



msi[™]

Software & Application User Guide

Copyright Notice

The material in this document is the intellectual property of **MICRO-STAR INTERNATIONAL**. We take every care in the preparation of this document, but no guarantee is given as to the correctness of its contents. Our products are under continual improvement and we reserve the right to make changes without notice.

Trademarks

All trademarks are the properties of their respective owners.

- MSI® is registered trademark of Micro-Star Int'l Co.,Ltd.
- NVIDIA® is registered trademark of NVIDIA Corporation.
- ATI® is registered trademark of ATI Technologies Inc.
- AMD® is registered trademarks of AMD Corporation.
- Intel® is registered trademarks of Intel Corporation.
- Windows® is registered trademarks of Microsoft Corporation.
- AMI® is registered trademark of American Megatrends Inc.
- Award® is a registered trademark of Phoenix Technologies Ltd.
- Sound Blaster® is registered trademark of Creative Technology Ltd.
- Realtek® is registered trademark of Realtek Semiconductor Corporation.
- JMicron® is registered trademark of JMicron Technology Corporation.
- iPad®, iPhone® and iPod® are registered trademarks of Apple Inc.
- Lucid® is trademark of LucidLogix Technologies, Ltd.

Revision History

Revision	Revision History	Date
V1.0	First release	2010/10
V1.1	Second release	2011/03
V1.2	Add VIRTU	2011/04
V1.3	Update Conter Center for AMD CPU	2011/05
V1.4	Add CLICK BIOS II	2011/06
V1.5	Add VIRTU Universal MVP and Network Genie	2012/01

Technical Support

If a problem arises with your system and no solution can be obtained from the user's manual, please contact your place of purchase or local distributor. Alternatively, please try the following help resources for further guidance.

- ☐ Visit the MSI website for FAQ, technical guide, BIOS updates, driver updates, and other information: <http://www.msi.com/service/download/>
- ☐ Contact our technical staff at: <http://support.msi.com/>

About this guide

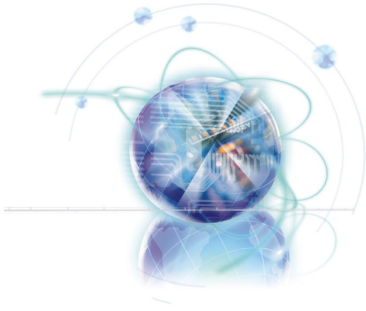
This Software Application Guide describes how to install and use the software applications that come with the MSI's mainboards. Each chapter describes one of the software applications. It can help you to operate easily when you use the advanced software applications designed by MSI.

- **Control Center** - this chapter describes Control Center overview, how to monitor your mainboard hardware, read CPU, memory information and use Control Center to overclock the system.
- **Super-Charger** - this chapter guides you with Super-Charge to charge your iPad, iPhone and iPod.
- **Winki III** - this chapter describes how to enter Winki III, introduces the main window of Winki III and hotkeys.
- **Audio Genie** - this chapter describes how to install and use Audio Genie.
- **Video Genie** - this chapter describes Video Genie overview, and how to enable Video Genie.
- **Network Genie** - this chapter describes system requirement of Network Genie, how to select network mode and set applications priority.
- **Teaming Genie** - this chapter describes system requirement of Teaming Genie, how to install Teaming Genie, Teaming Genie overview, Team mode and how to create a team.
- **Live Update 5** - this chapter describes Live Update 5 overview, and how to update your system.
- **EasyViewer** - this chapter describes functions of Easy Viwer, and how to enable the 3D effect.
- **VIRTU** - this chapter describes VIRTU, how to connect the display and how to use i-Mode and d-Mode.
- **VIRTU Universal MVP** - this chapter describes VIRTU Universal MVP, how to connect the display and how to use i-Mode, d-Mode, HyperFormance and Virtual Vsync.
- **CLICK BIOS II** - this chapter describes how to use CLICK BIOS II to change BIOS settings.

CONTENTS

Control Center	1
Control Center Overview	2
System Information	5
Overclock	7
Green Power	11
Gadget Mode	12
Super-Charger	13
Enabling Super-Charger	14
Winki III	15
System Requirement	16
Entering Winki III	16
Winki III overview	19
Hotkeys	20
Audio Genie	21
Installing Audio Genie	22
Using Audio Genie	22
Hotkeys	24
Using THX Control Panel	24
Video Genie	25
Video Genie overview	26
Enabling Video Genie	26
Network Genie	27
System Requirement	28
Network Genie Operation	28
Network Genie Control Panel	29
Teaming Genie	33
System Requirement	34
Installing Teaming Genie	34
Teaming modes	34
Teaming Genie Overview	35
Creating Team	36
Live Update 5	37
Live Update 5 overview	38
Updating The System	41
Total Installer	42

EasyViewer	43
Supported File Formats.....	44
Preview Mode	44
Slide Mode	46
3D Effect	48
VIRTU	49
System Requirement.....	50
i-Mode	50
d-Mode.....	51
Installing VIRTU	51
VIRTU Operation.....	52
VIRTU Control Panel.....	53
Virtu Universal MVP	57
System Requirement.....	58
i-Mode	58
d-Mode.....	59
Installing VIRTU	59
VIRTU Operation.....	60
VIRTU Universal MVP Control Panel.....	61
CLICK BIOS II	65
CLICK BIOS II Overview	66
BIOS Menu Operation.....	67
Changing Boot Priority	68



Control Center

Control Center is an user-friendly software and exclusively developed by MSI, helping users to monitor the system status, overclock the system and adjust power saving function under OS. With the help of Control Center, making it possible to achieve easier and efficient monitoring process and adjustments than that under BIOS.

Control Center Overview

After installing and activating Control Center, you will see Overclock and Green Power tabs at the top. You can click the tab to switch the control panel.



Overclocking Tab

When you launch Control Center, you will see the Overclock tab at first, this tab consists of four blocks which are Mainboard, CPU, Memory and Overclock. You can monitor the system status, adjust DRAM Timing and voltage under this panel.



Note

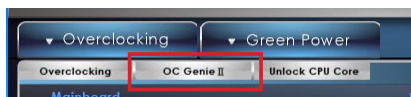
Advanced and DRAM Timing button only appear when you use a Intel mainboard.

Important

The pictures in this guide are for reference only and may vary from the product you purchased. Please refer to the actual screens of your system for detailed information.

OC Genie/ OC Genie II Tab

To enter the OC Genie/ OC Genie II tab, click the sub-menu under the Overclocking tab.



Under the OC Genie/ OC Genie II tab, read the introduction on the tab first. The functions of Intel CPU and AMD CPU may be different, that will have different screens. The following figure shows an example of AMD CPU.



Important

If there is a physical OC Genie button on your mainboard and when you select the Auto mode, the OC Genie/ OC Genie II tab will show the animation as below. Follow the steps and press the button to control OC Genie/ OC Genie II function by the Control Center software.



Green Power Tab

Green Power is an energy saving technology that controls power supply by auto phase switching for CPU and components. Besides, Green Power can automatically manage your power configuration, resulting in more efficient power usage and acoustic noise reduction. You can monitor the power supply status, system temperature and adjust the fan speed under this panel.

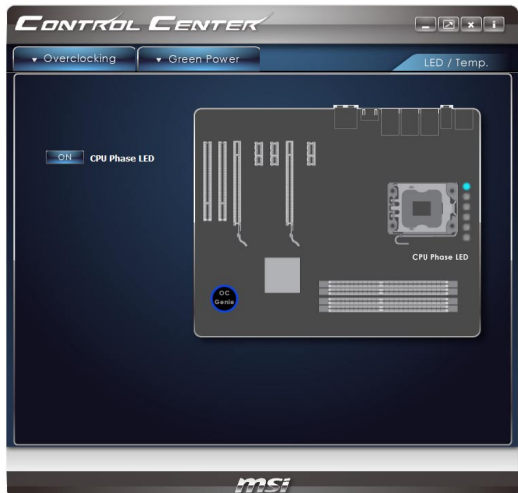


LED Tab

To enter the LED/TEMP tab, click the sub-menu under the Green Power tab.



Under the LED/TEMP tab, you can turn on/off the on-board LEDs by clicking each button. If your motherboard with Dr.MOS, this screen will display the status of Dr.MOS.



System Information

This section describes how to monitor the system information, enter the advanced menu and adjust the DRAM timing.

Mainboard Information

Mainboard information block is under the Overclock tab. You can refer to the model name, chipset, and BIOS version of each item to be informed to the hardware status at all time.



Mainboard Detail Information

Click the "More" button on the right side of the Mainboard block to open the mainboard detailed information window, including model name, chipset, BIOS, audio chip, graphic chip and LAN chip information.

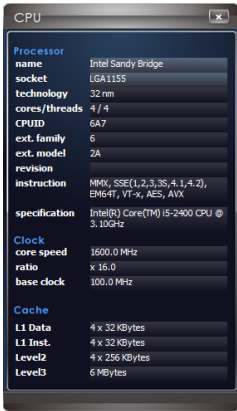
CPU Information

CPU information block is under the Overclock tab. You can read the information of model and frequency.



Advanced (for Intel CPU)

Click the Advanced button on the right side of the CPU block to open the Advanced window. This window shows real-time status of CPU cores and iGPU (only on IGP chipsets), including frequency, ratio and temperature.

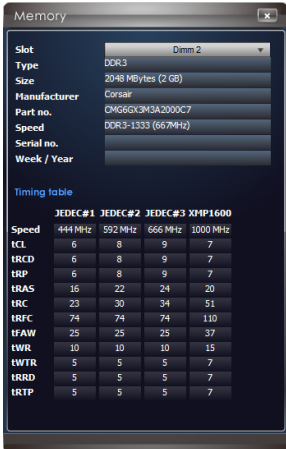


CPU Detail Information

Click the “More” button on the right side of the CPU block to open the CPU detailed information window, including model name, specifications, features and cache information.

Memory Information

Memory information block is under the Overclock tab. You can read the information of each memory DIMM slot, including memory type, manufacturer and speed. You can select a DIMM slot you want to read by clicking slot button.



Memory Detail Information

Click the “More” button on the right side of the Memory block to open the memory detailed information window, you can select a slot to read information, including type, size, manufacturer, speed and timing table.

Overclock

Under Overclock block, you can select Cooling, Default, Cinema, and Game mode to reach the most suitable overclocking effect. That is to say, you can set an overclocking environment in advance, which avoids unnecessary risks and time-consuming manual adjustment on endless testing.



Selecting Overclock Mode

Under Cinema mode, Control Center provides you 3% plus overclocking effect automatically, 6% plus under Game mode, and 3% less under Cooling mode (for power saving concerned users) respectively. You can just enjoy the fast and convenient overclocking effect or make more adjustments based on your need.

Overclocking

Under Overclock block, also you can adjust the CPU base clock, iGPU frequency (only on IGP chipsets), and its related voltages like CPU Vcore, PCH, DRAM and so on. In addition, you are able to adjust memory voltage and even memory reference voltages. The fan speed is also adjustable to meet your power saving or performance demand.



Adjusting DRAM Timings (for Intel chipset)

Click the DRAM Timing button on the right side of the Memory block to open the DRAM Timings window, you can read and set parameters.

Important

- Please refer to the BIOS chapter in the mainboard user guide.
- Every time you shut down the system, the configured setting will be restored to the factory default. If you want to use the saved settings, you have to load it every time by clicking the "Load" button.

Applying parameters

You can do all the above mentioned adjustments under each mode, after that, please click the “Apply” button to execute the configured setting without rebooting the system; or you can click the “Save” button to save the adjustments for future use.

Important

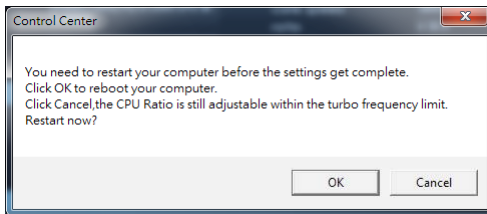
Every time you shut down the system, the configured setting will be restored to the factory default. If you want to use the saved settings, you have to load it every time by clicking the “Load” button.

Manual Overclocking

You can adjust the CPU base clock, CPU ratio and its related voltages to create an even better overclocking environment, after that, please click the “Apply” button. When prompted to reboot your computer, click OK to reboot. You can also click the “Save” button to save the adjustments for future use. You may refer to the following pictures.



Adjust CPU Ratio, click Apply, it will prompt a message for reboot.



Notification

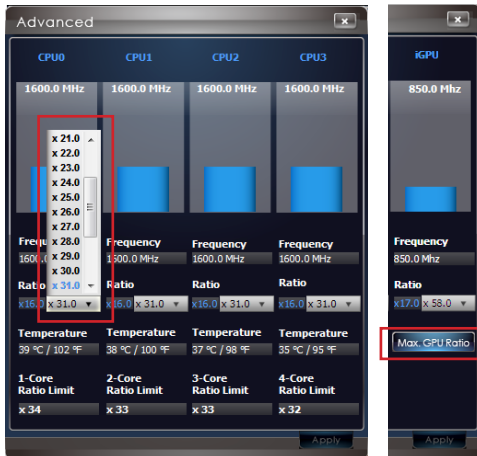
A good CPU cooler is suggested when users have to overclock manually, the key to overclocking through Control Center is to increase the smallest increments allowable on related items.

Adjusting CPU/ iGPU cores ratio (for Intel CPU)


Click the Advanced button on the right side of the CPU block to open the Advanced window. You can adjust the CPU/iGPU cores ratio.

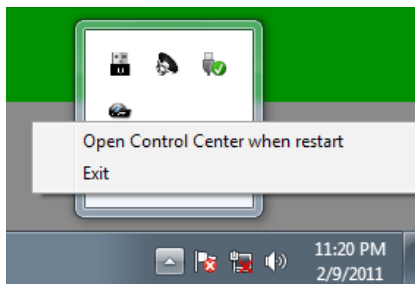
Locking maximum GPU ratio (for Intel Chipset)

To lock GPU ratio at the maximum value, click Max. GPU Ratio button in Advanced window, otherwise it will be dynamically adjusted.



Keeping GPU ratio

In the default setting, for keeping the GPU ratio, Control Center will startup automatically when your system boots and you login. It is minimized to the system tray instead of the taskbar. If you want to close it, right click  icon on the system tray and then click Exit.



Unlocking CPU core (for AMD CPU)

To enter the Unlock CPU Core tab, click the sub-menu under the Overclocking tab.



Under the Unlock CPU Core tab, you can unlock CPU core that is original hidden (or disabled) in CPU to enhance the performance. Therefore, a dual or tri-core CPU turns to be a quad-core CPU, a quad-core CPU turns to be a hex-core CPU. In another words, you can gain a quad-core or hex-core CPU.



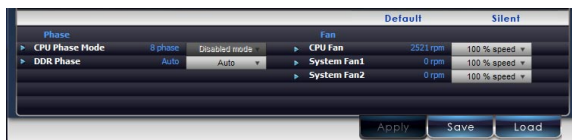
Important

The success and the stability of core unlocking regard to the CPU physique itself. Not any CPU could be unlocked successful; by the way, the stability of the unlocked CPU may be tested later. You can use some burn-in programs or Benchmark to test the stability of the unlocked CPU.

To unlock CPU core, simply select the Unlock CPU Core column to be "Enable". You can enable/ disable each core individually when the CPU Core Control column is set to manual. After that, please click the "Apply" button. When prompted to reboot your computer, click OK to reboot.

Green Power

Under the Green Power tab, you can select the Green Power mode, read CPU Phase status, also select other power phase and control fan speed.



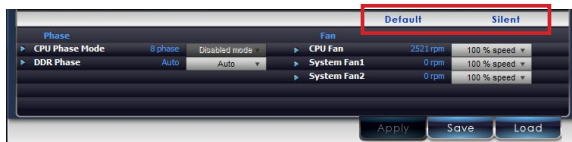
This application provides APS, Intel SVID, and Disable mode for CPU power phase display. In APS and Intel SVID mode, when you adjust CPU voltage, the CPU phase control will switch to Disabled mode automatically. You can change the CPU fan and system fan speed as well to get a good balance between performance and power saving. After setup is complete, click the “Apply” button at the bottom of the tab to apply changes or click the “Save” button to save the adjustment for future use.

Important

Every time you shut down the system, the configured setting will be restored to the factory default. If you want to use the saved settings, you have to load it every time by clicking the “Load” button.

Green Power Mode

There are two preset mode for fan control.




Default: CPU fan speed: 100%, System fan speed: 100%

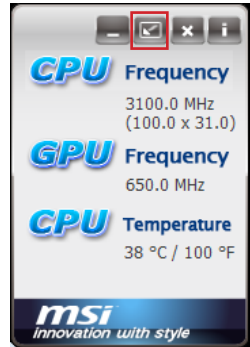
Silent: CPU fan speed: 50%, System fan speed: 50%

Important

The Control Center provides a safety function. A warning pop-up message will appear when the CPU temperature reaches 75 degrees. Meanwhile it will automatically switch to Default mode for maximum fan speed.

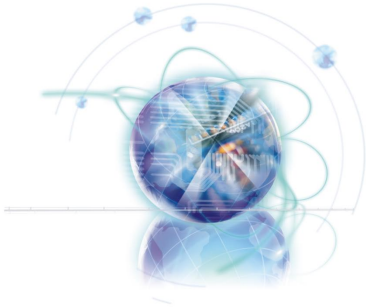
Gadget Mode

Control Center provides a gadget mode to monitor the CPU frequency, iGPU frequency and CPU temperature. Switch to gadget mode by clicking the button  as shown in picture.



Important

The GPU frequency only appears when you use the CPU with integrated GPU.



Super-Charger

Super-Charger provides i-Pad, i-Phone and iPod charging function.

The iPad with very special charging requirements as it requires 1.6A power supply rather than the 0.5A current available with conventional USB interfaces. That is ordinary computer cannot charge your iPad even at power on status. The MSI Super-Charger is a Windows resident program capable of revising power supply mode of your USB port. Once an iPad is connected to your USB port the Super-Charger sends a signal to initiate its charging circuit.

When system goes into suspend, hibernate state or even shutdown, Super-Charger will be still able to provide charging function.

Enabling Super-Charger

Install and launch Super-Charger, the dialog as below will appear.



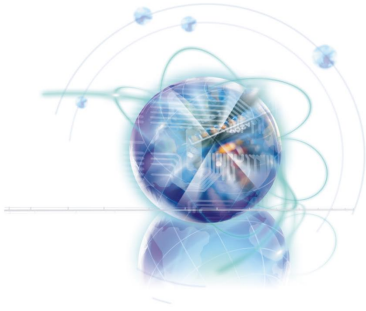
To enable Super-Charger, click the "On/Off" button to On.



When a warning prompt window appears, click "Yes" to continue.

Important

When Super-Charger is enabled, the USB port will be changed to Charging mode, therefore, the data syncing will be disabled.



Winki III

Winki III is an MSI self-developed Linux distribution for MSI's proprietary mainboards. The quick boot Winki III provides Live update, Internet browser, instant messaging, Skype, photo viewer and so on. Without entering the Microsoft Windows, users still have access to basic programs that are frequently used.

System Requirement

In order to run Winki III, the following hardware and is required

- At least 2GB memory
- DVD Drive

Important

If you are using the Intel SATA 6Gb/s or Marvell 88SE9128 chip, when you use Live Update or HDDBackup utility under Winki III, please change IDE_Mode to AHCI_Mode in BIOS setting.

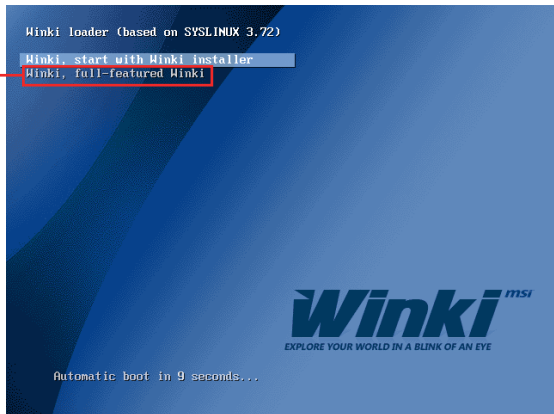
Entering Winki III

You can enter Winki III OS from attached DVD or your USB key installed with Winki III OS. Please follow the steps below:

Entering the Winki III from the DVD Drive

1. Put the attached DVD to the DVD drive.
2. Reboot and enter the BIOS by pressing “Delete” under POST screen.
3. Select to boot from DVD drive and reboot.
4. The Winki III boot screen appears as below.
5. Select “Winki, full-featured Winki” and press “Enter”.

Select this option



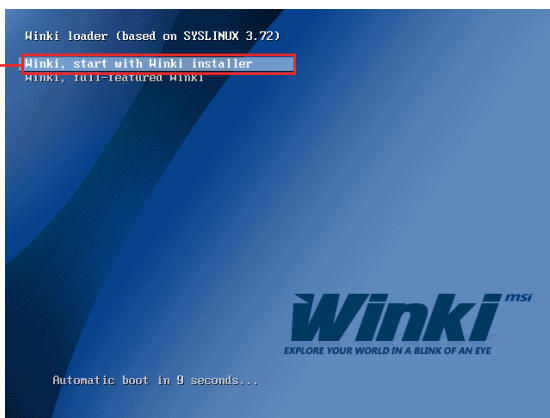
6. Then, you will enter Winki.

Entering the Winki III from Your USB Flash Drive

You need to prepare a USB drive with at least 1GB capacity. Please backup your data in advance or the Winki III installer will format your USB drive.

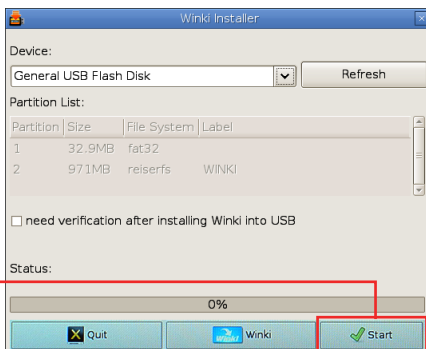
1. Insert your USB drive to your computer.
2. Put the attached DVD to the DVD drive.
3. Reboot and enter the BIOS by pressing “Delete” under POST screen.
4. Select to boot from DVD drive and reboot.
5. The Winki III boot screen appears as below.
6. Select “Winki, Start with Winki installer” and press “Enter”.

Select this option

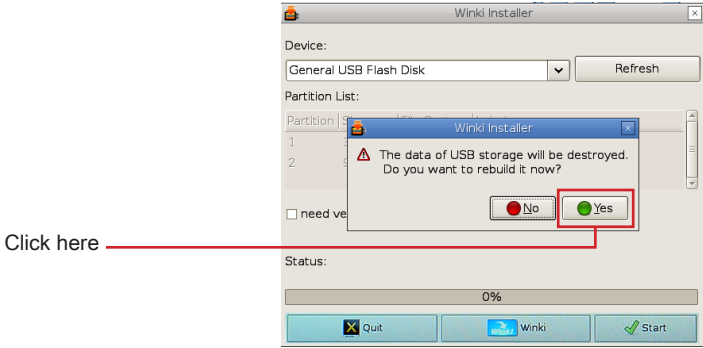


7. Check the installing dialog and click “Start”.

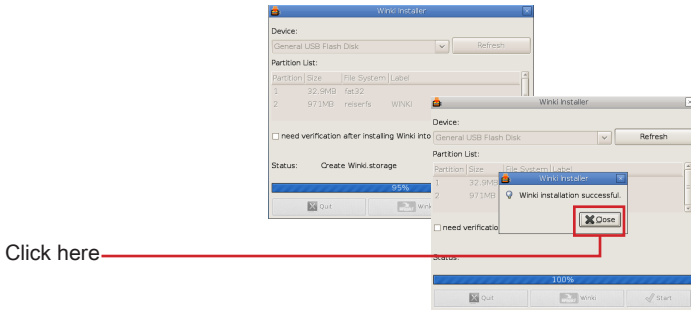
Click here



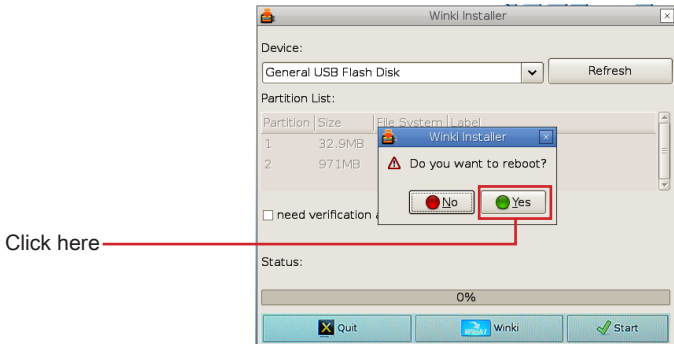
8. Make sure that you backup your data in advanced. Then, click “Yes” to continue.



9. The installer is proceeding. Click “Close” when finish.



10. Click “Reboot” and then “Yes”.



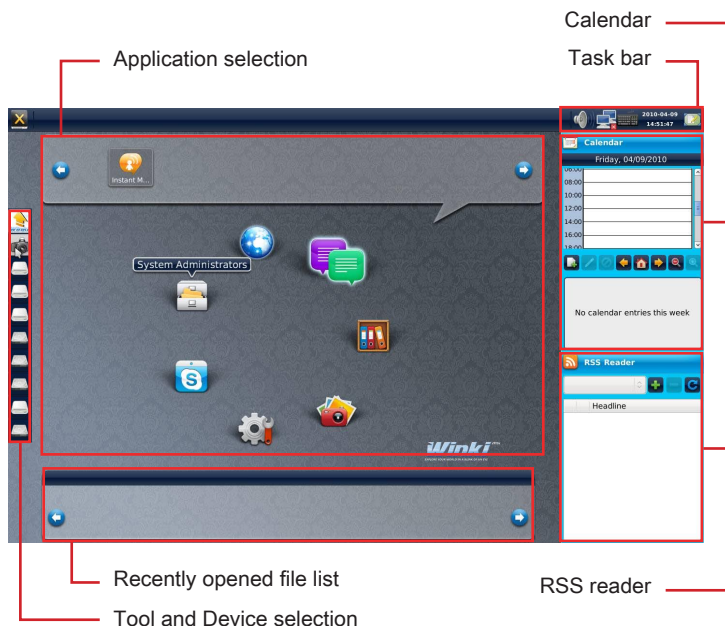
11. Enter the BIOS by pressing “Delete” under POST screen.

12. Select to boot from USB drive and reboot.

13. Then, you will enter Winki III.

Winki III overview

The following figure describes the function of the Winki III.



► Application selection

Applications are classified into several categories. Select a category and the applications will be listed at the top. You can click the icons to launch respective applications.

► Task bar

This bar is used to monitor the status of system and display current time.

► Calendar

The calendar allows you to schedule your tasks and set reminders.

► Tool and Device selection

Move the cursor to the left of the desktop, the pop-up menu appears. You can use it to capture the screen and mount / unmount device drives.

► Recently opened file list

There is a list of recently used applications at the bottom. It allows you to launch applications quickly.

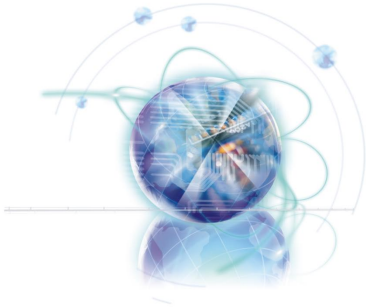
► RSS reader

The RSS reader is able to display any RSS news feed.

Hotkeys

You can also use the hotkey listed below.

Hotkey	Function
Ctrl + 1	Web Browser
Ctrl + 2	Instant Messenger
Ctrl + 3	Skype
Ctrl + 4	Photo Viewer
Ctrl + F1	Volume Controller
Ctrl + F2	Resolution Setting
Ctrl + F3	Network Setting
Ctrl + F4	Language Setting
Ctrl + F5	Keyboard Setting
Ctrl + F11	Decrease Volume
Ctrl + F12	Increase Volume



Audio Genie

Audio Genie provides speakers location setting and THX mode selection.

This chapter describes how to install Audio Genie and how to use it.

Installing Audio Genie

If your audio device is built-in with your mainboard, take a moment to confirm that the item “Audio Controller” in BIOS has been set to “Enabled”. If you are using the Realtek HD audio card, confirm the card has been installed properly.

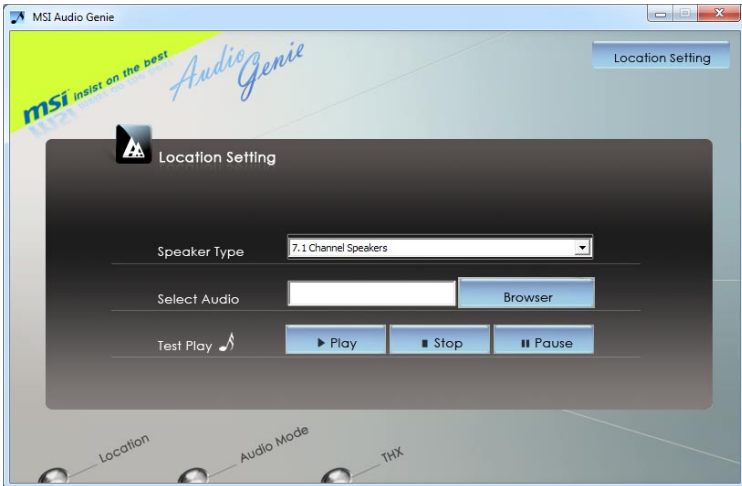
Before you begin to install and use Audio Genie, you need to install Realtek Audio and THX TruStudio PRO.

Using Audio Genie

The Audio Genie contains three screens Location, Audio Mode and THX.


Location

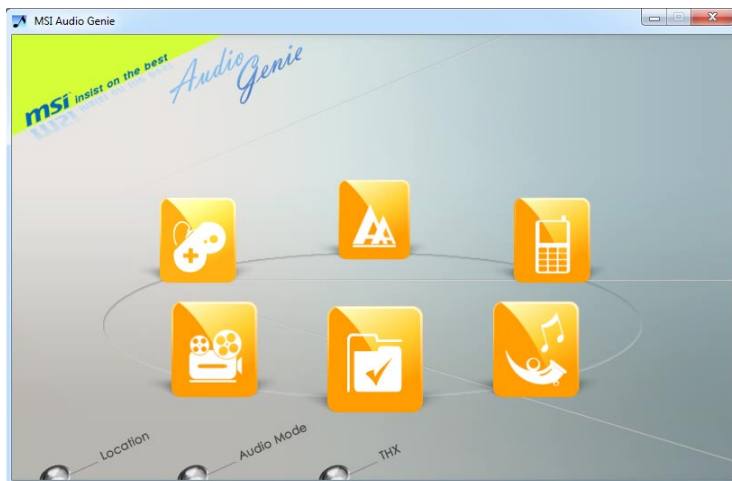
The Location Setting allows you to find the suggested speaker placement for your stereo and select audio files for testing.



This screen only shows the speakers placement

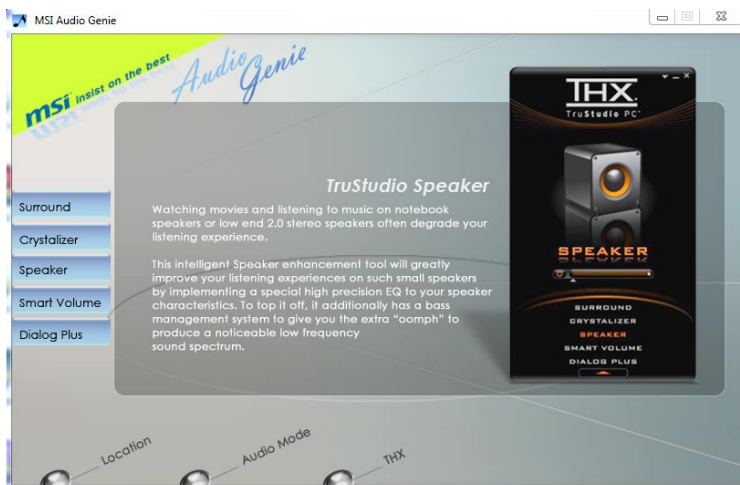
Audio Mode

The Audio Mode allows you to select six THX audio modes, You can also select the audio modes by right-click the Audio Genie icon  in the system tray.



THX

This screen introduce the functions of THX control panel. When you enter this screen the THX control panel will appear on the desktop.




Hotkeys

You can also use the hotkey listed below.

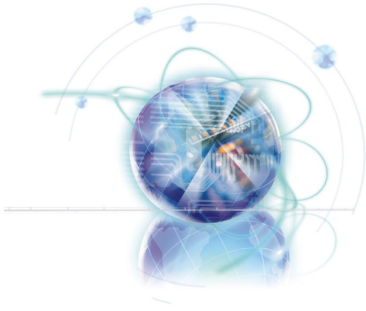
Hotkey	Function
Ctrl + F7	Game Mode
Ctrl + F8	Movie Mode
Ctrl + F9	Music Mode
Ctrl + F10	Clean Mode
Ctrl + F11	Phone Mode
Ctrl + F12	Optimum Mode

Using THX Control Panel

You can open the THX control panel through the Audio Genie, or double-click the THX icon  in the system tray.

To enable or disable each THX sound effect, click the sound effect on the THX control panel, and then click the on/ off button. Also you can adjust the intensity by dragging the slide bar to the right or the left.





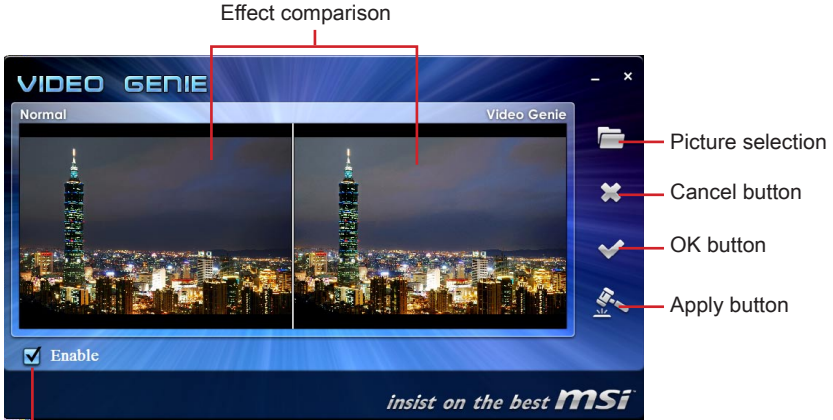
Video Genie

Video Genie provides the automatic color saturation enhancement, contrast enhancement and intelligent gamma correction.

Video Genie not only improves the quality of static image, the video playback will be dramatically enhanced.

Video Genie overview

The following figure describes the function of the Video Genie.



Enable checkbox

► Effect comparison

This window shows the picture comparison between before and after Video Genie application.

► Picture selection

This button allows you to select a picture to be displayed in effect comparison window.

► Cancel button

This button is used to close Video Genie main window, you can still return to the main window by clicking the Video Genie icon in the system tray.

► OK button

When you click the OK button, the effect setting will be applied and the main window will be closed.

► Apply button

This button allows you to apply the effect setting immediately.

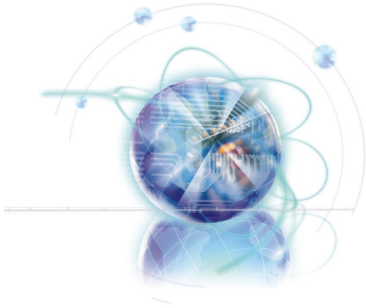
► Enable check box

You can use this checkbox to either enable or disable the Video Genie.

Enabling Video Genie

This section describes how to enable the Video Genie. Please follow the steps below:

1. Check the Enable checkbox.
2. Click the OK button.
3. The Video Genie "ON" message will pop up for two seconds.



Network Genie

Network Genie is an utility to optimize the traffic for bandwidth control. Network Genie is designed for the Realtek LAN chip with Windows Vista and Windows 7 platforms.

With the Network Genie you can play on-line games and download data without being disturbed by latency. Just set up the network priority in Network Genie. You do not need to close some of occupied bandwidth applications while enjoying on-line games or streaming videos.

System Requirement

In order to run the Network Genie, the following hardware and software is required
Hardware:

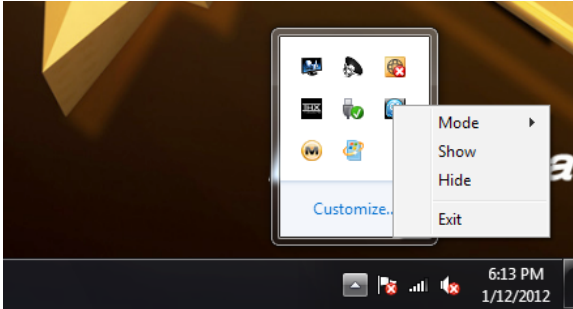
- MSI mainboard with Realtek LAN chip (8111E or newer).

Software specifications:

- Windows 7 32bit/ 64bit
- Windows Vista 32bit/ 64bit
- Realtek LAN driver

Network Genie Operation

Once installed, the Network Genie logo shows on system tray (the right bottom corner of the screen). Mouse right click at the icon, will display the following screen.



- Moving the mouse pointer on **“Mode”** option, a sub-menu will appear for user to select Game, Stream, Browser and Auto mode.
- Clicking on the **“Show”** option will open a new window with Network Genie control panel.
- Clicking on the **“Hide”** option will hide the Network Genie control panel.
- Clicking on the **“Exit”** option will exit Network Genie.
- Invisible logo means Network Genie is not activated.

In case no logo is shown on the system tray, it is possible to activate Network Genie manually by clicking Start → Programs → MSI → Network Genie → Network Genie.

Network Genie Control Panel

Mode Tab

If Mode tab is selected, the following screen is displayed:



► Mode selection

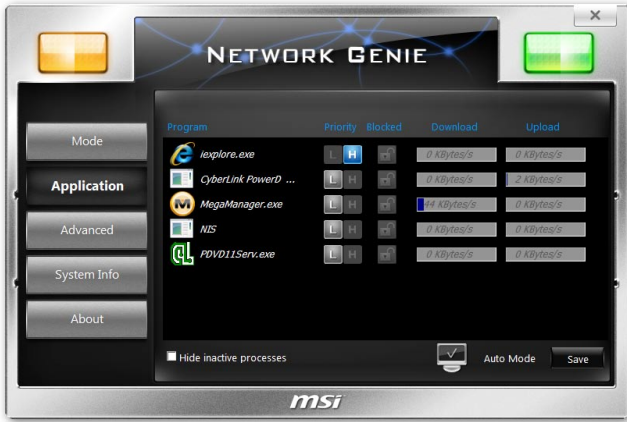
Mode selection is used to quickly change the network mode. The following options are available:

- **Game Mode** - Network Genie will set gaming applications to high priority.
- **Stream Mode** - Network Genie will set streaming applications to high priority.
- **Browser Mode** - Network Genie will set web browsers to high priority.
- **Auto Mode** - Network Genie will set gaming, streaming applications and web browsers to high priority.

Click "Apply" button to complete.

Application Tab

If Application tab is selected, the following screen is displayed:



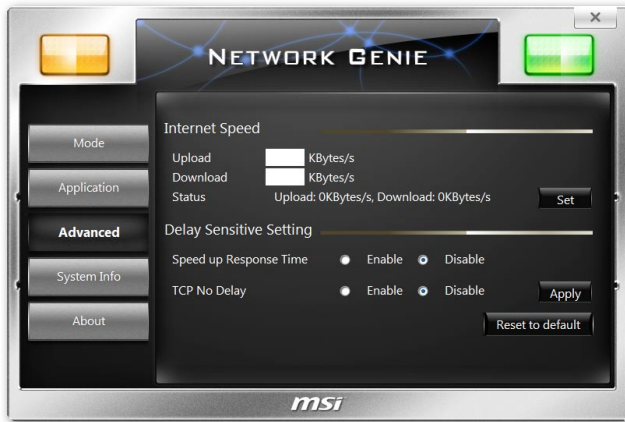
Application tab lists all network related applications. There are 5 columns in the list, including Program, Priority, Blocked, Download and Upload. The function of each column is described as follows:

- **Program** - Shows the currently running network related applications.
- **Priority** - “H”: represents high network priority. “L”: represents low network priority. You can manually change the priority by clicking “H” or “L”.
- **Blocked** - “Lock icon”: represents the network application is blocked. “Un-lock icon”: represents the network application is allowed. You can block the network application by clicking the block icon.
- **Download/ Upload** - Indicate the download and upload status.

Inactive programs will be listed at the bottom and you can check the “Hide inactive programs” to hide them. After changing the settings, click the “Save” button to store the newer configurations.

Advanced Tab

If Advanced tab is selected, the following screen is displayed:



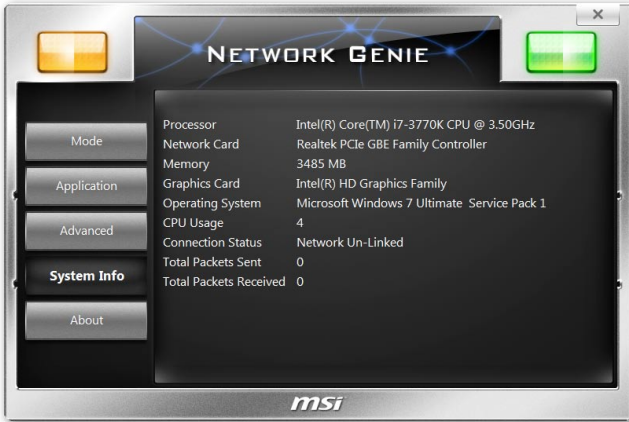
Advanced tab provides detailed settings for Network Genie. There are two parts in this tab, one is "Internet Speed", and another is "Delay/Sensitivity Settings".

In "Internet Speed", you can set the maximum available bandwidth to the upload/download speed manually or just leave blank for no limit.

In "Delay/Sensitivity Settings", you can enable "Speed up Response Time" and "No TCP Delay" to reduce the latency of the high priority applications.

System Info Tab

If System Info tab is selected, the following screen is displayed:



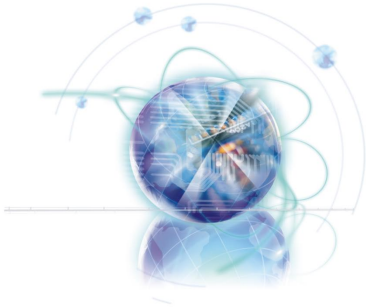
System Info tab shows system information, including “Processor”, “Network Card”, “Memory”, “Graphics Card”, “Operating System”, “CPU Usage”, “Connection Status”, “Total Packets Sent”, and “Total Packets Received”.

About Tab

If About tab is selected, the following screen is displayed:



About tab shows information of Network Genie, including “Version”, “Copyright”, and web address.



Teaming Genie

Teaming Genie provides traffic load balancing and redundant NIC operation if a network connection fails. When multiple NICs are installed in the same mainboard, they can be combined into a team. The team must include at least two members, but can support up to ten members.

In a team of two or more NICs, the secondary NIC fills the primary, if the primary NIC fails.

System Requirement

The system and software requirements for Teaming Genie as listed below.

- Installed with Microsoft .NET Framework 3.5
- Dual Realtek RTL81XX series with NIC Adapters

Installing Teaming Genie

Before you begin to install and use Teaming Genie, take a moment to confirm that the items “Onboard LAN Controller” in BIOS has been set to “Enabled”.

You need to install Microsoft .NET Framework 3.5 and Realtek LAN driver prior to Teaming Genie installation. After then, Install Teaming Genie.

Teaming modes

► FEC/GEC Mode

The FEC/GEC mode is similar to the **Link Aggregation\LACP(802.3ad) mode** in that all adapters in the team need to be configured to receive packets for the same MAC address, however, it does not provide LACP or marker protocol support. Basically, this mode is a light version of the **Link Aggregation\LACP(802.3ad) mode**.

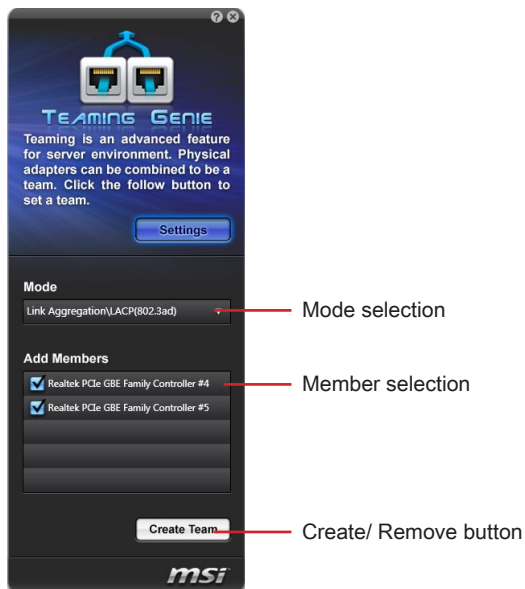
The FEC/GEC mode supports load balancing and failover for both outbound and inbound traffic.

► Link Aggregation\LACP(802.3ad) Mode

This mode supports link aggregation and conforms to the IEEE 802.3ad (LACP) specification. All adapters in the team are configured to receive packets for the same MAC address. In this mode, at least one of the link partners must be in active mode.

Teaming Genie Overview

The following figure describes the function of the Teaming Genie.



► **Mode selection**

Here you can select a team mode.

► **Member selection**

Here you can select members.

► **Create/ Remove button**

This button is used to create or remove a team.

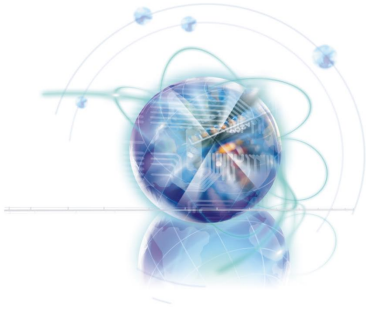
Creating Team

This section describes how to create a team. Please follow the steps below:

1. Select FEC/GEC mode or Link Aggregation/LACP(802.3ad) mode
2. Select members that you want to combine to.
3. Click the **Create Team** button.

To remove the team, click the **Remove** button at the bottom.



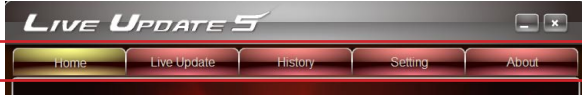


Live Update 5

Live Update 5 is an application for the MSI system to scan and download the latest drivers, BIOS and utilities. With Live Update 5, you don't need to search the drivers on web sites, and don't need to know the models of mainboard and graphics cards. Live Update 5 will download the appropriate drivers automatically.

Live Update 5 overview

After installing and activating Live Update 5, you will see Home, Live Update, History, Setting and About tabs at the top. You can click the tab to switch the control panel.




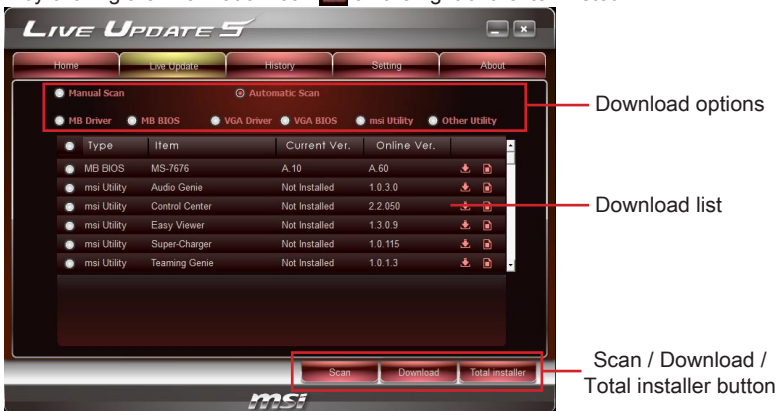
Home Tab

When you launch Live Update 5, you will see the Home tab at first, this tab displays the information of the system.



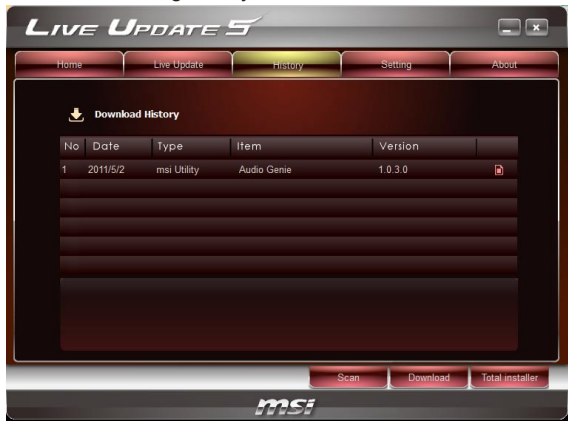
Live Update Tab

This tab allows you to select files to download. You can also read the relevant information by clicking the information icon  on the right of the item listed.



History Tab

This tab shows the downloading history.



Setting

This tab allows you specify the frequency that Live Update 5 remind you to update.



Reminder Frequency configuration

Important

The pictures in this guide are for reference only and may vary from the product you purchased. Please refer to the actual screen of your system for detailed information.

About

This tab shows the information about Live Update 5. You can click the “MSI Online Customer Service” button to open the online customer service web page.



MSI Online Customer Service link button

Updating The System

This section describes how to update your system with Live Update 5. Please follow the steps below:

1. Select download options in Live Update tab. If you select “Automatic scan”, Live Update 5 will automatically detect your system, select the appropriate items to download.
2. Click the “Scan” button at the bottom, you will see the screen below. It may take several moments to complete the process. Please wait while it is displayed.

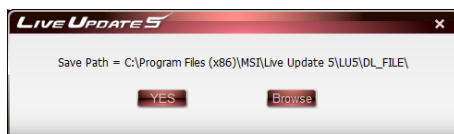


3. When the download list appears, please check the items you intend to update.

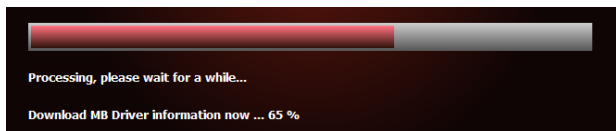
Select all

Type	Item	Current Ver.	Online Ver.			
<input checked="" type="checkbox"/>	MB BIOS	MS-7676	A.10	A.60		
<input checked="" type="checkbox"/>	msi Utility	Audio Genie	Not Installed	1.0.3.0		
<input checked="" type="checkbox"/>	msi Utility	Control Center	Not Installed	2.2.050		
<input checked="" type="checkbox"/>	msi Utility	Easy Viewer	Not Installed	1.3.0.9		
<input checked="" type="checkbox"/>	msi Utility	Super-Charger	Not Installed	1.0.115		
<input checked="" type="checkbox"/>	msi Utility	Teaming Genie	Not Installed	1.0.1.3		

4. Click “Download” button at the bottom.
5. When Save Path prompt, you need to specify the directory for Live Update 5.



6. When downloading you will see the screen below. It may take several moments to complete the process. Please wait while it is displayed.



7. To install the applications, simply unpack the packages and install.

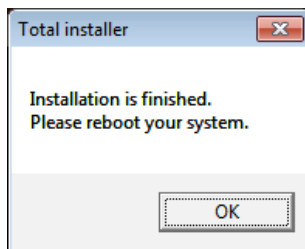
Total Installer

Total Installer is a convenient feature to simplify frequent installing procedure. To use Total Installer:

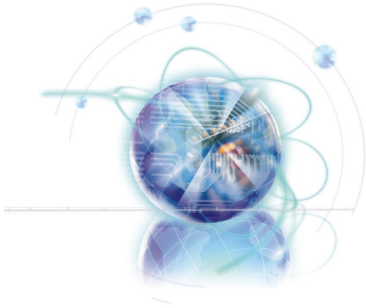
1. Scan updates in Live Update tab.



2. Check the items you intend to update.
3. Click the Total Installer button. Live Update 5 will automatically install them.



4. When prompted, click OK to complete the Total Installer procedure
5. Reboot your system.



EasyViewer

MSI EasyViewer is a full 3D image browser that supports NVIDIA 3D vision and allows zoom-in, zoom-out, full-screen or auto-playback for previewing images. Under the Slide mode, you may edit pictures: image enlargement, reduction, 90-degree and fine-tuned rotation. You can even use the HDII image enhancement, intelligent white balance, and image sharpness adjustment features to make your pictures richer, more alive and more textured. With intuitive user interface, it can be easily operated on a touch screen or on any PC with mouse.

Supported File Formats

EasyViewer's current supported file formats are jpg, png, bmp, tif and gif.

Preview Mode



Zoom In



Zoom Out



Auto Playing



Full Screen



Changing Directory



Upper Directory

1. Zoom In/Out

- Scroll with the mouse wheel.

- Press the  button and  button.


2. Browsing photos

- Left-click the mouse and hold. Move the mouse to the left or right to browse photos.
- Drag the slider bar to browse photos.

3. Selecting a photo

- Left-click on an image to select it.


4. Auto playing images

- Press the  button and the EasyViewer will present a full-screen slide show that runs automatically.


5. Full Screen

- Press the  button and the EasyViewer will enter full-screen mode.

6. Changing the file folder

- Press the  button to change your destination folder.

7. Go to the upper directory

- Press the  button to go to the upper directory.

Slide Mode



Zoom In/Out



Rotation



Fine-tuning Rotation



Enhancing HDII Image



Intelligent White Balance



Saving Files



Auto Playing





Full Screen


1. Entering Slide mode

- While selecting an image in the Preview mode, double left-click the mouse to enter the slide mode.



2. Browsing photos

- Left-click the mouse and hold. Move the mouse to the left or right to browse photos.
- Select the thumbnail to get a larger-sized view.
- Press the arrow keys (←→) on the keyboard.
- Press the  and  buttons alongside the thumbnail bar.

3. Zoom In/Out

- Press the  button and move the cursor to the center for zoom. Left-click the mouse and hold. Move the mouse arbitrarily to zoom in or out.
- Use two-finger pinch zoom (for touch screens only).


4. Rotating photos

- Press the   buttons to rotate your photos clockwise or counterclockwise.
- Use two-finger rotation (for touch screens only).


5. Fine-tuning the photo rotation

- Press the  button to fine-tune the degree of photo rotation.

6. HDII image enhancement

- Press the  button to enhance HDII images. If the image exposure is adequate, the image will remain unchanged.


7. Intelligent white balance

- Press the  button to activate intelligent white balance. If the white balance of the image is adequate, the image will remain unchanged.


8. Auto playing images

- Press the  button and the EasyViewer will present a full-screen slide show that runs automatically.

9. Full Screen

- Press the  button and the EasyViewer will enter full-screen mode. If equipped with a 120Hz monitor, the True 3D mode will be activated automatically. To experience the 3D effect, a pair of shutter glasses will be required.

10. Saving files

- Press the  button to save the images you've processed.

3D Effect

EasyViewer provides the 3D visual effect, with 3D glasses, you can experience the photos in 3D.

System Requirement

The system and software requirements for EasyViewer 3D effect as below list.

- Microsoft® Windows® Vista 32/64-bit or Windows 7 32/64-bit
- 3D Vision-Ready Display
- NVIDIA® 3D Vision Kit
- Compatible NVIDIA® GeForce Graphics Card

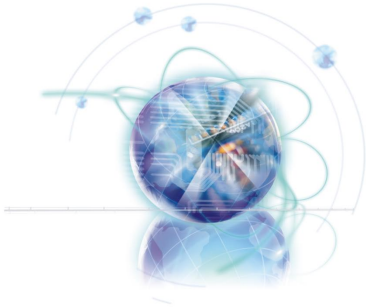
Enabling 3D Effect

To enable 3D effect, please follow the steps below:

1. Confirm the graphic card has been installed properly.
2. Confirm the 3D Vision kit has been installed properly.
3. Install the latest graphic card driver.
4. Install the GeForce 3D Vision driver.
5. Enable GeForce 3D Vision in the NVIDIA control panel.
6. Enter the MSI EasyViewer full-screen mode.
7. Enjoy the 3D effect.

Important

The MSI EasyViewer can only support GeForce 3D Vision in the full screen mode.



VIRTU

Lucid VIRTU is designed for Intel 2nd Generation Intel® Core™ i7 / Core™ i5 / Core™ i3 processors platform with Intel Processor Graphics enabled. VIRTU dynamically assigns tasks to best available graphics resource based on power, performance and features.

VIRTU allows user to fully utilize the unique capabilities of the Intel's advanced media features on Intel 2nd Generation Intel® Core™ i7 / Core™ i5 / Core™ i3 along with the high end 3D rendering performance provided by the discrete GPU installed in the system.

When no high end graphics is used and display is connected to integrated GPU, the discrete GPU is put in idle mode thus GPU utilization, heat, fan speed and power are down to near zero, turning the system to an environment friendly platform.

System Requirement

In order to run the Lucid VIRTU, the following hardware and software is required

Hardware specifications:

- The mainboard supports VIRTU
- Intel 2nd Generation Intel® Core™ i7 / Core™ i5 / Core™ i3 processors in an LGA 1155 socket.
- AMD GPU (HD 4xxx and up) or Nvidia GPU (GF 2xx and up)
- At least 2GB memory

Software specifications:

- Windows 7 32bit/ 64bit
- DirectX 9/ 10/ 10.1/ 11
- Intel/ NVIDIA/ AMD GPU drivers

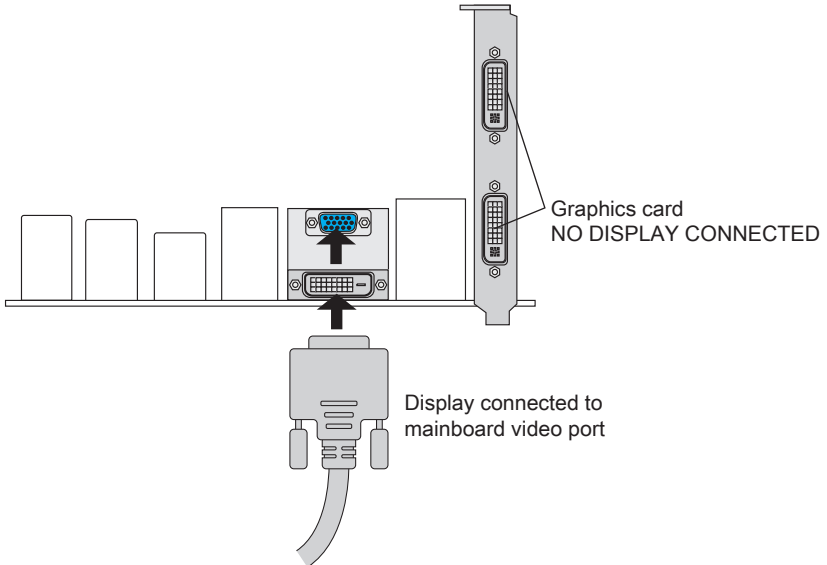
i-Mode

i-Mode provides user with near zero performance overhead on 3D graphics games, Intel® Core™ i7 / Core™ i5 / Core™ i3 special features and power saving options when no 3D gaming is used.

Important

In i-Mode the ATI/nVidia Control Panel is not accessible.

To use Lucid VIRTU in i-Mode, display must be always connected to mainboard video output as shown below.



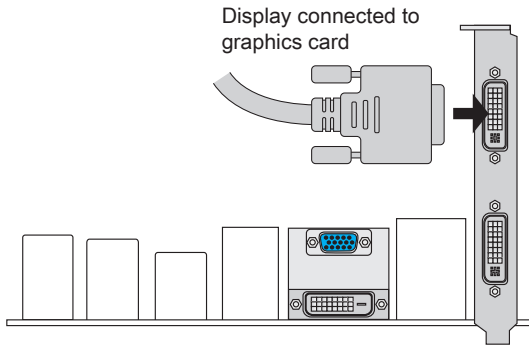
d-Mode

d-Mode is provided for demanding 3D gamers to achieve uncompromised 3D performance of discrete GPU installed in the system. In this mode, VIRTU allows user to utilize Intel special features, while display is connected to discrete GPU.

Important

In most cases the differences of 3D performance between i-Mode and d-Mode are unnoticeable to the user, so it is recommended to use i-Mode to save power.

To use Lucid VIRTU in d-Mode, display must be connected to graphics card installed in the system as shown below.



Installing VIRTU

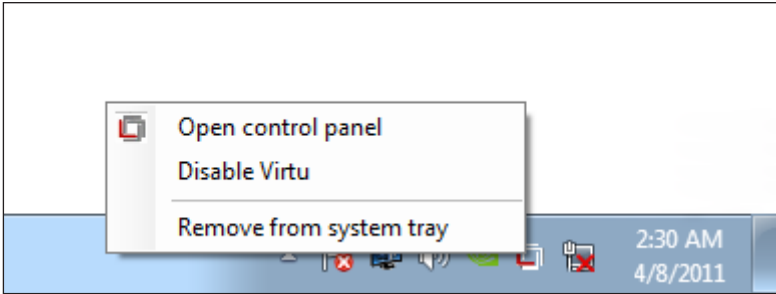
- In BIOS → Settings → On-Chip VGA Devices → IGD Multi-Monitor, the IGD Multi-Monitor must be set to Enabled.
- Intel/ NVIDIA/ AMD GPU drivers must be installed prior to Lucid VIRTU installation.
- Install VIRTU from MSI Driver DVD setup screen → Driver → OTHERS. You can also find setup.exe and double-click it to install. The full path on the DVD is \\OtherDriver\Lucid Virtu Driver.
- GPU drivers and Lucid VIRTU should be installed before running any graphic application.
- It is recommended to restart the system after every driver installation.

Important

Lucid VIRTU is designed for Intel 2nd Generation Intel® Core™ i7 / Core™ i5 / Core™ i3 processors based platforms only.

VIRTU Operation

After the installation process completed, VIRTU is activated. Once activated, the Lucid logo shows on system tray (the right bottom corner of the screen). Mouse right click at the icon, will display the following screen.

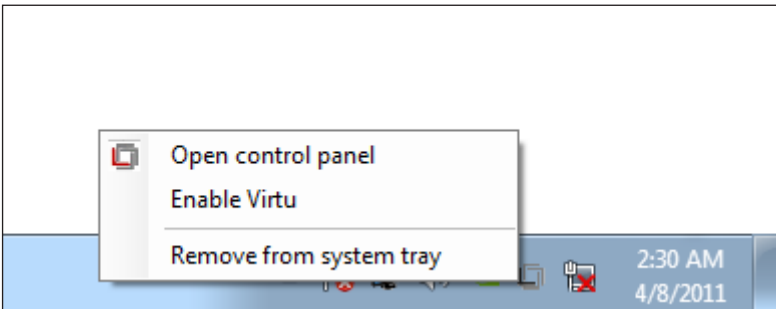


- Clicking on the "Open control panel" option will open a new window with VIRTU control panel.
- Clicking on "Disable" option, allows the user to stop VIRTU function. When VIRTU is disabled, the system will use the Intel® Core™ i7 / Core™ i5 / Core™ i3 IGP for graphics activities.
- Invisible or grey logo means VIRTU is not activated.

In case no logo is shown on the system tray, it is possible to activate the driver and the control panel manually by using the following instructions:

1. Click Start → Programs → VIRTU.
2. Right-click on "VIRTU Control Panel".

In case logo icon is grey, right-click while pointing at the logo to get the following screen:

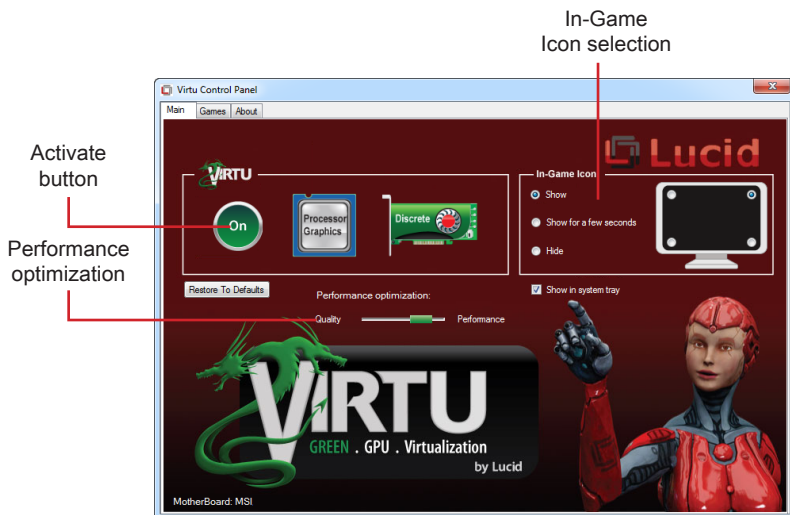


Clicking on the "Enable" option, will activate the VIRTU.

VIRTU Control Panel

Main Tab

When activating the VIRTU control panel, the following window is displayed:



► Activate button

By pressing a big “On” button VIRTU solution is activated. If “Show in System Tray” is selected, a small control panel icon will be displayed on the system tray together with the rest of the current running applications.

► In-Game Icon selection

In-Game Icon selection is used to enable/disable in game VIRTU logo indication. The following options are available:

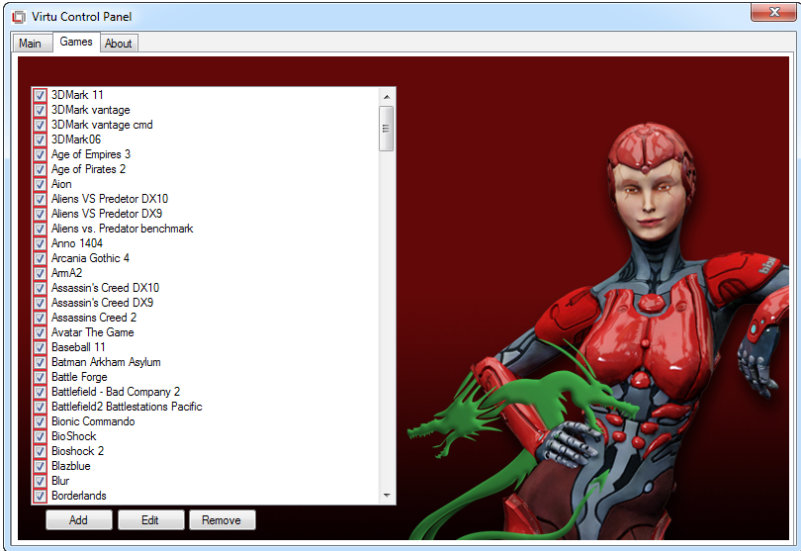
- **Show** - The logo will be constantly displayed in the selected corner of the screen.
- **Show for a few seconds** - The logo will be shown for a few second and then will disappear.
- **Hide** - No logo will be shown.
- **Chose a Corner** - is a control to select a corner of the screen in which VIRTU logo will be displayed.

► Performance optimization

You can optimize the performance of the virtualization by using special techniques. Tested on each application in support list. In case of new application some issues may rarely happen it using full performance setting. In this case it is recommended to change the seting to Quality.

Games Tab

If the Games tab is selected, the following screen is displayed:



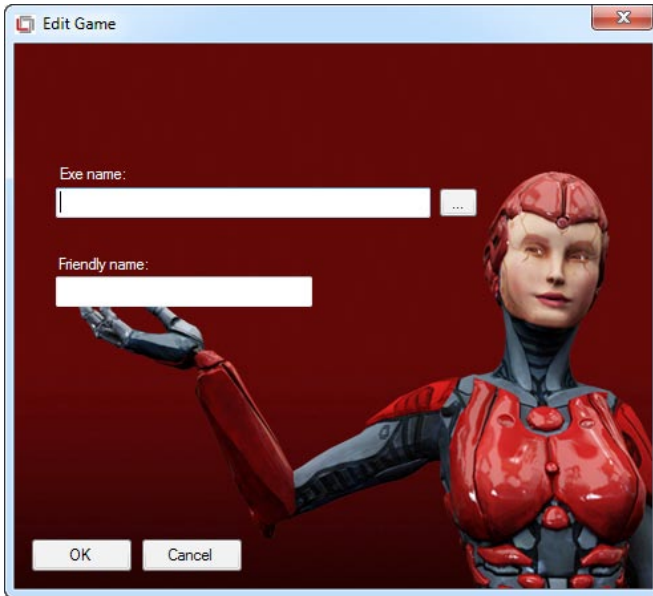
This screen shows the applications that VIRTU supports with the available graphics cards. The application list is changed according to the graphics cards available in the system and the current configuration.

VIRTU allows users to add new applications using the "Add", "Edit" and "Remove" buttons. We cannot guarantee the functionality and performance of applications that were not part of the application list provided with the product.

Important

Adding and editing of the applications list is disabled in evaluation versions of the product.

When selecting the “Add” option, the following window is displayed:



Place the desired application full “exe” file path in the “exe name” box. Clicking on the “...” button next to the “exe name” box allows using a standard Windows browser to find the location of the desired application “exe” file.

The “Friendly name” box allows the user to give the desired application a name that best describes the application. This is a free text box.

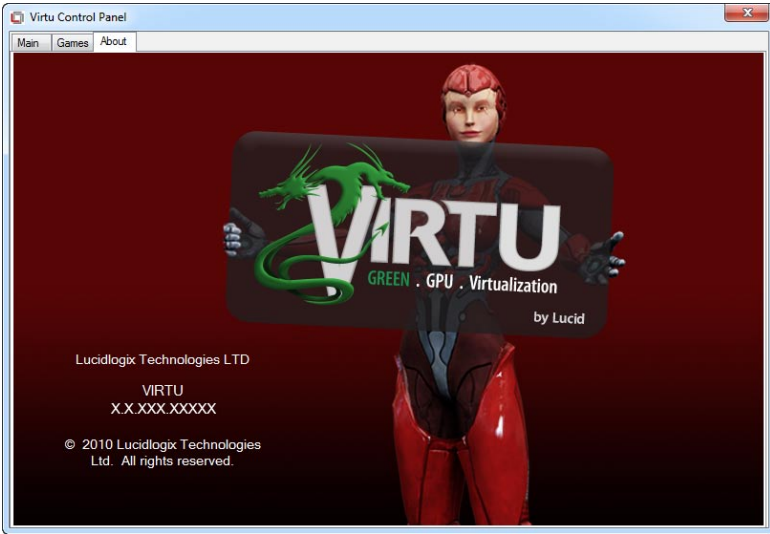
Press “OK” after filling the required information. This will automatically add an application to the supported game list. Once the desired application will activate, VIRTU will be applied to this application.

Important

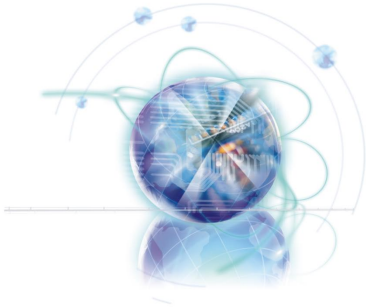
Adding manually an application that was not originally part of the game list means that the application did not pass tests. We cannot guarantee the functionality and performance of applications that were not part of the application list provided with the driver.

About Tab

If the "About" tab is selected, the following screen is displayed:



This screen provides VIRTU version installed.



Virtu Universal MVP

Lucid VIRTU Universal MVP solution is designed for the platforms with one integrated and one discrete GPU. VIRTU Universal MVP dynamically assigns tasks to best available graphics resource based on power, performance and features. There is no need for HW or HW changes. VIRTU Universal MVP allows user to fully utilize the capabilities of both integrated and discrete GPUs

When no high end graphics is used and display is connected to integrated GPU, the discrete GPU is put in idle mode thus GPU utilization, heat, fan speed and power are down to near zero, turning the system to an environment friendly platform.

Advanced performance improvement features of VIRTU Universal MVP, Virtual Vsync and HyperFormance provide the uncompromised image quality and game responsiveness performance gain.

System Requirement

In order to run the Lucid VIRTU Universal MVP, the following hardware and software is required

Hardware specifications:

- MSI mainboard supports VIRTU Universal MVP
- Any Intel CPU with integrated graphics support
- Any NVIDIA/ AMD GPU with DX9/ DX10/ DX11 support
- At least 2GB memory

Software specifications:

- Windows 7 32bit/ 64bit
- DirectX 9/ 10/ 10.1/ 11
- Intel/ NVIDIA/ AMD GPU drivers

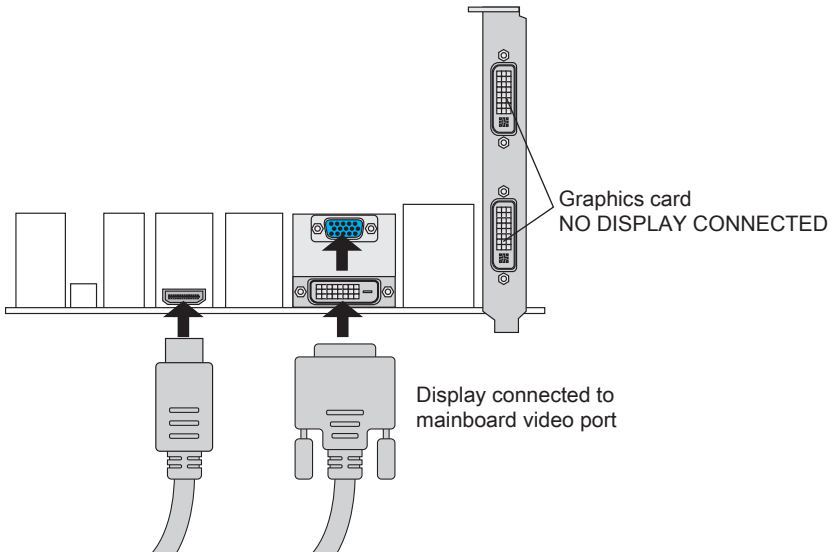
i-Mode

i-Mode provides user with near zero performance overhead on 3D graphics games, Virtual VSync and Hyperperformance features, integrated GPU special features and power saving options when no 3D gaming is used.

Important

GPU vendor specific multi GPU acceleration features such as SLI and CrossFire are not available in i-Mode due to GPU vendor limitations.

To use Lucid VIRTU in i-Mode, display must be always connected to mainboard video output as shown below.



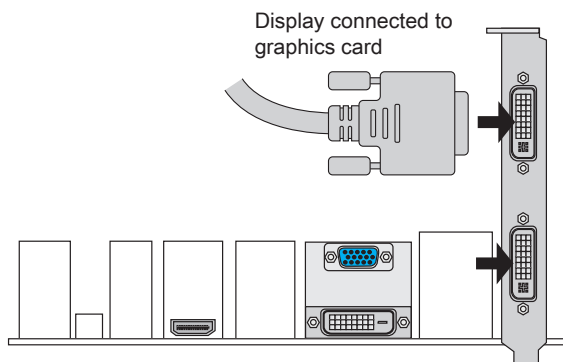
d-Mode

d-Mode is provided for demanding 3D gamers to achieve uncompromised 3D performance of discrete GPU installed in the system, along with Virtual VSync and Hyperformance quality/ performance improvement features. In this mode, Virtu Universal MVP allows user to utilize integrated GPU special features such as transcoding, while display is connected to discrete GPU.

Important

- In d-Mode SLI and CrossFire are available. Media features can be virtualized by VIRTU Universal MVP to integrated GPU.
- Virtual Vsync and Hyperformance features are not available when SLI or CrossFire is enabled.

To use Lucid VIRTU Universal MVP solution in d-Mode, display must be connected to discrete GPU installed in the system as shown below.

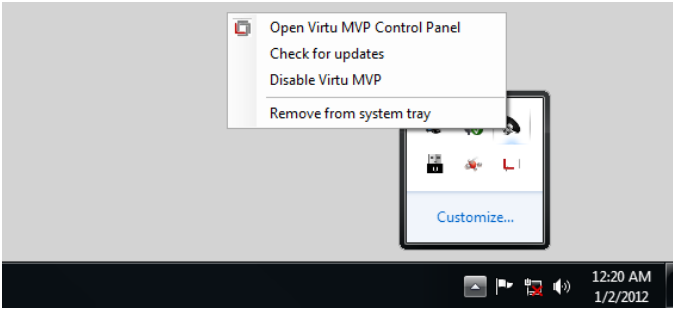


Installing VIRTU

- In BIOS → SETTINGS → Integrated Graphics Devices Configuration → IGD Multi-Monitor, the IGD Multi-Monitor must be set to Enabled.
- Intel/ NVIDIA/ AMD GPU drivers must be installed prior to Lucid VIRTU Universal MVP installation.
- Install Lucid VIRTU Universal MVP from MSI Driver DVD setup screen → Driver → OTHERS. You can also find setup.exe and double-click it to install. The full path on the DVD is \\OtherDriver\Lucid VIRTU Universal MVP.
- GPU drivers and Lucid VIRTU should be installed before running any graphic application.
- It is recommended to restart the system after every driver installation.

VIRTU Operation

Once installed, the Lucid logo shows on system tray (the right bottom corner of the screen). Mouse right click at the icon, will display the following screen.

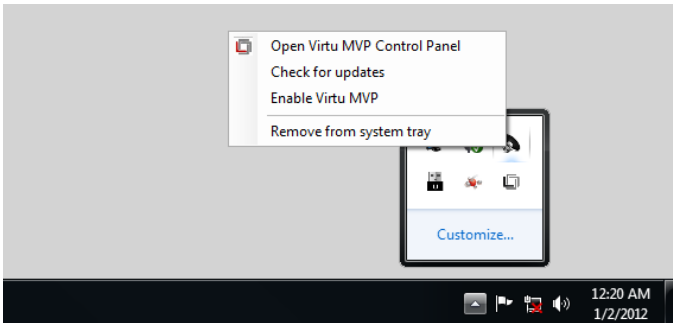


- Clicking on the “Open Virtu MVP Control Panel” option will open a new window with VIRTU Universal MVP control panel.
- Clicking on the “Check for updates” option will check for new updates.
- Clicking on the “Disable Virtu MVP” option, allows the user to stop VIRTU Universal MVP function.
- Invisible or grey logo means VIRTU Universal MVP is not activated.

In case no logo is shown on the system tray, it is possible to activate the driver and the control panel manually by using the following instructions:

1. Click Start → Programs → VIRTU Universal MVP.
2. Right-click on “Virtu MVP Control Panel”.

In case logo icon is grey, right-click while pointing at the logo to get the following screen:



Clicking on the “Enable Virtu MVP” option, will activate the VIRTU Universal MVP.

VIRTU Universal MVP Control Panel

Main Tab

When activating the VIRTU control panel, the following window is displayed:



► Activate button

By pressing a big “On” button VIRTU Universal MVP solution is activated. If “**Show in System Tray**” is selected, a small control panel icon will be displayed on the system tray together with the rest of the current running applications.

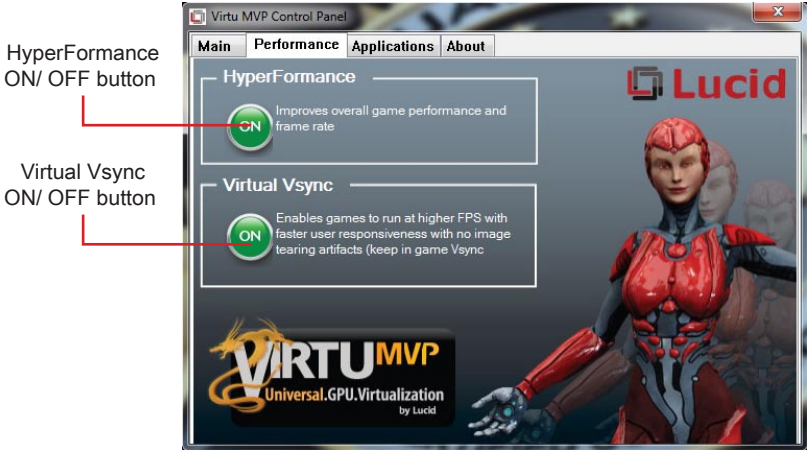
► In-Game Icon selection

In-Game Icon selection is used to enable/disable in game VIRTU logo indication. The following options are available:

- **Show** - The logo will be constantly displayed in the selected corner of the screen.
- **Show for a few seconds** - The logo will be shown for a few second and then will disappear.
- **Hide** - No logo will be shown.
- **Chose a Corner** - is a control to select a corner of the screen in which VIRTU Universal MVP logo will be displayed.

Performance Tab

If Performance tab is selected, the following screen is displayed:



This screen controls the unique VIRTU Universal MVP performance and visual quality optimization features.

By toggling On/Off buttons on HyperFormance and Virtual Vsync features, these features can be enabled/disabled for all games.

► HyperFormance

When enabled, improves overall game responsiveness performance and observed frame rate.

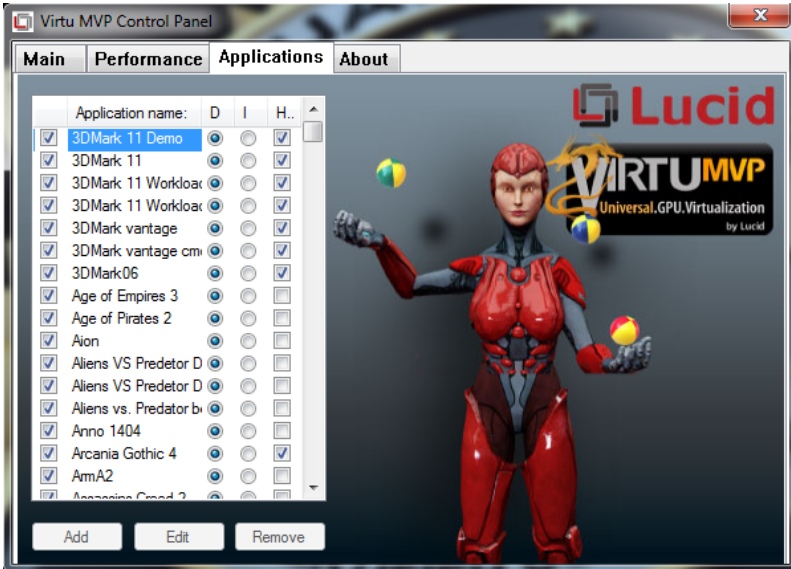
► Virtual Vsync

Enables games to run at high FPS with fast user responsiveness while eliminating no image tearing artifacts. You must keep in game Vsync option enabled to enjoy this feature standalone.

Both features work well together, providing uncompromised visual quality together with extra performance and game responsiveness.

Games Tab

If the Games tab is selected, the following screen is displayed:



This screen shows the applications that VIRTU Universal MVP supports with the available graphic cards.

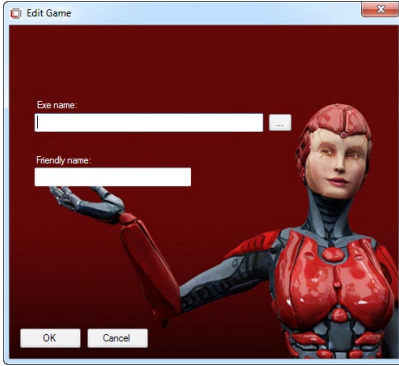
- "D" column selected means application will use discrete GPU when running, regardless of physical display cables connection. Good for 3D extensive applications.
- "I" column selected means application will use integrated GPU when running, regardless of physical display cables connection. Good for Media extensive applications
- "H" column checked means application will use "HyperFormance" feature when HyperFormance enabled in "Performance" tab

VIRTU allows users to add new applications using the "Add", "Edit" and "Remove" buttons. We cannot guarantee the functionality and performance of applications that were not part of the application list provided with the product.

Important

- *Not all application can are currently qualified to use HyperFormance feature. Unqualified application may experience some issues.*
- *Adding and editing of the applications list is disabled in evaluation versions of the product.*

When selecting the “Add” option, the following window is displayed:



Place the desired application full “exe” file path in the “exe name” box. Clicking on the “...” button next to the “exe name” box allows using a standard Windows browser to find the location of the desired application “exe” file.

The “Friendly name” box allows the user to give the desired application a name that best describes the application. This is a free text box.

Press “OK” after filling the required information. This will automatically add an application to the supported game list. Once the desired application will activate,

VIRTU Universal MVP will be applied to this application.

Important

Adding manually an application that was not originally part of the game list means that the application did not pass tests. We cannot guarantee the functionality and performance of applications that were not part of the application list provided with the driver.

About Tab

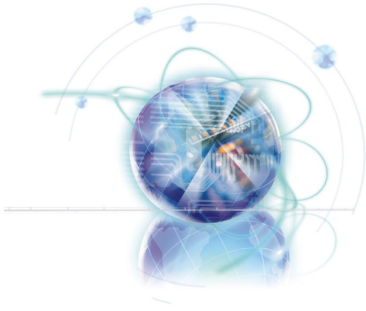
If the “About” tab is selected, the following screen is displayed:



This screen provides License Status and VIRTU Universal MVP version installed.

Important

VIRTU Universal MVP will try to activate itself through internet. If for some reason auto-activation process fails, or internet is not available for 30 days, you will have to manually activate VIRTU Universal MVP by pressing “Activate” button.



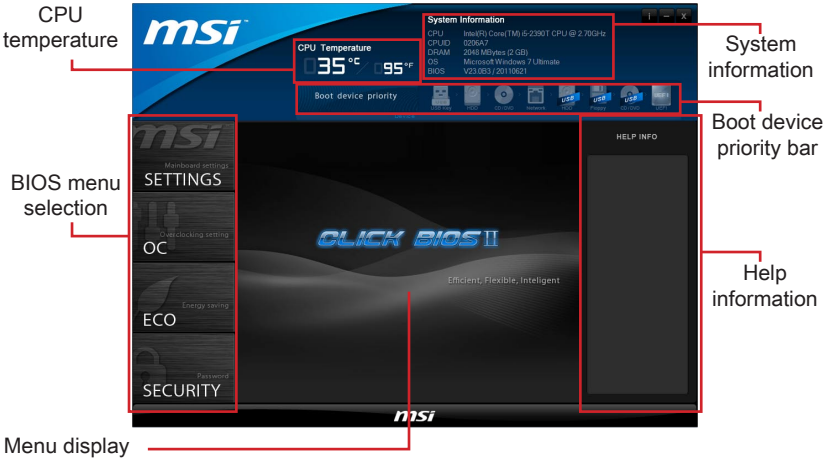
CLICK BIOS II

CLICK BIOS II is a new application software that provides a interface for setting parameters of BIOS from Windows operating system without the need to reboot and enter BIOS utility.

With the CLICK BIOS II, users can change BIOS settings, monitor CPU temperature, select the boot device priority and view system information such as the CPU name, DRAM capacity, the OS version and the BIOS version. Users can import and export parameters data for backup or sharing with friends.

CLICK BIOS II Overview

After installing and activating CLICK BIOS II, the following window is displayed.



Important

- If the BIOS is password protected, you will not be able to enter CLICK BIOS II and change the BIOS settings.
- The pictures in this guide are for reference only and may vary from the product you purchased. Please refer to the actual screens of your system for detailed information.

▶ CPU temperature

This block shows the temperature of the processor.

▶ System information

This block shows the CPU name, CPUID, DRAM capacity, the OS version and the BIOS version.

▶ BIOS menu selection

This block is used to select menus of BIOS. The following options are available:

- **SETTINGS** - Use this menu to specify your settings for chipset features, boot device. In this menu you can also control the M-Flash function.
- **OC** - This menu contains items on the frequency and voltage adjustments. Increasing the frequency can get better performance, however high frequency and heat can cause instability, we do not recommend general users to overclock.
- **ECO** - This menu is related to energy-saving settings.
- **SECURITY** - You can use these security features to protect your system.

► Boot device priority bar

You can move the device icons to change the boot priority.

► Help information

When you select a BIOS item, this window will provide you related information.









► Menu display

This area provides BIOS setting menu that allows you to change parameters.

BIOS Menu Operation

CLICK BIOS II allows you to set options on four BIOS menus include SETTINGS, OC (overclocking), ECO and SECURITY.



- Clicking on    , BIOS menus will be displayed in the middle of the window. Some menus have tab selection buttons on the top.
- Double clicking on BIOS items will enter the option window that allows you to select parameters.
- An arrow symbol appears to the left of certain fields that means it contains a sub-menu.
- Clicking the Import button  allows you to import parameters data from a file.
- Clicking the Export button  allows you to export parameters data and store in a file.
- Clicking the Default button  allows you to load the optimized default values.
- Clicking the Apply button  CLICK BIOS II will save changes and prompt for restart the system.

Changing Boot Priority

Boot priority specifies the order in which the computer searches for a bootable operating system. You can set your system to boot from devices in order. The computer will sequentially check the bootable device and load the operating system from the first one it finds.

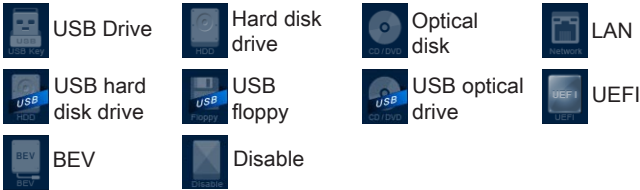
Your mainboard can boot from devices include HDDs, USB drives, CD/DVD drives, Network devices, UEFI and BEV. CLICK BIOS II offers alternate boot devices allow you to specify the boot device priority by two methods:

► From the Boot device priority bar



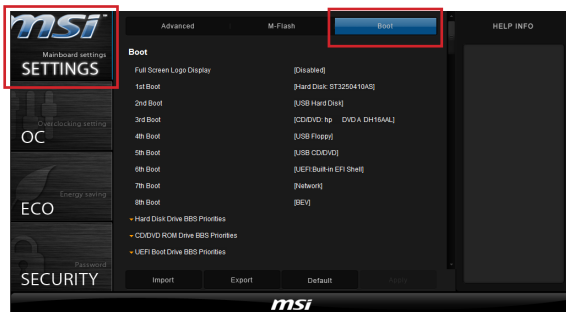
This bar shows the priority of the boot devices. The light icons indicate that the devices are available. Click and draw the icon to left or right to specify the boot priority.

■ Boot device icon list



► From the Boot menu

Enter the Boot menu by clicking the “Boot” tab button on the “SETTINGS” BIOS menu.



In the Boot menu, you can choose from 1st to 9th boot device priority. In addition, you can specify Hard Disk Drive/ Network Device/ CD/DVD ROM Drive/ BEV Device BBS Priorities (you may need to scroll down to find them).