easyRAID RAID Management S/W User's Guide

1. Introduction

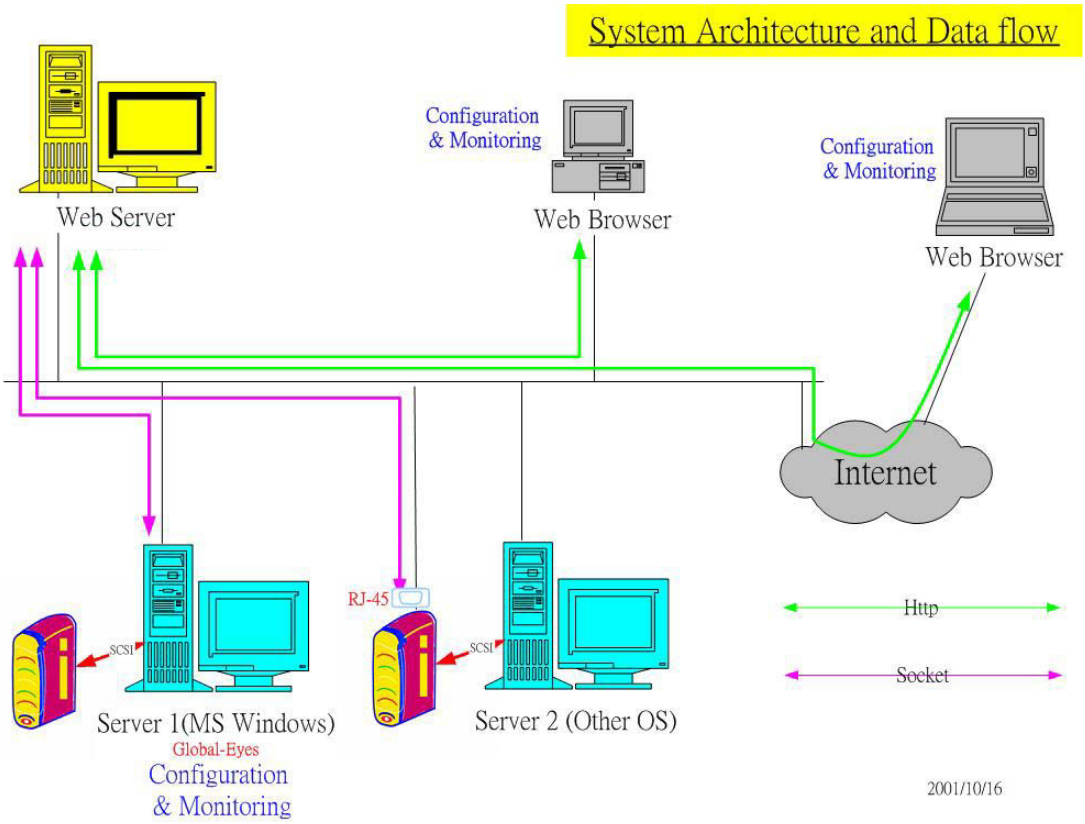
The RAID management S/W is an easy-to use, user-friendly S/W design for easyRAID solution. User should create the RAID configuration via the RAID unit's front panel button (please refer to your user's manual) and use the RAID management S/W to monitor status or modify configuration.

The RAID Management S/W includes 2 programs:

I. SCSI In-band (*Global-Eyes*): ***Global-Eyes*** supports host connected with Disk Array under Windows 98/Me, NT/2000/XP system. This program should install into the host server so as to monitor status and change configuration locally.

II. Ethernet (*Global-Net*): This program allows users to monitor status and change configuration remotely through web browser. Users should install this program into a Web server. If your RAID set equipped with an Ethernet (RJ45) connector, just connect it with network environment to get access by web browser.

For more info go to **www.easyRAID.com**


System Architecture and Data flow
Web Server
Configuration
& Monitoring
Web Browser
Configuration
& Monitoring
Web Browser
Internet
RJ-45
SCSI
SCSI
Server 1(MS Windows)
Global-Eyes
Configuration
& Monitoring
Server 2 (Other OS)
Http
Socket
2001/10/16

2. Global-Eyes Revision History

Global-Eyes Ver 2.00

- Add English/Japanese version switching function.
- Add remote RAID configuration.
- Support multiple RAID setting.
- Add firmware update function.
- Add advance setting.
- Add log exportation.

Global-Eyes Ver 1.01

- Remove S/W Terminator option of Array Configuration.

Global-Eyes Ver 1.00

- First version release.

Note: The Global-Eyes is applied to all of the SCSI host RAID systems. But some of the functions may not be applied on some models. (Please see explanation below mark with "*****")
Please refer to your "User's Manual" to get detailed spec.

3. Global-Eyes Local Access

3-1 Hardware:

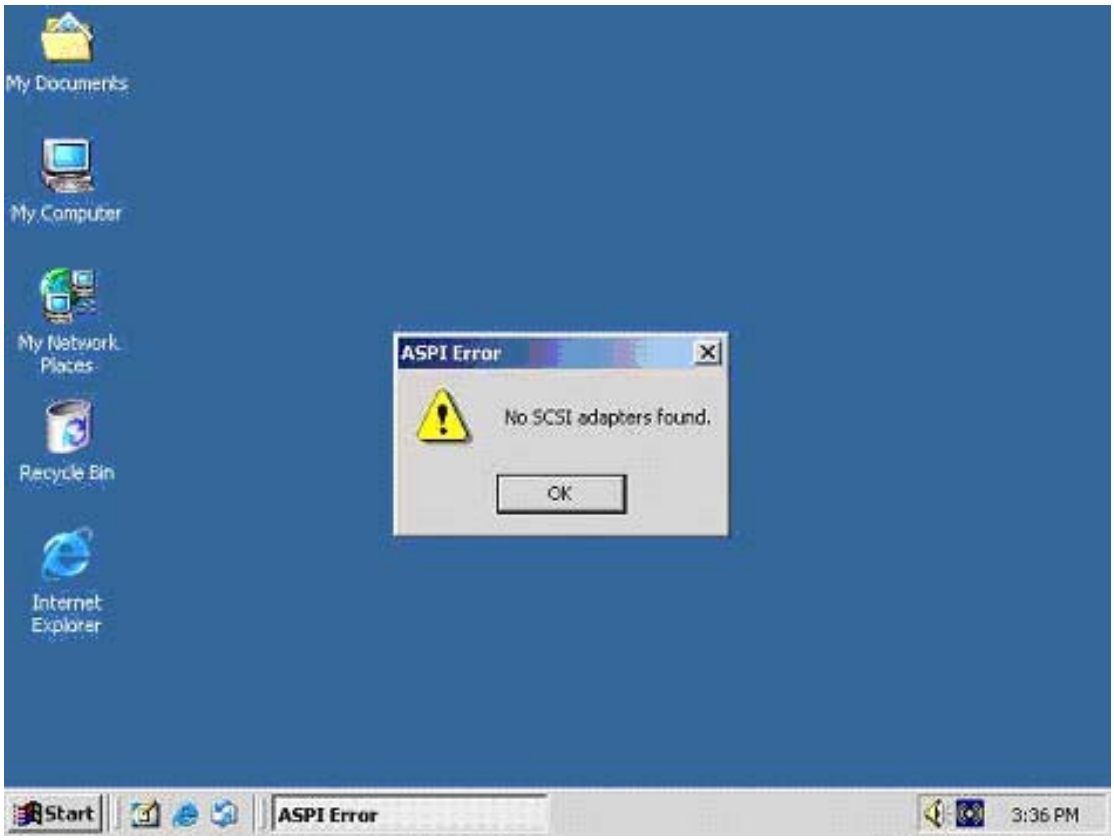
To use ***Global-Eyes*** you will need to connect the RAID with Host Server installed with SCSI card and cable.

3-2 Software:

Follow the steps below to install ***Global-Eyes*** on your host computer.

I. **Adaptec ASPI Package:** This package is required in order to proceed Global-Eyes program, if you have this package installed, please go to next step; otherwise please download from Adaptec and install it.

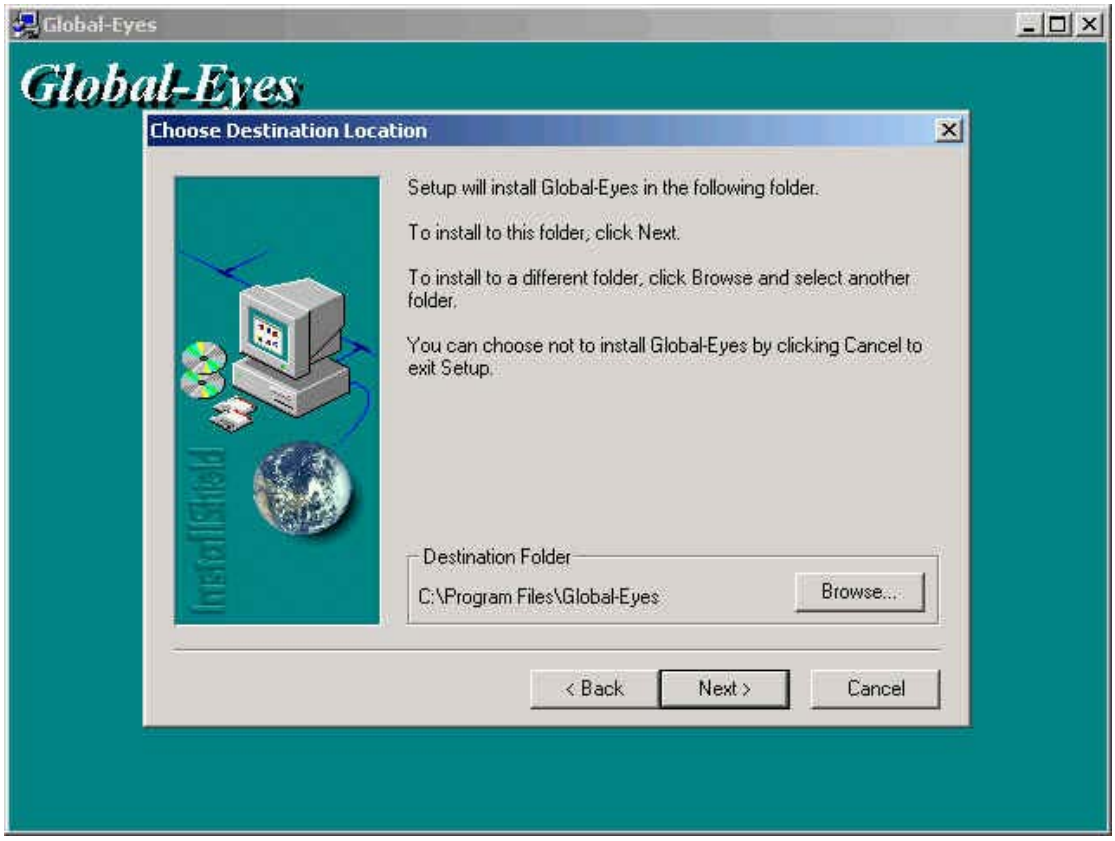
Warning!! If you didn't install *"ASPI"* driver before running the GUI program, it will display *"No SCSI Adapters found"*



II. ***Global-Eyes***: Insert the CD-ROM.

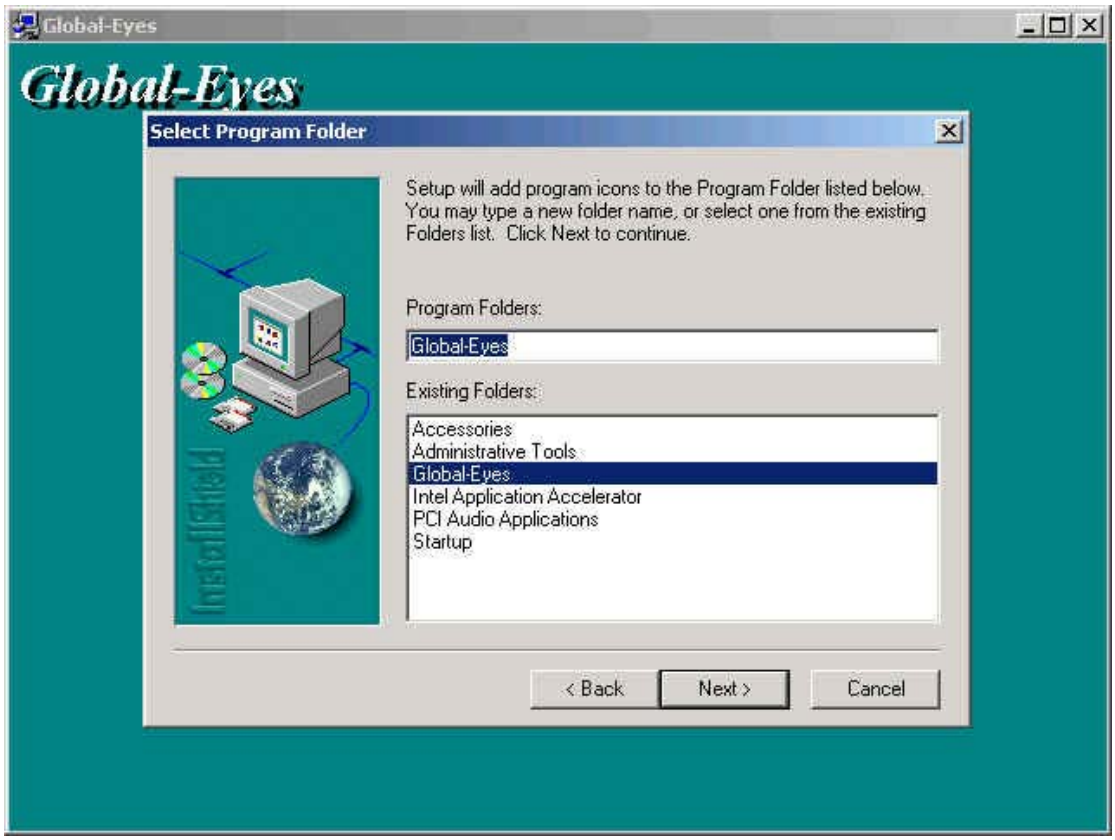
II.1 Before proceeding, we recommend that you close all applications in use.

II.2 Run "**Global-Eyes\disk1\setup.exe**" file to start the installation.

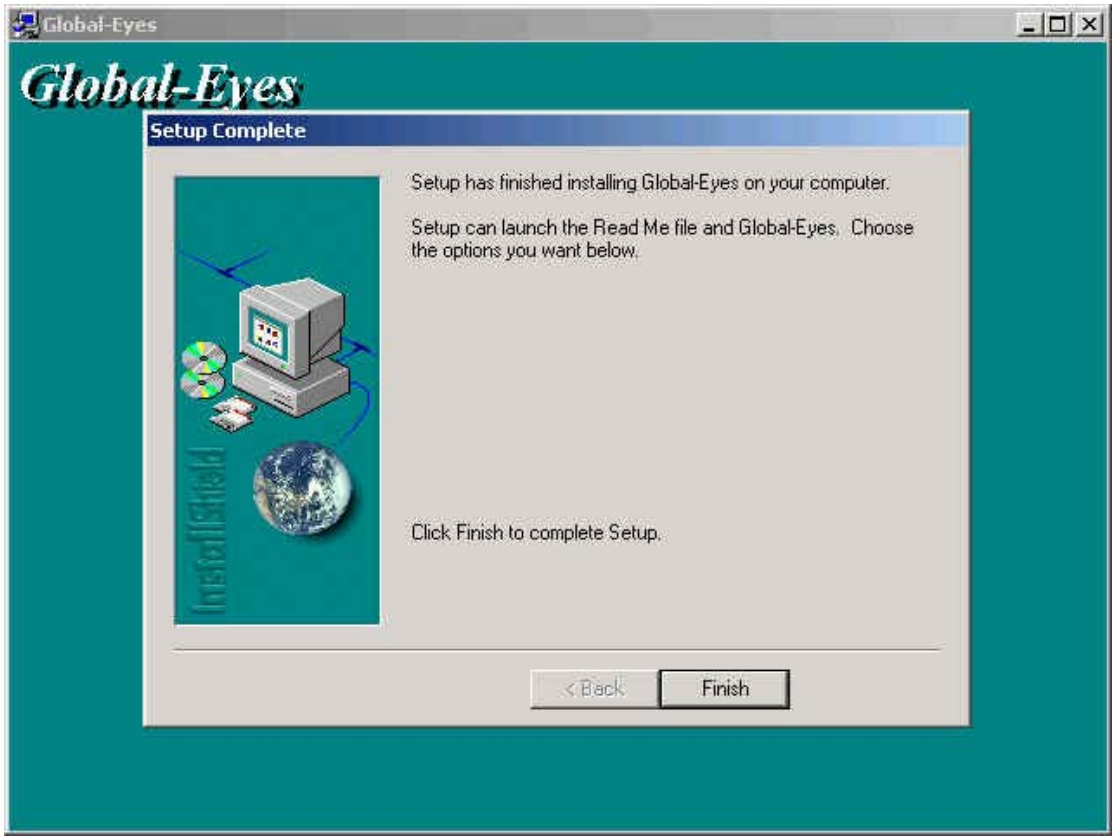


Click "**Next**" button to continue the installation, or change the directory you like.

Click "**Next**" to continue.



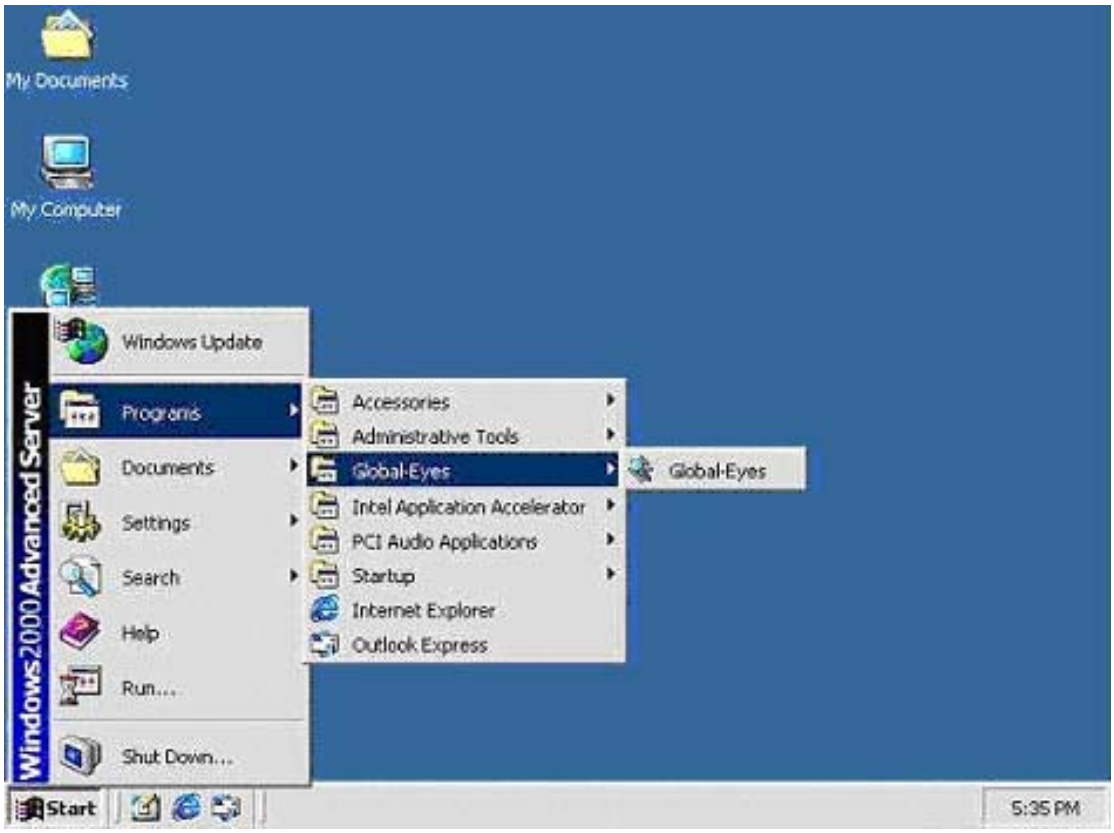
Click "**Next**" to go to next step.



Click "**Finish**" to finish the installation.

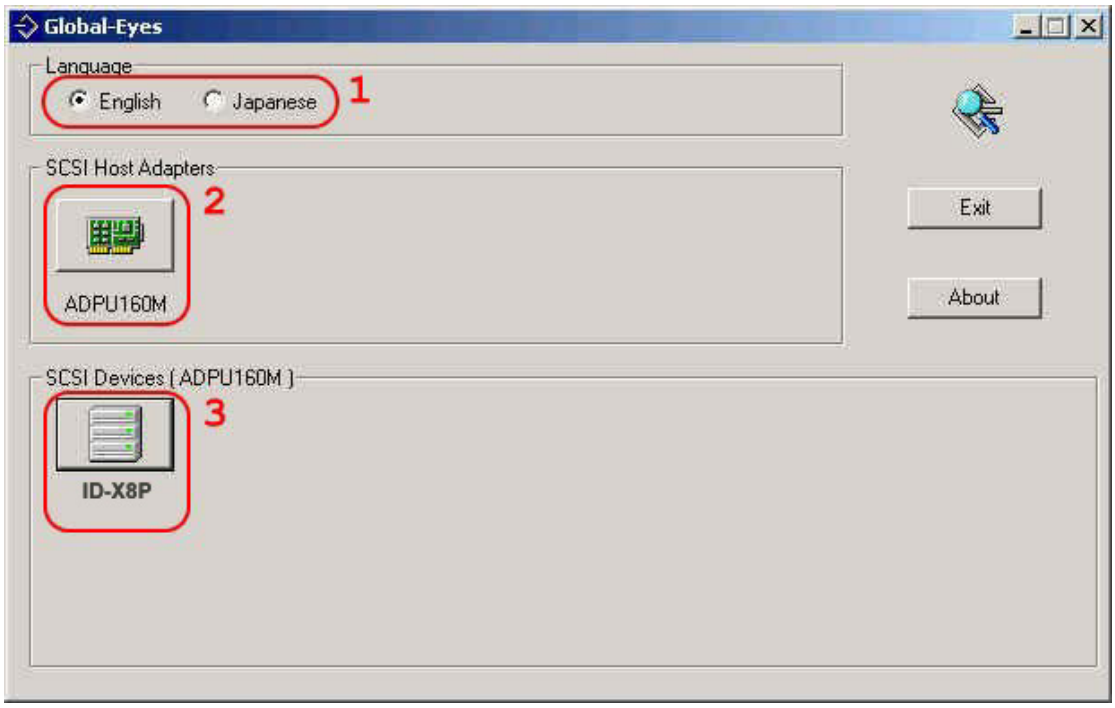
4 Run Global-Eyes Program

Click **Start** -> **Programs** -> ***Global-Eyes*** -> ***Global-Eyes*** to start this program.



4-1 "*Global-Eyes*" *Main* menu

Global-Eyes main menu will display after starting the program.



4-1-1 Global-Eyes will detect the SCSI device automatically.

I. Language: We support English/Japanese language for your choice.

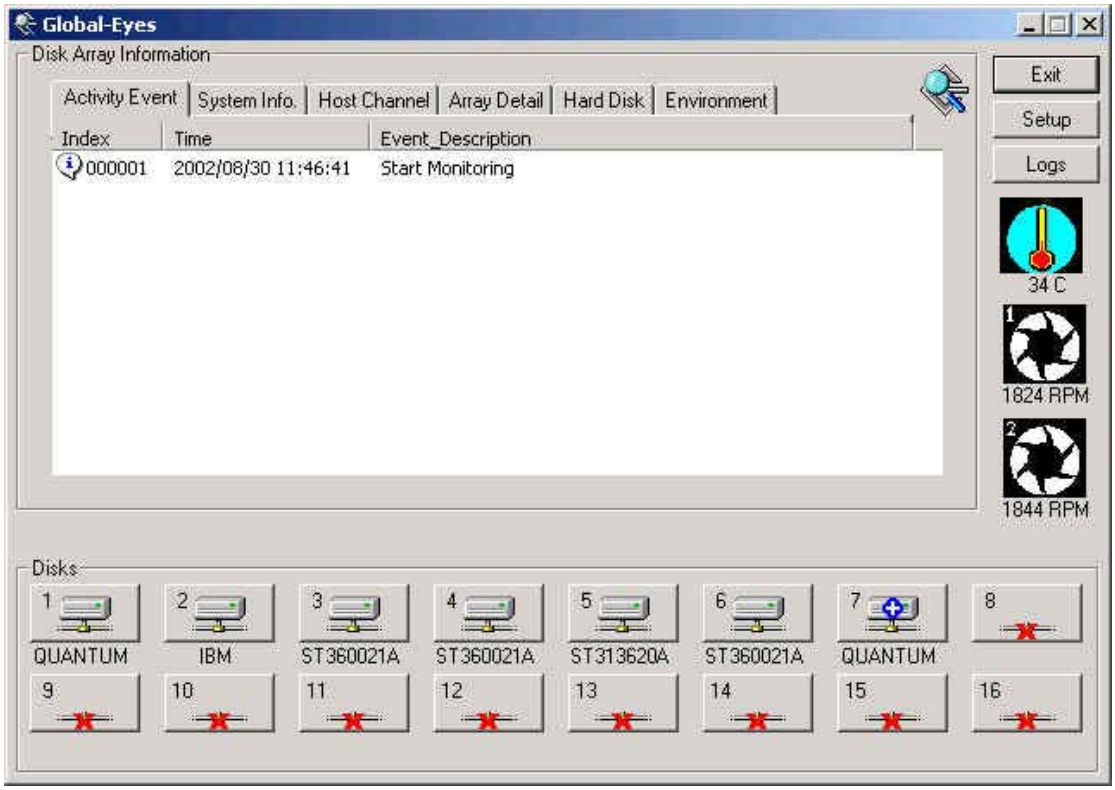
II. SCSI Host Adapter(s): SCSI card installed in Host computer.

III. SCSI Device(s): Display all SCSI devices attached at this SCSI card.

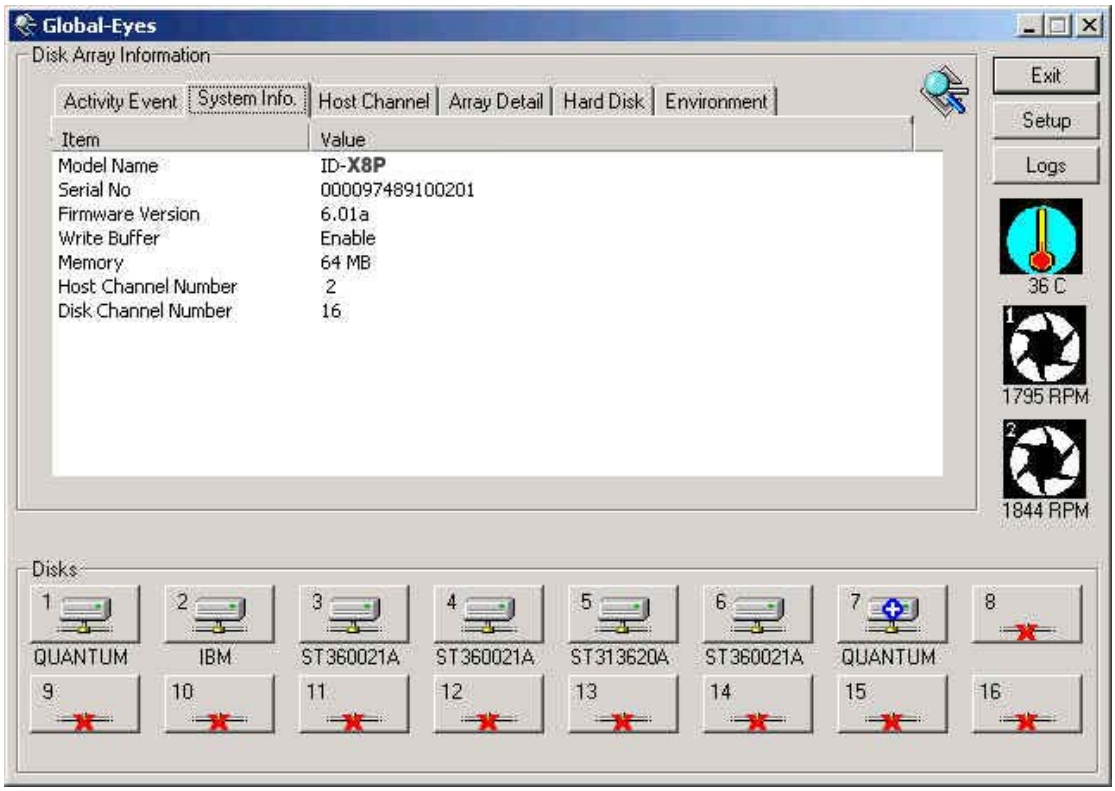
Press "**ID-X8P**" (it depends on the model name) icon to start monitoring.

4-1-2 The "Disk Array Information" windows will pop-up, and temperature, fan status will display.

I. Activity Event: Information about activity events.

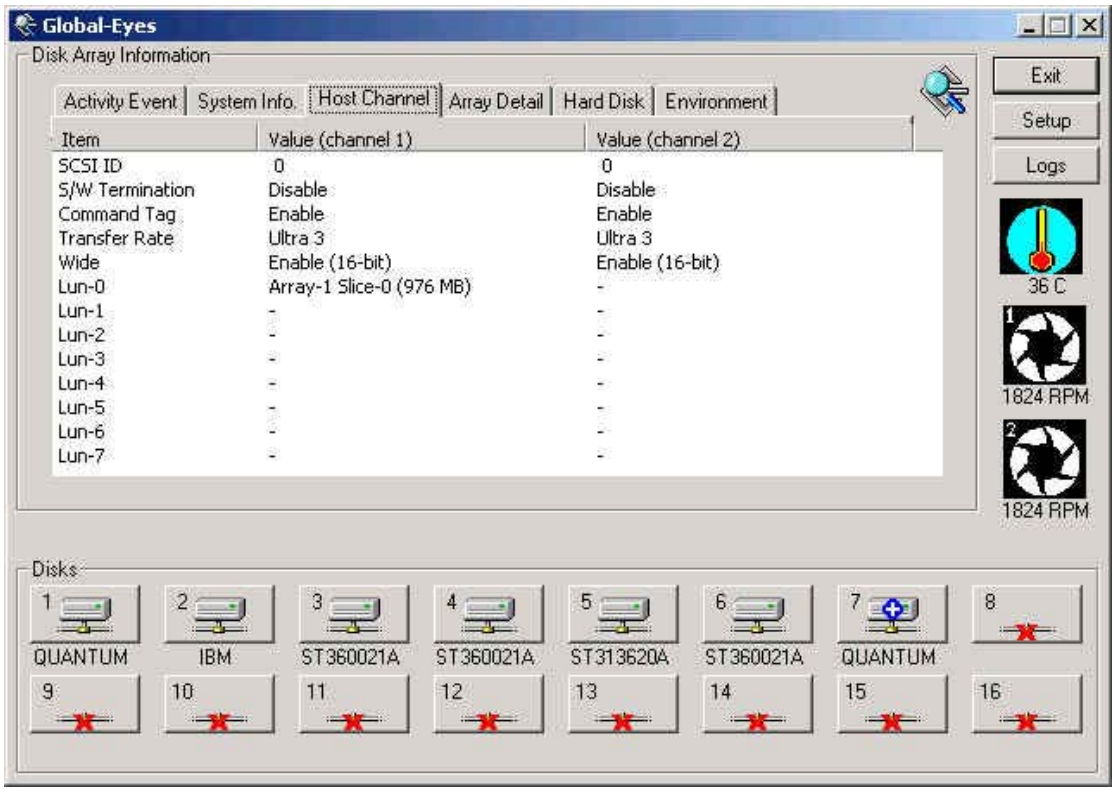


II. System Info: Display RAID hardware information such as Model Name, Serial Number, Firmware Version, Write Buffer, Memory Size, Host Channel Number and Disk Channel Number.

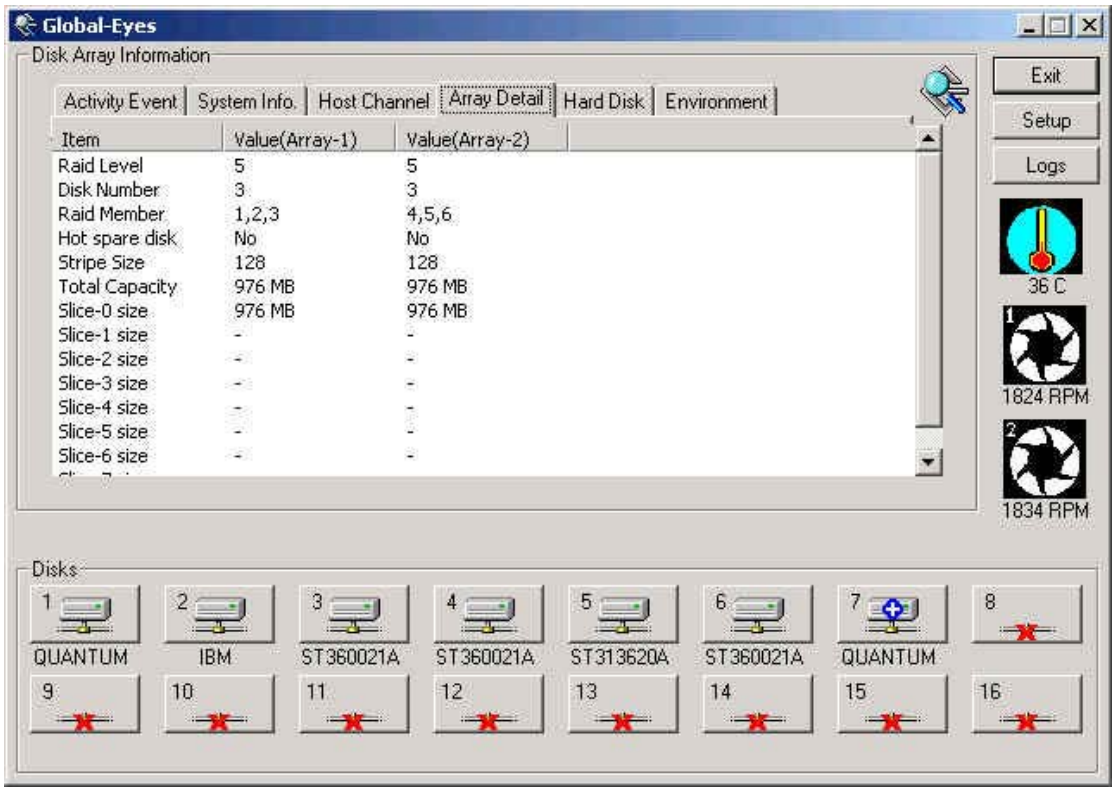


	HDD is On-line		HDD Failed
	HDD is Spare Disk		Spare HDD Failed
	HDD is Rebuilding or On-line Expanding		Not Install HDD

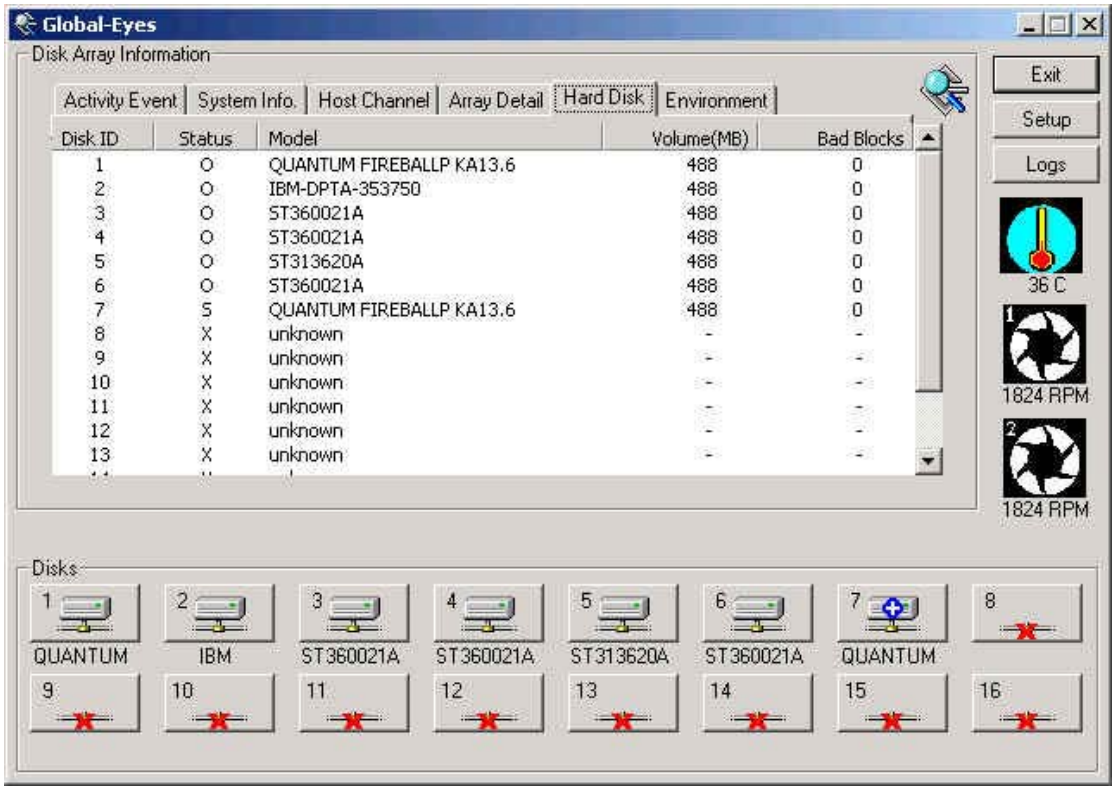
III. Host Channel: Display information about SCSI ID, S/W Termination, Command Tag, Transfer rate, Ultra Wide info and Lun mapping.



IV. Array Detail: Display information about Raid Level, Disk Number, Raid Member, Hot Spare Disk, Stripe Size, Total Capacity and Each Slice Size.



V. Hard Disk:



『**O**』: HDD is On-line

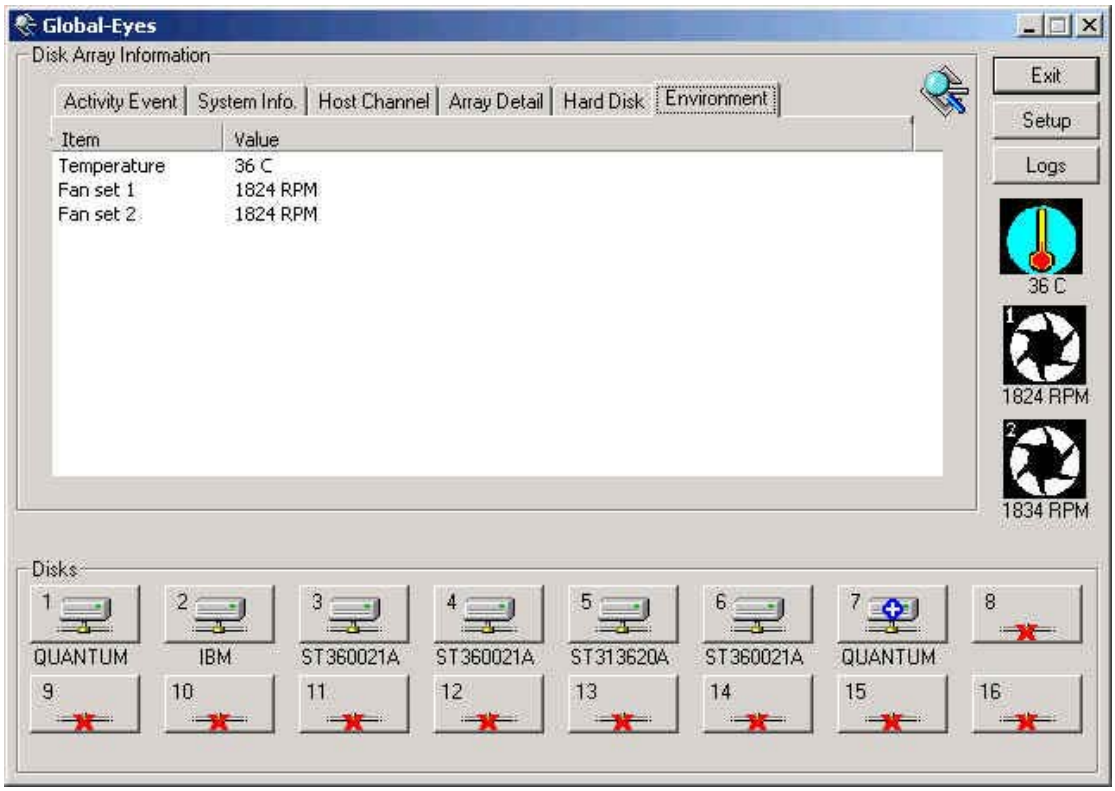
『**S**』: HDD is Spare Disk

『**A**』: HDD is Rebuilding or On-line Expanding

『**R**』: HDD Failed

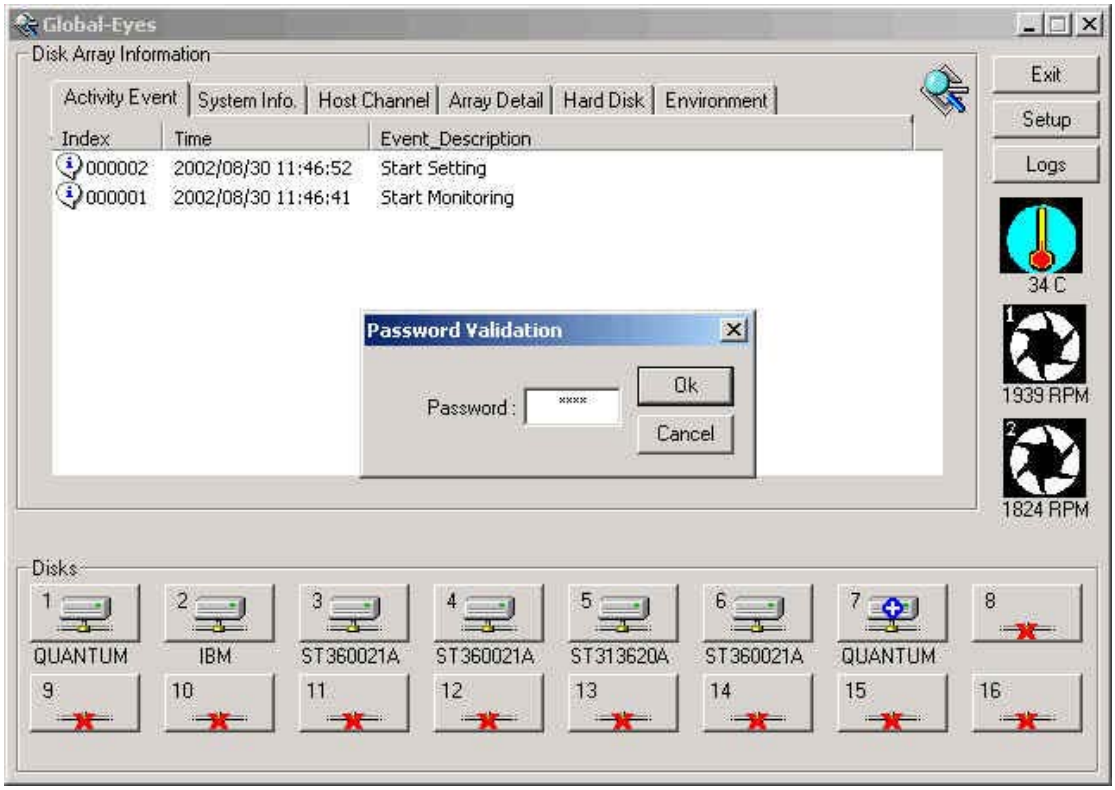
『**X**』: Not Install HDD

VI. Environment(*): Automatically detect environmental status, i.e. Temperature and Fan set status. (Support for some models with environmental sensing)

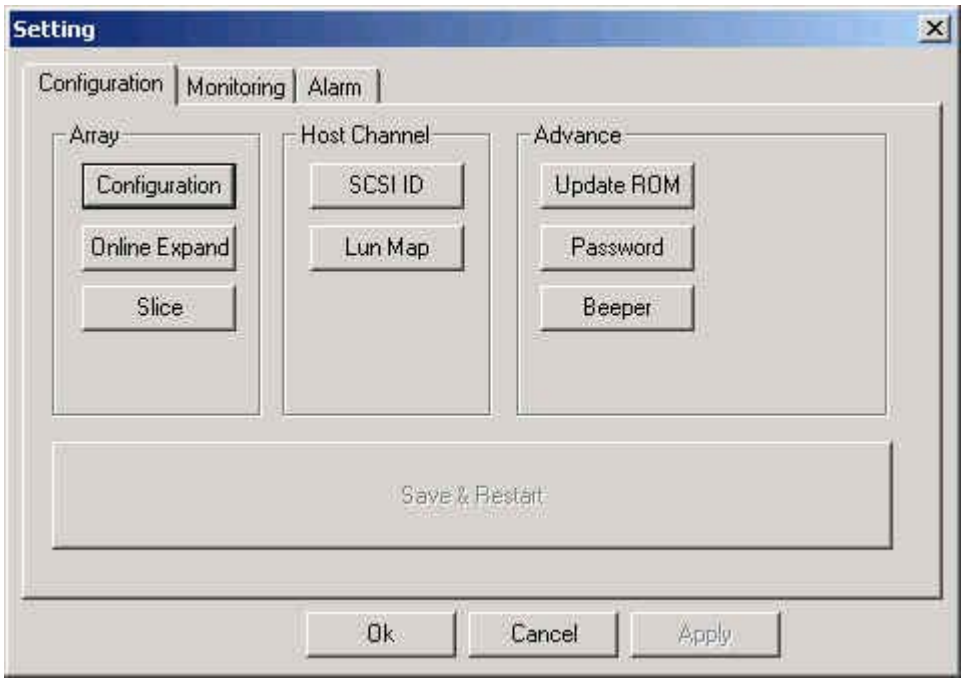


	Temperature status		High Temperature
	Fan1 status		Fan1 Failed
	Fan2 status		Fan2 Failed

4-1-3 Setup: Setup function includes Array configuration, monitoring, Alarm. *(Before accessing the function you need to enter the password, the password is same as you've defined from front panel setup.)*



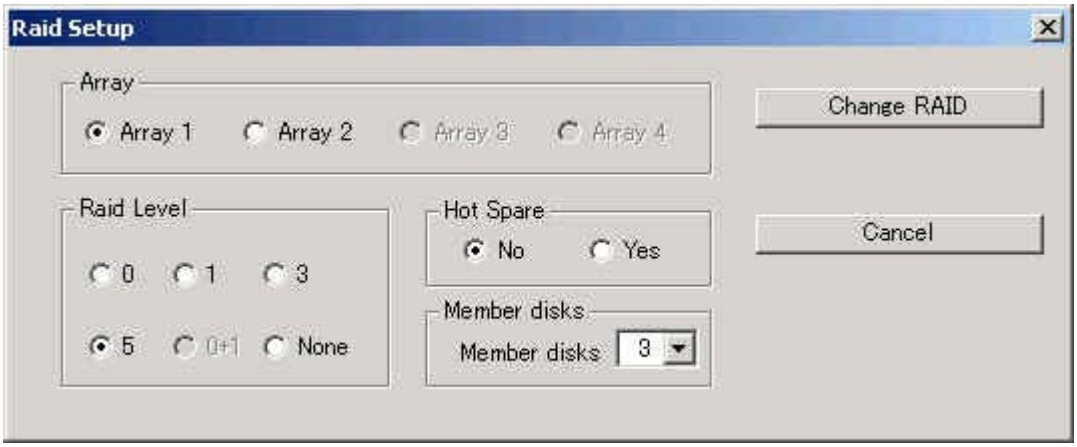
I. Configuration:



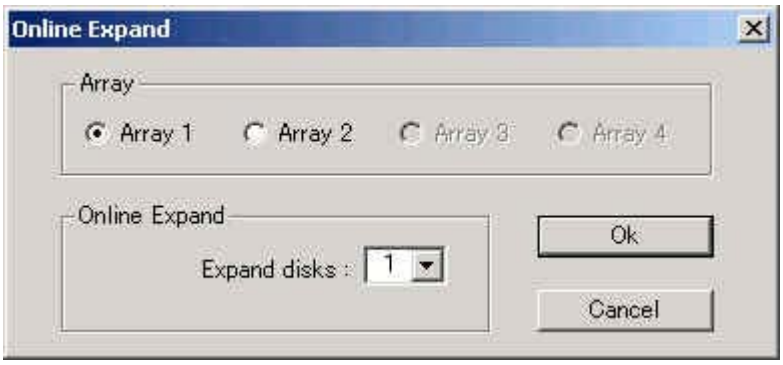
- Array:

  1. Configuration: Select Array Group, RAID Level, Hot Spare disk and number of Member disks. **(You would setup a RAID level from front panel, then change the configuration to "Multiple RAID" here.)(*)**

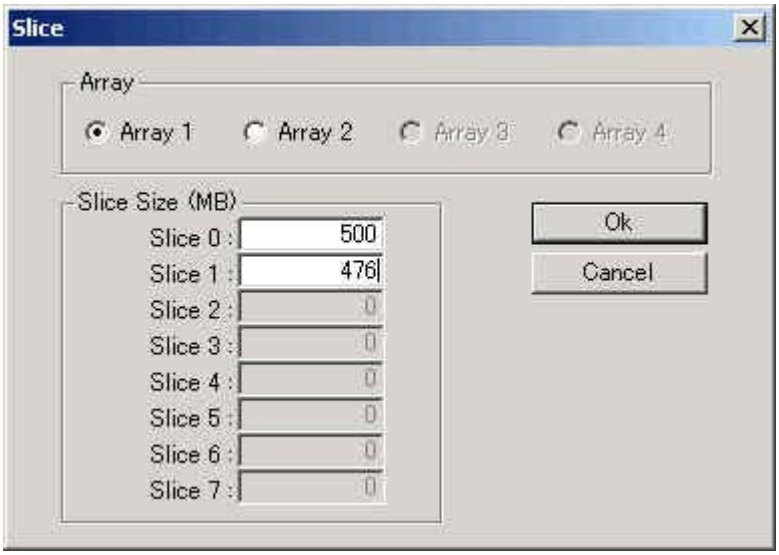
     Warning!! Please backup your data first before processing any change of the configuration.



2. Online Expand: Select Array Group**(*)** and expanded Disk number to set capacity expansion.



3. Slice: Select the Array Group**(*)** and define slice to partition the capacity.

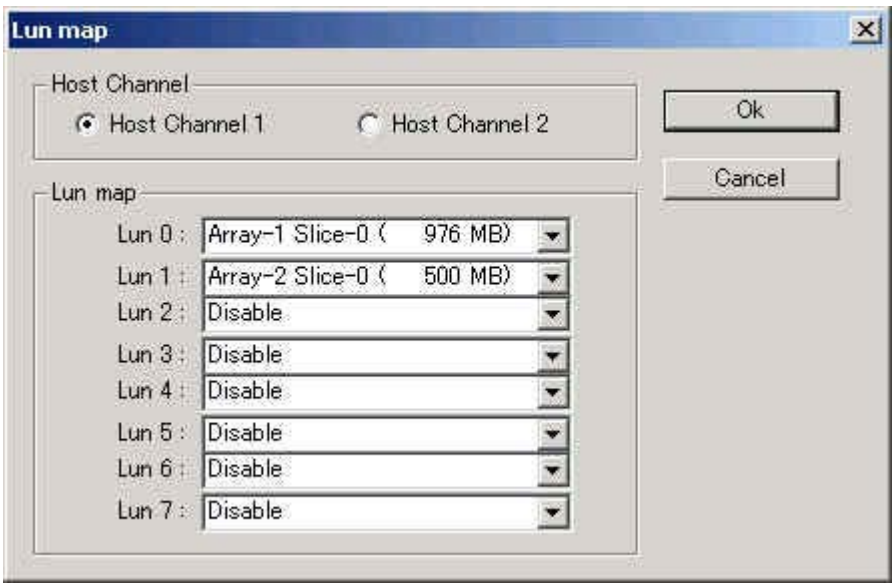


➢ Host Channel:

1. SCSI ID: Setup Host Channel and SCSI ID.

Attention!! Change SCSI ID needs to restart Windows to activate it.

2. Lun Map: This function allow user to map the Host Channel ID to the partitioned Lun size.



- Advance:

1. Update ROM: Click this button and select a firmware file for updating.

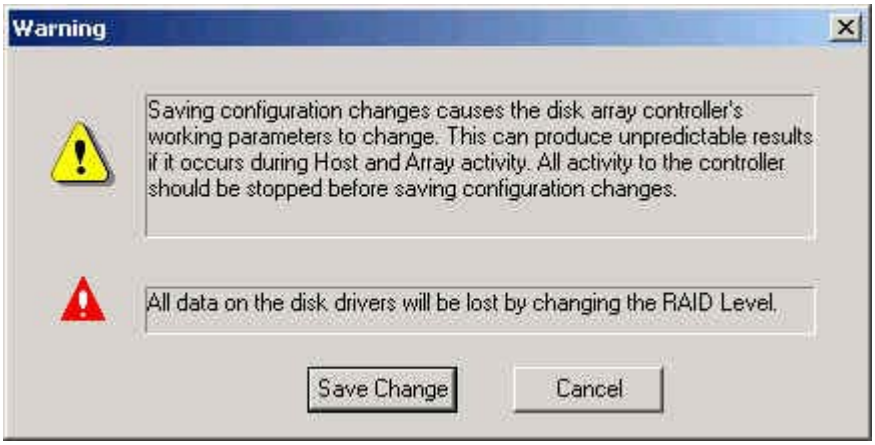
(**Warning!!** Unpredictable results will occur if firmware update is attempted during Host computer and Disk Array activity. All activity to the controller should be stopped before updating firmware.)

2. Password: Setup new password.

3. Beeper: Enable/Disable beeper for initial, rebuild, HDD failed, HDD too many bad blocks, fan failed, temp. warning..etc.

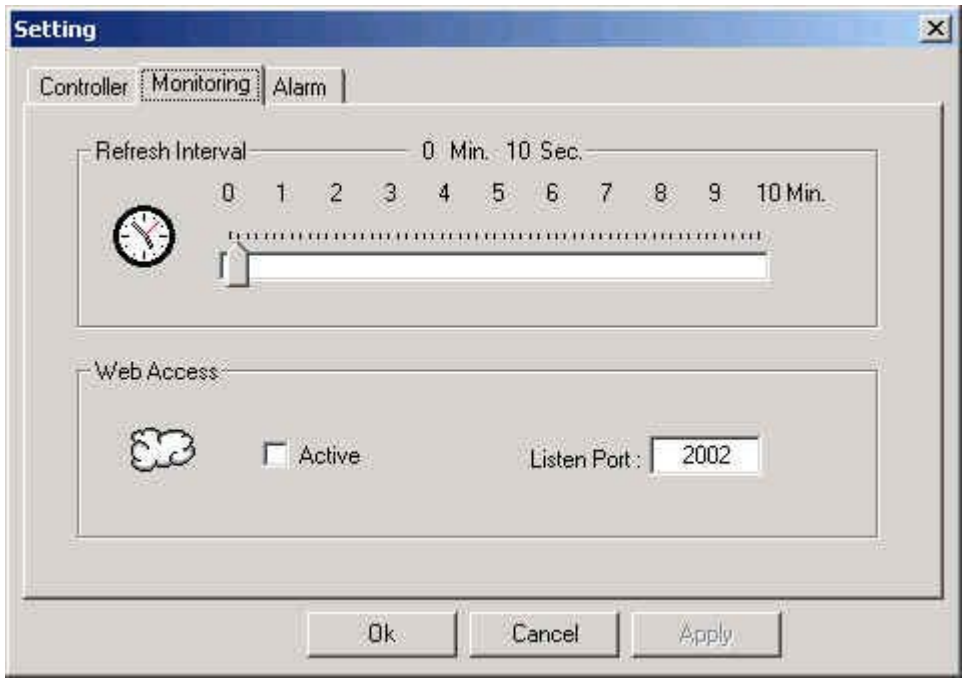
➢ Save & Restart: Save and restart to activate new setup.

If you tried to change the configuration, a warning dialogue will be pop-up "**Warning!! All data on the disk drivers will be lost by changing the RAID Level.**"



II. Monitoring:

1. **Refresh Interval**- Allow to change the RAID Status Refresh Interval from 10/Sec to 10/Min.
2. **Web Access-** Enable/Disable Web Access function and setup listened port. If Web Access function is active, it will allow user to monitor and configure via browser.

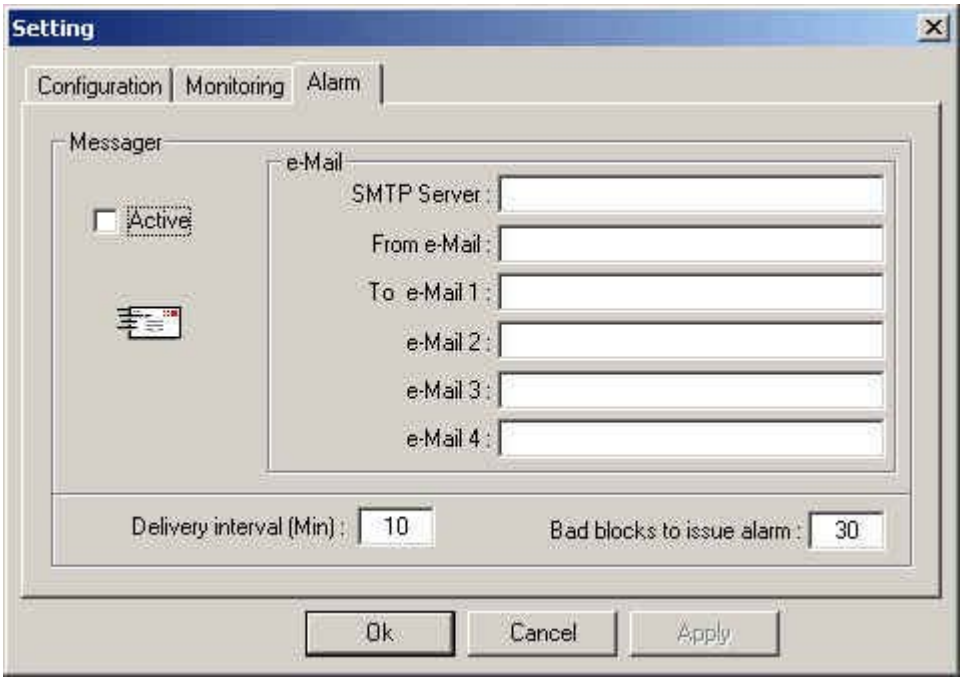


III. Alarm:

Enable the "**Active**" function of Messager, ***Global-Eyes*** will send e-Mail to the defined address when error occurred.

- **e-Mail**
  1. **SMTP Server-** The SMTP server of your ISP.
  2. **From e-Mail-** You don't need to setup in normal condition. Only requested when ISP need mail account.
  3. **To e-Mail-** E-Mail address for system to alert when error occurred (**).
  4. **Delivery Interval-** Setup alert mail delivery interval. (Default is 10 minutes i.e. same message will not resend in 10 minutes.)
  5. **Bad blocks to issue alarm-** Setup bad block number then system will alert when detect bad blocks over defined numbers.

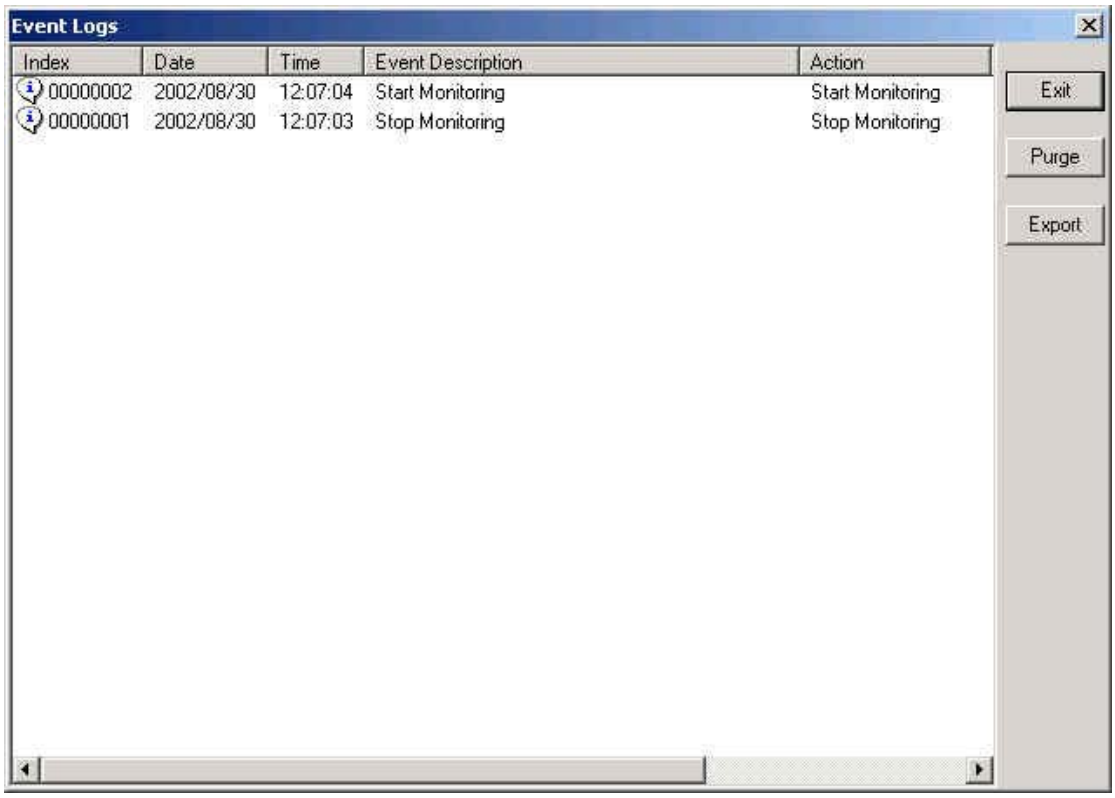
  **. HDD failed, HDD too many bad blocks, Fan failed, Temperature warning, Rebuild done or transmission interrupt from Array Controller.



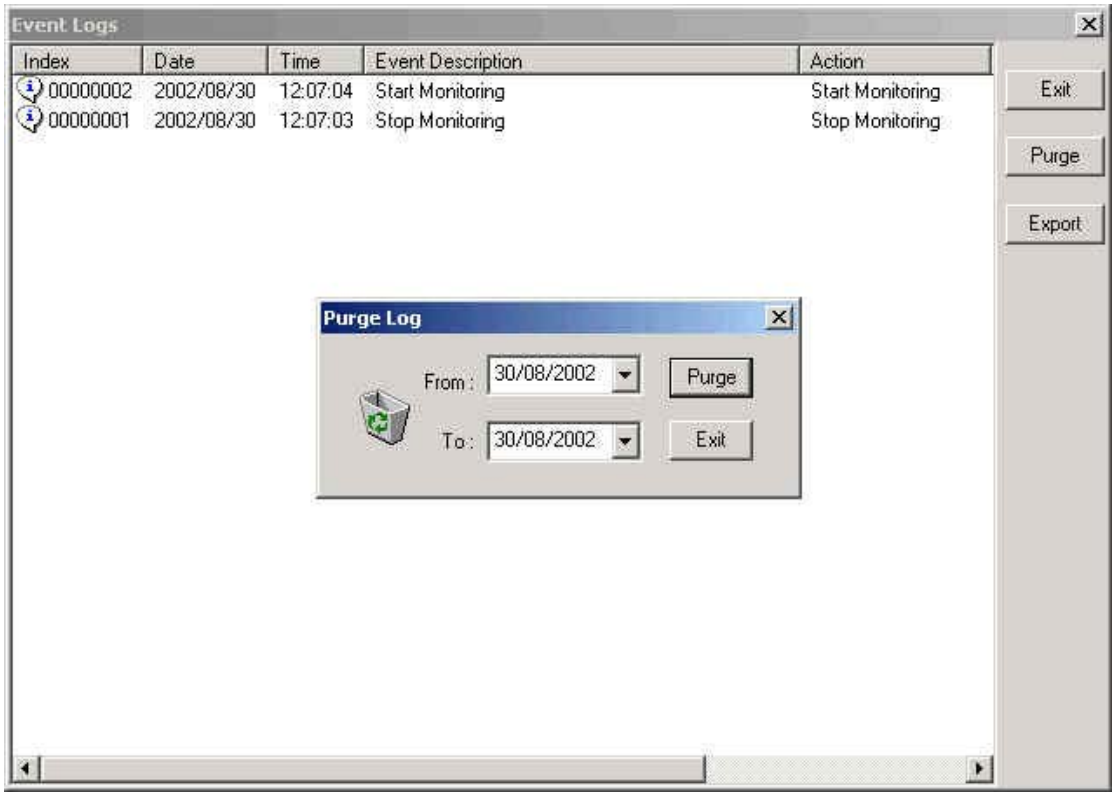
- **Message Description:**
  1. Time: Event happened time by host server.
  2. Host Name: Name of server which attached RAID unit.
  3. IP Address: IP address of host server.
  4. Port No: Port of web access.
  5. Model: Model name of RAID unit.
  6. Serial#: Serial number of RAID unit.
  7. Event: Event description.
  8. Web Access: Web access is enable/disable.

4-1-4 Logs

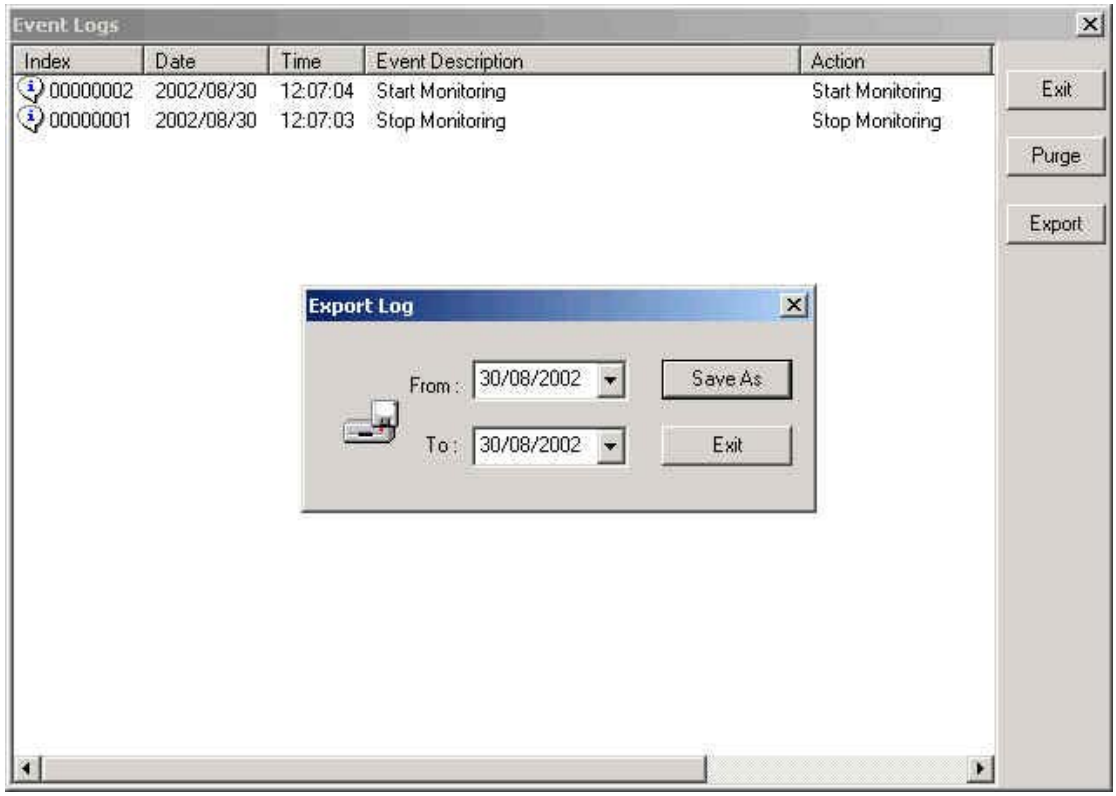
1. **Event Logs:** To display the time logs and error message.



2. **Purge Logs:** You can delete the log by press purge logs icon and choose the day.



3. **Export Logs:** Export logs to file.



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