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MEMO

1. Introduction

ABIT µGuru[1] is a fresh Microprocessor developed by ABIT engineers used only on ABIT motherboards. This processor combines the current ABIT engineered features into a user-friendly Windows-based interface, providing users a perfect environment to maximize PC performance and stability.

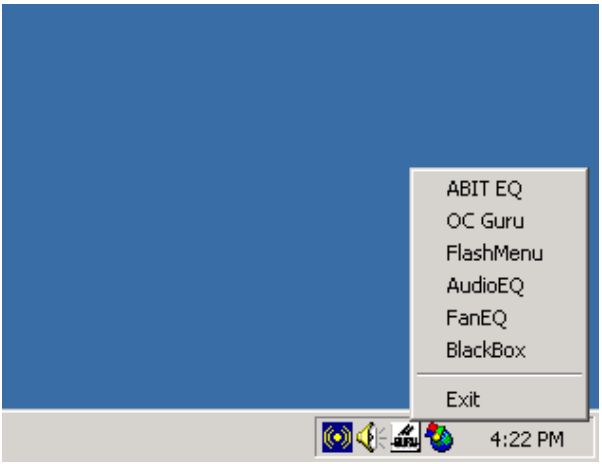
ABIT µGuru family currently includes six categories[2]:

1. *ABIT EQ*
2. *ABIT OC Guru*
3. *ABIT FlashMenu*
4. *ABIT AudioEQ*
5. *ABIT FanEQ*
6. *ABIT BlackBox*

[1] µGuru = micro guru

[2] The information in this document is subject to change without notice and does not represent a commitment on part of the vendor, who assumes no liability or responsibility for any errors that may appear in this manual.

2. How to Access ABIT µGuru



You will have to install the driver first by the "Driver & Utility" CD that came pack with your motherboard. Please follow its instruction to complete the installation.

To access the ABIT µGuru, move your mouse to the µGuru icon located at the status bar, and then right click your mouse. The µGuru menu spreads up. Move your mouse to one of the µGuru family members you want, and then left click your mouse.

3. ABIT EQ

3.1 What is ABIT EQ

ABIT EQ is a self-diagnostic system for PC based on motherboards designed and manufactured by ABIT Computer Corporation. It will protect PC Hardware by monitoring critical items of Power Supply Voltage, CPU & System Fans Speed, and CPU & System Temperature.

- ***< - > Button:***

  Click this < - > button on the up-right corner will minimize the main screen of ABIT EQ to the Windows working bar.

- ***<?> Button:***

  Click this <?> button to enter the help menu.

- ***<X> Button:***

  Click this <X> button on the up-right corner will exit the ABIT EQ.

- ***Monitor Setting:***

  Click this button to enter the sub-screen of setting the monitoring values.

- ***Display Setting:***

  Click this button to enter the sub-screen of selecting the monitoring items.

- ***Down-pull arrow:***

  Click this button to pull down a detailed monitoring sub-screen.

3.2 How to Use ABIT EQ

3.2.1 Power Supply Voltage

Power Supply usually provides kinds of working voltage for different devices such as CPU, Chipset, and PCI Bus, etc.

- ***VCORE:***

  This column displays the CPU working voltage.

- ***+3.3V:***

  This column displays the working voltage of chipset and clock generator.

- ***+5V:***

  The power supply usually provides +5V for the working voltage of Most ICs on motherboard. Both ISA bus and PCI bus are both provided with +5V voltage.

- ***+12V:***

  The power supply provides ISA bus several kinds of working voltage including +5V, +12V, -5V, -12V for different ISA devices.

- ***AGPV:***

  This column displays the working voltage of AGP video graphics accelerator slot.

- ***DDRV:***

  This column displays the working voltage of DDR memory slot.

- ***5VSB:***

  This column displays the standby voltage when system is in Suspend Mode.

- ***VBAT:***

  This column displays the battery voltage.

Note: *These items are for reference only. All the names and items differ according to each model.*

3.2.2 FAN Speed

Please check your motherboard to see how many Fan Headers exist. Usually there will be one CPU Fan, one System Fan, and/or one Power Fan available, depending on different motherboard model. When the Fan is not connected or doesn't exist, the Fan Speed Column will be indicated by a black-colored-character "**OFF**".

Note: *Only the fan with three output pins can be monitored!*

- ***CPU FAN:***

  The CPU Fan and its heatsink assembly must be installed directly on the top of CPU to keep it in normal temperature.

  When the CPU Fan is running, the Fan Speed Column will display the number of RPM in blue-colored-character among the yellow-colored background. If it turns low speed or stops, the fan speed column will be indicated by RPM in the same blue-colored-character among the red-colored background.

  Note: *The CPU may be damaged or operate unstably if the CPU Fan turns low speed or stops.*

- ***SYS FAN:***

  The System Fan is usually installed in the chassis to keep the system chassis in normal temperature.

  When the System Fan is running, the Fan Speed Column will display the number of RPM in blue-colored-character among the yellow-colored background. If it turns low speed or stops, the fan speed column will be indicated by RPM in the same blue-colored-character among the red-colored background.

- ***NB FAN:***

  The NB (North Bridge) Fan is usually installed directly on the top of the North Bridge Chipset to keep it in normal temperature.

  When the NB Fan is running, the Fan Speed Column will display the number of RPM in blue-colored-character among the yellow-colored background. If it turns low speed or stops, the fan speed column will be indicated by RPM in the same blue-colored-character among the red-colored background.

Note: *These items are for reference only. All the names and items differ according to each model.*

3.2.3 Temperature

Once the CPU/System/PWM temperature exceeds the high limit set in the "Monitor Setting" menu, the background color of Temperature Column will turn "Red". The background color will turn back to yellow once the temperature gets lower than the high limit.

- ***SYS Temp:***

  The environment (system) temperature can be measured by an onboard thermal sensor. If the system temperature exceeds the high limit, the hardware may be damaged or operate unstably.

- ***CPU Temp:***

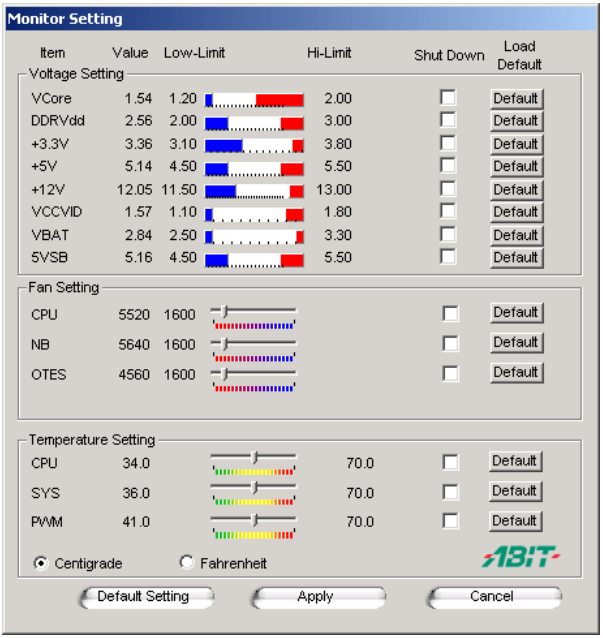
  The CPU temperature can be measured by an onboard thermal sensor beneath CPU. If the CPU temperature exceeds the high limit, the CPU may be damaged or operate unstably.

- ***PWM Temp:***

  This device allows the system to monitor the temperature around the CPU power supplying circuit on motherboard.

Note: *These items are for reference only. All the names and items differ according to each model.*

3.2.4 Monitor Setting



- ***Item:***

  This column lists the monitoring items.

- ***Value:***

  This column displays the monitoring value.

- ***Lo Limit:***

  This column displays the value of low limit for each item.

- ***Hi Limit:***

  This column displays the value of high limit for each item.

Note: *Some critical items, such as VCore (CPU voltage), +3.3V, +5V are recommended NOT to change their default limit*

- ***Shutdown:***

  Check this box to shut down the system 30 (thirty) seconds after the error detected.

- ***Load Default:***

  Click this <Default> button at each item to set its limits to default value.

  Note: *Make sure to set all limits to default value after replacing new CPU to allow the CPU working voltage VCore to be loaded automatically. To do so, click the <Default Setting> button and <Apply> button at the bottom of the main screen.*

- ***Voltage Setting:***

  The blue bar represents the low limit. The red bar represents the high limit. Use the mouse button to change these low and high limits by adjusting the color bar.

- ***Fan Setting:***

  The value in this column represents the fan speed per minute.

- ***Temperature Setting:***

  The value in this column represents the temperature detected.

- ***Centigrade/Fahrenheit:***

  Check one of these two boxes to select the temperature-measuring unit.

- ***Default Setting:***

  To set all the settings to their default value, click this <Default Setting> button and then click the <Apply> button to activate the default settings.

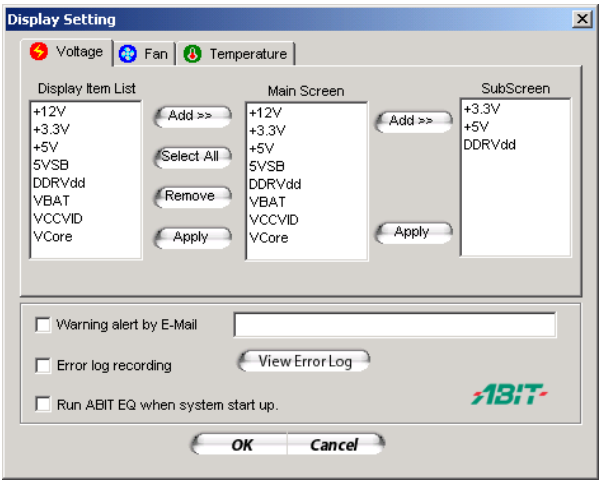
- ***Apply:***

  To activate the new settings, click this <Apply> button make it effective at once.

- ***Cancel:***

  To cancel the new settings, click this <Cancel> button to exit the Monitor Setting.

3.2.5 Display Setting



- ***Display Item List:***

  This column lists all the items you may monitor.

- ***Main Screen:***

  This column lists the selected monitoring items from "Display Item List" to display on the "Main Screen".

- ***Sub Screen:***

  This column lists the selected monitoring items from "Display Item List" to display on the "Sub Screen".

- ***Add >>:***

  Click this button to add the selected items from the column of <Display Item List> to the main and/or sub screen.

- ***Select All:***

  Click this button to add all the items from the column of <Display Item List> to the main and/or sub screen.

- ***Remove:***

  Click this button to remove the selected items from the column of the main and/or sub screen.

- ***Apply:***

  Click this <Apply> button to make the new settings effective at once.

- ***Warning alert by E-Mail:***

  Check this box if you want the ABIT EQ to send out a warning message by E-Mail. You may type in the mailing address in the blank spaces.

- ***Error Log Recording:***

  Check this box if you want to record the error log. To view the error log in text form, you may click the <View Error Log> button.

- ***Run ABIT EQ when system start up:***

  Check this box if you want to run the ABIT EQ after starting the system.

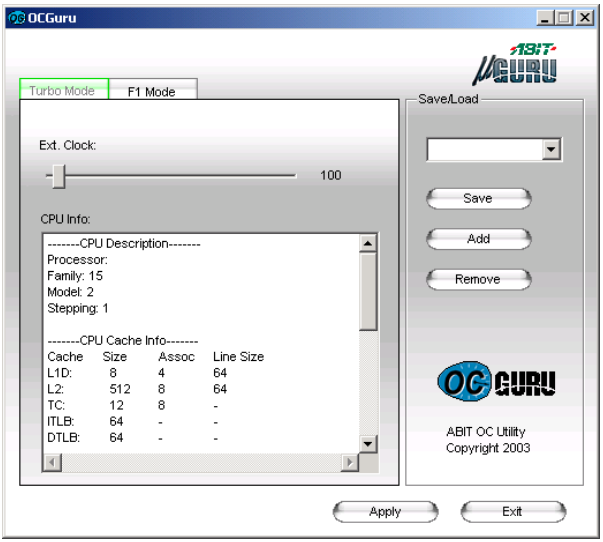
4. ABIT OC Guru

ABIT OC Guru is a Windows-based over clocking utility to automatically and immediately over clocks the external clock for an extra hit of juice.

All settings adjusted under **ABIT OC Guru** will be displayed in real-time, allowing users the most control over their systems, as well as instant hardware gratification, and save it into different settings.

ABIT OC Guru utilizes hard ware technique to protect the act of over clocking failure. Once the system fails by over clocking, users can reset the system to have it rebooted, and then the system will be back to its previous optimized setting.

4.1 Turbo Mode

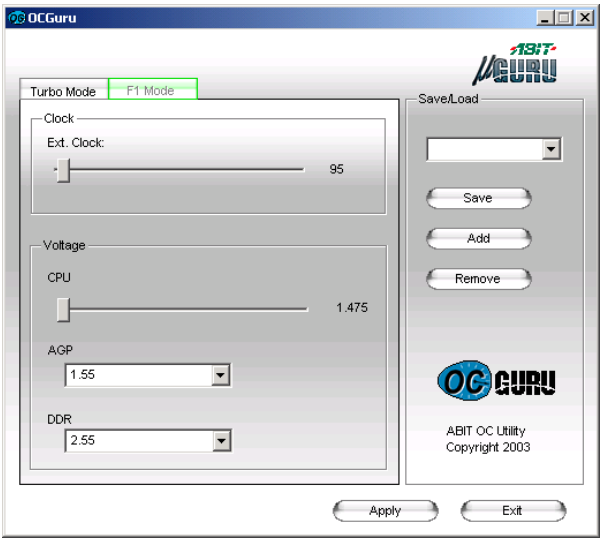


- ***Ext. Clock:***

  Drag and pull this slider bar to adjust the external clock you need.

- ***CPU Info:***
  Your CPU information will be displayed in this column.
- ***Save:***
  Save the current setting.
- ***Add:***
  Add a new name to do the setting.
- ***Remove:***
  Remove the current setting from the name previously specified.
- ***Apply:***
  Apply the new setting.
- ***Exit:***
  Exit this program.

4.2 F1 Mode



- ***Ext. Clock:***

  Drag and pull this slider bar to adjust the external clock you need.

- ***CPU Voltage:***

  Drag and pull this slider bar to adjust the CPU core voltage you need.

- ***AGP Voltage:***

  Click the down-pull arrow to select the AGP slot voltage you need.

- ***DDR Voltage:***

  Click the down-pull arrow to select the DRAM memory slot voltage you need.

- ***Save:***

  Save the current setting.

- ***Add:***

  Add a new name to do the setting.

- ***Remove:***

  Remove the current setting from the name previously specified.

- ***Apply:***

  Apply the new setting.

- ***Exit:***

  Exit this program.

5. ABIT FlashMenu

ABIT FlashMenu is the most stable Windows-based BIOS flash available. No more worries from crashing. With one click of BIOS updating, ABIT users can flash their BIOS more easily and in less time.

- 

  Click this button to toggle this program.

- 

  Click this button to link to ABIT's Technical Support Web Site.

- ***Update From File:***

  Click this button to update your BIOS by the BIOS file previously downloaded and stored in your PC.

- ***Save BIOS:***

  Click this button to save the current BIOS version run by your PC.

- ***One Click LiveUpdate:***

  Click this button to update your BIOS without any further prompt.

You must have your system connected to the Web. The program will find the path to ABIT's Web Site and do the BIOS update automatically.

- ***LiveUpdate Step by Step:***

  Click this button to update your BIOS step by step.

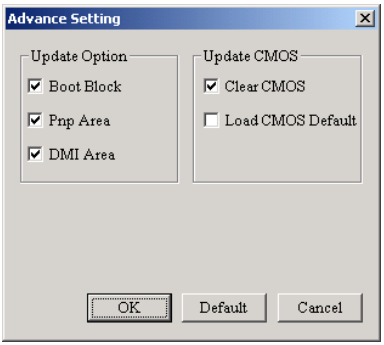
  You must have your system connected to the Web. The program will find the path to ABIT's Web Site and prompt you to do the BIOS update step by step.

- ***Stop:***

  Click this button to stop downloading the BIOS.

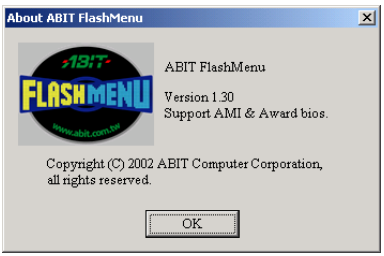
- ***Setting:***

  Click this button to enter the sub-screen of "Advance Setting".



- ***About:***

  Click this button to bring out the version screen.



6. ABIT AudioEQ

ABIT AudioEQ uses the Realtek ALC658 Codec, designed by ABIT for audiophiles, musicians and gamers to bring the richest, warmest sound to your home PC. Audio EQ offers high quality 5.1-Channel surround sound of better than 95dB SNR and supports major game audio technologies including EAX 1.0/2.0, DirectSound 3D, A3D, HRTF3D, and Sensaura 3D. Users can adjust speaker configuration, equalizer and sound effects for more control over their audio experience.

ABIT AudioEQ also uses Jack Sensing Technology to inform users of an inappropriate peripheral connection. No more confusion among Line-in, Line-out, and Mic-in selection.

There are four main functions in **ABIT AudioEQ**: (1) Sound Effect, (2) S/PDIF, (3) Speaker Configuration, and (4) General.

6.1 Sound Effect

There are five pre-determined environmental types of main Sound Effect shown on user interface.

-  ***Under Water***
-  ***Auditorium***
-  ***Bathroom***
-  ***Sewer Pipe***
-  ***Arena***

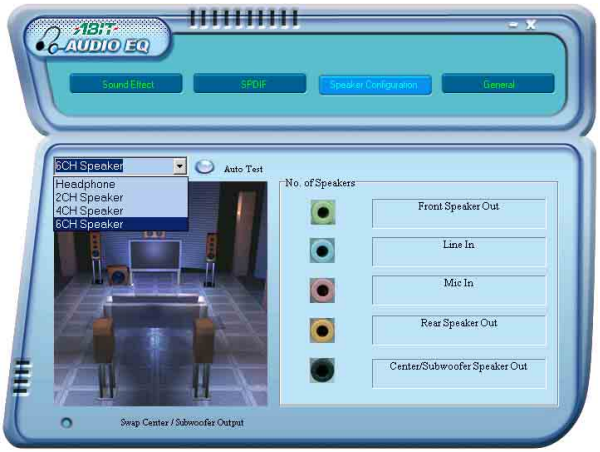
You can also select various types of reverbs that simulate various environments by clicking this button.

6.2 S/PDIF

This page allows you to control the settings for the Digital Audio input and output. S/PDIF is the acronym for industry-wide standard called Sony/Philips Digital Interface. This is the signal typically labeled “Digital Output” on the back of a newer generation CD-Player or similar “Digital Audio” consumer devices.

6.3 Speaker Configuration

This page allows you to configure the speakers' output.



- ***Speakers Type:***

  Select the correct type of your speakers from "Headphone", "2CH Speaker", "4CH Speaker", and "6CH Speaker".

- ***Swap Center / Subwoofer Output:***

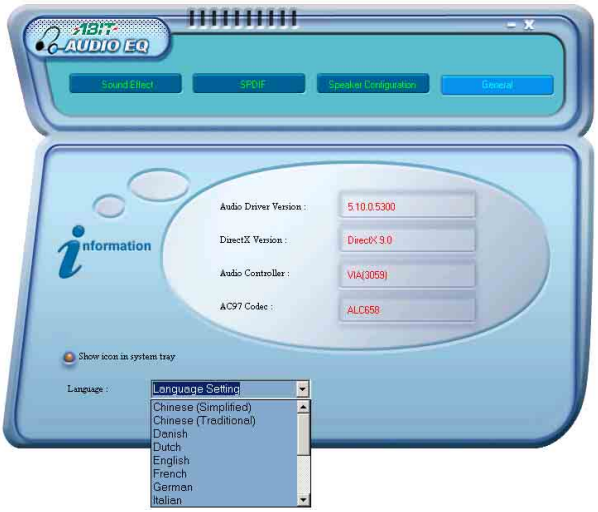
  Swap the sound output between Center and Subwoofer speaker. There is no need to reconnect the wiring between these two speakers.

- ***Auto Test:***

  Click this button to start auto testing of verifying the speakers connection and orientation.

6.4 General

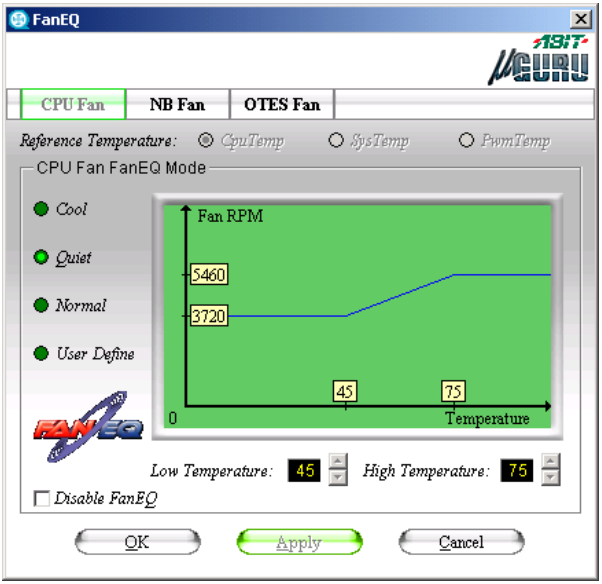
This information tab provides detailed information about your sound system. You can also choose the language of your user interface here.



7. ABIT FanEQ

The "ABIT FanEQ" intelligently and automatically adjusts CPU fan speed according to system load and temperature. It lowers fan speed when CPU and Chipset temperature is decreased due to lighter system load, ensuring a quiet computing environment. Accompanied with the almost noiseless environment is the eager for more power saving, performance increasing, and easing off CPU loading.

There are three main categories to do the monitoring: "CPU Fan", "NB Fan", and "OTES Fan"[3].



The "CPU FanEQ" controls the speed of the fan connected to "CPU fan header" according to the reference temperature measured from the CPU thermal sensor only.

[3] These names differ upon different motherboard. The category ***OTES Fan*** might be replaced with ***SYS Fan*** or ***AUX Fan***.

The “NB FanEQ” controls the speed of the fan connected to “NB fan header” according to the reference temperature measured among the CPU, SYS, or PWM thermal sensors.

The “OTES FanEQ” controls the speed of the fan connected to “SYS fan header” or “AUX fan header” according to the reference temperature measured among the CPU, SYS, or PWM thermal sensors.

Each monitoring category comes with three pre-determined “Cool”, “Quiet”, and “Normal” modes to choose. The “Cool” mode allows a faster fan-speed while as the “Quiet” mode allows a slower fan-speed than the one set in “Normal” mode.

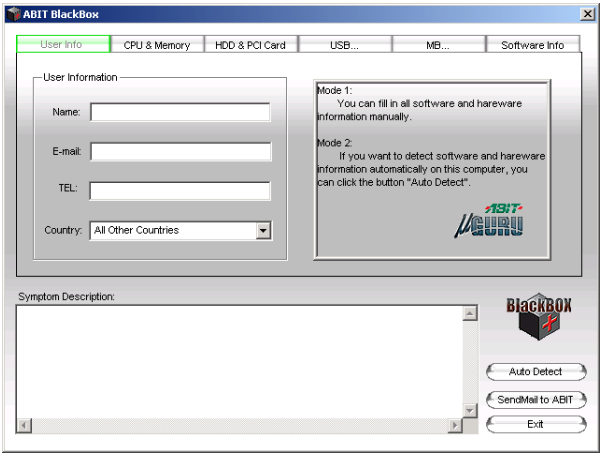
Besides these pre-determined modes, you can also determine your own speed-temperature ratio by selecting the “User Define” mode to adjust the “Low Temperature” and “High Temperature” range manually.

The fan will run at the slowest speed auto-detected by FanEQ when the actual temperature measured is lower than the user-defined low-temperature point. The fan gradually increases the speed when the actual temperature measured is gaining higher. The fan finally run at full speed when the actual temperature measured is higher than the user-defined high-temperature point.

To disable this FanEQ function in each monitoring categories, simply check the “Disable FanEQ” box. The fan will run at its full speed regardless of how the temperature is.

8. ABIT BlackBox

As the name depicted, **ABIT BlackBox** acts like the black box found on aircrafts. When your system crashes, it will record information pertinent to your system and problem, such as CPU Type, CPU speed, memory size, and a summary of devices presented in your PC into a text file. You can then automatically e-mail ABIT for technical support with this text file. ABIT will then be able to determine your problem and will e-mail you back directly with solution.



There are six pages of documentation you will need to fill in after entering the ABIT BlackBox: (1) User Info, (2) CPU & Memory, (3), HDD & PCI Card, (4) USB, (5) MB, and (6) Software Info.

- ***Auto Detect:***

  Besides the manually documentation filling, all the hardware information can be detected automatically by clicking this button.

  Note: *You still have to fill in your problem in the "Symptom Description" box manually.*

- ***Send Mail to ABIT:***

  After finishing the documentation, you can click this button to send the text file of your problem by e-mail to ABIT for help.

- ***Exit:***

  Click this button to cancel and exit the BlackBox.