

Network File Server

User's Manual

Rev. 01 (April 2004)

Made In Taiwan

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ABOUT THIS GUIDE

This manual provides instructions and illustrations on how to use your Network File Server, including:

- Chapter 1, **Introduction**, provides the general information on the product.
- Chapter 2, **Installation**, describes the hardware installation procedure for the product, and how to access to the file server.
- Chapter 3, **Web Configuration**, completes the configuration using the web browser.
- Chapter 4, **Downloading Files**, helps you to set up downloading schedule.
- Chapter 5, **Product Specification**.

Please note that the illustrations or setting values in this manual are **FOR YOUR REFERENCE ONLY**. The actual settings and values depend on your system and network. If you are not sure about the respective information, please ask your network administrator or MIS staff for help.

INTRODUCTION

Congratulations on purchasing your Network File Server, the easiest and fastest way to share data, file, and resource in your network.

This entry-level file server is the value-added equipment in your network that allows you to control file-sharing needs within a small office/home office (SOHO) environment. With expandable function (through its two USB ports) in a compact form-factor, the Network File Server is ideal for sharing data, rich-media files, and for storage in a small office, remote corporate office or residential gateway environments.

General Features

- ◆ Compact-sized design.
- ◆ Compliant with USB1.1 and USB2.0.
- ◆ Provide one 10/100Mbps auto-MDIX fast Ethernet LAN port.
- ◆ Support “Hot-plug” function.
- ◆ Two operating modes support: Open mode and Account mode.
- ◆ Support Auto-IP function.
- ◆ Support IP assignment for DHCP and Auto-IP.
- ◆ Support IP address filtering for Ethernet access with either DENY or ALLOW setting.
- ◆ Support external USB storage (Hard-disk, flash disk, CD-ROM, MO, and Micro Drive).
- ◆ Provide download assistance, making users download files without PC and schedule-able (support ftp and http).
- ◆ Support NTP (network time protocol).
- ◆ Web-based administrative program is stored in flash ROM of the file server.
- ◆ No setup necessary in open mode.
- ◆ Firmware upgrade-able by Web-based administrative program.
- ◆ Support Windows 98/ME/NT/2000/XP and Linux SMB.
- ◆ Provide FTP Server service.
- ◆ Support UPnP for windows XP.
- ◆ Provide an easy-search program for different IP domain setting.

Package Contents

Unpack the package and check all the items carefully, and be certain that you have:

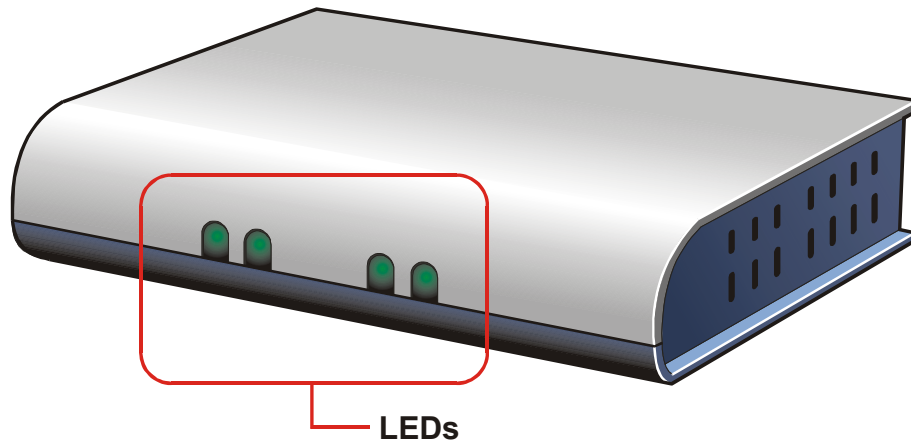
- ◆ One Network File Server.
- ◆ One AC Power Adapter suitable for your country's electric power service.
- ◆ One Quick Installation Guide.
- ◆ One Installation CD-ROM containing the manual files (PDF).

If any item contained is damaged or missing, please contact your local dealer immediately. Also, keep the box and packing materials in case you need to ship the unit in the future.

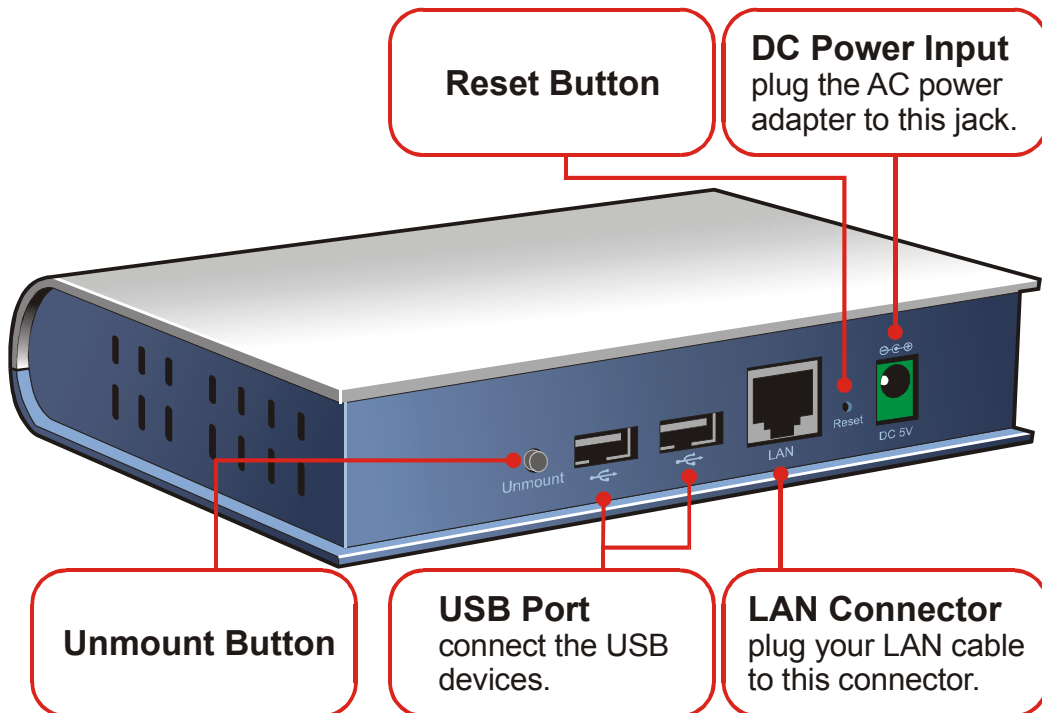
Product View

This section describes the externally visible features of the file server.

Front View



Rear View



LEDs

There are three LEDs on the front panel (four for wireless model):

LEDs	Description
Power	A steady Green light confirms that the file server is powered on.
LAN	A steady Green light confirms that the file server has a good connection to your network. When it blinks, the file server is receiving/transmitting data from/to the network.
WLAN (for wireless model)	A steady Green light confirms that the file server has a good connection to your wireless network. When it blinks, the file server is receiving/transmitting data from/to the wireless network.
Mode (green/red)	Off: no devices attached to the file server. Green: when you connect a USB device to the file server, it starts blinking Green slowly; when the system has detected the device, it lights Green steadily to indicate that the attached device is OK. Red: when you press the Unmount Button to remove the attached device, it starts blinking Red slowly. If the last connected device failed, it lights Red steadily; you have to re-connect the device.

Reset Button

Press and hold the Reset Button for 4 seconds to reset the file server.

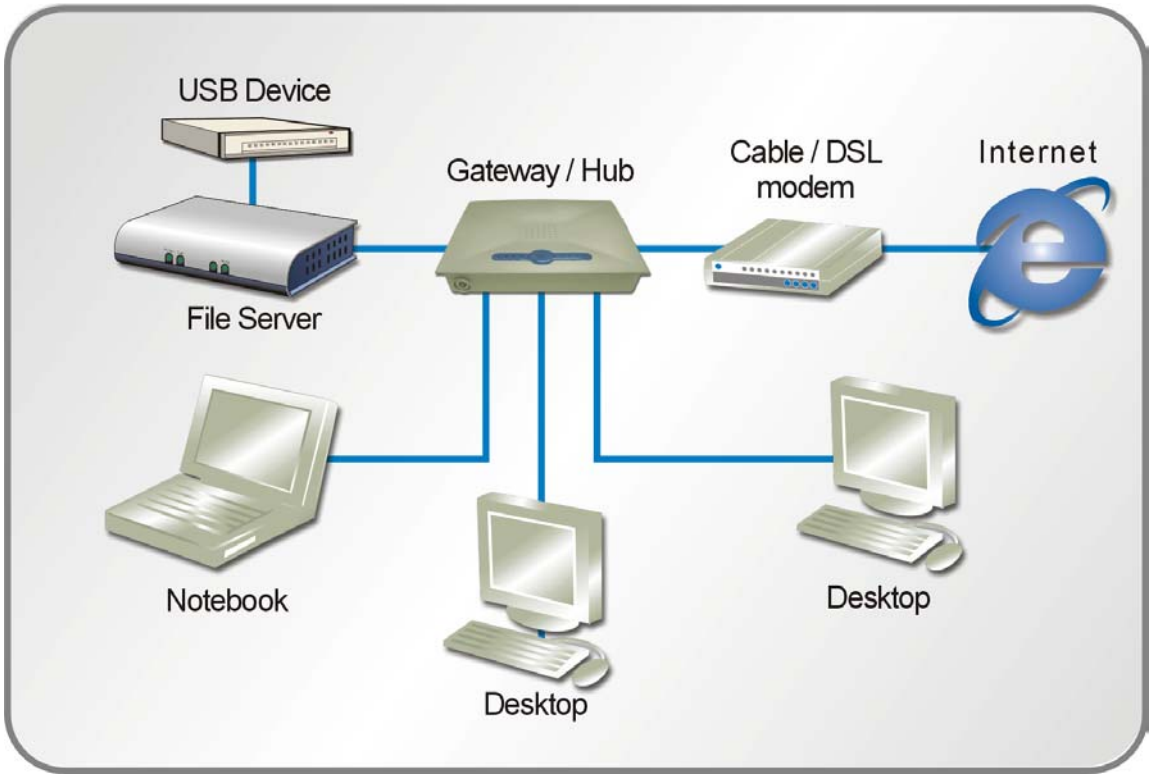
Unmount Button

Press this button to remove the connected USB device safely.

INSTALLATION

Networking Application

The following diagram explains the application of your print server.



File Server in Your Network Environment

Installing the File Server

Follow these steps for a trouble-free start of file server operations with your Network File Server.

Connecting to the Network

1. Confirm proper operation of the gateway/hub to be connected in the network.
2. Connect the file server to the gateway/hub through the RJ-45 cable.
3. Connect the power adapter of the file server to the wall outlet. This will supply power to the file server immediately.

Connecting to a Client Workstation

For some reasons, you may need to connect the file server to a client workstation directly. For example, you build a direct connection between your desktop PC and the file server to configure the file server. In this event, you should set up the computer's IP address as instructions in next section.

Expanding the USB Devices

The file server provides two USB ports that allow you to expand the file server's function, such as connecting a large storage device.

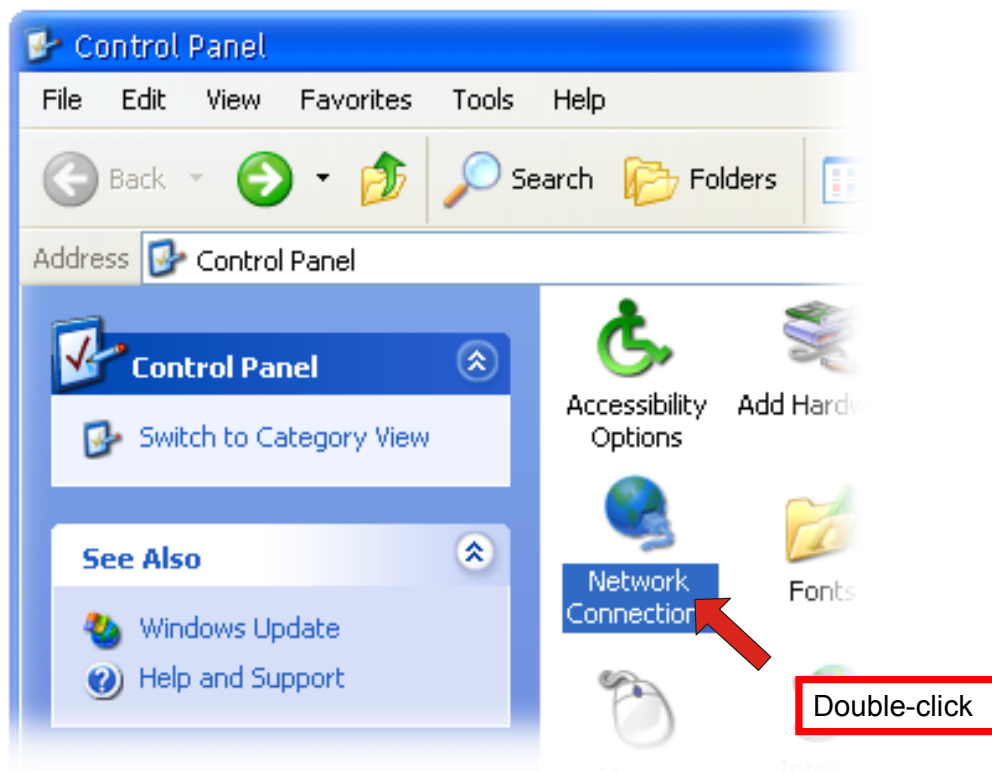
To connect the USB device, simply plug the USB device into one of the file server's USB ports. Alternately, you can connect the USB device through a USB cable.

Using the File Server

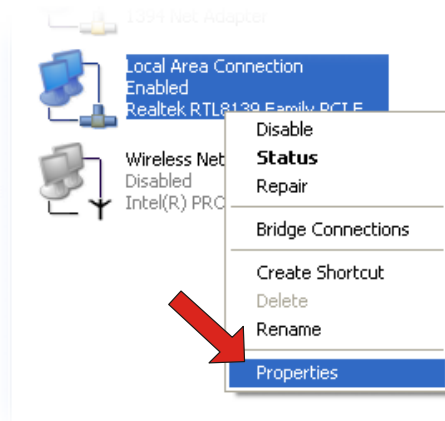
Configuring a Dynamic IP Address

When you connect your computer to the file server directly to configure the file server, you need to check the computer's IP address, and set up the IP address within the file server's IP address range.

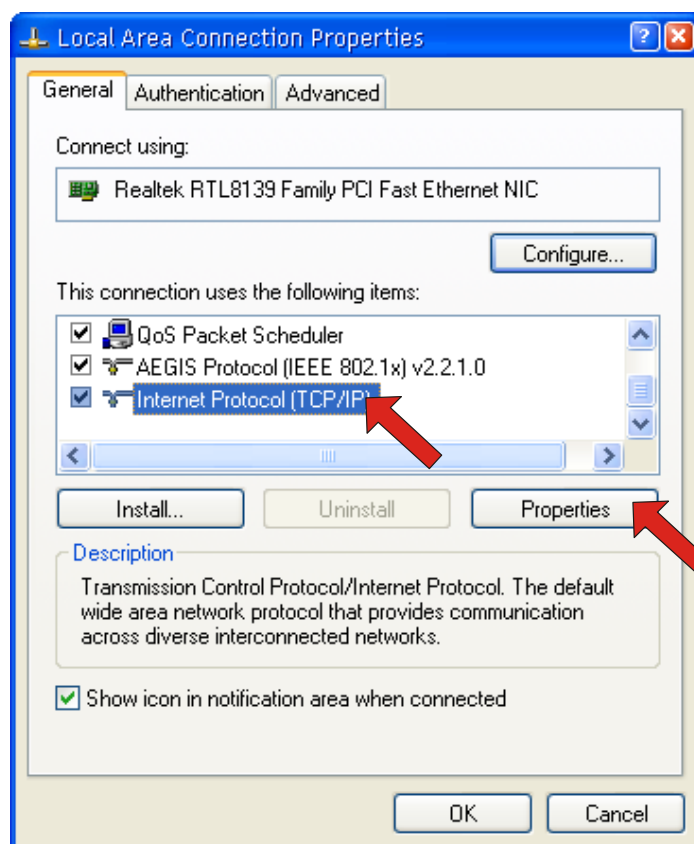
1. Click **Start** and choose **Control Panel** to open the Control Panel window.
2. Double-click the **Network Connection** icon to open the Network Connection window.



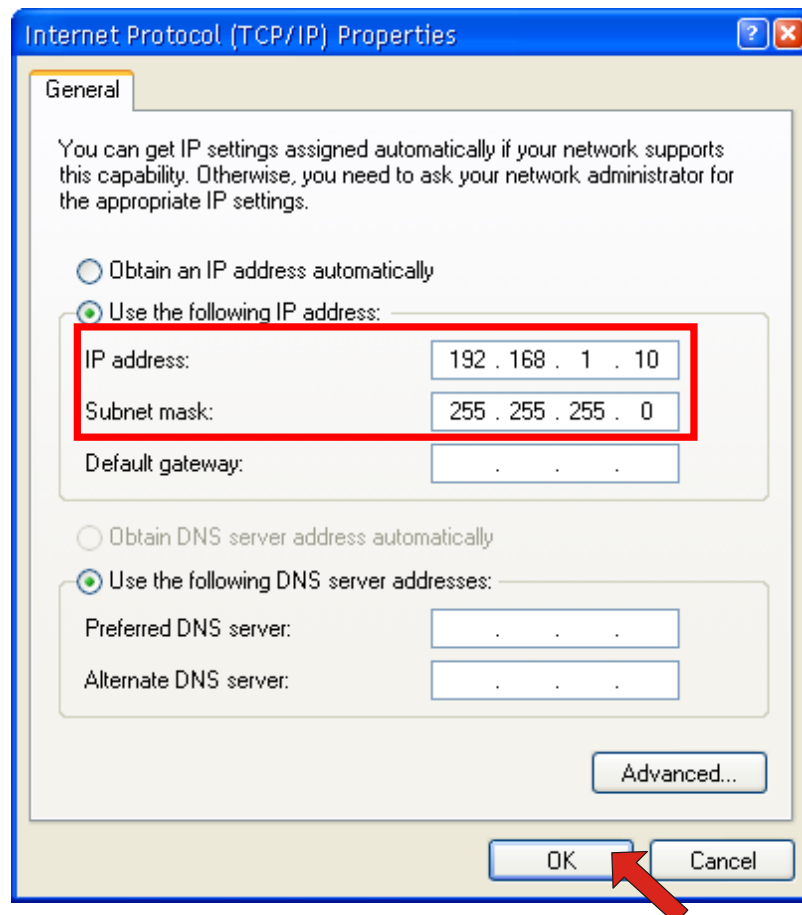
3. Right-click the Local Area Connection icon and click **Properties** from the shortcut menu.



4. When the Local Area Connection Properties window appears, choose **General** tab and select **Internet Protocol [TCP/IP]**, and then click **Properties** to bring up the Internet Protocol [TCP/IP] Properties window.



5. To configure a fixed IP address, check the “**Use the following IP address**” option. Then, enter an IP address into the empty field. Suggested IP Address is **192.168.1.x** (*x* is 3~254), and suggested Subnet Mask is **255.255.255.0**.



6. Click **OK** to complete the configuration.

Accessing the File Server

Since you have made the connection between your computer and the file server, and configured the computer's IP address, you can access the file server through the following steps.

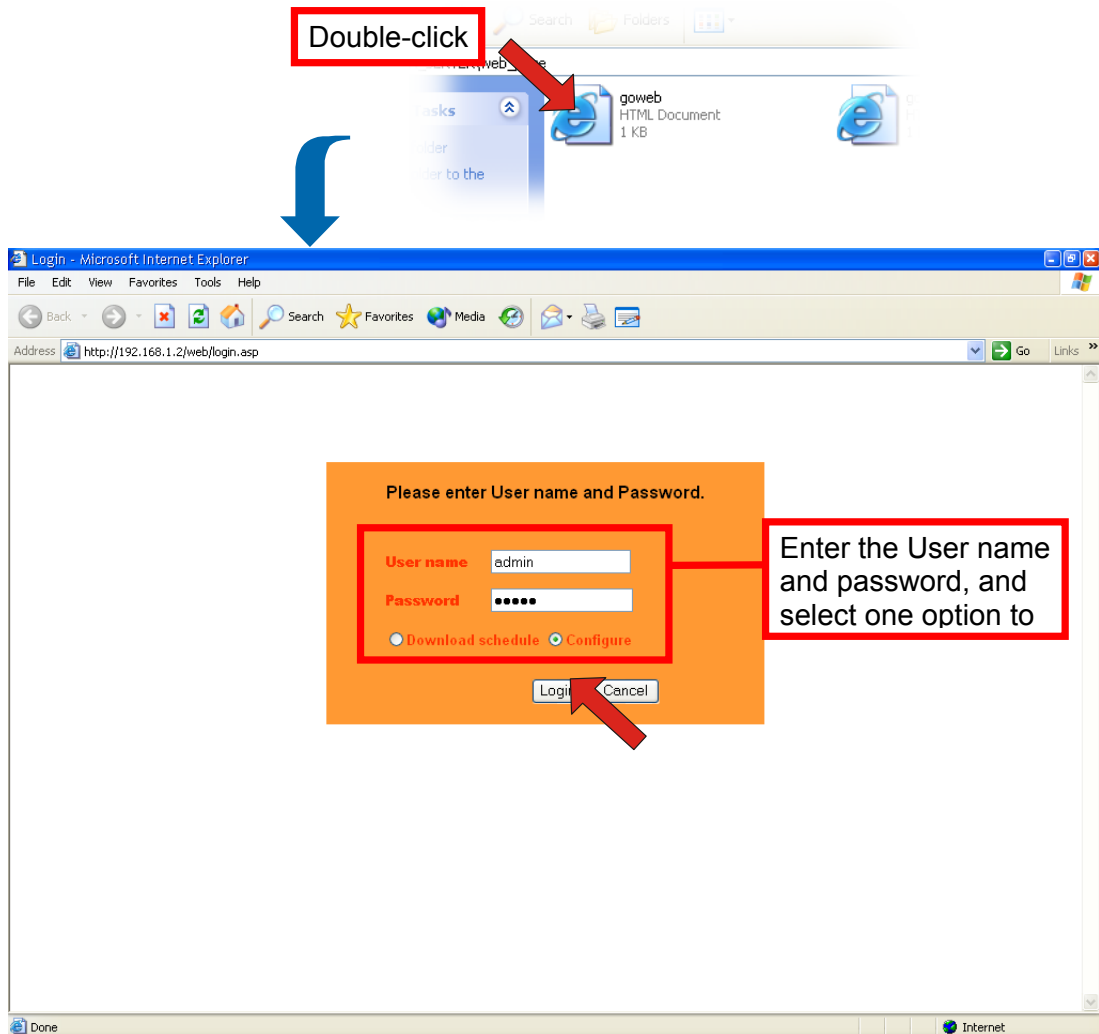
1. Click **Start** and choose **My Network Places**.



2. The file server is named as **Sambe_server**. If you connect the USB device, it also appears in the window.



3. Double-click the **web_page** shared folder, and then double-click the **goweb** item to launch your web browser and enter the web configuration utility. The login window will show as below.



Login Window of Web Configuration Utility

To enter the configuration utility, type **admin** in User name box and **admin** in Password box. Select the **Configure** option and click **Login**.

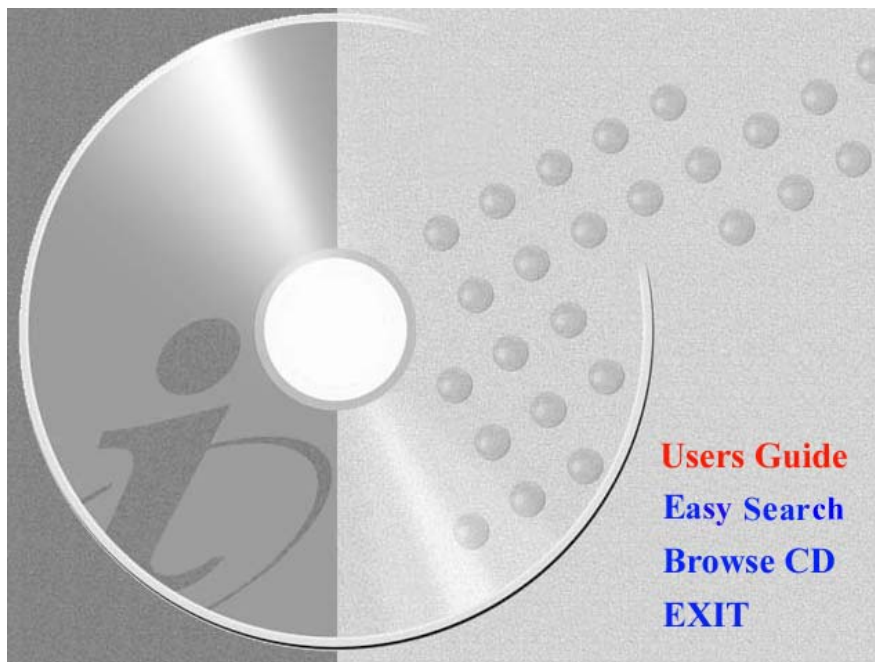
TIP: Selecting the Download schedule option allows you to enter the Download page.

Easy Search

To access and manage the file server easily, the conveniently utility **Easy Search** is provided for you in the Installation CD-ROM. **Easy Search** is a tool that allows you to set up the file server's connection.

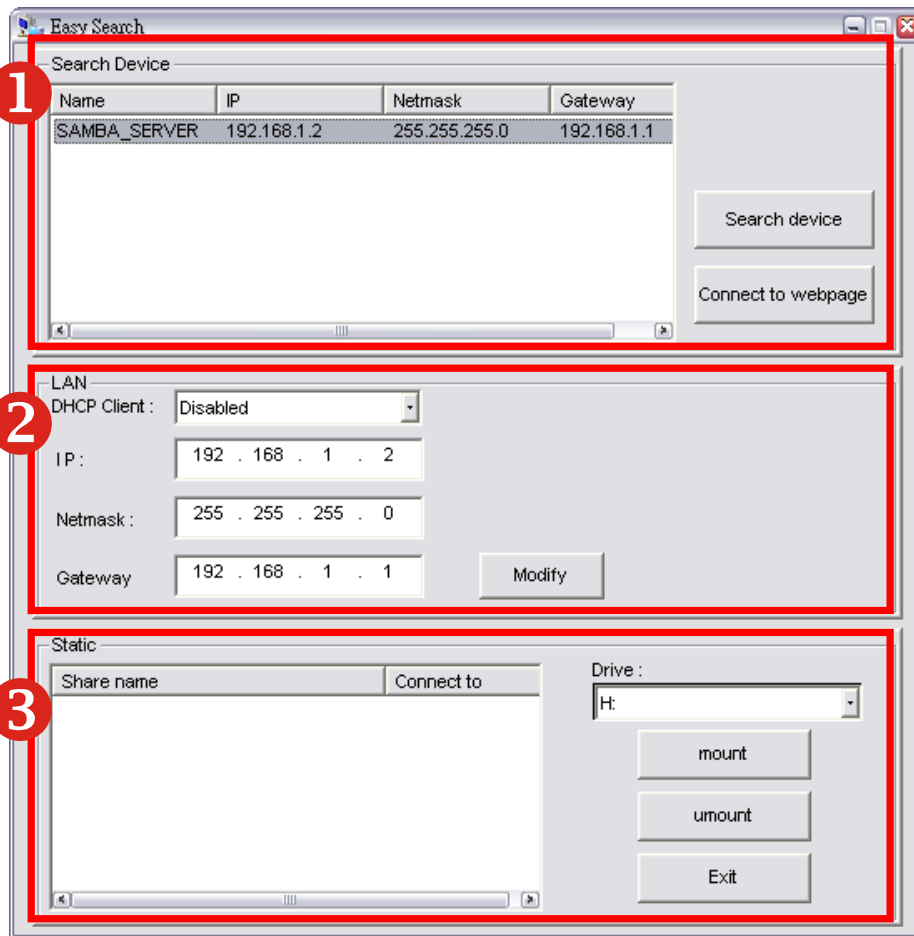
To use Easy Search:

1. Insert the Installation CD-ROM into your computer's CD-ROM drive to initiate the Auto-Run program.



Autorun Screen of Installation CD-ROM

2. Click the **Easy Search** item to launch the utility. The control panel will appear as below.



Control Panel of Easy Search

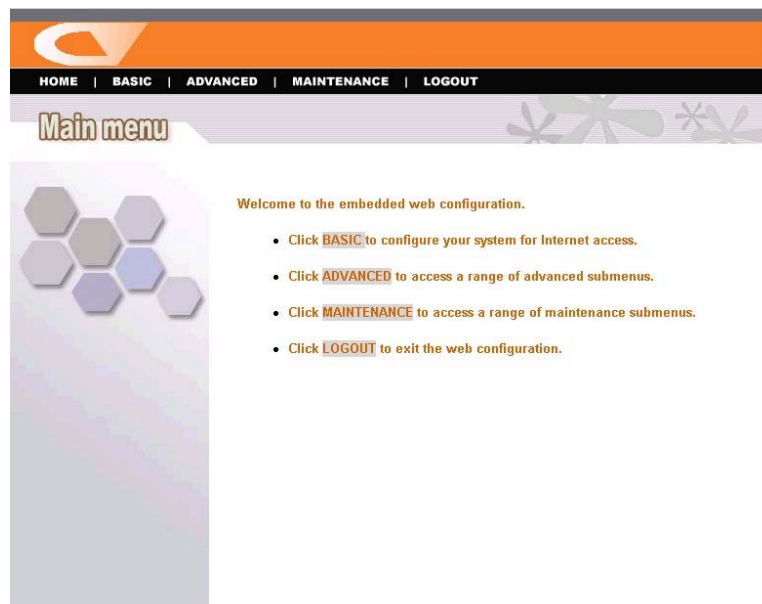
- 1** **Search Device** – when launching the utility, it will search the connected file server(s) automatically, and display the results in the list. To refresh the list, click the **Search device** button again. Clicking the **Connect to webpage** button will lead you to the web configuration utility.
- 2** **LAN** – select one file server in the device list, and you can change its settings in this field. When you change the settings, click the **Modify** button to apply changed configuration.
- 3** **Static** – when you connect the USB device to the file server, click the **mount/umount** button to attach/remove the device to your system. Click the **Exit** button to close the utility.

WEB CONFIGURATION

You can access and manage the File Server through a web browser. This chapter provides you with instructions of the Web Configuration Utility, and explains how to set up your file server with the web browser.

Web Configuration Utility

First, login the web configuration utility as described in the previous section. The Home menu will display as below.



There is a menu bar in the top of the configuration page, containing five items that allow you to set up your file server.



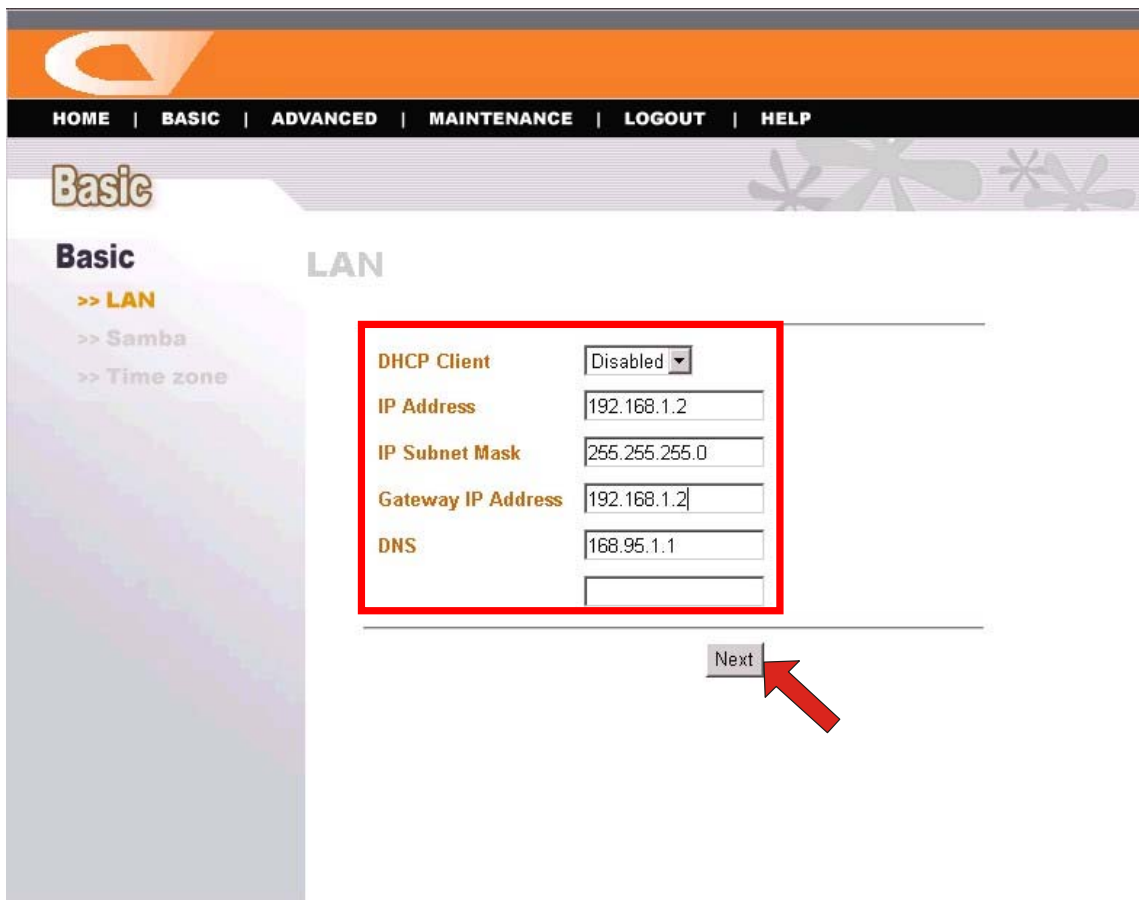
The Menu Bar

- **Home** – main screen of the utility, providing the brief instructions of the buttons on menu bar.
- **Basic** – allows you to configure your file server for Internet access through a step-by-step procedure.
- **Advanced** – contains more submenus that allow you to set up advanced configuration.
- **Maintenance** – provides maintenance tasks for the file server, such as upgrading firmware and reloading factory defaults.
- **Logout** – clicks to exit web configuration utility.

TIP: *The computer's IP address must correspond with the file server's IP address in the same segment for the two devices to communicate. Extensive knowledge of LAN will be helpful in configuring the file server.*

Configuration - Basic

The **Basic** menu contains three steps that will guide you through the basic configuration for the file server. Click **Basic** in the top menu bar to start the step-by-step configuration.



The screenshot shows a web interface for configuring a file server. At the top, there is a navigation bar with links: HOME | BASIC | ADVANCED | MAINTENANCE | LOGOUT | HELP. Below this, the 'Basic' menu is displayed, with 'LAN' selected. The LAN configuration form includes the following fields:

DHCP Client	Disabled
IP Address	192.168.1.2
IP Subnet Mask	255.255.255.0
Gateway IP Address	192.168.1.2
DNS	168.95.1.1

A red box highlights the DHCP Client, IP Address, IP Subnet Mask, Gateway IP Address, and DNS fields. A red arrow points to the 'Next' button located below the form.

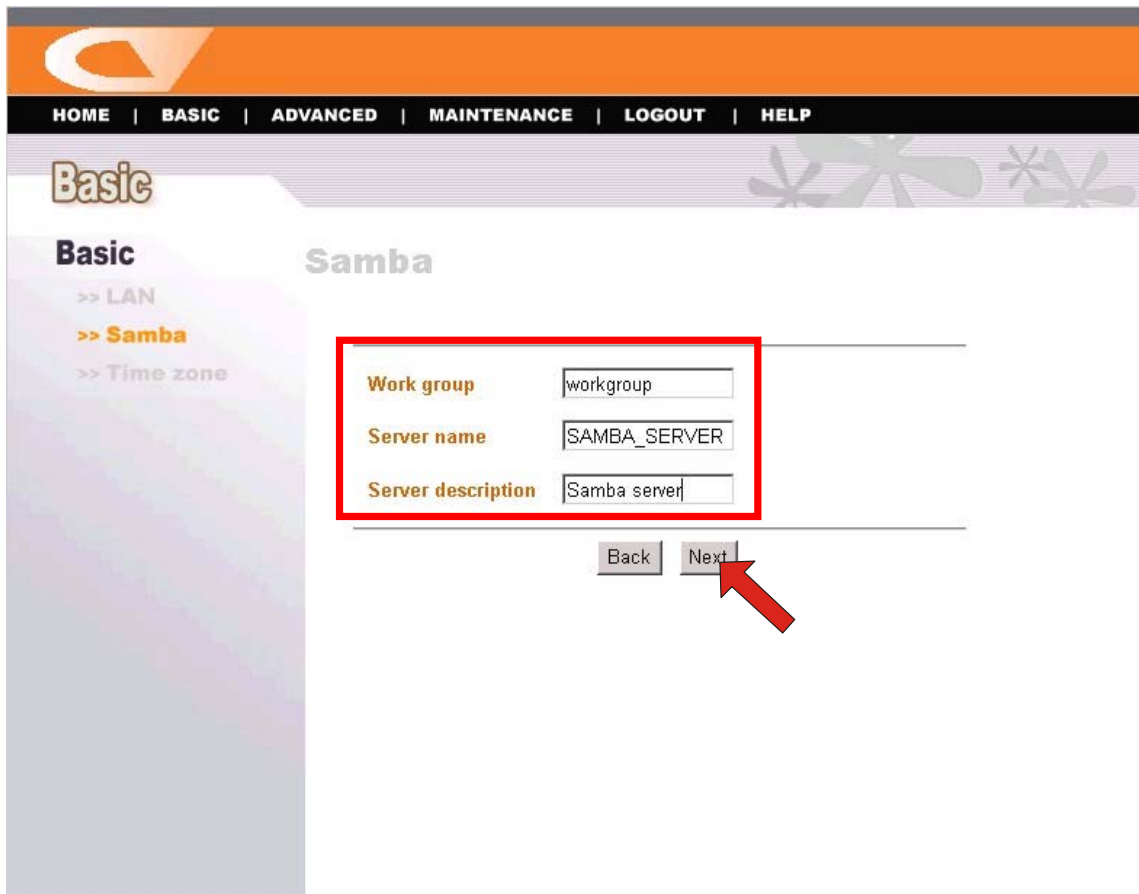
Basic Menu – LAN

Basic → LAN

The first step is to configure the LAN settings. These options in this step display the current IP address and DHCP service of the file server, and can be modified manually. When complete, click **Next**.

Basic → Samba

This screen allows you to set up the Workgroup name for the file server. You can also change the name and description of the file server.



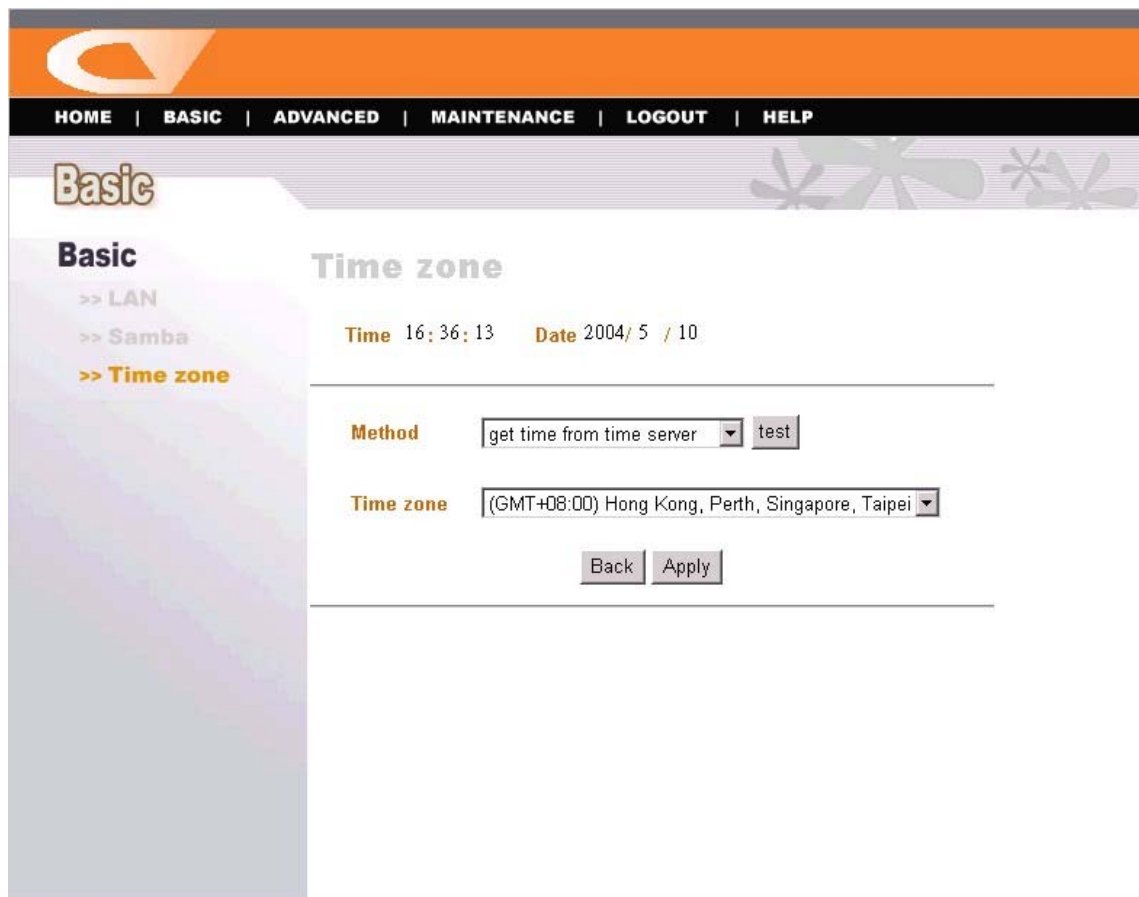
The screenshot shows a web interface for configuring Samba. At the top, there is a navigation bar with links: HOME | BASIC | ADVANCED | MAINTENANCE | LOGOUT | HELP. Below this, the page is titled "Basic" and "Samba". On the left, there is a sidebar menu with options: >> LAN, >> Samba (highlighted), and >> Time zone. The main content area contains three input fields: "Work group" with the value "workgroup", "Server name" with the value "SAMBA_SERVER", and "Server description" with the value "Samba server". These three fields are enclosed in a red rectangular box. Below the input fields are two buttons: "Back" and "Next". A red arrow points to the "Next" button.

Basic Menu – Samba

When complete, click **Next**.

Basic → Time Zone

This screen displays the current time setting of the file server. For system management purpose, a correct time setting is critical to have accurate time stamps on the system logs.



The screenshot shows a web interface for configuring the time zone. At the top, there is a navigation bar with links: HOME | BASIC | ADVANCED | MAINTENANCE | LOGOUT | HELP. Below this, the page is titled 'Basic' and 'Time zone'. The current time is displayed as 16:36:13 and the date as 2004/5/10. There are two main configuration fields: 'Method' and 'Time zone'. The 'Method' field is a dropdown menu currently set to 'get time from time server', with a 'test' button next to it. The 'Time zone' field is a dropdown menu currently set to '(GMT+08:00) Hong Kong, Perth, Singapore, Taipei'. At the bottom of the configuration area, there are 'Back' and 'Apply' buttons.

Basic Menu – Time Zone

The **Method** pull-down menu allows you to set up the correct time by getting time from the computer or time server (need an Internet connection). In the **Time Zone** pull-down menu, select a time zone according to your location.

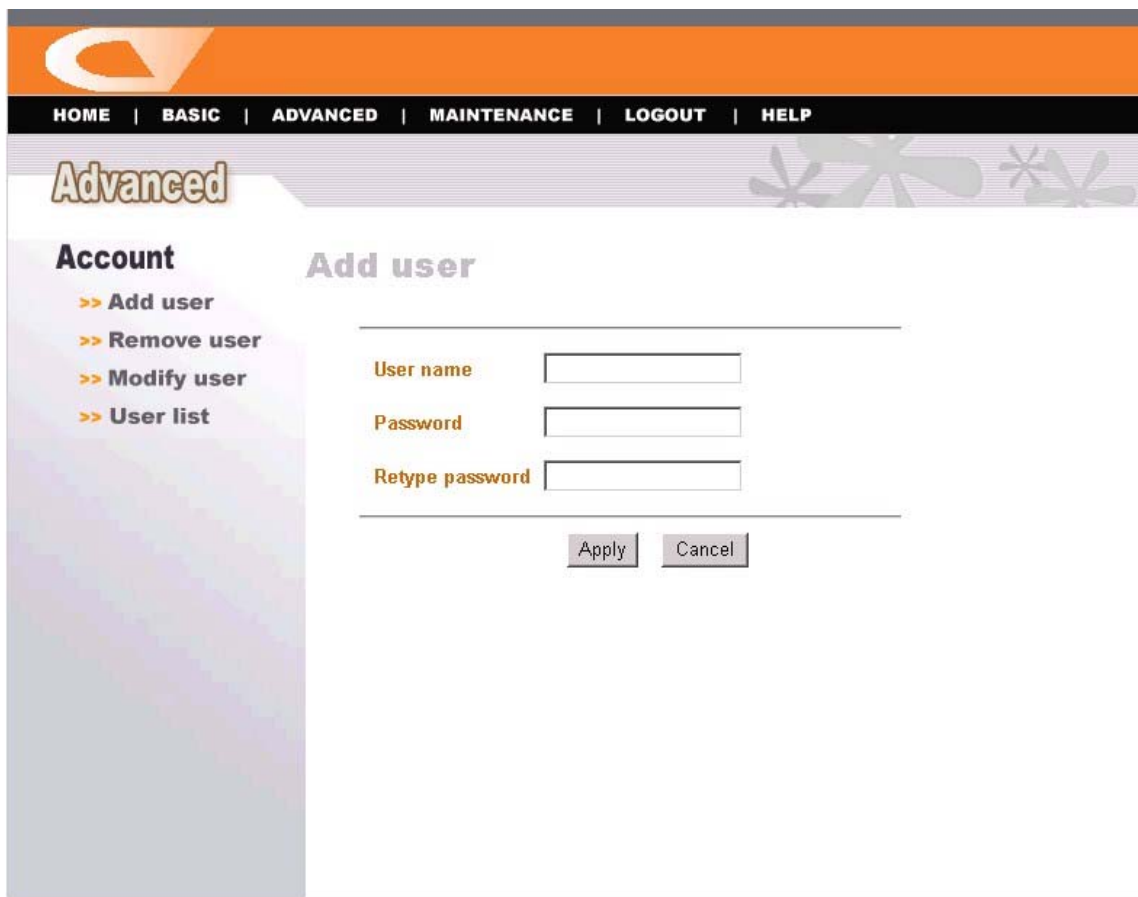
When complete, click **Apply**.

Configuration - Advanced

The **Advanced** menu contains six submenus: *Account*, *Samba*, *LAN*, *Time zone*, *FTP server*, and *Status*.

Advanced → Account

The *Account* submenu contains the options that allow you to add/delete users. Also, you can manage the users of the file server.



The screenshot shows a web interface for configuration. At the top is an orange header with a logo. Below it is a navigation bar with links: HOME | BASIC | ADVANCED | MAINTENANCE | LOGOUT | HELP. The main content area has a 'Advanced' breadcrumb and a sidebar menu with 'Account' selected. The 'Account' submenu includes: >> Add user, >> Remove user, >> Modify user, and >> User list. The main content area is titled 'Add user' and contains a form with three input fields: 'User name', 'Password', and 'Retype password'. Below the form are 'Apply' and 'Cancel' buttons.

Advanced Menu – Account

- **Add user:** You can add user of the file server by entering a name in the User name box, and the corresponding password in the Password box. When complete, click **Apply** to activate the user's account.
- **Remove user:** You can delete an existing user's account in this option. Check the box associated to the user you want to delete and click **Apply**.
- **Modify user:** You can change the password of an existing user's account. Select the radio button associated to the user you want to modify and click **Apply**. Enter the original password in the Old password box, and then enter a new password twice in the New password and Retype new password boxes. When complete, click **Apply**.
- **User list:** Click this item to display the existing users of the file server.

NOTE:

1. *The file server uses four pre-defined accounts in the firmware, which cannot be used as the users' account names, including: **root, admin, ftp, and nobody.***

2. *The password you entered in the Password box must be longer than five characters.*

Advanced → Samba

The *Samba* submenu allows you to set up the Workgroup name for the file server, and change the name and description of the file server. You can also manage the session in this submenu.

The screenshot shows a web interface for Samba configuration. At the top is a navigation bar with links: HOME | BASIC | ADVANCED | MAINTENANCE | LOGOUT | HELP. Below this is a header with the word 'Advanced' in a stylized font. A sidebar on the left is titled 'Samba' and contains a list of options: >> Global, >> Add Session, >> Modify Session, >> Remove Session, and >> Security. The main content area is titled 'Global' and contains three input fields: 'Work group' (value: workgroup), 'Server name' (value: SAMBA_SERVER), and 'Server description' (value: Samba server). Below the input fields are two buttons: 'Apply' and 'Cancel'.

Advanced Menu – Samba

- **Global:** Enter the Workgroup name for the file server; and you can change the name and description of the file server
- **Add/Modify/Remove Session:** You can add/modify/remove the tasks in these relative options.

- **Security:** You can configure the security function by selecting *NO*, *Allow IP*, and *Deny IP* through the Filter Action pull-down menu.

Advanced → LAN

The *LAN* submenu displays the current IP address and DHCP service of the file server, and can be modified manually.

The screenshot displays the 'Advanced' configuration menu with the 'LAN' submenu selected. The interface includes a navigation bar at the top with links for HOME, BASIC, ADVANCED, MAINTENANCE, LOGOUT, and HELP. The 'Advanced' section is highlighted, and the 'LAN' submenu is active. The configuration fields are as follows:

Field	Value
DHCP Client	Disabled
IP Address	192.168.1.2
IP Subnet Mask	255.255.255.0
Gateway IP Address	192.168.1.1
DNS	168.95.1.1

At the bottom of the configuration area, there are 'Apply' and 'Cancel' buttons.

Advanced Menu – LAN

Advanced → Time Zone

The *Time zone* submenu displays the current time setting of the file server. For system management purpose, a correct time setting is critical to have accurate time stamps on the system logs.

HOME | BASIC | **ADVANCED** | MAINTENANCE | LOGOUT | HELP

Advanced

Time zone

Time 16:41:17 Date 2004/5/10

Method

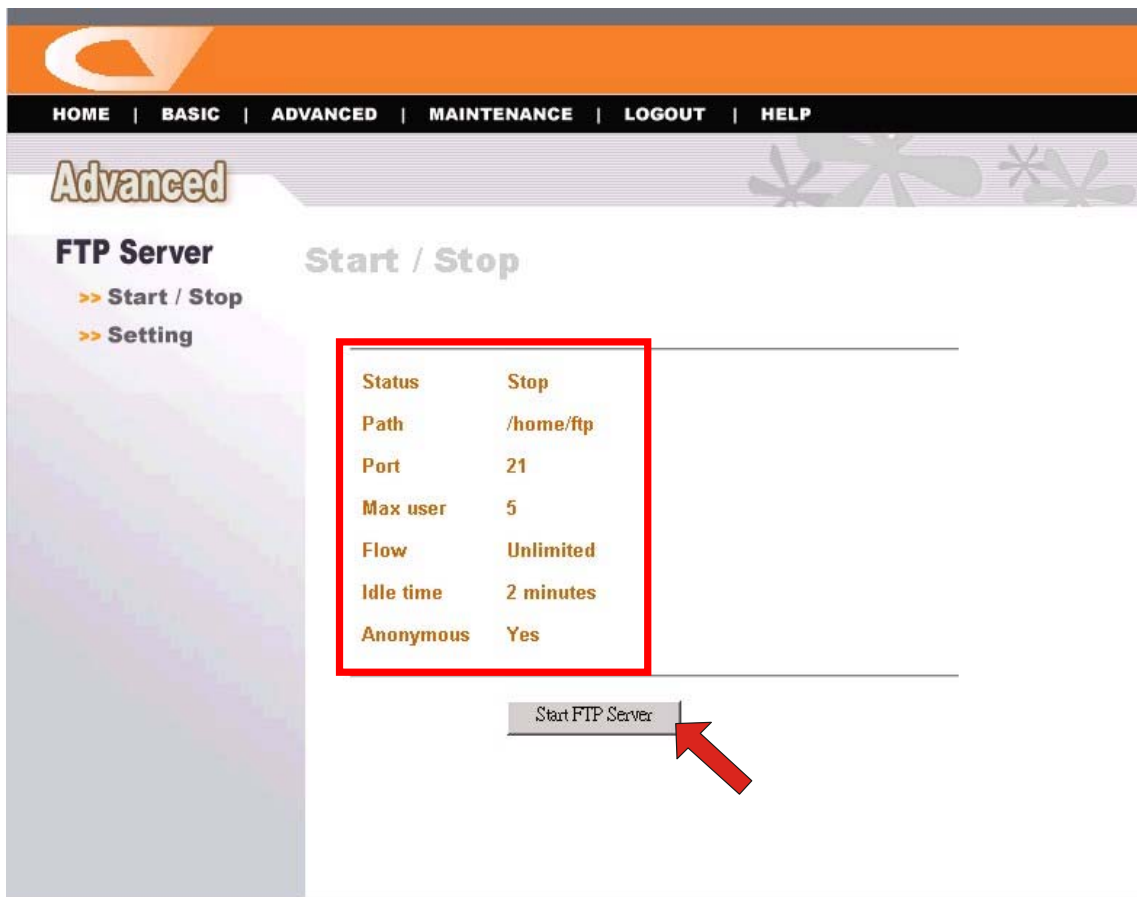
Time zone

Advanced Menu – Time Zone

The *Method* pull-down menu allows you to set up the correct time by getting time from the computer or time server (need an Internet connection). In the *Time Zone* pull-down menu, select a time zone according to your location.

Advanced → FTP Server

The *FTP server* submenu contains the options that allow you to enable/disable the FTP service of the file server, as well as the relative FTP settings.



Status	Stop
Path	/home/ftp
Port	21
Max user	5
Flow	Unlimited
Idle time	2 minutes
Anonymous	Yes

Start FTP Server

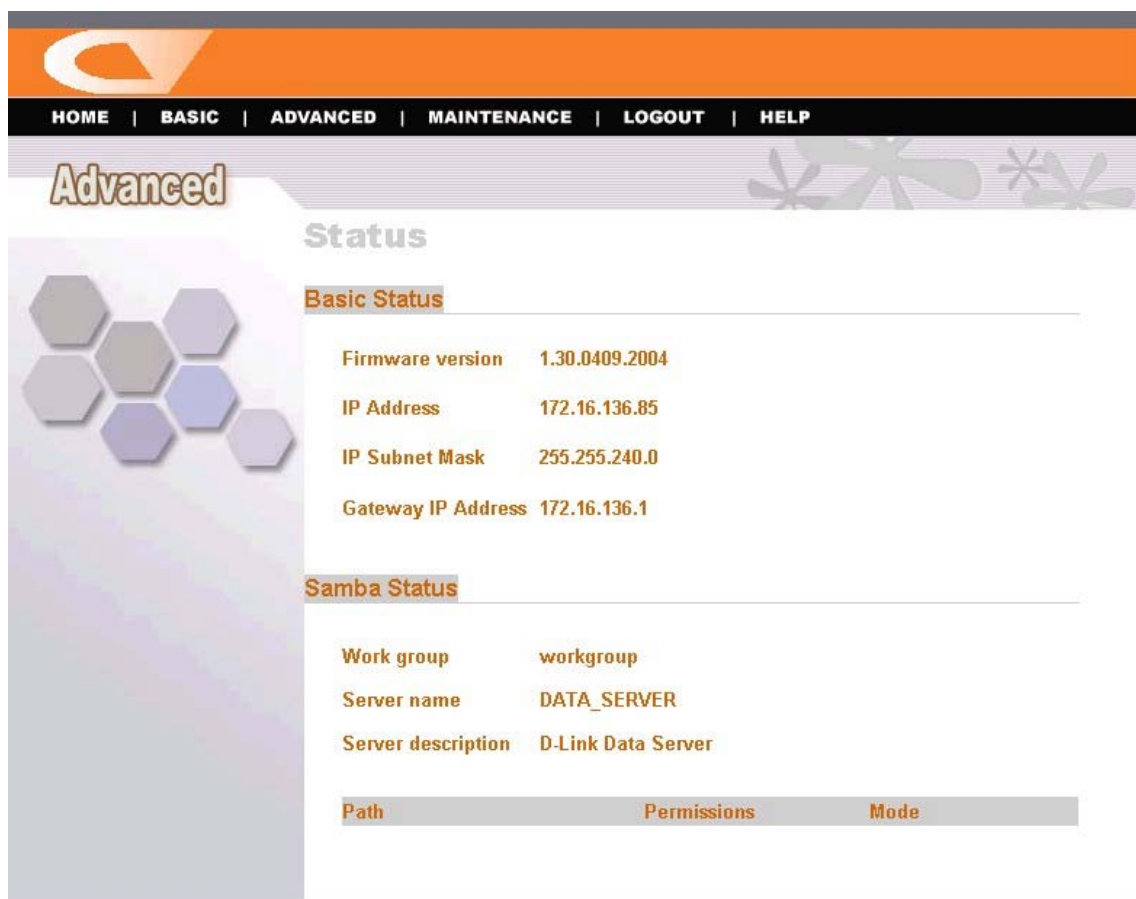
Advanced Menu – FTP Server

- **Start/Stop:** Click **Start FTP Server** to enable the FTP server of the file server. The status field displays the information of your FTP server settings. Once you enabled the FTP server, click **Stop FTP Server** to disable the service.

- **Setting:** This option contains the relative FTP server settings.
 - **Path:** Choose a destination for your FTP server.
 - **Port:** Assign a port (1~65535).
 - **Max user:** The users allowed to connect to the FTP server (1~10).
 - **Anonymous:** Choose *Yes* will allow the user connect to the FTP server anonymously.
 - **Idle time:** Set up the idle time for the FTP server (1~10 minutes).
 - **Flow:** Give limit on transmission flow of the FTP server.

Advanced → Status

The *Status* submenu contains information of the file server, including its basic status and the Samba server status.



The screenshot shows a web interface with a navigation bar at the top containing links for HOME, BASIC, ADVANCED, MAINTENANCE, LOGOUT, and HELP. The main content area is titled 'Advanced' and 'Status'. It is divided into two sections: 'Basic Status' and 'Samba Status'. The 'Basic Status' section lists Firmware version (1.30.0409.2004), IP Address (172.16.136.85), IP Subnet Mask (255.255.240.0), and Gateway IP Address (172.16.136.1). The 'Samba Status' section lists Work group (workgroup), Server name (DATA_SERVER), and Server description (D-Link Data Server). Below this, there is a table header with columns for Path, Permissions, and Mode.

Path	Permissions	Mode
------	-------------	------

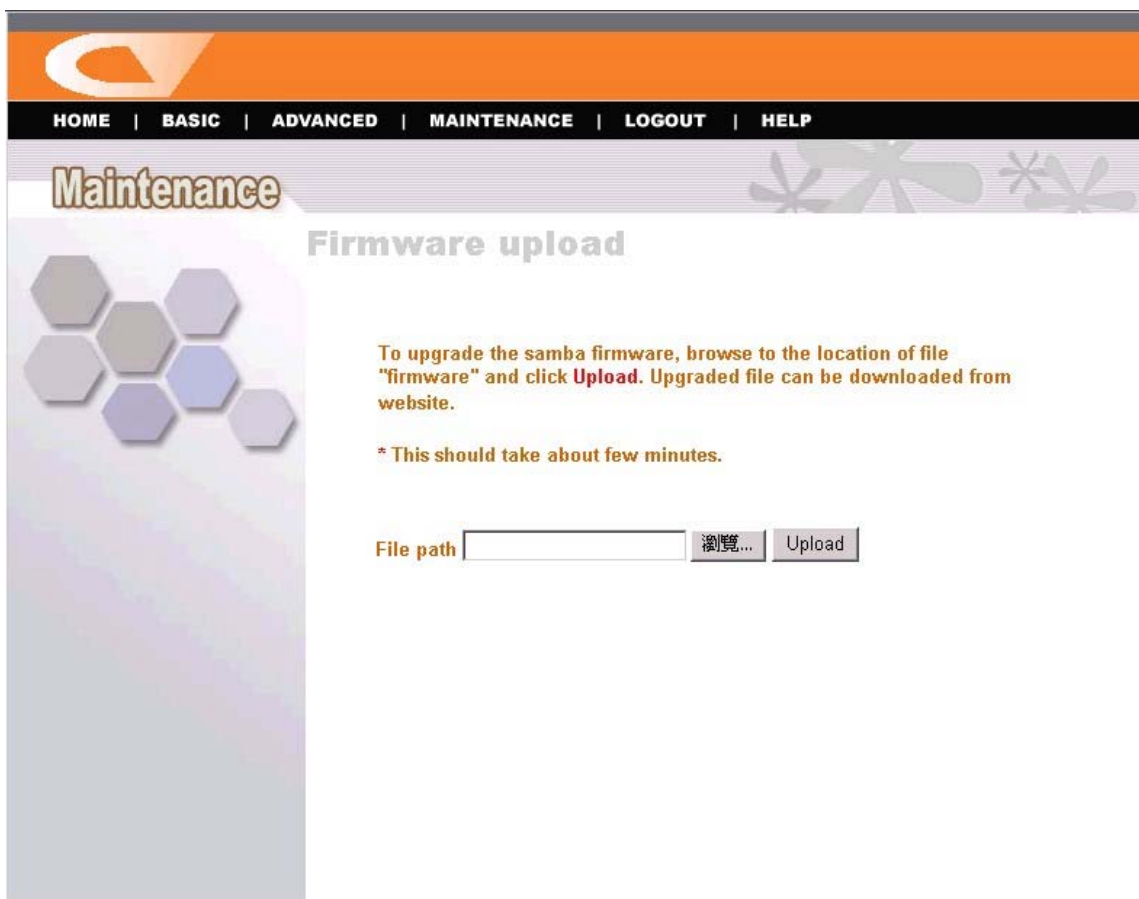
Advanced Menu – Status

Configuration - Maintenance

The **Maintenance** menu contains two submenus: *Firmware upload* and *Configuration*.

Maintenance → Firmware Upload

The *Firmware upload* submenu allows you to update the firmware of your file server once you obtained a latest version of firmware. Click **Browse** to point to the firmware file, and then click **Upload**.

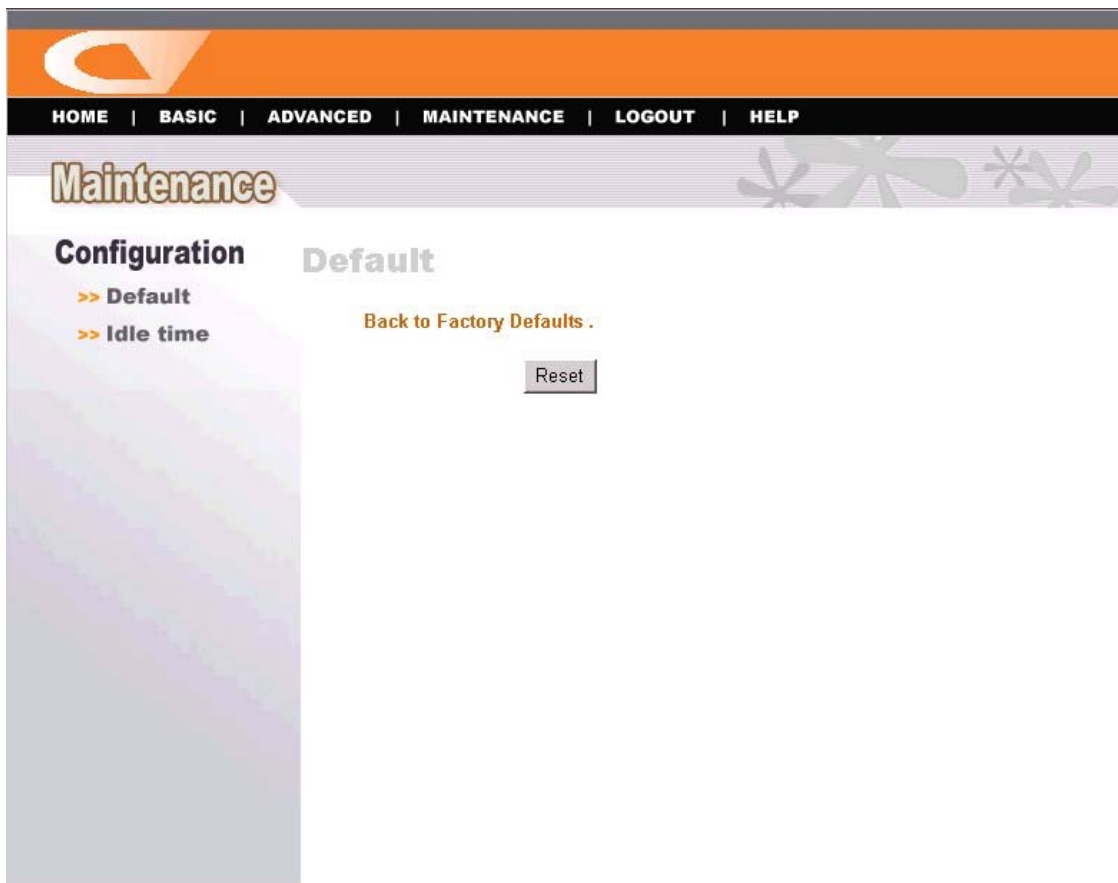


The screenshot shows a web interface for firmware upload. At the top, there is an orange header with a logo and a black navigation bar containing links for HOME, BASIC, ADVANCED, MAINTENANCE, LOGOUT, and HELP. Below the navigation bar, the page title is "Maintenance" and the sub-header is "Firmware upload". On the left side, there is a decorative graphic of several hexagons. The main content area contains the following text: "To upgrade the samba firmware, browse to the location of file 'firmware' and click Upload. Upgraded file can be downloaded from website." Below this text is a note: "* This should take about few minutes." At the bottom, there is a form with a "File path" label, a text input field, a "瀏覽..." (Browse) button, and an "Upload" button.

Maintenance Menu – Firmware Upload

Maintenance → Configuration

The *Configuration* submenu allows you to reload the factory default settings of the file server. Also, you can set up the Idle time in this submenu.



Maintenance Menu – Configuration

- **Default:** Clicking **Reset** allows you to resume the factory default settings of the file server. This function is the same as pressing the **Reset** button on the machine.
- **Idle time:** If the user does nothing within the specified time in this option, then, the system would automatically logout. The idle time must be larger than **0**.

Configuration - Logout

Click the **Logout** button to exit the web configuration utility, and it will return to the login screen of the utility.

A screenshot of a login form with an orange background. At the top, it says "Please enter User name and Password." Below this are two input fields: "User name" and "Password". Under the "Password" field, there are two radio buttons: "Download schedule" (which is selected) and "Configure". At the bottom of the form are two buttons: "Login" and "Cancel".

Please enter User name and Password.

User name

Password

Download schedule Configure

Login Cancel

You can re-login using the **admin** User name. Alternately, if you set up a new user for the file server, you can login the utility using the given user account.

DOWNLOADING FILES THROUGH FILE SERVER

Entering Download Page

1. If you are in the configuration mode, click **Logout** to exit the web configuration utility, and re-login the utility's download page by selecting the **Download schedule** item on the login dialog box.

Please enter User name and Password.

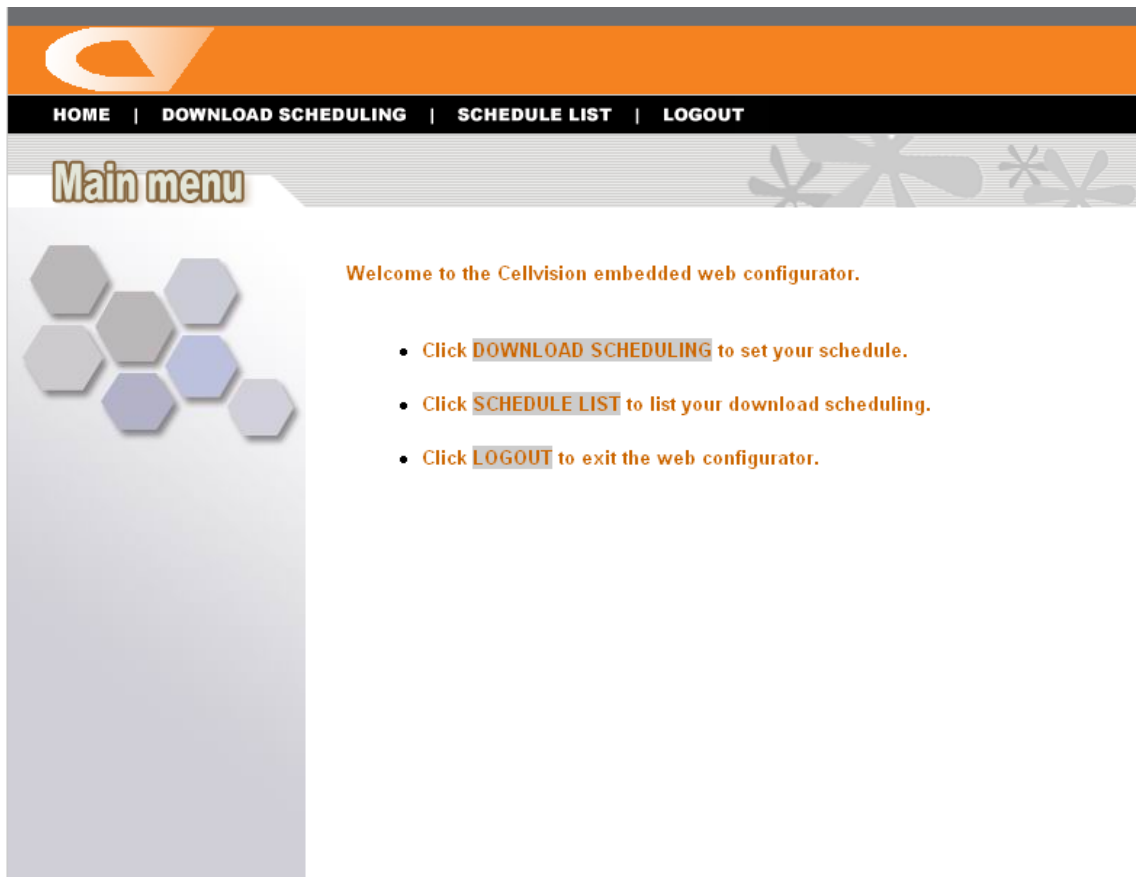
User name

Password

Download schedule Configure

TIP: If the administrator has added users of the file server, the users can login the Download page with their user name and password.

2. The Main menu of Download page will display as below.



- **Home** – main screen of the download page, providing the brief instructions of the buttons on menu bar.
- **Download Scheduling** – clicks to set up your download schedule.
- **Schedule List** – contains the information of scheduled download tasks.
- **Logout** – clicks to exit the download page.

Scheduling Download Task

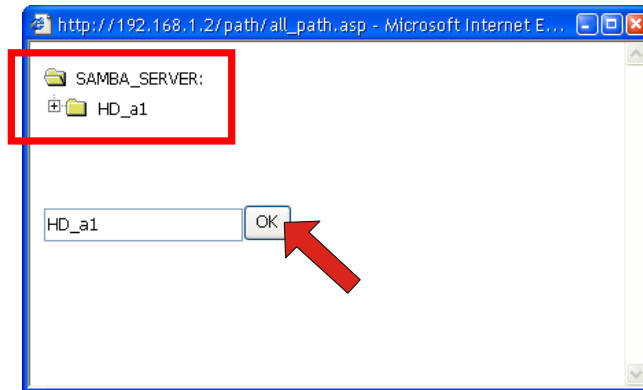
Click the **Download Scheduling** menu to set up your download tasks. Enter the required information in the relative fields.

Login method	Anonymous	User name	****	Password	*****					
URL	http://www.test.com/index.htm		test							
Save to	HD_a1		open							
When	Date:	2004	/	04	/	01	Time:	20	:	14
	<input type="checkbox"/> Overwrite									
	Apply Cancel									

Setup Screen of Download Scheduling

- **Login Method:** According to the settings of target server, choose *Anonymous* or *Account* from pull-down menu. When you choose *Account*, you have to enter the correct User name and Password.
- **URL:** Enter the URL address of target server. Click **test** to test the connection.

- **Save to:** Click **open** to bring up the following window that allows you to assign the destination folder to save the downloaded files. When completed, click **OK**.



- **When:** You have to set up the start-up time to download files from the pull-down menu of the **Date** and **Time** options.
- **Overwrite:** When the downloaded files have the same filename as the files in the destination folder, checking this option will overwrite the old file in the folder.

When completed, click **Apply** to save this download task to the Schedule List.

Schedule List

Click the **Schedule List** menu to display the scheduled download tasks as below.

#	Status	Del	%	Speed	Download path	Save to
1	?	<input type="checkbox"/>	--	--	http://www.test.com/index.htm	HD_a1/
2	?	<input type="checkbox"/>	--	--	http://www.hic.com/index.htm	HD_a1/

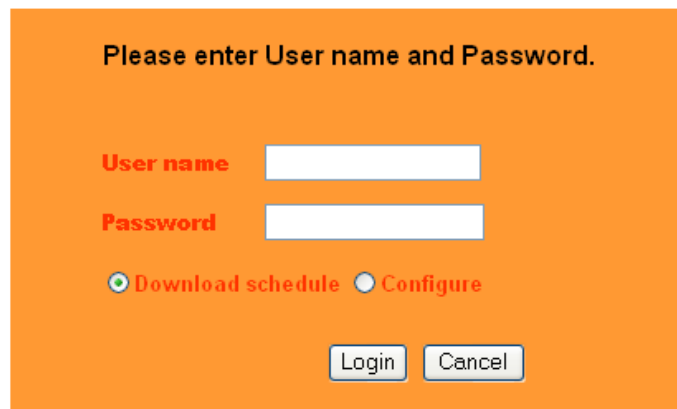
Apply Cancel Back Refresh

Scheduled Download Tasks

You can edit, delete and view these download tasks from the list. When you change the settings of selected task, click **Apply** to save the configuration. Click **Refresh** to reload the status of these tasks.

Logout

Click the **Logout** button to exit the download page, and it will return to the login screen of the utility.



Please enter User name and Password.

User name

Password

Download schedule Configure

PRODUCT SPECIFICATION

Standards

Network Standards: IEEE 802.3, IEEE 802.3u.

USB Interface: USB 2.0, USB 1.1.

Connecting Ports

- One 10/100 RJ-45 connector (Auto MDI-X).
- Two USB 2.0 ports.
- One Power jack.

Buttons

Reset Button and Mode Button.

LEDs

Power, LAN, Mode, and WLAN (for wireless model).

Management

- Web-based administrative program
- Easy Search

Operating System Support

- Windows 98/ME, Windows NT, Windows 2000/XP;
- Linux SMB.

Environmental and Physical

Power Supply: 5VDC, 2.4 Amp.

Operating Temperature: 0°C to 50°C.

Storage Temperature: -20°C to 50°C.

Humidity: 10% to 90%, non-condensing at 30°C.

EMI Compliance

FCC Class B, CE Class B, VCCI.