

USB DISPLAY ADAPTER

USER MANUAL

CONTENTS

INTRODUCTION	3
FEATURES	3
SYSTEM REQUIREMENTS	3
NOTE	4
SUPPORTED COMMON DISPLAY RESOLUTION:	4
TECHNICAL SPECIFICATIONS:	5
PACKAGE CONTENTS	5
INSTALLATION ON WINDOWS XP/VISTA	6
DEVICE DRIVER INSTALLATION	6
VERIFYING DEVICE DRIVER INSTALLATION (WINDOWS XP/ VISTA) ... 10	
DEVICE DRIVER UN-INSTALLATION	12
INSTALLATION ON WINDOWS 7	13
DEVICE DRIVER INSTALLATION	13
VERIFYING DEVICE DRIVER INSTALLATION (WINDOWS 7)	17
DEVICE DRIVER UN-INSTALLATION	19
FUNCTION DESCRIPTION	20
ACCESS USB DISPLAY ADAPTER UTILITY	20
DISPLAY ID – Smart Display Device ID Detection	20
DISPLAY RESOLUTION – Fast Access to Display Resolution Setting.....	21
DISPLAY ROTATION	21
DISPLAY MODES	21
IDENTIFY MONITORS	23
MULTI-DISPLAY CONTROL PANEL	23
DISPLAY SETTINGS	23
INSTALLATION ON MAC SNOW LEOPARD	24
DEVICE DRIVER INSTALLATION	24
FUNCTION INSTRUCTION (MAC SNOW LEOPARD)	28
DISPLAY ARRANGEMENT	28
Windows Arrangement	30
DEVICE DRIVER UN-INSTALLATION	32
Q&A	33
TROUBLESHOOTING TIPS	34
Known Issues	34
General Recommendation	34
Media Playback	34
Others	35
REGULATORY COMPLIANCE	36

INTRODUCTION

Thank you for purchased the USB DISPLAY ADAPTER. The USB DISPLAY ADAPTER works as an external video card which allow adding an additional display instantly without hassle of open the computer chassis to install the internal graphics card. The connected display can act as mirrored or extended desktop of the main display on your computer, and to support the resolution up to 1920 x 1200. It provides low latency connection, simply “Plug-n-Play” between your computer and 2nd monitor or projector, you will be able to create a new visual environment in a few seconds.

FEATURES

- ◆ USB 2.0 compliant
- ◆ Support display resolution up to 1920 x 1200 / 1920 x 1080 @32bit
- ◆ Support 720P Video Playback
- ◆ Plug-and-Play USB connectivity
- ◆ Support multi-display extension of one computer system
(Allows for up to six adapters in Windows OS and four adapters in Mac OS)
- ◆ Support Function
 - Display Modes: Primary, Extended, Mirror
 - Display Rotation: 0°, 90°, 180°, 270°
- ◆ Friendly software
 - Identify Monitors
 - Multi-Display Control Panel
 - Shortcut to access Windows Display Setting dialog

SYSTEM REQUIREMENTS

- ◆ Available USB 2.0 port
 - ◆ Minimum Requirement to use one (1) USB Display Adapter:
 - CPU: Intel/AMD Single Core 1.5GHz processor
 - RAM: 512MB memory or higher
 - ◆ 2~3 Displays:
 - CPU: Intel /AMD Single Core 1.8GHz or higher processor
 - RAM: 1GB memory or higher
 - ◆ 4~6 Displays:
 - CPU: Intel/AMD Dual Core 2.0GHz or higher processor
 - RAM: 2GB memory or higher
 - ◆ Playing DVD on the extending display (720P Video playback)
 - One display: CPU: 1.8GHz processor & 1GB memory
 - Multi-display: Dual Core processor with 2GHz or higher
- *Higher processor recommend for multi-displays and optimal performance.
- ◆ Windows XP/ Windows Vista/ Windows 7 (32-bit or 64-bit)
 - ◆ Mac Snow Leopard

NOTE

- ◆ Unplug the USB Display Adapter before executing the Setup or un-installation programs.
- ◆ Connect the external display device (monitor/projector) to the VGA/DVI connector of USB Display Adapter before connecting to USB port of computer.
- ◆ AC power adapter is required for external USB Hub while multiple display adapters are connecting.
- ◆ System reboot is required for the multiple display adapters installing.

SUPPORTED COMMON DISPLAY RESOLUTION:

Aspect Ratio	Resolution	Color Bits
16:10	1920 * 1200	16, 32
	1680 * 1050	16, 32
	1440 * 900	16, 32
	1280 * 800	16, 32
16:9	1920 * 1080	16, 32
	1600 * 900	16, 32
	1360 * 768	16, 32
	1280 * 720	16, 32
5:4	1280 * 1024	16, 32
15:9	1280 * 768	16, 32
4:3	1600 * 1200	16, 32
	1400 * 1050	16, 32
	1280 * 960	16, 32
	1152 * 864	16, 32
	1024 * 768	16, 32
	800 * 600	16, 32

- ◆ **Monitor refresh frequency**
- Supports 60 Hz, 75 Hz

TECHNICAL SPECIFICATIONS:

Operating System	Windows XP SP3/ Vista/ 7 (32bit &64bit) Mac Snow Leopard
Host Interface	USB 2.0 A type connector Length: 50±50cm soldered PCBA
Video Output Connector	DB- 15pin (female) – Model: USB-VGA DVI-I (female) – Model: USB-DVI
Case Material	ABS
Power Source	Bus Powered
Regulatory Compliances	CE, FCC, VCCI and C-Tick RoHS compliant
Environmental Specification	Operating Temperature: -10~55°C Storage Temperature: -25~75°C Humidity: < 95% non-condensing

PACKAGE CONTENTS

- ◆ USB DISPLAY ADAPTER * 1
- ◆ Driver / Manual CD * 1
- ◆ Quick Installation Guide * 1

INSTALLATION ON WINDOWS XP/VISTA

DEVICE DRIVER INSTALLATION

Installing the device driver enables your computer's operating system to recognize the **USB DISPLAY ADAPTER** once it's connected. Please check your operating system and refer to the appropriate installation procedure to begin installing the device driver.

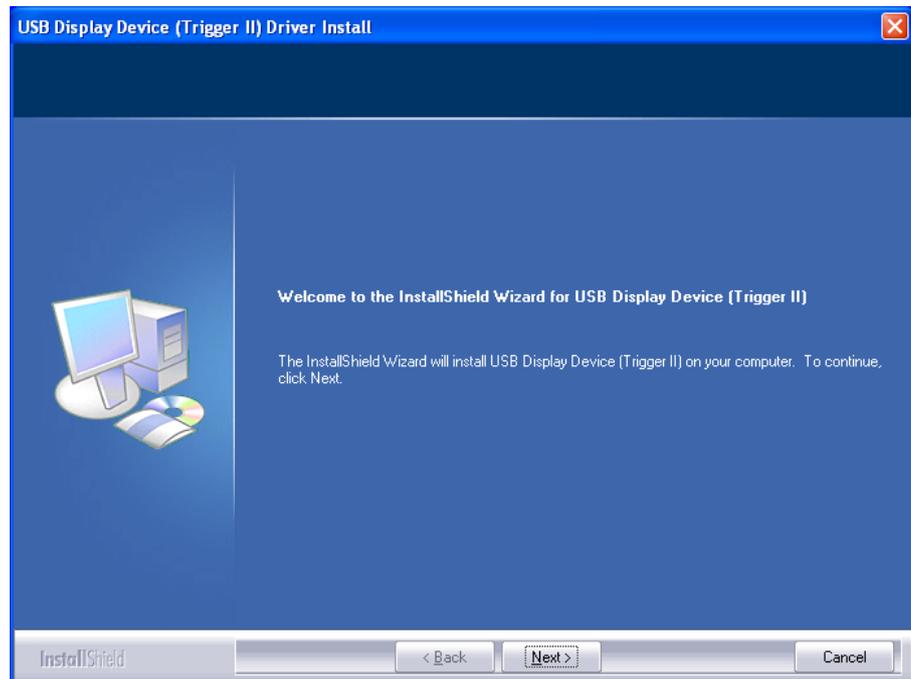
This section illustrates the simple device driver installation procedure for computer running Windows XP operating system. Please make sure the **USB DISPLAY ADAPTER** is **unplugged** from your PC or Notebook before executing the setup program.

Step 1.

Insert the Driver CD into the CD-ROM drive; the setup program should be launched automatically. If setup program does not begin automatically, click Start, Run and double click "**D:\Setup.exe**" (where D: is the path of your CD-ROM drive).

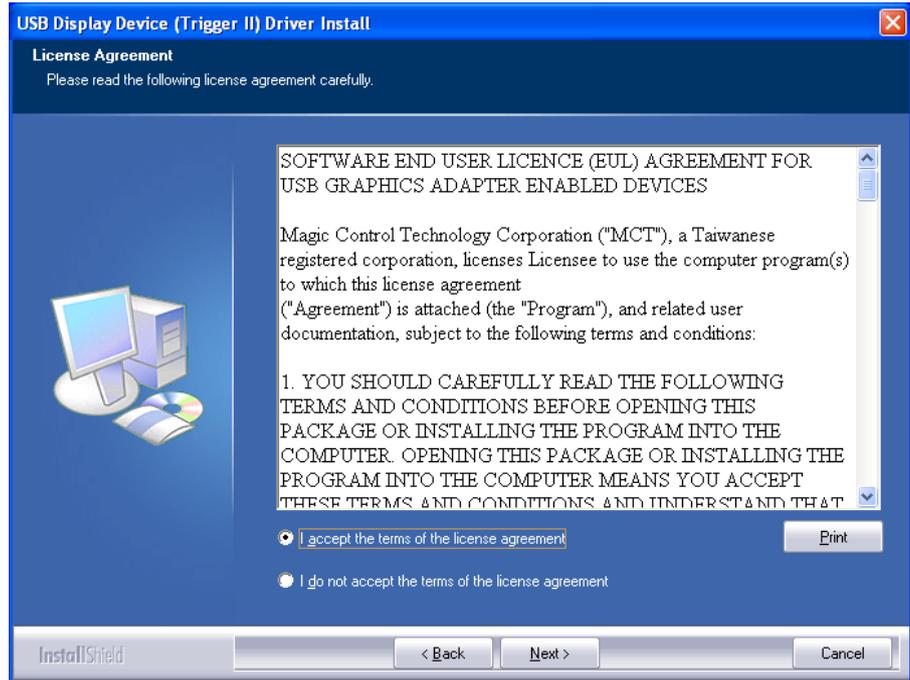
Step 2.

Driver Installation Wizard, click "**Next**" to continue.



Step 3.

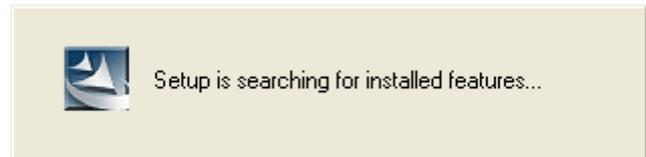
License Agreement; please read it and select **“I accept the terms of the license agreement.”** Click **“Next”** to accept the License Agreement.



Step 4.

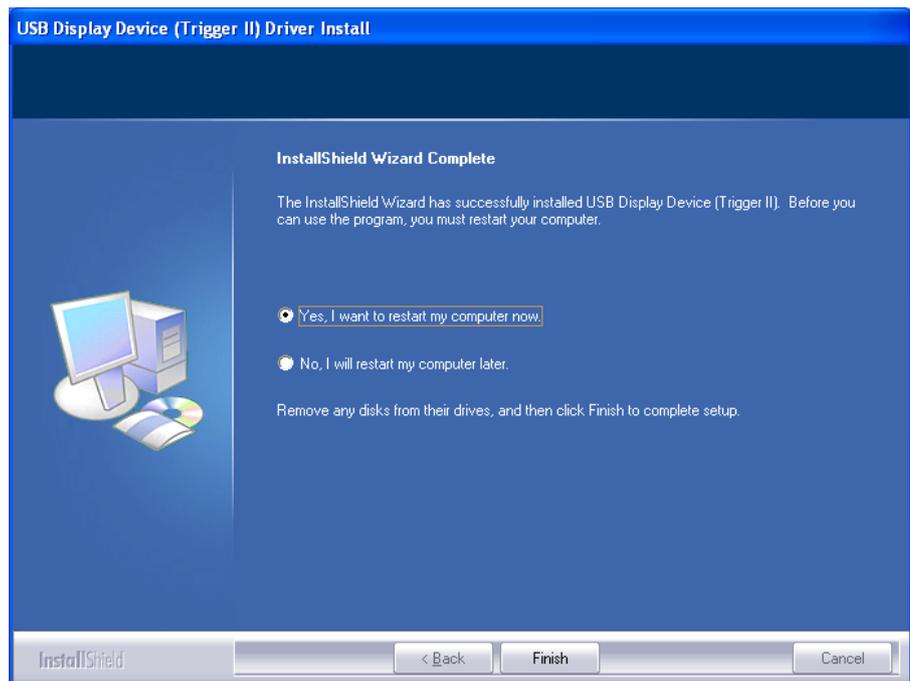
Setup is searching for installed features.....

**You may notice the screen flashes during hardware installation. It is part of the normal process.*



Step 5.

Please select **“Yes, I want to restart my computer now”** and click **“Finish”** to complete the software installation.



Step 6. (After System Reboot)

Please connect the external display device (monitor/projector) to the VGA/DVI connector of **USB DISPLAY ADAPTER** and turn on the display device.

Then plug the **USB DISPLAY ADAPTER** into an available USB 2.0 port of your PC or Notebook. The driver will begin to setup automatically.

After the driver is configured, you could see an icon  on the lower right taskbar, and the extended display will be shown on the attached display device.

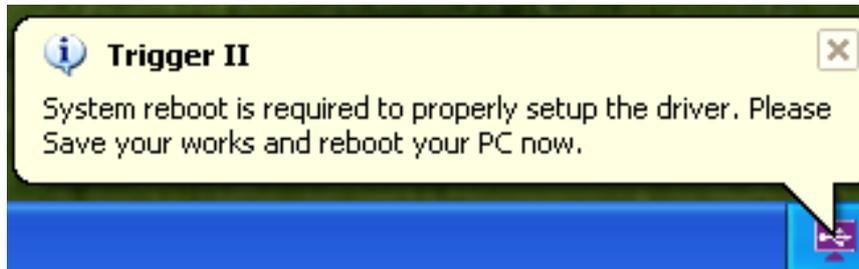
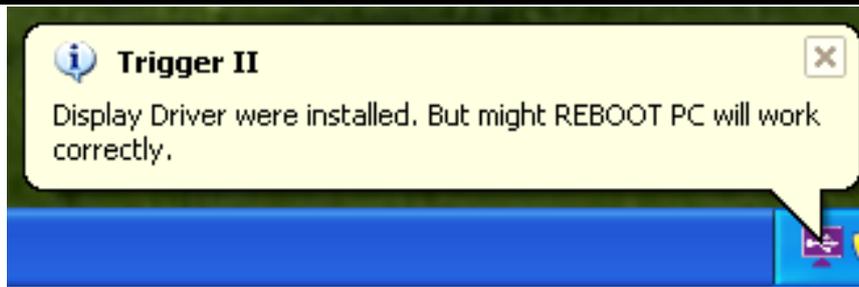
You may begin to use the **USB DISPLAY ADAPTER** with your display device.



Step 7. INSTALLATION OF MULTIPLE USB DISPLAY ADAPTERS

Please plug the additional **USB DISPLAY ADAPTERS** into the available USB 2.0 port of your PC or Notebook. The system will automatically start the installation procedure and will pop-up the notification balloons for each additional.





To make sure the USB Display Adapters worked correctly, please reboot the computer after finished the installation. After reboot the computer, the USB extended display will be shown on the attached display device.

The device is now installed completely and ready to use.

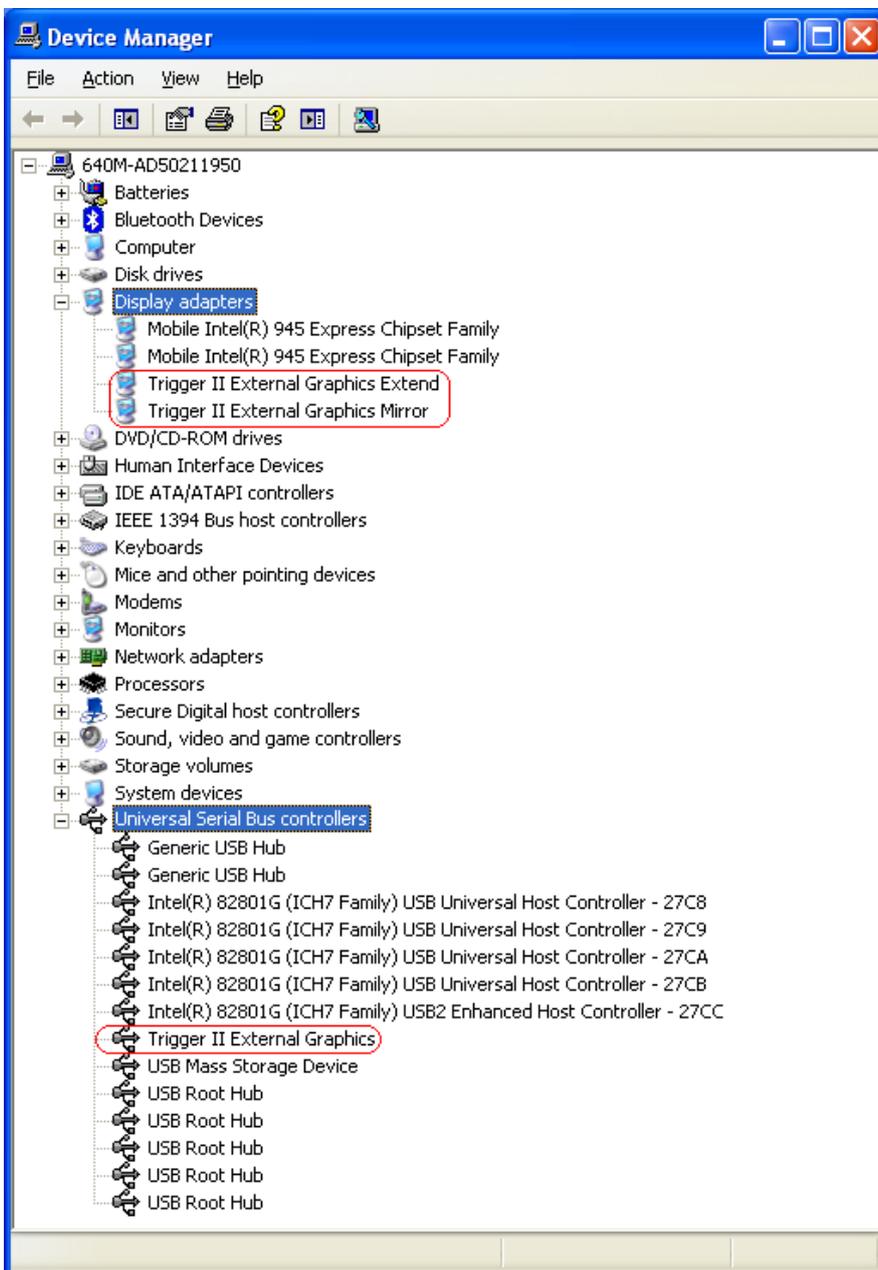
VERIFYING DEVICE DRIVER INSTALLATION (WINDOWS XP/ VISTA)

The following procedure allows you to verify the device driver installation.

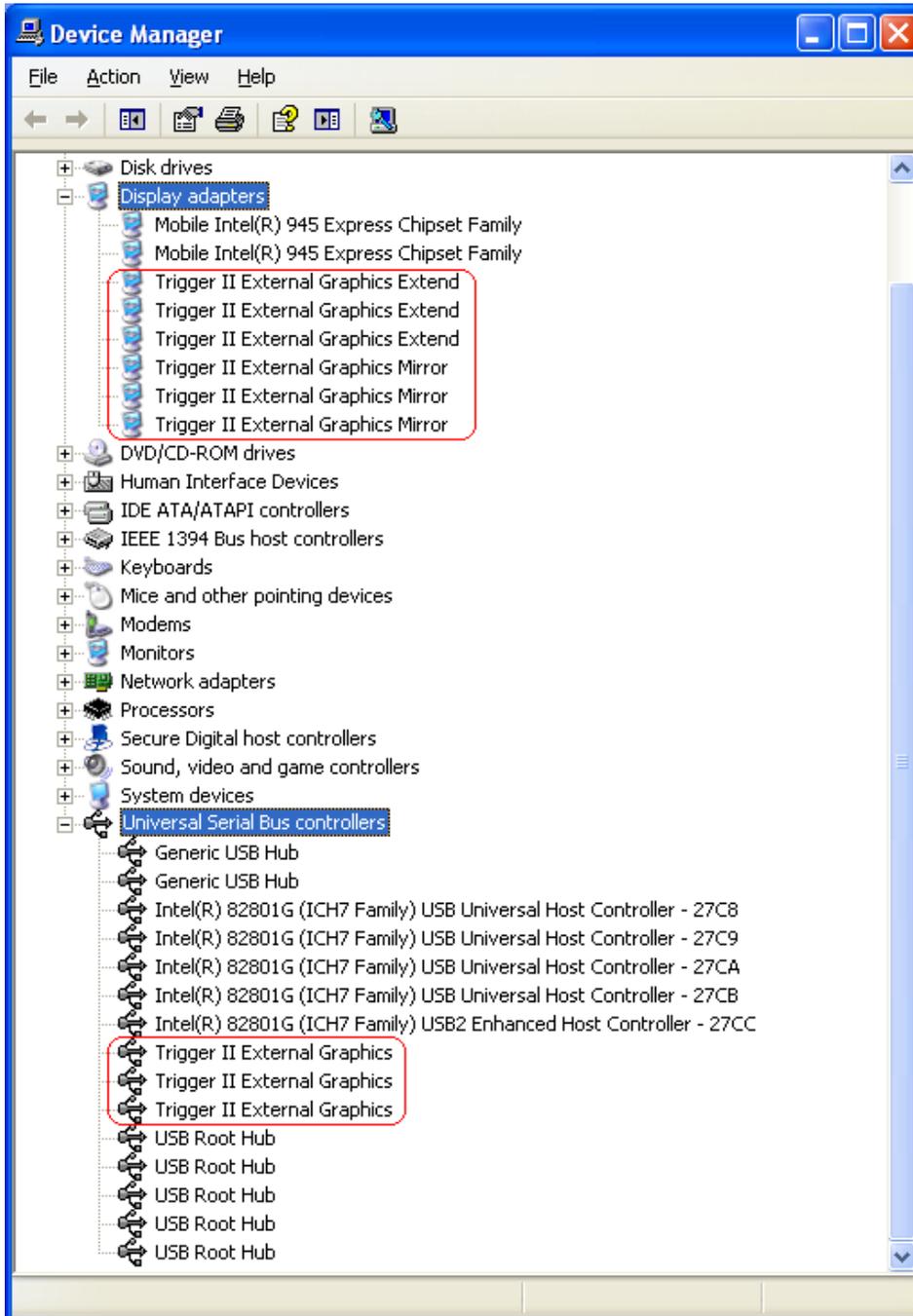
Please right click “**My Computer**” → “**Properties**” → “**Hardware**” → “**Device Manager**”.

Plug-in the **USB DISPLAY ADAPTER**, then double click “**Display adapters**”, and “**Universal Serial Bus controllers**”. Begin verification by make sure highlighted devices were added to the system.

Single USB Display Adapter installation on the computer



Multiple USB Display Adapters installation on the computer



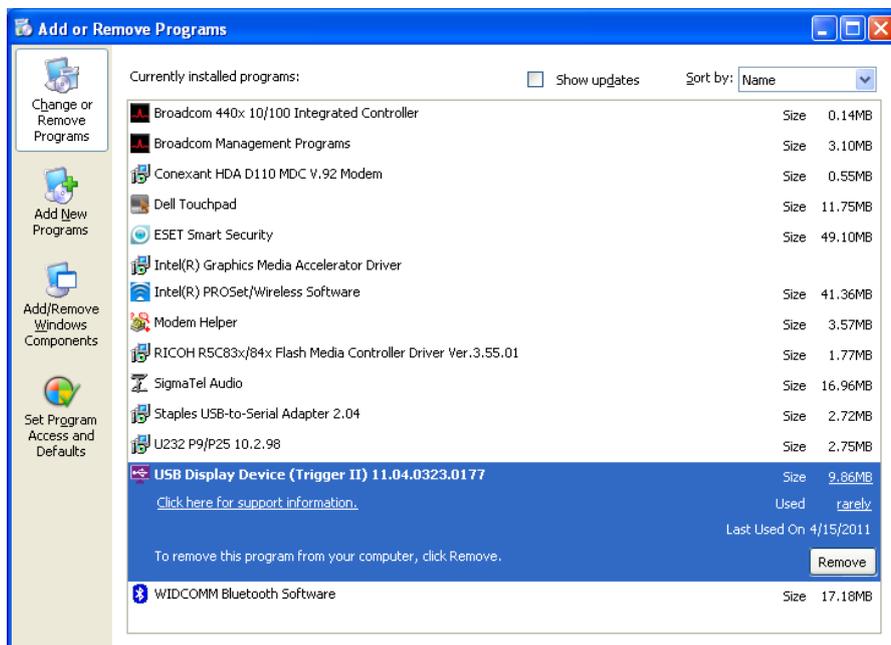
DEVICE DRIVER UN-INSTALLATION

Step 1.

Start menu:

Click “Start” → “Control Panel” → “Add or Remove Programs”

Select “ USB Display Device (Trigger II) 11.xx.xxxx.0177” (driver ver.).
Click “Remove” button.



Step 2.

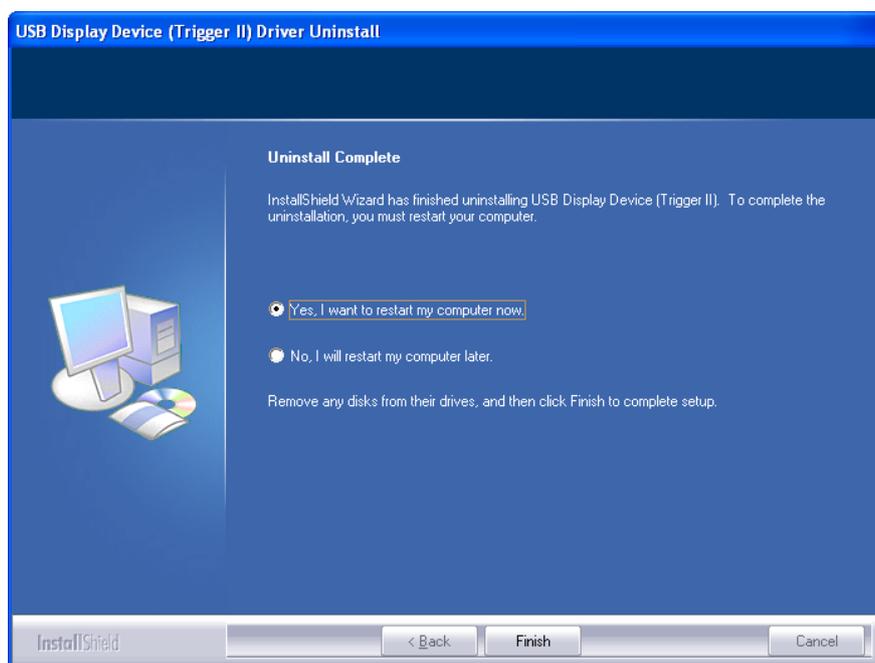
Unplug the **USB DISPLAY ADAPTER** and click “OK” to continue.



Step 3.

Select “Yes, I want to restart my computer now” and click “Finish” to reboot.

After reboot, you will complete the driver un-installation.



INSTALLATION ON WINDOWS 7

DEVICE DRIVER INSTALLATION

Installing the device driver enables your computer's operating system to recognize the **USB DISPLAY ADAPTER** once it's connected. Please check your operating system and refer to the appropriate installation procedure to begin installing the device driver.

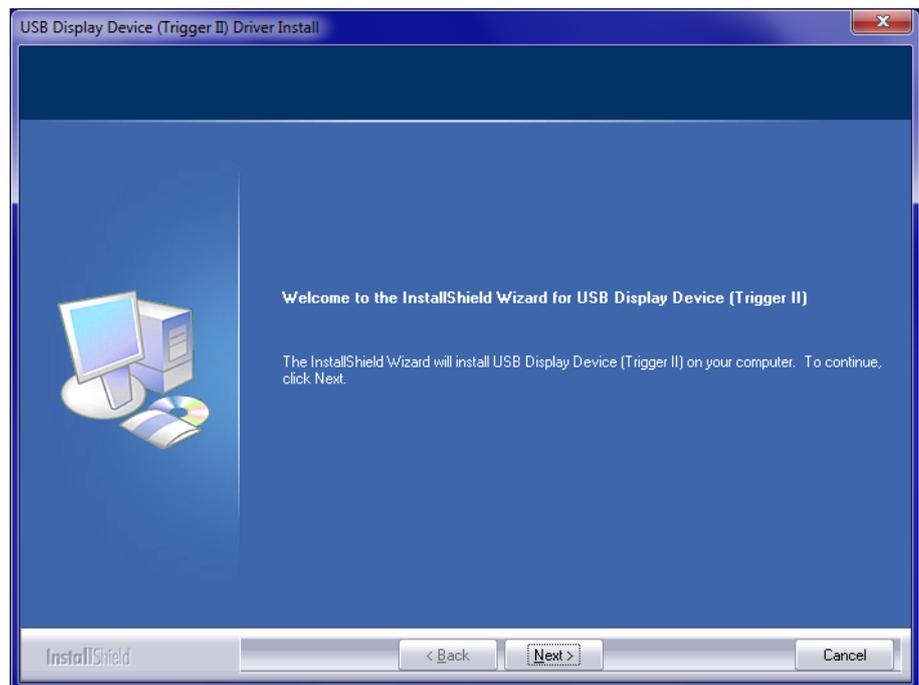
This section illustrates the simple device driver installation procedure for computer running Windows 7 operating system. Please make sure the **USB DISPLAY ADAPTER** is **unplugged** from your PC or Notebook before executing the setup program.

Step 1.

Insert the Driver CD into the CD-ROM drive; the setup program should be launched automatically. If setup program does not begin automatically, click Start, Run and double click "**D:\Setup.exe**" (where D: is the path of your CD-ROM drive).

Step 2.

Driver Installation Wizard, click "**Next**" to continue.



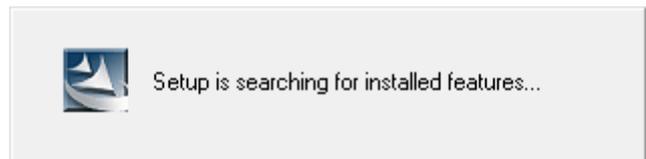
Step 3.

License Agreement; please review it and check **“I accept the terms of the license agreement.”** Click **“Next”** to accept the License Agreement.



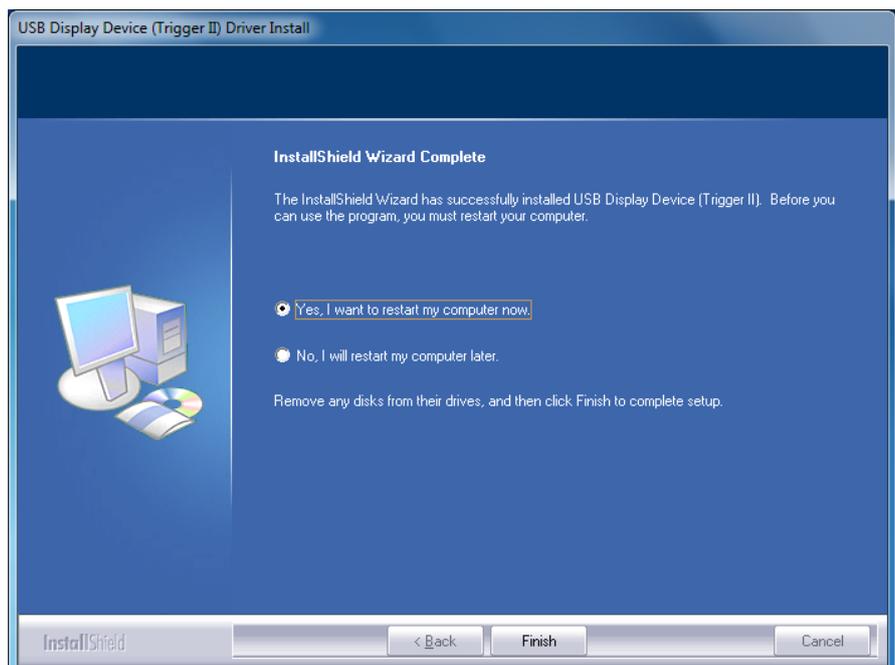
Step 4.

Setup is searching for installed features...
**You may notice the screen flashes during hardware installation. It is part of the normal process.*



Step 5.

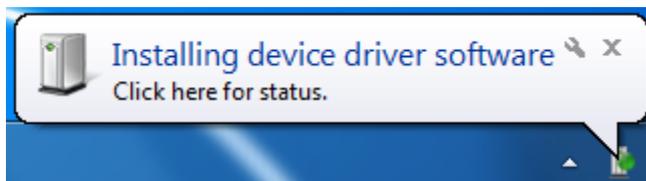
Please select **“Yes, I want to restart my computer now”**. Then, click **“Finish”** to complete the software installation.



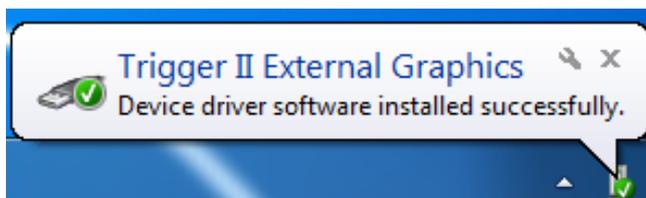
Step 6. (After system reboot)

Please connect the external display device (monitor/projector) to the VGA/DVI connector of **USB DISPLAY ADAPTER** and turn on the display device.

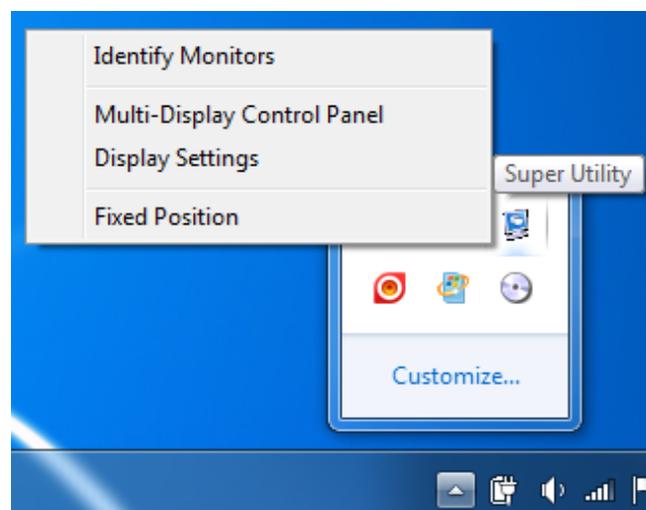
Then plug the **USB DISPLAY ADAPTER** into an available USB 2.0 port of your PC or Notebook. The device driver will begin to setup automatically.



After the driver is configured, you could click "Show hidden icons" and see an icon  on the taskbar.



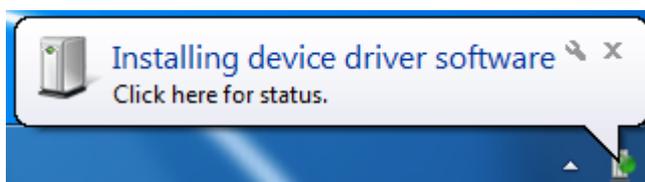
The extended display will be shown on the attached display device. You may begin to use the USB Display Adapter with your display device.



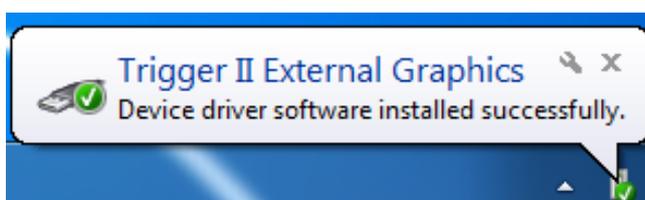
Step 7. INSTALLATION OF MULTIPLE USB DISPLAY ADAPTERS

Please plug the additional **USB DISPLAY ADAPTER** into the available USB 2.0 port of your PC or Notebook.

The system will automatically start the installation procedure and will pop-up the notification balloons on the taskbar for each additional.



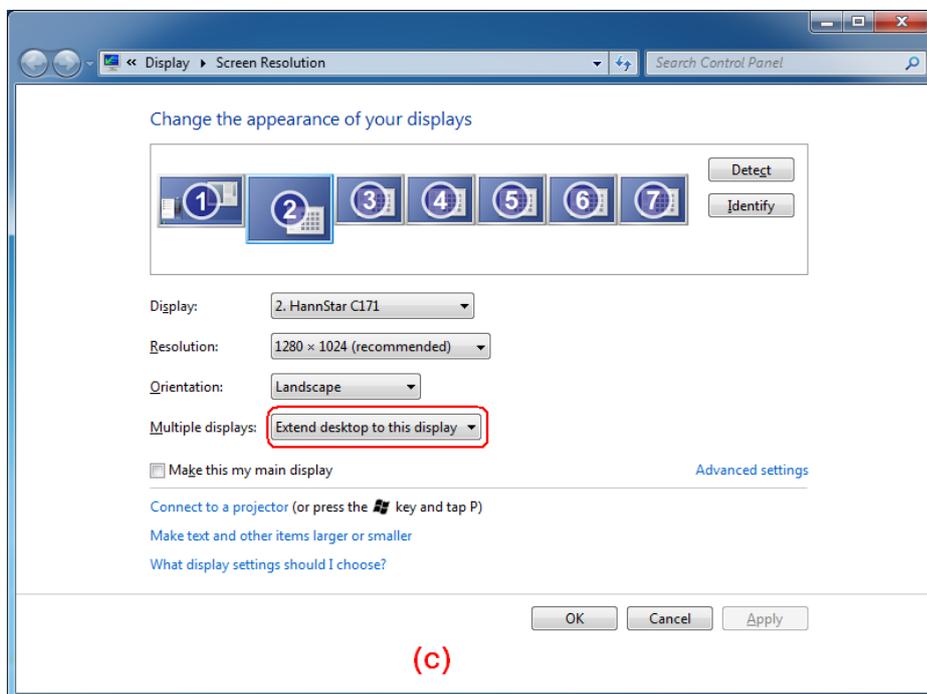
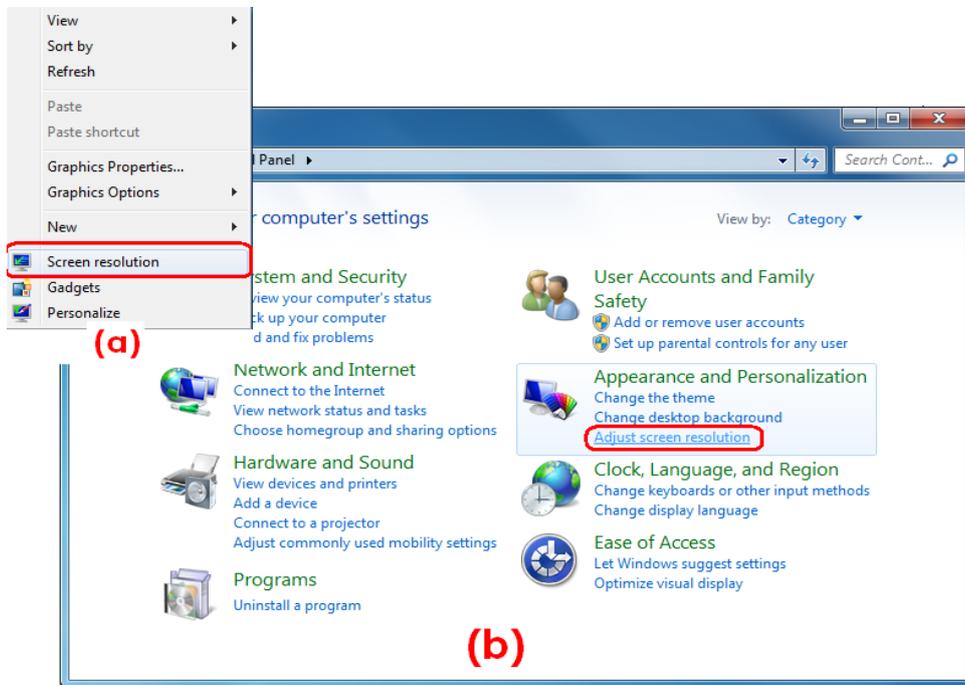
To make sure the USB Display Adapters worked correctly, please reboot the computer after finished the installation.



After reboot the computer, the USB extended display will be shown on the attached display device.

The device is now installed completely and ready to use.

If the extended display come out with the duplicate or blind screen, please right click on the desktop of your system, it will pop up a screen and select “Screen resolution” (a), or go to “START”→ “Control Panel”→ “Appearance and Personalization”→ “Adjust screen resolution” (b). Then, select “Extend these displays” (c) on the Display Property.



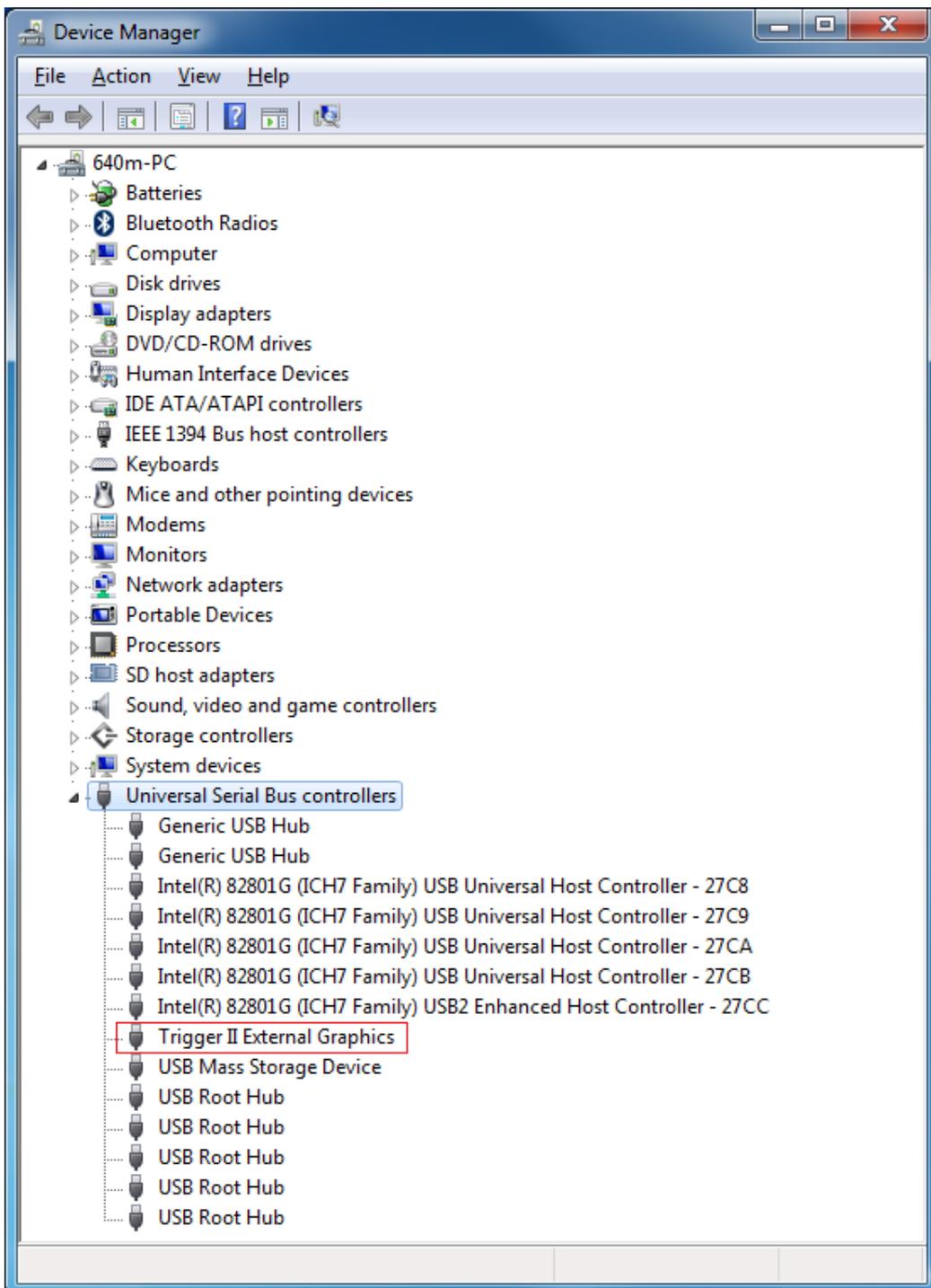
VERIFYING DEVICE DRIVER INSTALLATION (WINDOWS 7)

The following procedure allows you to verify the device driver installation.

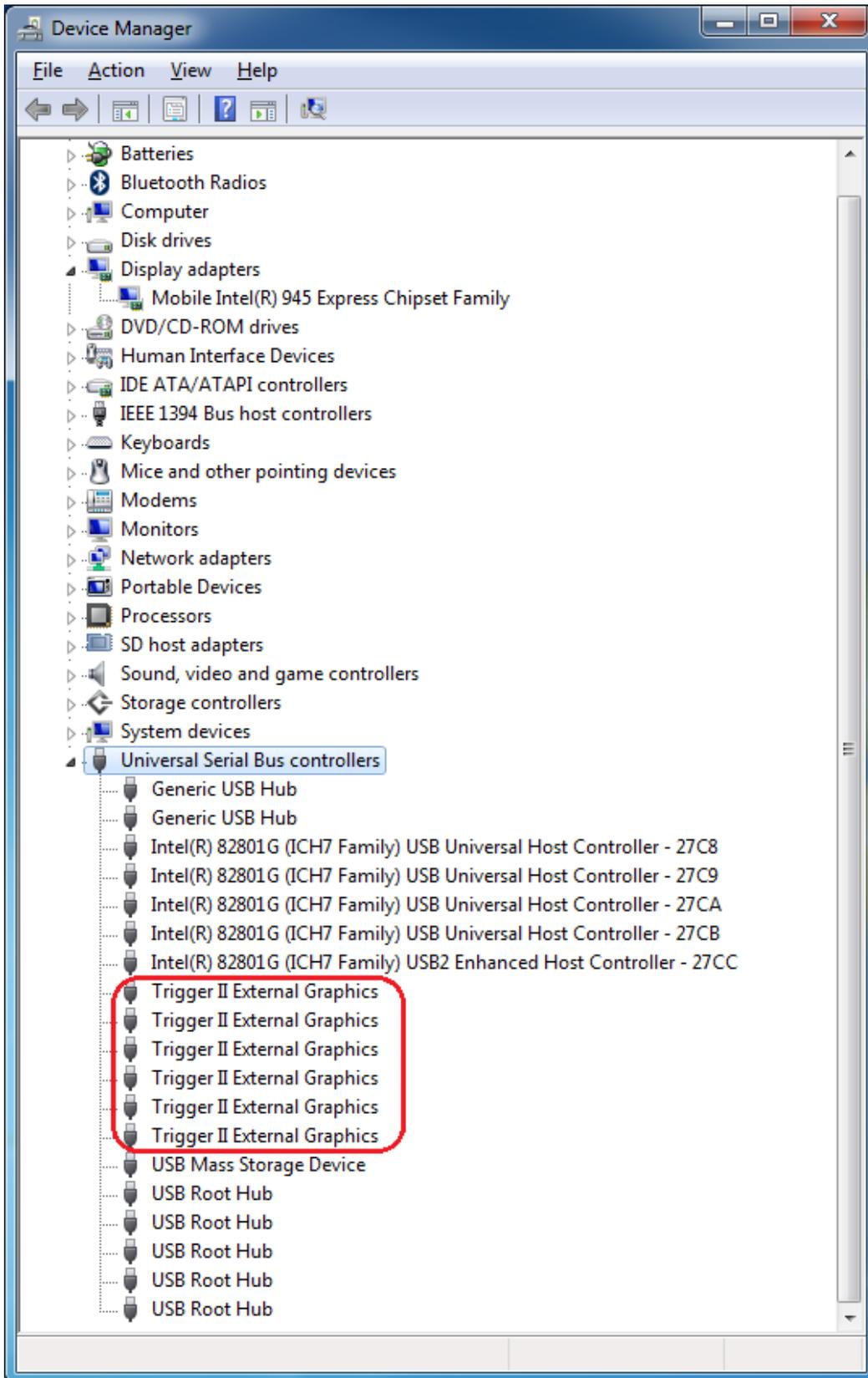
Please right click “**Computer**” → “**Properties**” → “**Device Manager**”.

Plug-in the **USB DISPLAY ADAPTER**, then double click “**Universal Serial Bus controllers**”. Begin verification by make sure highlighted devices were added to the system.

Single USB Display adapter installation on the computer



Multiple USB Display Adapters installation on the computer

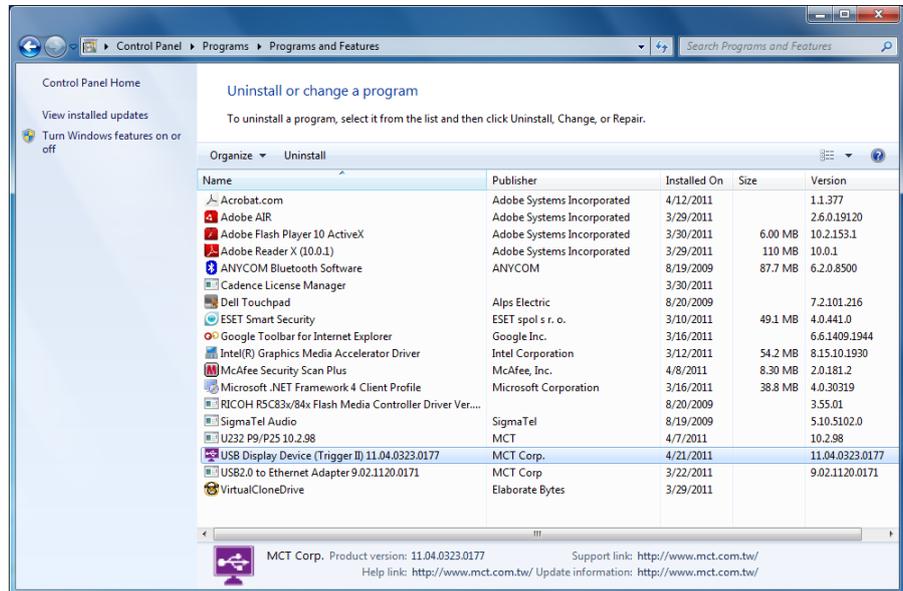


DEVICE DRIVER UN-INSTALLATION

Step 1. Access Program Uninstall:

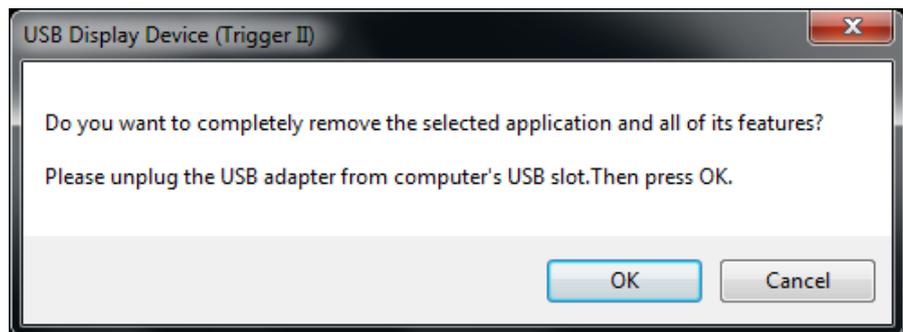
Click “Start” → “Control Panel” → “Programs”. Click “Uninstall a program”

Look for “ USB Display Device (Trigger II) 11.xx.xxxx.0177” (driver ver.) Click “Uninstall” button.



Step 2.

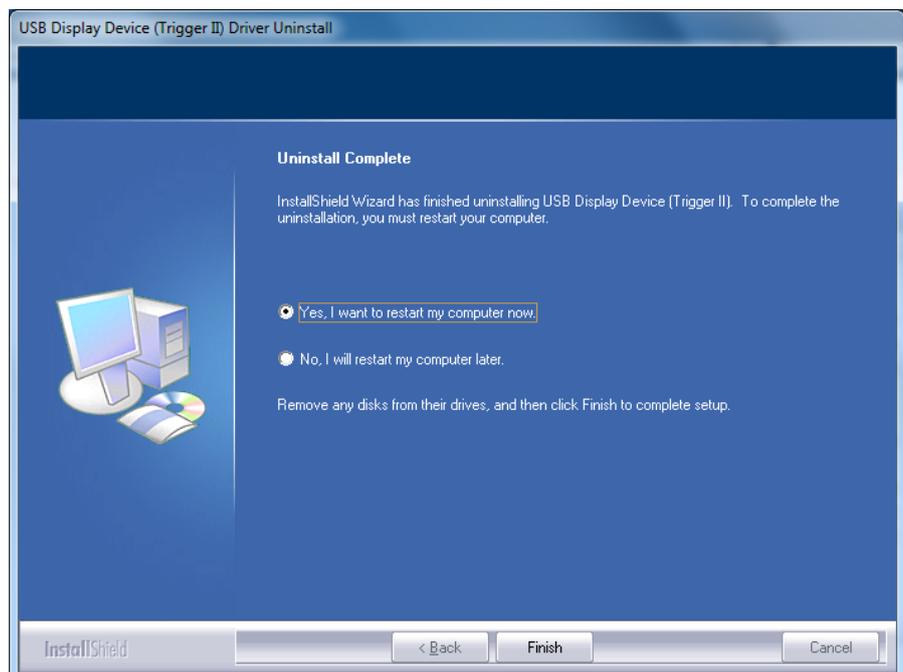
Unplug the **USB DISPLAY ADAPTER** and click “OK” to continue.



Step 3

Select “Yes, I want to restart my computer now” and click “Finish” to reboot.

After reboot, you will complete the driver un-installation.



FUNCTION DESCRIPTION

This section describes several friendly functions provided by the **USB DISPLAY ADAPTER** designed to ease your single or multiple USB display experience. A display device described in this section means devices such as CRT, LCD monitor, TV display, and projector...

ACCESS USB DISPLAY ADAPTER UTILITY

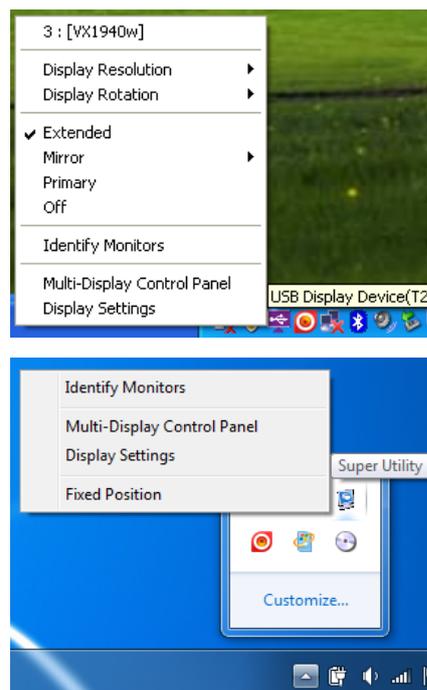
Make sure the USB Display Adapter is attached to the PC.

Look for this icon  on the lower right toolbar on

Windows XP/Vista or an icon  ”Super Utility” under “Shown hidden icons” on Windows 7.

Right-click the icon to access the variety of functions associated to the adapter.

The first view of the utility, you will notice below sections on the top menu.



DISPLAY ID – Smart Display Device ID Detection

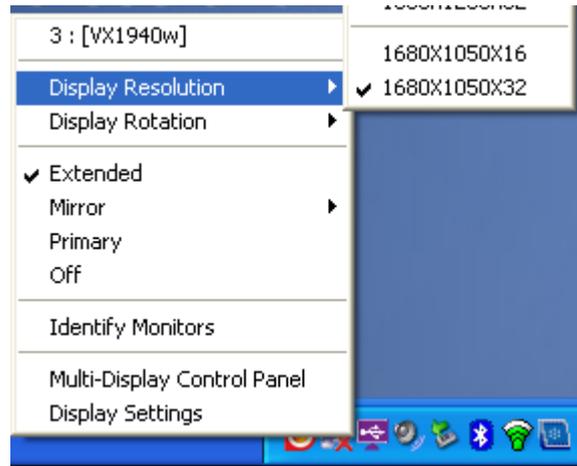
USB Display Adapter supports VESA defined DDC/EDID. The utility could show the **display device ID** whenever it is attached to the USB Display Adapter.



If there is no display device attached to the USB Display Adapter, an “**Unknown Monitor**” ID will be shown. In some cases, the attached display device does not support EDID, the ID will also be defined as “**Unknown Monitor**”.

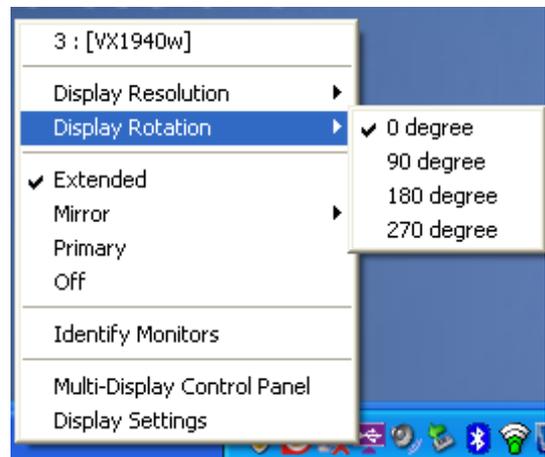
DISPLAY RESOLUTION – Fast Access to Display Resolution Setting

The default setting resolution is:
1024 * 768 * 32bit.



DISPLAY ROTATION

4 options available: “0°, 90°, 180°, 270° under the Extended or Primary display modes. It is a useful function for some rotatable display device.

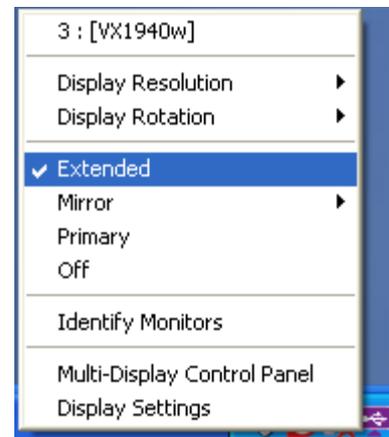


DISPLAY MODES

◆ “EXTENDED” DISPLAY MODE (DEFAULT)

A default display mode; this feature allows the attached USB Display enabled display device to work as “Extended” display of the on-board screen. The extended working space improves work efficiency.

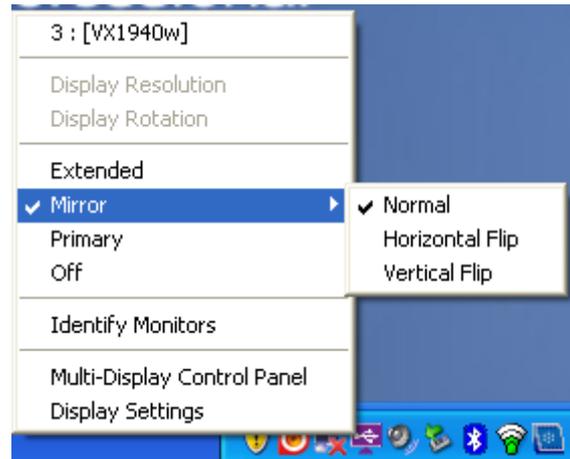
You may change the relative position of this extended USB Display enabled display device under the Display Settings.



◆ **“MIRROR” DISPLAY MODE**

This feature allows the same contents of on-board screen to be displayed (mirroring) to the USB Display enabled display device.

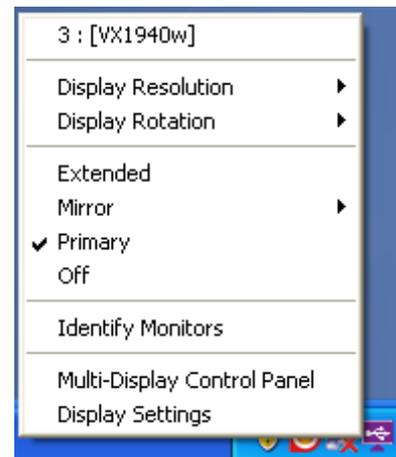
The screen resolution setting on the USB Display enabled device will follow the on-board screen’s resolution. For example, if the on-board screen’s resolution is 1024x768x32bit, and the USB Display enabled device will set as the same resolution.



◆ **“PRIMARY” DISPLAY MODE**

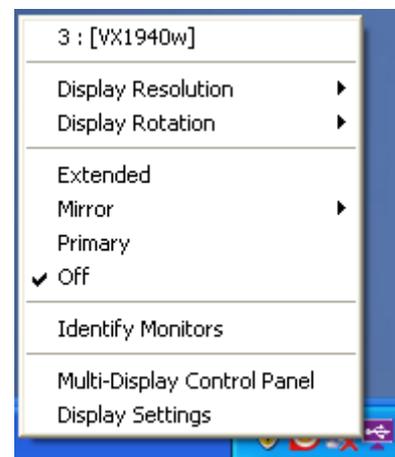
A unique feature to allow USB Display enabled device to act as the main working display. The USB Display Adapter will work as the main graphics adapter of the system. The on-board screen will work as the extended display.

Please be advised that some display utility and drivers that shipped with certain AGP and built-in display adapters may prevent this option from working on some systems. You may disable the other utility program (usually found in the same toolbar located on the bottom right hand corner) to make this function work properly.



◆ **“OFF” DISPLAY MODE**

This option disables the video output from **USB DISPLAY ADAPTER**.



IDENTIFY MONITORS

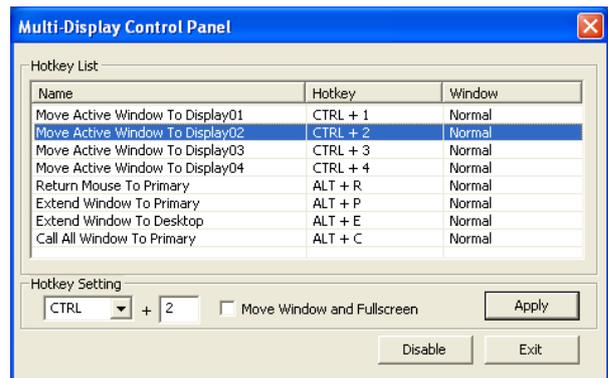
Easy display identification via a serial number will be showed on the upper right corner of all attached display devices.



MULTI-DISPLAY CONTROL PANEL

An unique feature to allow much quicker and simpler working experience under multi-display environment. A series of hotkey to quickly move active window or cursor to the desired display device (either on-board or each USB Display enabled devices).

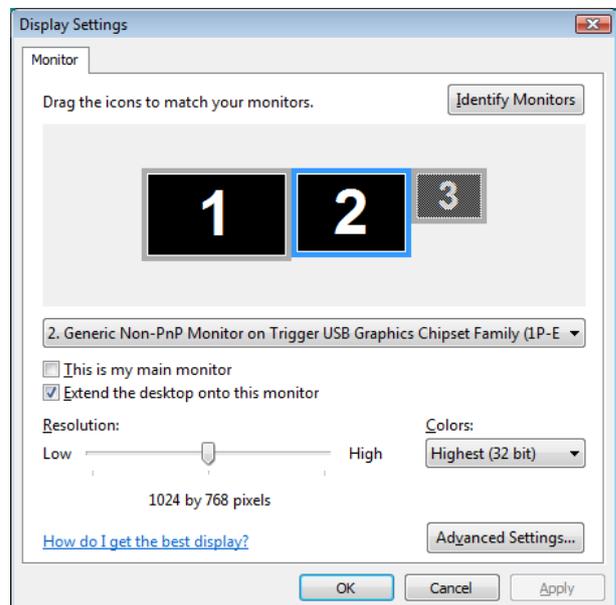
The default setting of hotkeys can be found on the Hotkey List of “Multi-Display Control Panel”.



For example: **Ctrl + 2** means: to move the window to the Display 2.

DISPLAY SETTINGS

Fast access to the system “Display Settings” .



INSTALLATION ON MAC SNOW LEOPARD

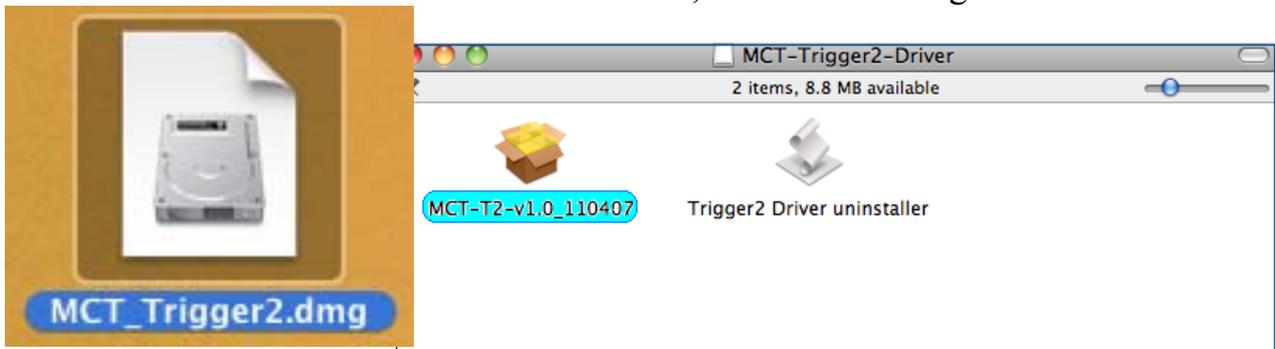
DEVICE DRIVER INSTALLATION

Installing the device driver enables your computer's operating system to recognize the **USB DISPLAY ADAPTER** once it's connected. Please check your operating system and refer to the appropriate installation procedure to begin installing the device driver.

This section illustrates the simple device driver installation procedure for computer running **Snow Leopard** operating system. Please make sure the **USB DISPLAY ADAPTER** is **unplugged** from your Mac Desktop or Mac Notebook before executing the setup program.

Step 1

Insert the Driver CD into the CD-ROM drive; and run the .dmg file to load drivers.



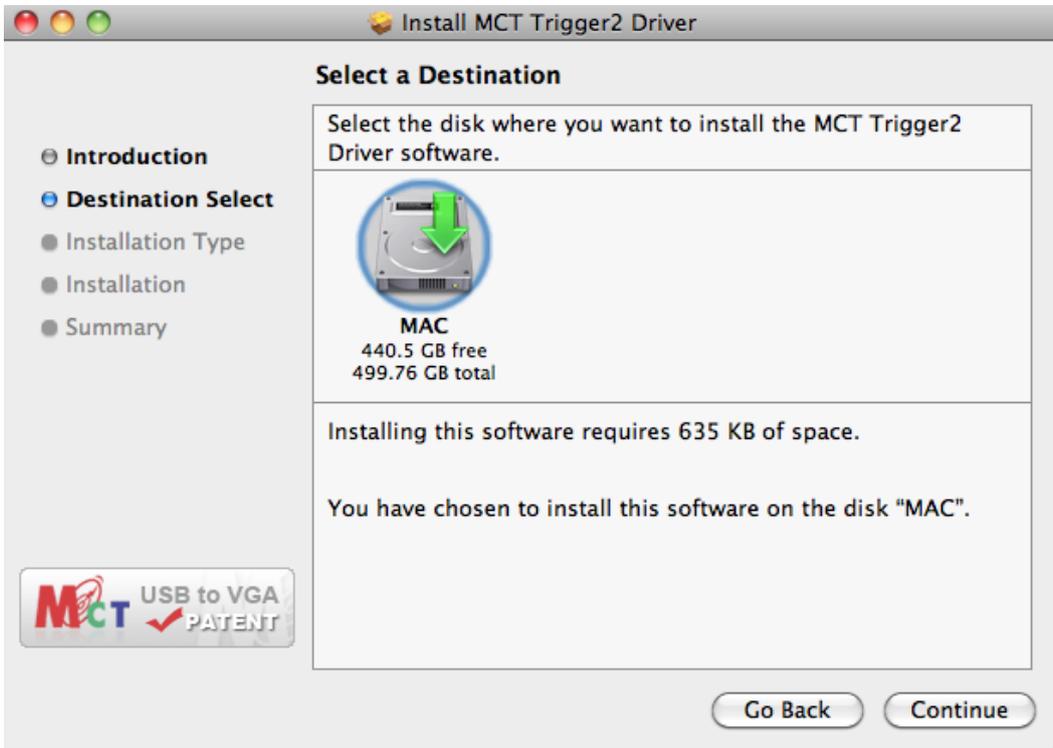
Step 2

Click "Continue" to proceed.



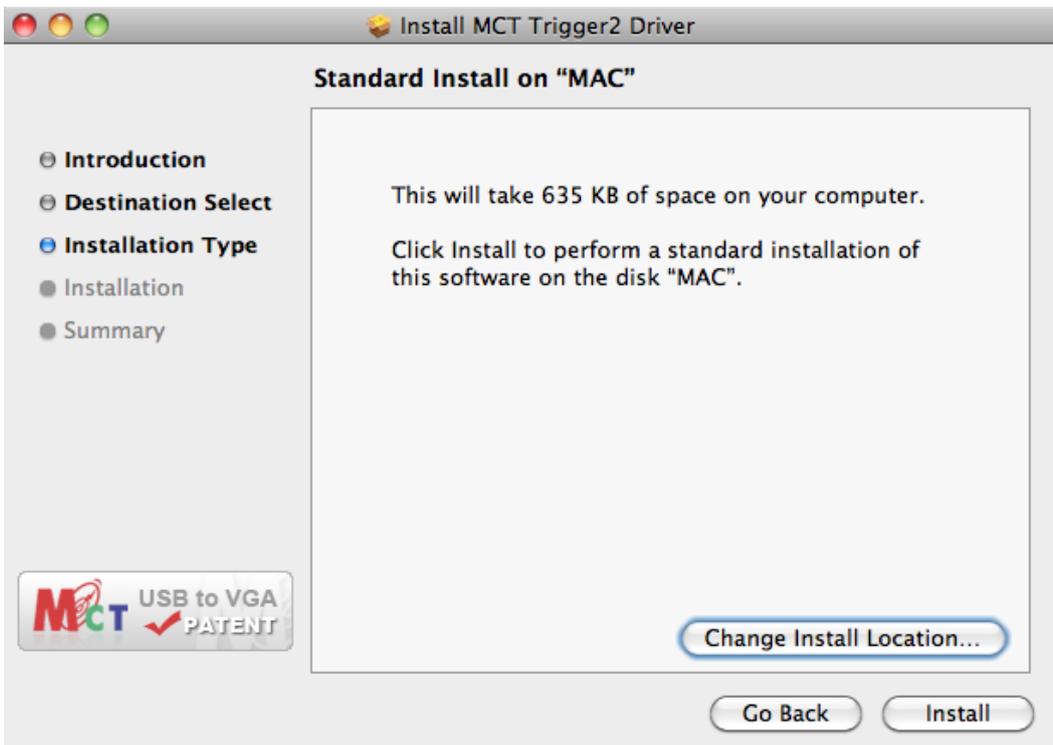
Step 3

Click “Continue” to proceed.



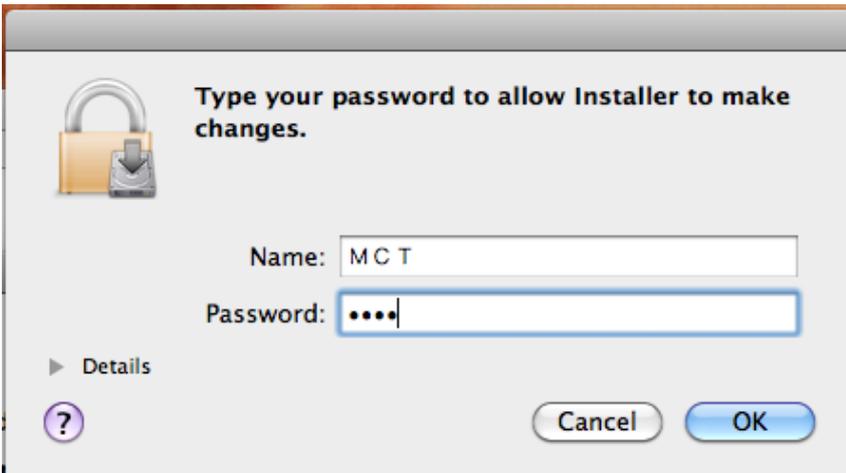
Step 4

Choose Install location – You could click “Change Install Location” or click “Install” to use the default install location.



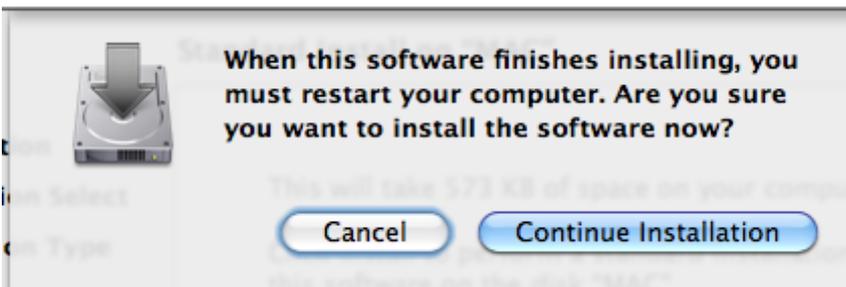
Step 5

Type your password then click “OK” to continue.



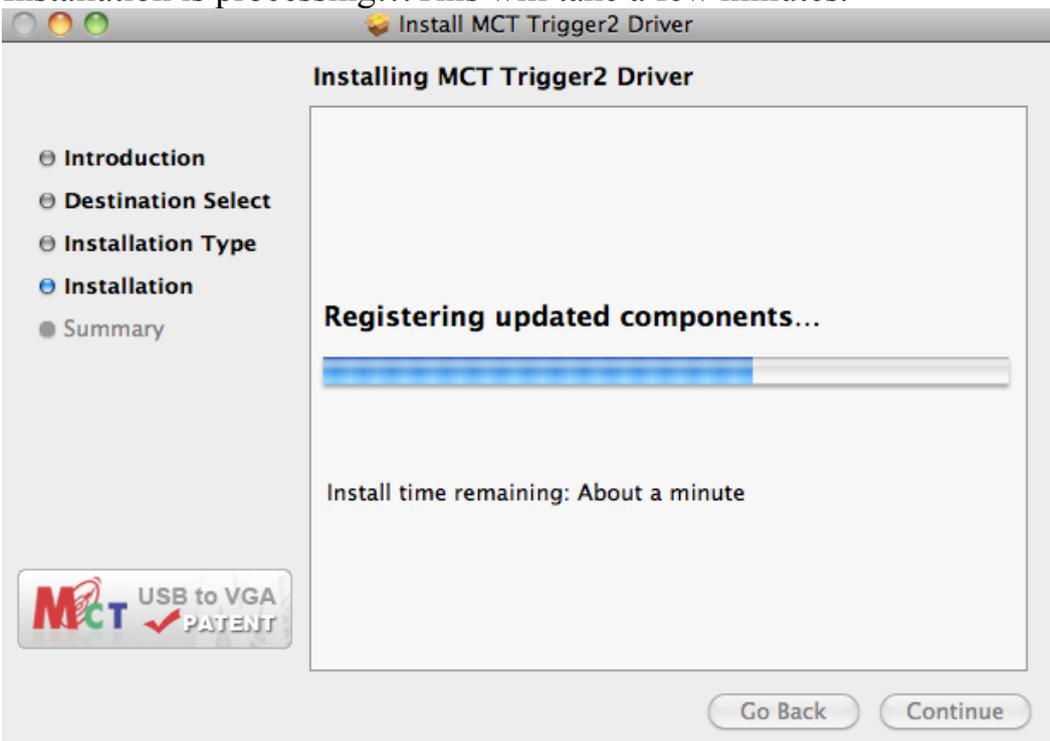
Step 6

Click “Continue Installation”



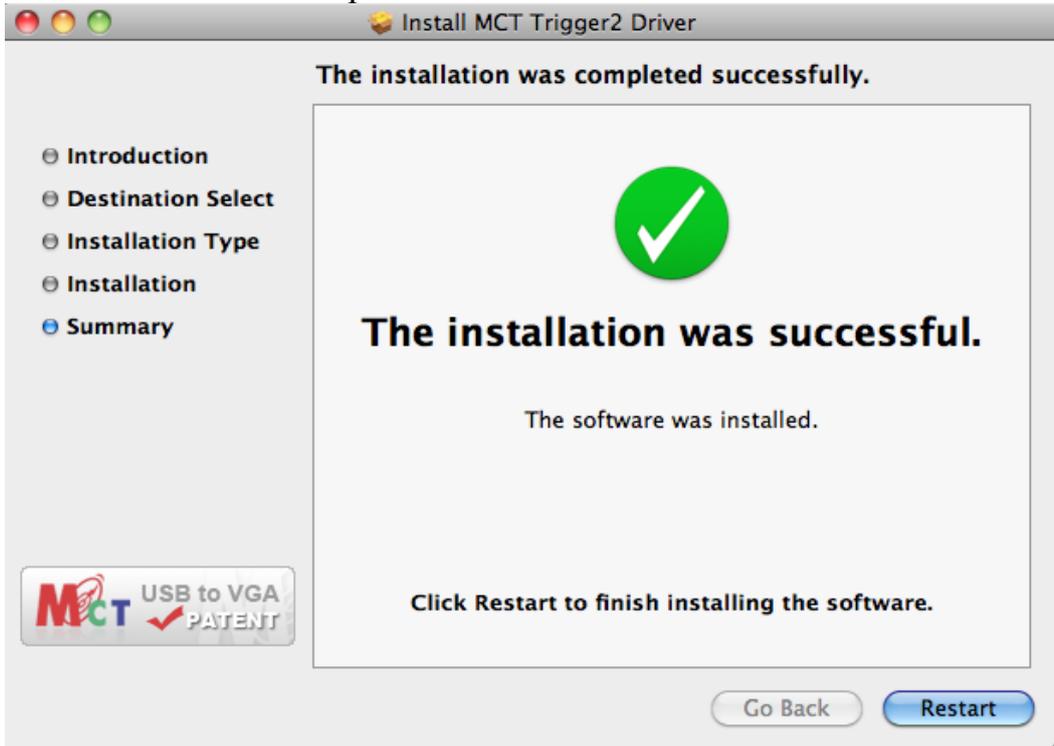
Step 7

Installation is processing... This will take a few minutes.



Step 8

Click “Restart” to complete the software installation



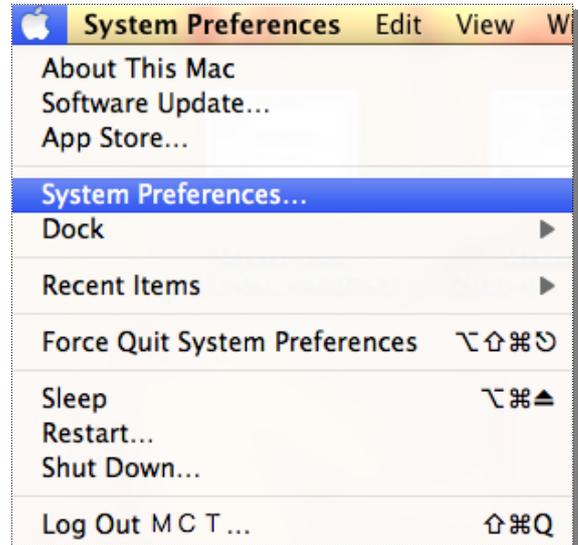
Step 9 (After System Reboot)

1. Connect the external display device (monitor/projector) to the VGA/DVI connector of **USB Display Adapter** and turn on the display device
2. Plug the **USB Display Adapter** into the USB port of your Mac Desktop or Mac Notebook. The screen will turn on automatically, and be in “Mirror Mode”

FUNCTION INSTRUCTION (MAC SNOW LEOPARD)

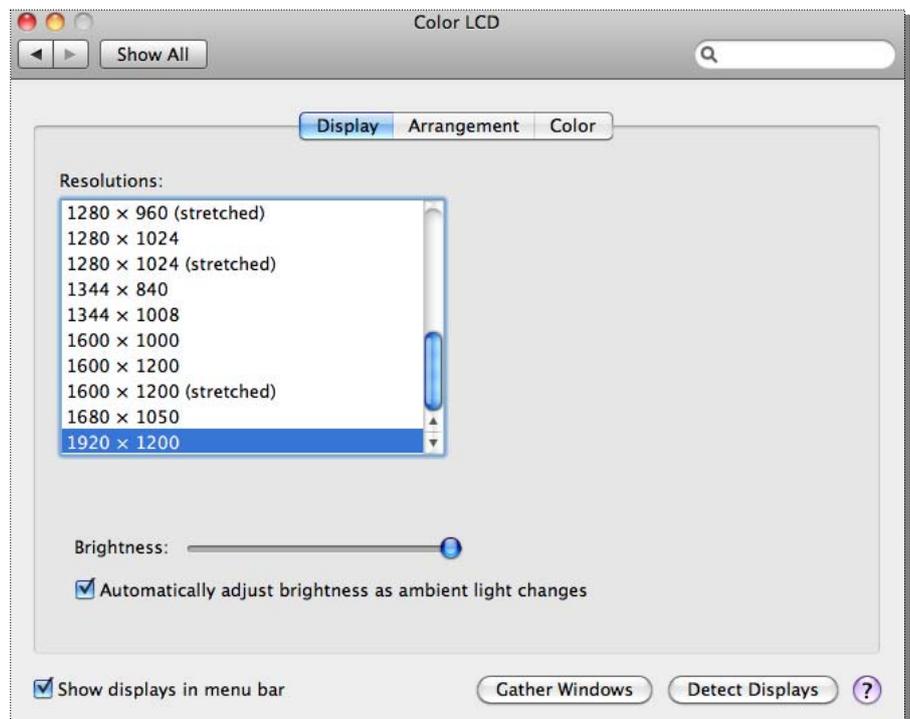
DISPLAY ARRANGEMENT

Go to , and then select “System Preferences...”

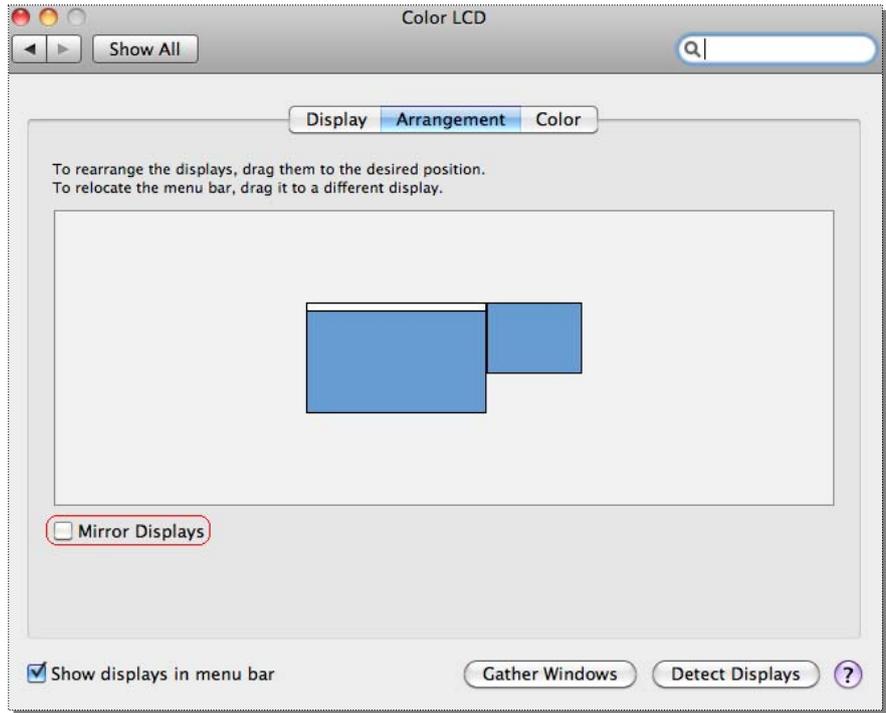


On “System Preferences” click on the “Display” tab. It will pop up this screen.

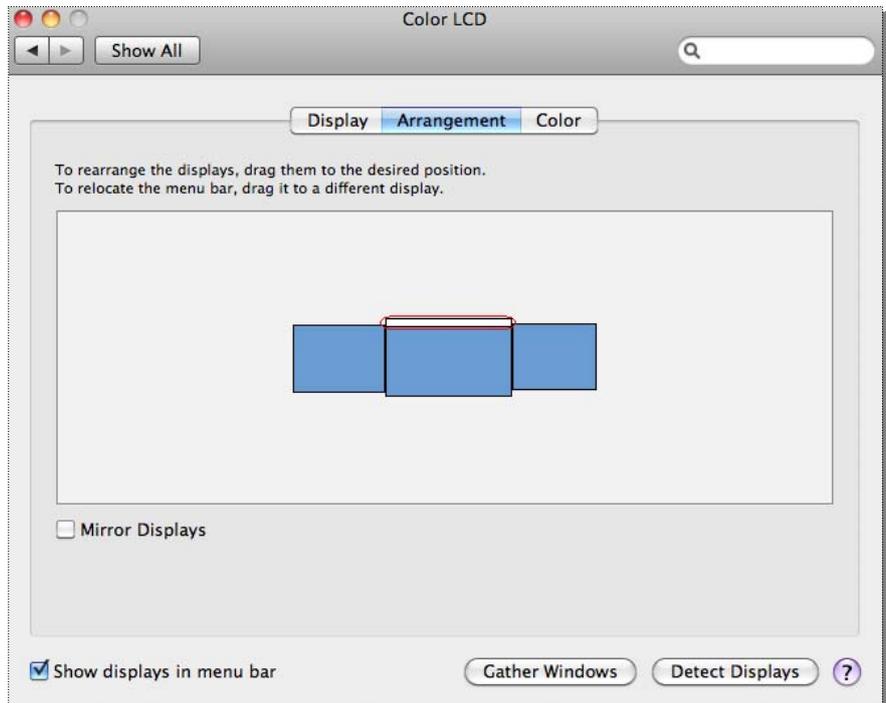
On this screen, you can adjust the resolution, display mode and color range.



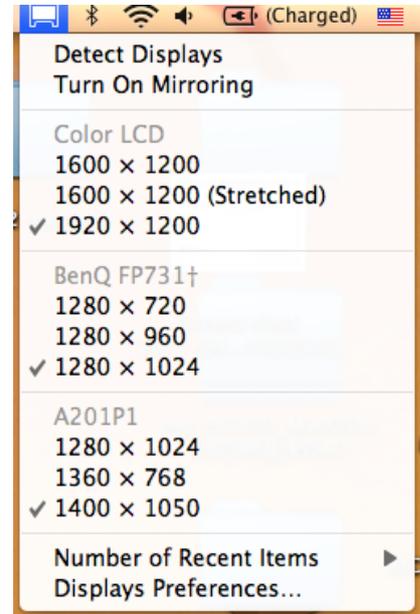
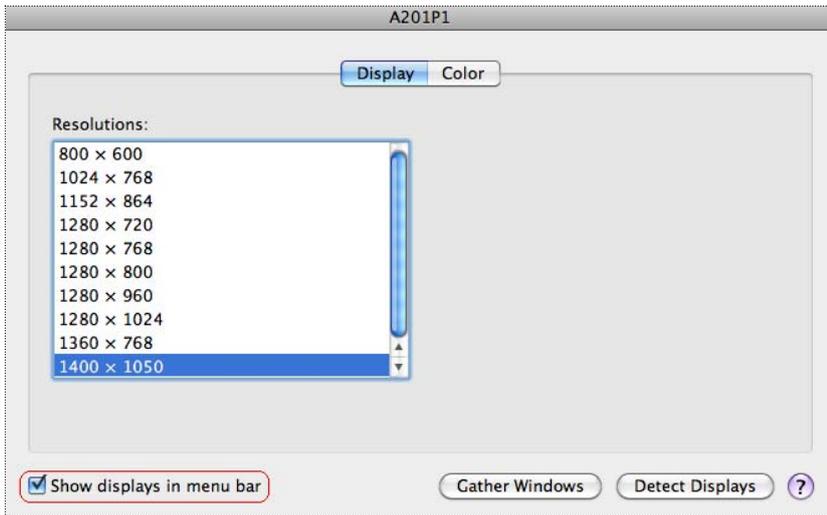
Click on the “Arrangement” tab, and uncheck “Mirror Displays” to extend the screen.



Move the bar to assign any display to Primary and the display location.



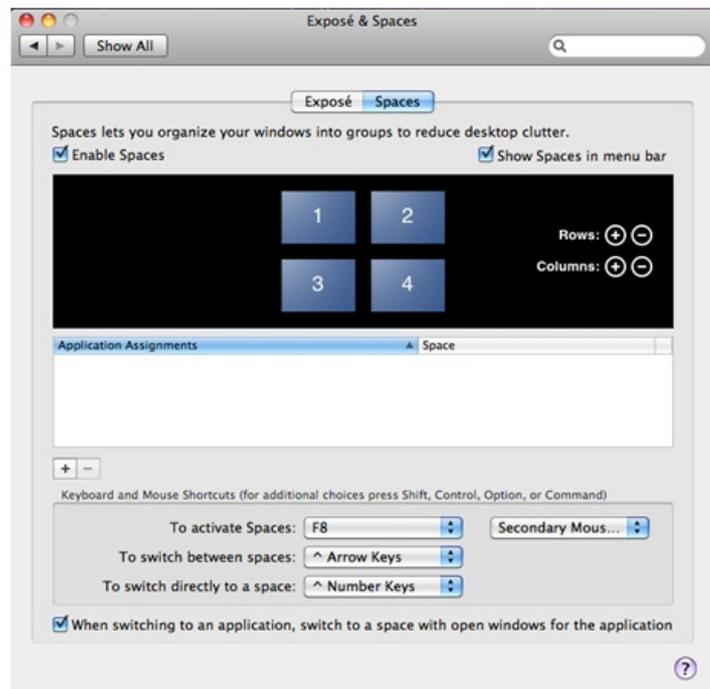
- ✧ If you cannot see the Display window to adjust your secondary monitor resolution, click on the “Gather Windows” button.
- ✧ To simplify using the **USB Display Adapter**, click “Show display in menu bar.” You will see the display icon  that you can double-click on at any time.



Windows Arrangement

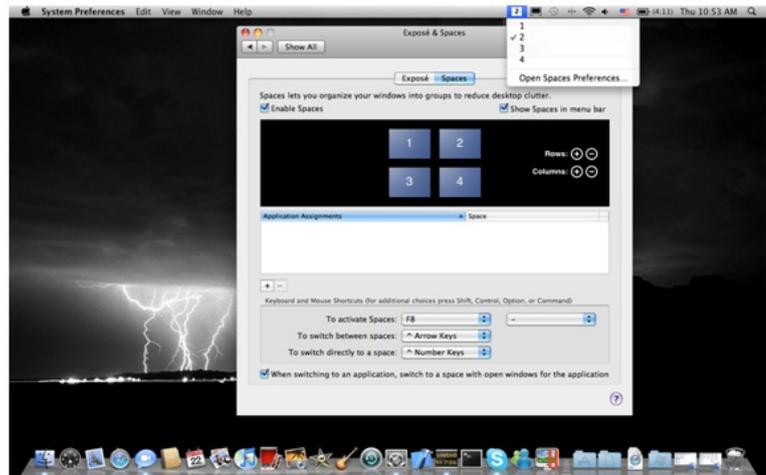
You can arrange Windows on display by “Expose & Spaces”

Go to , and then “System Preferences”
From **System Preferences** click on “Expose & Spaces.” You should see this screen.

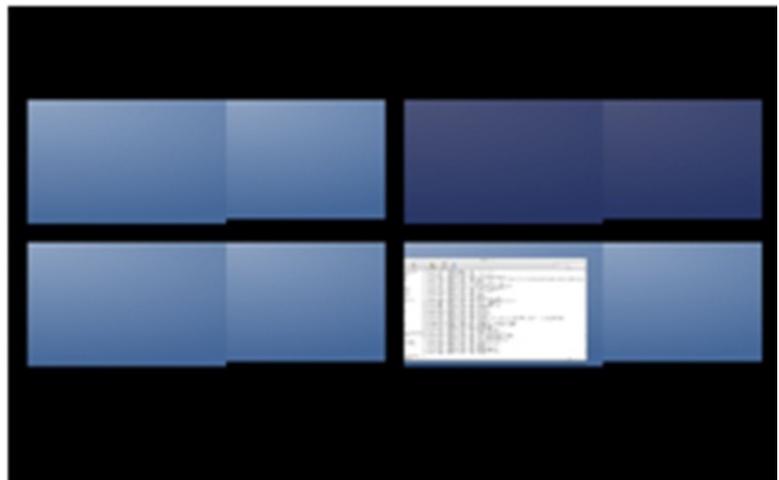


Space

Click “Show Spaces in menu bar.” You should see the space number on the menu bar that you can choose any space on the list at any time.



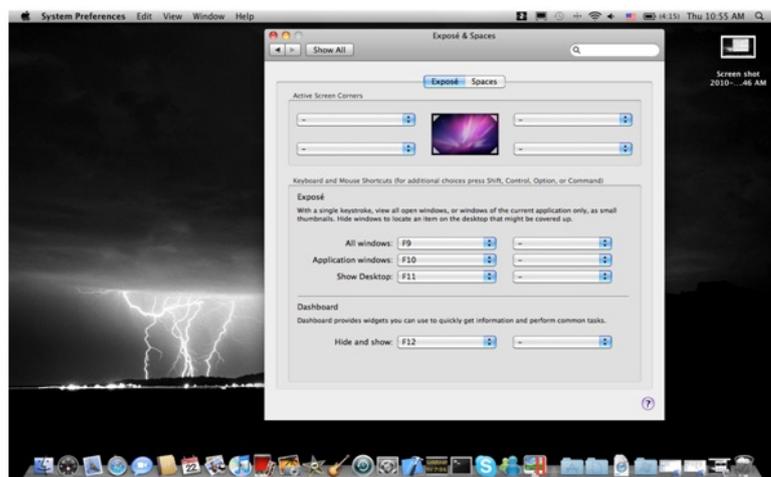
F8: you will see the Space Layout with a single keystroke. You can draw any window to other space.



Exposé

View different windows with a single keystroke.

- F9 : view all open windows
- F10: view windows of the current application only
- F11: show desktop



*For more windows arrangement functions, please see Apple’s computer user manual.

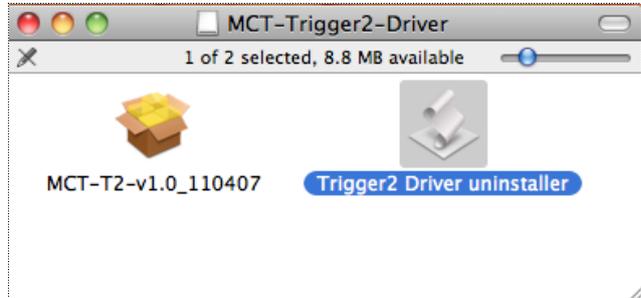
DEVICE DRIVER UN-INSTALLATION

Step 1

Unplug the **USB Display Adapter** from the USB port

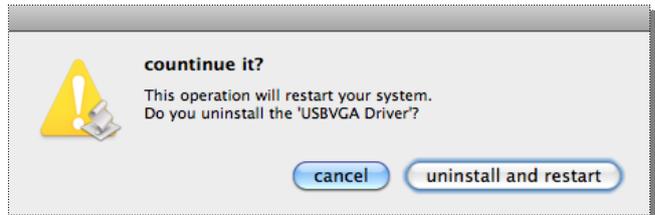
Step 2

Run Un-installation program



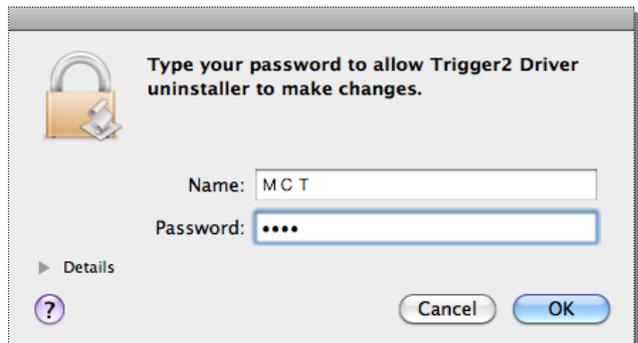
Step 3

Click "Uninstall and restart" to proceed



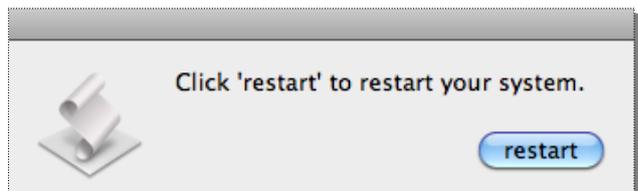
Step 4

Type in your password to allow un-installation and click "OK" to proceed



Step 5

Click "Restart" to reboot computer



Q&A

This section describes the common Q&A regarding to the installation or operation of the USB DISPLAY ADAPTER.

Q: Why can't I make the USB DISPLAY ADAPTER the primary display?

A: Some video cards ship their product with a utility that prevent other video cards from being set as the primary card. Check the bottom right hand corner taskbar for the utility. Disable the utility before switching our adapter to be the primary display.

Q: Why won't my DVD player work when I move it over to the extended display?

A: Some DVD playback software packages do not support playing on a second display adapter of any kind. You may try to open the program in the secondary display first before playing the DVD.

Q: How come my video will not play on Media Player if I move it over to the extended desktop?

A: Check that you have moved the Media Player window completely over to the second screen. Make sure to set the Aero mode on Windows 7.

Q: Why does my mouse not move pass the right side of the screen as it should on extended desktop?

A: Check the display settings and make sure that your display number '2' is on the right side of display number '1'. You can rearrange how Windows treats each display in relation to each other in the Display Properties Settings.

Q: There are lines running horizontally up and down my screen.

A: This is due to a low refresh rate setting. You can change this in the Display Properties Settings Advanced Monitor. Make sure you select the USB DISPLAY ADAPTER first and not set the refresh rate higher than what your monitor can support. This may damage your monitor. You can also try to reset/refresh/resynchronize your monitor.

Q: Direct3D does not work?

A: This is a limitation of the adapter on Windows XP/Vista except for Windows 7.

TROUBLESHOOTING TIPS

This section describes the general troubleshooting tips regarding to the installation or operation of the USB DISPLAY DEVICE.

Known Issues

- Direct 3D is not supported under XP/Vista. It supported under Windows 7 Aero mode.
- The Print screen function in the extend display currently is not supported on MAC OS 10.6

General Recommendation

- Check to make sure that the device is plugged in correctly to the host system.
- Make sure that the USB port that you are using is USB 2.0.
- Unplug the USB cable of USB graphics device and re-insert it.
- Check to see that the monitor is connected correctly and is powered ON.
- Make sure to restart your computer after the driver installation.
- Try a different USB 2.0 port and/or computer.
- Unplug all other USB devices from the system.
- Try connecting the USB cable of USB graphics device directly to the computer instead of through a hub.
- Reset/refresh/resynchronize your monitor.

Media Playback

- During video playback on all platforms, please do not change the display mode, position or arrangement of video player window (such as dragging the video player window between main display and attached display). This usually causes the video player to have strange behavior and the video may stop playing. We suggest stopping the video playback, moving the window to the USB graphics device attached display and then selecting the video clip to start playing.
- Downsizing your screen landscape lower than 50% will help smooth out jerky video playback for video running in full screen model.
- You may experience poor video performance on USB graphics device attached display under some low-spec PC system.
- Video rendering using hardware overlays is supported.
- Some DVD playback software packages do not support playing on a second display adapter of any kind. You may try to open the media player in the secondary display first before start playing the DVD.

- Your PC may be lack of certain video codec to support playback of certain video format.

Please use the link below to install license free media codec.

K- Lite: http://www.free-codecs.com/download/K_Lite_Codec_Pack.htm

- Video/Media players have different decoding capability under different display modes. For better performance on watching DVD or certain video format on the USB graphics device attached display, it is recommended to use the following license free software.

Media Player Classic: <http://sourceforge.net/projects/guliverkli/>

Others

- Some graphics card, i.e. Intel, prevents other secondary graphics chipset from being set as the primary card. As the result of this, *primary mode* might not work or the display maybe disabled. If you have problems during the boot up process, start your computer in Safe Mode and uninstall the driver. Hold the CTRL key until the Windows startup menu appears and select Safe Mode.
- To verify the driver version that you installed, please click “Control Panel” → “Add or Remove Programs” to check the program:  USB Display Device (Trigger II) 11.xx.xxxx.0177 (the Number: 11.xx.xxxx.0177 means the driver version).
- Please contact your dealer to obtain the latest driver or for additional assistance if needed.
- Some limitation exists in different media player on file format support. We enclose our compliance test result in the tables according to different operating system, main system graphics card/chipset, media players, and the supported media format. It will be updated periodically with new version of media players or our latest driver.

REGULATORY COMPLIANCE

FCC

This equipment has been tested and found to comply with Part 15 of FCC Rules for Class B Devices (United States Code of Federal Regulation 47 Part 15-Digital Devices, Subpart B-Unintentional Radiators, Class B).

CE

This equipment is in compliance with the requirements of the following regulations:

EN 55022 : 2008-05 Class B

EN 55024 : 2003-10

EN 61000-4-2 : 2001-12

EN 61000-4-3 : 2006-12

C-Tick

This equipment is in compliance with the requirements of the following regulations:

AS / NZS CISPR22:2006

VCCI

This equipment is in compliance with the requirements of the following regulations:

EN 55022: 2008-05 Class B

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