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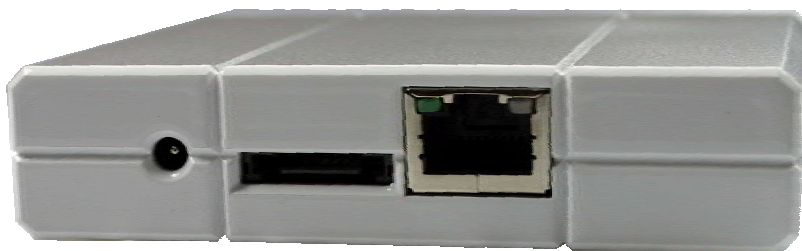
JW Electronics Co.,Ltd.

SEEDIQ-External

SATA over Ethernet with

-1 10/100/1000 Mbps LAN Port

-1 e-SATA Port(SATA 1.5Gbps /SATA II)



User Menu

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2.PRODUCT SPECIFICATION

- ◎ Product Name : SEEDIQ-External
- ◎ Work system : Windows Vista/XP
- ◎ Transmission Interface : 10/100/1000Mbps LAN Port.
e-SATA Port (SATA 1.5 Gbps & SATA II Support)
- ◎ Suitable in 2.5", 3.5", SATA HDD
- ◎ Weight : 115g
- ◎ Dimension : 76mm(L)X93mm(W)X23.3mm(H)
- ◎ Operating temperature : 0°~40°C (32°~104°F)
- ◎ Website: <http://www.jwe.com.tw>
- ◎ E-MAIL: aoe@jwe.com.tw

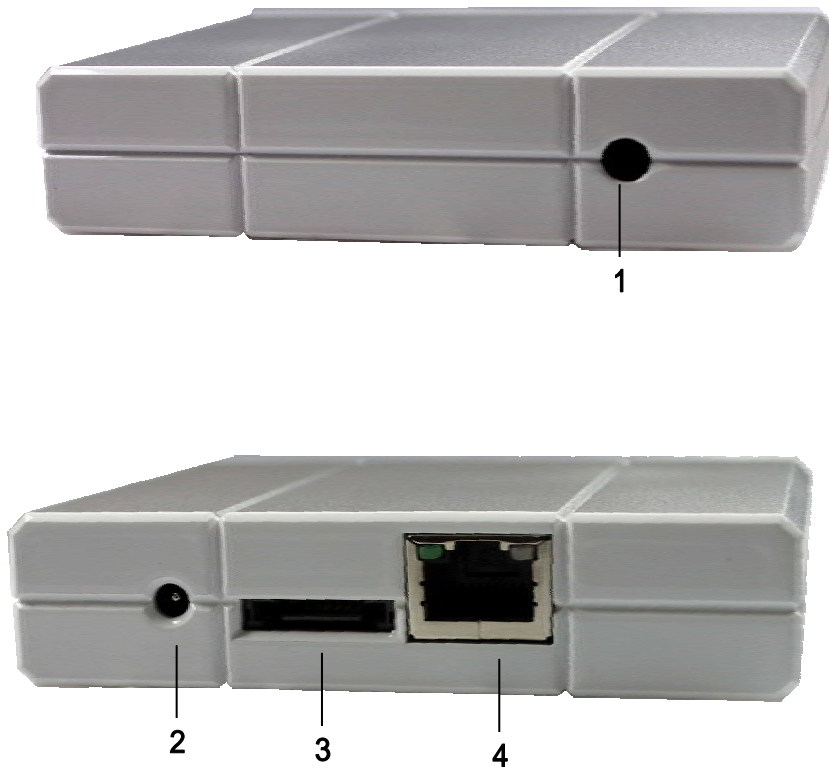
3.PACKAGE CONTENTS

Goods Name	Quantity
AOE SEEDIQ-External V1.1	1
e-SATA cable 100CM	1
RJ45 CAT 5e UTP cable 100CM	1
CD(The with Driver and User Menu)	1
DC Adapter (5V/1.2A)	1



4.PRODUCT INTRODUCTION

4.1 SEEDIQ-External Product Introduction



1. POWER / STATUS LED
2. ADAPTOR DC-JACK
3. e-SATA Port (LINK e-SATA H.D.D)
4. 10/100/1000Mbps RJ45 LAN Port

4.2 SEEDIQ-External LED Introduction

4.2.1 Power / SATA Status LED : Red /Blue

" Power ON " Light "Red color";If e-SATA H.D.D Link Ready ,the LED tureed into Light Blue.

The e-SATA H.D.D read or write , LED is blink.

4.2.2 1000Mbps Link LED(RJ45 Left Side LED)

1000Mbps Link OK , the LED Light "Green"color;if Link is 100Mbps or 10Mbps , the LED Off.

4.2.3 Lan Active LED(RJ45 Right Side LED)

If Lan Active(Read or Write) , the LED is Green Blink.

5.SEEDIQ-External INSTALL BASIC STEP

★ Quickly Install

5.1 Minimum System Request

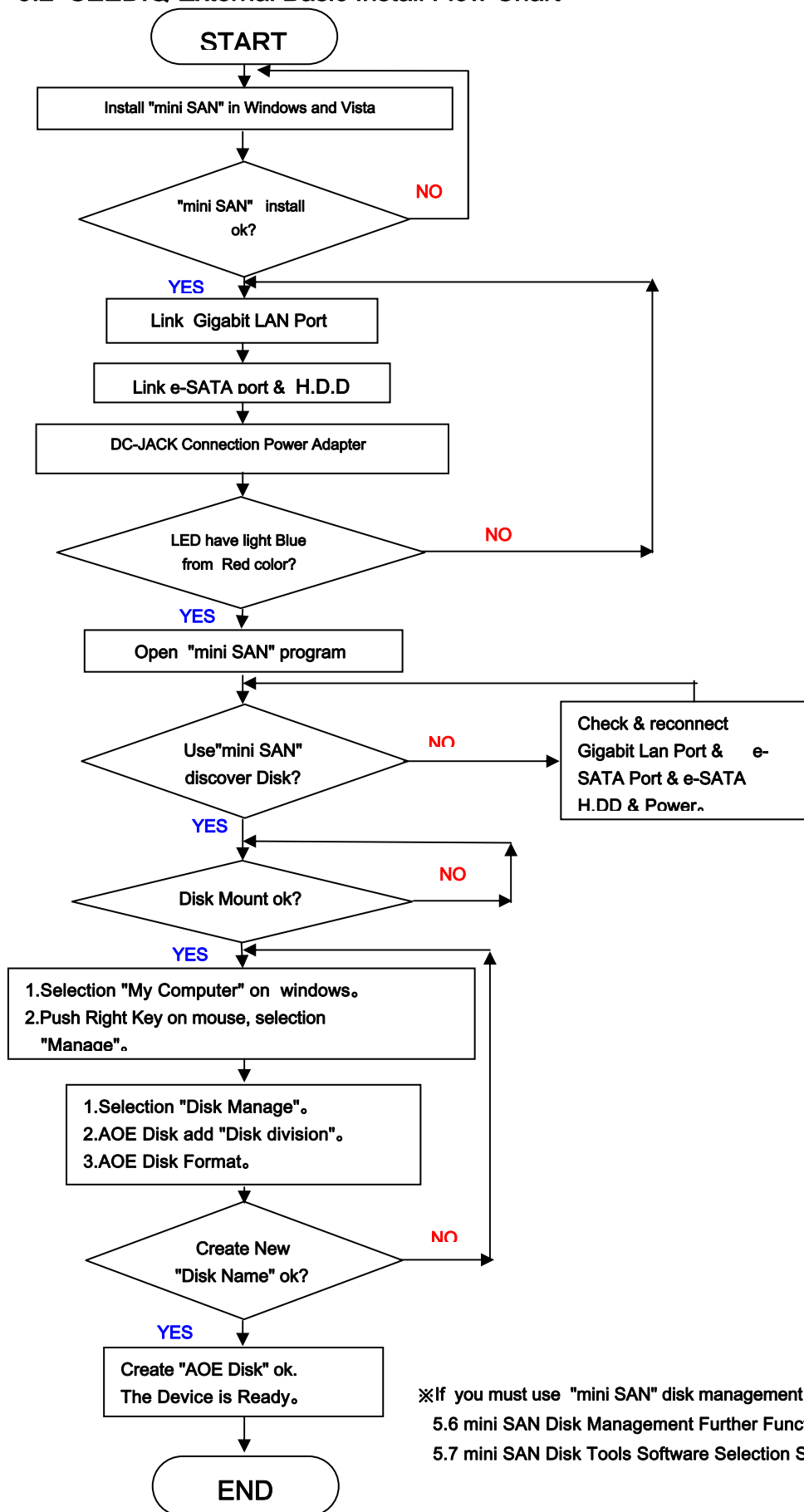
Windows® XP / Vista .

400 MHz Pentium® III or higher

128 MB RAM (256 MB recommended)

10/100/1000Base-T Full Duplex Ethernet Card or Switch Hub.

5.2 SEEDIQ-External Basic Install Flow Chart



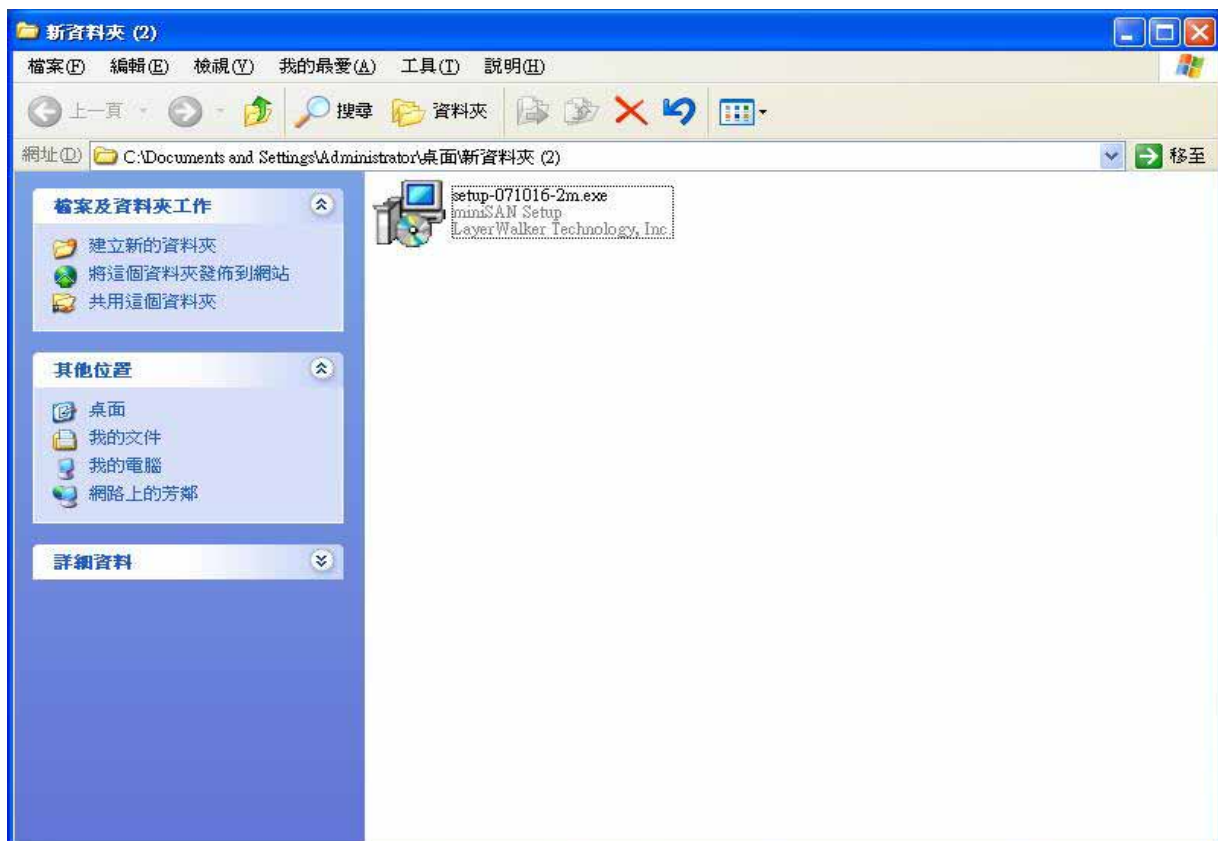
※If you must use "mini SAN" disk management further function, Please see...
 5.6 mini SAN Disk Management Further Function.
 5.7 mini SAN Disk Tools Software Selection Setting.

5.3 Hardware Configuration

- SEEDIQ-External plug in CAT 5e or CAT6 cable to Gigabit LAN Port and link up PC or 10/100/1000Mbps Switch Hub.
- SEEDIQ-External e-SATA Port Link up e-SATA Cable & e-SATA Disk.
- SEEDIQ-External DC-JACK connection to Power Adapter.
- Check 10/100/1000Mbps,if 1000Mbps Link ok, the RJ45 Left Side LED light Green LED.
- "Power ON",the Power/SATA Status LED is light Red color;if SATA Disk Ready,the LED turn to Blue color at 11 seconds later .

5.4 Install "miniSAN" in Windows XP & Vista

- Find miniSAN Install driver in the driver CD, double click .

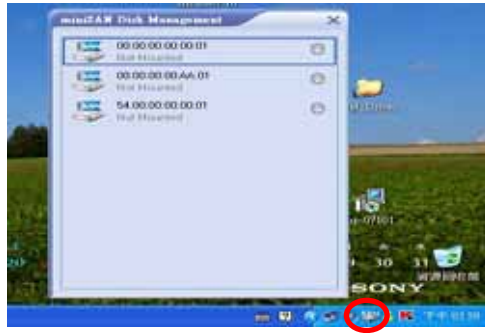


- Install Shield Wizard will appear. Click the Next button to continue to next step . (Don't Double install)
- Accept License Agreement and the click Next to continue installation.
- Click the Install button to install drivers .
- Click Continue Anyway to continue installation .
- Click the Finish button to complete .
- Click on the Yes button to restart your computer now, or No to restart later . (Propose reboot)

5.5 miniSAN Easy Application Guide

-When software installation is completed, Reboot the PC,you will find a miniSAN Disk Administrator

Tool icon  on the system tray.




-Mouse Right Click on the miniSAN controller  Icon located on the system tray , and select the miniSAN item .(The miniSAN Device Management can be running)

-miniSAN Application Tool performs the following functions : (See 5.5.1 ~ 5.5.8)

5.5.1 Discover miniSAN Disk

1. Mouse Left Click on the miniSAN Device Management  Icon located on the system tray.
2. The miniSAN Application tool will pop on the desktop and auto discover all miniSAN Disk Mac Address in the network.
3. Press discover button can research the miniSAN Disk on the network.

5.5.2 Mount miniSAN Disk

1. Mouse Left Click on the miniSAN Device Management  Icon located on the system tray .
2. The miniSAN Application tool will pop on the desktop and list all miniSAN Disk Mac Address in the network.



3. Select your target disk to access:

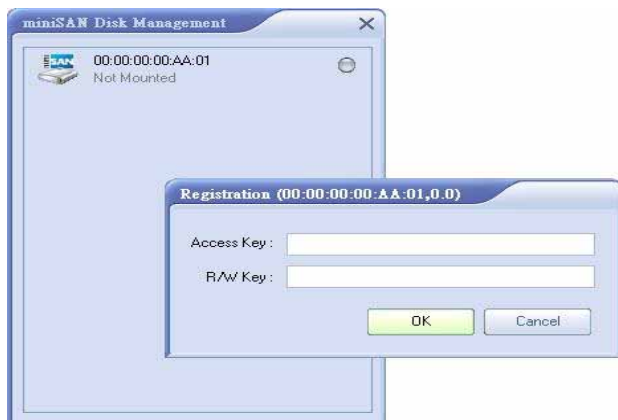
- Select the target disk and click mouse right to show the target disk function window.
- Select Mount Disk for disk access .
- If user mount the target disk to Read/Write mode, the miniSAN Disk is registered as Read / Write Mode and show the green icon.(mini SAN will create one management as use Read /write Function at one time)



- If others user mount the target disk to Read/Write mode, the miniSAN Disk is registered as Read Only Mode and show the blue icon.



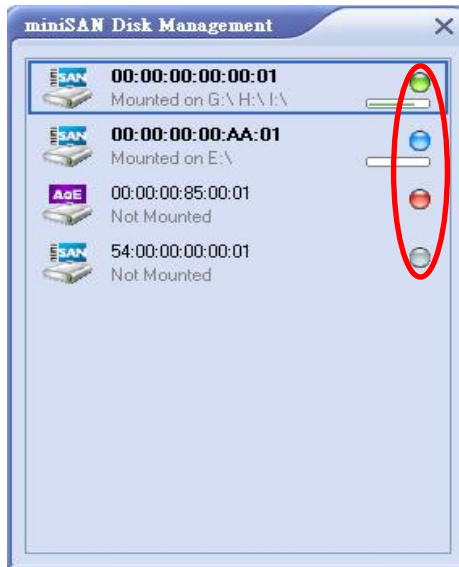
- If the miniSAN Disk manager set the Authentication Key, the tool will pop a register window for key registration .
- If user didn't have access key, the target disk will not be mounted .
- If user entered the right access key and didn't have the R/W key, the target disk just can mount to Read Only mode .
- If user entered the right access key and R/W key, the target disk could mount Read/Write mode .



Note: miniSAN Authentication Access Key and Write Key is set on "miniSAN Disk Administration Function " step 5.6.2 .

5.5.3 Display miniSAN Disk used capacity status

miniSAN Disk manager will show the disk used capacity and used percentage icon when disk mounted.



Below is describing each of the miniSAN Disk Device Modes and the icons that correspond with each mode:

Gray  : Disable mode

- miniSAN Disk is disabled from your computer .
- miniSAN Disk can be enable to access mode if disk mount .

Green  : Access mode

- User can access the miniSAN Disk using Read/Write mode .

Blue  : Read Only mode

- User can access the miniSAN Disk using Read Only mode.

Red  : Unrecognized Mode

- miniSAN Disk lost connecting .
- miniSAN Disk have some error and can't access.
- HDD broken or HDD interface have some problems .

5.5.4 Reload Disk function

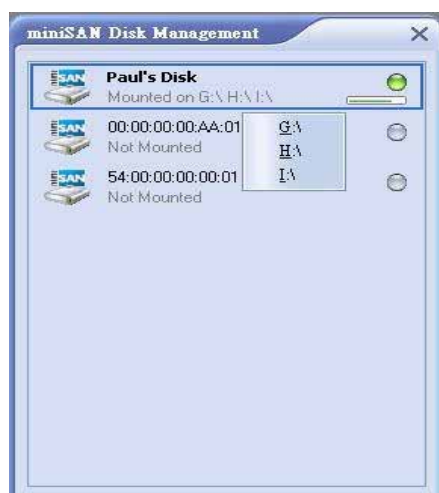
- Select the target disk to press reload button.
- Read Only mode disk can reload the disk to Read/Write mode by reload function.
- Mounted R/W mode user didn't have reload function.
- User can't reload to R/W mode when the R/W mode user is accessing the target disk.
- User can't reload to R/W mode when user don't have R/W key registration.
- Read Only mode disk will refresh disk data for data synchronize.

5.5.5 Unmount miniSAN Disk

- Select the target remove disk to press unmount button.
- miniSAN Disk would be removed from the PC.

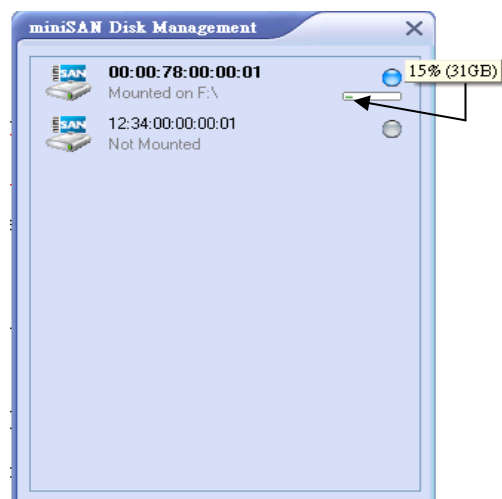
5.5.6 Simple disk volume information

- The disk management tool will show the disk volume information when disk mounted.
- Mouse Left Click on the disk volume will link to the disk file manager.



5.5.7 Display miniSAN Disk used capacity status

- miniSAN Disk manager will show the disk used capacity and used percentage icon when disk mounted.



5.5.8 Disk Description information

- Double click the target MAC address to type your disk description on the disk management tool.
- The description information is only saved on the current PC.



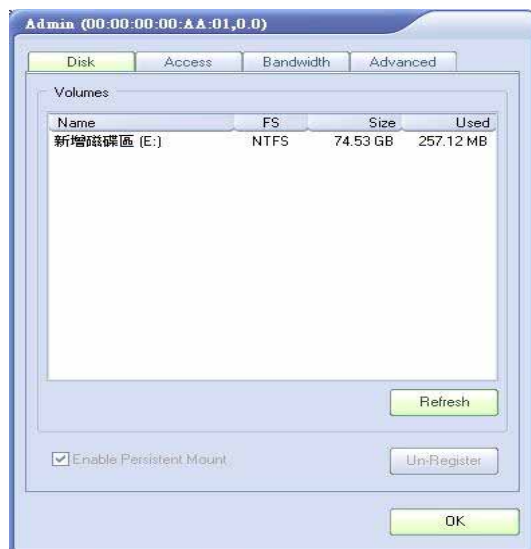
5.6 miniSAN Disk Administration Function

The miniSAN Disk support some functions for administrator manage. There are four pages of functions list are:

- Disk information page
- Access key lock functions page
- miniSAN Disk transmission traffic Bandwidth check
- Advanced function for target disk

5.6.1 Disk information page

1. Select the target disk and press the Admin button, the Admin pages will show on.
2. The Disk page show the target disk volumes information include Volume Name / File System /Disk size /Disk Used size.
3. Press the Refresh Button on the page will refresh all volumes information.
4. Press the Un-Register Button will log out the target miniSAN Disk access key registration(Step 5.6.2)
5. Press on the “Enable Persistent Mount” icon will auto mount the target disk when disk valid(Step 5.7.1)
6. Press OK to exit and save.



5.6.2 Disk Access Key Lock page

1. Select the target disk and press the Admin button, the Admin pages will show on.
2. Press the Access page for access manager.
3. It will auto pop out a password login window for disk manager.
4. Press the default login value “miniSAN”, and it will show the page to setup Admin Password and Authentication Key.
- 4-1. Press the right password if the password is set..



5. Press Use Password icon to Enable/Disable the target disk access page login function.
6. User can change the target disk password by modifying password and confirm when enable “Use Password” function.

7. Press Authentication ON icon to Enable/Disable the target disk mount disk registration functions.

(Step 5.5.2)

8. User can setup the Access Key and R/W Key for mount disk registration login password. (Step 5.5.2)

9. Press OK to exit and save.

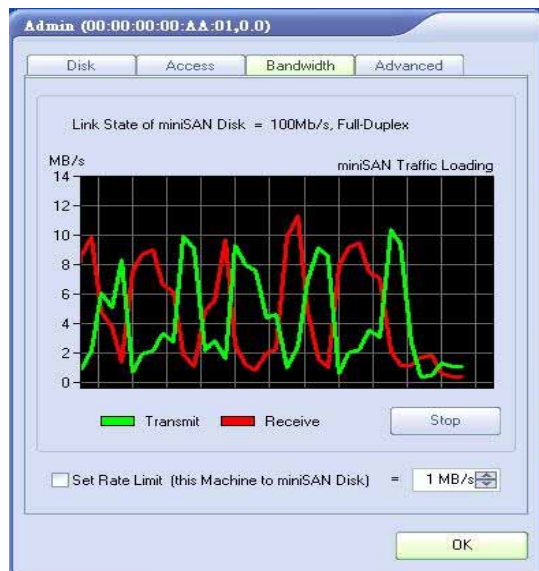
5.6.3 Disk transmission traffic Bandwidth checking

1. Display the target miniSAN disk Link State and current traffic loading chart; the red line shows the write data traffic bandwidth, the green one for read traffic.

2. Press Run/Stop to run/stop the traffic loading chart.

3. Reserve Set Rate Limit function to limit data maximum transfer rate for next driver.

4. Press OK to exit and save.



5.6.4 Advanced function for target disk

1. Enable/Disable Power Save function and set Power Save enable time.

2. Reserve Always Mount in R/W mode function for advance user which have vendor file system driver for concurrent data R/W.

3. Mark sure all clients have unmount the disk press password to login will show Maintenance function to update and restore miniSAN disk firmware function.

4. Mount the Disk and press password to login will show reserved Disk Health and Power State function for disk manage.

5. Press password to login will show reserved Emulated as Standard AoE Device for standard AoE vendors and users.

6. Press OK to exit.




ID	Attribute	Threshold	Value	Worst	Raw
01	Raw Read Error Rate	51	200	200	0
03	Spin Up Time	21	164	162	2800
04	Start/Stop Count	0	100	100	309
05	Reallocated Sector Count	140	200	200	0
07	Seek Error Rate	51	200	200	0
09	Power On Hours Count	0	100	100	432
0A	Spin Retry Count	51	100	100	0
0B	Calibration Retry Count	51	100	100	0
0C	Power Cycle Count	0	100	100	309
BE	Unknown SMART Attribute	45	60	46	40
C2	Drive Temperature	0	103	89	40
C4	Re-Allocated Data Count	0	200	200	0
C5	Pending Sector Count	0	200	200	0

Serial Number : WD-WMAM9RC86928
Firmware Version : 06.01D06

OK

5.7 miniSAN Disk Tool Option Function

1. Mouse Right Click on the miniSAN Device Management  Icon located on the system tray .
2. Select the Options function to pop the Options window .



5.7.1 General function description

1. Press Auto disk Discovery icon to Enable/Disable periodical auto discovery disk function.
2. Press Discover standard AoE disk icon to Enable/Disable driver to support standard AoE device.
3. Press Mount disk as Persistent icon to Enable/Disable auto mount the target disk function when disk valid, please check.
4. Press Show Hint on disk Owners icon to enable/disable Hint message when disk mounted R/W by other user.
5. Press Confirm to Exit icon to enable/disable the confirm message window when exit the miniSAN management tool.
6. If user want to auto unmount disk when disk lost, press the Unmount disk automatically icon.
7. If user want to keep status when disk lost, Press the Simply update status icon.
8. miniSAN Disk Management Controller Window Style: Disk Slides/Detailed List.



5.7.2 Network function description

1. Enable/Disable Block Network Adapter during disk Discovery.



5.7.3 GUI function description

1. Selection various skin by your like .



5.8 miniSAN Disk Tool About function

1. Mouse Right Click on the miniSAN Device Management  Icon located on the system tray.
2. Select the Options function to pop the About window .



3. The About window show the GUI version and Driver version .
4. Press OK for exit .



5.9 Uninstall miniSAN

Before you uninstall the miniSAN Driver, you must close all applications using the miniSAN Device and unmount all disk and then close miniSAN Disk Management .

1. Close miniSAN Disk Management by selecting Exit.
2. Uninstall miniSAN Driver .
 - Go to Start > Programs > miniSAN Software > Uninstall miniSAN Software .
 - Windows Installer will appear. Click Yes if you want to continue . Other wise click No.
3. Restart the PC once to finish uninstalled.

5.10 miniSAN Other Needing Attention Item

1. The miniSAN program have get a WHQL approval from Microsoft ;User can use in Windows XP & Vista O.S .
- 2.If SEEDIQ-Internal is Working ,Please don't move Power and LAN Cable and SATA H.D.D .