Document Number: 105-01-0004

Revision History:

Revision	Date	Author	Description
A0	2002/2/19	Henry Ho	FISC CDH English Reference Guide v4.10
A1	2002/8/20	Henry Ho	FISC CDH English Reference Guide v4.20

FISC CDH

Versatile Network Attached Storage Server

Reference Guide

Version 4.20

Important Notice

Trademarks

FISC CDH and Ingrasys are trademarks of Ingrasys Technology Inc.

Microsoft® is a registered trademark.

DOS, Windows 95, Windows 98, Windows ME, Windows NT and Windows 2000 are the registered trademarks of Microsoft Corporation.

NetWare is the registered trademarks of Novell Inc.

Macintosh and AppleShare are the registered trademarks of Apple Computer Inc.

All other company and product names are trademarks of their respective owners.

Licensing

Disclaimer

Ingrasys makes no representations or warranties with respect to the contents of this publication and specifically disclaims any implied warranties, merchantability, or fitness for any particular purpose. Ingrasys reserves the right to revise this publication without notice.

First Edition: July, 2001

Printed in Taiwan

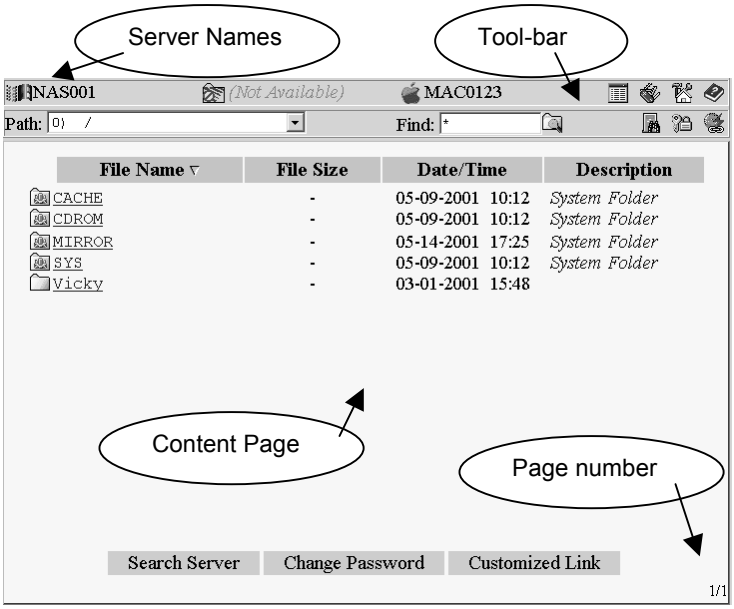
Table of Content

Chapter 1 Firmware User Page.....1
1.1 Server Names 1
1.2 Tool Bar.....2
1.3 Content Page 2
1.4 Server Farm Window 3

Chapter 2 Firmware Administration Page.....4
2.1 Tool Bar.....4
2.2 Server Settings.....4
2.3 Network Settings.....9
2.4 Device Manager 12
2.5 Share Manager.....19
2.6 User Manager 24
2.7 Archive.....26
2.8 Backup.....28
2.9 Event Log 32
2.10 Statistics 34

Chapter 1 Firmware User Page

User page is for browsing the content of the server via Internet browser. Open an Internet browser and go to the IP address of a server to open its User Page.



1.1 Server Names

Initially the user page shows the content of the root folder. The upper tool-bar displays the names of the server under different network environment.

Server name under Windows network
Server name under NetWare network
Server name under Mac network

When the user clicks on any folder to view its content, the upper tool-bar displays the full path-name. For example,

1.2 Tool Bar

Go-to path: when clicked, the list-box displays the hierarchy of the current folder's path. Click to quickly go to that path.

Filter: when the  button is clicked, it displays the files/folders matched with the Filter condition on the current page.

Below are the tool-bar icons on the right.

Change View Type	Change the view-mode of the content page, which can be viewed as Details, Large Icons or Small Icons.
Show/Hide Tool-bar	Toggle the second column of the tool-bar.
System Manager	Open the Administration Page.
Help	Open the help page in a new browser window.
Search Server	Open the "Server Farm" window. Please refer to the section later for more details. This tool-bar icon has the same function as the _Search Server_ button on the bottom of the content page.
Change Password	Change the user password. This tool-bar icon has the same function as the _Change Password_ button on the bottom of the content page.
External Link	Open the user-defined hyperlink in a new browser window. This tool-bar icon has the same function as the _External Link_ button on the bottom of the content page.

1.3 Content Page

On the content page it displays the content of the current folder. Initially it displays the content of the root folder. The user can click on any folder to view its content.

Sort

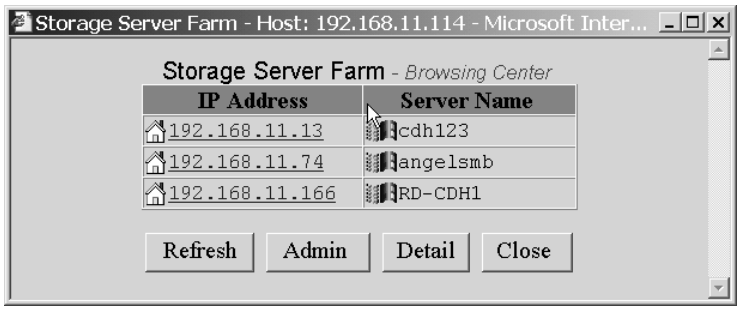
File Name ▽	File Size	Date/Time

Click on one of the **"File Name"**, **"File Size"** or **"Date/Time"** tabs to sort the folders and files by the file name, file size or date/time.

Page Number

The page number is located at the lower right corner of the content page. The format is «the current page number» / «the number of the total pages». If there are more than one page, the "Prev Page" and/or "Next Page" hyperlinks will appear on the bottom of the content page.

1.4 Server Farm Window



The "**Server Farm**" window, invoked by the "**Search Server**" function, lists all storage servers found on the LAN with brief information. Initially the IP addresses and sever names (under Windows network) are shown, while the "**Admin**" and "**Detail**" buttons will reveal more information.

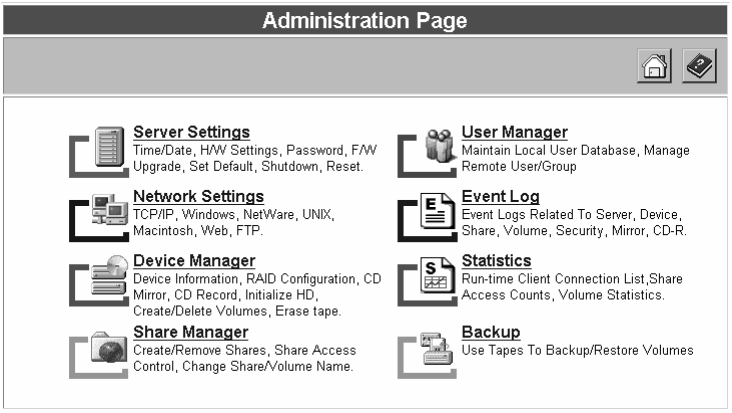
Admin/Browse button

If the "**Admin**" button is clicked, it will display Ethernet Address and F/W Version of the servers. And the "**Admin**" button will become "**Browse**". Click the "**Browse**" button to hide the two columns.

Detail/Basic button

If the "**Detail**" button is clicked, it will show server names under NetWare network, server names under Mac network and the server comments (Description). And the "**Detail**" button will become "**Basic**". Click the "**Basic**" button to hide these columns.

Chapter 2 Firmware Administration Page



2.1 Tool Bar

 **User Home:** opens to the user page of the server.

 **Help:** displays the help information in another browser window

2.2 Server Settings

View Setting

Windows Name	Server name used in Windows network environment
NetWare Name	Server name used in NetWare network environment
Macintosh Name	Server name used in Macintosh network environment
IP Address	The IP address of the server
Subnet Mask	The mask numbers for splitting IP network into subnets
Default Gateway	The IP address of the gateway
CPU Speed	The operating frequency of CPU
Firmware Version	The version number of the firmware
Memory Size	Total amount of main memory
LAN Speed & Mode	The Ethernet operating mode

Time/Date	System date & time
Codepage	The codepage in use by the server. The codepage can be changed on the "**Server Settings/Others**" page.
CD/DVD ROM Drives	The number of connected CD/DVD drives
Hard Disk Drives	The number of connected HD drives
Tape Drives	The number of connected tape drives
MAC Address	The MAC address of the server. The number in the parentheses after the MAC address is the hardware ID number.
Thermal	CPU temperature

System Info	Export the summary of server configuration.

Time/Date

On this page the administrator can set the server's date, time, and time zone.

H/W Setting

Scheduled Power-on	Using ATX power supply, the server can wake up itself from the power-off state. Here the administrator can set a schedule for automatic power-on. First, click the "**Enable**" radio button. Next, set the frequency – "**Daily**","**Weekly**" or "**Special Day**". Then set the schedule. Last, click the "**Apply**" button.
Scheduled Shutdown	Set a schedule for automatic shutdown. First, click the "**Enable**" radio button. Next, set the frequency – "**Daily**","**Weekly**" or "**Special Day**". Then set the schedule. Last, click the "**Apply**" button.
LCD Configuration	When the "**Configure system from LCD**" option is enabled, users can configure basic system settings from the LCD panel and buttons.

	The "**LCD soft banner**" appears on the LCD panel when the LCD panel enters the idle state.
Overheat Alarm	If the **Enable** checkbox is checked, the function of over-heat alarm is enabled. The temperature threshold is given here. The alarm method depends on the event-log settings. The event log level of the over-heat alarm is "Error".

Event Log Setting

When an event occurs, the server can use four different ways to inform the administrator – internal event log, the LCD panel, the buzzer and email.

For each way of informing, the administrator can specify the event-log level of (and over) which the server will send out messages. There are four kinds of event-log levels – info, warning, error and emergency.

If the email informing function is enabled ("Mail log level" is set as Warning, Error or Emergency), the administrator must specify the mail server's IP address in the "SMTP server IP" field and the email address of the administrator in the "Admin email address" field.

File log level	Specify the lowest level of the events that will be recorded in the internal event log, which is shown under the "Event Log" menu of the Administration Page.
LCD log level	Specify the lowest level of the events that will show messages on the LCD panel
Buzzer log level	Specify the lowest level of the events that will cause the buzzer to beep.
Mail log level	Specify the lowest level of the events of which the administrator will be informed by email.
SMTP server IP	Specify the IP address of the mail server for sending out email messages.
Admin email address	Specify the email address to which email message will be sent

Password

On this page the administrator can change the admin password, which controls the access to the Administration Page. The user-name is admin. The admin password can also be used for remote mirroring and recording via eConsole.

Mirror Password

Mirror Password is used for authentication when a user tries to do the remote mirroring and recording via eConsole.

F/W Upgrade

The firmware is the server's OS, which resides in the flash memory and can be replaced with a new version. New versions of firmware might fix some bugs or bring in new features. Please contact the vendor for new firmware image files.

To upgrade the firmware, please click the "**Browse**" button on this page, select a firmware image file and click the "**Upgrade**" button. The upgrade process will take several minutes. The server will be rebooted when the upgrade is finished.

Factory Default

Select the items to reset to factory default values and click the "**Apply**" button.

Clear system configuration	Reset the following settings to factory default values – server settings, network settings and share information.
Clear user database	Quick erase all the user accounts in the user database, which is maintained in the User Manager menu on the Administration Page.
Clear admin password	Reset the administrator's password to none.

Reboot

Follow the instructions on the page to restart (reboot) the

server.

Shutdown

Follow the instructions on the page to shut down the server. The server also supports scheduled shutdown. Please see the "**H/W Settings**" page.

Others

Here are miscellaneous options that apply to the whole system.

Apply volume settings automatically if HD is changed	When the administrator detaches an already-configured HD and connects it to a different IDE channel or another controller (server), the server must read the volume settings from the HD so that it can recognize it. If the check box is enabled, the server will do this automatically. Otherwise, the administrator has to do it manually on the Device Manager menu of the Administration Page.
Mount sequence	A hybrid CD title contains two or more CD file systems while the server can only recognize one at a time. This option specifies which CD file system to be recognized first for a hybrid CD. ISO stands for ISO-9660. HFS (Hierarchical File System) is the file system used by Apply Macintosh. UDF (universal disc format) is a new standard of CD file system, which is extensively used on DVD and sometimes on CD-R or CD-RW.
Codepage	The server has taken into account the multi-language support. Choose the language which most client computers use.
Permit deletion of mirrored images using eConsole and mirror password	When the option is checked, the new created mirrored images will be marked with [M], which means they can be deleted by eConsole with mirror password. The administrator can see the [M] marks on the "**Share Manager/ Volume List**" page. The marks can be removed on the renaming page.

Available codepages:

CP437-DOSLatinUS: for English (DOS and Windows)
CP850-DOSLatin1: for other west European languages
Mac Roman: for European languages (Mac OS)
CP950-Chinese BIG5: for Traditional Chinese
CP936-Chinese GB: for Simplified Chinese
CP932-Shift JIS: for Japanese
CP949-Unified Hangul: for Korean

2.3 Network Settings

TCP/IP

Obtain an IP address automatically	Let the server obtain its IP address from the DHCP, BOOTP or RARP server.
Assign an IP address manually	Specify the TCP/IP related settings manually: IP Address of the server, Subnet Mask, Default Gateway's IP address. The **WINS** (Windows Internet Naming Service) server resolves Windows clients' names as IP addresses.

Windows

Enable Microsoft Network	If checked, it allows Window clients to access the server.
Server Name	Specify the server name used in Windows network environment.
Domain/Workgroup	Specify the domain or workgroup name that the server belongs to.
Protocol(s):	Specify the protocol(s) to use when communicating with the Windows clients. **NetBEUI:** the network protocol used by traditional Windows clients. Modern Windows clients use TCP/IP as the underlying network protocol. **NetBIOS over TCP/IP:** check this option if all the Windows clients use TCP/IP as the only network protocol. **Both:** check this if both kinds of Windows clients exist on the network. It is the default setting.
Security Policy	**Share Level Security:** each share is associated with a share password for

	authentication when any Windows client tries to access the share. **User Level Security:** each share is assigned with the users/groups who are allowed to access the share. User/group accounts are located either locally in the server, or remotely in the PDC server. In the latter case, the server will get user/group accounts from its domain controller.
The following options come out when clicking the Advance button.	
Support Unicode	Enable the server to use Unicode for communication with Windows clients.
Server Comment	Specify the Comment of the server.
Scope ID	Based on the NetBIOS over TCP/IP protocol, the Scope ID is used to divide the Windows network into several sub-networks.

NetWare

Enable NetWare Network	If checked, it allows NetWare clients to access the server.
Server Name	Specify the server name used in NetWare network environment.
Security Policy	Only user level security is available under NetWare. User accounts are stored either in the local user database or in a bindery server. In the latter case, you must specify the name of the NetWare **bindery server**.

Macintosh

Enable Macintosh Network	If checked, it allows Macintosh clients to access the server.
Server Name	Specify the server name used in Macintosh network environment.
Address (net.node)	Indicate the AppleTalk address of the server, which is assigned automatically.
Zone	Specify the AppleTalk zone that the server belongs to. **Default Zone:** means to use the default zone assigned by the AppleTalk seed router. **Select Zone Manually:** means to use the zone selected by user

Protocol(s):	Specify the underlying protocol of the AppleShare network. Click **Both** if both kinds of Macintosh clients exist on the network. It is the default setting.
Security Policy	**Share Level Security:** each share is associated with a share password for authentication when a Mac client tries to connect to the share as guest. **User Level Security:** each share is assigned with the users/groups who are allowed to access the share. User/group accounts are located locally in the server.

Web

Enable User Access from Web	If checked, it allows users to access the server from the web browsers.
Security Policy	**Share Level Security:** each share is associated with a share password for authentication when anyone tries to access the share from web browser. **User Level Security:** each share is assigned with the users/groups who are allowed to access the share. User/group accounts are located either locally in the server, or remotely in the PDC server. In the latter case, the server will get user/group accounts from its domain controller.
Default User Page	The user page allows users to access the content of the server via web browsers. In this section, the admin can choose the items appearing on the user page. **Logo** is at the top of the user page; **Tool-bar** is in the middle, right above the content page; '**Search Server**', '**Change Password**' and '**External Link**' are the buttons on the bottom of the user page. The label and URL of the external link can be customized.

UNIX

Enable NFS	If checked, it allows NFS clients to access the server.
Default permission of files created by non-NFS protocols	The new files created under non-NFS protocols can also accessed by the NFS protocol. Here the admin can assign the default NFS access rights of the newly

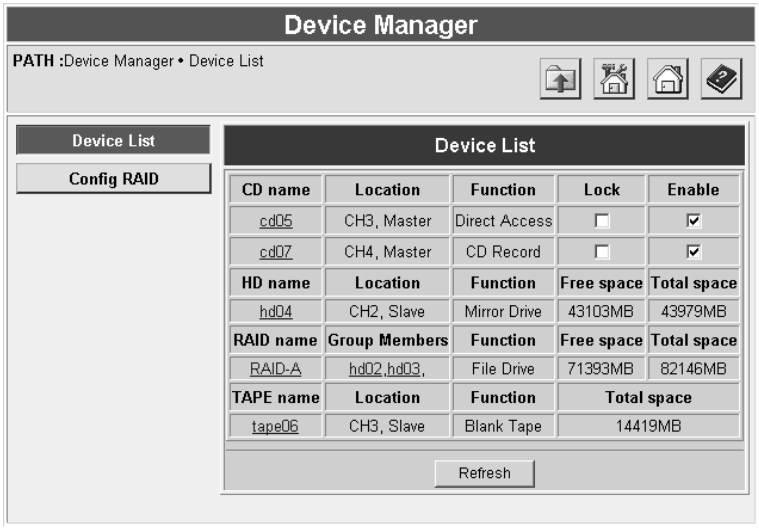
	created files by SMB, NCP, Macintosh and FTP.

FTP

Enable FTP	If checked, it allows FTP clients to access the server.
Security Policy	**Share Level Security:** each share is associated with a share password for authentication when any FTP client tries to access the share by using the share name as the user-name. **User Level Security:** each share is assigned with the users/groups who are allowed to access the share. User/group accounts are located either locally in the server, or remotely in the PDC server. In the latter case, the server will get user/group accounts from its domain controller.

2.4 Device Manager

Device List



Various types of IDE storage devices are supported: CD-ROM, DVD-ROM, CD-R/RW, hard disks and tape drives, etc. All devices are displayed in the "**Device List**" page. Each device name is a hyperlink, which leads to the page(s) for detailed

settings.

The device names are assigned automatically. Usually they are named after the device types and the attached IDE channel. For example, “cd01” means that it is a CD device attached to Channel 1 Master, and “hd04” means that it is a HD device attached to Channel 2 Slave. “tape08” means it is a tape drive attached to Channel 4 Slave.

For a CD drive, the administrator can check the “**Lock**” checkbox to lock the door. If the “**Enable**” checkbox is un-checked, the CD drive will be not accessible.

CD settings

On the CD Settings page, the administrator can configure the following settings. Be sure to click the **Apply** button to take into effects the settings.

Operation Mode	Indicate the operation mode of the IDE interface, such as PIO mode or DMA mode.
Function	Indicate the function that CD device performs now – direct access, CD mirror, CD cache, CD record or CD restore. CD cache is similar to CD mirror, but the CD image will be deleted if the original CD title is ejected.
Model Name	Indicate the model name of the CD device.
Device Location	Indicate the IDE channel and the master/slave position that the device is attached to.
Volume Name	If **CD Volume Label** is selected, it will use the volume label of the inserted CD title as the volume name. In the other case, **User-defined Name** can be specified as the volume name.
Function	**Direct Access:** makes the CD title in the CD device accessible. **CD Mirror:** duplicates the inserted CD title as a CD image in the server immediately when it is inserted in the CD device. The inserted CD title is not accessible. **CD Record:** configures the CD device as a CD recording device.

	CD Restore: copy the files on CD into a file volume
Mirror Options	**Launch Target:** **Auto & Smart mode** (avoid redundancy) – auto-selects the destination HD and checks if there is an identical CD image already existing in the server. Skip the CD mirroring task if there is. **Auto & Force mode** (allow redundancy) – auto-selects the destination HD and does the CD mirroring task even if there is already an identical CD image in the server. **Manual mode** – allows the administrator to choose the destination hard disk drive. **Replace mode** – replace the selected image with the image of the next inserted CD/DVD disc **Launch Schedule:** **Immediately:** duplicates the CD image whenever a CD title is inserted. **According to schedule:** duplicates the CD image by the specified schedule. **Mirror Options:** **Eject CD when mirror is completed** – if this option is checked, the CD title will be ejected when the CD mirroring task is finished. **Delete the mirrored image when CD is ejected** – if this option is checked, the created CD image will exist only when the original CD titles is in the CD device. This option is used for avoiding some legal issues of CD copyrights. **Share the image when mirror is completed** – enables the sharing of the CD image automatically and immediately when it is created. However, the share permission still remains the default and needs further configuration.
Record Setting	**Source:** specifies the source CD images to be burned. Multiple-selection is possible. **Speed:** specifies the CD recording speed. The server will adjust the speed if the setting does not work. **Number of copies:** specifies the number of CD-R discs to be burned in this task. **Launch Schedule:** specifies the schedule of the CD recording task. Options:

	Erase CD-RW disc before recording – this option must be checked if a non-empty CD-RW disc is inserted for burning. It must be erased first before being recorded. **Note:** When a CD recording task is going on, this page will display the current CD recording progress and the status.
Restore Options	**Restore Target:** specify the file volume for the CD to copy to **First Level Folder:** specify the folder for the CD to copy to. Only the first level folders can be specified as the target. **Restore Options**: **Always skip existing files** – do not overwrite any files if the filenames are the same. **Do not overwrite newer files** – do not overwrite the files which are newer than the ones on CD. **Always overwrite existing files** – always overwrite the files with the same filenames.

HD Settings

Operation Mode	Indicate the operation mode of the IDE interface, such as PIO mode or DMA mode.
Function	Indicate the type of the HD – file device (for read/write) or mirror device (for storing CD images).
Model Name	Indicate the model name of the HD device.
Device Location	Indicate the IDE channel and the master/slave position that the device is attached to.
Max. Capacity	Indicate the total size of the HD.
Free Space	(Valid for file device) Indicate the free space of the HD.
Max. Partition Size	(Valid for file device) Indicate the maximum partition size if a new partition is to be created.
Partition Number	(Valid for file device) Indicate the total number of partitions in the device.
(Volumes)	On the lower half of the page there is a table showing all volumes in the device.

	The administrator can delete any volume by clicking the corresponding **Delete** checkbox. **Status:** when a volume is being created, its status shows **Creating**, which is a hyperlink to another page showing the progress. The **Ready** status means the volume is ready for access.

HD Initialize

This page is for initializing the HD to the appropriate type. All data will be lost after initialization.

No Init	"No init" stands for "not initialized". This option is used for setting the HD back to the "not initialized" state. Only "no init" hard disk drives can be grouped as RAID.
Mirror Device	This type of HD is used for storing CD images only. All data in the mirror device is read-only.
File Device	The type of HD is used for normal file accessing. Reading and writing are possible.

HD Partition

After initialization, a file device must be partitioned first for further use. A file partition is also called a file volume. A newly created partition will be shared under the root directory immediately.

Select Partition Size	Specify the size of the partition to be created.
Volume Name	Specify the volume name, which is also the share name when the volume is shared. The volume name can be auto-generated or manually defined. **Default Name:** auto-assigns a volume name, like F1001, F3004. **Volume Name:** allows the administrator to define the volume name.
Volume Label	Specify the volume label. If not specified, the volume label will be the same as the volume name.

Tape Status

Operation Mode	Indicate the operation mode of the IDE interface, such as PIO mode or DMA mode.
Function	Indicate the content type of the tape. **Blank tape** means the tape is empty. **Mirror tape** means the tape contains mirror volumes (mirrored images). **File tape** means the tape contains file volumes.
Model Name	Indicate the model name of the tape drive.
Device Location	Indicate the IDE channel and the master/slave position that the device is attached to.
Max. Capacity	Indicate the total size of the tape.
(Volumes)	On the lower half of the page, there is a table listing all the backup volume in the tape backup task, while the volumes on the inserted tape are marked with an asterisk *. **Full Volume** means the whole volume exists on the tape. **Span Volume** means the volume spans across two or more tapes. The inserted tape only contains part of the volume.

Tape Retension

Tape will need to be pulled tight after some time of usage. Otherwise, it might have difficulties reading out the data on it. This page provides the function of retensioning (pulling tight) a tape.

Tape Erase

This function entirely erases the inserted tape.

RAID Settings

RAID Level	Indicate the RAID level of the RAID device. RAID 0, 1 and 5 are supported.
RAID Function	Indicate the type of the RAID – file device (for read/write) or mirror device (for storing CD images).

Group Members	Show the member HD drives which are included in the RAID device.
Max. Capacity	Indicate the total capacity of the RAID device.
(Volumes)	On the lower half of the page there is a table showing all volumes in the device. The administrator can delete any volume by clicking the corresponding **Delete** checkbox.

RAID Initialize

This page is for initializing the RAID to the appropriate type. All data will be lost after initialization.

Mirror Device	This type of RAID is used for storing CD images only. All data in the mirror device is read-only.
File Device	The type of RAID is used for normal file accessing. Reading and writing are possible.

RAID Partition

After initialization, a file device must be partitioned first for further use. A file partition is also called a file volume. A newly created partition will be shared under the root directory immediately.

Config RAID

Current RAID Groups	On the upper half of the page, it lists all the RAID groups in use. The **RAID Name** is a hyperlink that links to the **RAID Settings** page. The **RAID Level** column indicates the RAID level of the RAID device. RAID 0, 1 and 5 are supported. The **Group Members** column displays the member HD drives which are included in the RAID device. The **Total Space** column indicates the total

	capacity of the RAID device. Click the **Ungroup** checkbox to delete the RAID group and release the member HD drives as “no init” devices.
Add a RAID Group	To add a RAID group, first specify the **RAID level**. The server supports RAID 0, RAID 1 and RAID 5. Second, select the hard disk drives in the **Available HD(s)** sub-window, then click the **Add->** button to move them into the **RAID Group Members** sub-window. Last, click the **Setup** button to create the RAID with the selected HD drives as its members. **RAID 0** RAID level 0 is disk striping only, which interleaves data across multiple disks for better performance. It does not provide safeguards against failure. **RAID 1** RAID level 1 uses two hard drives. It keeps identical copies of data on the two hard drives. If one hard drive fails, the RAID can still operate without data loss. It offers the highest reliability, but doubles storage cost. Two hard drives can only have the capacity of one. **RAID 5** RAID level 5 uses three or more hard drives. Data, together with the parity bits, are striped across the hard drives. It is a tradeoff between fault tolerance and storage cost. RAID 5 can operate normally with one hard drive corrupted, but only have the capacity of (N-1) hard drives, where N is the number of hard drives being grouped.

2.5 Share Manager

Share List

Share Name	Designate the name of the share. The share name is also a hyperlink to a page where you can modify the name.

Share Type	Indicate the origin of the shared folder. **Volume** means it is a single volume being shared. **System** means it is one of the 4 system folders. The **SYS** folder contains system information such as event logs and statistics. The **MIRROR** folder contains all the mirrored CD images. The **CACHE** folder contains all the cached CD images. Cached CD images are the same as mirrored CD images, but will be removed if the original CD titles are ejected, to prevent copyright issues. The **CDROM** folder contains all the CD titles in the CD device of "Direct Access" mode. **Grouping** means it is a virtual share, which contains one or more CD volumes.
Not Share	Click the checkbox in this column to remove the corresponding shared folder immediately. System folders cannot be removed. "Share a Volume" and "Group Volumes" can create shared folders.
Security	Set the permissions of the shared folder under different network protocols. Please read the next section for detailed information.

Share Security

Share Password	Set the password for authentication when security policy is "Share Level Security". The network protocols of Windows, Macintosh, web access and FTP can adopt share level security. For each share, all protocols use the same share password. **Access Type:** can be Read Only or Full Control (read/write). If the shared folder is derived from a mirrored image (CD volume), it can be read-only.
Local User	The server keeps a local user database inside. On this page the administrator can assign the local users who can access the shared folder. Local users apply to the network protocols of Windows, NetWare, Macintosh, Web and FTP if they are set to user level security. **Local Groups/Users:** lists the user accounts in the local user database.

	Privileged Groups/Users: lists the users who will be allowed to access the shared folder. **Add->:** moves users from the left pane to the right pane. **<Remove:** moves users from the right pane to the left pane. **RO:** read-only. Assign the access type of the user to read-only. **RW:** read-write. Assign the access type of the user to read/write. **Apply:** puts the changes into effect after the permission is properly assigned.
Windows NT	The user accounts here are retrieved from PDC (primary domain controller). To retrieve user accounts from PDC, the administrator must provide a user account for passing the authentication. Please input user name/password in the **Windows NT User** field, which displays **No User** if not assigned yet. The permission settings here apply to the network protocols of Windows, Web and FTP if they are set to user level security. Usage: please move the users to the "**Privileged Groups/Users**" pane and assign their access type (RO or RW). Then click the **Apply** button.
NetWare	The user accounts here are retrieved from NetWare bindery server. To retrieve user accounts from the bindery server, the administrator must provide a user account for passing the authentication. Please input user name/password in the **Bindery Server User** field, which displays **No User** if not assigned yet. Usage: please move the users to the "**Privileged Groups/Users**" pane and assign their access type (RO – read only or RW – read/write). Then click the **Apply** button.
UNIX	The NFS permission is two-fold. One is the permission based on the 3-octet access rights; another is based on a list of permitted host computers. It means only the user/group on a permitted host with proper access rights can read or write the share.

<table>
<tr><td></td><td>Permission:
First, specify which user and group can access the share by filling in the UID and GID fields. Then assign their access rights in the Access Rights field. The definition of access rights is as below.

Access Right:<table><tr><td>1st octet</td><td>2nd octet</td><td>3rd octet</td></tr><tr><td>USER</td><td>GROUP</td><td>OTHERS</td></tr><tr><td>r_u w_u x_u</td><td>r_g w_g x_g</td><td>r_o w_o x_o</td></tr></table>r_u, w_u, x_u, r_g, w_g, x_g, r_o, w_o, x_o are all single bits. 1=> enable; 0=> disable.

Host List:
First, provide a list of NFS hosts in the “User Manager/NFS Host” page. The NFS hosts given there will appear in the “List of un-selected hosts” pane here.
Then, use the Add-> , <-Remove buttons and RO, RW radio buttons to make a list of permitted hosts to the “List of selected hosts” pane.
Last, click the Apply button.</td></tr>
<tr><td>Maximum Connections</td><td>Limit the number of concurrent network connections to the shared folder. Input the number and click the Apply button. 0 means unlimited.</td></tr>
</table>

Share a Volume

The basic unit for sharing is a volume. A volume can be a CD title in a “Direct Access” CD device, a mirrored/cached CD image on a mirror device, or a file partition on a file device.

On this page is a table listing all volumes. To share a volume to network, please check its **Share Enable** checkbox. Those shared volumes will appear in the **Share List** page.

Volume Type	**CD Title:** means it is a CD disc in a “Direct Access” CD device. **Mirrored Image:** means it is a mirrored CD image. **CD Cache:** means it is a cached CD image, which will be deleted if the original CD title is ejected. **File Mode:** means it is a file partition (file volume).

Group Volumes

To group volumes is to put several CD images under one shared folder.

Current Share	This item is to modify the members of an existing share. If the administrator clicks this radio button, it will display all the volumes of the selected share in the "**Members of Grouping**" pane. The administrator can modify the members (volumes) in the existing share. Assign the members by using **Add/Remove** buttons to move the CD volumes into the "**Members of Grouping**" pane. To make changes, click the **Add Members** button.
New Share	This item is to create a new share. **Default Name:** the new share will be named automatically, like share3 or share5. **User-define Name:** the administrator can define the name of the new share. Assign the members by using the **Add/Remove** buttons to move the CD volumes into the "**Members of Grouping**" pane. To make changes, click the **Change Members** button.
Prefix definition	CD – means it is a CD title. MD – means it is a mirrored/cached image.

Volume List

On this page is a table of all the volumes inside the server. The administrator can rename or delete volumes here.

Volume Name	Show the volume name, which is also a hyperlink leading to a page for renaming. If the volume name is trailed by **[M]**, it means the volume can be deleted by eConsole using the mirror password. The administrator can disable this function on

	the rename page.
Volume Type	**CD Title:** means it is a CD disc in a “Direct Access” CD device. **Mirrored Image:** means it is a mirrored CD image. **CD Cache:** means it is a cached CD image, which will be deleted if the original CD title is ejected. **File Mode:** means it is a file partition (file volume).
Location	Designate the location of the device, which contains the volume.
Size	Indicate the size of the volume. For a file volume, it is the total capacity of the file partition. For a CD volume, it is the CD image size.
Status	**Not ready:** means it is a “Direct Access” CD device with no CD title in it. **No device:** means it is a CD device that is not directly accessible, which means it is configured as “CD Mirror” or “CD Record”. **Ready:** means the volume is ready for access.
Delete	Click this checkbox to delete the volume immediately. Please note that, noce deleted, volumes cannot be recovered.

2.6 User Manager

The “**User Manager**” menu is used for maintaining the user database, which keeps the local user accounts, remote user names and a list of NFS hosts.

Local User

User/Group selection	Control to show users and/or groups in the “**Group/User List**” pane. By default it shows both local users and groups.
Add User	Add a local user account by entering the user name and password. If the “**Grant Admin Enable**” checkbox is checked, the user will have access rights to all shares under all network protocols, but still cannot enter the Administration Page.
Add Group	Add a local group. Give a name for the group first. Then

	assign the members by moving the users from the "**Local User**" pane to the "**Member List**" pane with **Add/Remove** buttons. Last, click the **Add** button to create a new local group. If the "**Grant Admin Enable**" checkbox is checked, the users of the group will have access rights to all shares under all network protocols, but still cannot enter the Administration Page.
Delete	Select a user or group in the "**Group/User List**" pane and click the **Delete** button to delete the user/group from the list.
Property	Select a user or group in the "**Group/User List**" pane and click the **Property** button to edit its property – password for a user account or members for a group account.

Remote User

The server can get user/group accounts from a Windows NT/2000 PDC or a NetWare bindery server when assigning the share permission. These user/group accounts are called remote users/groups. The remote users/groups ever assigned to any share will have their names kept in the user database for reference. This page is for maintaining the remote users/groups kept in the user database.

Delete	Select a user or group in the "**Group/User List**" pane and click the **Delete** button to delete the user/group from the list.
Property	Select a user or group in the "**Group/User List**" pane and click the **Property** button to edit its property – password for a user account or members for a group account. If the "**Grant Admin Enable**" checkbox is checked, the users of the group will have access rights to all shares under all network protocols, but still cannot enter the Administration Page.

NFS Host

This page is for maintaining the host IP list. In the "**Share Manager**" menu, the administrator can assign which host(s)

has the access rights of a share under the NFS protocol.

Add	Add a host into the list by entering its IP address.
Delete	Select an item in the "**Host IP List**" pane and click the **Delete** button to delete it from the list.

2.7 Archive

The "Archive" function is used to build CD images periodically from the data stored in a file volume. It can support up to ten tasks (or schedules) at the same time.

Task List

ID	Indicate the task number
Source Volume	Indicate the source to be archived
Schedule	Indicate the time and recurring intervals of the archiving task
Attribute	Indicate the task options. **T:** means this task will only archive the files with specified dates **A:** means this task will only archive the files with archive bits set **S:** means this task will be activated only when free space is less than the threshold **C:** means this task will clear the archive bits of source files after the images are built **D:** means this task will delete source files after the images are built **B:** means this task will burn CD/DVD disks **x:** means to replace an existing image which will be renamed hereafter **X:** means to replace an existing image which will be deleted hereafter **E:** means the created image will be deleted after it is burned successfully
Status	**Waiting**: this task is not running because schedule is not met yet **Building:** it is building CD/DVD images **Pending:** the schedule is met, but the task is not activated yet because of resource limitation **Splitting:** it is building smaller CD/DVD images for burning **Burning**: this task begins to burn CD/DVD

	discs
Delete	Click the check-box to delete the corresponding task immediately

Add Task/Modify Task

Source Image	Use this option to split a big CD image and burn into CD or DVD disks. Sizes of those CD images will be shown besides their names.
Source File Volume	Specify the file volume in which data will be converted into a CD image.
First Level Folder	Specify the folder in the volume of which files will be converted into a CD image. Only the first level folders can be specified here. This field is optional.
Build Image To	Specify the target HD.
Volume Label	Specify the volume label of the created CD image, i.e., the CD label.
Volume Label Extension	Specify whether to append the current date to the volume label of the created CD image.
Volume Name	Specify the volume name of the created CD image. The volume name can be the same as the volume label or can be assigned differently.
Image Substitution	Choose to replace if there is any image having the same name. **Substitute only:** the original image will remain there with a different name **Substitute and delete:** the original image will be deleted
Filter Options	Specify which files to be archived. **Include only the files with modified time:** only archive the files dated as the given conditions **Include only the files with archive bits set:** only archive the files having the Windows file attributes – Archive. **When free space is less than – MB:** activate the task only when free space is less than the threshold
Miscellaneous	**Clear archive bits of source files after archived**: use together with the Filter Option – “Include only the files with archive

	bits set", it can make sure that only new or modified files will be archived. **Delete source files after archived:** delete the source files which are archived into the CD image **Burn CD/DVD immediately after the image(s) are built:** to specify to burn CD/DVD discs
Set Schedule	Indicate the time and recurring intervals of the archiving task
Choose a CD/DVD-Recorder	**CD/DVD-Recorder:** specify the recorder. To choose multiple recorders, please click while pressing the Ctrl key. **Split Image By: 620MB** or **4.4GB** the measurement is based on 1MB=1024KB, 1GB=1024MB. Select the former if CD disks are to be burnt, the latter for DVD disks. **Delete the image after burning successfully:** if checked, the original CD image will be deleted after being burned.

2.8 Backup

View Status

Device Name	Indicate the internal device name.
Tape Label	Show the label name of the inserted tape cassete.
Scheduled Task	Show the task in schedule. Show **None** if there is no scheduled task. Show the following task contents if there is a task. **Volume Type** – mirror volume or file volume. **Volumes** – the volumes to be backed up or restored. **Schedule** – the time, date, frequency of doing the task.
Delete Schedule	(Appear only when there is a scheduled task.) Click this button to delete the scheduled task if there is any. The "**Delete Schedule**" button will not appear if there is no scheduled task.
(Progress)	Display the task progress in percentage if there is any going-on task.

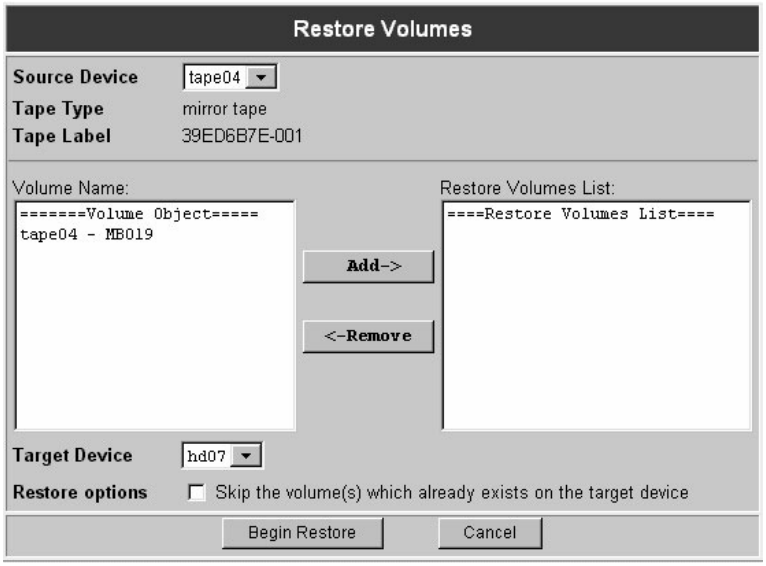
Backup Volumes

Target Device	Select the tape drive for storing the volume backups.
Source Type	Each backup job can only back up one type of volumes – either mirror volumes (i.e., CD images) or file volumes. To start a backup job, the administrator must specify first the type of volumes to be backed up by clicking either the "**Mirror Volumes**" or "**File Volumes**" radio button.
Tape Label	Show the label name of the inserted tape cassete.
Volumes for backup	Use the **Add**/**Remove** buttons to move the volumes from the left pane to the right pane, where lists the volumes to be backed up.
Launch Schedule	**Immediately:** starts the backup job immediately when the **Apply** button is clicked. **According to schedule:** starts the backup job according to the specified schedule and frequency. The schedule can be daily, weekly or monthly.

Restore Volumes

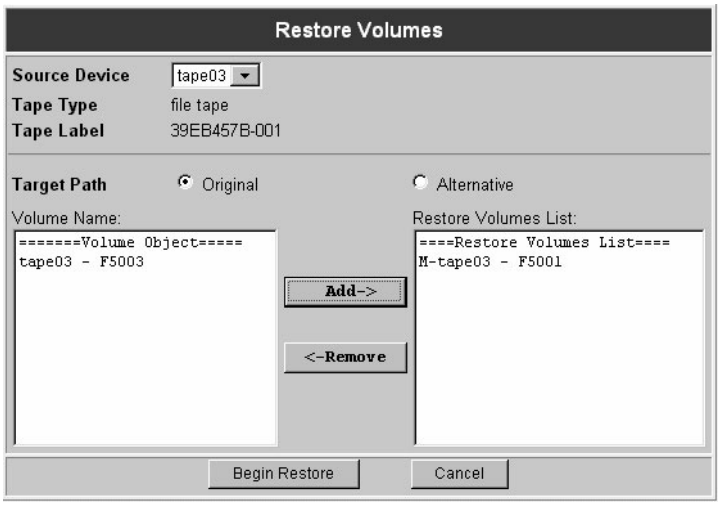
The page to be shown here depends on what the tape contains – file volumes or mirror volumes. The pages for restoring mirror volumes and file volumes are different.

(For restoring mirror volumes)



Source Device	Choose which tape drive to use.
Tape Type	Indicate what the tape contains – mirror volumes or file volumes.
Tape Label	Show the label name of the inserted tape cassete.
Volumes to be restored	Use the **Add**/**Remove** buttons to move the volumes from the left pane to the right pane, where lists the volumes to be restored.
Target Device	Select the HD drive for restoring to.
Restore Options	**Skip the volume(s) which already exists on the target device.** : do not restore the volume(s) which already has an identical copy on the target device. If this option is not checked, a duplicated CD image will be created in this case.
Begin Restore	After specfying the above settings properly, click the "**Begin Restore**" button to start the job.

(For restoring file volumes)



Source Device	Choose which tape drive to use.
Tape Type	Indicate what the tape contains – mirror volumes or file volumes.
Tape Label	Show the label name of the inserted tape cassete.
Target Path	**Original:** restores the volumes and files back to their original locations. **Alternative:** restores the volume back to a different location. In this case, only one volume can be restore at one time.
Volumes to be restored	(Appear on when **Target Path** is set to **Original**) Use the **Add**/**Remove** buttons to move the volumes from the left pane to the right pane, where lists the volumes to be restored. All files in the source volumes will be copied back to their original location and overwrite those with the same names.

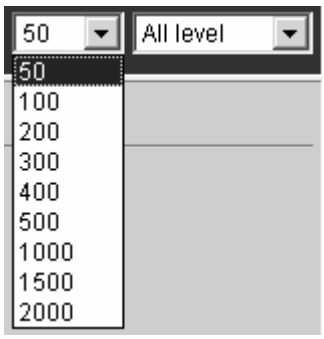
Source Volume	(Appear on when **Target Path** is set to **Alternative**) To restore a volume to a different location from its original, please select the volume to be restored here.
Target Volume	(Appear on when **Target Path** is set to **Alternative**) Specify where to restore the source volume. All files in the source volume will be copied into the target volume, and overwrite those with the same names.

2.9 Event Log

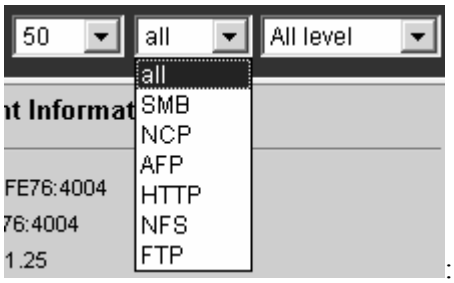
Controls

 Clear all log messages on the page.

: Choose the level of log messages to appear on the page.



: Choose the number of log messages to appear on the page.



: Choose the network protocol of log messages to appear on the "**Security Log**" page.

Log Level

Each log message has its log level, which indicates the warning level.

Info	General operational information, describing what is in action or what is already done.
Warning	A failed job or an important event that can affect user access.
Error	A serious error causing system instability, like "temperature is too high".
Emergency	A fatal error that will make the server non-operable, like "fail to write to flash during firmware upgrade"

Log Types

All log messages are categorized into four types: SYSTEM, DEVICES, SECURITY and MIRROR.

System Log	Keep records of system actions (like boot or shutdown) and changes of system configuration.
Devices Log	Keep records of the events related to IDE devices, including CD/DVD devices, HD drives, RAID devices and tape drives. Examples of the device events are: mounting file system, creating CD images, creating file partitions, CD recording,

	creating RAID groups, and tape backups, etc.
Security Log	Keep track of network connections. The server supports the network protocols of SMB, NCP, AFP, HTTP, NFS and FTP. Examples of the security events are: user logon, user connected and NFS mount.
Mirror Log	Keep records of creating CD images, CD recording and remote mirroring.

2.10 Statistics

Windows Client	Show all the connections of Windows clients. **Kill All:** kill all connection of Windows clients by clicking the **Kill All** hyperlink. **Kill:** kill the connection of Windows client by clicking the **Kill** hyperlink.
NetWare Client	Show all the connections of NetWare clients. Click the **Kill All** or **Kill** hyperlinks to kill the connections of NetWare clients.
Macintosh Client	Show all the connections of Macintosh clients. Click the **Kill All** or **Kill** hyperlinks to kill the connections of NetWare clients.
UNIX Client	Show all the connections of UNIX clients. The mount path means the shared folder being mounted.
FTP Client	Show all the connections of FTP clients.
Share Access Counts	Show how many times a share is accessed. Click the **Clean All** or **Clean** hyperlinks to clear the count(s).
Volume Statistics	Show the bytes of being read/written of a volume. Click the **Clean All** or **Clean** hyperlinks to clear the count(s).