PLANET
Networking & Communication

User's Manual

NAS-7103

1-Bay SATA NAS RAID Server

Copyright

Copyright (C) 2012 PLANET Technology Corp. All rights reserved.

The products and programs described in this User's Manual are licensed products of PLANET Technology, This User's Manual contains proprietary information protected by copyright, and this User's Manual and all accompanying hardware, software, and documentation are copyrighted.

No part of this User's Manual may be copied, photocopied, reproduced, translated, or reduced to any electronic medium or machine-readable form by any means by electronic or mechanical. Including photocopying, recording, or information storage and retrieval systems, for any purpose other than the purchaser's personal use, and without the prior express written permission of PLANET Technology.

Disclaimer

PLANET Technology does not warrant that the hardware will work properly in all environments and applications, and makes no warranty and representation, either implied or expressed, with respect to the quality, performance, merchantability, or fitness for a particular purpose.

PLANET has made every effort to ensure that this User's Manual is accurate; PLANET disclaims liability for any inaccuracies or omissions that may have occurred.

Information in this User's Manual is subject to change without notice and does not represent a commitment on the part of PLANET. PLANET assumes no responsibility for any inaccuracies that may be contained in this User's Manual. PLANET makes no commitment to update or keep current the information in this User's Manual, and reserves the right to make improvements to this User's Manual and/or to the products described in this User's Manual, at any time without notice.

If you find information in this manual that is incorrect, misleading, or incomplete, we would appreciate your comments and suggestions.

CE mark Warning

There are class A and class B device, in a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

Trademarks

The PLANET logo is a trademark of PLANET Technology. This documentation may refer to numerous hardware and software products by their trade names. In most, if not all cases, these designations are claimed as trademarks or registered trademarks by their respective companies.

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 1-Bay SATA NAS RAID Server
Model: NAS-7103
Rev: 1.00 (January. 2012)

Table of Contents

1. Introduction 4
   1.1 Overview 4
   1.2 Key Features 4
   1.3 Package Contents 4
2. Front and Rear Panel 5
   2.1 Hardware Installation 7
   2.2 Firmware installation 9
   2.3 Connection and Removing Connection 10
3. Setup Wizard 11
   3.1 Use the product on PC (Windows XP/Vista/Windows 7) 11
   3.2 Use the product on MAC (above Mac 10.5.5) 17
4. Explorer 18
5. Downloads 19
   5.1 Downloading 19
   5.2 Complete 20
   5.3 Trash 21
6. Settings 22
   6.1 User 22
   6.2 Folder 23
   6.3 Disk 24
   6.4 Network Setting 26
   6.5 Network Services 32
   6.6 Power 39
   6.7 System 42
   6.8 Wizard 45
7. Help 46
Appendix A: iTunes service 47
Appendix B: DLNA service 49
Appendix C: Access on PC 52
Appendix D: Functional Specifications 54

1. Introduction

Thank you for purchasing NAS-7103. It is a flexible, economical and powerful solution for your network storage application. The following instructions will help you to learn more about the connections, set-ups, and configurations of it.

1.1 Overview

This user's manual explains how to operate the NAS-7103 from a computer. Basically, the user's manual is written to be read on the computer display. However, users might consider printing it out to access easily and read it before you operate the NAS-7103. This manual shows how to set up the NAS-7103.

1.2 Key Features

The Administrator can Limit the Amount of Available Disk Space to Individual Users

1 Standard USB 2.0 Port for External USB HDD

Supports Windows Utility and Web Based Management

Shares Music, Pictures, Movies and Data over Network

Supports BT Download

DLNA compatible

Interface: 10/100/1000Base-TX (Auto MDI/MDI-X) supports auto crossover detection

Supports most popular OS including Windows 7 / XP / Vista, MAC 10.5 and later

1.3 Package Contents

NAS-7103 x 1

Power Adapter x 1

User's Manual CD x 1

Quick Installation Guide x 1

RJ-45 Cable x 1

USB2.0 Cable(TYPE A) x 1

USB2.0 Cable(TYPE B) x 1

Brackets x 1

HDD Screw x4

Case Screw x2

Note

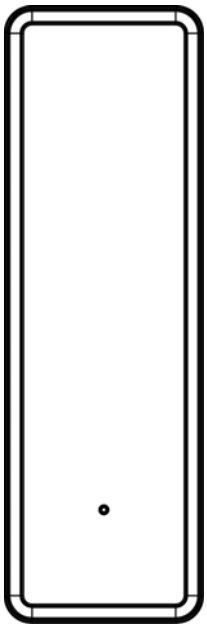
3. If any of the above items are missing, please contact your dealer immediately.
4. Using the power supply that is not the one included in unit packet will cause damage and void the warranty for this product.

2. Front and Rear Panel

Physical Details

The following figure illustrates the front/rear panel of NAS-7103.

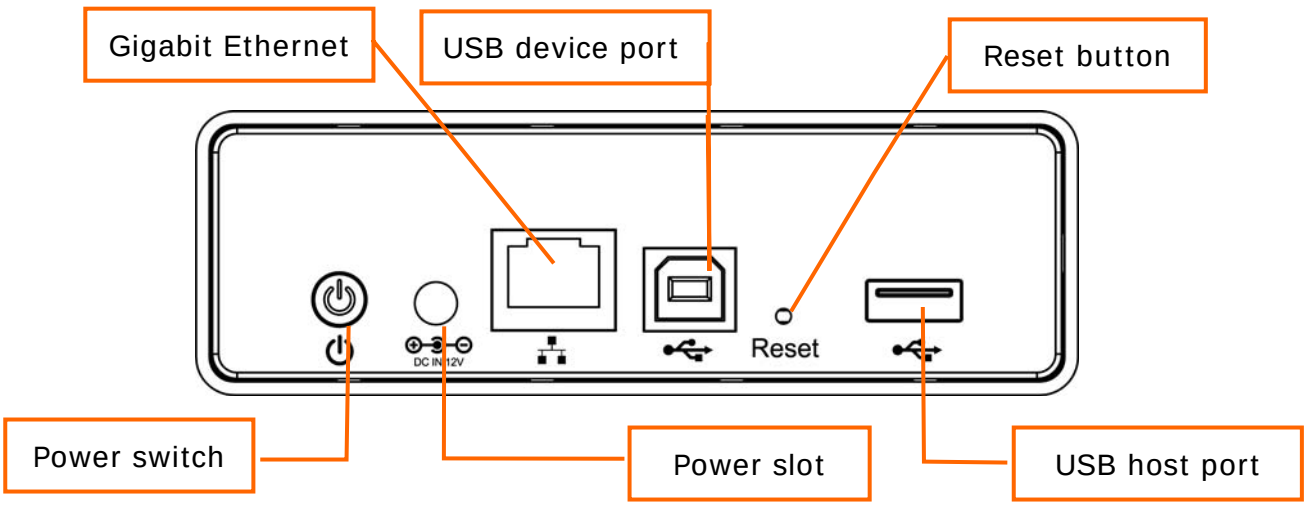
Front Panel View



Front LED Indication

Item	LED Color	Status
Power LED	Blue	Power on

Rear Panel View



Button Description

Item	Description
Power:	Push to turn on or off NAS-7103
Reset	Press 5 sec to restore factory default

Connector	Description
DC Connector	Connect the bundled power adapter
LAN	Supports 10/100/1000Base-T interface
USB Host	Used for external USB storage
USB Device	Connect your USB2.0 port of computer for firmware upgrade

2.1 Hardware Installation

Step 1: Loosen the screws in this case and pull out the tray.

Step 2: Place the HDD on the tray

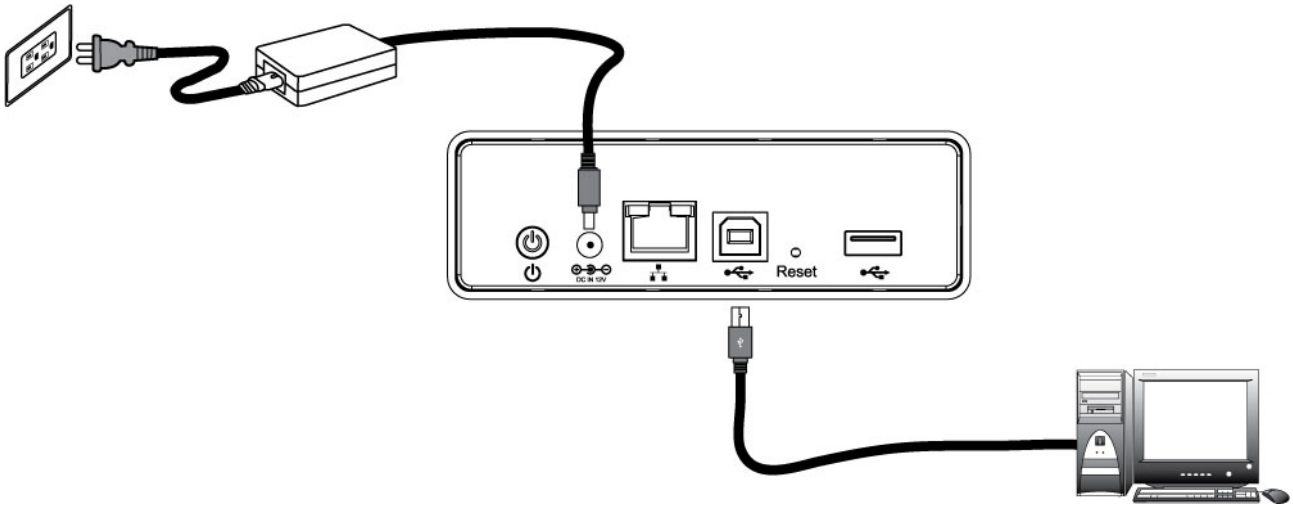
Step 3: Secure the HDD with the screws at the side

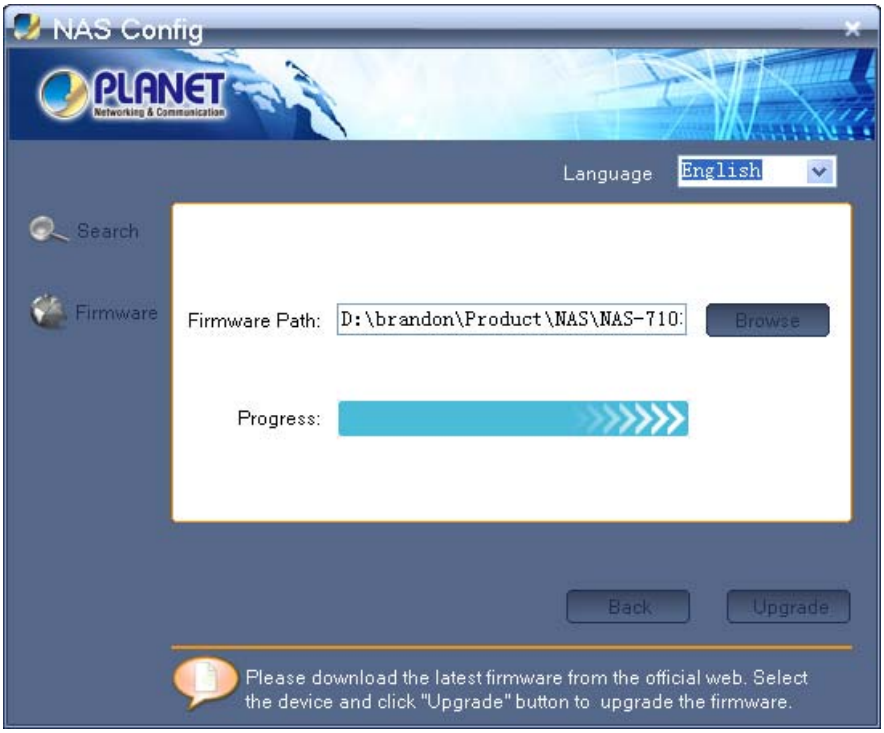
Step 4: Push the tray back in this case and locking screws

Note

Before slide in the HDD, please do make sure the HDD is in the correct direction. Slide in and push the HDD with violent could damage the SATA interface of the RAID Server.

2.2 Firmware installation



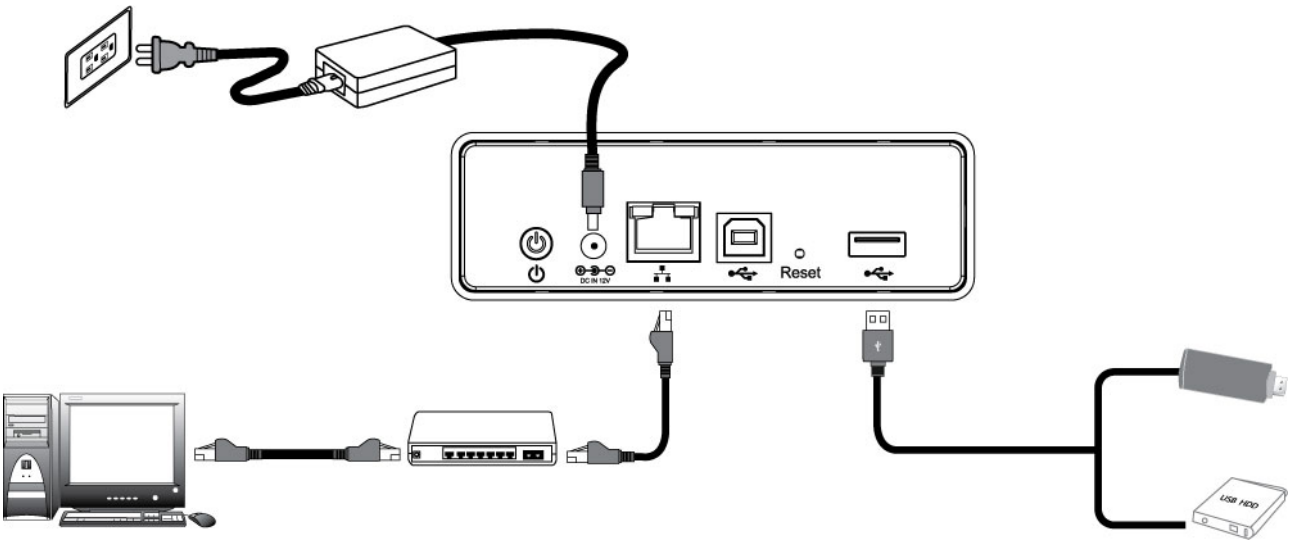


Steps	Description
1	Connect NAS-7103 and a PC with USB2.0 Cable(TYPE A)
2	In the CD along with the product, run **"*NAS Config.exe*"** to search and select the device.
3	Click ***"Browse"*** and select the firmware file，Click ***Upgrade*** button to install firmware

Note

1. Not connect computer with RJ-45 Ethernet cable and USB2.0 cable (TYPEA).
2. The firmware is installed on the hard disk. If you replace the hard disk, please follow these steps to install again.

2.3 Connection and Removing Connection



Steps	Description
1	Connect NAS-7103 and a Switch, Hub, Router, or computer with RJ-45 Ethernet cable.
2	[optional] Connect USB storage device(s) to this device with USB cable(s). NAS-7103 can automatically mount the USB devices connected.
3	Connect the power supply to NAS-7103.
4	Press the “Power button” to turn on NAS-7103. The HDD activate LED on the front panel will light up during booting-up. NAS-7103 will be ready to use when the blue LED lights up steady.

3. Setup Wizard

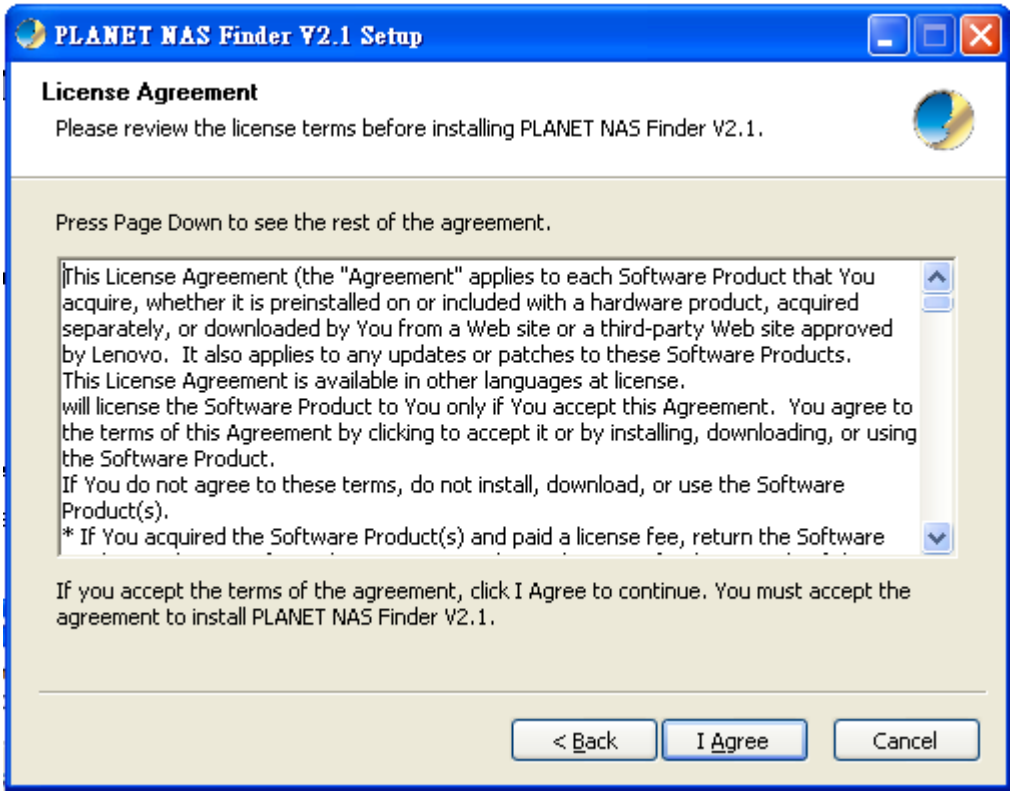
3.1 Use the product on PC (Windows XP/Vista/Windows 7)

3.1.1 Client tool installation

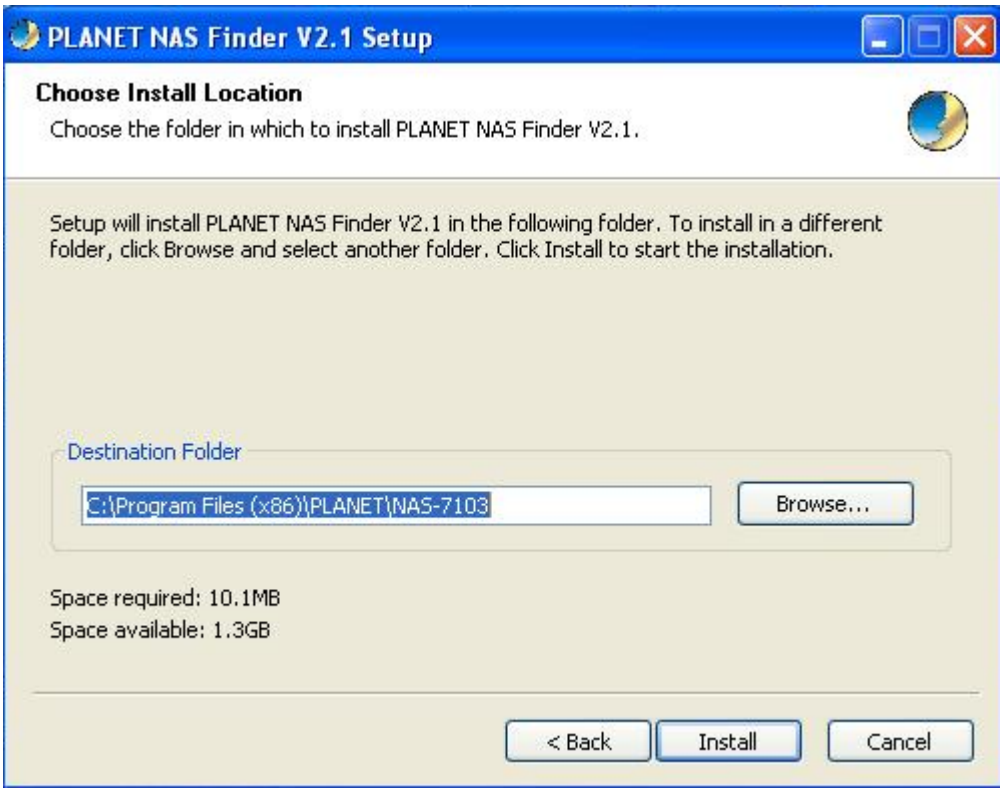
Once you insert the CD into your computer, open up the folder and double click “NAS Finder for Windows V2.1 Setup.exe” for installation. The Language setup window will pop up.

After a language is selected (If the operating system is English System, this step is not needed), click “OK”, and then the PLANET Tools Setup Wizard will pop-up.

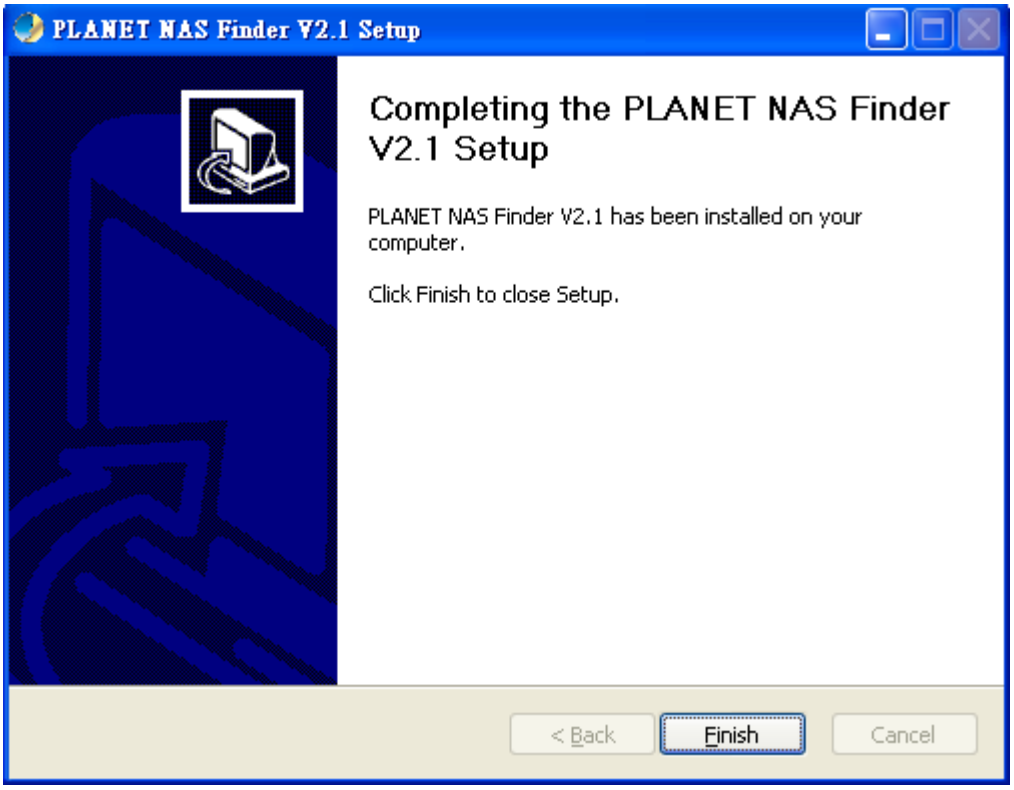
Click “Next” to continue, a License Agreement window will pop up. The software installation will continue only after the terms listed under License Agreement are accepted by clicking “I Agree”.



After clicking “I Agree”, enter installation path selection screen. Click “Browse” to choose a custom installation path or use the default setting to install.

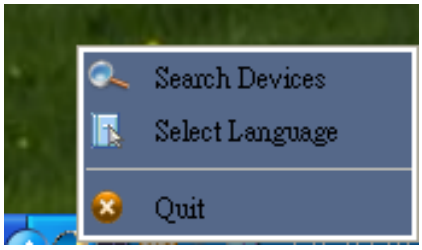


Click “Install” button for the installation of software and the installation progress will be shown at the bottom of interface of path. After the installation, a dialogue box of “running the program now or not” pops up and it is shown as follows.



Click “Finish” to complete the installation, the installation is completed. The PLANET Tools shortcut icon will appear on the desktop automatically and the Quick Launch Toolbar.

Right click tool icon at the toolbar, you can search devices located in your LAN and select language.



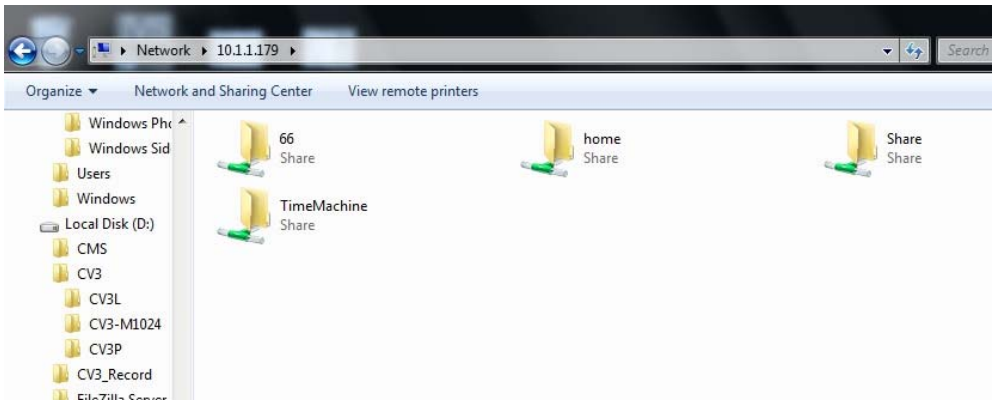
3.1.2 Use the client tool

3.1.2.1 My Storage

Open this tool and click “Storage” button to access my storage.

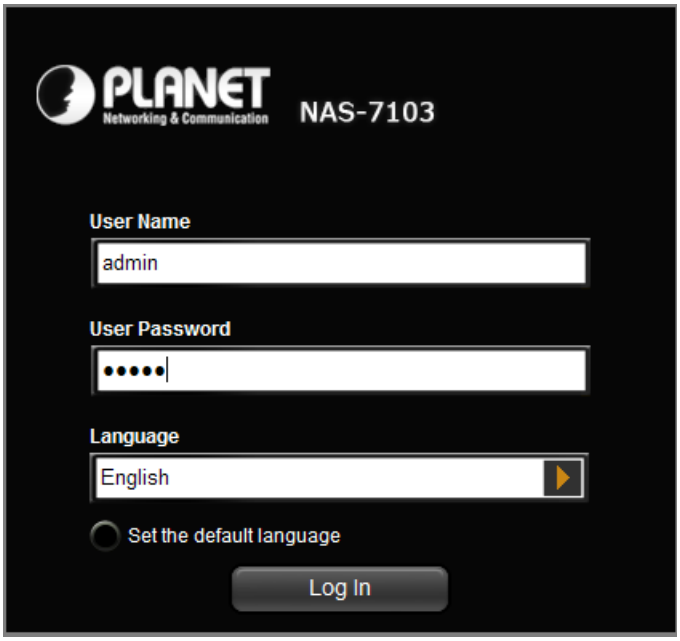
System will pop up a window as below. Enter user name and password and click “OK” to login. (The default User Name and Password are both “admin”).

Finally you can discover these folders: home、Share、Time machine and others created by admin.

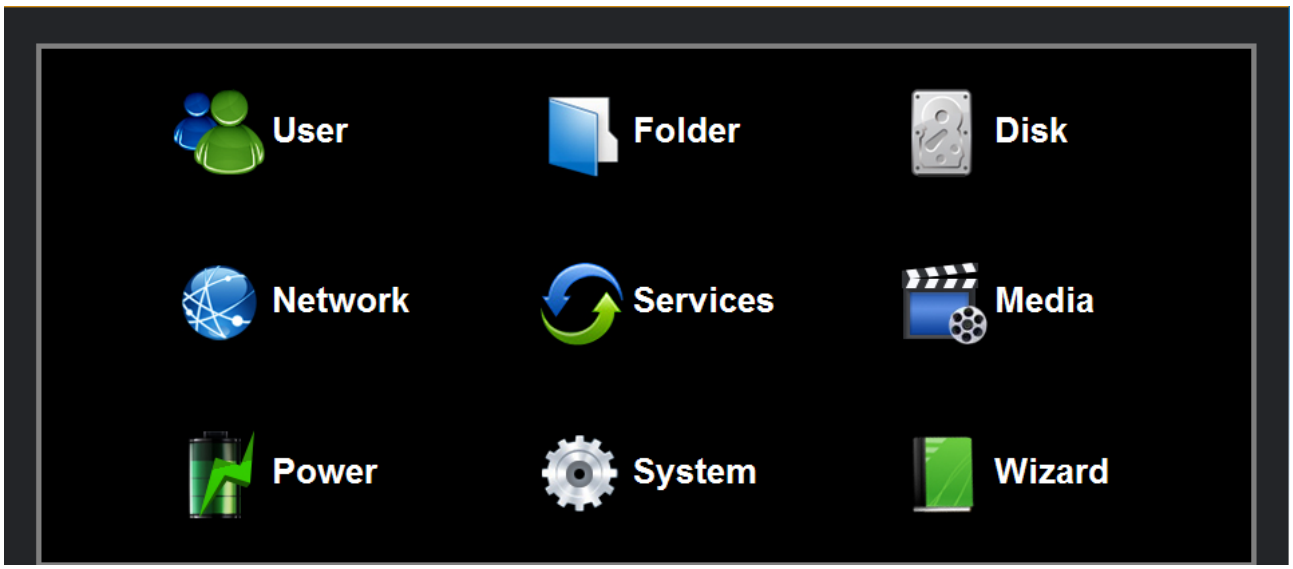


3.1.2.2 Web login

As shown in the picture above, please select your device, and click “Login” button. It will go to the Web management page on web browser.



Enter User Name and Password to login. Default User Name and Password are “**admin**”. (If you want to change User Name and the Password, once you login as admin, you can custom your User Name and Password by the pop up wizard.

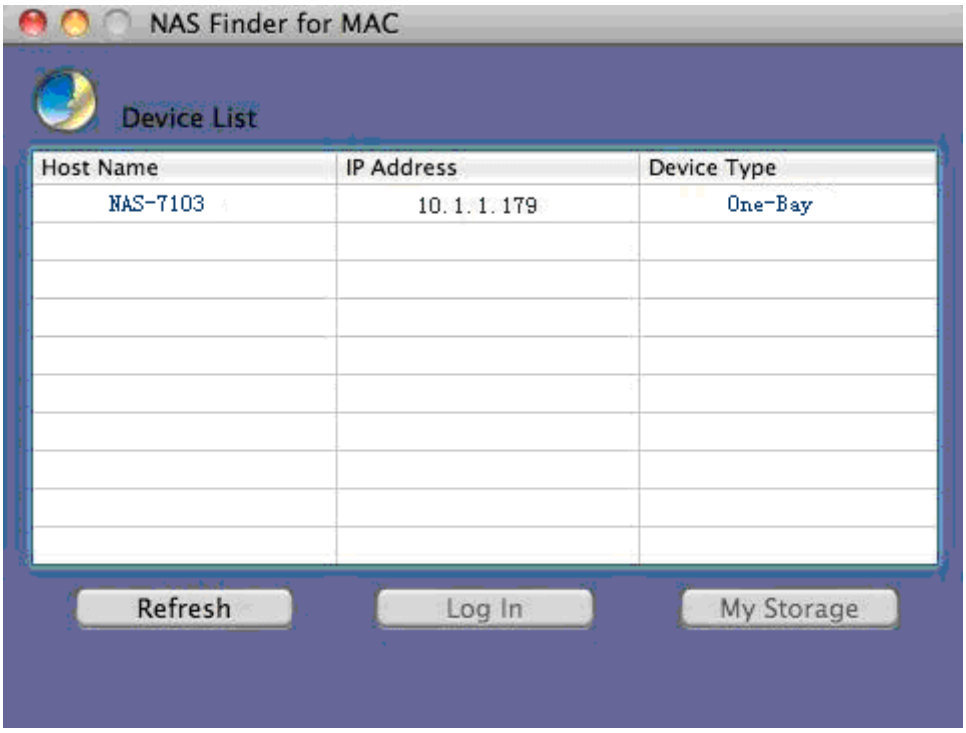


Note

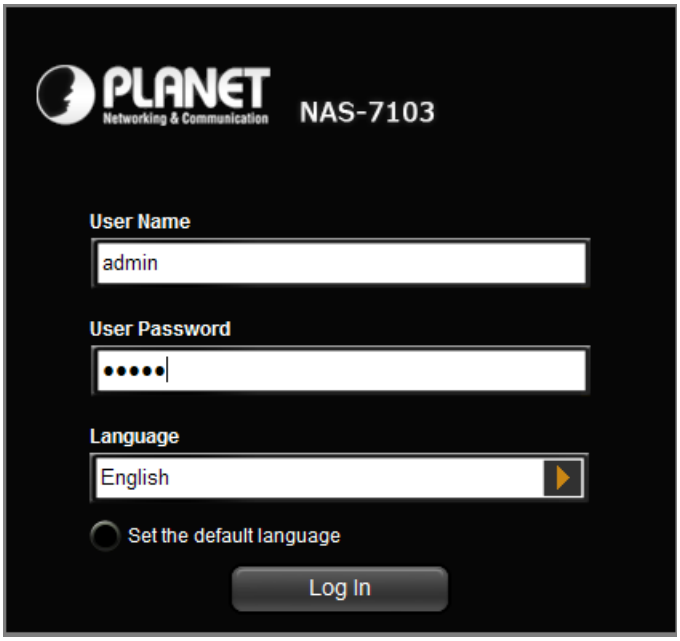
Also you can access web manually by typing IP address on web explorer, like http://xx.xx.xx. (Default is “**192.168.0.100**”).

3.2 Use the product on MAC (above Mac 10.5.5)

Use the MAC version client tool to search device, then press “log in” to access NAS by safari.

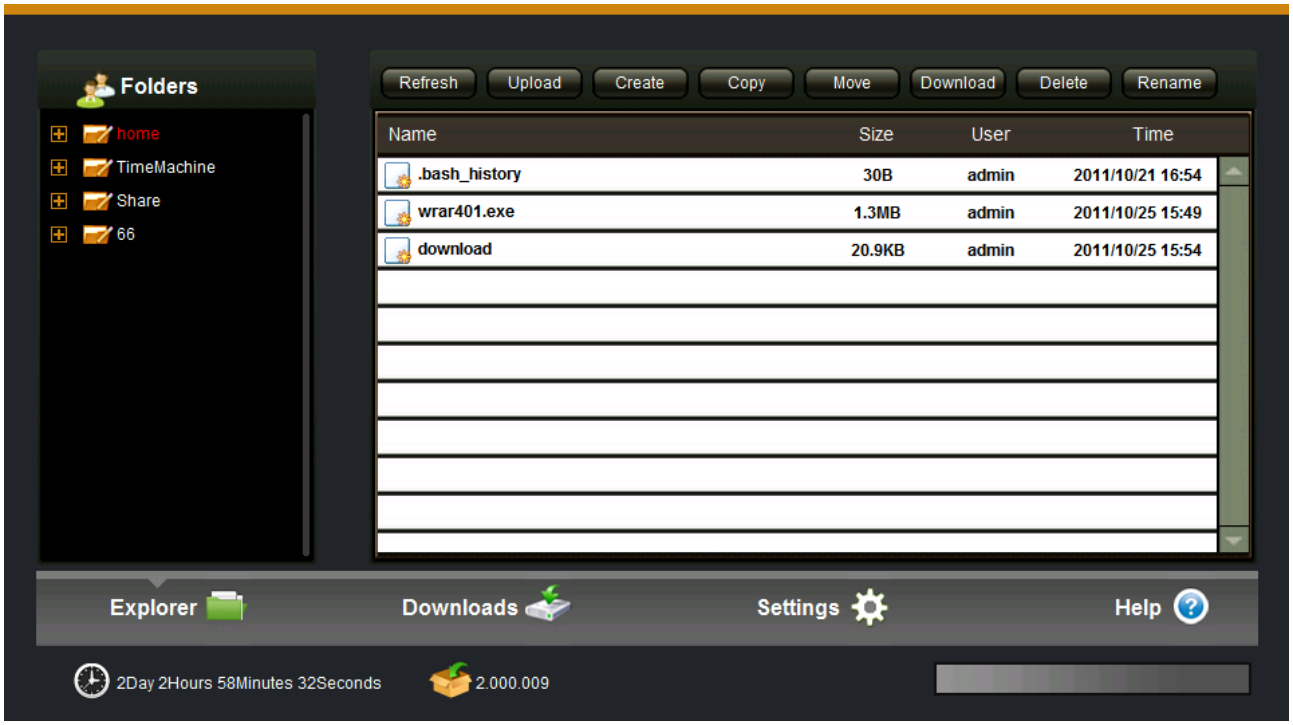


Or you can access NAS by way of opening Safari and type IP address as http://xx.xx.xx. (Default is “**192.168.0.100**”) and go.



4. Explorer

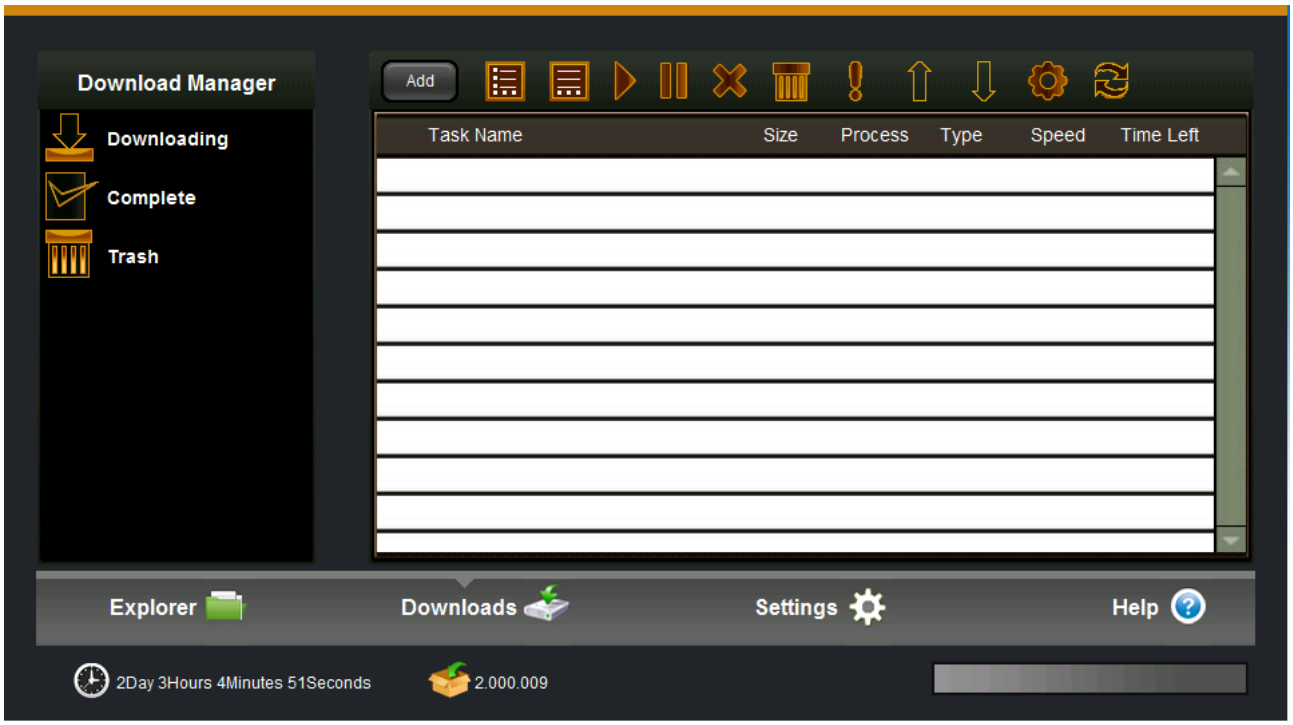
There is a NAS folder explorer through WebDAV，you can do download(upload) files from(to) between NAS and client computer. Also you can do copy/move/create operation on NAS.



5. Downloads

To add new BT download task, set the “BT seed” option first, find and select BT Seed File, then select an appropriate path for the download file to be save. Click “confirm” and the newly created download task is displayed on the downloading list.

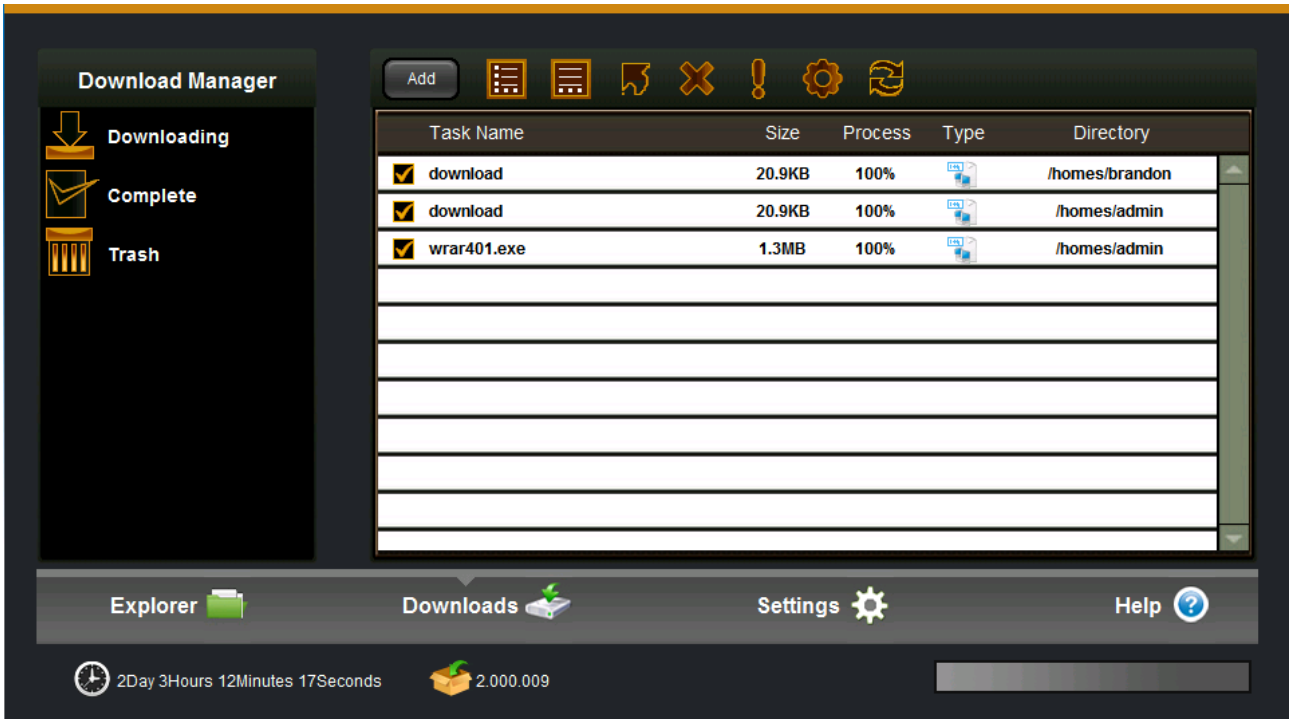
5.1 Downloading



Item	Action
Start	Click “Start” to resume a Task, which has been paused
Stop	Click “Stop” to suspend the downloading task.
Delete	Click “Delete” to stop and delete the download task. The deleted task will be removed to Trash and it can be restored.
Info	Select one task, and press information icon to see the more detail information of this task.
Settings	You can set downloading task number, max download speed, max upload speed and so on.

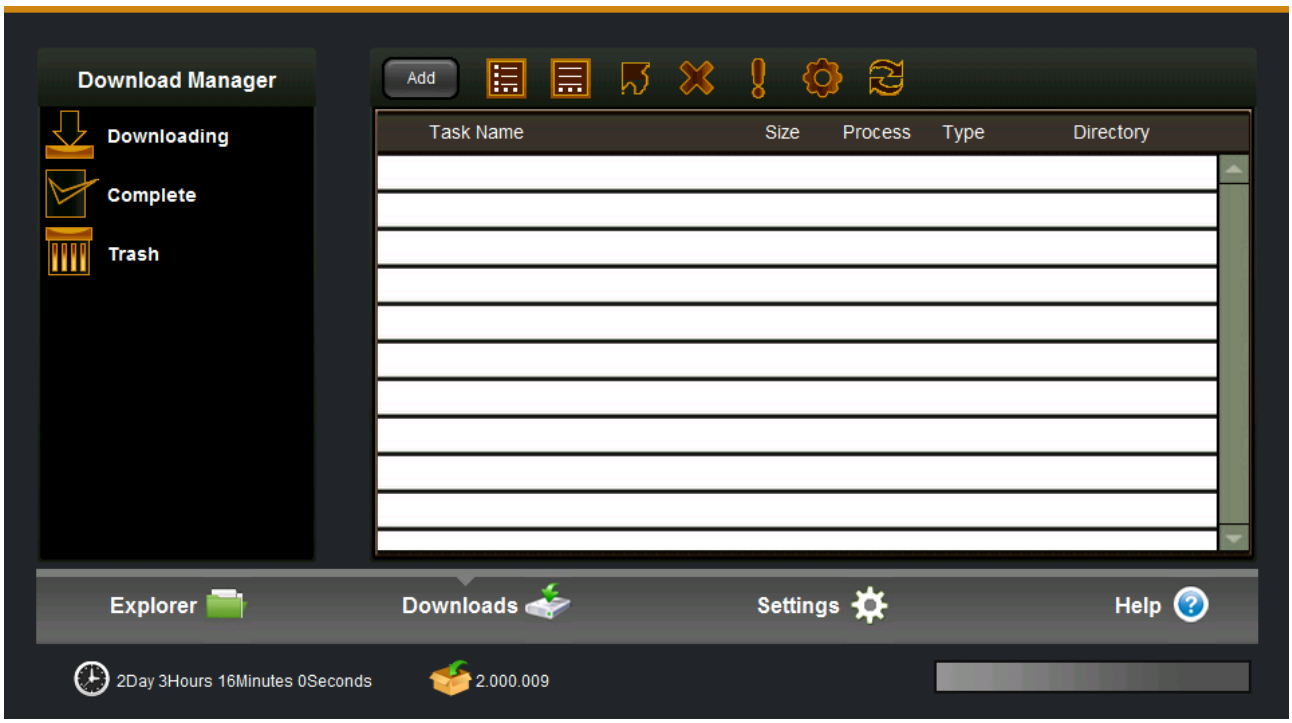
5.2 Complete

The completed tasks are displayed on the sidebar of the completed tasks list. Select a task and click “Delete” to delete the completed task. Only the download task will be deleted and the actual downloaded file will still remain in the saved directory.



5.3 Trash

Trash has a function of retrieving a deleted task to continue downloading. Click “Trash” to select a deleted task that you want to continue downloading and then click “Reload”. The task will be restored to the download list



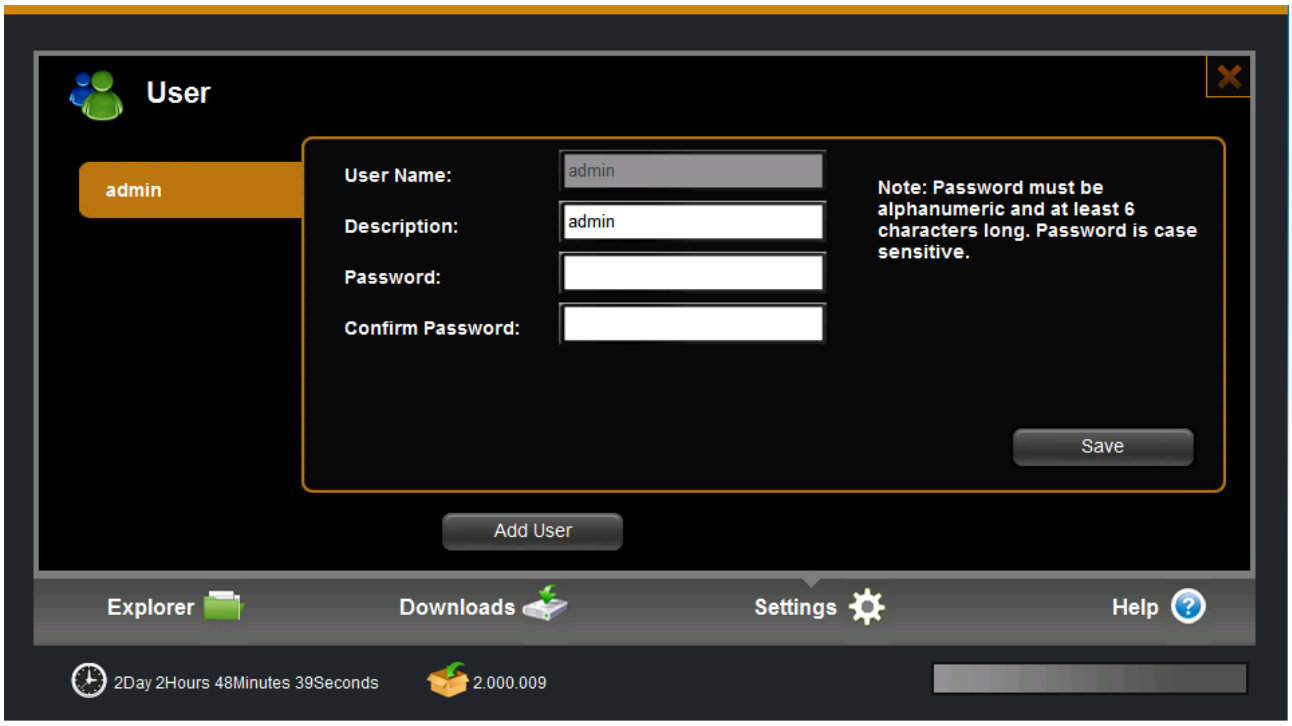
Note

It will continue downloading from the last completed percentage when it was deleted.

6. Settings

6.1 User

Administrator cans create/edit/remove general user accounts. The general user accounts are used to login services to confirm whether can accessed these services, including web management access, samba access, NFS access, ftp access, AFT/time machine service and so on.



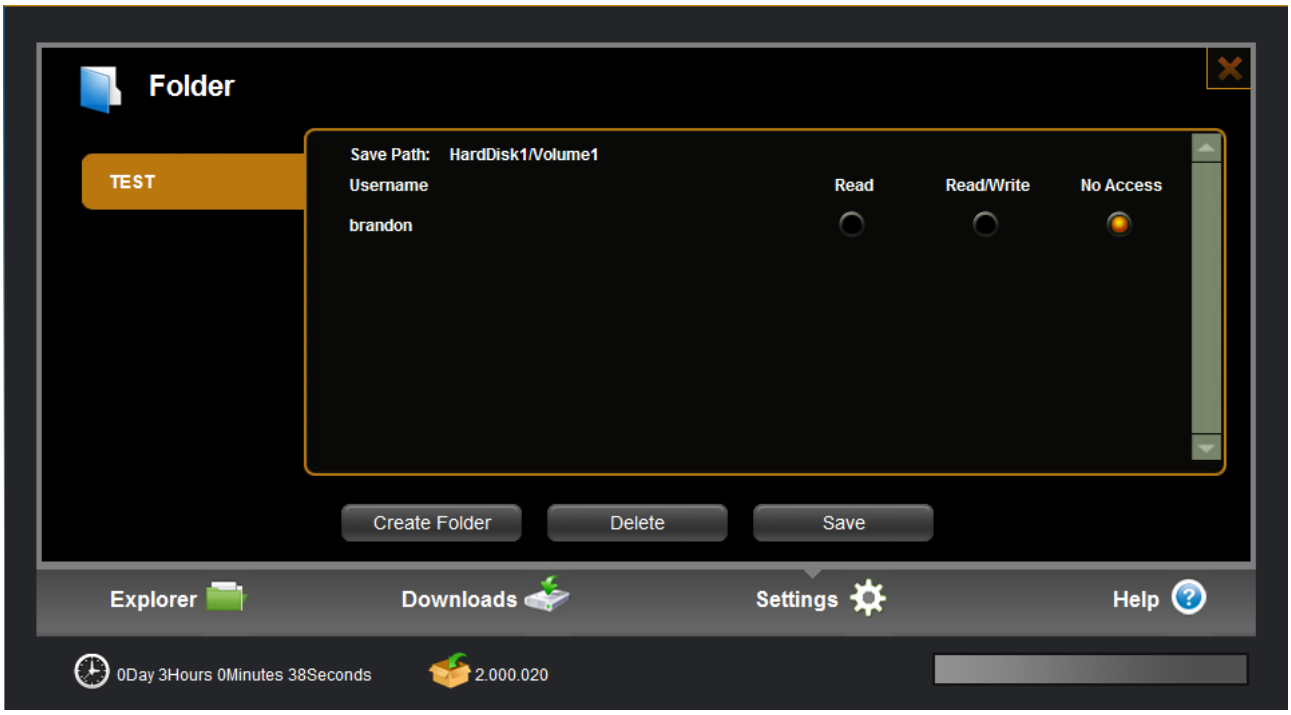
Item	Action
User Name	This is the user account name when you login in
Password	The password is case sensitive and should be 6 to 64 displayable characters, including letters, numbers.
Add user	Press “Add user” button, enter the user information and press “save” button to create one user account.

Note

Password must be alphanumeric and at least 6 characters long. Password is case sensitive.

6.2 Folder

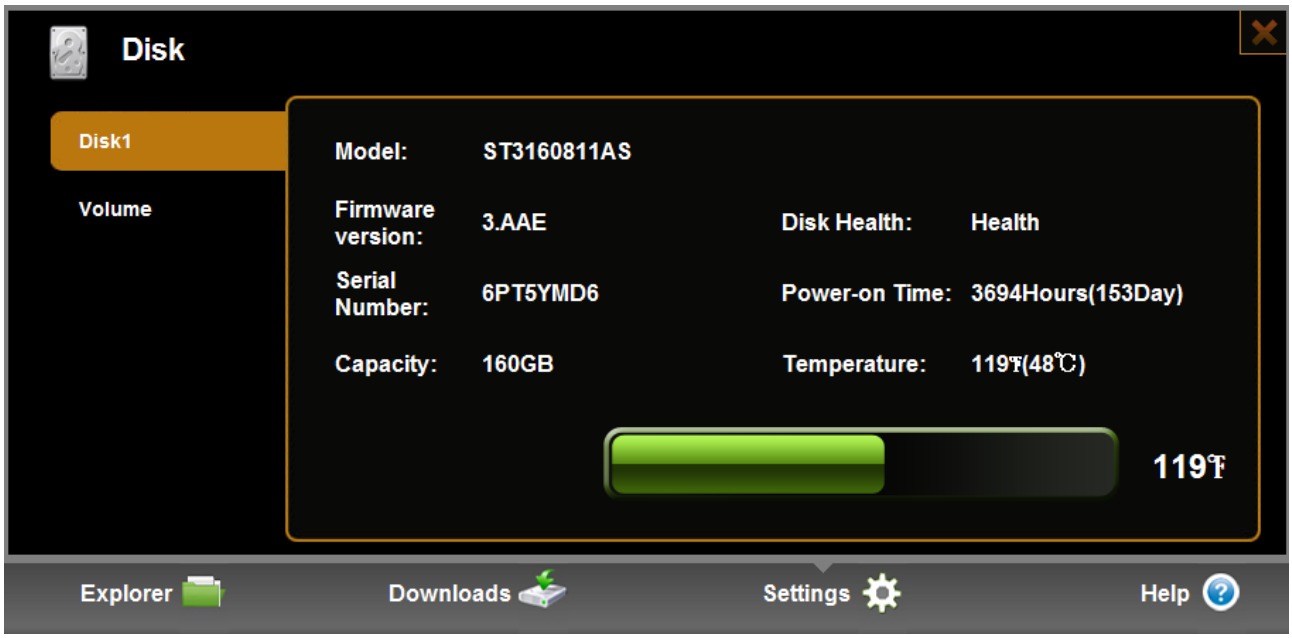
Administrator can create/remove and edit share folders, for each share folder, administrator can set access privilege separately for each user account.



Select the target share folder at left list, at right window, set privilege which general users access to folder. Press “save” button to execute the change.

There are **“Read”, “Read/Write” and “No Access”** option for access privilege setting. The default setting is “no access”, that’s mean this user cannot even see this folder.
The folder name only uses letters and numbers. The dash (-) or underscore (_) may be used to separate two names. Maximum folder name is up to 26 characters.
The privilege setting works in all kinds of access modes, including ftp/samba/web/AFP and so on.

6.3 Disk



1) Disk : Here is the hard disk physical information. Administrator can check disk model, Power on time, disk health status, capacity and temperature.

That information comes from hard disk S.M.A.R.T message.

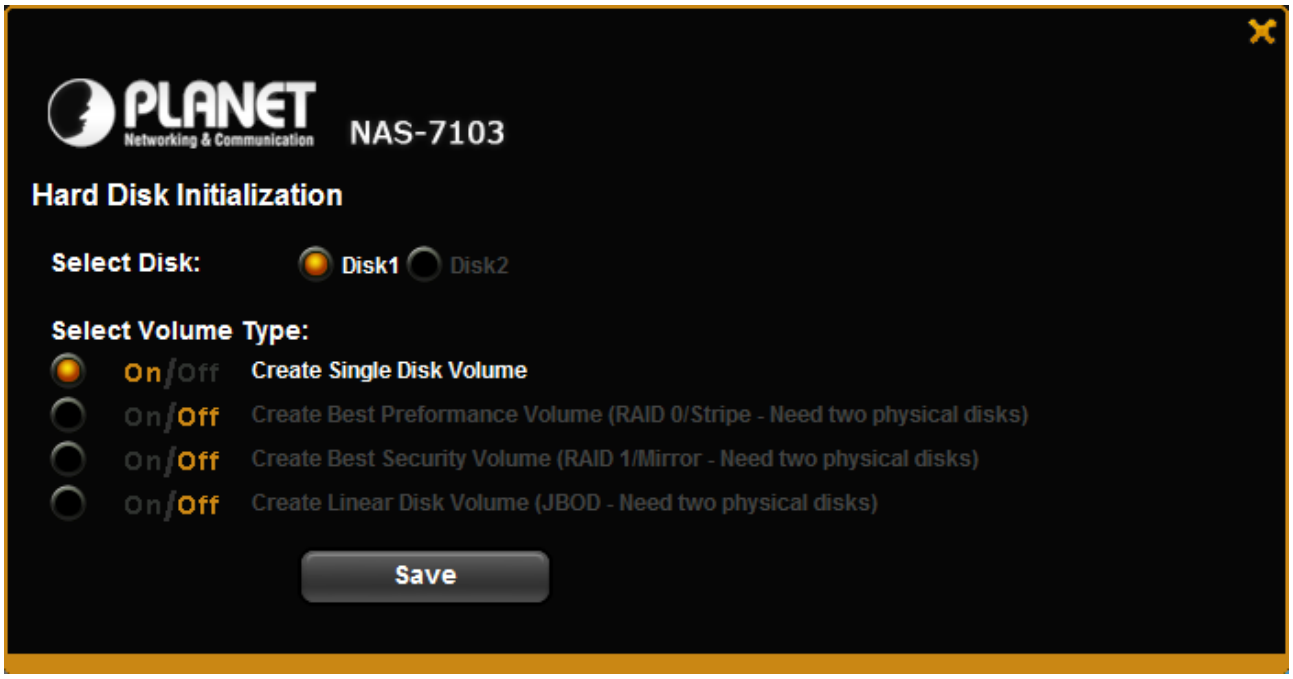
If the temperature is up to 55 degree C, the build in Fan will begin to work.

2) External USB storage: you can get the capacity information, and safely remove it.

3) Volume: There are volume settings; for example, create a new volume, and format current volume. Also it can check volume information such as, available free space and types of file system.

Only support XFS format file system

Format or create volume operation will cause lost data in the hard disk. In wizard setting, when you enter to create disk volume.

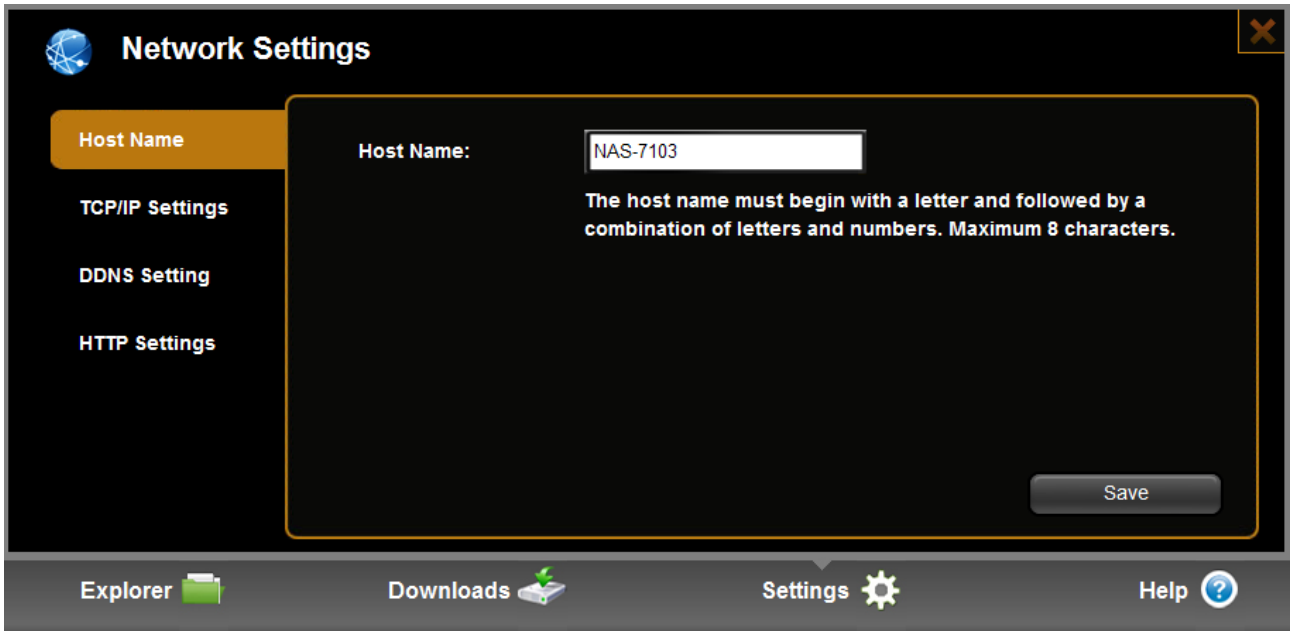


Item	Action
Create Single Disk Volume	Press this “Save” button to format a specific HDD. It supports EXT3 . Check the encrypt box to allow password protection over the HDD. **Note: This mode can also be one hard disk, and then you just need create one volume.**

6.4 Network Setting

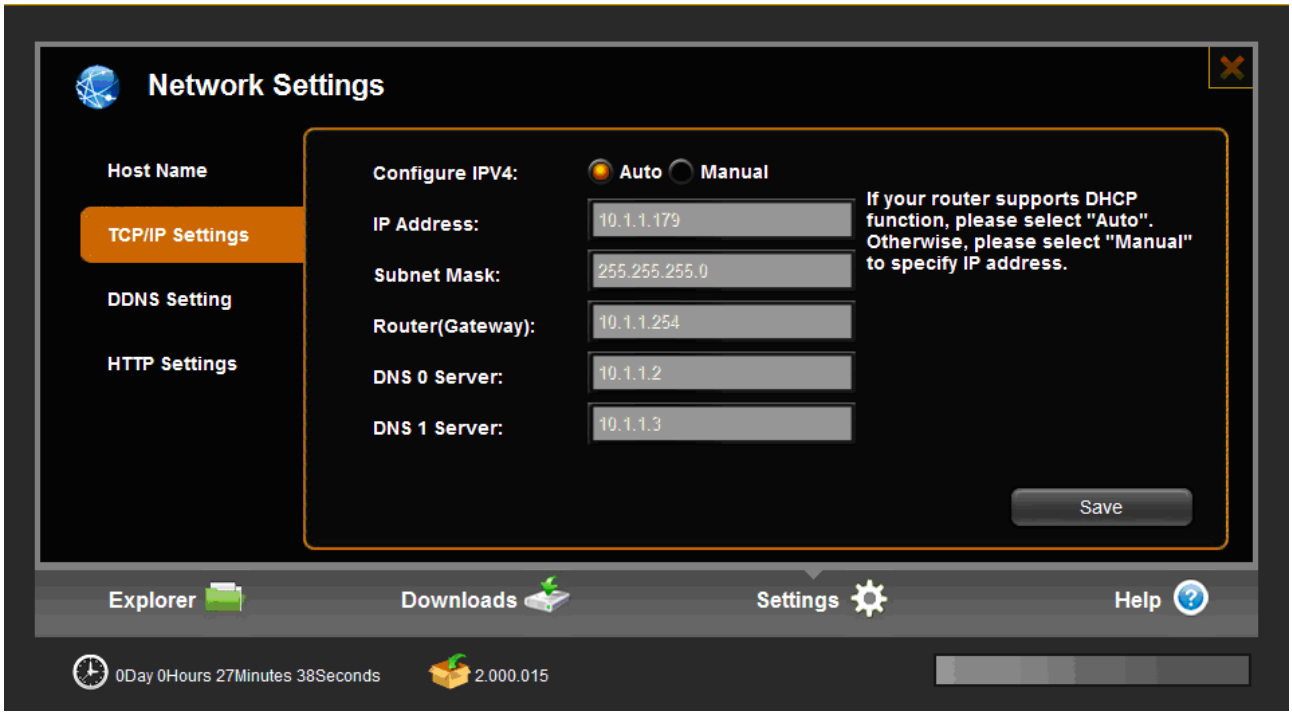
Network settings include hostname, TCP/IP setting, DDNS setting, HTTP setting.

6.4.1 Host Name



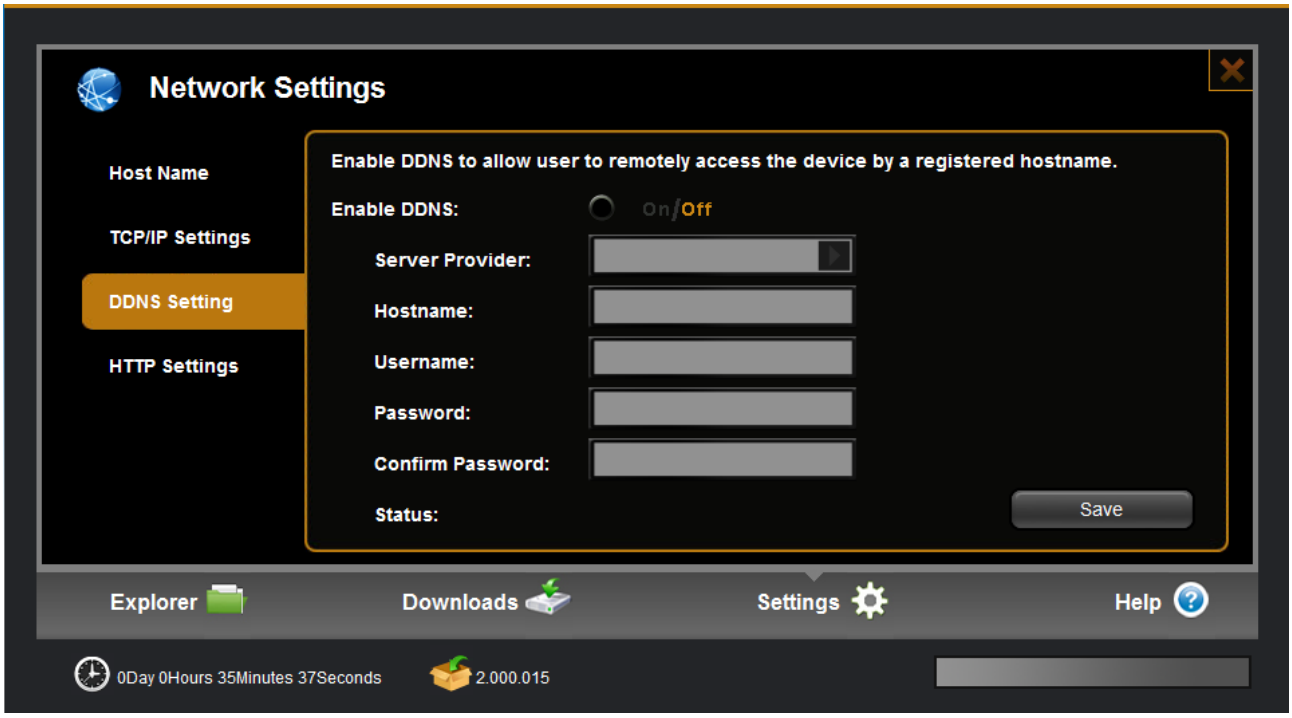
Item	Action
Hot Name	Host name is used to identify this product in LAN. You can use the host name to login in samba (on windows series, type"\\hostname" in file manager address bar), ftp (on windows series, type"ftp: //hostname" in web explorer address bar), and web (on windows series, type"http://hostname" in web explorer address bar). Also you can use the host name to identify the NAS on our application tools on PC/MAC. And so on. The host name must begin with a letter and followed by a combination of letters and numbers. Maximum 8 characters.

6.4.2 TCP/IP Settings



Item	Action
Auto	Auto: It is default option, if the LAN have DHCP server, the NAS will get these configurations from DHCP server, if not or cannot get configurations successfully, the system will set to default IP address: **192.168.0.100**
Manual	You can configure these settings manually; you can reference your computer configurations or get more help from internet.

6.4.3 DDNS Setting



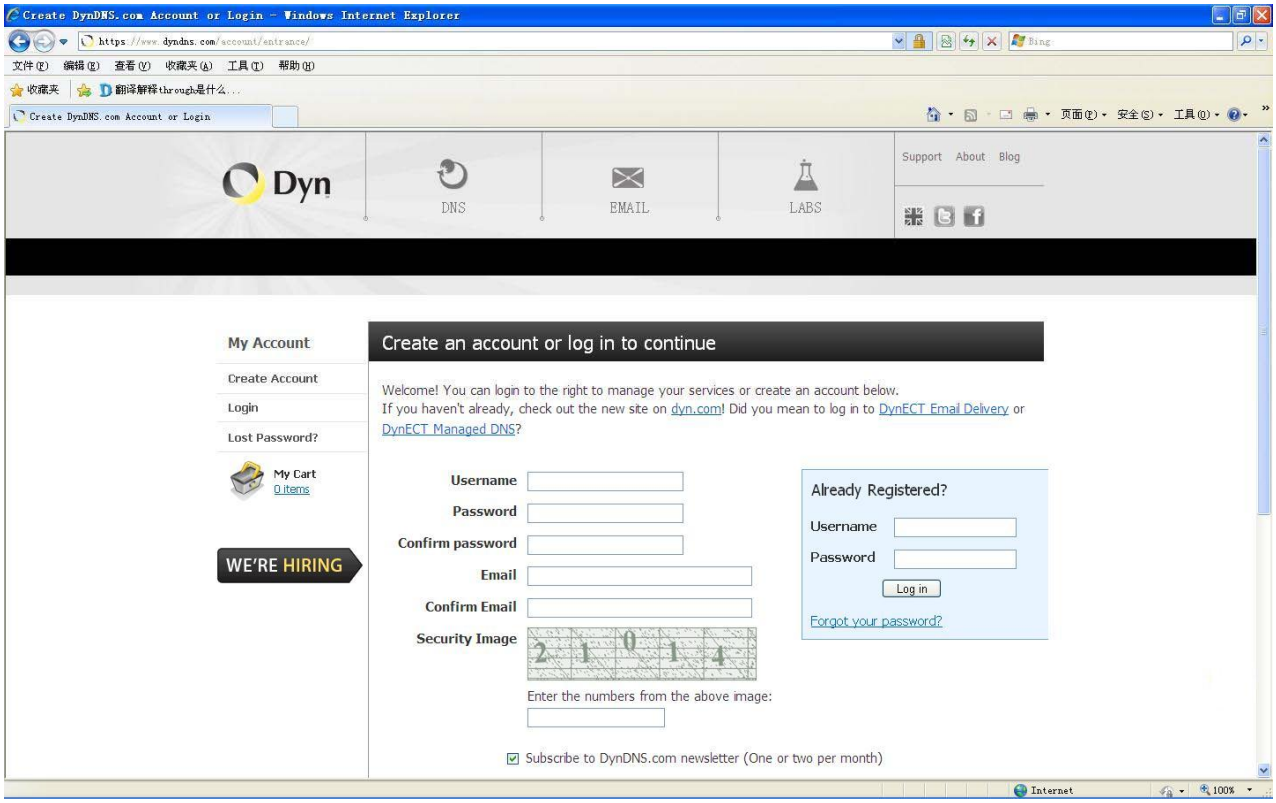
DDNS means Dynamic DNS; it is a method / protocol / network service that provides the capability for a networked device, to notify a Domain Name System (DNS) name server to change. In real time, the active DNS configuration of its configured hostnames, addresses or other information. So DDNS can let you access your NAS on Internet at anywhere.

Configure DDNS steps:

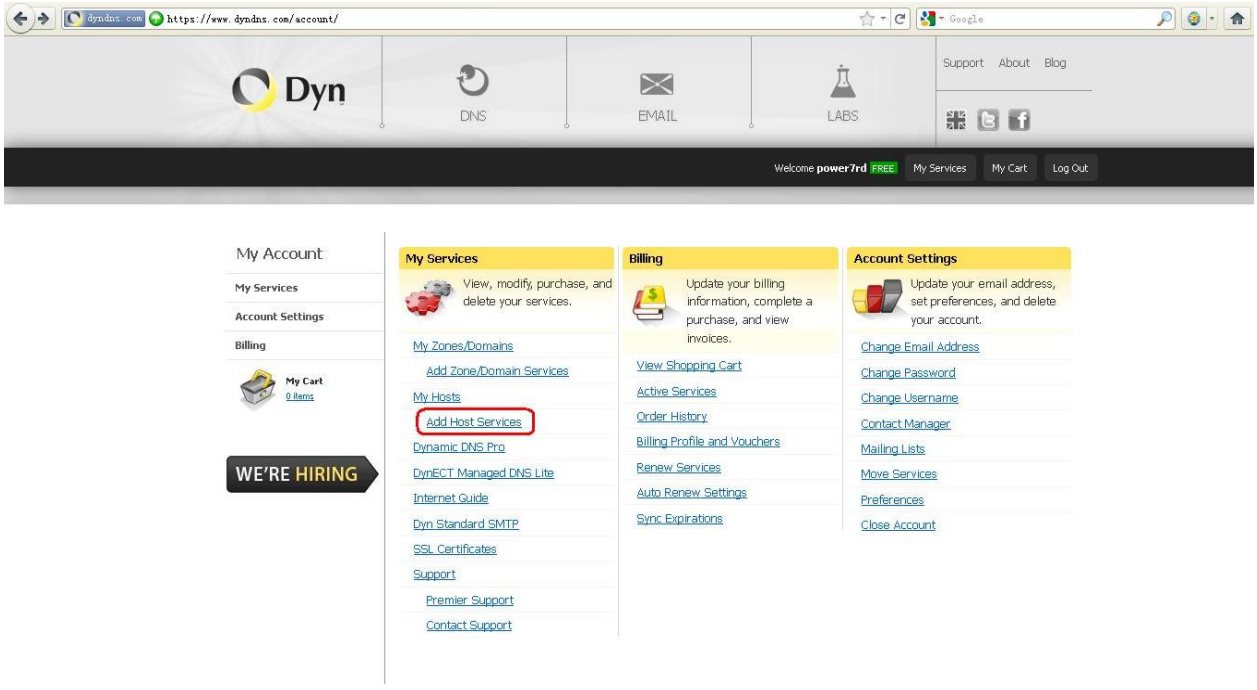
Step 1: Enable DDNS option through accessing web page of NAS

Step 2. Select on DDNS server provide, and register an account if you do not use yet.

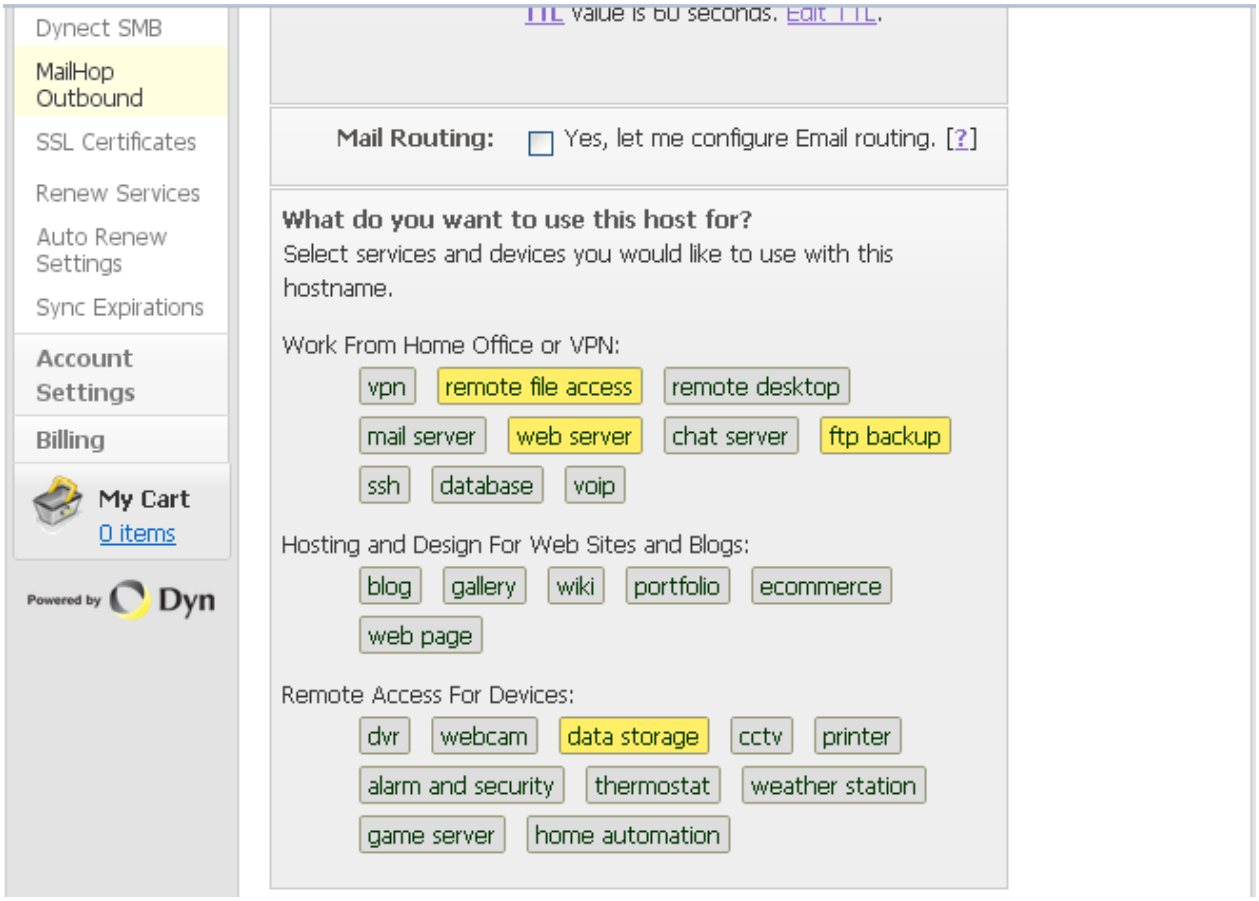
Let's take dyndns.org as an example. Register an account in https://www.dyndns.com/account/entrance free of charge, shown as follows:



An account and password are acquired once the registration succeeds, and then apply for a DDNS domain name. Enter “my account”, click “add host services” to enter the application window of domain name.

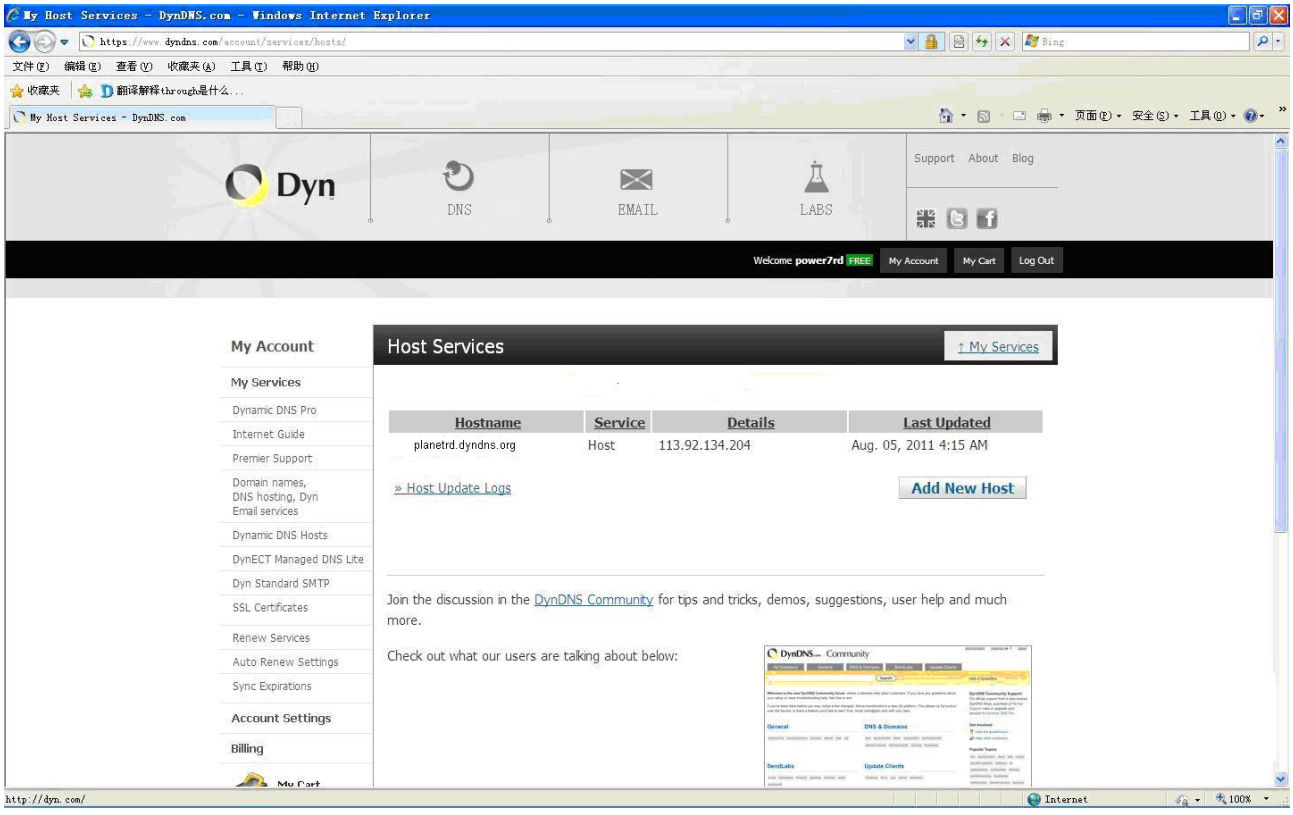


Fill hostname/IP address, (hostname will be as domain name go to access NAS, fill IP address by Address list box below showing). If your PC and NAS are in the same LAN, type http://domain name (planetrd.dyndns.org) to access NAS in the WAN (filling domain name and IP are corresponding)

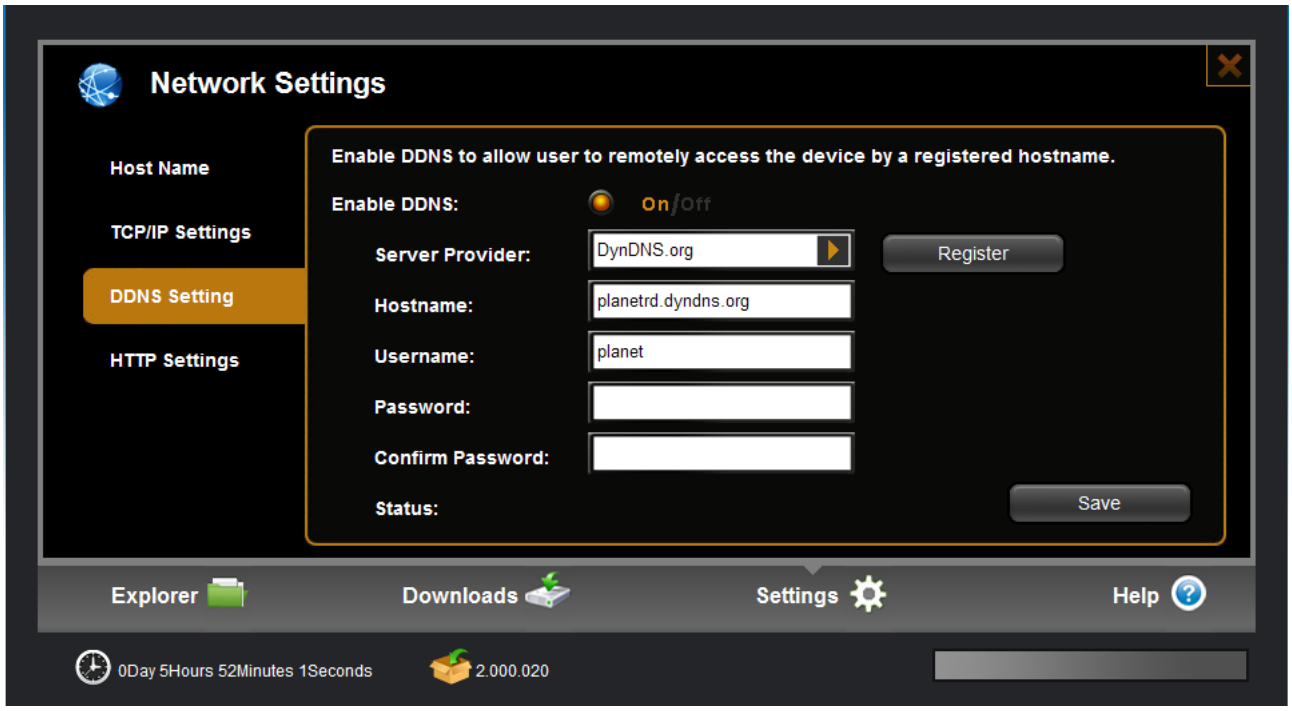


Meanwhile, select the purpose of application;

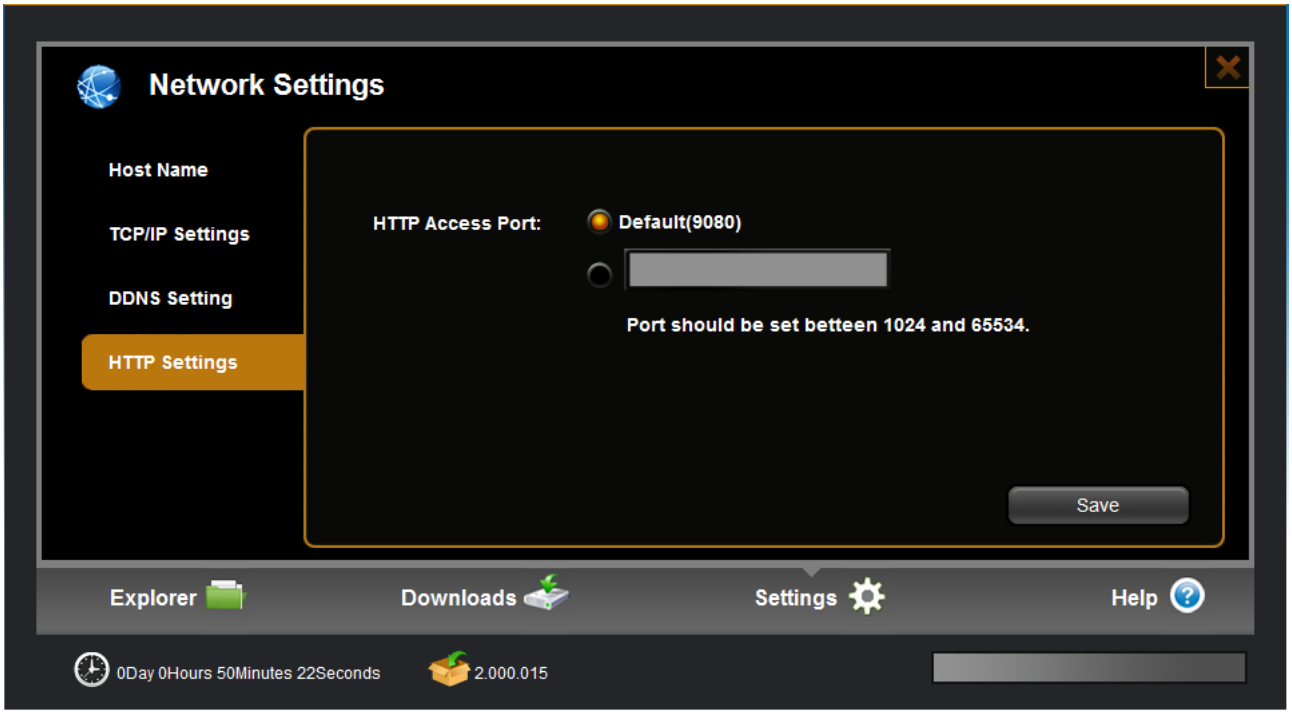
Your domain name can be seen in Host Service of DynDNS website once the application succeeds, shown as follows:



Step 3: Enter the hostname/username/password as just got from server provider. And press “confirm” to execute the setting, also you should add NAS IP address to router DMZ zone, see router manual for more reference. Follow:



6.4.4 HTTP Settings

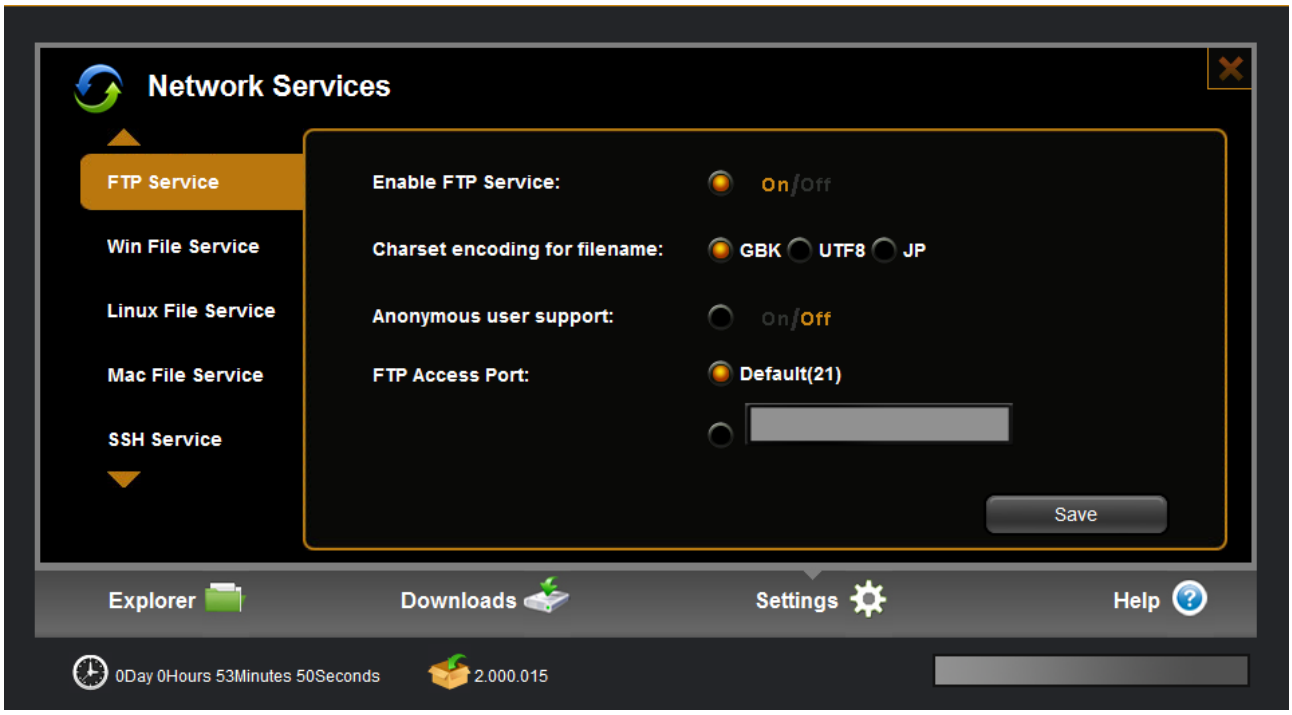


Item	Action
HTTP Access Port	HTTP setting is used to set web access port, the default port is 9080, you can modify as need. Also we support standard default port 80 additional at same time. This port is very important for DDNS.

6.5 Network Services

Two Methods to access NAS by FTP are described below. Please make FTP service enable in the web management.

6.5.1 FTP Service



1）User can access NAS data through FTP service in LAN or WAN(based on DDNS).

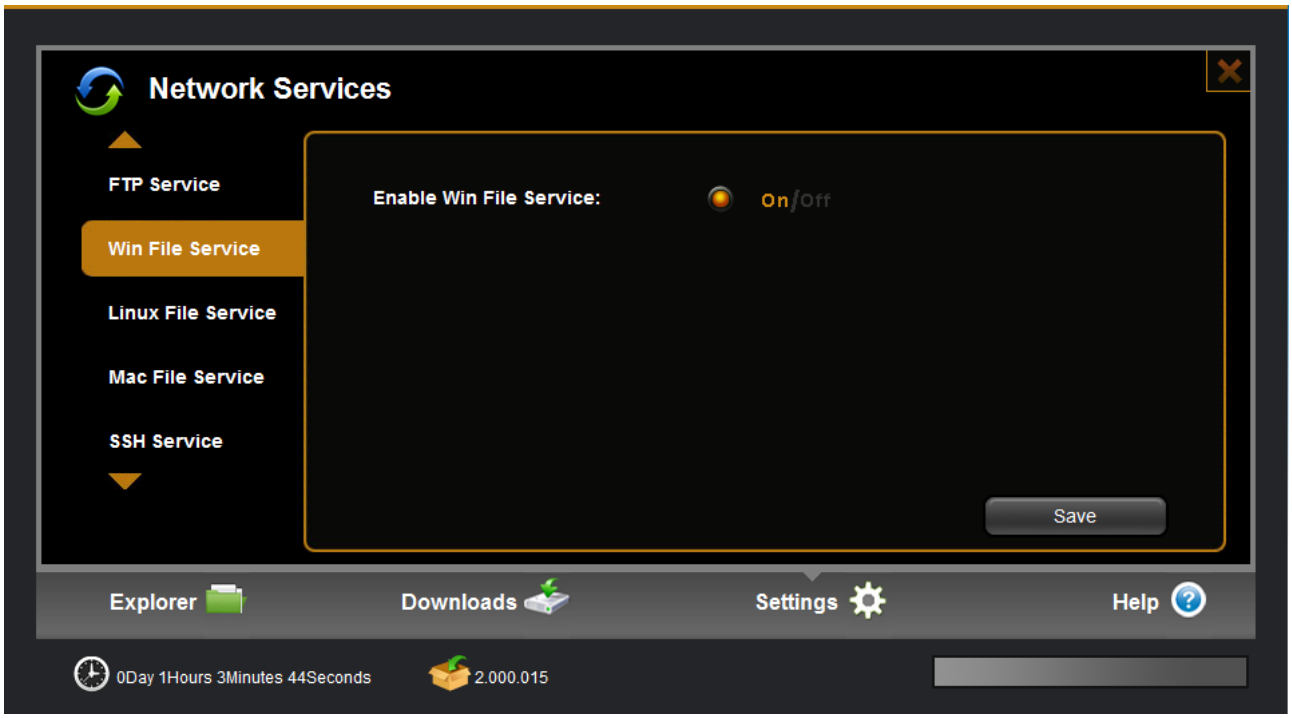
2）Support Unicode filename: select the right option based on your language you used.

3）Anonymous enable: enable this option to let anonymous user access your data, anonymous user only can see “share” folder.

4）FTP access port: the default access port is standard 21, you can change the option if needed.

6.5.2 Win File Service

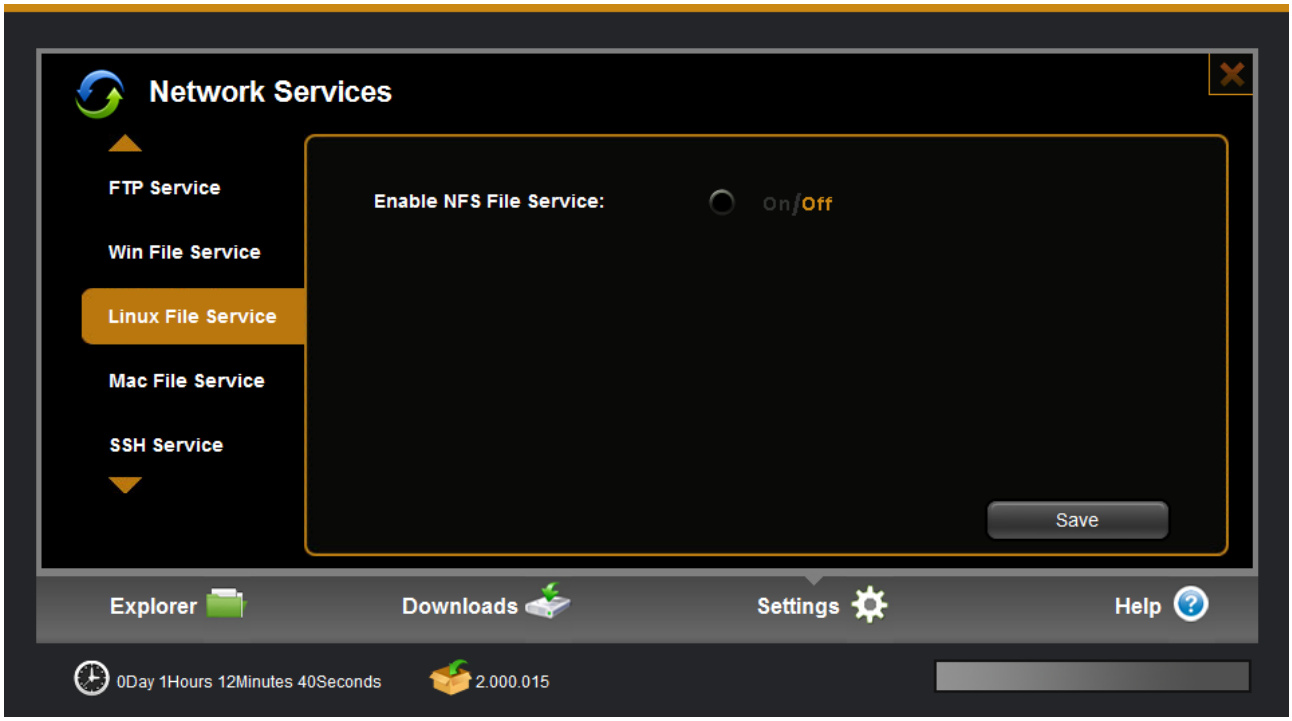
Win file service make it possible that you can share files with others in local area network. First enable this function before use.



6.5.3 Linux File Service

It is used on Linux OS to access NAS through NFS.

Allow write IP address: Access IP is used to specify a range of IP address in your local network for computers that can access and do write operation on NFS share directory.



How to use NFS:

1. Enable the NFS server function in “service-→Linux file service “on web.

2. On Linux OS, open terminal and change into root account as below

[steve@localhost ~]$ su

password：

3 .In Terminal, show the NAS server’s directory as below commands:

[root@localhost steve]#showmount -e xxx.xxx.xxx (NAS’s IP address)

Export list for xxxx.xxx.xxx.xxx:/data/HardDisk1/Volume1 *

4. In Terminal, restart the NFS server as below command:

[root@localhost steve]# service nfs restart

Shutting down NFS mountd: [OK]

Shutting down NFS daemon: [OK]

Shutting down NFS quotas: [OK]

Shutting down NFS services: [FAILED]

WARNING: Deprecated config file /etc/modprobe.conf, all config files belong into /etc/modprobe.d/.

Starting NFS services: [OK]

Starting NFS quotas: [OK]

Starting NFS daemon: [OK]

Starting NFS mountd: [OK]

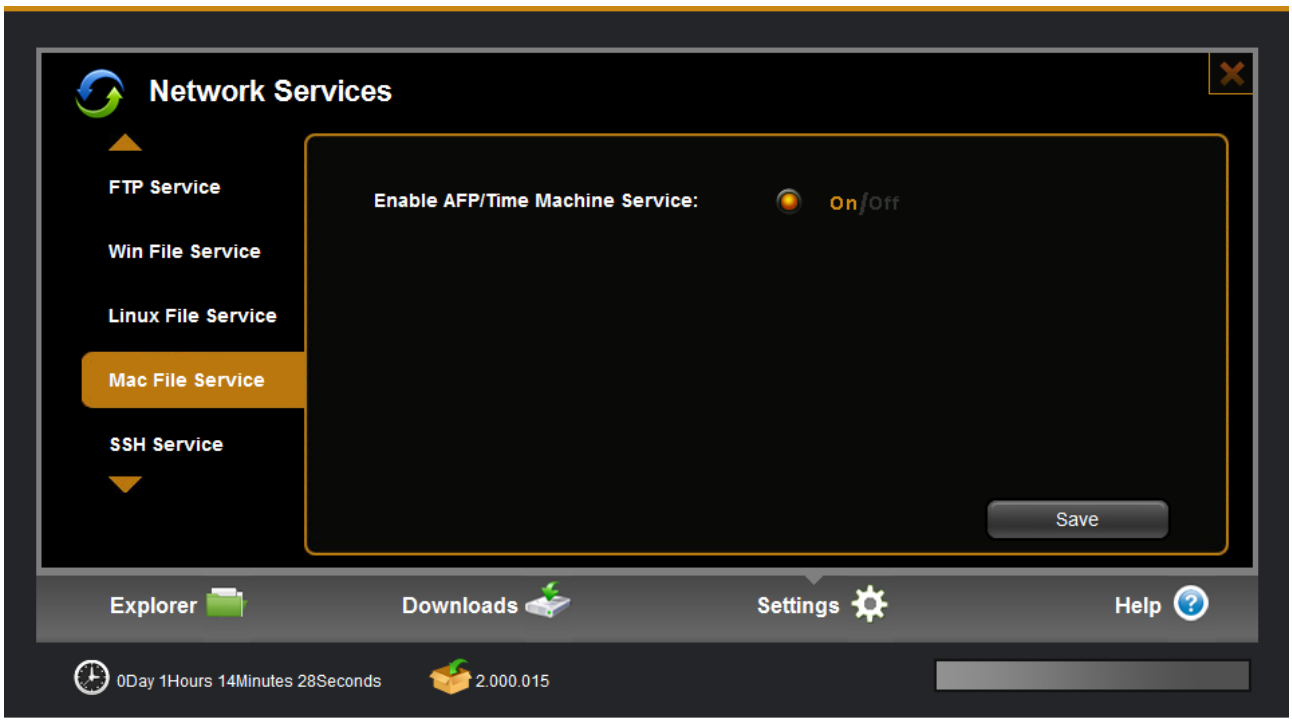
5. In Terminal, mount the NAS directory to Linux OS as below command:

[root@localhost steve]# mount -t nfs 192.168.7.186:/data/HardDisk1/Volume1/Share /mnt -o nolock

At last you can check that the NAS directories have been displayed in filesystem-(mnt on your Linux computer, and you can do operation as it is in local.

6.5.4 MAC File Service

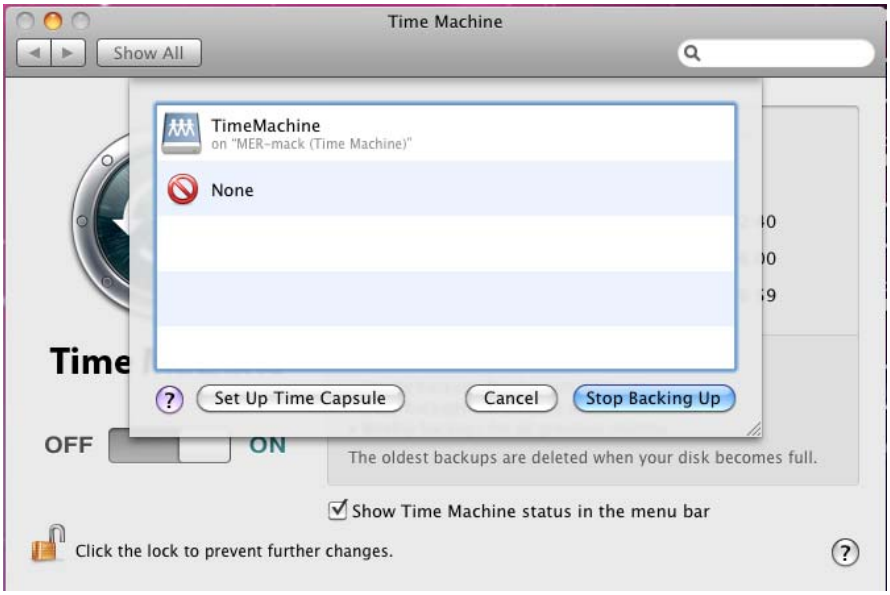
This is function is used to work with Mac computer and compatible with Time Machine backup function, for more information about Time Machine. If you need help, please refer to MacOs help or go on their website for more information.

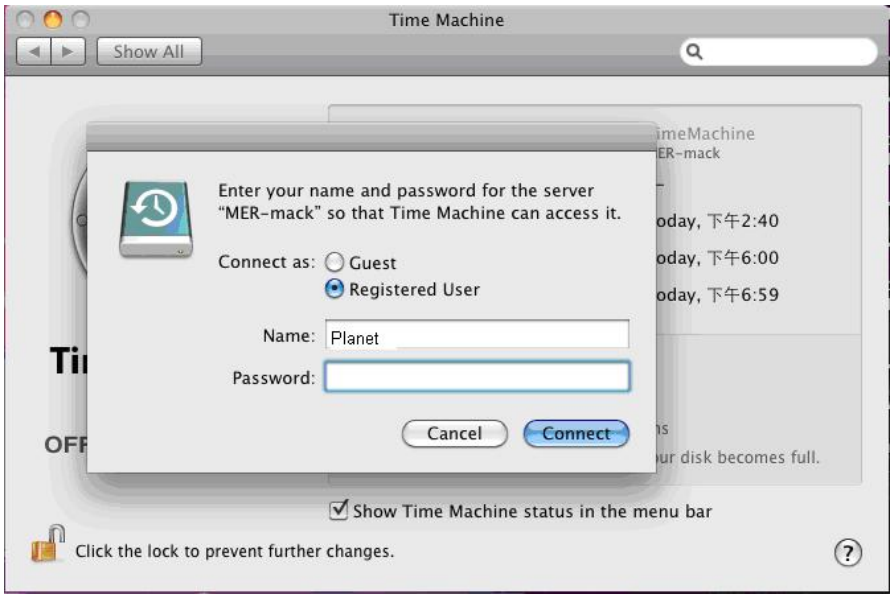


How to use this function：

Enable this function in server---〉Mac file service on web

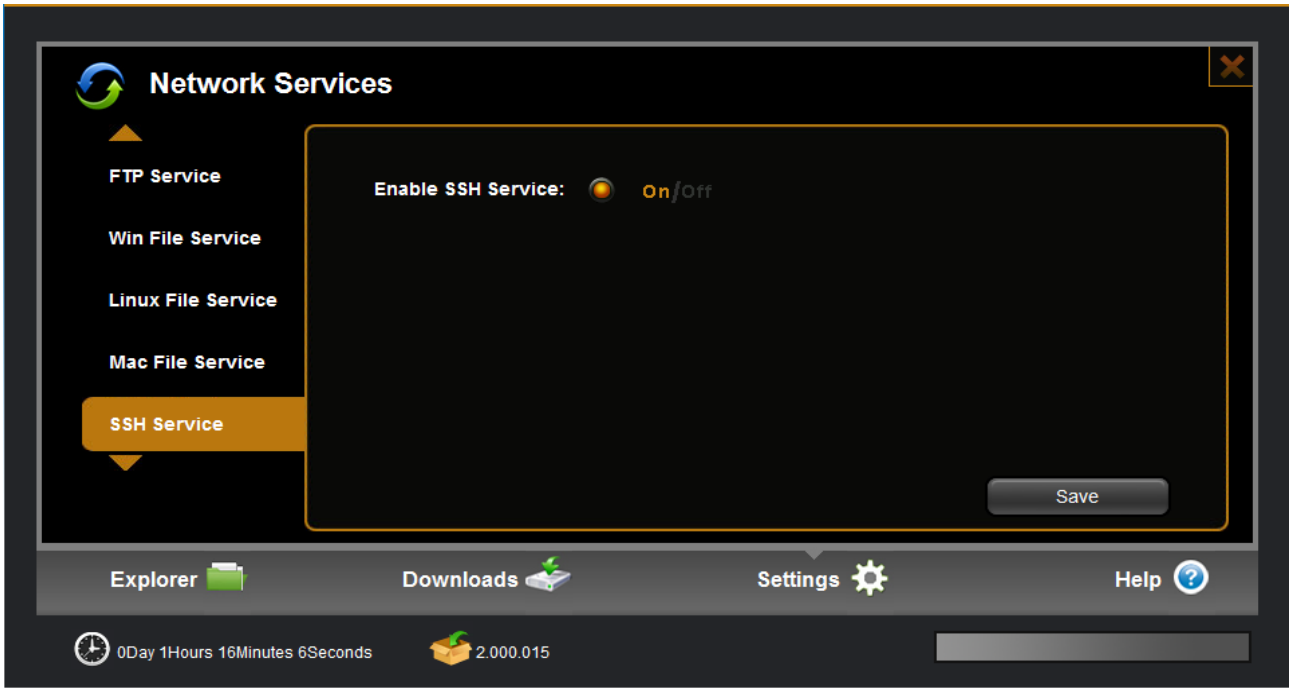
On MAC computer, go to system preference-→Time Machine, turn on the function and in “select disk” option, select the NAS folder as the target, you need type the NAS account and password. Now it work and then your backup data will be stored into NAS at Time Machine folder.


Time Machine
Show All
TimeMachine
on "MER-mack (Time Machine)"
None
Set Up Time Capsule
Cancel
Stop Backing Up
OFF
ON
The oldest backups are deleted when your disk becomes full.
Show Time Machine status in the menu bar
Click the lock to prevent further changes.

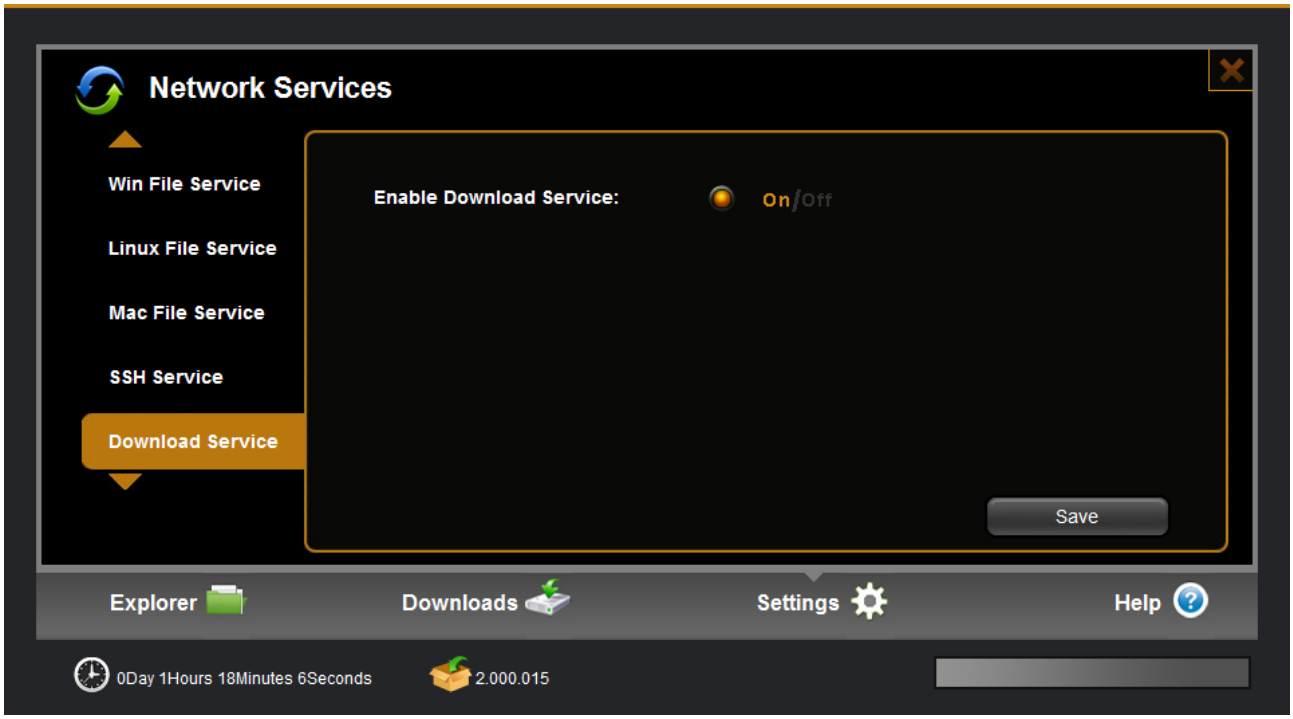

Time Machine
Show All
Enter your name and password for the server "MER-mack" so that Time Machine can access it.
Connect as:
Guest
Registered User
Name:
Planet
Password:
Cancel
Connect
Show Time Machine status in the menu bar
Click the lock to prevent further changes.

6.5.5 SSH Service

SSH allowed you to remote login to the NAS Linux OS and do some operation, you can use “putty” or other tool to connect. You can use admin or general account to login, or you can use “root “account (password: 20080826) to login.



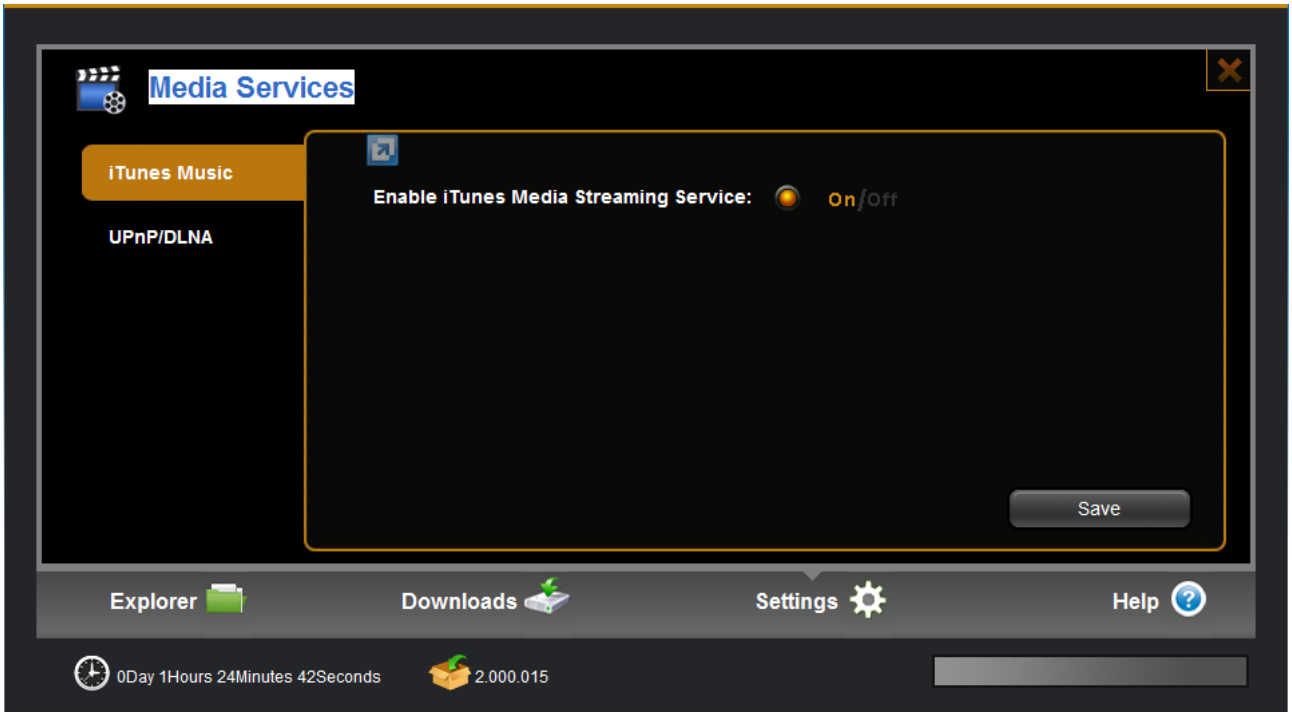
6.5.6 Download Service



6.5.7 Media Services

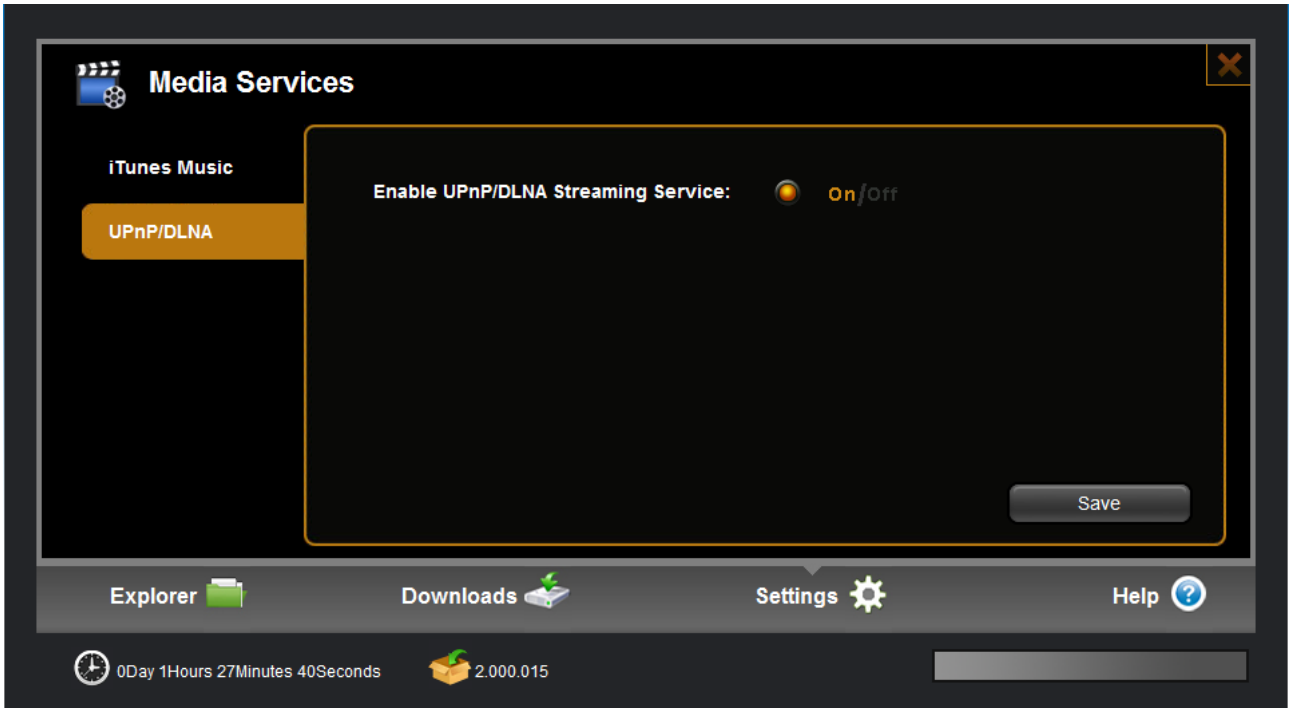
6.5.7.1 ITunes Music

ITunes service allows user play NAS music library at iTunes client.



6.5.7.2 UPnP/DLNA

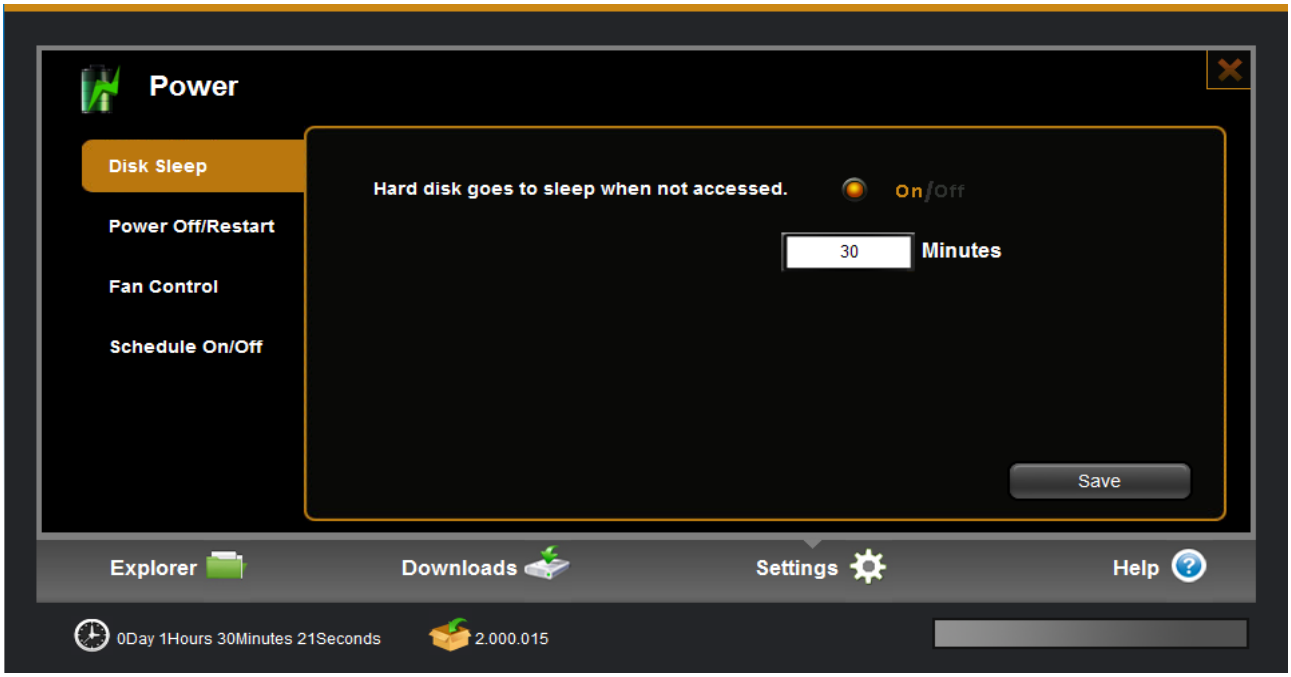
DLNA allow NAS streaming media (movie/photo/music) to client player, like windows media player, net TV, network Media Player, Play station 3, Xbox 360 and other DLNA compatible devices.



6.6 Power

6.6.1 Disk Sleep

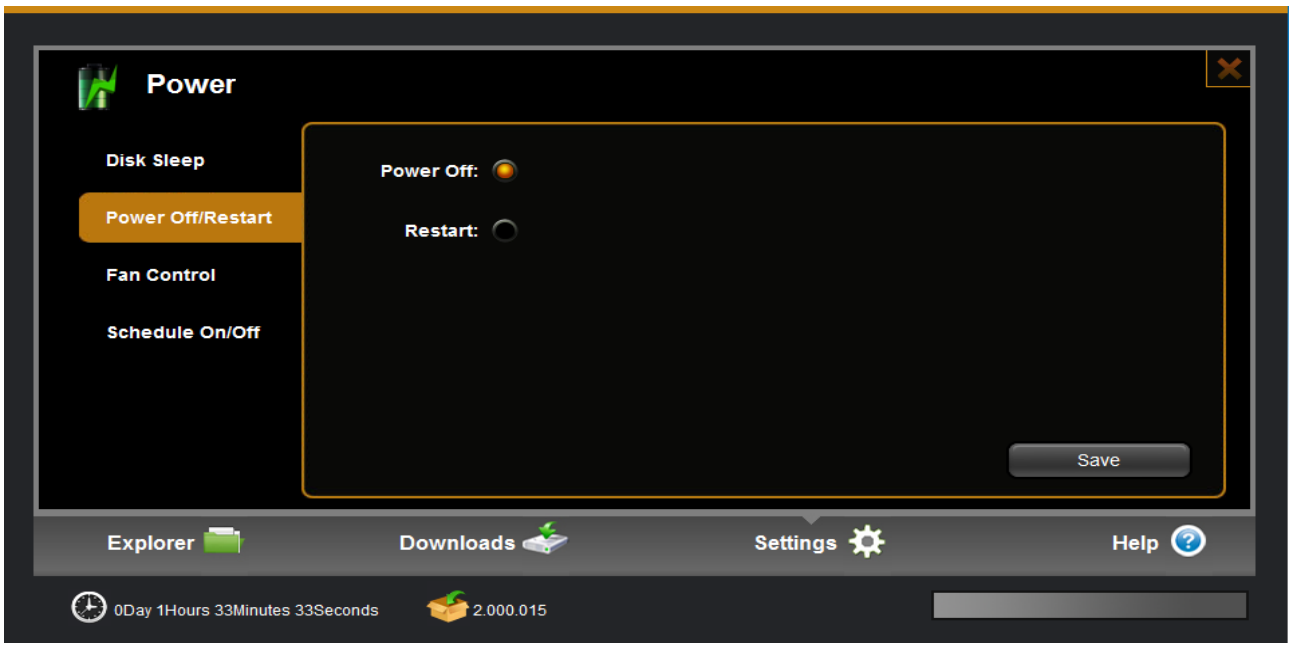
This setting is used to let system go to sleep mode after no access setting time. In sleep mode, the hard disk will go to sleep and the fan will be shut off. When there are access requirement from user, the system will leave sleep mode to general mode.



6.6.2 POWER Off / Restart

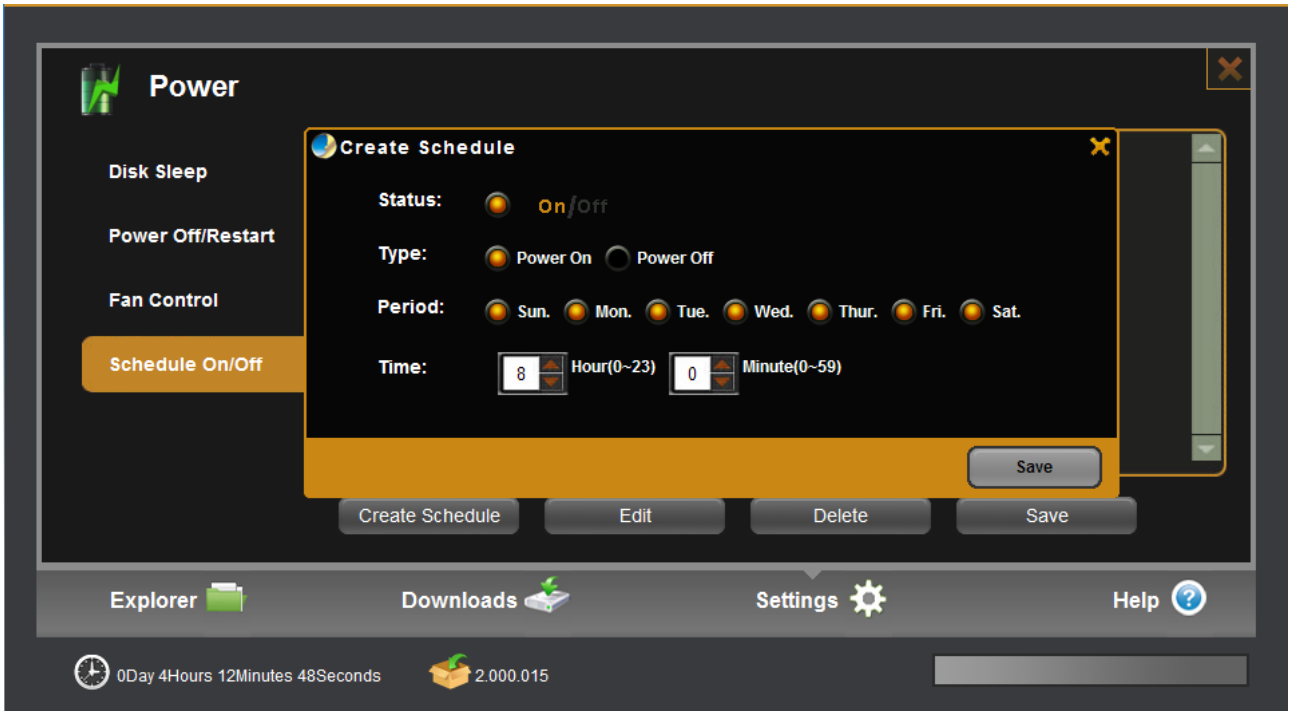
To power off the device, select “power off” option and click “confirm” button and system will power off and Status LED will flicker then off.

To restart the device, select “restart” option and click “confirm” button to do, Status LED will flicker then be on when restart is finished. Web page turns to the new page for login.



6.6.3 Schedule On/Off

You can create schedule to guide NAS shutdown or power time.



Item	Action
Status	Make sure it is on state, thus your setting is effective.
Type	If you check Power On, means that you set the time will guide NAS boot; If you check Power Off, means that you set the time will guide

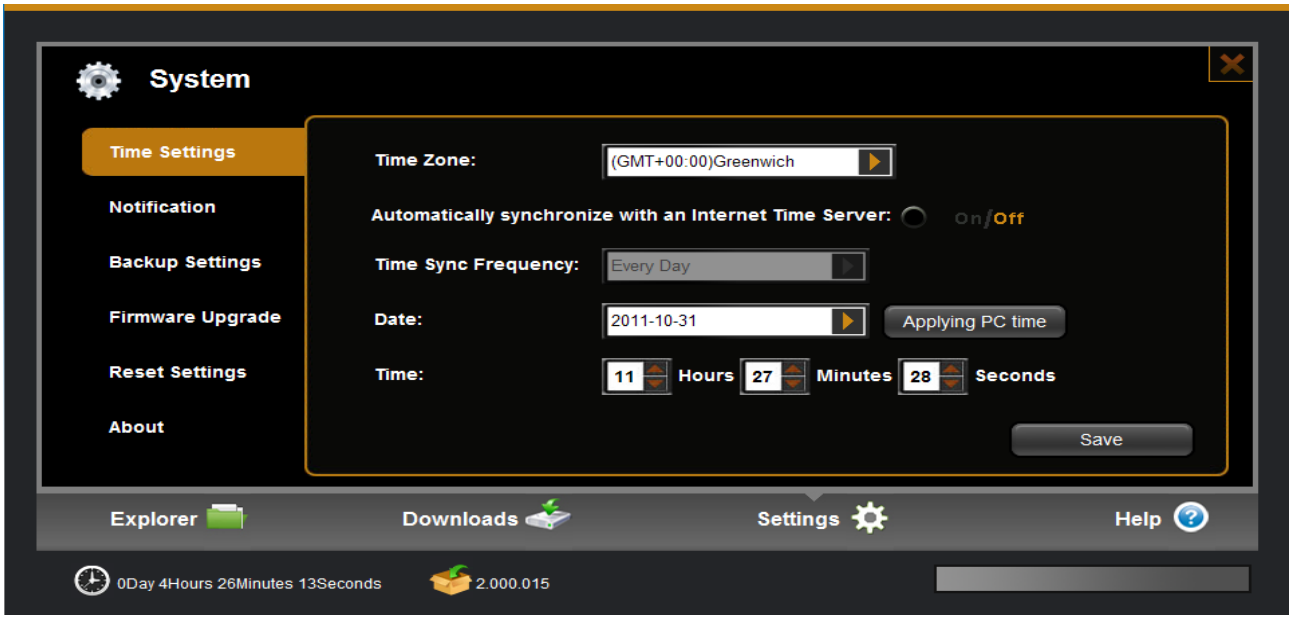
	NAS shutdown.
Period / Time	The two options will guide NAS shutdown or power time.

6.7 System

6.7.1 Time Settings

The time of the device can be set automatically, over the Internet using NTP (Network Time Protocol) server or by hand setting.

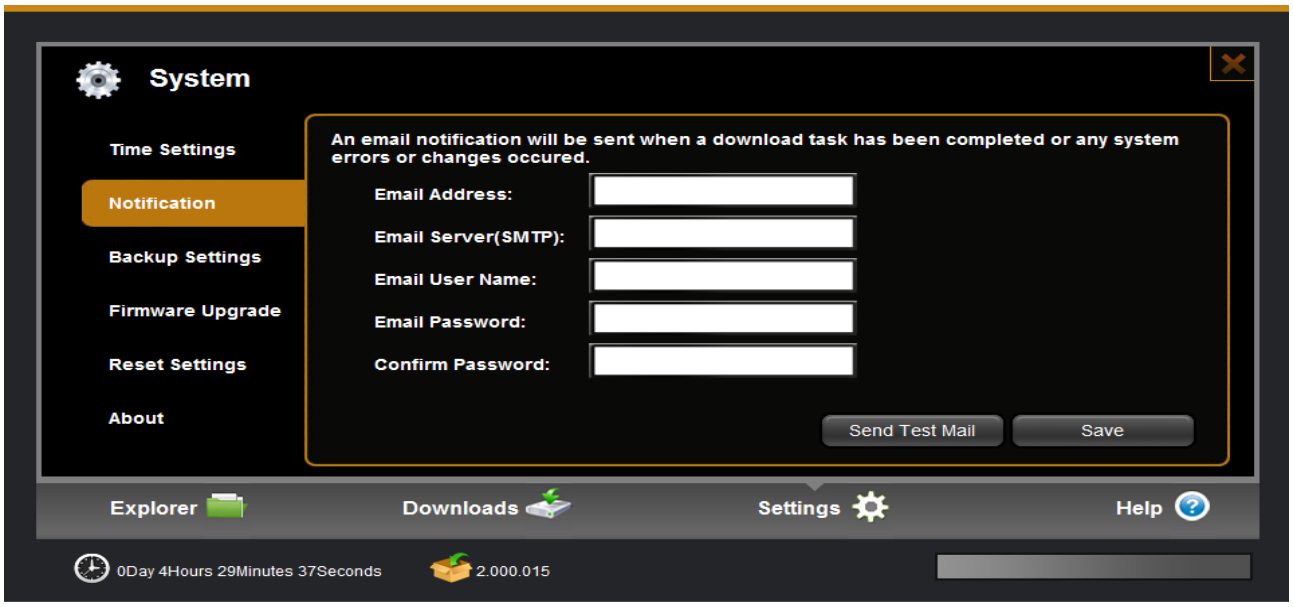
Depending on the location, select the time zone from the drop-down list. If the time is set over the internet enable Internet Sync, enter time sync frency (NTP update frequency). It will become effective after press confirm button.



6.7.2 Notification Settings

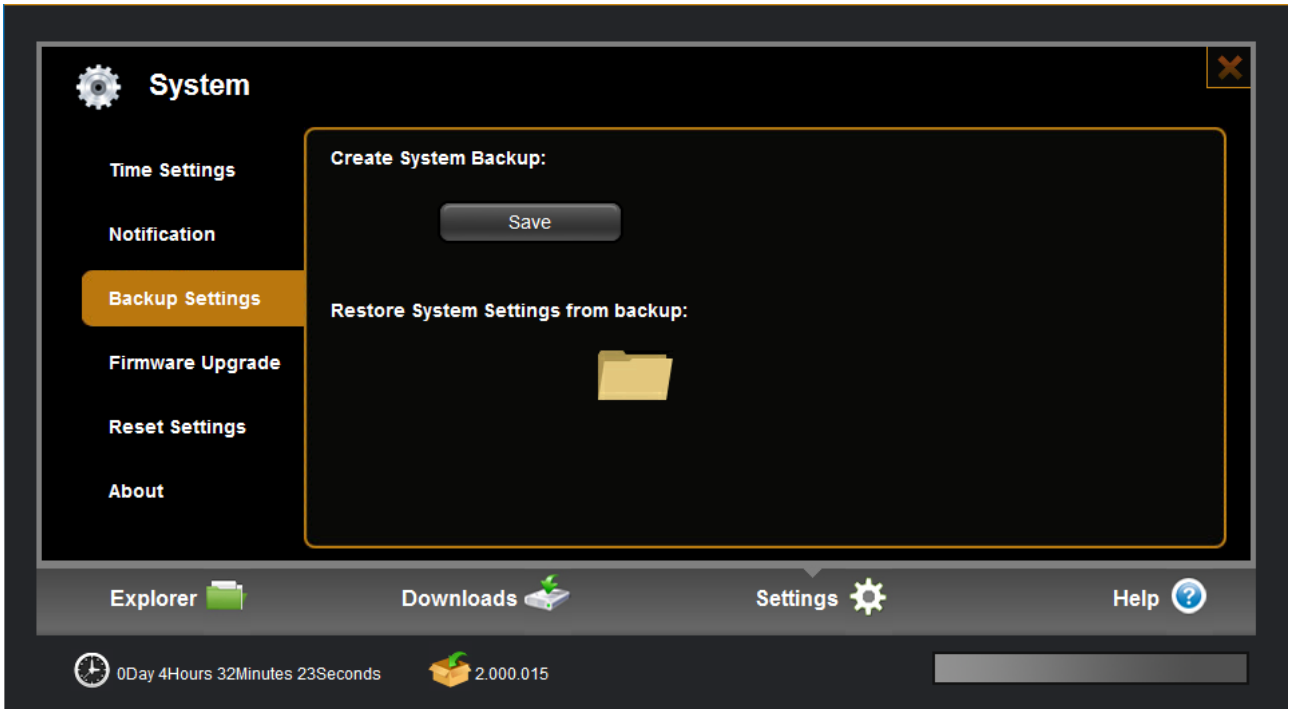
Setting of email notification: in case of application of email notification service, it's required to fill in the email address, email server, user name and email password, confirm the password and press "confirm" button to execute this setting.

The email specified by user can receive the prompt message and completed download task of device.



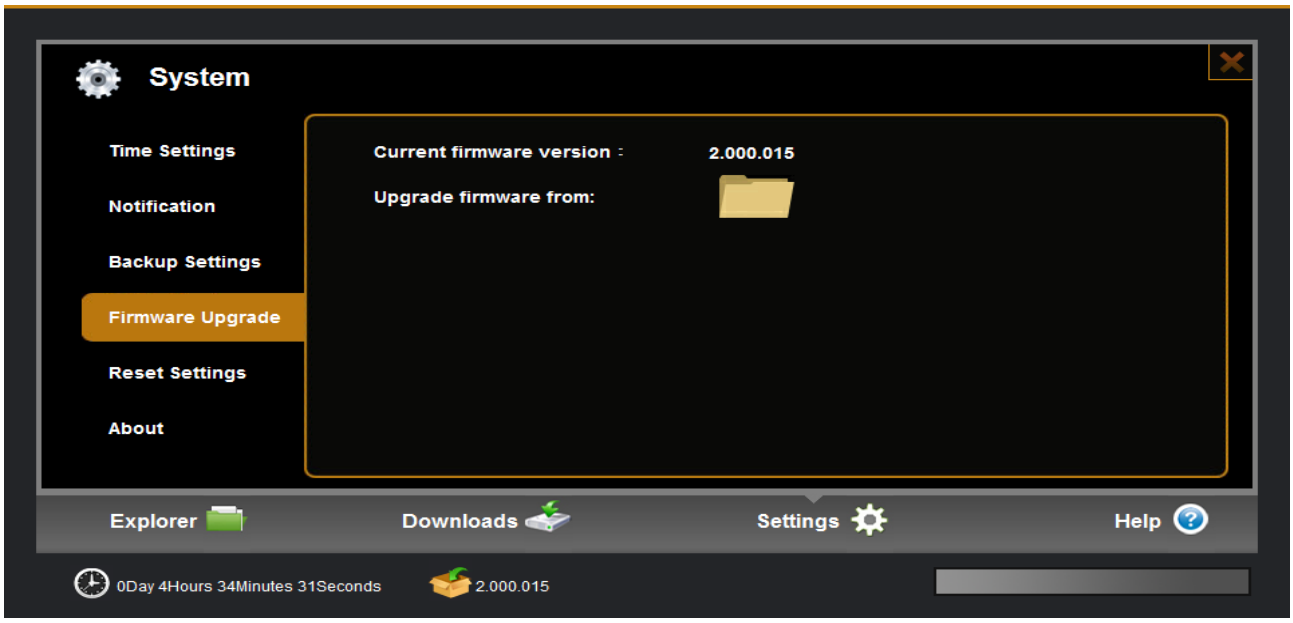
6.7.3 Backup Settings

Backup settings are used to save the current setting parameters of the Device system. Also you can restore the setting from the saved setting file.



6.7.4 Firmware Upgrade

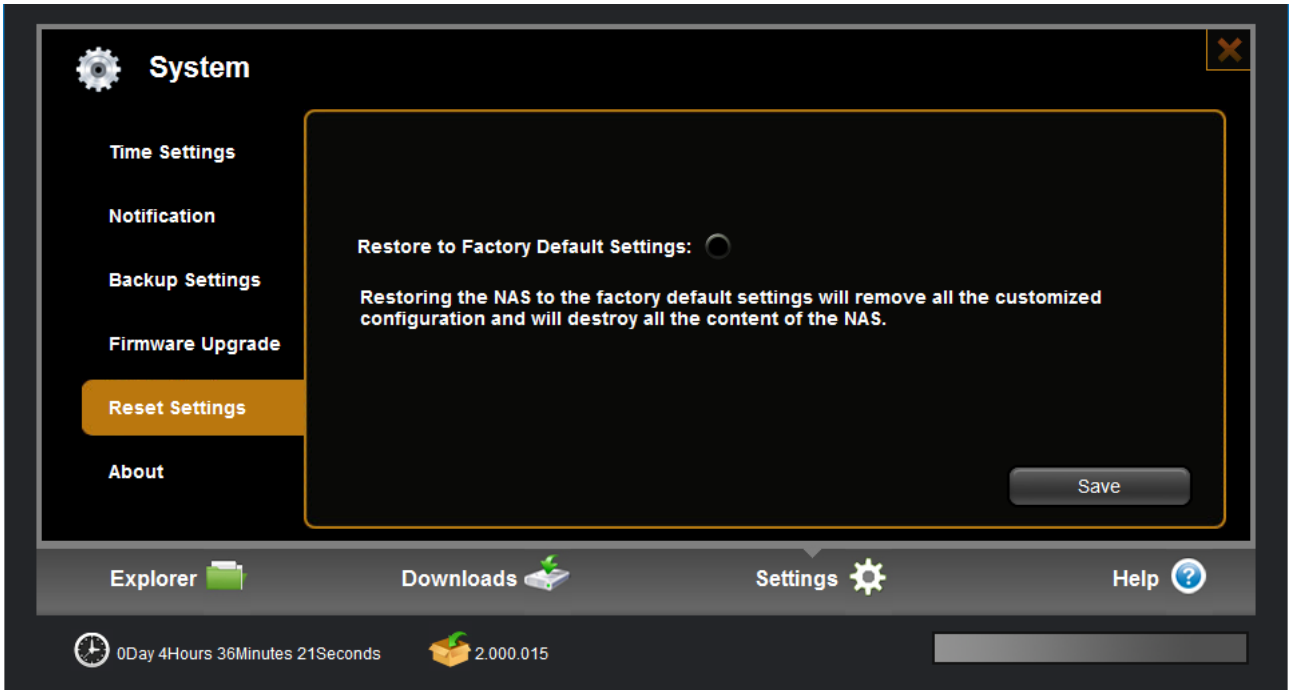
This feature is used to update device firmware.



Step 1. Download the latest version of firmware from the device manufacturer website. Click the folder icon to locate the downloaded firmware.

Step 2.Click “confirm” button to begin upgrading. After upgrading the system will reboot and you can check firmware version at the bottom of main UI.

6.7.5 Reset Settings



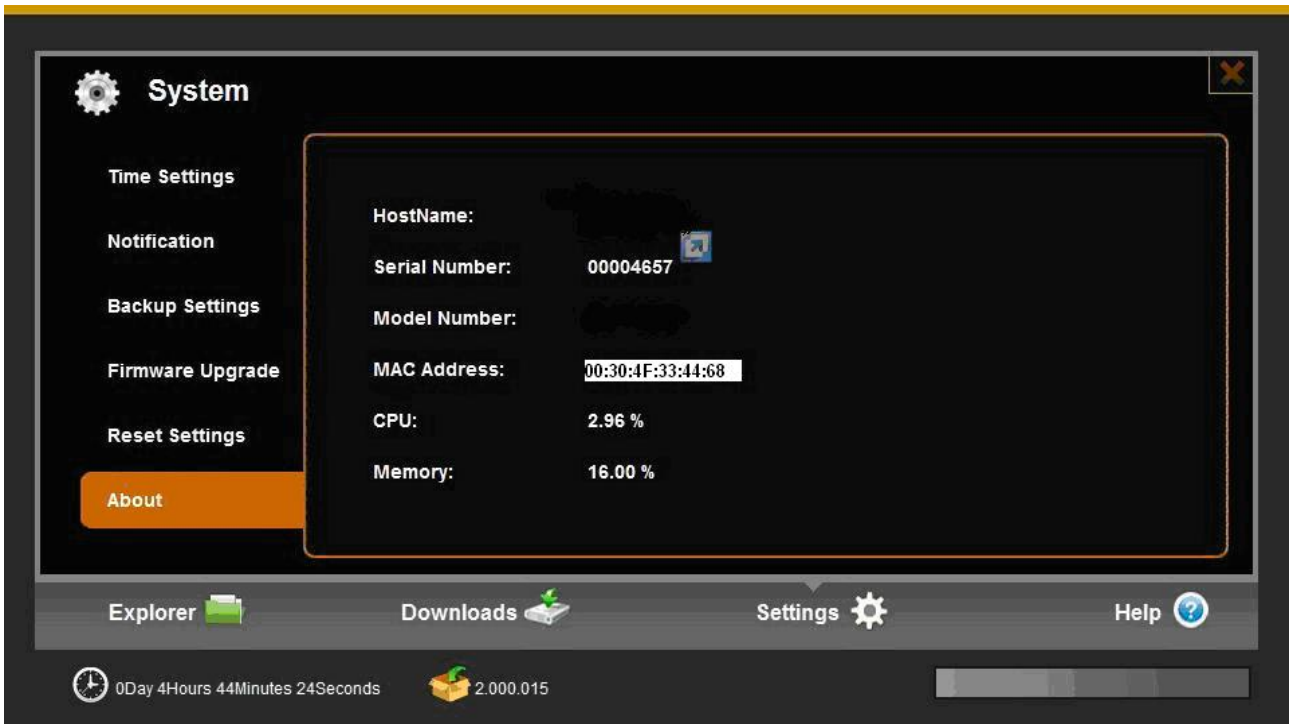
Item	Action
Restore to Factory Default	Restoring the NAS to the factory default settings will remove all the customized configuration and will destroy all the content of the NAS

Note

The feature only restores the device default settings for all functions. The current downloading tasks are not affected by this operation. After the device is restored to default configuration, the IP address is 192.168.0.100.

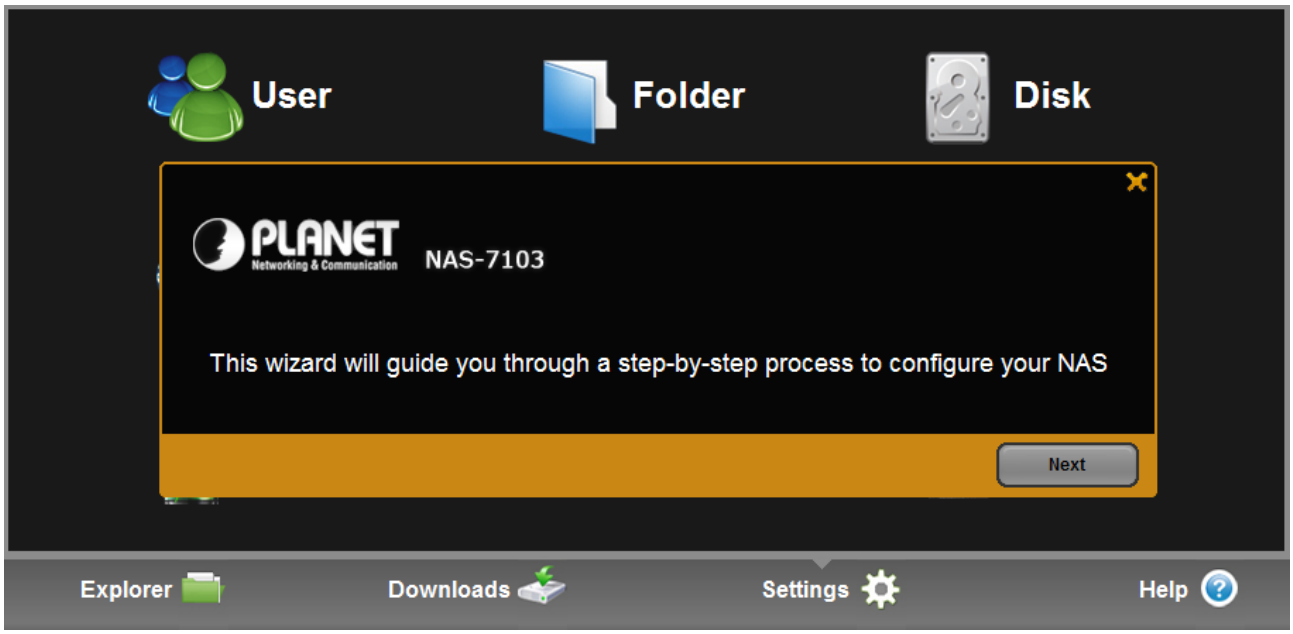
6.7.6 About

Here is some information of the device.



6.8 Wizard

Here is a wizard for basic setting step by step.

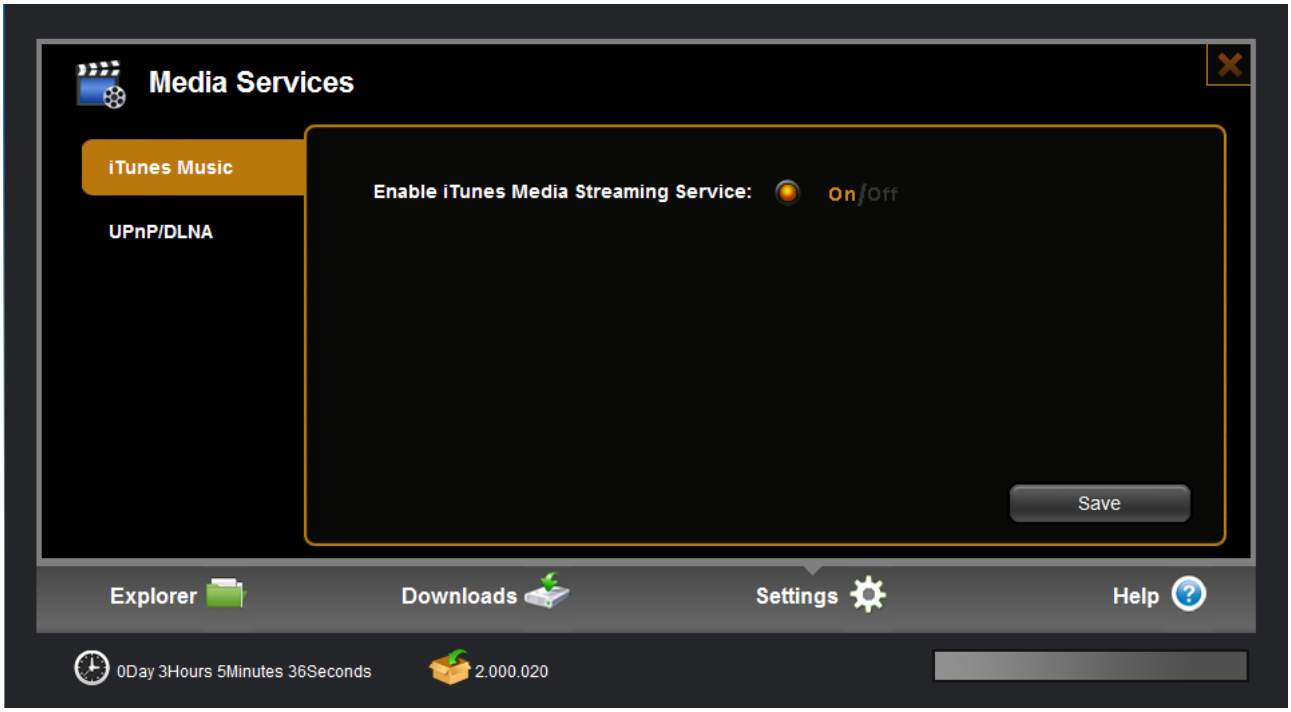


7. Help

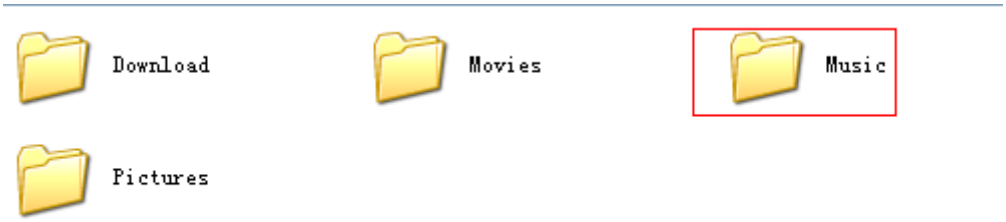
Here is Help information of the device.

Appendix A: iTunes service

Step1.Enable the iTunes service in the web management



Step2. Copy several songs to built-in disk by samba or FTP, which are recommended put into “music” inside of “share”.



Step3. Then open iTunes in your computer. It will search network share devices automatically, you can find device name at the left list, pitch on the device to open music playlist.

File types supported by iTunes server

- *.mp3
- *.m4a
- *.wav
- *.aiff

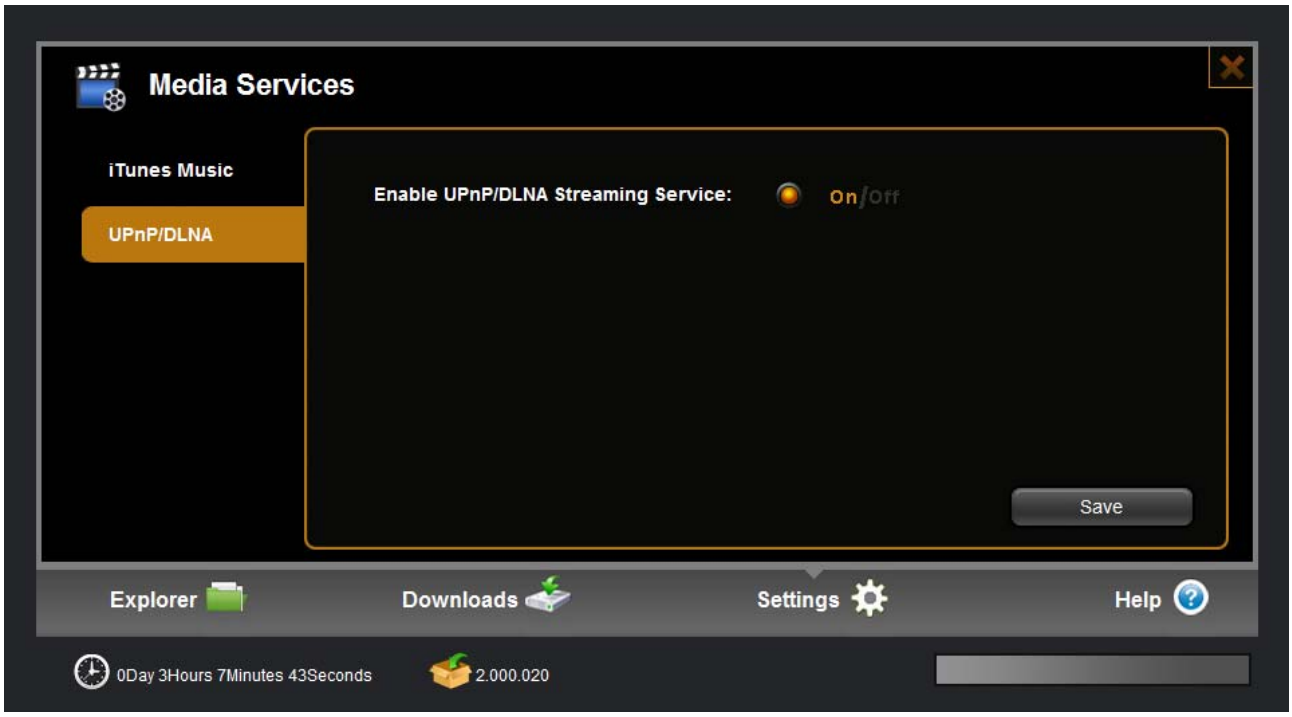
Note

(1) Newly increased media files to device maybe need restart of iTunes service, and then iTunes client can recognize them.

(2) Not only on Mac but also on PC, this function can be applied properly.

Appendix B: DLNA service

Enable DLNA service in the web management.

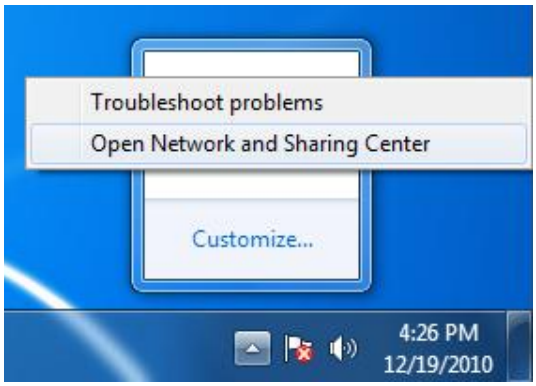


Application on PC

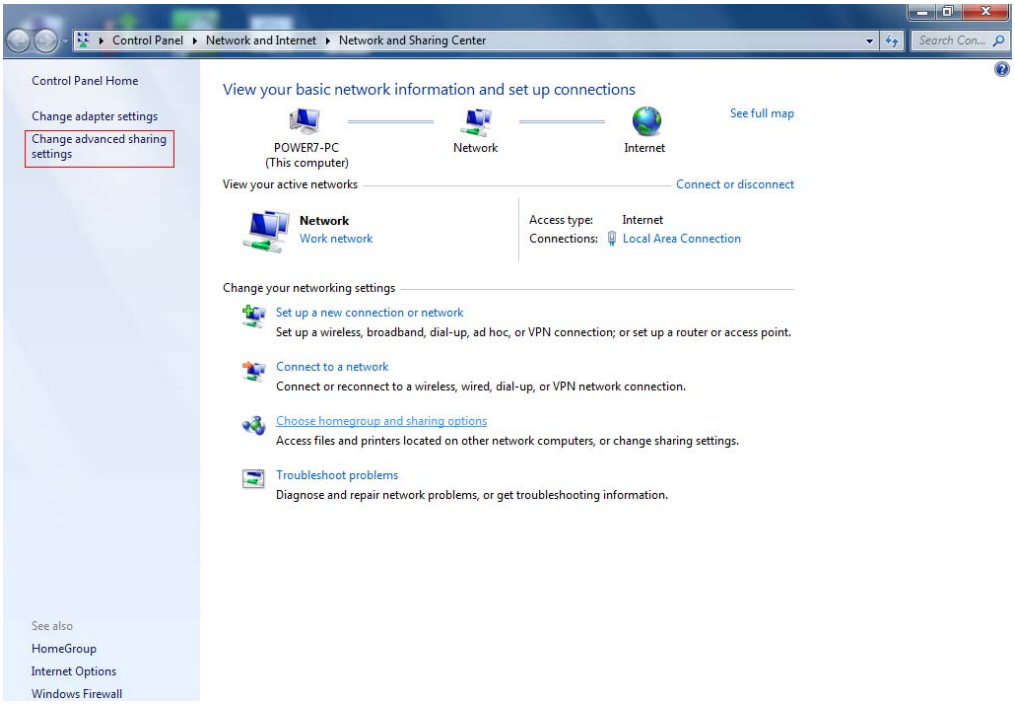
Operation procedure:

1. Please make sure client PC has been set to a shared network.(In Windows 7 for example)

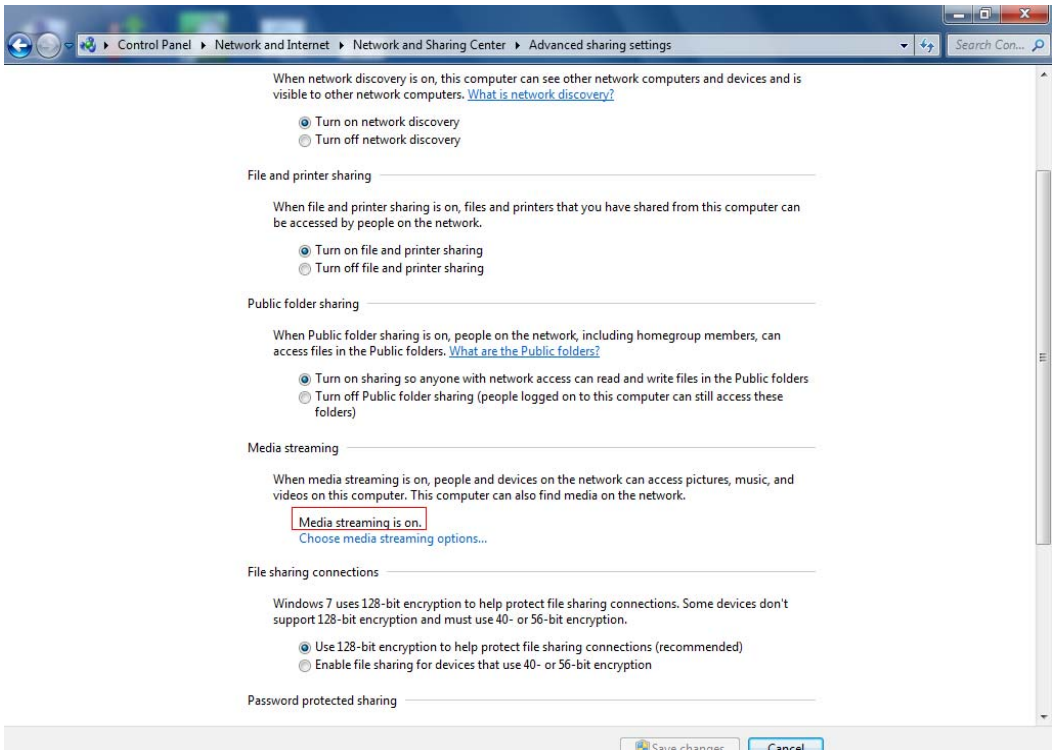
Click the lower right corner on the toolbar of PC monitor "network" icon, click the option "Open Network and Sharing Center".



Click the option "Change advanced sharing settings" on the left side of the interface.



Open “Media streaming” that you can find media on the network.



2. Add media files folders to the shared.

Access device by Samba / FTP (section 3, section 4), and copy multimedia files to ”Music”, “Movies”, “Pictures” fodder under the “share” directory.

Media Types Supported by DLNA

Shared Audios	Shared Videos	Shared Photos
Audio Files	Video Files	Image Files
MP3	AVI	JPEG
WMA	DIVX	PNG
WAV	M2TS	TIFF
MP4	MKV	BMP
M4A	MOV	GIF
AAC	MP4	
AC3	NPG	
AIFF	TS	
	VOB	
	WMV	

3. Open Windows Media Player 11 (Windows Vista / Windows 7), click the device name on the left, and you will see media files stored in the device. Then you can select the desired one to play.

Note

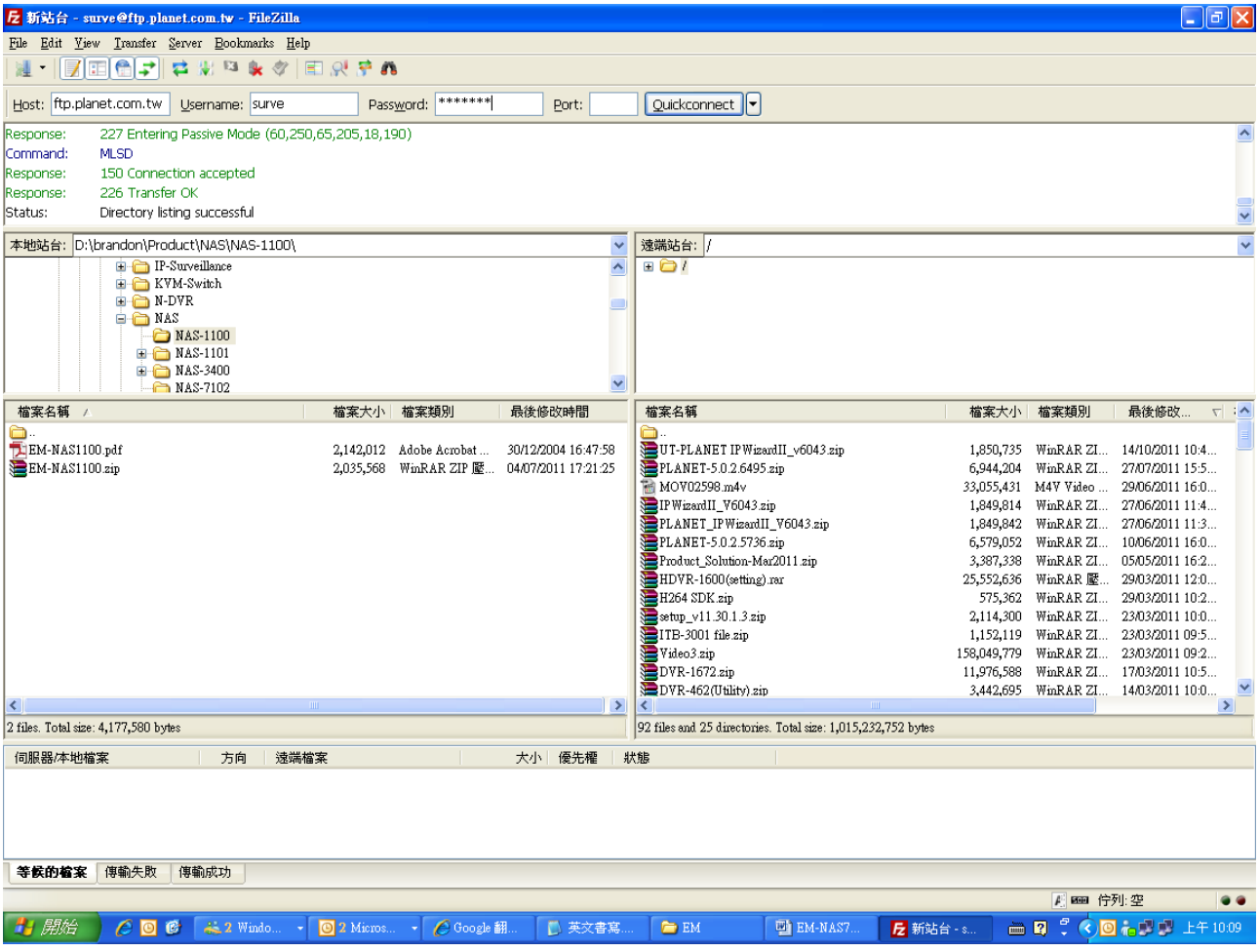
DLNA service can also support other DLNA-compatible devices, such as Media Player, Play station 3, Xbox 360.

Appendix C: Access on PC

Accessing device with FTP client tool

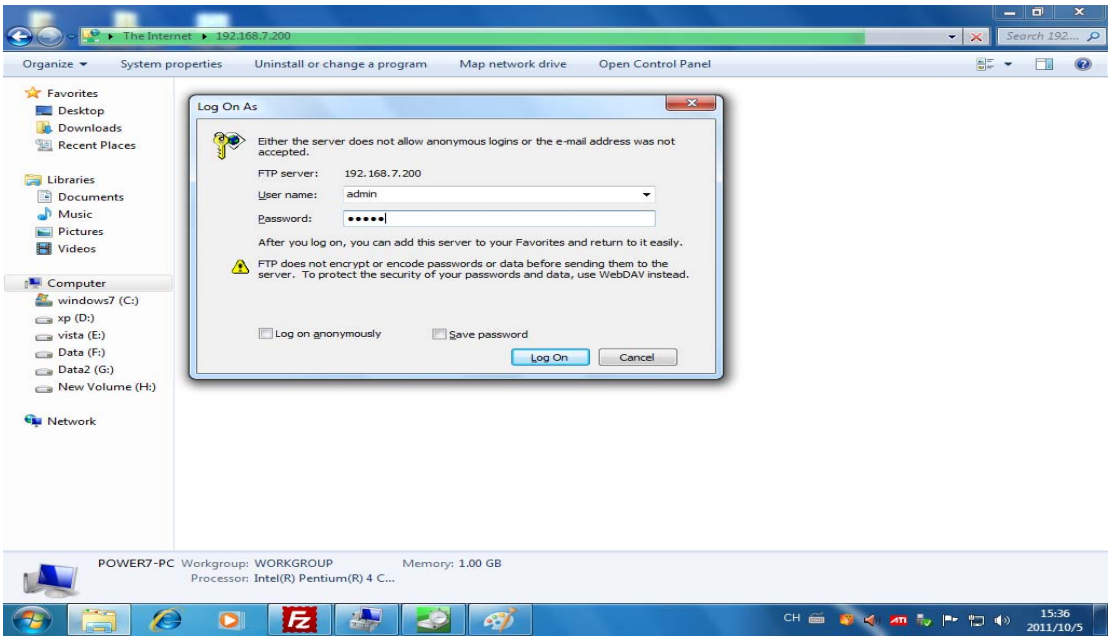
1. Please install FTP client software like Filezilla Client.

2. Double click the icon on desktop to open, and then enter the host name as “ftp:// xx.xx.xx”.(IP address) or “ftp://device name”, user name, and password to login, shown as below.

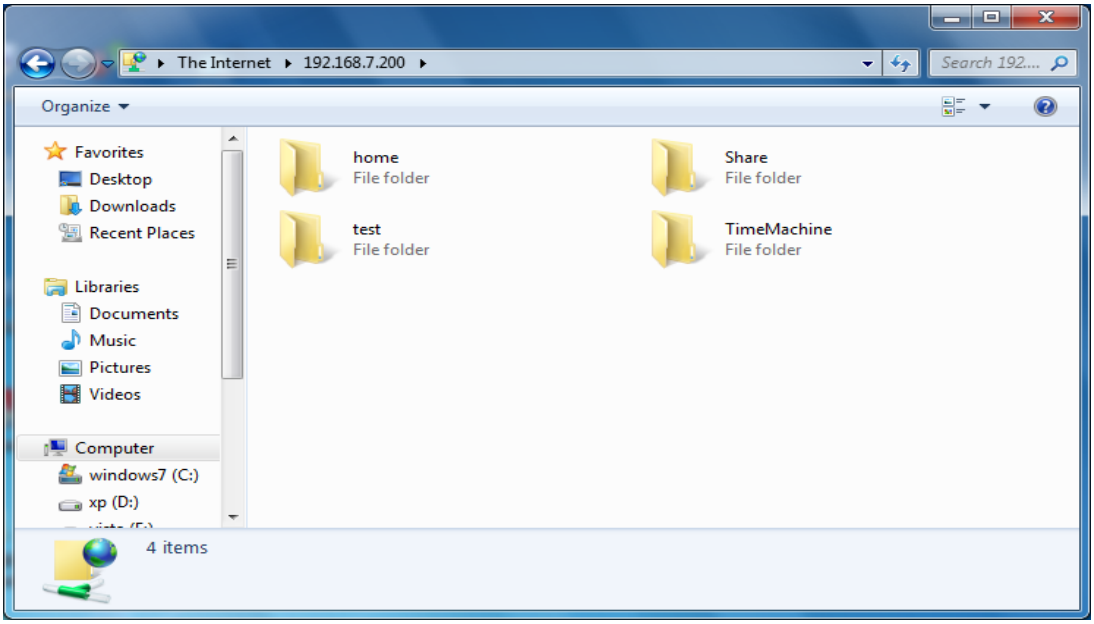


Accessing device without tool

1. Type “ftp:// xx.xx.xx “ (e.g. ftp://192.168.7.200) in “my computer” or browser.



2. Then enter user name and password to login. (For more detail please see 6.1.1)



Note

When access the device through above two methods, if Chinese characters show messy code, please try to change the encoded mode for UTF-8 in the browser or FTP terminal software.

Appendix D: Functional Specifications

Hardware Specification	
Supported HDD	One 3.5” SATA I/II interface
LAN Connector	One RJ-45 Interface (10/100/1000Mbps)
USB Connector	1 x USB 2.0 Compatible (Type A) 1 x USB 2.0 Compatible (Type B)
USB Connectivity	External Storage
Transport Protocol	TCP/IP, NTP, SMTP, DDNS
File Protocols	WebDAV, SMB/CIFS, FTP, NFS, AFP (Apple Talk) / Time Machine, SSH
Multimedia Server	iTunes / DLNA / UPnP AV Server
Client OS	Windows 7 / Vista / XP, Mac OS 10.5 and later
System Configuration	Windows / Mac Based utility, Web Browser
Operating	Temperature: 5 ~ 40 Degree C Humidity: 5 ~ 90% (non-condensing)
Storage	Temperature: 0 ~ 60 Degree C Humidity: 5 ~ 90% (non-condensing)
Dimension (W x D x H)	201 x 116 x 37 mm
Weight	492g (without HD)
Power Adapter	12V / 2A
Regulatory	FCC, CE