HIGH PERFORMANCE
USB 2.0 GRAPHIC ADAPTER

User Manual

(DA-70831 / DA-70832)

CONTENTS

INTRODUCTION

Thank you for purchased the USB 2.0 GRAPHIC ADAPTER. The USB 2.0 GRAPHIC ADAPTER enables you to connect one display devices (CRT/LCD monitor, projector) to your desktop or notebook PC. The connected display can act as mirrored or extended desktop of the main display on your PC. The flexibility of the common USB 2.0 technology saves the need to open the computer or struggling with compatibility issues related to the VGA card.

FEATURES

- USB 2.0 compliant
- Support display resolution up to VGA : 1600 x 1200 / DVI : 1680 x1050
- Plug-and-Play USB connectivity
- Support Function
  - Display Modes: Primary, Extended, Mirror
  - Display Rotation: 0°, 90°, 180°, 270°
- Friendly software targeted to ease your daily USB Display experience
  - 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 or higher processor
  - RAM: 512MB memory or higher
- 2~3 Displays: (additional USB display adapters)
  - CPU: Intel/AMD Single Core 2.4GHz or higher processor
  - RAM: 1GB memory or higher
- 4~6 Displays: (additional USB display adapters)
  - CPU: Intel/AMD Dual Core 2.0GHz or higher processor
  - RAM: 2GB memory or higher
- Windows 2000 SP4, Windows XP SP2 or SP3 and Vista SP1 (32-bit or 64-bit)

PACKAGE CONTENTS

- USB 2.0 GRAPHIC ADAPTER
- CD (User Manual, Driver and Utility)
- Quick Installation Guide

SUPPORTED COMMON DISPLAY RESOLUTION:

Resolution	USB-VGA	USB-DVI	Refresh Rate Frequency
800 * 600	16bit, 32bit	16bit, 32bit	60Hz,75Hz
1024 *768	16bit, 32bit	16bit, 32bit	60Hz,75Hz
1152 * 864	16bit, 32bit	16bit, 32bit	60Hz
1280 * 720	16bit, 32bit	16bit, 32bit	60Hz
1280 * 768	16bit, 32bit	16bit, 32bit	60Hz
1280 * 800	16bit, 32bit	16bit, 32bit	60Hz
1280* 960	16bit, 32bit	16bit, 32bit	60Hz
1280 * 1024	16bit, 32bit	16bit, 32bit	60Hz
1360 * 768	16bit, 32bit	16bit, 32bit	60Hz
1400 * 1050	16bit, 32bit	16bit, 32bit	60Hz
1440 * 900	16bit, 32bit	16bit, 32bit	60Hz
1680 * 1050	16bit, 32bit	16bit, 32bit	60Hz
1600 * 1200	16bit, 32bit		60Hz

TECHNICAL SPECIFICATIONS:

Operating System	Windows 2000/XP/Vista Compatible
Video Output Connector	D-Sub 15pin (female) – Model: USB-VGA DVI-I – Model: USB-DVI
Case Material	ABS
Power Source	Bus Powered

INSTALLATION ON WINDOWS 2000 / XP

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 2000 / 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).
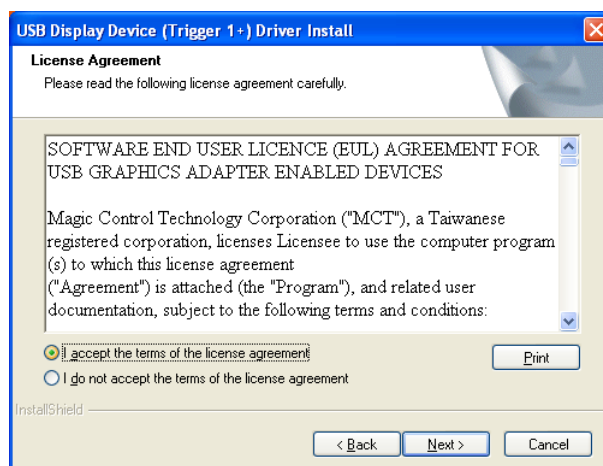
Step 2.
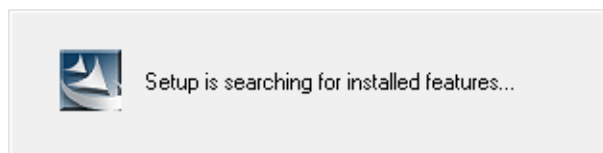Driver Installation Wizard, click "**Next**" to continue.
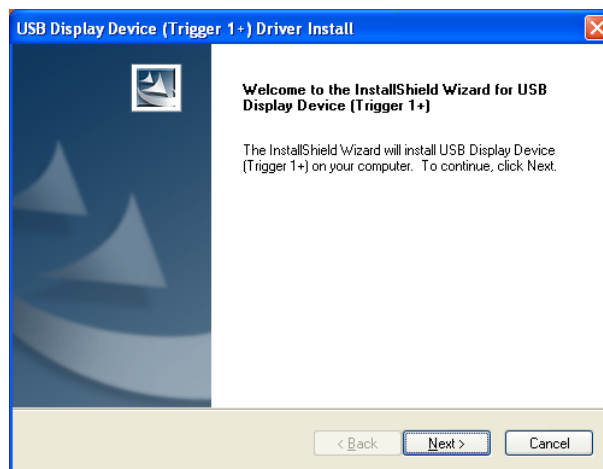
Step 3.
License Agreement; please read it and select **"I accept the terms of the license agreement**." Click "**Next**" to accept the License Agreement.
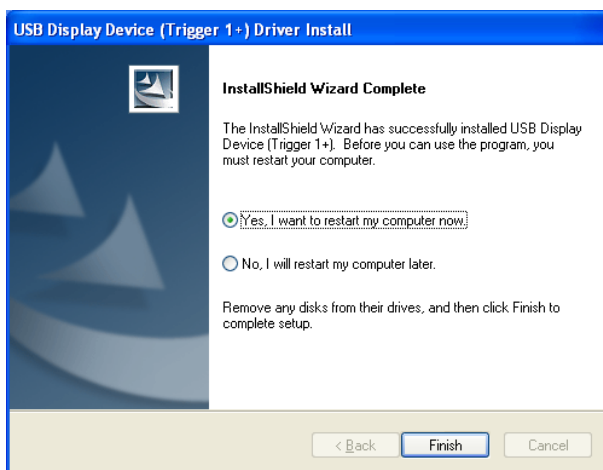

5

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 switch it on.

Then plug the **USB DISPLAY ADAPTER** into an available USB 2.0 port of your PC or Notebook.   You will see an icon 🔌 on the lower right toolbar, and the extended display will be shown on the attached display device.   The USB DISPLAY ADAPTER is ready to use now.

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 hardware driver setup will begin automatically.

To make sure the USB Display Adapter worked correctly, please reboot the computer after finished the installation.
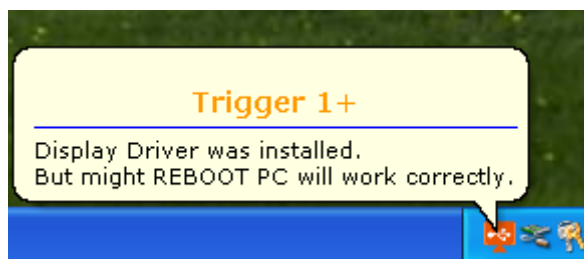
After reboot the computer, the USB extended display will be shown on the display device.
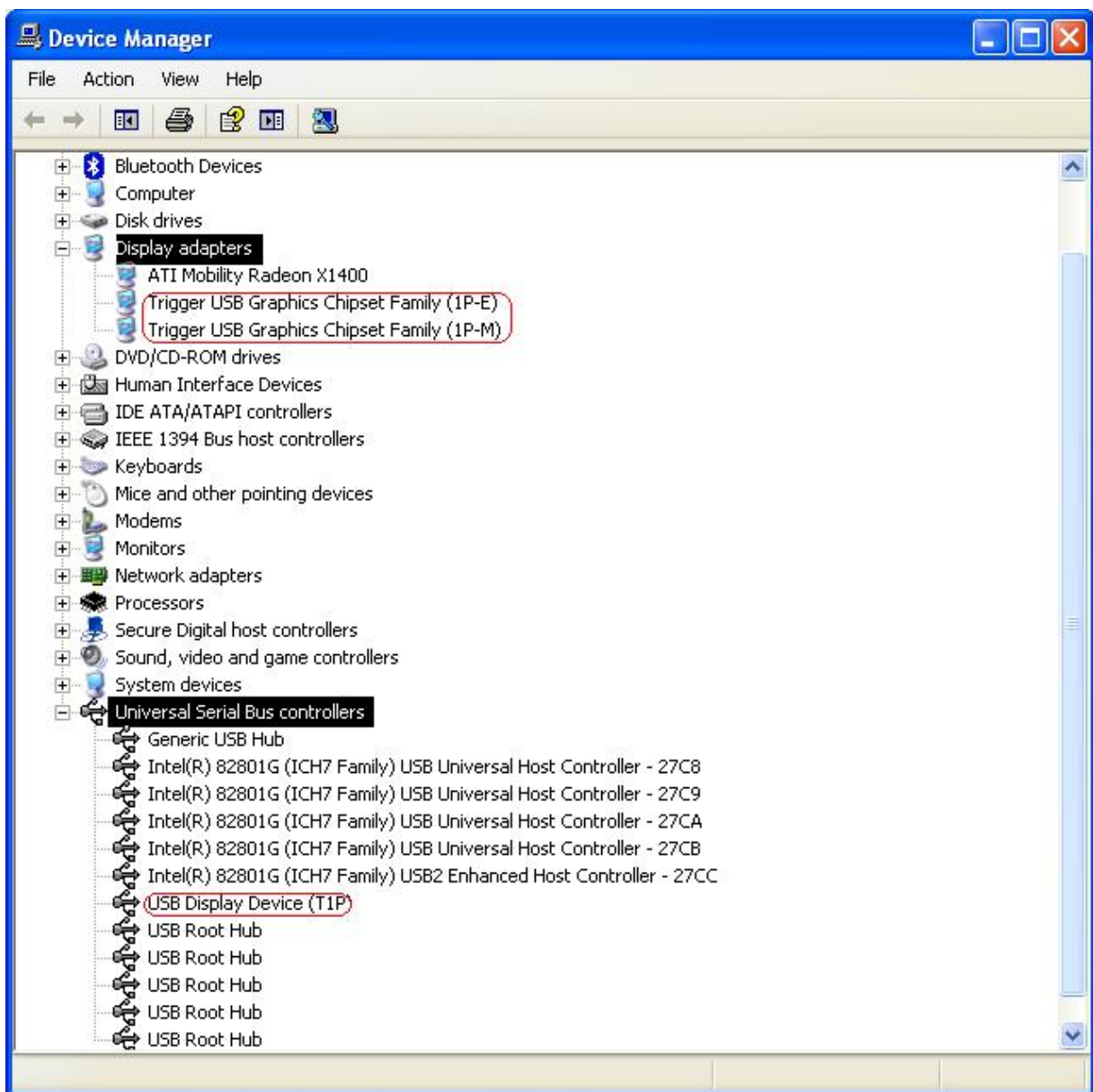
VERIFYING DEVICE DRIVER INSTALLATION

The following procedure allows you to verify the device driver installation.
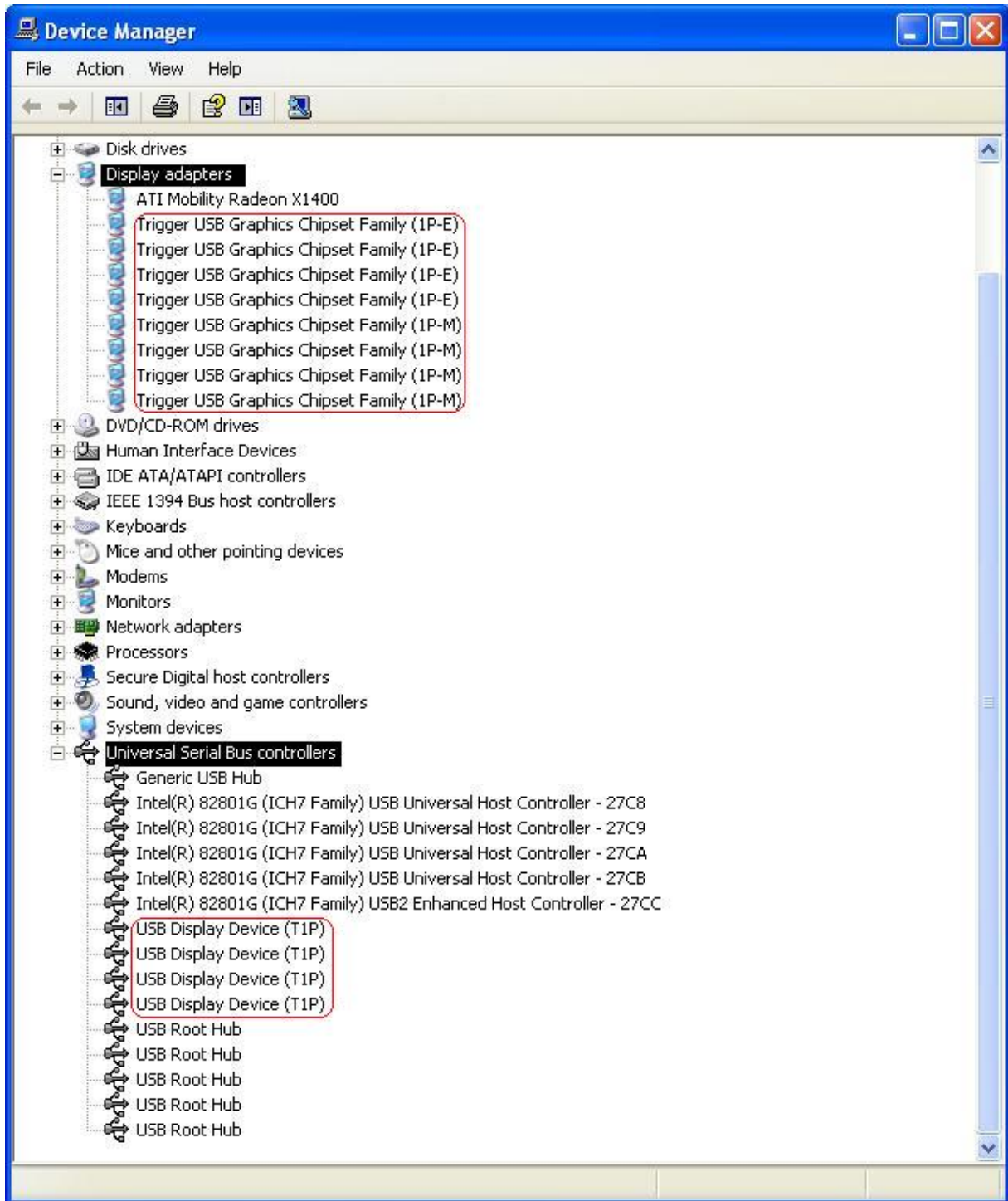
Please right click "**My Computer**" → "**Properties**" → "**Hardware**" → "**Device Manager**".

Plug-in the **USB DISPLAY ADAPTER**, then double click "**Display adapters**", and "**Universal Serial Bus controllers**".   It will show the new directions as below,

Single USB Display Adapter installation on the computer

Multiple USB Display Adapter installation on the computer
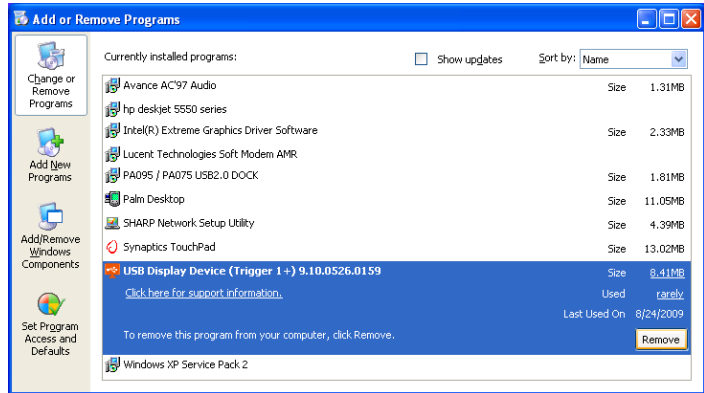
DEVICE DRIVER UN-INSTALLATION

Step 1.

Start menu:

Click "Start" → "

"Control Panel" →

"**Add or Remove Programs**"

Select "USB Display Device (Trigger 1+) 9.xx.xxxx.0159" (driver ver.).
Click "**Remove**" button.

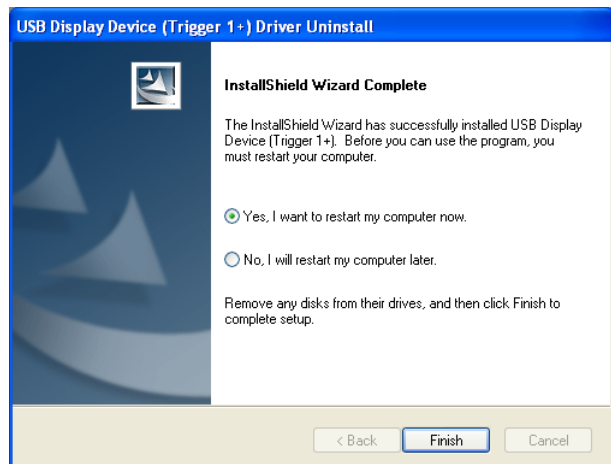**Step 2.**
Unplug the **USB DISPLAY ADAPTER** and click "**OK**" to continue.

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 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 Vista 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).
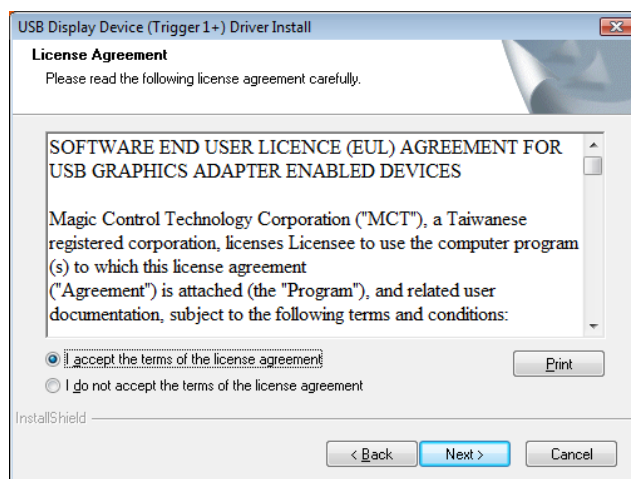
Step 2.
Driver Installation Wizard, click "**Next**" to continue.
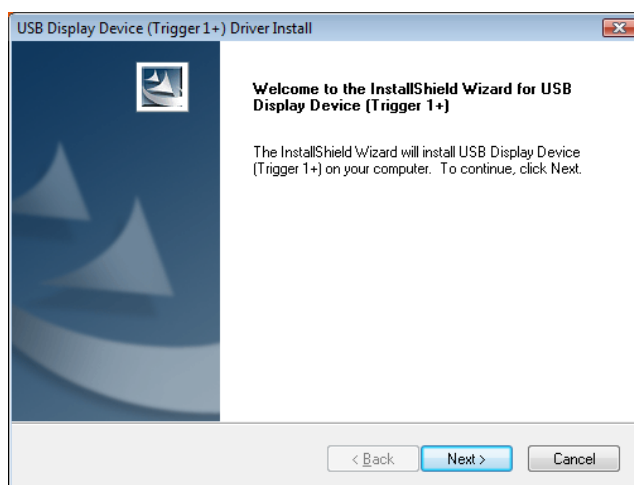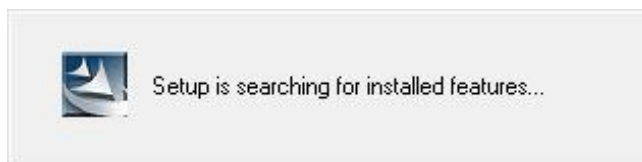
Step 3.
License Agreement; please review it and check "**I accept the terms of the license agreement.**" Click "**Next**" to accept the License Agreement.

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 switch it on.

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

After the driver is configured, you may
begin to use the USB Display Adapter
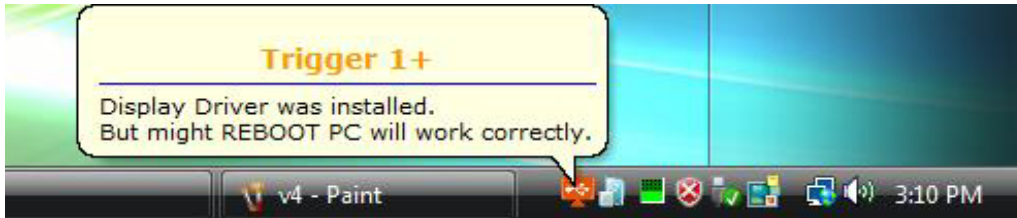with your display device.
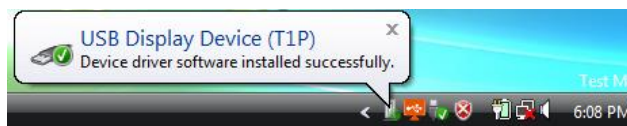
Step 7.   INSTALLATION OF MULTIPLE USB DISPLAY ADAPTERS
Please plug the additional **USB DISPLAY ADAPTER** into another available USB 2.0
port of your PC or Notebook.

The setup process will begin automatically.   You may see below notification
balloons for each additional
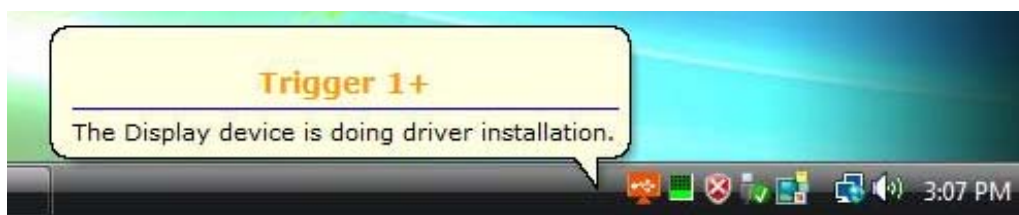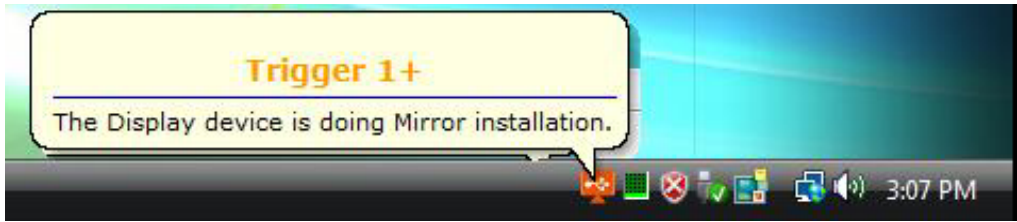
To make sure the USB Display Adapter worked correctly, please reboot the computer after finished the installation.

After reboot the computer, you will see an icon on the lower right toolbar, and the extended display will be shown on the attached display device.   The USB DISPLAY ADAPTER is ready to use now.

VERIFYING DEVICE DRIVER INSTALLATION

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 "**Display adapters**", and "**Universal Serial Bus controllers**".   It will show the new directions as below,

Single USB Display Adapter installation on the computer
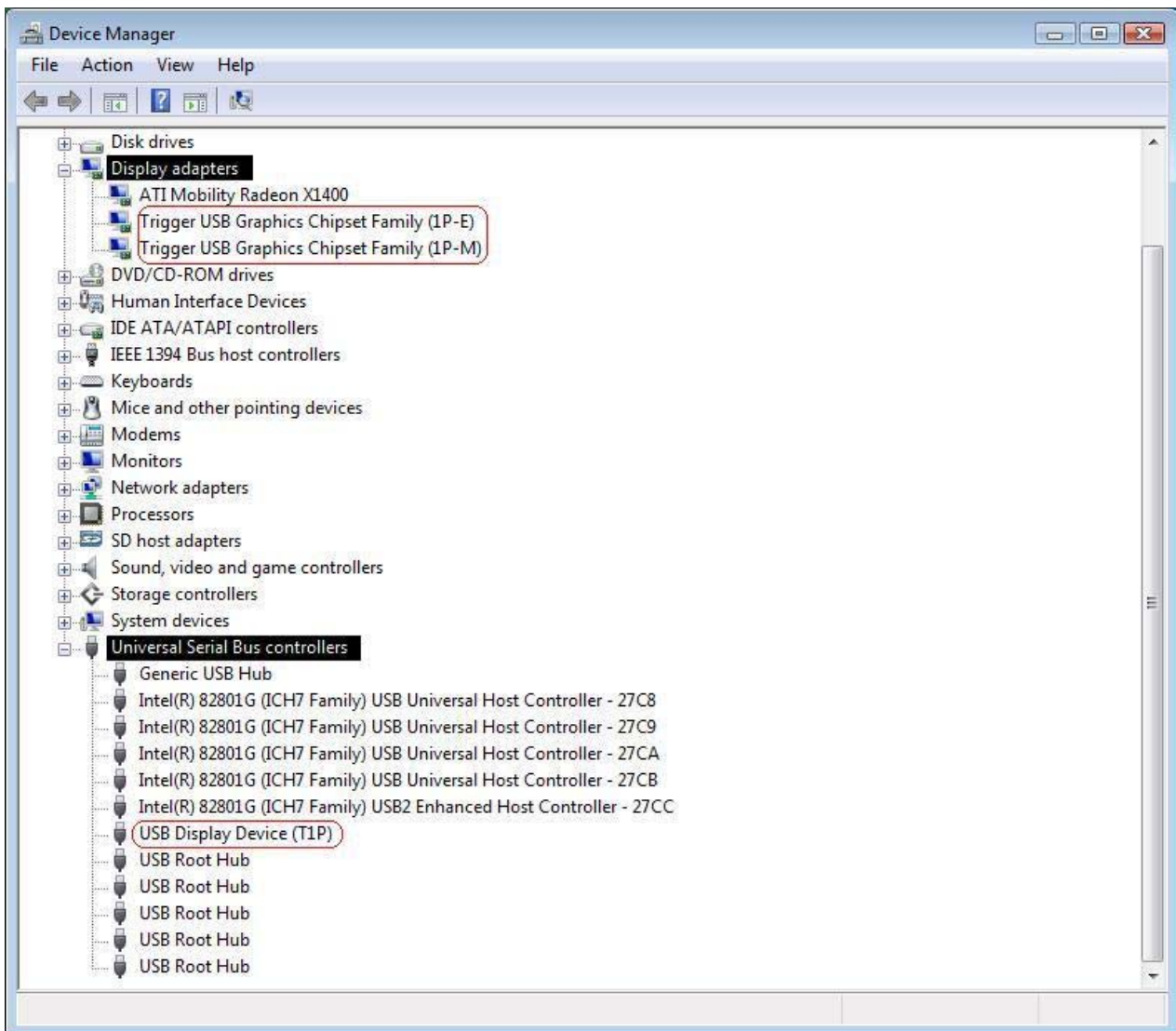
Multiple USB Display Adapter installation on the computer
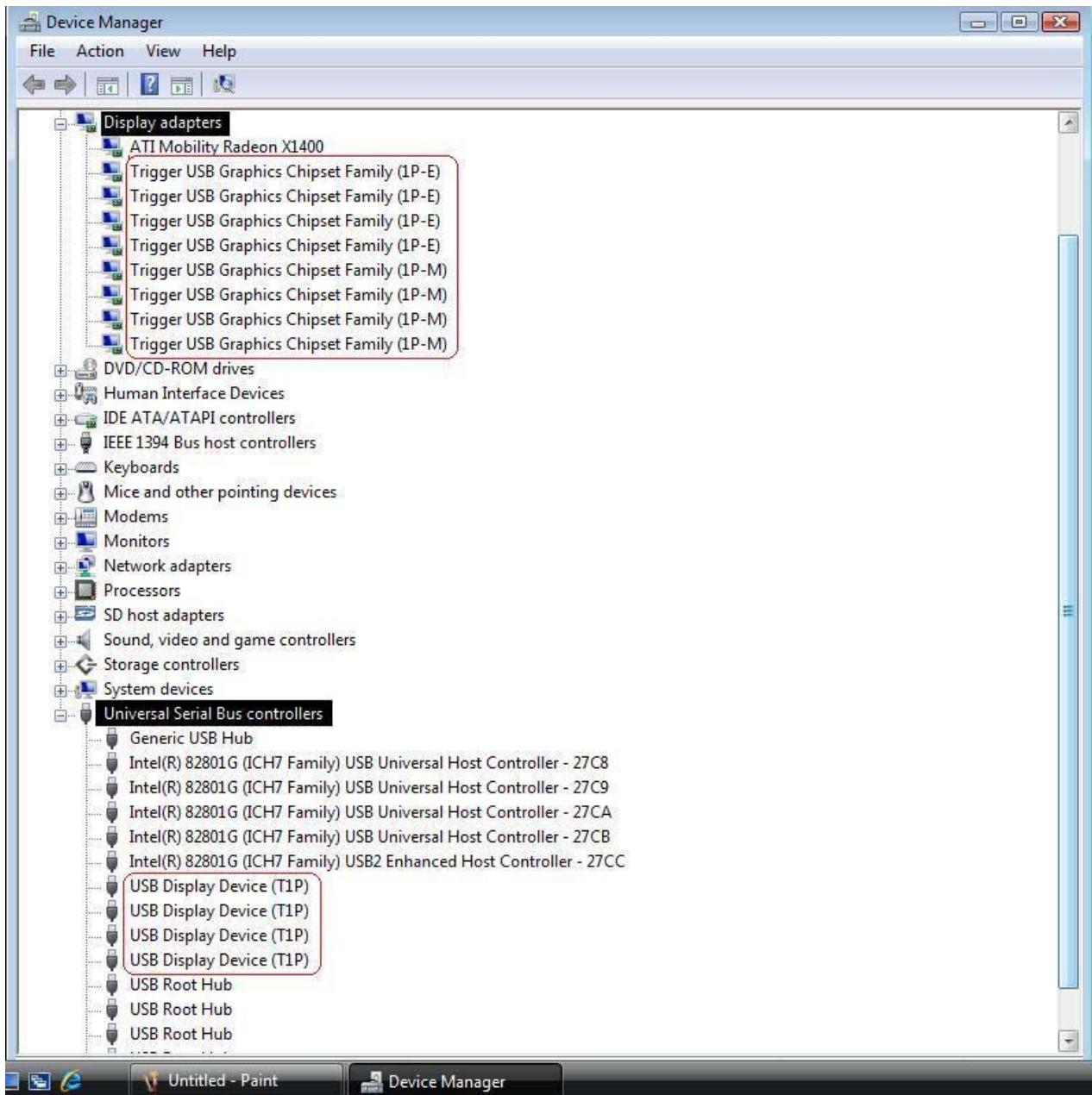
DEVICE DRIVER UN-INSTALLATION

Step 1.   Access Program Uninstall:

Click "**Start**" →"**Control Panel**".
Under "**Programs and Features"**
click "**Uninstall or change a
program**"

Look for "USB Display
Device (Trigger 1+)
9.xx.xxxx.0159"** (driver ver.)
Click "**Uninstall**" button.
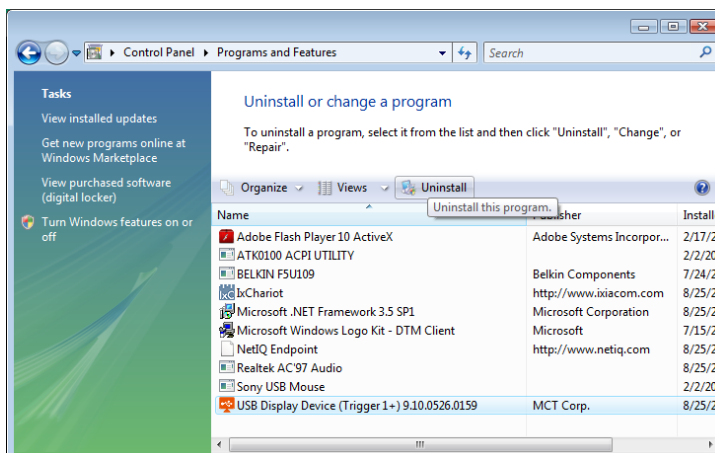
Step 2.
Unplug the **USB DISPLAY ADAPTER**
and click **"OK"** to continue.
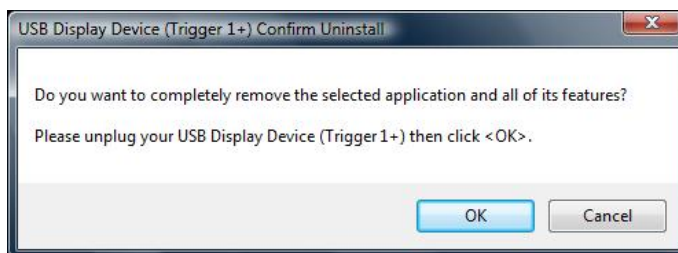
Step 3
Select "**Yes, I want to restart my
computer now**" and click "**Finish**" to
reboot.

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, projector.

ACCESS USB DISPLAY ADAPTER UTILITY

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

Look for this   on your Windows Start bar.
Right-click this 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.
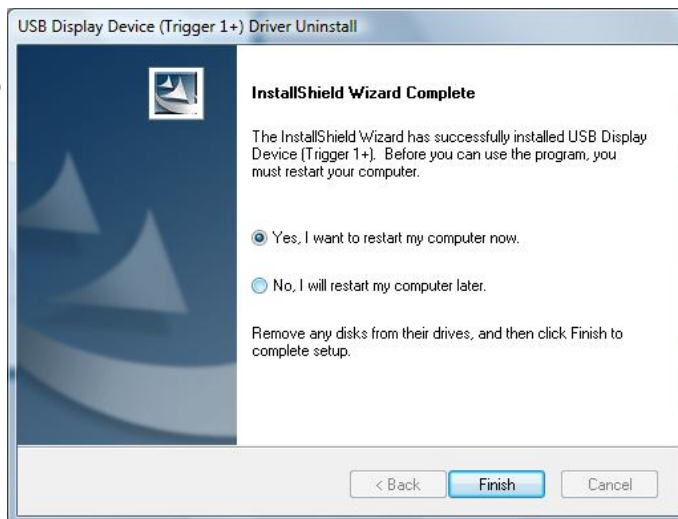
DISPLAY ID – Smart Display Device ID Detection

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 defined as "**Unknown Monitor**".
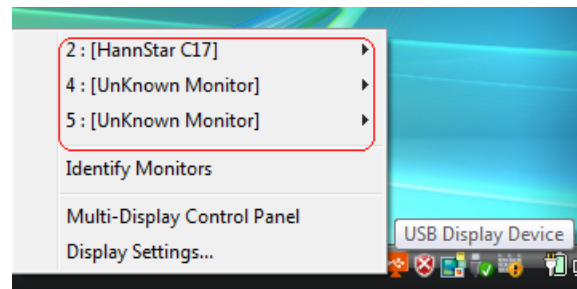
DISPLAY RESOLUTION – Fast Access to Display Resolution Setting

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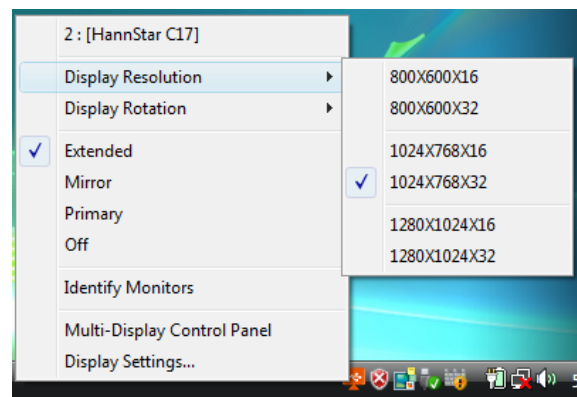
DISPLAY ROTATION

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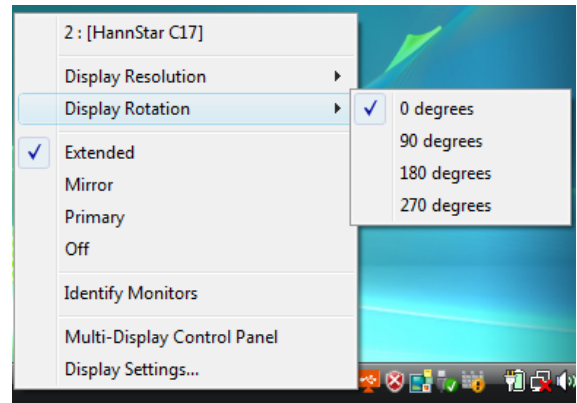
DISPLAY MODES

◆ "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.
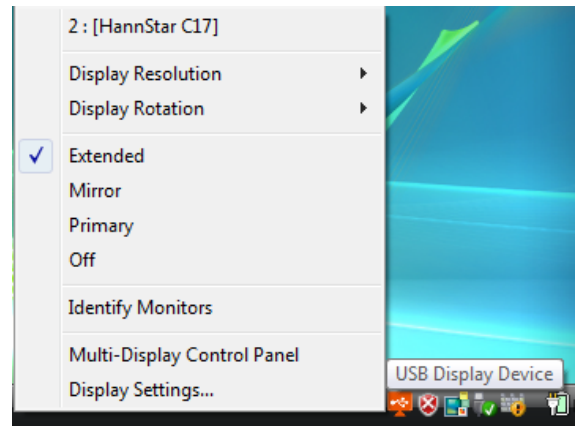
◆ "MIRROR" DISPLAY MODE

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.
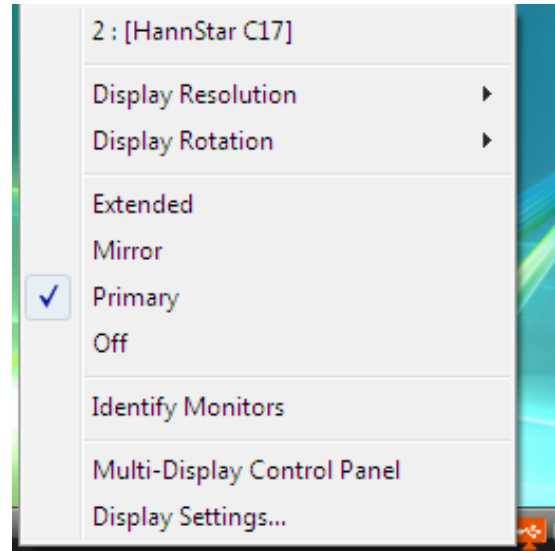
◆ **"OFF" DISPLAY MODE**

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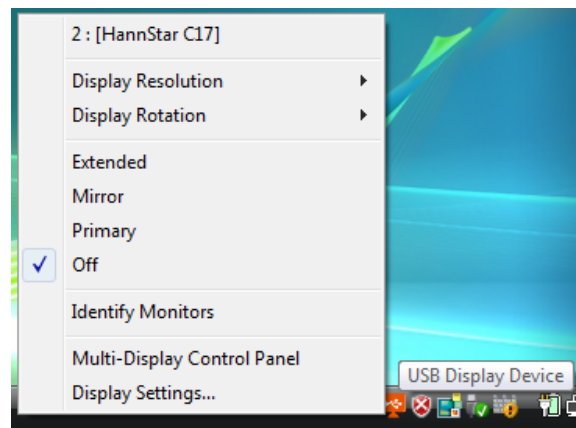
IDENTIFY MONITORS

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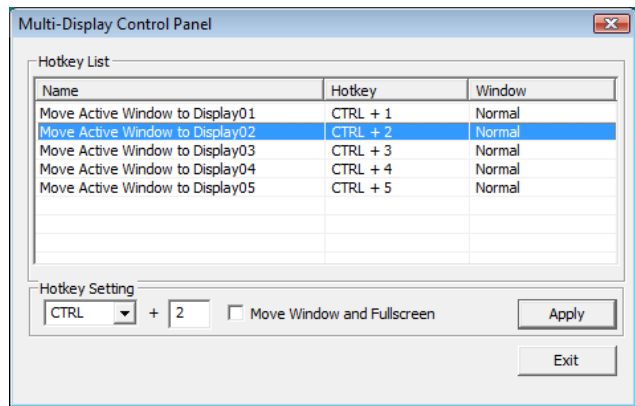
For example: Ctrl + 2 means: to move the window to the Display 2.

DISPLAY SETTINGS

Fast access to the system "Display Settings" .
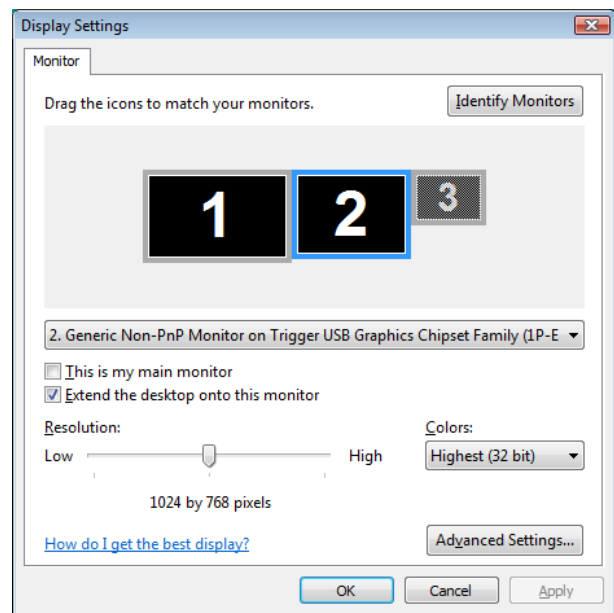
Q&A

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.

**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 current limitation of the adapter. Please check for driver updates in the future to add support for this. If your application requires this, please use the main display adapter.

T ROUBLESHOOTING T IPS

This section describes the general troubleshooting tips regarding to the installation or operation of the USB D ISPLAY D EVICE.

Known Issues

- Windows Vista Aero mode support will be available at MP version driver update (WDDM).
  - ■ WDDM driver update is also aimed to resolve most of video playback compatibility issue under Windows Vista.
- Direct 3D is not supported under XP.   It would be supported under Vista Aero mode.

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.
- 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.

VLC Media Player: http://www.videolan.org/vlc/

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 1+) 9.xx.xxxx.0159 (the number 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 FCC Part 15 Subpart B § 15.109/15.107 Class B.

Operation is subject to the following two conditions:

• This device may not cause harmful interference

• This device must accept any interference, including interference that may cause undesired operation of the device.

CE

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

EN 55022 Class B (2006),

EN 55024 (1998+A1:2001+ A2:2003), (IEC/EN 61000-4-2 (1995+A1:1998+A2:2001)/-3(2006))

C-Tick

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

EN 55022 (2006) Class B, AS/NZS CISPR22 © IEC: 2005.

VCCI

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

CISPR22 © IEC: 2005

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