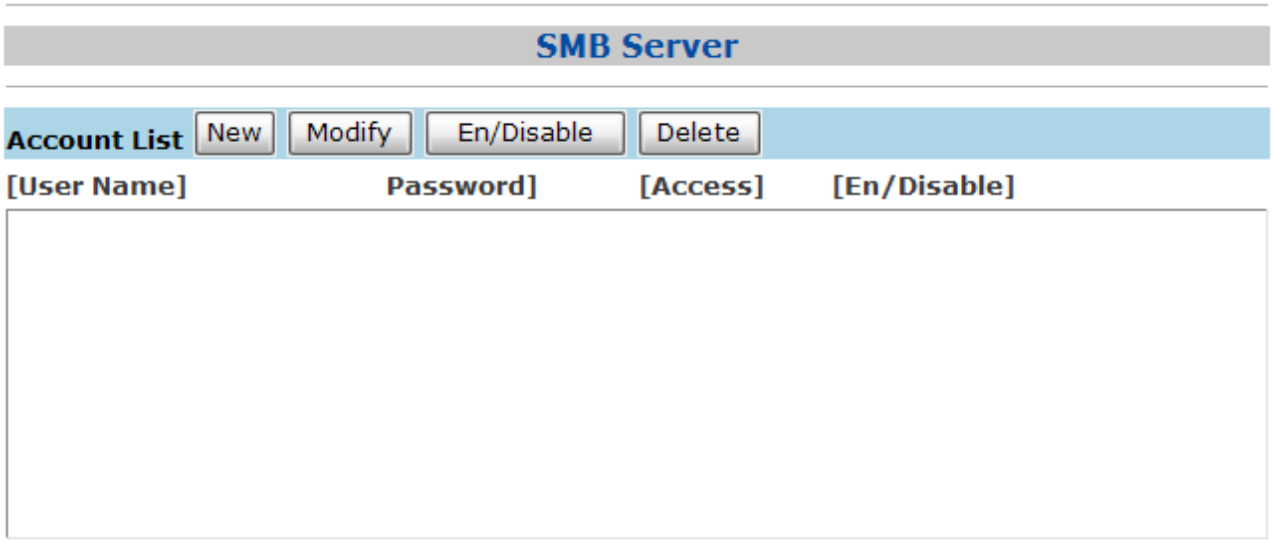



3. Click on **Reboot** to restart the device.

## 3.4 SMB Server

You can create a maximum of 16 accounts. Only use the English alphabet, with no special characters or spaces, for folder and account names. The ports used by the SMB server are **137-139**.

The default account is created automatically. The user name is **guest** and no password has been set. Like any other account, you can always modify, delete or disable it.

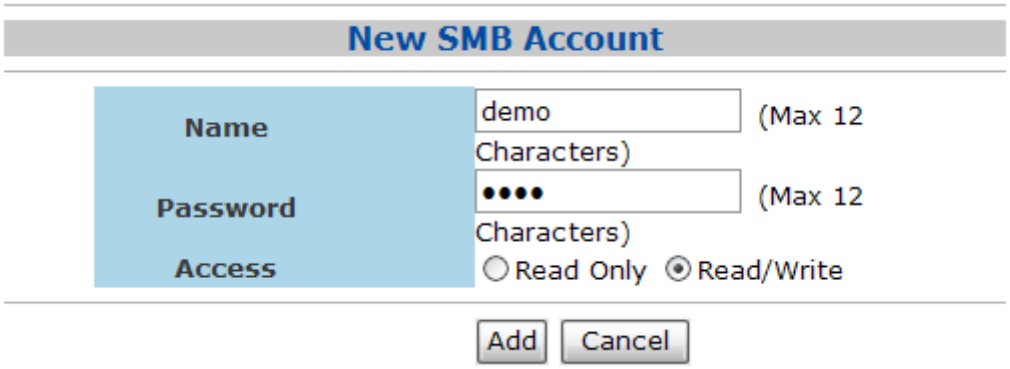



**Note**

Only the folders on the sharing list will be accessible on the network. Select an account, click on Modify and then use the arrow buttons to add and remove the folders from that list. Deleting a folder will also erase all the files that are stored inside that directory!

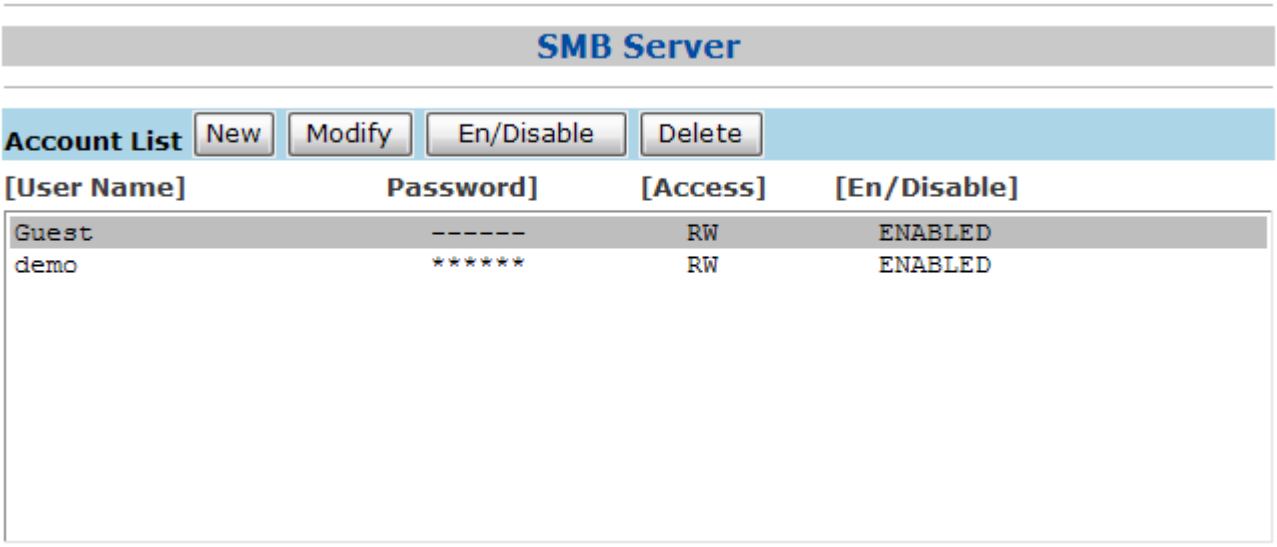
### Adding a new Account

1. To create a new account and share files, click on **New**.

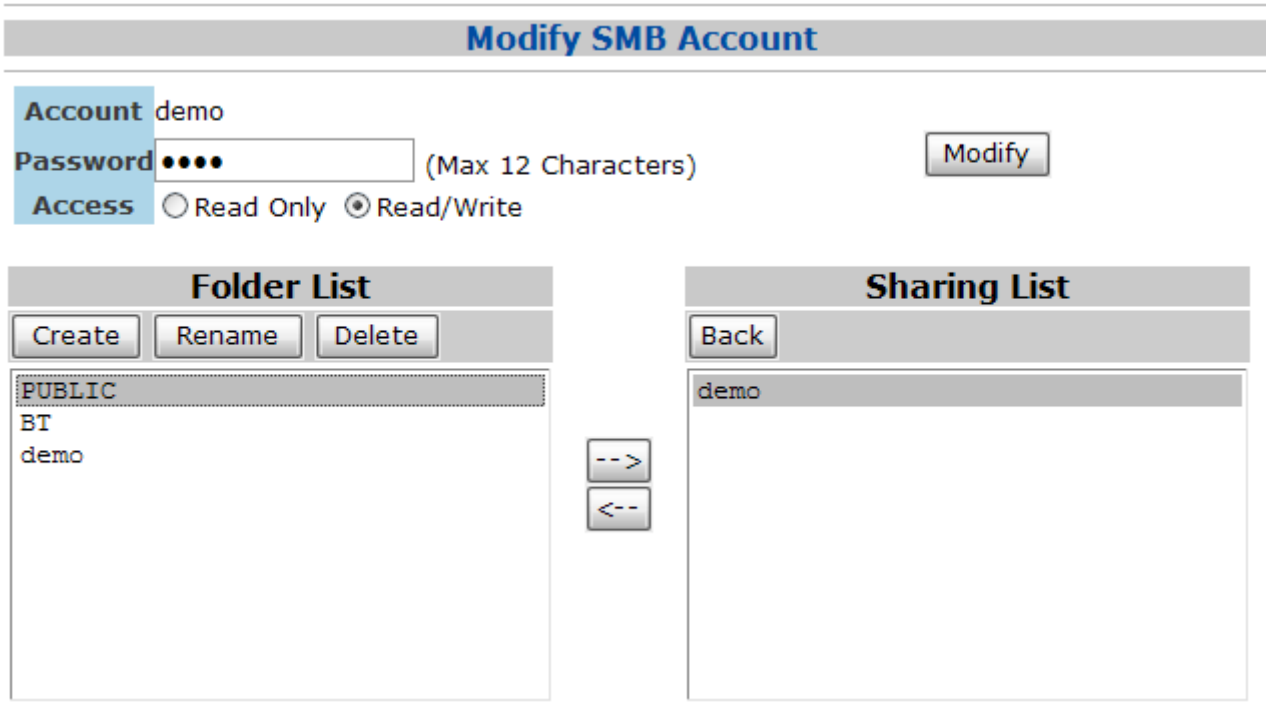


2. Enter a name for the new account and a password for the user of the account. Define the access rights for the new user, **Read Only** or **Read / Write**, and click on **Add**.

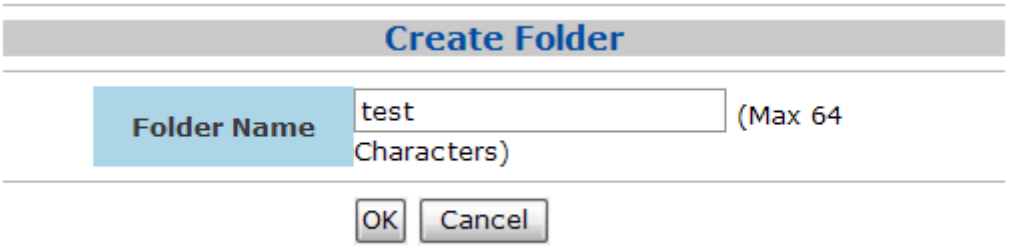
3. Select the account from the list and click on **Modify**.



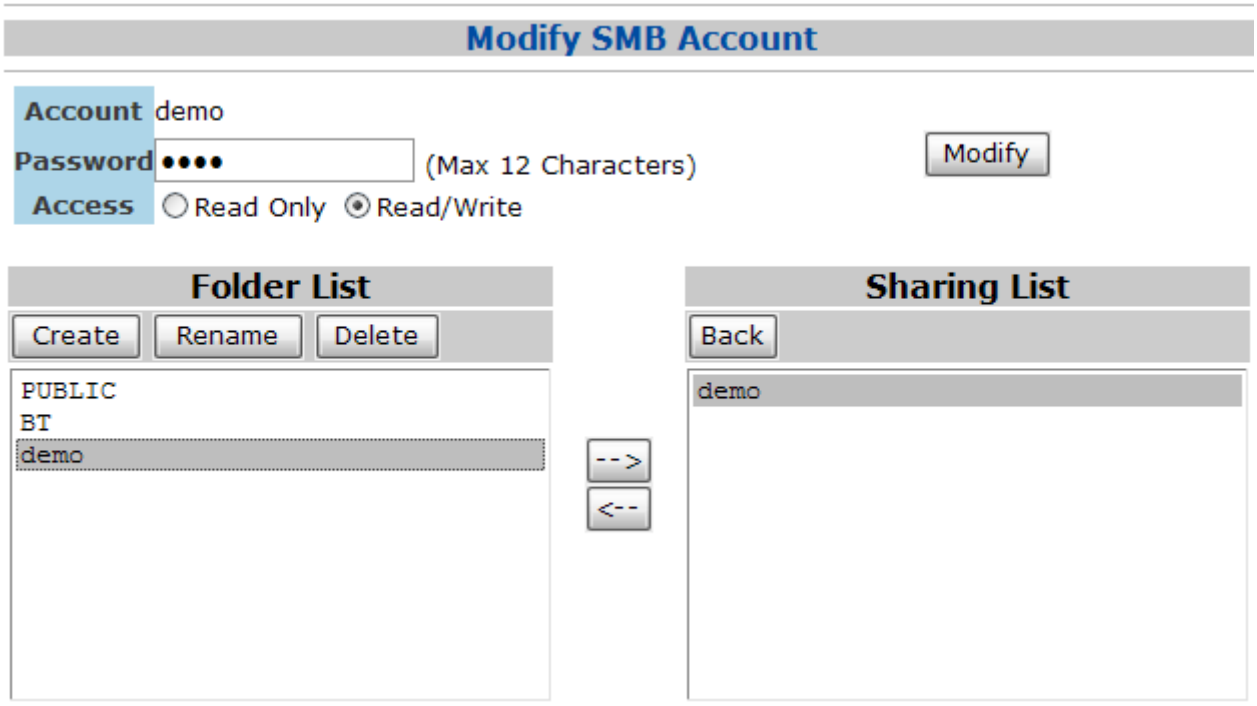

4. Here you can modify the settings and also create and manage the shared folders. Click on **Create** to add a new folder.




5. Enter a name for the new folder (max 12 bytes) and click on **OK**



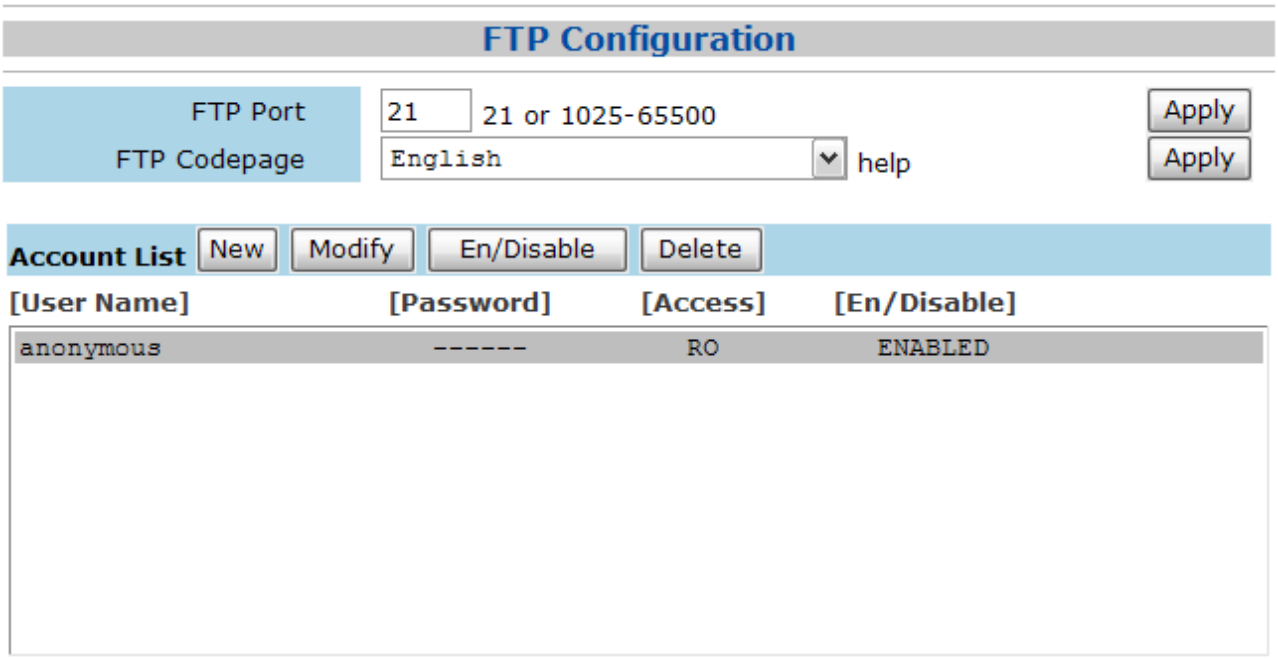

6. Select the new folder in the Folder List and then click on the arrow key to move it to the Sharing List. Once moved, the folder is then available for the selected user.




7. You can remove the folders from the sharing list at any time and also rename them if required. When deleting, remember that this will also remove all the files in that directory!

## 3.5 FTP Server

When creating FTP accounts, only use the English alphabet, with no special characters or spaces. The default account (anonymous) is created automatically but like any other account, you can always modify, delete or disable it.




---

✍**Note** For FTP file transfers we recommend using a dedicated FTP application. Deleting a folder will also erase all the files that are stored inside that directory!

---

**FTP Port**

The standard port for the FTP service is 21. If required, you can change it and use any port number from 1025-65500, however generally, we recommend using the default of 21. When you change the port number for the FTP server, remember to adjust your firewall, otherwise, the FTP access will likely be blocked.

**FTP Codepage**

By default, the encoding is set to English. If you want to store or transfer files with a different encoding (different language), choose the corresponding language from the drop down menu list. Click on Apply to confirm the selection and change the language setting. If you are unclear about which encoding to select, click on Help for further details.

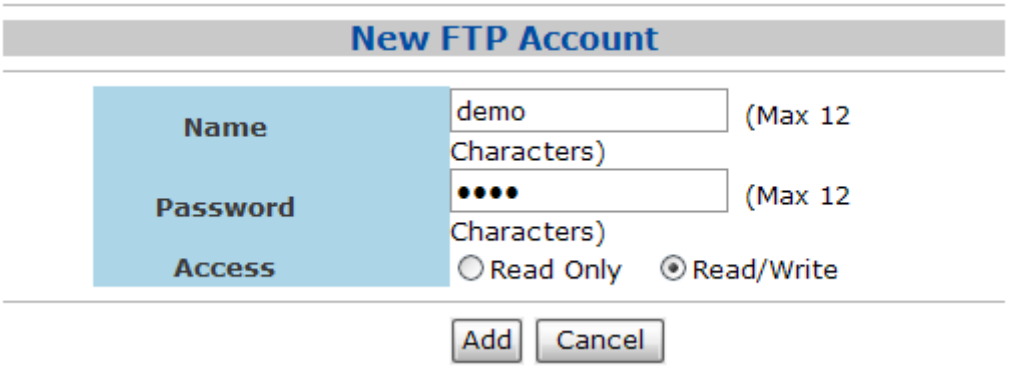
In order to transfer and store the files, it is important that you select the correct language!

- Central Europe (CP1250)
  Croat, Czech, Hungarian, Polish, Romanian, Slovak, Slovene and Sorbian.
- Cyrillic (CP1251)
  Bulgarian, Belorussian, Macedonian, Moldavian, Russian, Serbian and Ukrainian.
- Latin I (CP1252)
  Albanian, Danish, Dutch, Faroese, Finnish, French, German, Icelandic, Irish, Italian, Norwegian, Portuguese, Spanish and Swedish.
- Baltic (CP1257)
  Estonian, Latvian, Lithuanian.

## Adding a new Account

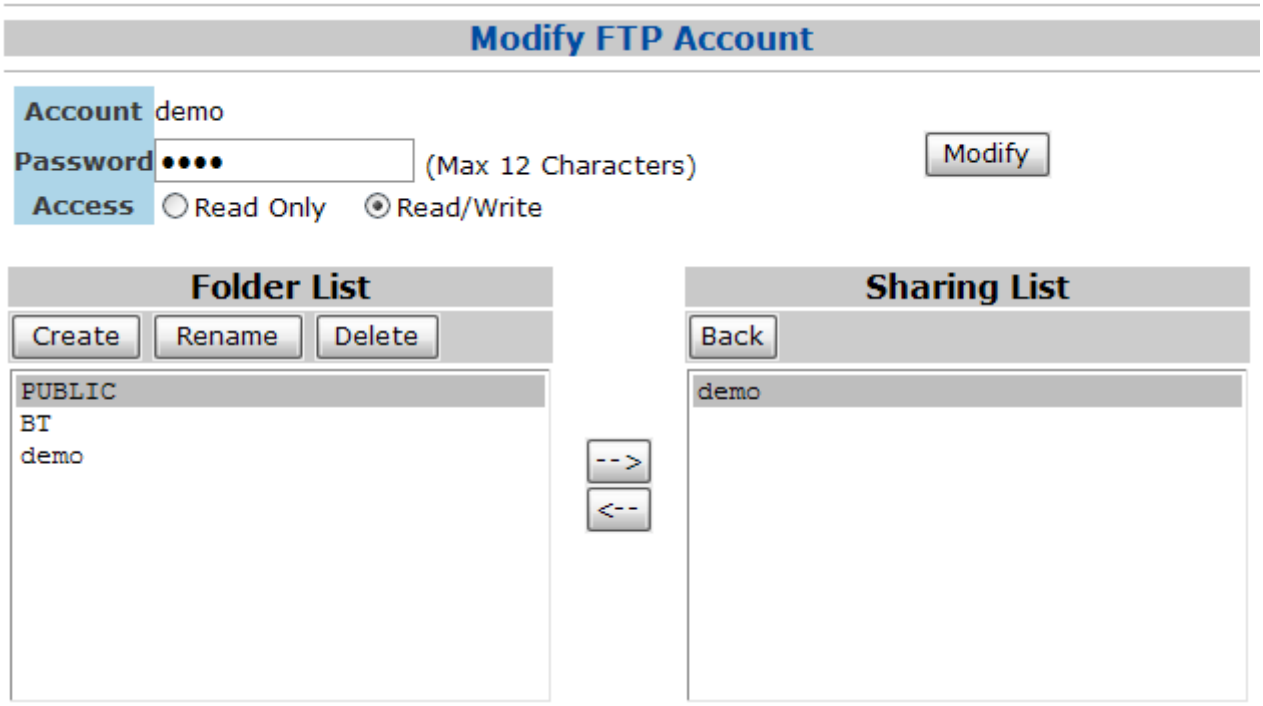
1. To add a new account, click on **New**. You can create a maximum of 16 accounts.

2. Enter a name for the new account and a password for the new user. Define the access rights for the new user, **Read Only** or **Read / Write**, and click on **Add**.




3. Select the account from the list and click on **Modify**.

4. For the FTP user to access the files, use the arrow buttons and move the folder you want to share to the sharing list. The folders from the SMB accounts will be available here but you can also add new and modify existing ones if required. Use the **Create** button to add more folders and the **delete** button to erase a folder and all its content.

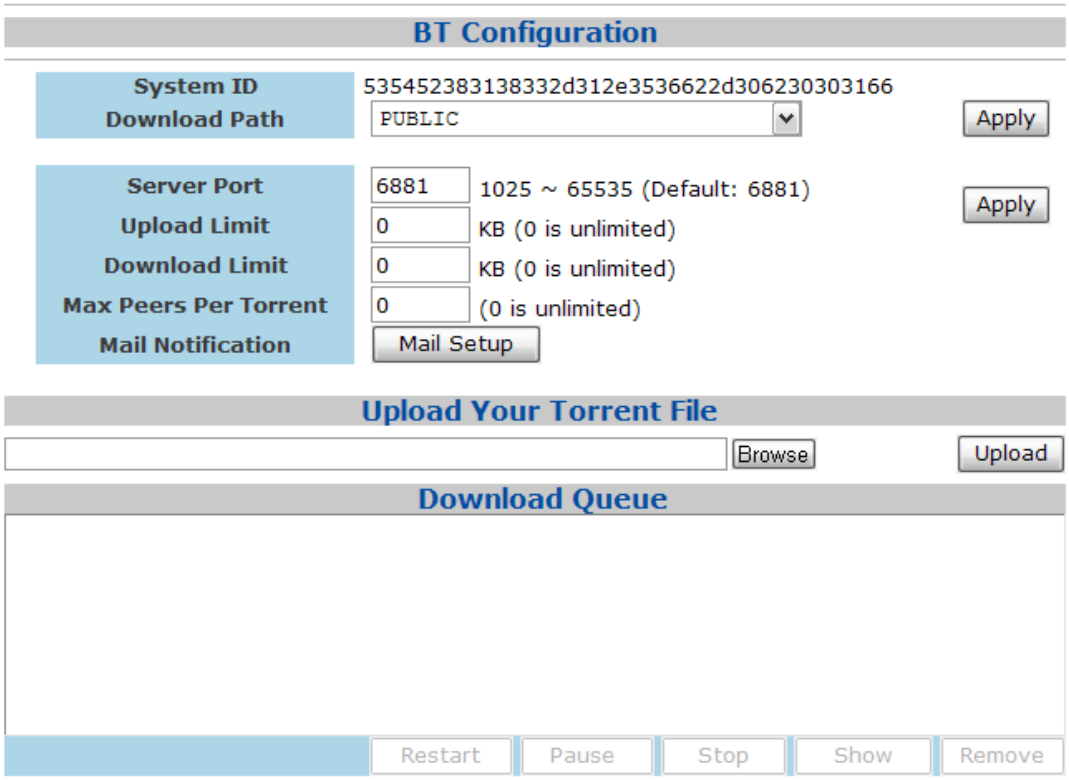

Modify FTP Account
Account
demo
Password
(Max 12 Characters)
Modify
Access
Read Only
Read/Write
Folder List
Create
Rename
Delete
PUBLIC
BT
demo
-->
<--
Sharing List
Back
demo

## 3.6 BT Configuration

Here you can manage your torrents and add new downloads to the queue. Before you add the first download, set the download path to your preferred folder, set the server port and set a limit for the upload speed according to your network's bandwidth. After changing each of the settings, press the Apply button to save the new configuration.

To start downloading files, you will first have to download a torrent file from the internet and then upload it to the network drive. Once the torrent file has been added, you can start downloading. The downloaded files will be stored in the folder that is set for the Download Path.

The BitTorrent™ client on the NAS-7102 can download 4 files at a time with a maximum of 40 files in the queue. The download speed may not be as fast as a BitTorrent™ client on the computer but once the Torrent has been added to the queue, it can download the files by itself.

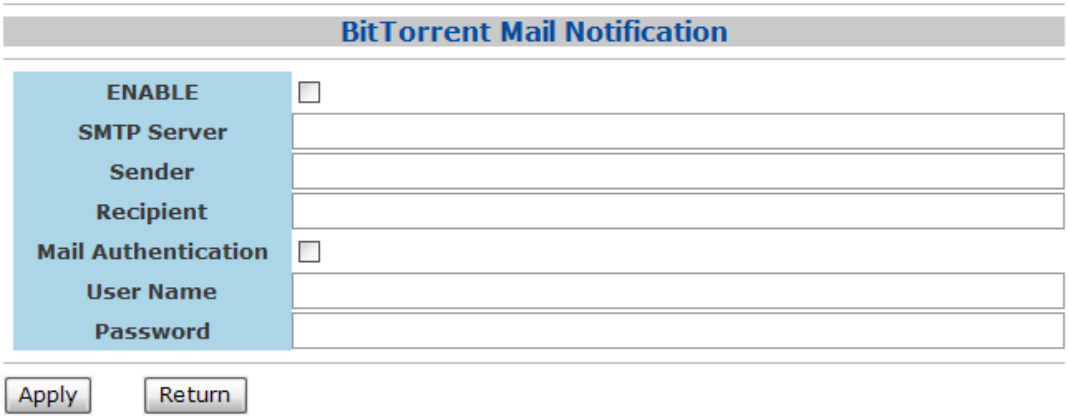



**Note**

Make sure the port for the BitTorrent™ client is not blocked by your router or the firewall. If necessary, set up port forwarding, so that the traffic for that port is forwarded to your network drive.

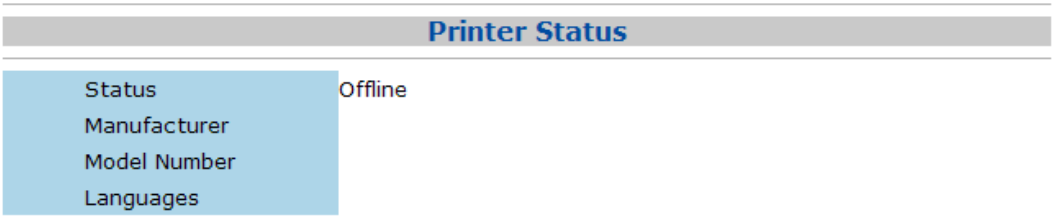
## Mail Notification

To be notified when a torrent is stopped or removed, you can set up e-mail notification. Click on Mail Setup, check Enable and fill out the configuration for your e-mail. To find out the correct settings for the mail server, ask your system administrator or your e-mail provider.



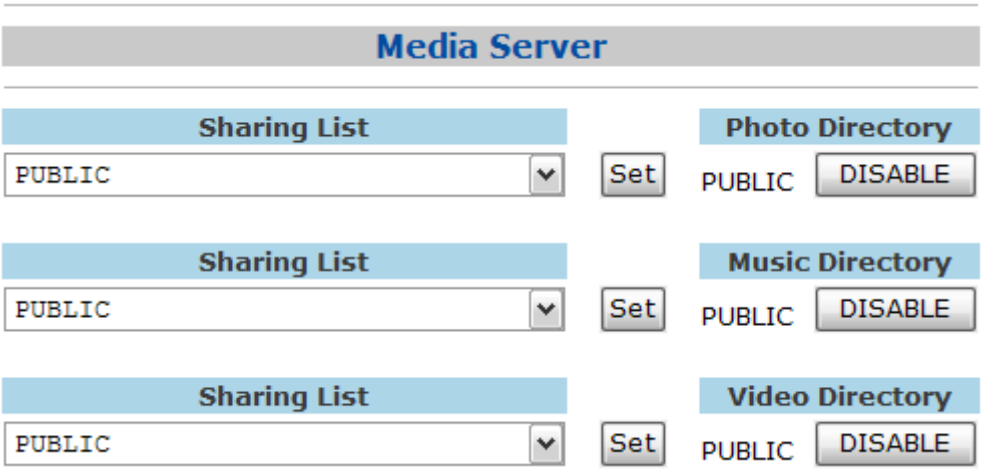
## 3.7 Printer

When a USB printer has been connected to the network drive, it will display its status here. If the status indicator shows Offline, the printer has not been connected properly, is turned off or is not supported.




### 3.7.1 Media Server

The UPnP media server can be used to share your photos, music and videos that are stored on the network drive with an Xbox 360 or PlayStation 3 video game console that is connected to the same local network.

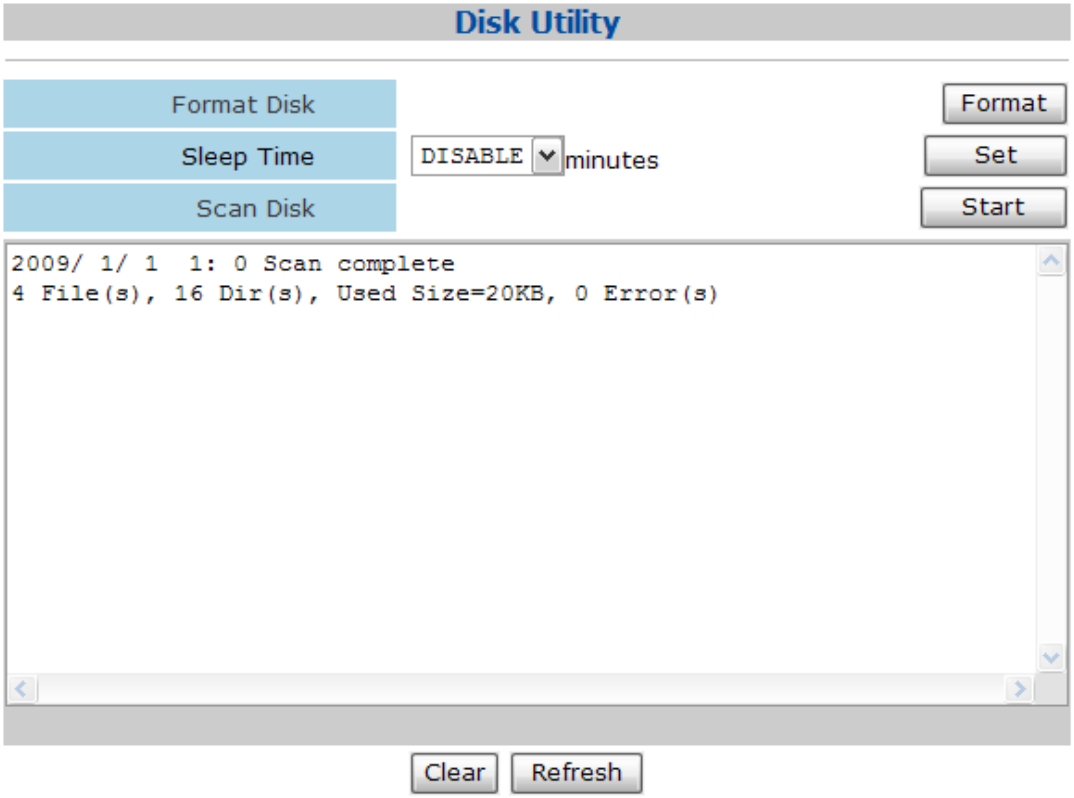



1. Select the folder where your files are stored from the sharing list.
2. Click on **Set** to save the new setting and enable the file sharing with your video game console.
3. Repeat the previous two steps for each media type (photo, music, and video).
4. The file sharing can be disabled at any time by clicking on **Disable** for the corresponding directory.

**Note**

Depending on the video game console, only certain media files can be accessed. For the Xbox 360, you can play JPG, MP3, WMV and XviD files. For the PlayStation 3, you can play JPG, MP3, MPEG-1, MPEG-2 and XviD files. iTunes will only be able to play MP3 music files.

## 3.7.2 Disk Utility




**Format Disk**
Use this tool to format your hard drive and prepare it for the network drive. When you format the hard drive using this disk utility, it will create a single partition using the **FAT32** file system. Large files up to **127GB** are supported when the drive is formatted using this disk utility.

If you create other partitions or choose a different file system when connected through USB, keep in mind that the network drive is only able to recognize the first partition and it has to be the **FAT32** file system!

**Sleep Time**
To save energy and keep the drive cool, it is recommended to set a sleep time. Select a time from the list between 10 to 60 minutes. When the drive is idle for longer than the set time, it will automatically go into stand-by mode and spin down.

If you need immediate access to the drive, set it to **Disable** and the drive will keep spinning at all times.

**Scan Disk**
Click on Start to scan the disk for errors. A report will be shown in the text field below. If errors are found, it is recommended to format the drive again and/or connect it via

USB to a computer to scan for and fix the errors. Use the Clear button to erase any old reports.

---

✍**Caution** Formatting the drive will erase all data and settings, as well as deleting the SMB folders and FTP accounts!

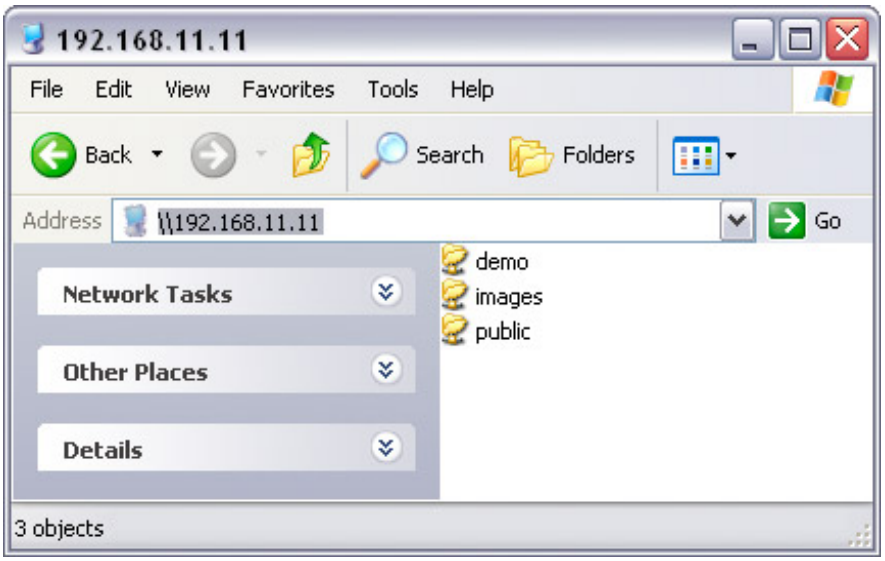
---

# Chapter 4: Other Features and Examples

## 4.1 File Access on a PC

### 4.1.1 Windows Explorer

Use Windows Explorer and type \\followed by the IP address or \\STORAGE into the address field and press the **Enter** key on your keyboard. It will then list all available folders on your LAN disk. To create a permanent link to your network drive, see Mapping a Network Drive.



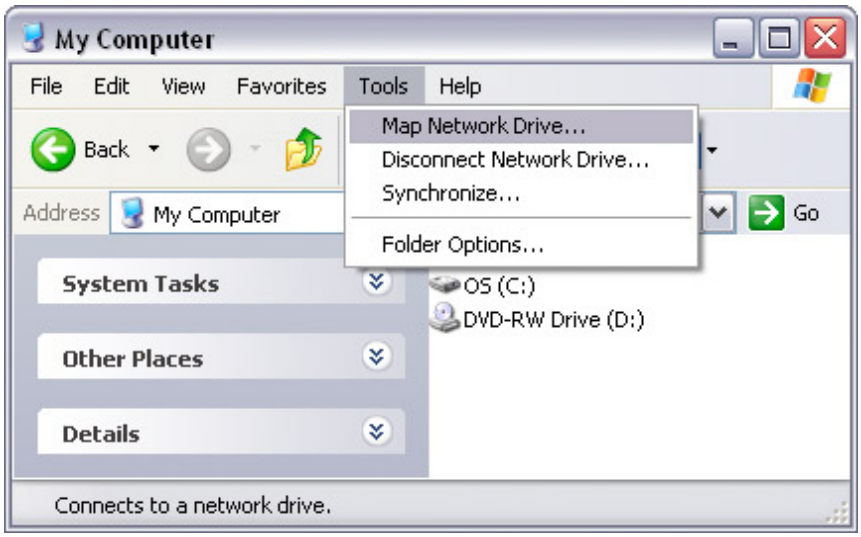

You can copy files to the network drive as if it were a folder on your local drive. Depending on the bandwidth, you can also open and directly play the files, although we recommend always transferring the data to your local drive first.

**Note** When you have to access multiple folders with different passwords or have modified the settings without a computer restart, go to Tools and disconnect the temporary network drive first, before accessing a new folder.

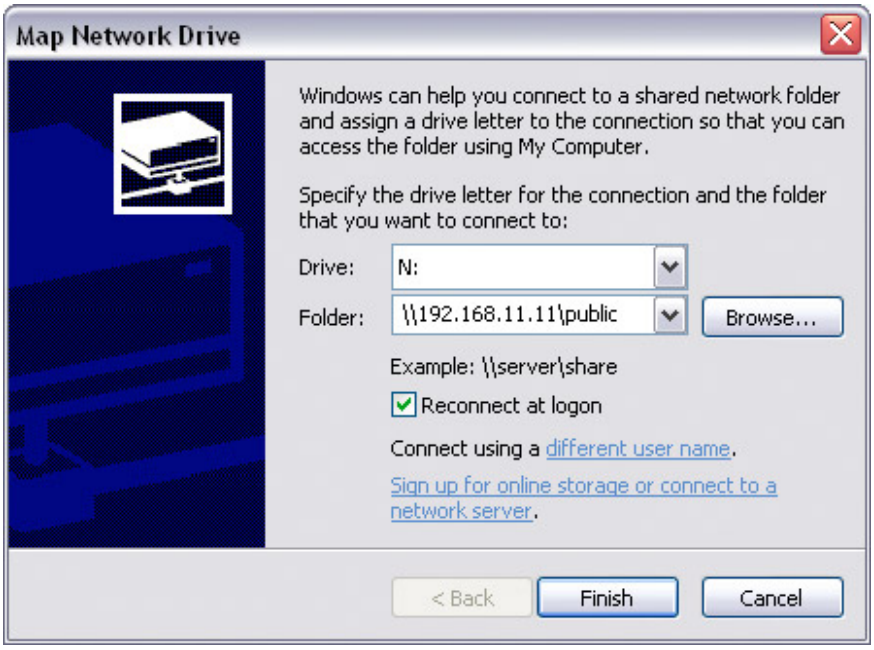
## 4.1.2 Mapping a Network Drive

Mapping the network drive will allow you to create a permanent link that will be present even after restarting the computer. This permanent link provides convenient access to your network drive and can be used to store file within other applications. If you experience problems when trying to access the shared folders, disconnect all network drives, reboot your computer, restart your network drive and then try again.

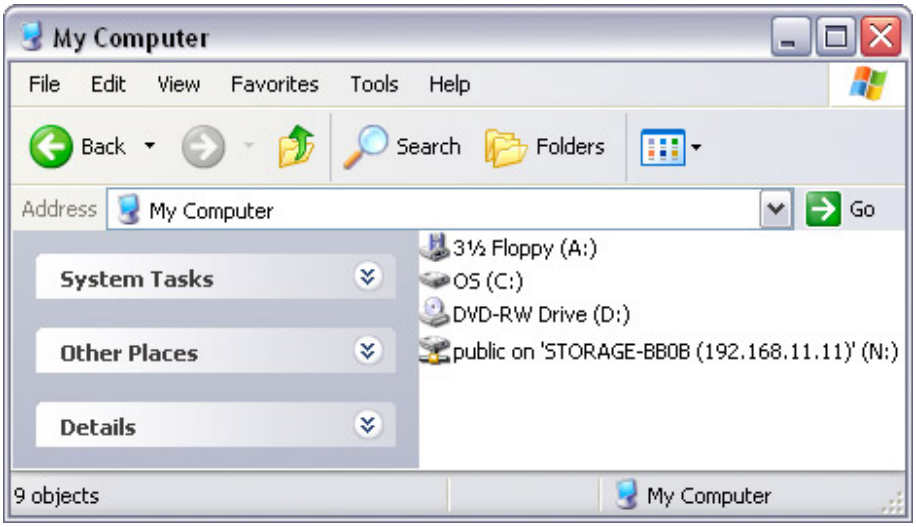
1. Double click on **My Computer**, go to the **Tools** menu and select "**Map Network Drive…**"




2. Follow the setup wizard and fill in the path to your network drive. When entering the IP address, also add the shared folder name (e.g. \\192.168.11.11\public). It is recommended to select the "**reconnect at logon**" option when you map the network drive, otherwise you will have to map it again after a restart.



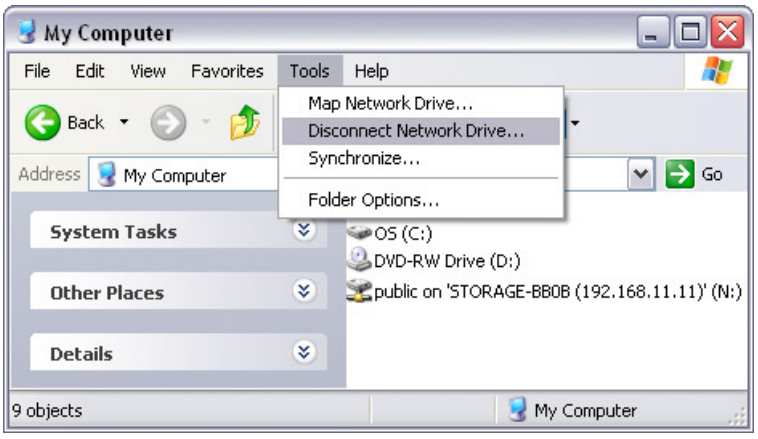
3. Once the drive has been mapped, you are able to find and access it under My Computer. This link will still be there even after restarting the computer.



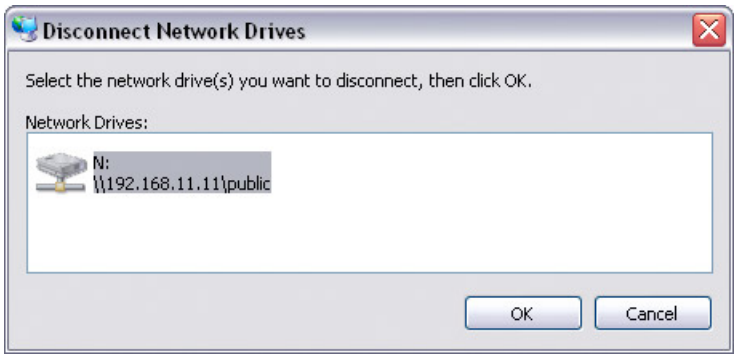

### 4.1.3 Disconnecting a Network Drive

When you don't need a mapped network drive any more, we recommend disconnecting it. It is also necessary to disconnect a temporary network drive when you try to login with a new user name and password but have not restarted the computer in between.

1. Double click on **My Computer**, go to **Tools** and select "**Disconnect Network Drive…**"



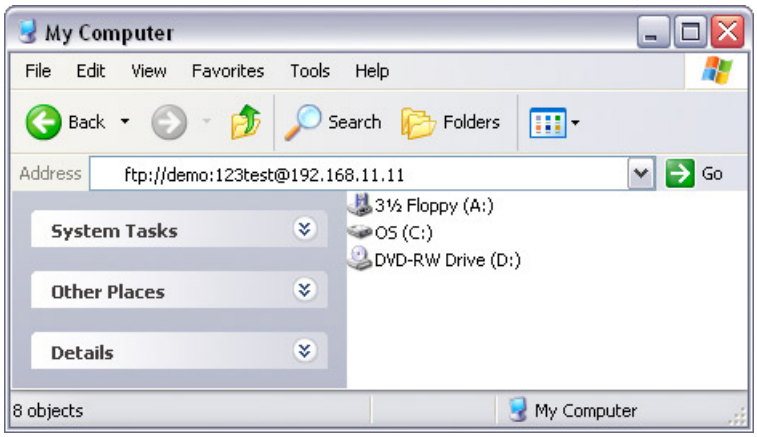

2. 2. Select any temporary or mapped network drives that you would like to remove and click **OK**.



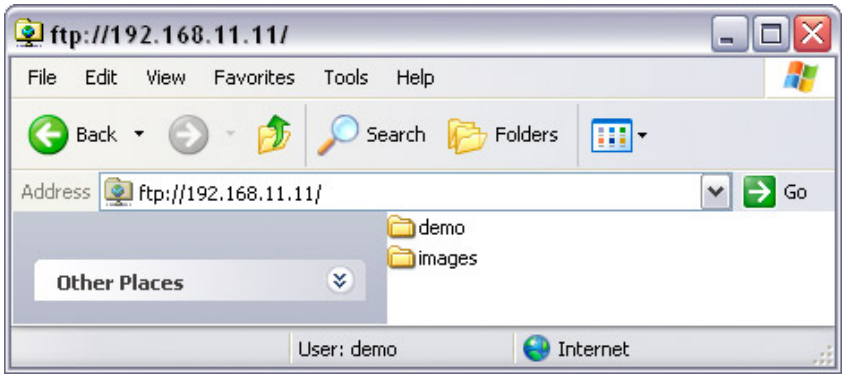

### 4.1.4 FTP

For FTP transfers, we recommend installing and using a dedicated FTP application, which can either be a free utility or shareware program. Files can not be opened directly via FTP, so you will always have to transfer them to your computer first.

1. Using Windows Explorer, type ftp: // followed by the IP address of your network drive into the address field. Add the user name and password in front of the IP address with an @ sign in between like this ftp://demo:demo@192.168.11.11.




2. After login, you can access the available folders and transfer your files.

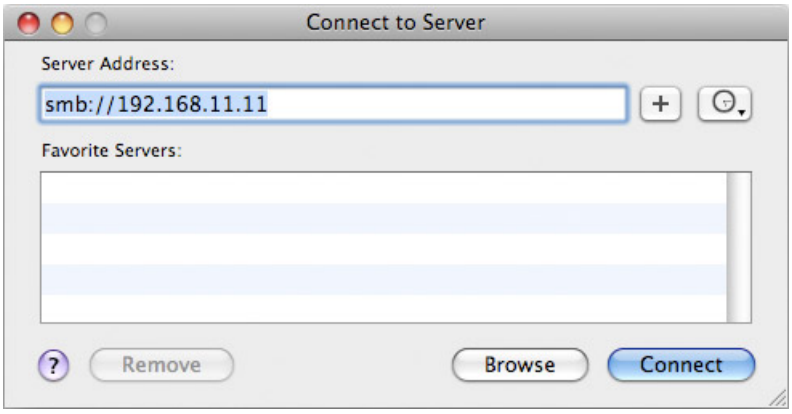


# 4.2 File Access on a Mac

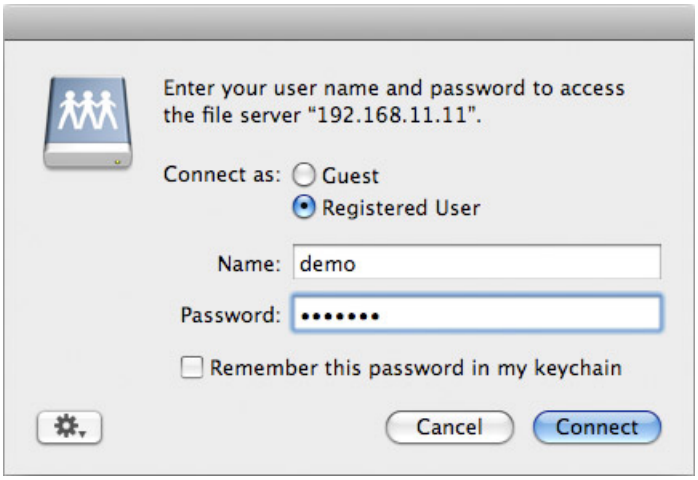
## 4.2.1 SMB

To mount and access the network drive, use the Connect to Server command.

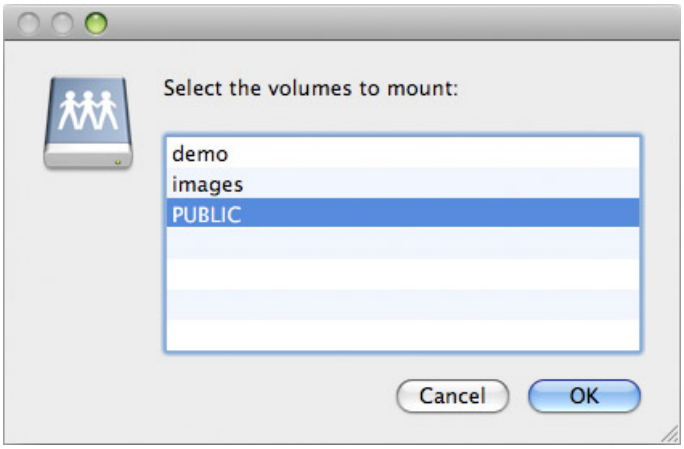
1. Click on "**Go**" and select "**Connect to Server**".
2. Type smb: // followed by the IP address of your network drive and click on **Connect**.



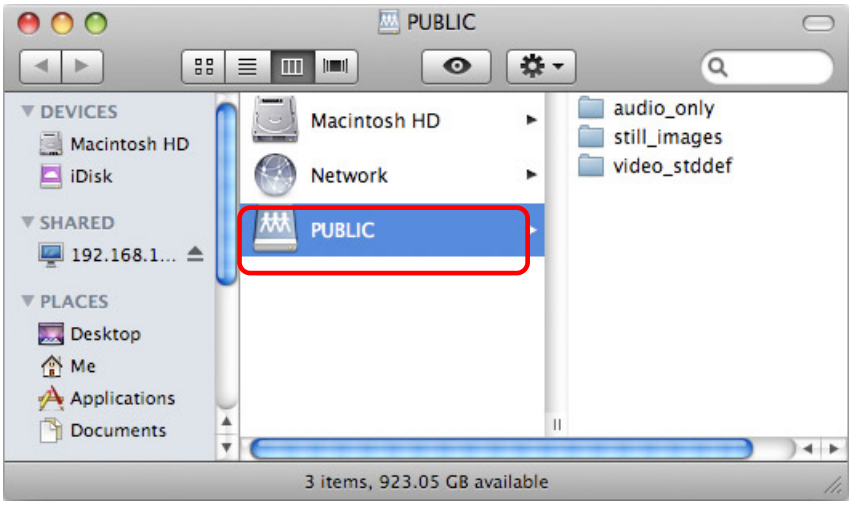

3. Select Registered User and enter your user name and password for the SMB account.




4. Choose a folder from the list and click **OK**.



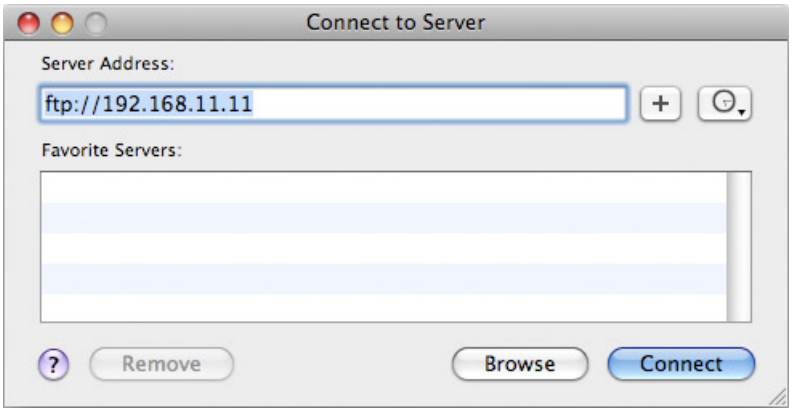

5. Mounted drive will be listed in your finder under Shared devices. Here you can access the network drive and transfer your files. When no longer needed, click on the eject button to disconnect the drive.



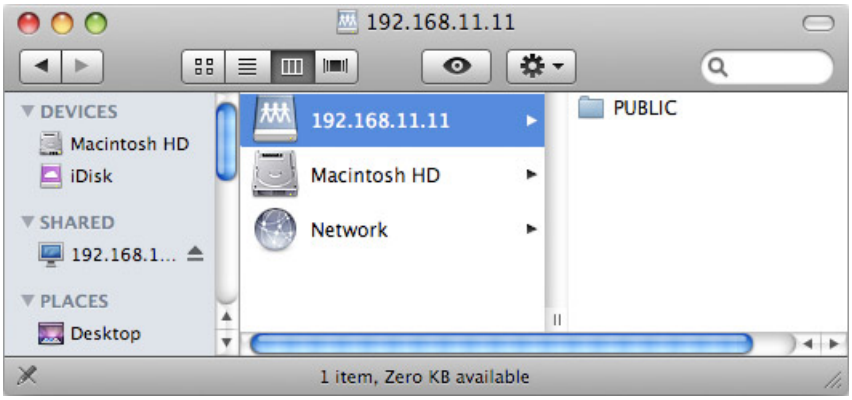
### 4.2.2 FTP

For FTP transfers, we recommend installing and using a dedicated FTP application, which can either be a free utility or shareware program. The FTP utility on the Mac will only be able to read the data on the network drive but can not upload new data to it.

1. Click on "**Go**" and select "**Connect to Server**".
2. Type ftp: // followed by the IP address of your network drive and then click on **Connect**.




3. Enter the correct username and password. The FTP folder will then be listed in your finder under Shared devices and you can download the files. When the FTP is no longer needed, click on the eject button to disconnect the drive.



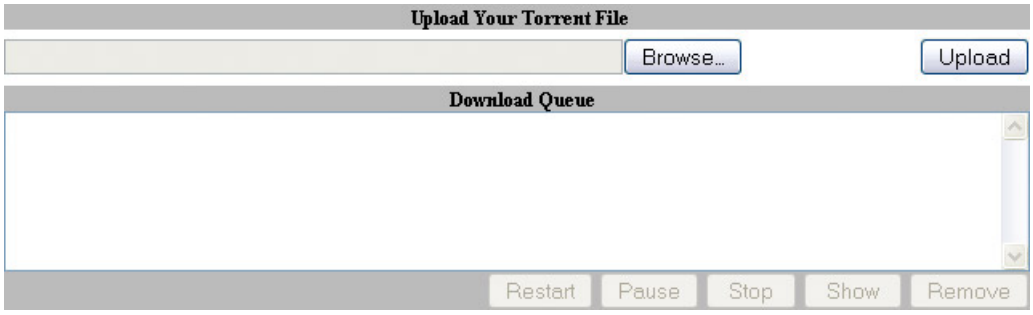
# 4.3 BitTorrent Download Manager

Used in conjunction with its built-in BitTorrent™ client, the network drive can be set to download media files from the Internet and have them saved directly to the internal hard drive.

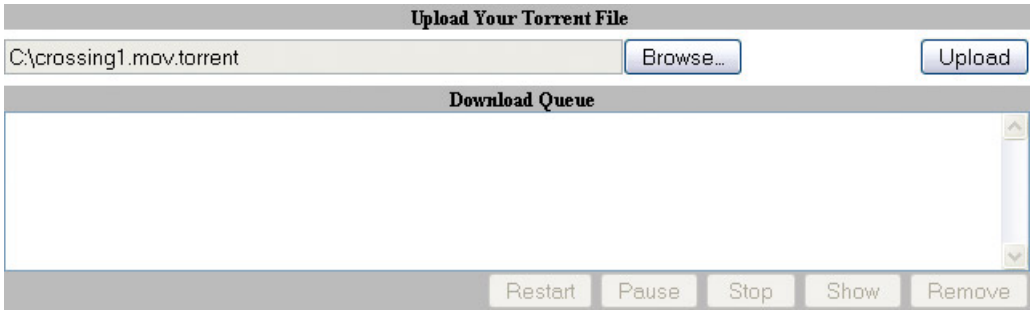
## 4.3.1 Starting a Download

Before you add the first download, set the download path to your preferred folder, set the server port and set a limit for the upload speed according to your network's bandwidth. After changing each of the settings, press the Apply button to save the new configuration.

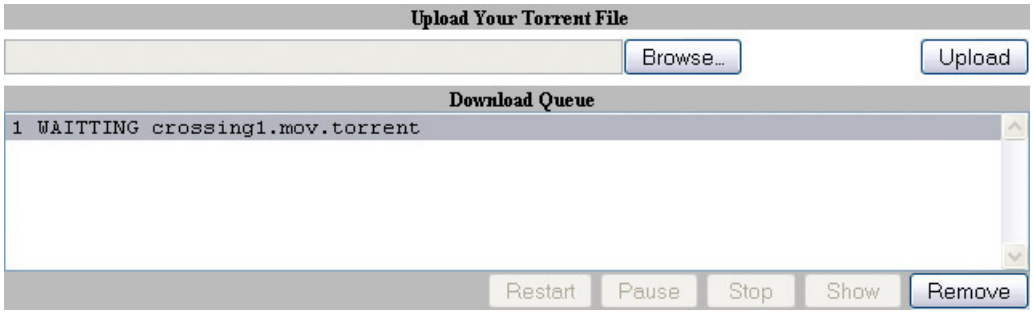
1. Use a search engine, such as Google, and browse the internet for the media files you would like to download. Download and store the torrent file(s) on your computer.
2. Login to your network drive and go to the BitTorrent menu. Click on **Browse** and locate your torrent file on the computer.



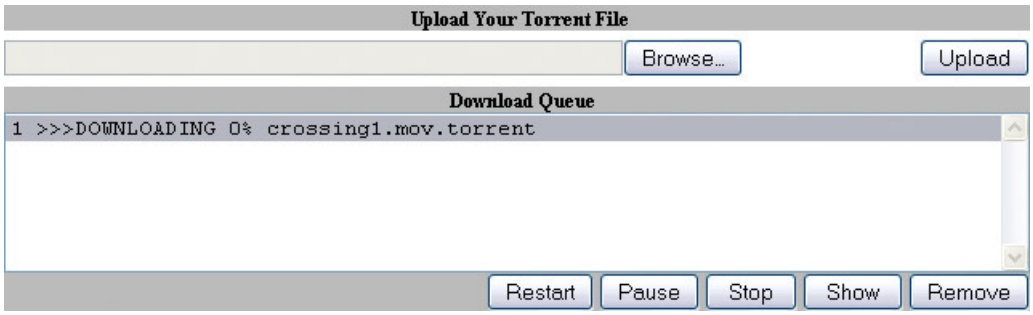

3. To start the download process, click on **Upload**.



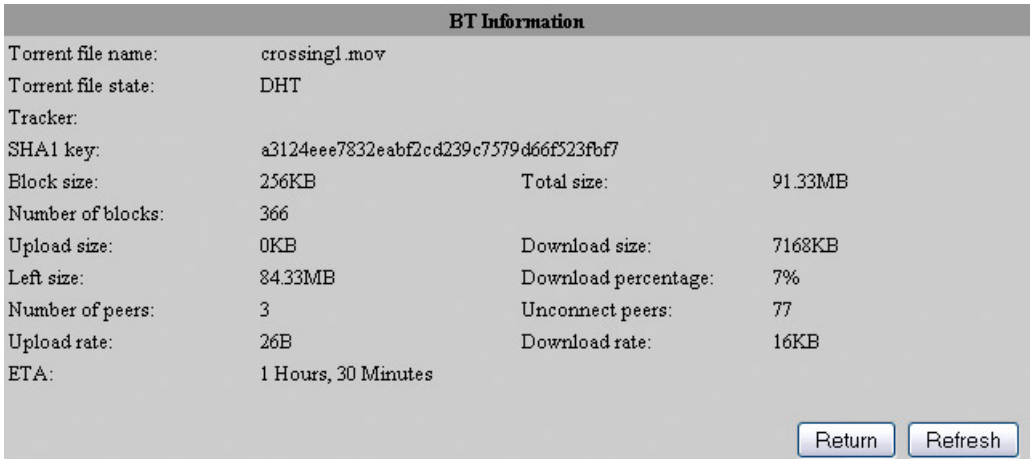

4. The file will be added to the download queue and the download starts automatically. You can now turn off your computer if desired.




5. Once the download has started, the buttons to Restart, Pause, Stop and Show further information will be enabled. To see more details about the selected download, click on **Show**.




6. To update the information, click on **Refresh**. To return to the download queue, click on **Return**.

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✍**Note** The download speed of the built-in BitTorrent t™ client may not be as fast as a client on the computer, but once the Torrent has been added to the queue, it can download the files by itself and the computer can be turned off.

---

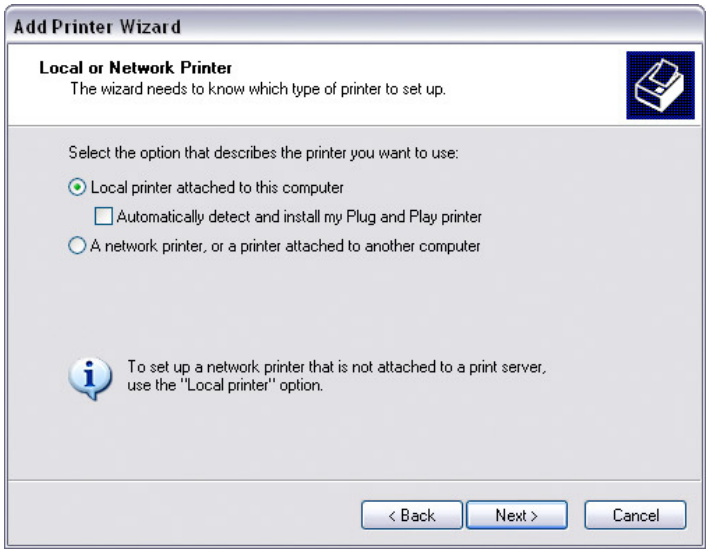
# 4.4 Printer Server

The network drive is equipped with an additional USB host port and a printer server. Connect your USB printer to the USB host port on the network drive to share it with other workstations on the same local network.

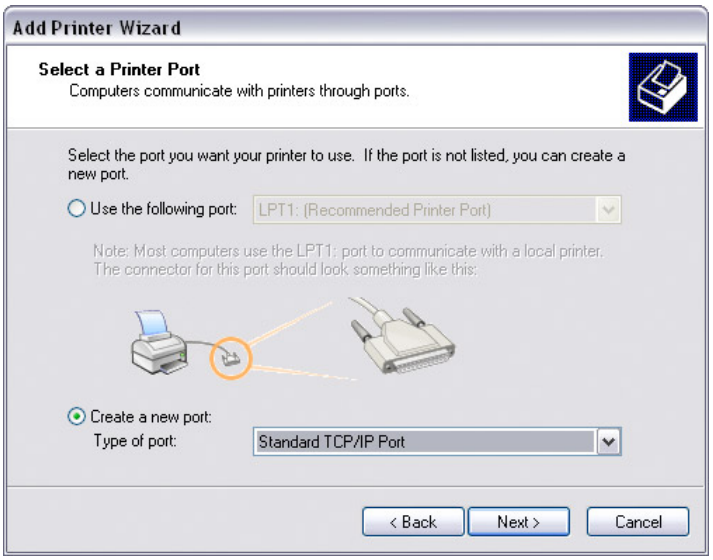
## 4.4.1 Installation on a PC

Printing via the shared network printer will be slower than when the printer is connected directly to the USB port on the computer. After you press the Print button, please wait for the printer to receive the data.

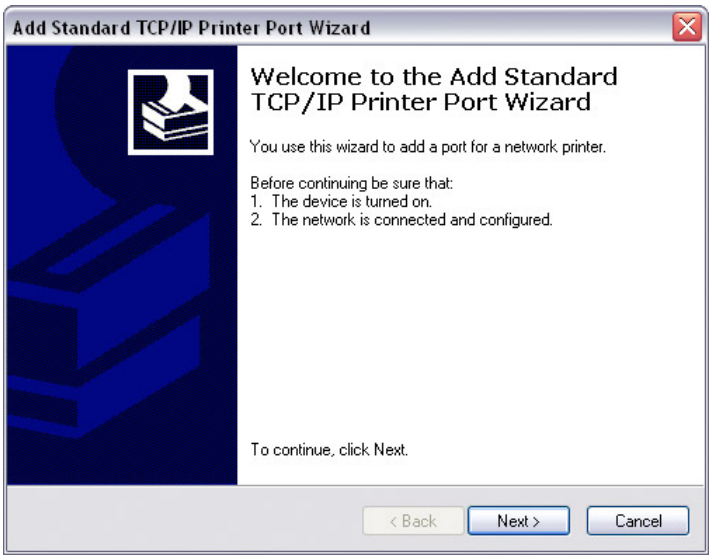
1. Connect your USB printer to the USB host port on the network drive and turn both units on.
2. Login to your network drive and go to the Printer menu to make sure the printer has been recognized. We also strongly recommend using a fixed IP address, in order to prevent having to modify the printer setup whenever the IP changes.
3. On your PC, go to Start and select **Printers and Faxes**.
4. Go to File, select **Add Printer** to bring up the printer setup wizard and press **Next** to start.
5. Select **Local printer attached to this computer**, deselect **Automatically** detect and install my Plug and Play printer and press **Next**.



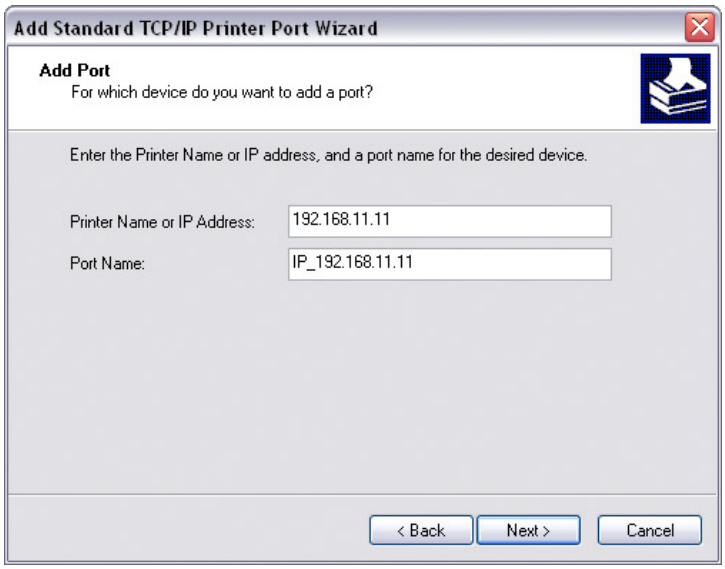

6. Select **Create a new port**, choose **Standard TCP / IP Port** from the list and click on **Next**.




7. Make sure the network drive and printer are both turned on and connected to the same local network as your computer, then click on **Next**.

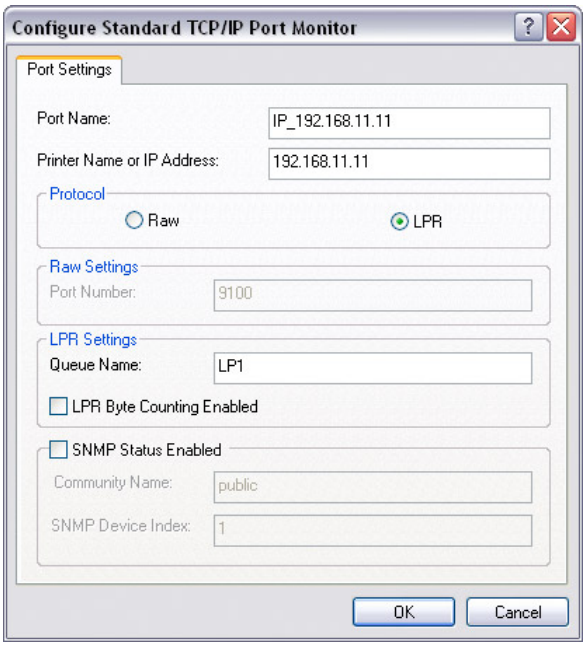



8. Enter the IP address of your network drive (the port name will be filled out automatically) and then click on **Next**.



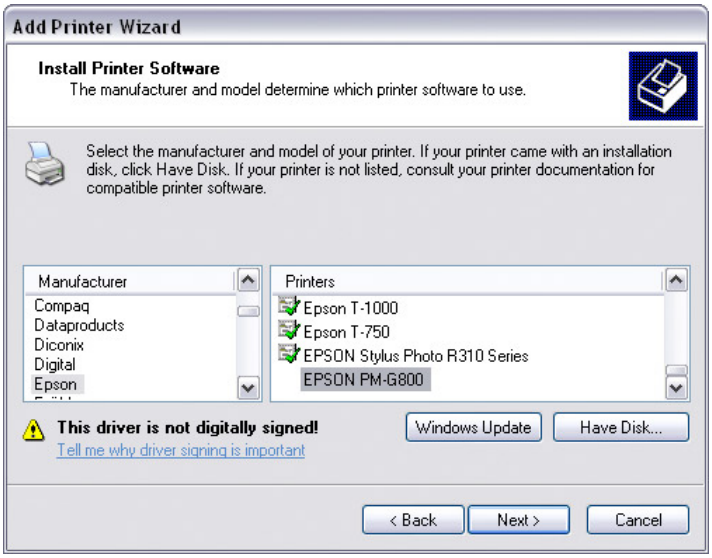

9. Select **Custom** and click on **Settings** to modify the configuration.

10. Select **LPR** and enter the queue name **LP1**, then click on **OK** to confirm it.




11. Click on **Finish** not complete the TCP/IP Wizard and close the dialog.

12. After clicking on **Next**, a pop-up window will appear asking for a driver. Select your printer model from the list or browse for the corresponding driver on your local drive.




13. In the next few steps, you will be able to give the printer a name, set it as default printer, add a description and print a test page. It is not necessary to share the printer with other network users, because it can be installed on other computers in the same way as here.

14. Once you have completed the wizard set-up your printer should be properly installed and ready to print.

---

✍**Note** Not all USB printers support LPR/LPD printing, therefore, your printer may not be compatible and the installation might fail.

---

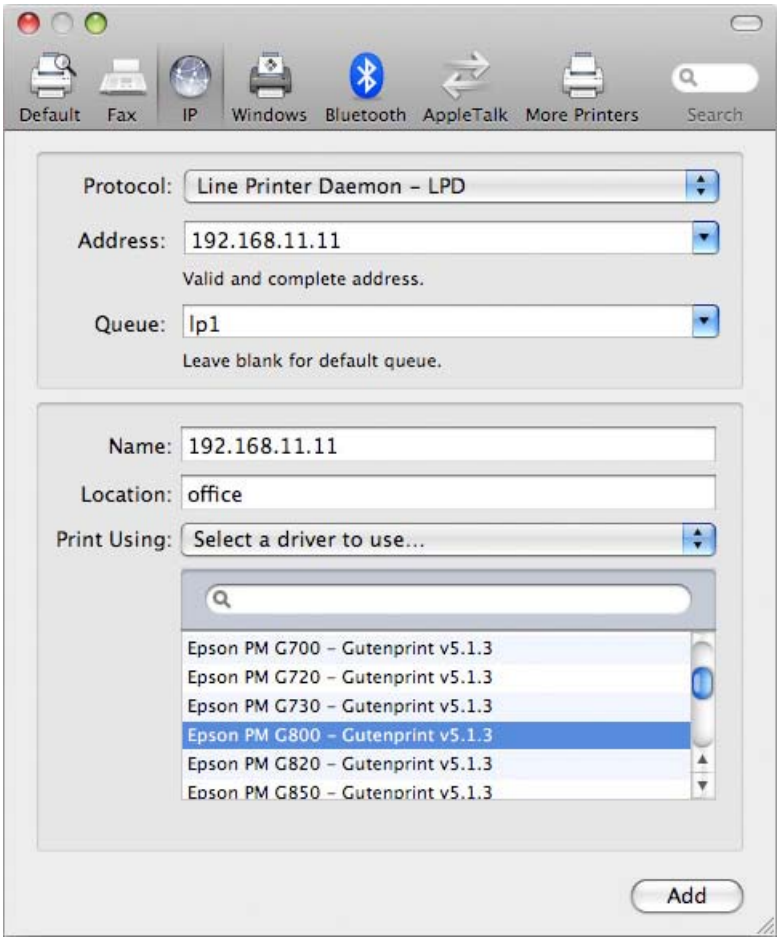
## 4.4.2 Installation on a Mac

Printing via the shared network printer will be slower than when the printer is connected directly to the USB port on the computer. After you press the Print button, please wait for the printer to receive the data.

1. Go to System Preferences and click on Print & Fax.


2. Click the + symbol to add a new printer.

3. Select the IP tab. For the Protocol, select Line Printer Daemon (LPD), for the Address enters the IP address of your network drive and for the Queue enters lp1. The Name and Location are used to easily identify the printer and do not have to be the same as the ones used in this example. For the last step, select the corresponding printer driver and click on **Add**.




4. Done! Your printer has been set up and you are now ready to print.

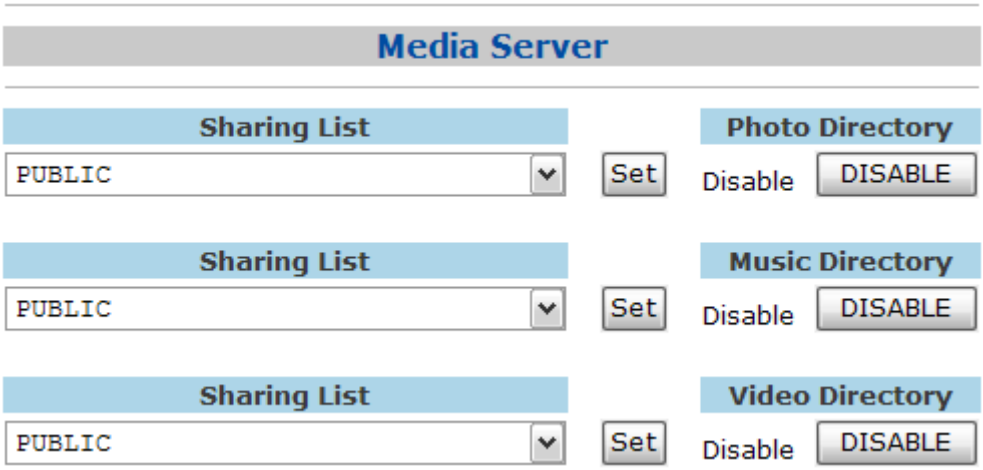
✍**Note** Not all USB printers support LPR/LPD printing, therefore, your printer may not be compatible and the installation might fail.

# 4.5 Media Server

The UPnP media server can be used to share your photos and music files that are stored on the network drive with an Xbox 360 or a PlayStation 3 video game console that is connected to the same local network. Before you start, make sure both devices are connected to the same local network and both are turned on.

## 4.5.1 Xbox 360

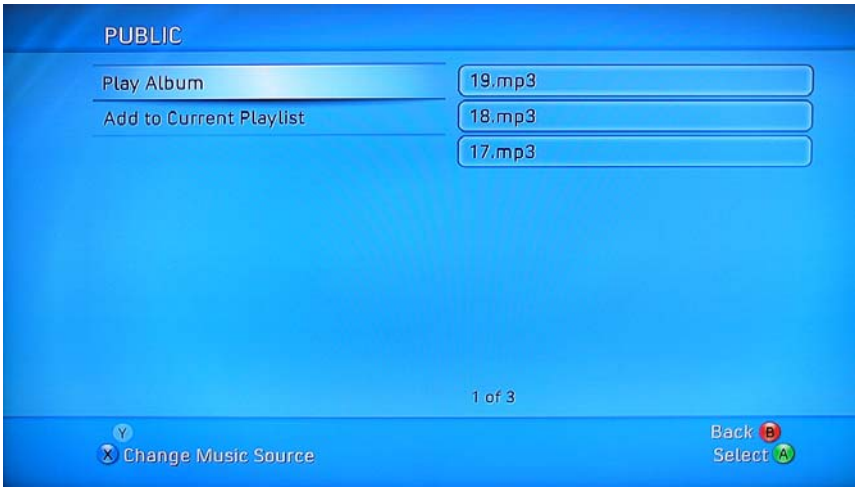
1. On your network drive, go to the Media Server menu and make sure that each of the sharing lists have a folder set and the directory is not disabled.




2. On your Xbox 360, go to media, select Music, Pictures or Videos and press **A** to continue.

3. Press **X** to change the source and select your network drive. It should show up as NAS-7102 and display the folder that you have set earlier in the sharing list.

4. Inside the shared folder, you can access your pictures (JPG), music (MP3) or videos (WMV, XviD) depending on which mode you are currently using.



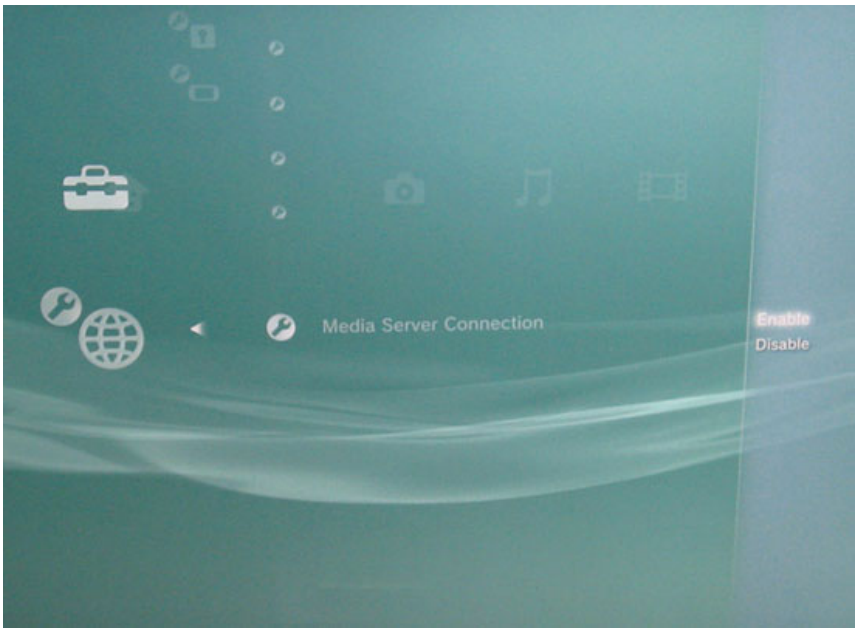

5. Now select and play the files you would like view or listen to.

6. Enjoy!

## 4.5.2 PlayStation 3

1. On your network drive, go to the Media Server menu and make sure that each of the sharing lists have a folder set and the directory is not disabled.

2. On your PS3™, open the Settings menu, go to Network Settings, select Media Server Connection and Enable it. This will allow the PS3 to detect the shared folders of the media server on the network drive.

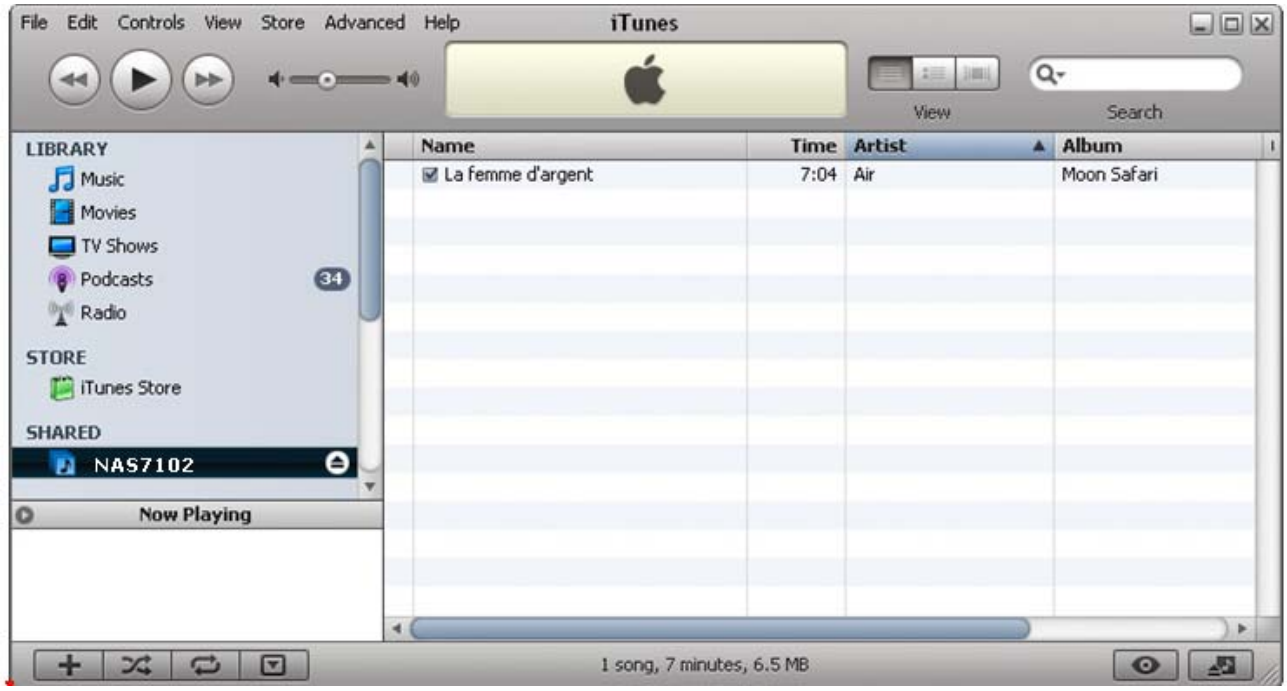



3. When you turn on the PS3™, media servers on the same local network are automatically detected and a shortcut will be displayed under Photo, Music and Video.

4. Select the network drive to access the shared folders of the media server and playback your photos (JPG), music (MP3) and videos (MPEG-1, MPEG-2, XviD).

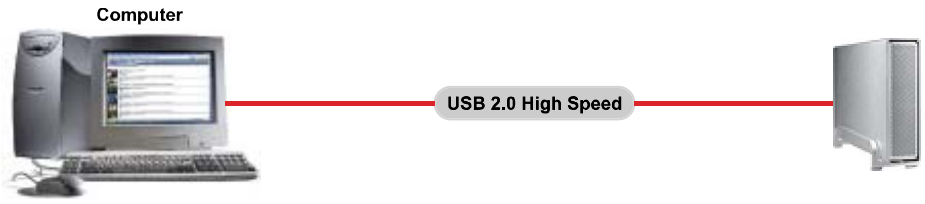
### 4.5.3 iTunes

When a shared folder for the music directory on the media server has been set, the network drive will automatically appear on iTunes under shared devices and MP3 files can be played.




## 4.6 USB Device

When the NAS-7102is not connected to the network, it can also be used as a simple USB mass storage device. The user accounts and access rights used for the network drive do not apply to the USB drive. When connected directly to the computer via USB, all data can be accessed and modified!




1. Login via a web browser, stop all current downloads and then turn off the power.
2. Disconnect the Ethernet cable and connect the USB cable to the USB device port on the network drive and to the USB port on your computer.
3. Turn on the power.

4. The USB drive will automatically show up under **My Computer** for Windows or on the desktop for the Mac.

---

✍**Note**

The device has to be turned off to change it from acting as USB drive to a network drive and vice versa. When both USB cable and Ethernet cable are connected, the USB connection has priority and it will act as USB drive until disconnected and restarted.

Do not format the drive on your computer! Only use the disk utility of the network drive to do that.

---

# Appendix A: Precautions

## Precautions

Before using your network drive, please carefully read the following paragraphs relating to the safety issues of your device.

**1. Power on/off precautions**

It is highly recommended to switch the unit off when not in use. When re-locating the network drive or when not in use for an extended period of time, we strongly recommend unplugging the unit.

**2. Location and placing precautions**

Set the network drive up in a vertical position and do not place any other objects on top of it. Do not place the unit on other heat-sensitive equipment.

Avoid positioning your device in the following places:

- Locations with direct sunlight and next to radiators or other sources of heat.
- Locations with very high temperatures (more than 38° C) or humidity (more than 90%).
- Very dusty or sandy locations.
- Locations subject to vibration, shock, or with a sloping base.

**3. Electricity and power plug**

Careful attention must be paid to the following points in order to avoid operational faults with the equipment and to prevent electric shock, fire, and/or injury:

- When removing the power cable from the socket, always pull on the plug fixture and never on the cord.
- Do not connect and remove the power cable with wet hands.
- Keep the power cable away from heaters.
- Never try to repair the power cable yourself or to modify it in any way.
- If the unit is dropped or becomes damaged, unplug the power cable.

- If the unit should emit smoke, an unusual odour or noise, switch it off immediately and unplug the power cable. In such cases, please contact your vendor.
- If the unit is not used for extended periods of time, then the unit should be unplugged.

**4. Cables**

Use only the cables supplied or recommended by your vendor in order to avoid the risk of malfunction, electric shock, and/or possible interference to the device.

# Trademarks

- Microsoft, Windows 2000/XP/Vista and Xbox are trademarks of Microsoft Corporation.
- Apple Macintosh, Mac and iTunes are trademarks of Apple Computer.
- BitTorrent and Torrent are registered trademarks of BitTorrent, Inc.
- PlayStation and PS3 are trademarks of Sony Corporation.
- All other third party brands and names are the property of their respective owners.

# Appendix B: Specifications

| | |
|---|---|
| **Product** | 1-Bay NAS Server |
| **Model** | NAS-7102 |
| **Hardware** | |
| **LAN Port** | One RJ-45 Interface (10/100/1000Mbps) |
| **USB Port** | USB 2.0 High Speed device port (Type B)<br>USB host port for USB printers (Type A) |
| **Protocols and Standard** | |
| **Supported HDD** | One 3.5", SATA I/II interface |
| **Network** | IEEE 802.3, IEEE 802.3u, IEEE802.3ab |
| **USB Connectivity** | Print Server (LPD/LPR), External HDD connection |
| **Support Protocol** | TCP/IP, HTTP, FTP, SMB |
| **Client OS** | Windows 2000/XP/Vista<br>Mac OS 10.2 or above |
| **Supported Concurrent Users** | 64 |
| **Max. User Account** | 16 |
| **File Language Format** | English |
| **File System** | FAT32 |
| **Supported Media Server** | Xbox 360 (JPG, MP3, WMV, XviD)<br>PlayStation 3 (JPG, MP3, MPEG-1, MPEG-2, XviD)<br>iTunes (MP3)<br>BitTorrent |
| **Network and Configuration** | |
| **Access Mode** | Static IP, PPPoE, DHCP |
| **Management** | Web |
| **System Configuration** | Windows Base Utility, Web Browser |
| **Dimension (W x D x H)** | 228mm x 137mm x 35mm |
| **Operating Environment** | 5~40 degree C, 10~80% humidity |
| **Power Requirement** | DC 12V, 2A |
| **EMC/EMI** | FCC, CE Class B |

✍**Note** Design and specifications are subject to change without prior notice and will depend on the model and the current firmware release.

# Appendix C: Importance Notice

### About this Manual

This manual was written for the NAS-7102 network drive with the firmware version as seen on the front page. Images, descriptions and features may slightly vary between this document and the actual product you have, depending on the current firmware release and the vendor.

### About Data Backup

To protect your files and help prevent the loss of your data, we strongly recommend that you keep two copies of your data, one copy on your network drive and a second copy either on your internal drive or another storage media such as a CD, DVD, Tape or an additional external drive. Any loss or corruption of data while using the network drive is the sole responsibility of the user, and under no circumstances will the manufacturer be held liable for compensation or the recovery of this data.

### Intellectual Property

The NAS-7102 network drive is not designed or intended to, and may not be used to violate any copyrights or other IP (Intellectual Property) rights. Each user of the network drive may only use it in connection with materials legally owned by or licensed to the user and only extend such ownership or license rights that will permit such use.

# Appendix D: Technical Terms

Description for terms and abbreviations used in this manual.

**BitTorrent™**

BitTorrent is the name of a peer-to-peer (P2P) file distribution client application and also of its related file sharing protocol, both of which were created by programmer Bram Cohen. BitTorrent is designed to distribute large amounts of data widely without incurring the corresponding consumption in costly server and bandwidth resources. For more details, please refer to www.bittorrent.com.

**Torrent™**

A torrent can mean either a .torrent metadata file or all files described by it, depending on context. The torrent file contains metadata about all the files it makes downloadable, including their names and sizes and checksums of all pieces in the torrent. It also contains the address of a tracker that coordinates communication between the peers in the swarm.

**FAT32**

File Allocation Table (FAT) is a file system developed by Microsoft for MS-DOS. The FAT file system is considered relatively uncomplicated, and is consequently supported by virtually all existing operating systems for personal computers. The maximum size of a single file is limited to 4GB or when the drive has been formatted using the disk utility of the network drive to 127GB.

**LAN**

A Local Area Network (LAN) is a computer network covering a small local area, like a home, office, or small group of buildings such as a home, office, or college.

**FTP**

FTP or file transfer protocol is a commonly used protocol for exchanging files over any network that supports the TCP/IP protocol (such as the Internet or an intranet). There are two computers involved in an FTP transfer: a server (network drive) and a client (user's computer).

**SMB**

Server Message Block (SMB) is a network application-level protocol mainly applied to share files, printers, serial ports, and miscellaneous communications between nodes on a network.

# Appendix E: FAQ

| **Q1: I forgot my login, what do I do?** |
| --- |
| **A:**<br>If you lost the administrator's password, press and hold the reset button, turn on the device and wait for about 30 seconds. Release the button and the device will reset all settings back to its factory default setup. The default login is "**admin/admin**". |
| **Q2 : FTP access on my Mac doesn't work properly!** |
| **A:**<br>The FTP utility on the Mac will be able to read the data on the network drive but you can not write new data to the drive. To upload files, you will need to install a dedicated FTP application. |
| **Q3 : I can not access the web configuration interface, what's the correct IP?** |
| **A:**<br>See Basic Operation and How to Login. If none of these instructions help, reset your device. Connect it directly to your computer via Ethernet cable and access it using **192.168.0.1**. |
| **Q4 : My HDD is not recognized.** |
| **A:**<br>The network drive can only access the first partition and it has to be formatted using the FAT32 file system. We recommend only using the disk utility of the network drive to format the drive. |
| **Q5 : Which ports do I have to open on my firewall?** |
| **A:**<br>Depending on the services that are used, the following TCP ports will have to be opened for the network drive: FTP port 21, SMB ports 137-139, HTTP port 80 and UDP port 14675 for the LAN disk utility. Additionally, port 6881 is required for the BitTorrent client. |
| **Q6 : Does the NAS-7102 support SSH or Telnet access?** |
| **A:**<br>No, it does not support SSH, Telnet or TFTP access. |
| **Q7: Can I use the NAS-7102as USB and network drive at the same time?** |

**A:**
No, it can only be used either as a USB drive or as a network drive but not both at the same time. When both cables are connected, the USB connection will have priority.

**Q8: I've connected the USB cable but it does not show up on my computer**

**A:**
If the device is currently used as a network drive, it has to be restarted first.

**Q9: I get Error Code -36**

**A:**
The Finder cannot complete the operation because some data in "smb: //storage" could not be read or written. If you get this error message, use the IP address instead of STORAGE.

1. Log in as admin using your web browser.
2. Under SMB Server, make sure the folder you want to access is in the Sharing List.
3. Go to IP Config and make sure it is set to **Automatic IP**
4. Go to Network Information in the Status menu and write down the IP address you see there.
5. Go to your Finder and select Go/Connect to Server
6. Type smb: //IP/FOLDER and click on **Connect**. For the IP use the IP address you wrote down in step 4, for FOLDER use the folder name you added to the Sharing List in step 2.
7. If the LAN disk is connected directly to your computer using the Ethernet cable, the default IP address is **192.168.0.1**.

# EC Declaration of Conformity

For the following equipment:

*Type of Product : 1-Bay SATA NAS Server
*Model Number : NAS-7102

* Produced by:
Manufacturer's Name : **Planet Technology Corp.**
Manufacturer's Address : 11F, No. 96, Min Chuan Road, Hsin Tien,
Taipei, Taiwan, R.O.C.

is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility (89/336/EEC, 92/31/EEC, 93/68/EEC).
For the evaluation regarding the Electromagnetic Compatibility, the following standards were applied:

| | |
|---|---|
| EN 55022 | (2006, Class B) |
| EN 61000-3-2 | (2000) |
| EN 61000-3-3 | (1995+A1: 2001) |
| EN 55024 | (1998+A1: 2001+A2: 2003) |
| IEC 61000-4-2 | (2001) |
| IEC 61000-4-3 | (2002) |
| IEC 61000-4-4 | (1995 + A1:2000 + A2:2001) |
| IEC 61000-4-5 | (2001) |
| IEC 61000-4-6 | (2001) |
| IEC 61000-4-8 | (2001) |
| IEC 61000-4-11 | (2001) |

**Responsible for marking this declaration if the:**

☒ **Manufacturer** ☐ **Authorized representative established within the EU**

**Authorized representative established within the EU (if applicable):**

**Company Name:** **Planet Technology Corp.**

**Company Address:** **11F, No.96, Min Chuan Road, Hsin Tien, Taipei, Taiwan, R.O.C.**

**Person responsible for making this declaration**

**Name, Surname** **Jonas Yang**

**Position / Title :** **Product Manager**

| **Taiwan** | **24th Nov., 2009** | Jonas |
|---|---|---|
| *Place* | *Date* | *Legal Signature* |