# Installing Winbond Hardware Doctor\* on the Intel® Server Board SAI2

**Revision 2.0** 

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**Enterprise Platforms and Services Division** 



### **Revision History**

Date	Revision Number	Modifications
November 2001	1.0	Initial release.
February 2002	2.0	Updated to reflect new revision of software that eliminates the option to enable audible alerting functionality.

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### 1. Introduction

Windbond Hardware Doctor\* is a basic server hardware monitoring tool which alerts a system administrator if a hardware problem occurs on their Intel® SAI2 based server system. The tool is available on the SAI2 System Resource CD or available for download at <a href="http://www.support.intel.com/support/motherboards/server/SAI2">http://www.support.intel.com/support/motherboards/server/SAI2</a>. This tool is not designed by Intel Corporation, therefore any limitations or any outstanding issues of the software will not be fixed by Intel Corporation.

#### 1.1 What can Winbond Hardware Doctor\* do?

The Winbond Hardware Doctor utility can monitor voltage, processor temperatures, and proceesor fan speed on the Intel Server Board SAI2. This is done via the onboard Winbond Heceta chip. Features such as Out of Band (OOB) server management, and accessibility to the server via serial/EMP/LAN ports, are not included in Winbond Hardware Doctor.

This software is only intended for usage on the Intel Server Board SAI2 running Microsoft\* Windows\* 2000.

#### 1.2 Installation

Once you have loaded your CD containing Winbond Hardware Doctor, proceed with the following steps.

- 1. Select the CD drive in explorer and double-click on "CSB5-HD-5C.exe." The following screen will appear as shown in **figure 1-1**.
- 2. Left click the "next" button at the welcome screen as seen in **figure 1-1**.



Figure 1-1: Winbond Hardware Doctor\* welcome screen.

3. Click "next" in the Ready to install menu as seen in **figure 1-2**.



Figure 1-2: Winbond Hardware Doctor\* second installation screen.

4. Proceed by clicking next, and files will be copied to the designated location. Reboot server as instructed when the installation has completed.

## 2. Configuration and Usage

Once Winbond Hardware Doctor\* is installed, configuration and usage is simple. Launch the program from the Start | Programs | Hardware Doctor.

😞 Winbond	d Hardware Doct	or Ver 2.70					×
File Tools	Help						
Voltage-	Low Limit			Hi	igh Limit	Status	
CPU1	1.49 0.0	)		4.10	2.00	1.79	V
CPU2	1.25 0.0	) [	1	4.10	1.66	1.46	V
VCC3	• • 2.82 2.3	)	í la	4.00	3.79 • •	3.33	V
VCC	• • 4.28 4.0			6.00	5.73 • •	4.92	V
+12V	• 10.22 10.0			14.00	13.69	11.98	V
VTT	• • 1.02 0.5	)		2.50	1.71 • •	1.25	V
2.5V	• • 2.13 1.0	)		3.50	2.86 • •	2.62	V
5VSB	• • 4.28 4.0	)		6.00	5.73 • •	5.00	V
VBAT							
- Fan Spee	d Low Limi					Unit	
CPU1_F	AN 🕂 2519				3	375 F	PM
CPU2_F	AN 🕂 2519				3	.375 F	PM
CHASSIS	FAN 1507				2	.220 F	PM
Temperate	ure				High Limit		-
CPU2	2 -4	)		127	75.00	38.00	2
CPU1	-4	,		127	75.00	27.50	2
CHAS	SIS -4	,	Ĵ.	127	65.00	27.00 C	:
25							

**Figure 2-1<sup>1, 2</sup>:** The Monitor Screen provides low and high threshold controls with a visual bar indicator and a numeric indicator. This screen provides an alerting function with visual pop-up alerts when threshold limits have been exceeded.

<sup>&</sup>lt;sup>1</sup> The values shown in the screen above are the default values for the Intel SC5100 chassis.

<sup>&</sup>lt;sup>2</sup> The configuration screen above shows two processor fans and one chassis fan available for monitoring. The only chassis fan that is monitored on the SAI2 server board with Hardware Doctor is fan header 3.

#### 2.1 Saving threshold configurations

In order to save modified thresholds for use on another system you can save thresholds from the File | Save menu. Once launched, you may immediately start to get system warnings depending on how your system is configured. By default, the Winbond Hardware Doctor utility is set up to monitor an Intel Server Board SAI2 in an Intel SC5100 chassis. If your configuration is different, you may need to adjust the high and low thresholds to suit your setup. An example system warning is shown in **figure 2-4**.

#### 2.2 Configuration Menu

🔑 Monitoring	Config.		×
Voltage	Enable	Fault: 1	s Count 3
CPU1	N	V	
CPU2	Г		
VCC3	V	•	Г
VCC	V	1	Г
+12V	V	•	Г
VTT	V	•	Г
2.5V	V	1	Г
5VSB	V	2	Г
VBAT	П		oese (
CPU1_FAN			Г
CPU2_FAN	Γ		
CHASSIS_FAN	V	V	Г
-Temperature -	-	22. 	
CPU2			
CPU1	V	V	Г
CHASSIS	<b>N</b>	V	Г
Case Open	Г		
ОК	Cancel		Help

**Figure 2-2:** The Configuration Screen allows you to configure individual sensors and set alert characteristics.

#### 2.3 Change Password Screen

Uld Password	or 1
New Password —	
	<u> </u>
Confirm new nascu	

Figure 2-3: The Change Password Screen is not used on the Intel Server Board SAI2.

#### 2.4 Warning messages

As mentioned previously it may be necessary to modify the operating ranges for fans and voltages, based on system configuration. Also, note if a hardware error occurs it may be necessary to "shutdown" this system. The warning message additionally provides this option.



Figure 2-4: Example Warning Message.

#### 2.5 Further assistance

This white paper is intended as a installation guide only. Refer the help files contained in Windbond Hardware Doctor\* for further configuration assistance.