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Table of Contents

OVERVIEW1
Product Overview1
SATARaid Features1
Introduction to RAID2
INSTALLING HARDWARE DRIVERS
CREATING/DELETING RAID SETS
Creating RAID Sets4
Deleting RAID Sets7
Rebuild Mirrored Sets7
Resolving Conflict7
Low Level Format7
CREATING/ NAMING PARTITIONS
Creating Partitions in Windows XP/2000 Operating Systems9
Creating Partitions in Windows 98/Me Operating Systems
USING SILICON IMAGE SATARAID GUI
SATARaid Configuration Tool

OVERVIEW

Product Overview

Silicon Image's SATARaidTM provides Serial ATA Software RAID functionality including Striping and Mirroring to enhance the industry's first proven PCI-to-SATA host controller product.

Two major challenges facing the storage industry today are 1) keeping pace with the increasing performance demands of computer systems by improving disk I/O throughput and 2) providing uninterrupted data accessibility after disk failure. With the Sil 3112 Serial ATA host controller and SATARaid, both of these problems can be solved.

RAID Striping greatly improves hard disk I/O performance by concurrently striping data across multiple drives. RAID Mirroring enables users to enjoy the confidence of continued data availability regardless of a disk failure by simultaneously writing the data to two drives (note that Striping and Mirroring cannot be simultaneously configured).

Standard with SATARaid software is a Graphical User Interface (GUI) that provides easy-touse configurations for the different RAID Sets supported.

SATARaid Features

- RAID 0 and 1
- Hot Spare and on-line mirror rebuilding
- System GUI Monitoring Utility:
 - Displays logs and alerts users to vital RAID Set information
 - Manages RAID Set Functions (configures, rebuilds, etc.)
- RAID Set accommodates multiple sized HDDs
- HDDs function normally when not in RAID Sets
- Adjustable stripe size for RAID 0
- Automatically selects highest available transfer speed for all ATA and ATAPI devices
- Supports:
 - UDMA up to 150 MB/Sec.
 - All UDMA and PIO Modes
 - Up to 2 SATA devices
 - ACPI and ATA/ATAPI6

Introduction to RAID (Redundant Array of Independent Disks)

RAID technology is a sophisticated disk management system that manages multiple disk drives, enhancing I/O performance and providing redundancy in order to prevent the loss of data in case any of the individual disks fail.

SATARaid provides two RAID Set types, Striped (RAID 0) and Mirrored (RAID 1).

Disk Striping (RAID 0)

Striping is a performance-oriented, non-redundant data mapping technique. While Striping is discussed as a RAID Set type, it actually does not provide fault tolerance. With modern SATA and ATA bus mastering technology, multiple I/O operations can be done in parallel, enhancing performance. Striping arrays use multiple disks to form a larger virtual disk.

This figure shows a stripe set using two disks with stripe zero written to disk one, stripe one to disk two, and so forth.

Strip 0	Strip 1
Strip 2	Strip 3
Strip 4	Strip 5
Strip 6	Strip 7

Disk Mirroring (RAID 1)

With Disk Mirroring there is a redundant disk that mirrors the main disk. Data that is written to the main disk is also written to the redundant disk. This redundancy provides fault tolerant protection from a single disk failure. If a read failure occurs on one drive, the system reads the data from the other drive.

	\leq		\geq
	_	Block0	
	$ \rightarrow $	Block1	
Block0		Block2	
Block1		Block3	
Block2			
Block3			

Installing Hardware Drivers

After you install your Windows Operating System to one of your hard disks (whether it is one of the SATA drives or an ATA drive), the "Found New Hardware Wizard" will appear prompting you to install the hardware drivers for the RAID controller (as shown below).

Select the "Install from a list or specific location (Advanced)" option and then click "Next".



On the next screen, check the "Include this location in the search:" box. Click the "Browse" button, search for the path <u>d:\nForce\Raid</u> (note that drive letter may be different on your system) in the location text box and then click "Next" to install the driver. Finally, click "Finish" on the next screen to complete the installation.

Found New Hardware Wizard	
Please choose your search and installation options.	pleting the Found New
 Search for the best driver in these locations. 	ware Wizard
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.	ard has finished installing the software for:
Search removable media (floppy, CD-ROM)	Silicon Image Sil 3112 SATARaid Controller
Include this location in the search:	
D:\nForce\Raid Browse	
O Don't search. I will choose the driver to install.	
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.	
Cancel	ish to close the wizard.
	K Back Finish Cancel

Creating/Deleting RAID Sets (BIOS RAID Configuration Utility)

Creating and deleting RAID sets are done using the BIOS RAID Configuration Utility. During bootup, the following message will appear, pausing for a few moments allowing the user to enter the RAID utility.

"Press <CRTL-S> or F4 to enter RAID utility"

The BIOS RAID Configuration Utility screen will appear as shown below:

R	AID	Confi	guration Utility	– Silicon Image	e Inc. Cop	yright © 2003
	Crea Dele Rebu Reso Low	te RAI te RAI jild Mir olve Co Level I	D set D set rored set nflicts Format		Press "En set	iter" to create RAID
*	0 1	PM SM	ST3120026AS ST3120023AS	114473MB 114473MB	▲▼ ESC Enter Ctrl-E	Select Menu Previous Menu Select Exit

The top-left portion of the screen lists the basic functions. The bottom-left portion of the screen lists the SATA drives currently installed on the system. The top-right portion of the screen displays instructions and comments for the user. The bottom-right portion lists the command keys.

Creating RAID Sets

This mainboard supports only two SATARaid drives and so configuring RAID Sets is a relatively simple procedure.

- 1. From the BIOS RAID Configuration Utility select "Create RAID Set."
- 2. Choose either a "Striped" or "Mirrored" RAID Set. (note that a "Striped Set" and a "Mirrored Set" cannot be configured concurrently).

Important Note

Before you configure any SATA hard drives into your system, backup any important data as a safety precaution.

3. Select if you want the utility to Auto Configure the RAID Set or if you want to manually configure the RAID Set. Using the Manual method, there is a different set of options depending on whether you choose Striped or Mirrored.





4. At the end, the utility will ask "Are You Sure?" before executing the new configuration. Confirm to finish.

Deleting RAID Sets

To remove one or more RAID sets, select "Delete RAID Set." Select the desired set and press Y when asked "Are You Sure?"

Rebuild Mirrored Sets

This function is used after a disk failure on one of the Mirrored disks. After installing the replacement disk, this function allows you to rebuild the replacement disk from the existing disk before you can begin using it.

Resolving Conflict

When a RAID set is created, the metadata written to the disk includes drive connection information (Primary Channel, Secondary Channel). If, after a disk failure, the replacement disk was previously part of a RAID set (or used in another system), it may have conflicting metadata, specifically in reference to the drive connection information. If so, this will prohibit the RAID set from being either created or rebuilt. In order for the RAID set to function properly, this old metadata must be first overwritten with the new metadata. To resolve this, select "Resolve Conflict" and the correct metadata, including the correct drive connection information will be written to the replacement disk.

Low Level Format

Allows you to perform a low level format on the hard disks.

Creating/ Naming Partitions

After configuring the two physical SATA hard disks as a RAID set (done with the RAID BIOS Utility), we must partition the disks. That is, divide the space on the RAID set into several logical drives (e:, f:, g: etc). The creation and naming of partitions is something that is done within the Windows operating system. Windows XP/2000 both use the Disk Management utility. Windows 98/Me uses the "fdisk" utility.



3	Computer Management									- E 🛛
3	Ble Action Yew Window H	elp								@_×
40										
	Computer Management (Local) System Tools Tools Stared Polders Shared Polders Shared Polders Pold Local Users and Groups Polyce Manager Storage Storage	Volume (C:) (D:) (E:) 128MB (F:)	Layout Type File System Partition Basic FAT32 Partition Basic FAT32 Partition Basic FAT32 Partition Basic FAT	Satus Healthy (System) Healthy Healthy Healthy	Capacity 10.00 G8 19.99 G8 7.26 G8 125 M8	Pree Space 4.08 G8 1.99 G8 3.55 G8 72 MB	% Pree 40 % 9 % 48 % 57 %	Pault Tolerance No No No No	Overhead 0% 0% 0% 0% 0%	
	Arenovable Storage Kenovable Storage Kok Defragmenter Gok Management Services and Applications	GPDisk 0 Basic 37.28 GB Online	(C:) 10.00 GB FAT32 Healthy (System)	20 Hi	(D:) 0.00 GB FAT3 ealthy	2		(E) 7.27 GB FAT Healthy	32	
	Dynamic 223.58 GB Online	8 223.80 68 Unalocated								
		Removable 125 MB Online	128MB (F:) 125 MB FAT Healthy							
<	×	Unallocated	Primary partition 📕 Exten	led partition 📘 Logic	cal drive					

Windows 98/ME (fdisk utilitv)

👸 fulisk 📃 🗖	×
Microsoft Windows 98 Fixed Disk Sctup Program (C)Gopyright Microsoft Gorp. 1983 - 1990	
FDISK Options	
Gurrent fixed disk drive: 1	
Choose one of the following:	
1. Create DOS partition or Legical DOS Drive 2. Set active partition 3. Delete partition or Legical DOS Drive 4. Display partition information 5. Ghange current fixed disk drive	
Enter choise: [1]	
Press Ese to exit FDISK	

Creating Partitions in Windows XP/2000 Operating Systems

Note: Before creating any partitions, RAID sets must first be created/deleted using the BIOS RAID Utility (see Creating/Deleting RAID Sets).

Initializing and Converting the Disks

1. After setting up the RAID Sets in the BIOS RAID Utility and rebooting the system, access the Disk Management utility using the following instructions beginning at the Control Panel Window.

Control Panel ->Administrative Tools->Computer Management->Storage -> Disk Management

2. If this is the first time using the Disk Management Utility after configuring the RAID Set in BIOS, you will be prompted with the "Initialize and Convert Disk Wizard" as shown below. Click "Next"





Check the box next to the RAID Set (in this case Disk 1) that needs initialization and click "Next".

Initialize and Conver	t Disk Wizard			
Select Disks to Init You must initialize	alize a disk before Logical Dis	k Manager can access	it.	
Select one or more <u>D</u> isks:	disks to initialize.			
Disk 1				
		< <u>B</u> ack N	ext> Ca	ancel

4. Check the box next to the RAID Set (in this case Disk 1) that needs conversion and click "Next".



5. On this next screen click "Finish" to complete.

Initialize and Convert Disk	Wizard
	Completing the Initialize and Convert Disk Wizard
	You have successfully completed the Initialize and Convert Disk Wizard.
	You selected the following settings: (Initialize: Disk 1 Convert: Disk 1
	To close this wizard, click Finish.
	< <u>B</u> ack Finish Cancel

Using Disk Management Window to Partition Your Drive

Now that you have initialized the disks, again access the Disk Management Window from the Windows Control Panel as shown below:

Control Panel ->Administrative Tools->Computer Management->Storage -> Disk Management



Take note of 3 sections of this screen:

- SECTION 1: This section lists all formatted and available disks.
- **SECTION 2**: This section reports on each disk set. DISK 1 in this example represents two 112 GB physical disks setup as a "Striped RAID Set" in the BIOS RAID Utility. Note that all of the disk space for the two striped disks are reported here. On mirrored disks however, only the disk space for one of the two disks are reported.
- **SECTION 3**: This section displays all of the partitions for this RAID Set (DISK 1). In the image above, no partitions have been allocated and thus the RAID Set is unusable at this time.

- Note: In Section 1, all disks should list the following: "Basic", "<*Disk Size>*" and "Online". If your disk is listed as "Unknown" or "Dynamic" rather than "Basic", follow the instructions below to change it to "Basic":
- If the disk reports as "**Unknown**," right-click on the disk (in SECTION 2) and click on "Write Signature".

At this point, a window will appear with the disk in question (all "Unknown" disks may appear in this window).

Make sure the box next to each disk is checked, then click "OK".

 If a disk reports as "Dynamic," right-click on SECTION 2 of that disk, and click on "Return disk to Basic..." Within seconds the disk should report as Basic.

Creating the Partitions

Note: In this section, our example system will include two 112 GB SATA drives that have been configured in the BIOS RAID Utility. The system will also contain an ATA drive (C:) that has already been configured with an operating system.

At this point, there should be one disk with "unallocated" partitions. This represents the RAID Set.

1. Right-click on the partition of the DISK 1 (Section 2) on the Disk Management window and click on "New Volume." The "New Volume Wizard" will appear as shown below. Click "Next.



2. The next screen allows you to select the Volume Type. Select "Simple and click "Next".



3. The next window allows you to set up the partition size of the partition that you are creating. Since this is a Striped RAID set utilizing two 112 GB disk drives, the largest partition that you can create is approximately 224 GB. In the example below we are creating a 500 MB partition. Click "Next".

New Volume Wizard	
Select Disks You can select the disks and set the disk	< size for this volume.
Select the dynamic disk you want to use	, and then click Add.
A⊻ailable:	<u>S</u> elected:
C C C C C C C C C C C C C C C C C C C	Add > Disk 1 500 MB gemove emove All me size in megabytes (MB): 500
Maximum available space in MB:	228942
S <u>e</u> lect the amount of space in MB:	500
	< <u>₿</u> ack <u>N</u> ext > Cancel

4. The next window designates the drive letter of the partition.



5. The next window allows the user to label the volume name and choose the type of formatting to take place upon the creation of the partition. Name the volume (we suggest a generic but descriptive name such as STRIPED SET or something specific to the usage such as FINANCIAL, CRITICAL, MISCELLANEOUS, etc.). Check the box next to "quick format.". Click "Next".

New Volume Wizard	
Format Volume To store data on this volume, you mu	ust format it first.
Choose whether you want to format I	his volume, and if so, what settings you want to use.
O Do not format this volume	
 Format this volume with the format the second second	lowing settings:
<u>File</u> system:	NTFS
Allocation unit size:	Default
⊻olume label:	New Volume
Perform a quick format	
<u>Enable file and folder co</u>	ompression
	< <u>₿</u> ack <u>N</u> ext > Cancel

6. The next window is a summary window listing all of the selections made. Click "Finish".



In the Disk Management Window, Section 2 for DISK1 should display the new partition with a label of "Healthy". This section may also display "Formatting" which indicates that formatting is still taking place. This phase may take a few minutes depending on the size of the partition. Do not attempt to create a partition for the next disk until the disk currently being formatted is complete and reports "Healthy".

7. Repeat this procedure for any remaining partitions you would like to configure.

When you have finished configuring your partitions, close the Data Management window by clicking on the close button marked "X" in the top right corner of the window.

Click on the "My Computer" icon on the Desktop. The new 500 MB partition should now be visible and appropriately named. Data may now be written to and read from that partition.

Computer Manageme	ent											
🛃 Elle Action Yew Y	Undow H	elp										_ 5
🗢 > 🗈 🔟 🔗 [2 m 19	1										
Computer Management (L	ocal)	Volume	Layout	Type	File System	Status	Capacity	Free Space	% Pree	Fault Tolerance	Overhead	
🗉 🀔 System Tools		🗩 (C:)	Partition	Basic	FAT32	Healthy (System)	10.00 GB	4.08 GB	40 %	No	0%	
Event Viewer		(D;)	Partition	Bask	FAT32	Healthy	19.99 GB	1.99 GB	9%	No	0%	
Shared Folders		🗩 (E:)	Partition	Basic	FAT32	Healthy	7.26 GB	3.55 GB	48 %	No	0%	
Local Users and G	roups	New Vol	Simple	D	NTFS	Healthy	500 MB	495 MB	99 %	No	0%	
Omice Mapping	drid Aldrids	a 126M8 (F:)	Partition	Basic	FAT	Healthy	125 MB	63 MB	50 %	No	0%	
Sal Storage												
E Removable Storag	e .											
🚯 Disk Defragmenter												
👸 Disk Management												
🖯 🐉 Services and Applicati	ons	Coloreste D										
		Bask	6	n.			(D:)			(E)		
		37.28 GB	10.	00 GB F#	T32	2	0.00 G8 FAT	32		7.27 GB FA1	32	
		Online	Hea	ithy (5y	sten)	D.	ealthy			Healthy		
		Coloreda 1										
		Dynamic	Net	e Volun	e (G)							
		223.58 GB	500	MB NTF	s		223.05	68				
		Onine	Hea	ittry			Unator	ated				
		Prink 2					_					
		Renovable	12	3MB (F))							
		125 MB	125	MBFAT								
		Onine	Hea	Rthy								
	1.41	Hastonia	d 🖿 Dána	are welling	o Estend	et estilise 🗖 Lee	in al idean 🔳	Circola coli ma				

Creating Partitions in Windows 98/Me Operating Systems

Note: Before creating any partitions, RAID sets must first be created/deleted using the BIOS RAID Utility (see Creating/Deleting RAID Sets).

Windows 9x uses the "fdisk" utility to partition its disks.

Partitioning the disks using the FDISK Utility

- 1. Click on the **START** button and select RUN
- 2. Select Run...
- 3. Type fdisk
- 4. Click OK. The screen below will appear. Press "Enter".

🕌 fdisk 💶 🗆 🗙
Your computer has a disk larger than 512 MB. This version of Windows includes improved support for large disks, resulting in more efficient use of disk space on large drives, and allowing disks over 2 GB to be formatted as a single drive.
IMPORTANT: If you enable large disk support and create any new drives on this disk, you will not be able to access the new drive(s) using other operating systems, including some versions of Windows 95 and Windows NT, as well as earlier versions of Windows and MS-DOS. In addition, disk utilities that were not designed explicitly for the FAT32 file system will not be able to work with this disk. If you need to access this disk with other operating systems or older disk utilities, do not enable large drive support.
Do you wish to enable large disk support (Y/N)? [Y]

5. The **FDISK Options** window will appear. The Current Fixed Drive will be set to the System Drive (normally C:\). In order to create partitions, the current fixed drive needs to be changed. Enter the choice "**5**" and press **Enter**.



6. On this next screen, enter the disk number that you want change to the current fixed drive and press **Enter**.

🎇 fdis	:k				
Aut			2	88	Α
			Chang	ge Curre	ent Fixed Disk Drive
Dis 1	k Drv c-	Mbytes 814	Free	Usage 100%	
2 3	ь. "	29306 14653	29306 8	% 100%	
(1 MByte = 1048576 bytes) Enter Fixed Disk Drive Number (1-3)[<u>2</u>]					
P	ress Esc	to retur	n to FD	ISK Opti	ions

7. After returning to the FDISK Options screen, enter the choice "1" and press Enter.



8. The following window will appear. Enter the choice "2" to create an extended partition and press **Enter**.



The following window will appear with a progress indicator. Wait until it finishes.



9. This next window explains how much space will be available in the partition. Press Enter.



- Auto
- 10. This next window shows that the partition has been successfully created. Press "Esc".

This next screen shows that FDISK is now creating a logical drive. Wait until complete.



11. The next screen reports partition size. Press "Enter"



12. This window now displays the drive, its drive letter and size. Press Esc.



13. If another drive needs to be partitioned, repeat the process, starting by changing the fixed disk drive (Press 5). If done, press "Esc".



14. If you pressed "Esc" in the previous step, the following window will display reminding you to reboot your system.



- 15. After restarting the computer, and rebooting Windows 9x, double-click on the "My Computer" icon.
- 16. Right-click on each new drive and select Format.

Only a FULL format will be accepted at this point. Select "Full Format", enter the Label Name for the drive or RAID set (if desired) and click "OK".

17. Once the drive has been formatted, repeat the procedure for each new drive, after which the new drives will be ready for use.

Using Silicon Image SATARaid GUI

The SATARaid GUI offers the user or system administrator the ability to easily monitor and configure notification alerts for the RAID Set. To launch the GUI, simply double-click on the icon located in the bottom right hand corner of the desktop.



If the icon does not appear in the bottom right hand corner of the desktop, find where the application was saved and launch from there. Upon launching the GUI, the first window should appear as follows, displaying basic system information.

Main Screen



Events Log Tab (Main Screen)

Configuration for SAT. Elle Configure Help The Ba Configure Yelp	ARaid
Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Signature Image: Image: Signature Image: Signature Image: Image: Signature Image: Signature Image: Image: Image: Signature Image: Signature Image: Image: Image: Image: Signature Image: Signature Image: Image: Image: Image: Image: Signature Image: Signature Image:	Computer Events List of Events U-January-2003 22:28:41 SATARaid Event writer starting up. 04-January-2003 22:28:41 SATARaid Event writer starting up. 04-January-2003 21:08:32 SATARaid Event writer starting up. 04-January-2003 21:08:32 SATARaid Event Writer starting up. 04-January-2003 20:16:24 SATARaid Event Logger Started V-January-2003 20:16:24 SATARaid Event Logger Started

Disk Storage Subsystem Level

Clicking on a disk storage subsystem item will provide specific information for that component as shown below.



Channel Level

Selecting a specific channel, either Channel 1 or Channel 0 will provide channel information.



Device Level

Selecting a specific drive reports all pertinent information for that drive, including Configuration and Disk Identification information.

Configuration for SATARaid						
<u>F</u> ile <u>C</u> onfigure <u>H</u> elp						
) 🏠 🖬 🖬 🖨 🐪 🥐						
PTEST2 Image: Stratt 20-0 Image: Strat	Device <u>Smatt/Conligue</u> 000000000000000000000000000000000000	ation Identify Da Disk Information ST3120026AS Serial Number: 3/100/3E Firmware Version: Media Type: Current Mode: Bytes/Interrupt: Look-shead: Write cache: Capacity:	a 3.05 ATA/ATAPI-5 Norremovable UDMA 6 N/A Enabled Enabled Enabled 114473 MB			

Smart Configuration Tab (Device Level).

e <u>C</u> onfigure <u>H</u> elp	
	Device Smatt/Configuration Identify Data SMART Information Support: Yes Stabled: Yes Status Threshold: DK Transfer Mode: UDMA 6 Current Mode: UDMA 6 Mode After Reboot: Befault: Enable/Disable Write Cache Initiable Isiabled Apply

Identify Data Tab (Device Level)

Configuration for SATARaid										
<u>F</u> ile <u>C</u> onfigure <u>H</u> elp										
16 🖬 🖬 📾 🖌 📍										
XP-TEST2	Devic	e Smart	/Configu	ration	Identify	Data				
□-■g SI-31120-0 □-⊂⊐ Channel 0	D.,	. +0	+1	+2	+3	+4	+5	+6	+7	^
Gevice Gevic	000000000000000000000000000000000000000	0 0c5a 8 0000 6 2020 4 3530 2 2053 0 2020 8 0000 8 0000 6 003f 4 0003 2 0000 0 007e 8 407f 6 0000 1 2000	3fff 0000 2020 2020 2020 2020 2f00 fc10 0078 0000 001b 0000 0000	c837 4a33 2020 2020 2020 2020 0000 00fb 0078 0000 346b 0000 0000	0010 3054 2020 5453 2020 2020 0200 0200 0110 0000 7d01 fefe 0000 7d01	0000 5930 0000 3133 2020 2020 0200 4bb0 0078 0002 4003 0000 4bb0	0000 4533 4000 3032 2020 2020 2020 0007 0df9 0000 0000 3469 0000 0df9 0000 0df9	003f 2020 0004 3230 2020 2020 3fff 0000 0000 3c01 fe00 0000	0000 2020 2e33 4136 2020 8010 0010 0000 0000 4003 0000 0000	

Sets Level

Selecting the Sets item will provide information on the RIO Version as well as Array Conflict information:



Sets Detail Level

By selecting a specific RAID set, such as Set 0, the type of RAID set, the number of members and capacity are reported.



Members Tab

The Members tab of this window reports the device identification (corresponding with the information in the BIOS) and the State of each device.

Besides reporting information, the Members tab of a Mirrored set allows the user to remove a specific drive from that set, as well as add a designated Spare drive to a Mirrored set that has experienced a disk failure. Removing a drive from a striped set is not allowed because it would destroy all the data. Note that when a Mirrored Set is first created, the State of the "destination" drive may report as Rebuild for as much as 30-90 minutes depending on the size of the disk.

	Configuration for SATARaid					
	<u>Elle Configure H</u> elp					
) 🋍 🖬 📾 🖨 🙀 💡					
	Set Members SMART/Configuration Identity Data Channel 0 Channel 1 Configuration Identity Data Member Information To add a device to this set simply drag the desired device that under a Bus tree item into this page. If the Set can accept the device it will be added to the list below. To remove a member from a set highlight the member and cick remove button. Mbr Ids Device Channel 0 Device Channel 1 Device Channe	is the				
The Device Loc reference how each physical direported in the BIOS RAID utility.	rs to isk is	e				

SMART/Configuration Tab & Identity Data Tabs

SMART and Configuration information, as well as Data Identification are provided for each Set.



SATARaid Configuration Tool

The SATARaid Configuration Tool provides users and system administrators with tools for administering workstations or servers with the SATARaid features implemented.

By clicking on the toolbox icon in the top left portion of the SATARaid GUI window, you can access the SATARaid Configuration Tool. The user may configure SATARaid features including customizing the settings for SMTP, E-mail Alerts, Event Level alert notification, Log File location, Audio options, and Popup Alerts.

SATARaid GUI window



SATA Configuration Tool

Configur	ation Menu	u							
Log Fi	le	Audio	Popup						
SMTP	E-mail	Notification	Event Level						
SMTP In A SMTP Contact y this serve	SMTP Information A SMTP server is the server that is use to send e-mails. Contact your network administrator to find out the name of this server. Be sure to Include the name and domain. Example: server.company.com								
-SMTP Co	onfiguration								
SMTP Se	erver: SMTP.	company. domain							
	SMTP Server: SMTP company domain								

SMTP

This is the SMTP server that is used to deliver alert notification e-mail and system configurations from an SATARaid system. Contact your network administrator for this information. Both the name and domain must be entered.

Configure							
Log Fil	e	Popup					
SMITP	E∙mail	Notification	Event Level				
Similar E-mail Notification Event Level SMTP Information A SMTP server is the server that is use to send e-mails. Contact your network administrator to find out the name of this server. Be sure to include the name and domain. Example: server.company.com SMTP Configuration SMTP Configuration SMTP Server. SMTP.company.domain							
OK Cancel							

E-Mail

The current SATARaid configuration may be sent via e-mail to a specific recipient. Using the e-mail tab in the SATARaid Configuration Menu, the user may set the default e-mail address and subject line to where the configurations should be sent. You will be given the option however of changing the recipient when you invoke the "Send Configuration" function from the SATARaid GUI window.

Configur							
Log Fi	le	Audio	Popup				
SMTP	E∙mail	Notification	Event Level				
E-mail Information The email address and subject are use when sending the Medley configuration by e-mail. Both can be overriden at the point when the configuration is sent. E-mail Configuration							
E-mail Ad	dress:						
E•mail Su	ibject: S	ilCfg - Configuration i	nformation from s				
OK Cancel							

Notification

When certain events occur, SATARaid may be configured to send notices to assigned individual e-mail addresses. Using the Notification tab, all e-mail addresses that are to receive the notices must be entered here.

Configuration M	enu								
Log File	Audio	Popup							
E-mail Notification E-mail notification E-mail notification is in the list for each w event subject will b Subject	SMTP E-mail Notification Event Level E-mail Notification Information E-mail notification is use to send an e-mail to each address in the list for each event received from the driver. The event subject will be the subject of each e-mail sent. Subject								
Address List:	Address List								
	OK	Cancel							

Event Level

The system may be configured to deliver e-mail notifications when certain events occur. You can determine which alerts that are sent depending on the severity of the problem. The different levels are:

Disabled

- No event logs will be sent.

- Informational Event Level
 - Informational
 - WarningsErrors

Warning Event Level

- Warnings

- Errors

Errors Event Level

- Errors

Log File

The log file is used to store event information received from all the Silicon Image RAID drivers. The log file is a text file and can be viewed with Notepad or SATARaid. Use the Log File tab to set where the log file should be stored as well as the name of the file.

Configur	ation Menu		
Log Fi SMTP	le E-mail	Audio Notification	Popup E vent Level
Event Le The ever by e-mail	vel Information at level sets wi	nich level of event	logs are sent
Event Le	vel Configurati Move the slide	ion er to set event leve	el for notification.
	Disabled - No	event logs will be	sent.
		OK	Cancel

Configuration Me	nu	
SMTP E-mail	Notification	Event Level
Log File Information The log file is used to IDE drivers. The log event property page	store event received le can be viewed with of the GUI.	from all the SII Notepad or the
Name: enjortx		Browse Purge
	OK	Cancel

Audio

The user may set different audio alerts for the different levels of events.

Configuration Menu					
SMTP	E-mail	Notificati	on	Event Level	
Log File		Audio		Popup	
Audio Noti Audio Noti Audio Noti Select the click the d	ication is use n event occi ication Confi sound to pla sable button	is to alert the sy urred. iguration y by clicking the for no sound i	vstem adm ne browse notificatio	inistrator or button or n.	
Information	al Event:				
Disable	d		Browse	Disable	
Warning E	vent:				
Disable	d		Browse	Disable	
Error Even	t				
Disable	d		Browse	Disable	
			эк)	Cancel	

Popup

The popup window is a visual notification that an event has occurred. The popup window can be disabled or set to popup for only certain event levels. The different levels are:

Disabled

- No popup windows will occur.

Informational Event Level

- Informational

- Warnings

- Errors

Warning Event Level

- Warnings
- Errors

Errors Event Level - Errors Configuration Menu

SMTP E-mai Notification Event Level
Log File Audio Popup

Popup Window Information

The popup window is a visual notification that an event
occurred. This popup windows can be disabled or set to
popup for only certain event levels.

Popup Window Event Level Configuration

Move the sider to set event level for notification.

Informational - The popup window will be
displayed for the following events:

- Informational
- Warnings
- Errore

DK Cancel