SUNIX ®

USB3.0 Graphics Adapter

User's Manual

First Edition

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User's Manual

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Trademarks

Safety Information

1. Keep this User's Manual for future reference.
2. Always read the safety information carefully.
3. Keep this equipment away from direct sunlight, or in humid or damp places.
4. Do not place this equipment in an unstable position, or on vibrating surface before setting it up.
5. Do not use or place this equipment near magnetic fields, televisions, or radios to avoid electronic interface that affects device performance.
6. Do not attempt to disassemble or repair the equipment or the warranty would be useless.
7. To avoid damaging your system and equipment, please make sure that your computer is off before you install the product.

Table of Contents

1.

Introduction

The USB3.0 Graphics Adapter provides a unique solution to add extra displays to a computer without using additional graphics cards. This product has successfully challenged the limitations of current display connectivity to deliver a highly interactive user experience across USB 3.0 or USB2.0 connectivity. Users can instantly clone or extend a desktop onto another display via Display Port, HDMI, DVI or VGA (D-Sub) interface, such as LCD, CRT, projector and plasma displays. With USB interface plug-n-play and bus power feature, this product brings multi-monitor applications into the mainstream.

The following topics covered in this chapter:

1.1 **Overview**

1.2 **Package Checklist**

1.3 **Product Features**

1.4 **Product Specifications**

1.5 **System Requirements**

1.1 Overview

Super Speed USB3.0 interface is the next revolution in I/O interconnect standards that will deliver the bandwidth and features required by PCs, consumer electronics and communications devices. With 10 times faster throughput than USB 2.0 standard, USB3.0 Graphic adapter enhances better VGA performance effect and reduce CPU loading substantially.

With this handy adapter, you can enjoy many benefits brought by an add-on monitor. The most obvious one is that you get more desktop area to have more applications visible at one time. For example, you may work on one monitor while your family watches video on the other. No more stacking windows within the confines of a single display. Or you may span an application, e.g. spreadsheets, across two displays. What's more, the adapter is hot pluggable. If you are not using the extra monitor, just unplug the adapter at any time; no reboot needed.

1.2 Package Checklist

Check if the following items are present and in good condition upon opening your package. Contact your retailer if any of the items is damaged or missing.

1. USB3.0 Graphics Adapter
2. User Manual
3. USB3.0 Cable (Optional)

1.3 Product Features

- Add-on monitor, LCD or projector through USB3.0 or USB2.0 connectivity.
- Supports widescreen aspect ratio of 16:9 Full HD 1080P video streaming.
- High performance USB Graphics Engine supports resolutions up to 2048 x 1152 @ 32bit.
- Low power consumption via USB Bus power supply (without Heat Sink).
- Supports desktop display mirror, extend, multi-screen, and screen rotation modes.
- Up to six USB3.0 graphic adapters working simultaneously.
- Hot-swapping / Plug-n-Play of monitors without reconfiguration.
- Movement of windows on the desktop is smooth, with no trail or shuddering.
- Compatible with Windows power management hibernates and suspends modes.
- Specialized for office using, home entertainment, and video playing.
- Certified by CE, FCC, and RoHS approval.

1.4 Product Specifications

- Interface: USB3.0 Super Speed, and backward compatible with USB2.0 High Speed
- Memory: 64 MB DDR Synchronous DRAM (SDRAM)
- Connectivity: Display Port, HDMI, DVI-I or D-Sub VGA (Product dependent)
- Resolution: 640x480, 720x480, 768x576, **800x600**, **832x624**, 800x480, 848x480, 1024x600, **1024x768**, **1152x864**, 1152x870, **1280x720**, 1280x768, **1280x800**, **1280x960**, **1280x1024**, 1360x768, 1366x768, 1368x768, 1400x1050, **1440x900**, 1600x900, 1600x1200, **1680x1050**, **1920x1080**, 1920x1200, 2048x1080, 2048x1152, 2048x1280, 2048x1536, 2560x1440, 2560x1600
- Color Depth: 32-bit True Color
- Power Supply: USB Bus Power +5VDC
- OS Support: Windows 8,7, Vista, XP and MAC OS 10.6
- Environment: Operation temp. 10 ℃ ~ 40 ℃ (50-104℉)
- Relative humidity: < 85% non-condensing
- Storage temp: -10 ℃ ~ 85 ℃ (14~176℉)
- Regulatory Approvals: FCC Part 15 Class B, CE (EN55022, EN61000, EN55024) , VCCI, C-Tick, BSMI, RoHS

1.5 System Requirements

The USB Graphics Adapter software can be used on PCs, from Netbooks, Notebooks/Laptops to Desktops. The driver will run on processors ranging from Atom N270 based PCs, basic single Core CPUs, and of course the latest Dual, Quad Core and Core i3/i5/i7 CPUs.

The USB Graphics Adapter software is available for PCs running one of the following Windows and MAC operating systems:

- Windows 8(32/64bit)
- Windows 7(32/64bit)
- Windows Vista(32/64bit)
- Windows XP with Service Pack 2 (32bit)
- MAC OS 10.6

Note: 64-bit editions of XP and Windows server 2003 are not supported. Mac OS X support can be found at http://www.displaylink.com/mac

Recommended typical system requirements are:

Windows 8 and Windows 7

For Windows 8 and Windows 7, the Windows Experience Index (WEI) is a useful measure of hardware level. The WEI is accessible from Computer→ Properties, or from Control Panel → System.

The minimum hardware requirements for the PC are:

- WEI score of at least 3 in the 'Graphics; Desktop performance for Windows Aero' category.
- Overall WEI score of at least 3 as recommended by Microsoft.
- At least one USB 2.0 port.
- 30 megabytes (MB) of free disk space.
- Computer screen for use with the DisplayLink device, if it is not integrated.
- Network access for software downloads, or access to a CD-ROM drive.

Windows Vista

For Windows Vista, the Windows Experience Index (WEI) is a useful measure of hardware level. The WEI is accessible from Computer→Properties, or from Control Panel→System.

The recommended typical hardware requirements for the PC are:

- WEI score of at least 3 in the 'Graphics; Desktop performance for Windows Aero' category.
- Overall WEI score of at least 3 as recommended by Microsoft.
- At least one USB 2.0 port
- 30 megabytes (MB) of free disk space.
- Computer screen for use with the DisplayLink device, if it is not integrated.
- Network access for software downloads, or access to a CD-ROM drive.

If the PC specification is below this, performance will be lower (or CPU loading higher than acceptable).

Windows XP

- For 1-2 monitors, business usage, productivity target. This may not provide full frame rate DVD playback at full screen.
  - 1.2GHz Single Core CPU
  - 512MB memory
  - For 3 monitors where 1 could run DVD video while also targeting productivity and business apps.
  - Will support only 1 video of DVD resolution at full screen:
  - 1.6GHz CPU
  - 1GB memory
- For 6 screens where 1 screen can run full screen DVD video:
  - 1.8GHz Core Duo
  - 1GB memory
  - At least one USB 2.0 port.
  - 30 megabytes (MB) of free disk space.
  - Computer screen for use with the DisplayLink device, if it is not integrated.
  - Network access for software downloads, or access to a CD-ROM drive.

Graphics Card Support (Windows 8 / Windows 7 / Windows Vista)

On Windows Vista, Windows 7 and Windows 8 DisplayLink software interacts closely with the primary graphics card. DisplayLink support and test a single graphics card (GPU) installed in a PC from all major GPU vendors (Intel, ATI, NVidia and Via). SIS graphics cards are not supported.

The following GPU configurations may exhibit compatibility issues on Windows 8, Windows 7 and Vista in certain circumstances:
● NVIDIA SLI in SLI mode

Other GPU configurations, including the following, are currently unsupported and will not function on Windows 8 / Windows 7 / Vista:
● Crossfire
● SLI not in SLI mode
● Multiple WDDM 1.1 or WDDM1.2 graphics drivers active at once

Graphics Card Support (Windows XP)

All graphics cards are supported on Windows XP.

Supported Languages

The following languages are supported, on all supported operating systems:
- Arabic
- Bahasa Indonesian
- Bulgarian
- Chinese (Traditional)
- Chinese (Simplified)
- Croatian
- Czech
- Danish
- Dutch
- English
- Finnish
- French
- Greek
- German
- Hungarian
- Italian
- Japanese
- Korean
- Norwegian
- Polish
- Portuguese
- Russian
- Slovak
- Slovenian
- Spanish
- Swedish
- Turkish

Unsupported languages default to English.

NOTE:

USB3.0 Graphics Adapter does NOT support Linux operation system.

2.

Hardware Installation

This chapter includes information about hardware installation for USB3.0 Graphics Adapter.
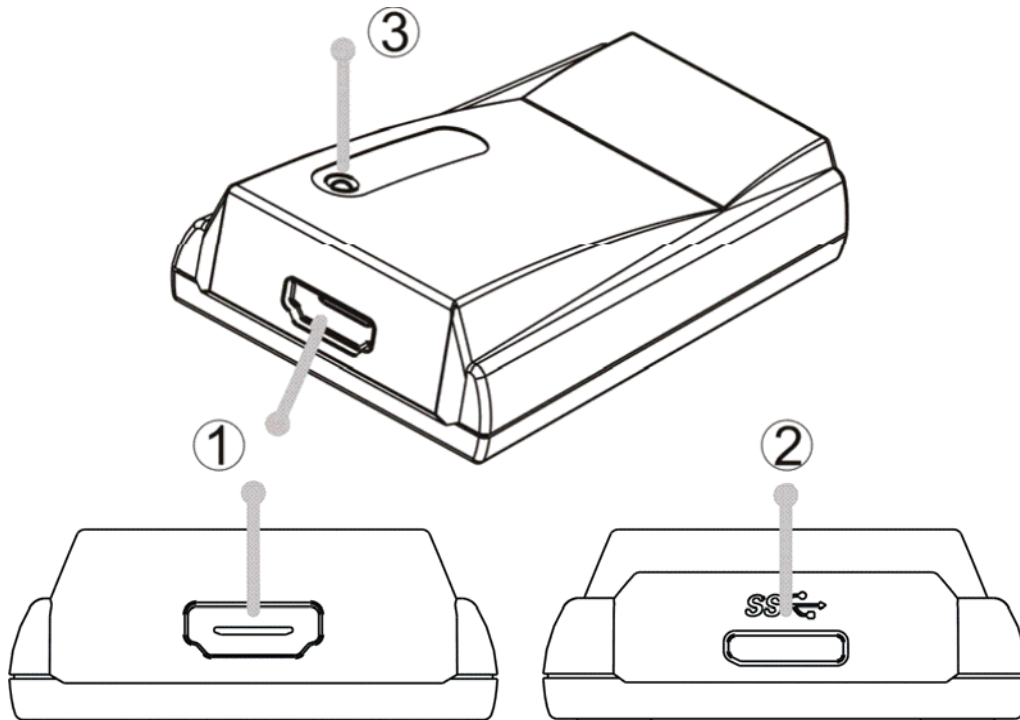The following topics are covered:

2.1 Hardware Guide

2.2 Installing USB3.0 Graphics Adapter Driver

2.3 Driver Uninstallation

2.4 Verify Installation

2.1 Hardware Guide

USB3.0 Graphics Adapter Appearance

①. Graphics output connector: Display Port, HDMI, DVI-I, or VGA (D-Sub)

<<Product dependent>>

②. USB3.0 Connector: USB3.0 Micro B Type Female Connector

③. LED: LED light up when graphics signal output to display over USB connectivity.

- Blue LED light up when running USB3.0 Super Speed connectivity.
- Red LED light up when running USB2.0 High Speed connectivity.

Note:

Be sure to connect display's video cable to USB3.0 Graphics Adapter firstly, and then connect USB cable to PC. **LED will act when video cable to monitor is ready.**

2.2 Installing USB3.0 Graphics Adapter Driver

Windows 8
Auto installing driver via windows Update

The preferred method of installation is using Window 7's Windows Update facility.

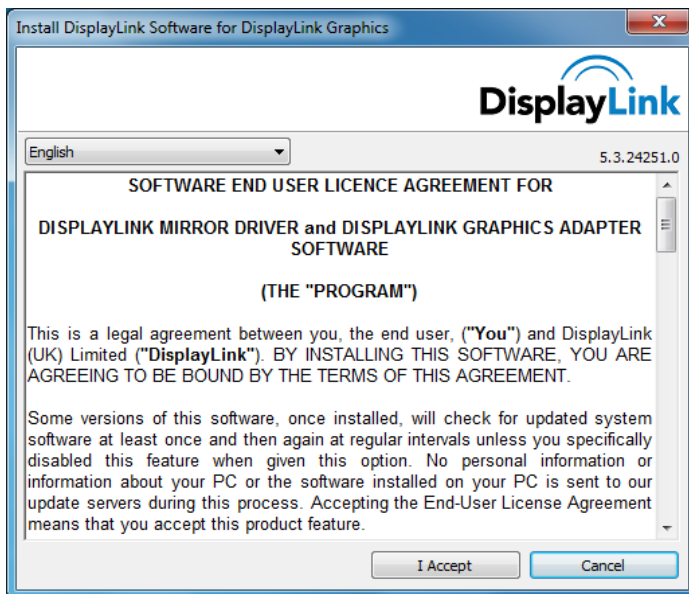**To Install the USB Graphics on Windows 7**

1. Connect your device via the USB cable to your PC.

   Windows detects the new hardware and automatically downloads the driver.
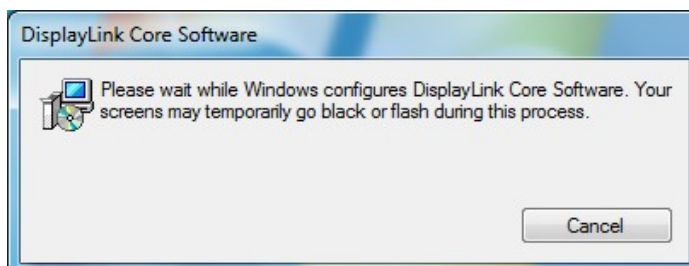

2. Once downloaded, the install will run

   The DisplayLink software end user licence agreement window opens.

3. Click *I Accept*.

   The DisplayLink Core software installs

   Note: The screen may flash or go black during the install.

Windows 8
Manual installing driver

Alternatively you may install the software from a website:
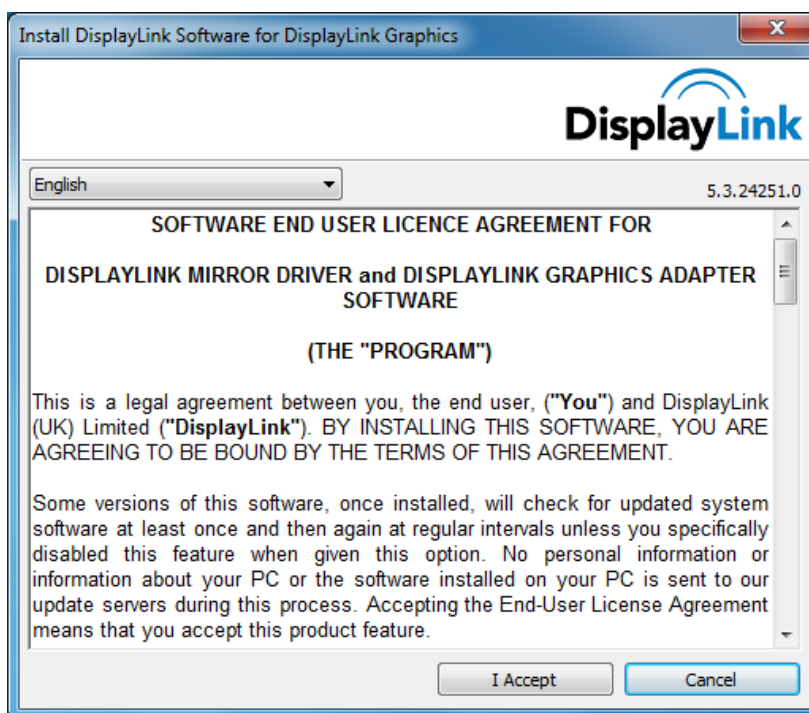http://www.displaylink.com.tw/support/downloads.php

Important! Do not connect a device/screen to your PC before the install.

1. Double click on *Setup.exe*.

   The Windows User Account Control window opens (if enabled in the OS).

2. Click *Yes*.

   The DisplayLink software end user licence agreement window opens.

3. Click *I Accept*.

   DisplayLink Core software and DisplayLink Graphics installs.

   Note: The screen may flash or go black during the install. No message will be shown at the end of the install.

4. Connect your device via the USB cable to your PC.

   Installing device driver message

5. The screen should flash and the device should start to extend the Windows desktop.

   Note: On some machines you may need to reboot before you can use your enabled device.

Windows 7
Auto installing driver via windows Update

The preferred method of installation is using Window 7's Windows Update facility.

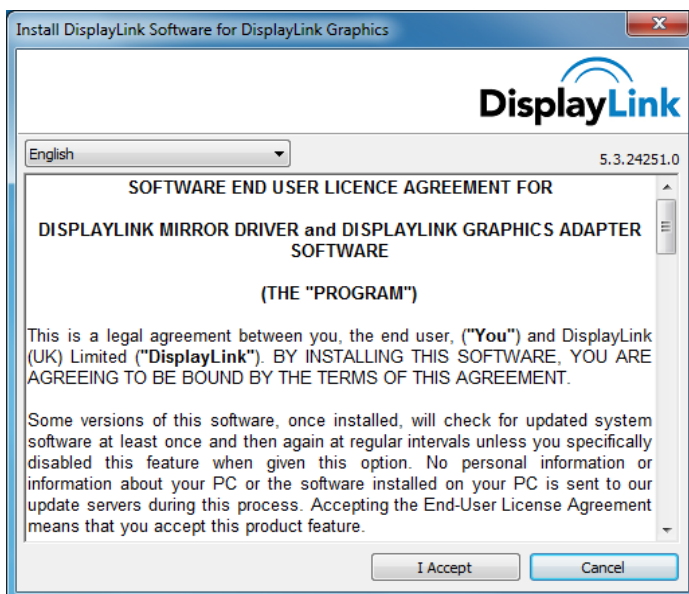**To Install the USB Graphics on Windows 7**

1. Connect your device via the USB cable to your PC.

   Windows detects the new hardware and automatically downloads the driver.

2. Once downloaded, the install will run

   The DisplayLink software end user licence agreement window opens.

3. Click *I Accept.*

The DisplayLink Core software installs

Note: The screen may flash or go black during the install.

Windows 7
Manual installing driver

Alternatively you may install the software from a website:
http://www.displaylink.com.tw/support/downloads.php

Important! Do not connect a device/screen to your PC before the install.

1. Double click on *Setup.exe.*

The Windows User Account Control window opens (if enabled in the OS).

2. Click *Yes.*

The DisplayLink software end user licence agreement window opens.

3. Click *I Accept.*

DisplayLink Core software and DisplayLink Graphics installs.

Note: The screen may flash or go black during the install. No message will be shown at the end of the install.

4. Connect your device via the USB cable to your PC.

Installing device driver message

5. The screen should flash and the DisplayLink device should start to extend the Windows desktop.

Note: On some machines you may need to reboot before you can use your enabled device.

Windows Vista

Alternatively you may install the software from a website:
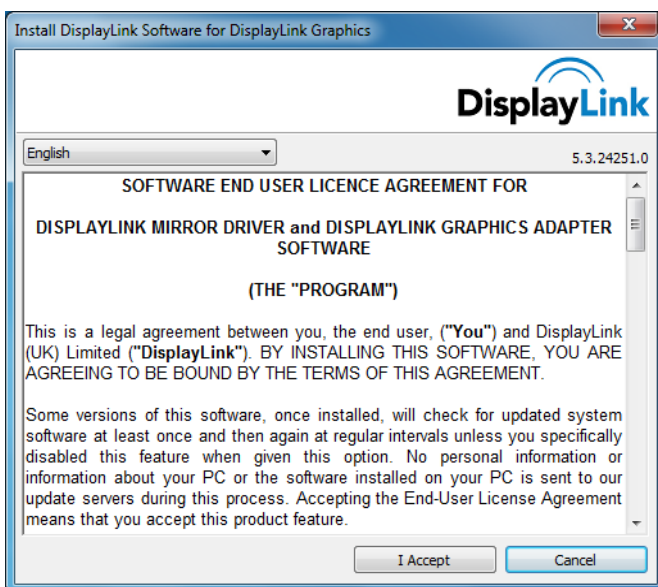http://www.displaylink.com.tw/support/downloads.php

Important! Do not connect a device/screen to your PC before the install.

1. Double click on Setup.exe.

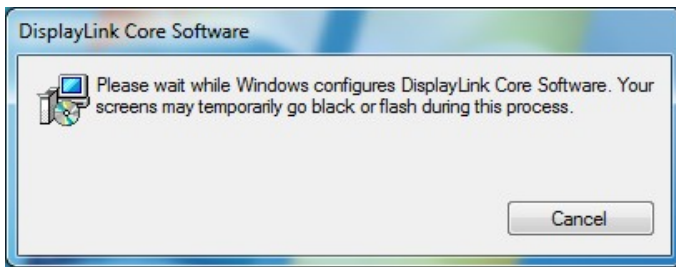The Windows User Account Control window opens (if enabled in the OS).

2. Click Continue.

The DisplayLink software end user licence agreement window opens.

3. Click *I Accept.*

   DisplayLink Core software and DisplayLink Graphics installs.

   Note: The screen may flash or go black during the install. No message will be shown at the end of the install.

4. Connect your device via the USB cable to your PC.

   Installing device driver message

5. The screen should flash and the device should start to extend the Windows desktop.
   Note: On some machines you may need to reboot before you can use your enabled device.

Windows XP

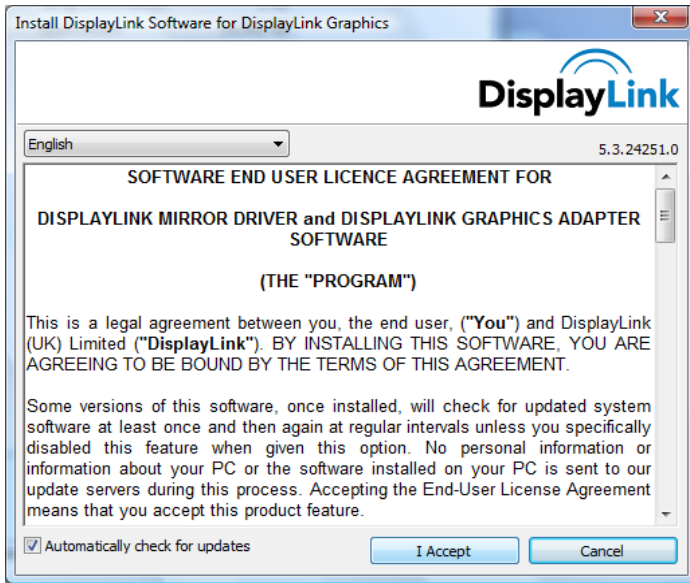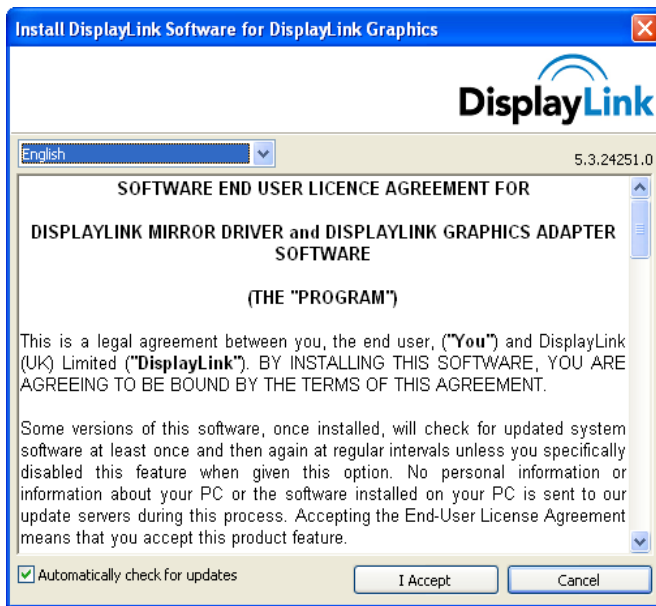Alternatively you may install the software from a website:
http://www.displaylink.com.tw/support/downloads.php

Important! Do not connect a device/screen to your PC before the install.
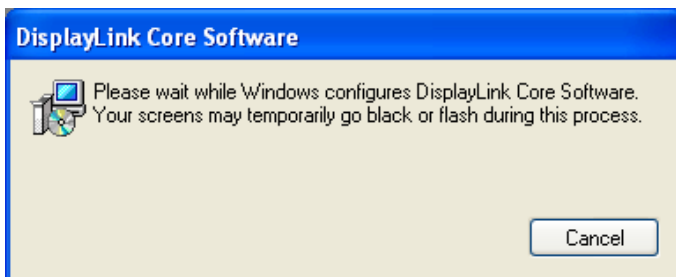
1. Double click on Setup.exe.

   The DisplayLink software end user licence agreement window opens.

2. Click *I Accept*.

   DisplayLink Core software and DisplayLink Graphics installs.

   Note: The screen may flash or go black during the install.

3. Connect your device via the USB cable to your PC. The following message (or similar) will be seen.

   Windows installs the device.
   Note: The screen may flash or go black during the install.

Windows Update

On Windows 7 and Windows 8, the DisplayLink software connecting to the Microsoft Windows update site to obtain the latest DisplayLink driver. On selecting "Check for updates", the DisplayLink software connecting to Windows update, downloads and installs the latest software.

2.3 Uninstalling the USB Graphics Software

The method for uninstalling differs slightly depending on your operating system.

Uninstalling on Windows 8 and Windows 7

Use this procedure to uninstall the USB Graphics software from Windows 7 or Windows 8.

1. From the Start Menu, find Control Panel.

2. From the Programs item, click *Uninstall program*.

3. Double click on *DisplayLink Core software*.

    A windows confirmation dialog opens (if enabled)
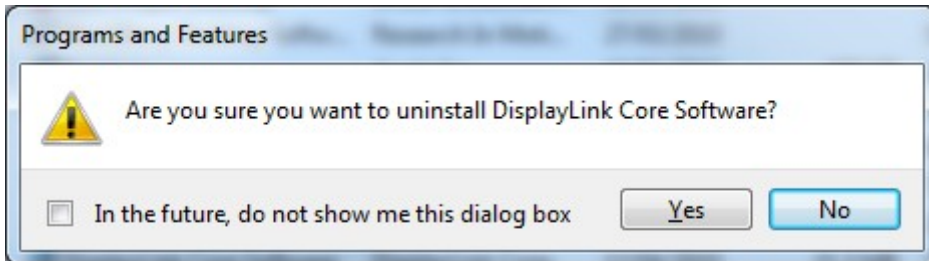
4. Click *Yes*.

5. A message may appear to state which software packages will also be uninstalled
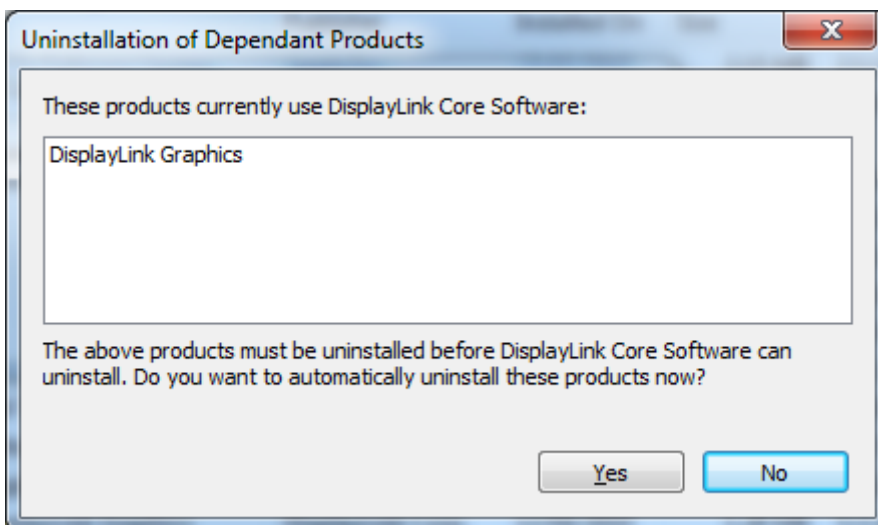
    Click *Yes* to uninstall the packages that use DisplayLink Core Software

    The uninstaller automatically uninstalls the software.

6. Once uninstalled, you will be prompted to reboot

    Click *Yes* to complete the uninstall.

Uninstalling on Windows Vista

The USB Graphics software can be removed from the Programs and Features utility under the Windows
Vista control panel. (On Windows XP this is called Add or Remove Programs).

1. Select Start > Control Panel > Programs and Features.

2. Select *DisplayLink Core software* and click on *Uninstall.*

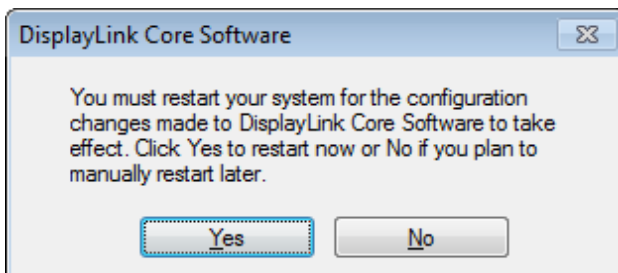   A windows confirmation dialog opens (if enabled)

3. Click *Yes.*

4. A message may appear to state which software packages will also be uninstalled
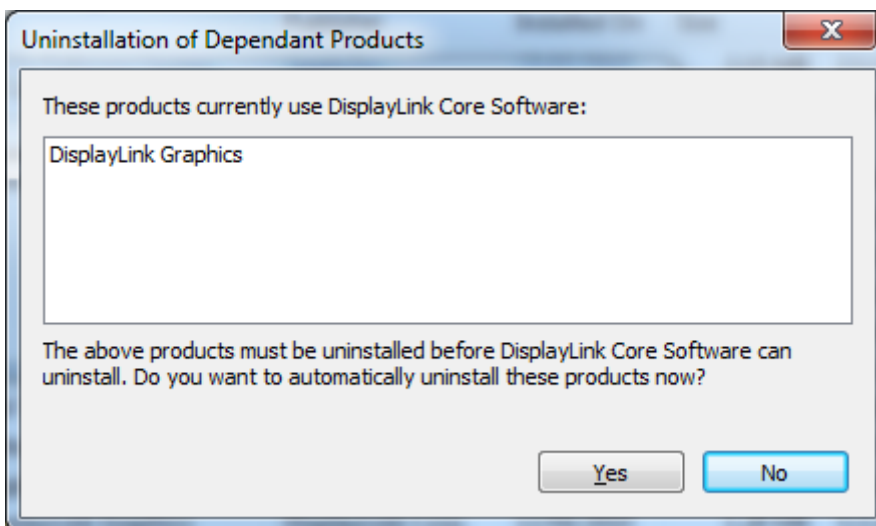
   Click *Yes* to uninstall the packages that use DisplayLink Core Software

   The uninstaller automatically uninstalls the software.

5. Once uninstalled, you will be prompted to reboot
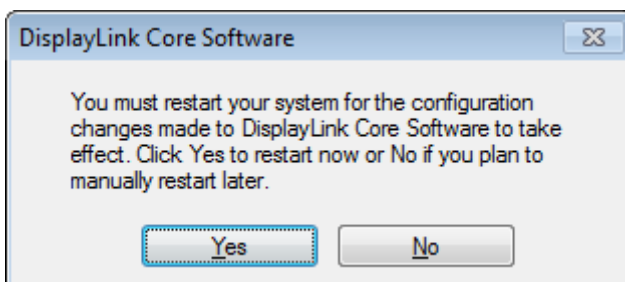
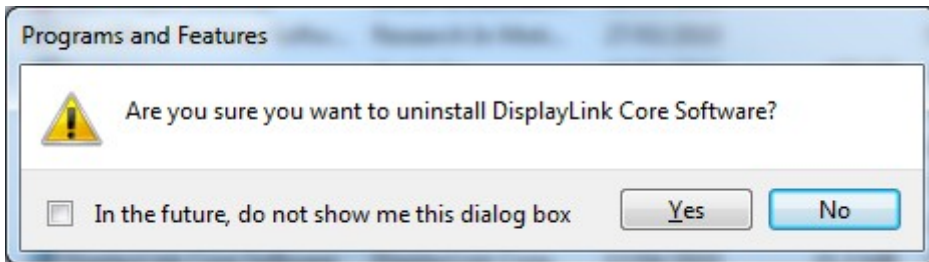6. Click *Yes* to complete the uninstall.

Uninstalling on Windows XP

1. Select Start > Control Panel > Add or Remove Programs.
2. Select DisplayLink Core software and click on *Remove.*

   A windows confirmation dialog opens.

   Add or Remove Programs

   ? Are you sure you want to remove DisplayLink Core Software from your computer?

   [Yes] [No]

3. Click *Yes.*
4. A message may appear to state which software packages will also be uninstalled

   Uninstallation of Dependant Products

   These products currently use DisplayLink Core Software:
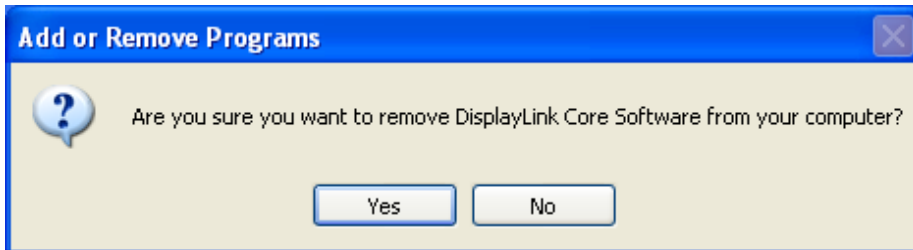
   DisplayLink Graphics

   The above products must be uninstalled before DisplayLink Core Software can uninstall. Do you want to automatically uninstall these products now?

   [Yes] [No]
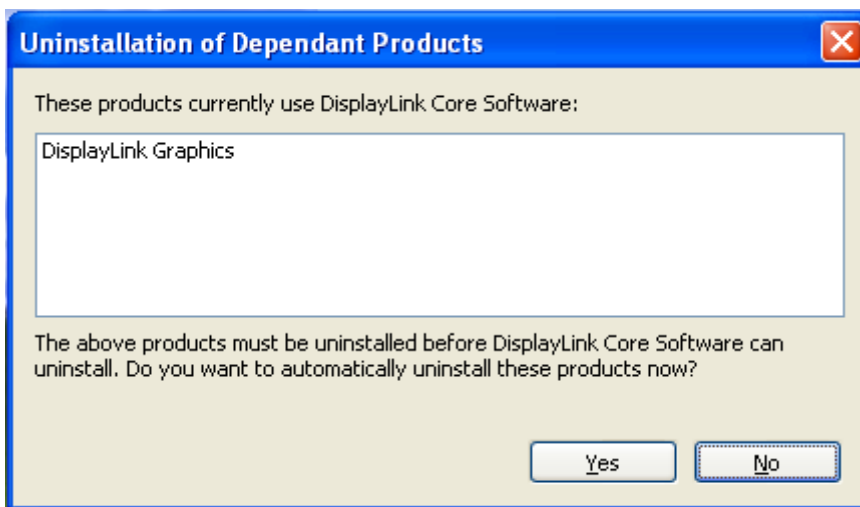
   Click *Yes* to uninstall the packages that use DisplayLink Core Software

   The uninstaller automatically uninstalls the software.

5. Once uninstalled, you will be prompted to reboot
6. A message may appear to state which software packages will also be uninstalled

   DisplayLink Core Software

   You must restart your system for the configuration changes made to DisplayLink Core Software to take effect. Click Yes to restart now or No if you plan to manually restart later.

   [Yes] [No]
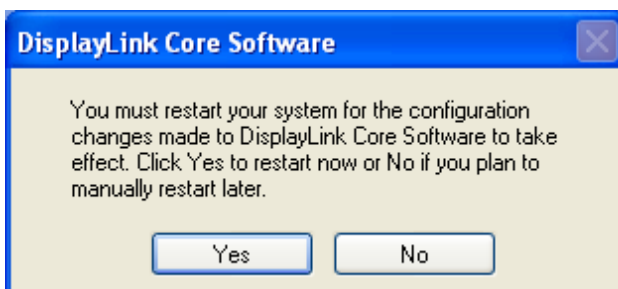
7. Click *Yes* to complete the uninstall.

2.4 Verify Installation

You can use Windows "**Device Manager**" to verify proper installation.

(1) Click on the "**Programs and Features**" tab in the Windows Control Panel.
Start → Controller Panel → Device Manager
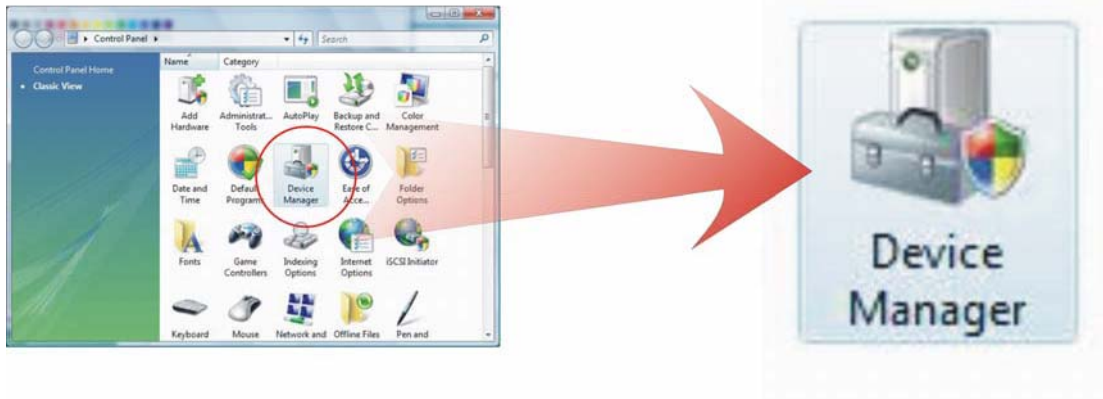
(2) Under Microsoft Windows , you can read "**USB HDMI Audio**" and "**DisplayLink Display Adapter**" and "**VGA2785**" device. In the Device Manager.
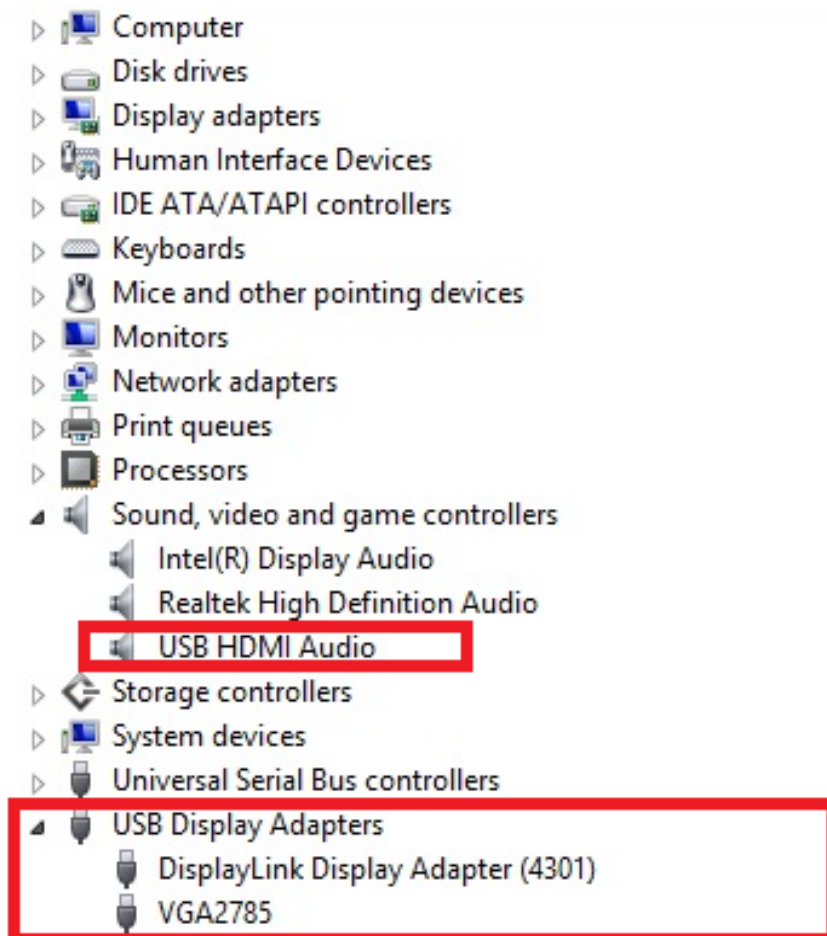
Note:

USB3.0 Audio Device only supports USB3.0 Graphics Adapter with HDMI Connectivity. **DVI and VGA (D-Sub) interfaces does NOT support audio function.**

3.

Display Manager Operation

This chapter includes information about how to operate USB3.0 Graphics Adapter. The following topics are covered:

3.1 Configuring USB3.0 Graphics Adapter Displays

3.2 Windows 8 and Windows 7 - Controlling the Display

3.3 Windows Vista and XP – Windows Display Properties

3.4 Fit to TV

3.1 Configuring USB3.0 Graphics Adapter Displays

This section describes how to use Software. The section is divided into sub-sections relating to your operating system.

*Note: The terminology for "mirror mode" can vary between operating systems and the DisplayLink GUI. The terms "Clone", "Mirror" and "Duplicate" are interchangeable and provide the same function of making the contents of the 2 selected displays identical.*

Behaviors on first connect

When connecting a USB 3.0 graphics adapter, It's will be checked by the host software. If they do not match, the firmware on the device will be updated. While the firmware is updating, a window similar to that shown below will be shown.
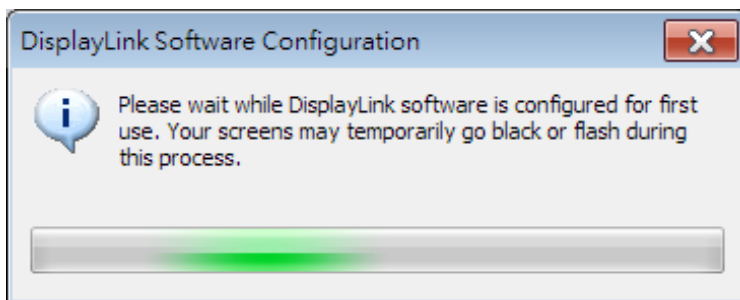
This process may take up to 20 seconds. Once complete, your device should begin to function.

Device/Monitor Detection

The System tray GUI, covered below, will only be available when a USB 3.0 graphics adapter device is detected on the USB bus.

When using a USB 3.0 graphics adapter product, a new monitor will also be added in Windows Display Properties, even if there is no monitor connected to the device.

USB 3.0 graphics adapter now support monitor detect, therefore a new display will only be available once the device is connected to the PC and a monitor is attached to the video output of the device.

Resolution Support

When a monitor is connected to a USB 3.0 graphics adapter device, the host software reads the supported modes from the display. These are the only supported modes offered by the USB 3.0 graphics adapter software, through the USB 3.0 graphics adapter UI or Windows Display Properties. The USB 3.0 graphics adapter software will use the monitor's preferred mode by default.

If the monitor does not report any supported modes, USB 3.0 graphics adapter will offer a list of default modes.

Note: not all supported monitor modes may be offered if they are not supported by your USB 3.0 graphics adapter device.

3.2 Windows 8 and Windows 7 - Controlling the Display

When devices are attached, an icon appears in the taskbar. This gives you access to the DisplayLink manager menu.

To use the DisplayLink Manager Menu

1. From the taskbar, click the *Show hidden icons* arrow to show all available icons.
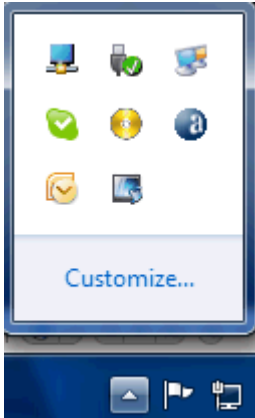
2. Click the DisplayLink icon ![icon].

 A menu appears with several options. These are shown and described below.

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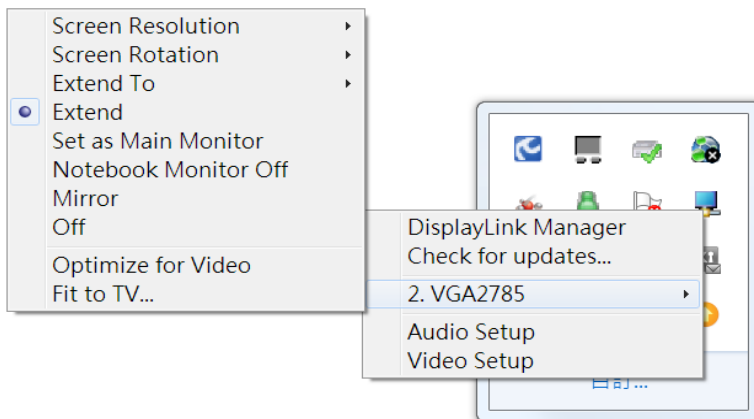| Main Menu	Description
DisplayLink Manager	This is the UI title. Clicking on this item will open Windows screen resolution setup manual.
Check for Updates	Connects to the Microsoft Windows Update Server to check for newer software versions and downloads them, if available. No updates for DisplayLink software are available You have the most recent version of the DisplayLink software installed
2.VGA2785	Options to configure this USB 3.0 graphics adapter device In this section of the menu, a list of connected USB 3.0 graphics adapter devices will appear. Each of these devices has its own sub-configuration menu. These Submenu options are covered in the table below. *Detail setup description please reference next table.
Audio Setup	Opens the Windows Audio Configuration Window.
Video Setup	Opens the Windows Screen Resolution window.

Sub Display Menu		Description
Screen Resolution		Displays a list of available resolutions. Some resolutions may be enclosed by [resolution setting]. Please see, Inferred Modes. This option is not available in mirror mode, as the resolution is defined as the resolution of the main monitor.
Screen Rotation	Normal	No rotation is applied to the USB 3.0 graphics adapter display
	Rotated Left	Rotates the extended or mirrored display by 270 degrees clockwise.
	Rotated Right	Rotates the extended or mirrored display by 90 degrees clockwise.
	Upside-Down	Rotates the extended or mirrored display by 180 degrees clockwise.
Extend To	Right	Extends the display to the right of the main display.
	Left	Extends the display to the left of the main display.
	Above	Extends the display above of the main display.
	Below	Extends the display below the main display.
Extend		Extends your Windows desktop onto this display.

Set as Main Monitor		Sets this screen as the main display.
Notebook Monitor Off		Switches off the display of the notebook and makes the USB 3.0 graphics adapter with display the main display. Note: This option will only appear when 1 USB graphics adapter screen, is connected. It will also only appear on Laptop computers.
Mirror		Copies what is on the main display and reproduces it on this display. Note: The resolution of this display and the primary must be the same in mirror mode. This may be lower than the preferred resolution of the display. It is only possible to mirror 2 displays. If a display is already set to mirror mode, this option will be greyed out for the other USB 3.0 graphics adapter displays and not available.
Off		Switches off this display.
Optimize for Video		Select this option for better movie playback performance on the USB graphics adapter enabled displays. Only select this option when playing back video content. **Note**: Text may appear less clear when enabled.
Fit to TV		If the Windows desktop does not completely appear on the TV, this option can be used to adjust the size of the Windows desktop. See "Fit to TV" for details on how to configure this feature. Notes: This option will only appear when 1 USB graphics adapter screen, is connected This option will only work in extend mode. Selecting the option in mirror mode will extend the displays.

Setting the Display into Extend Mode

In extend mode, the monitor attached to the USB Graphics device forms part of the extended Windows desktop. The extra desktop area is a great productivity aid, allowing more applications or documents to be visible at a time.

To set the display into Extend Mode

1. Click on the DisplayLink icon .
2. Select *Extend*.

The device is now extended in the direction it was the last time the display was in this mode. For more control, use the Extend To submenu and select one of the options. This puts the device into extend mode, and places it to the Left/Right/Above/Below the main (primary) monitor.

Setting the Display into Mirror Mode

In mirror mode, the monitor attached to the USB Graphics device duplicates what is on the primary display.

To set the display into Mirror mode

1. Click on the DisplayLink icon .
2. Select *Mirror*.

The resolution, color depth and refresh rate of the primary screen are replicated on the monitor connected to the USB Graphics device.

If the monitor connected to the USB Graphics device supports a lower resolution than the primary display, then the primary graphics device will have its resolution changed automatically to ensure the whole picture fits on the external screen. Where the monitor connected to the USB Graphics device is of a larger size than the primary screen the image will be letter-boxed to keep the aspect ratio correct.

3.3 Windows Vista and XP – Windows Display Properties

You can also configure the USB Graphics device from the Windows Display Properties dialog box.

To open the Windows Display Properties on Windows Vista

1. Right-click on the Desktop.
2. Click Personalize.
3. Click Display Settings.

   The Display Settings window opens.

Select the display to be configured. Its mode, resolution, color quality and position can all be controlled from here.

To open the Windows Display Properties on Windows XP

1. Right-click on the Desktop.
2. Select Properties.

   The Display Properties dialog opens.

3. Select the *Settings* tab.

Setting the Display into Extend Mode

Use this procedure when you want to extend the Windows desktop to the DisplayLink display. This allows many different applications to be spread over multiple displays, to be able to see multiple applications at the same time.

To set the display to Extend Mode using Windows Display properties

1. Select Extend the desktop onto this monitor checkbox (1 in Figure 1).
2. Arrange the screen resolution using the *Resolution* slide bar. (2)
3. Select the color quality from the *Colors* drop-down list. (3).
4. Arrange its position with respect to the other monitors on the extended desktop in using the drag area (4).
5. Click *OK* to save your changes.
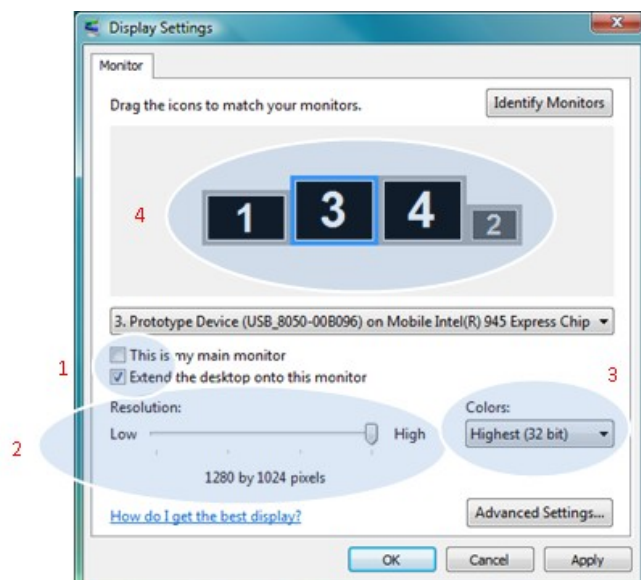
For more detailed mode setting, including the refresh rate, click Advanced Settings button, then the Adapter tab then on the List all modes button. All valid combinations of resolution, color quality and refresh rate are listed. For CRT monitors, it is best to use a high refresh rate so as to avoid discomfort due to flicker. Flat panel monitors do not flicker and a low refresh rate is adequate.

To set the display to Extend Mode using the DisplayLink menu

1. From the taskbar, click on the DisplayLink icon.
2. Select Extend.

Setting the Display to Mirror the Primary Screen

Mirror mode copies what is on the main display and reproduces it on the secondary display.

To set the display into Mirror Mode

1. Uncheck the *Extend the desktop onto this monitor* checkbox (1 in Figure).

2. Click Apply.

To set the display into Mirror mode using the DisplayLink menu

1. From the taskbar, click on the DisplayLink icon .

2. Select *Mirror*

Note: The display resolution of the primary display and the display may be changed to a lower resolution. In mirror mode, both screens must output the same resolution, which may not be the maximum resolution of the display.

This mode is NOT recommended if using the display as the primary laptop display, as it is unlikely to provide the optimum resolution for the DisplayLink display.

Setting the display as the Primary Display

To make the USB Graphics the Primary Display

1. Select the *This is my main monitor* checkbox (1 in Figure).
2. Click *Apply*.

Note: On some PCs and laptops it is necessary to disable the main display (clear the Extend the desktop onto this monitor checkbox for the main display) as part of the same settings change. The reason for this is that many primary graphics card drivers tend to make the laptop screen primary if it is enabled. The only workaround for this is to disable the laptop screen to allow another screen to be primary. To do this:

1. Select the *This is my main monitor* checkbox (1 in Figure) of the DisplayLink display.
2. Select the primary display (Display 1).
3. Uncheck the *Extend the desktop onto this monitor* checkbox (1 in Figure 1).
4. Click *Apply*.

The USB Graphics device stays primary if the PC enters hibernate or suspend mode or is rebooted. If the USB Graphics device is detached from the computer while it was set as the main monitor, the computer's display will become the main monitor again..

To make the USB Graphics device the Primary Display using the DisplayLink menu

1. From the taskbar, click on the DisplayLink icon .
2. Select Set as Main Monitor.

Setting a Laptop Lid to do Nothing (Upon Close)

It is possible to use a laptop with a DisplayLink USB device and conveniently have the

laptop closed on the side by setting its action when closing the lid to 'do nothing' , and

then making the DisplayLink USB Graphics

device screen primary while disabling the main screen. The laptop lid can then be closed and

the laptop used with only the USB Graphics device screen and with and external keyboard and

mouse.

To set a laptop to do nothing

1. **Select Start menu > Control Panel > Power Options.**
    2. Select *Choose* what closing the lid does.
    3. From When I close the lid, select *Do nothing* from the *On battery* and *Plugged in* drop
    down list.

3.4 Fit to TV

If using your USB Graphics device to connect to a TV, all of the Windows desktop may not be available. Many TVs will automatically 'overscan' the image they get by cutting off the borders and filling the screen with the image. On some TVs it may be possible to turn this 'overscan' off in your TVs settings menu, consult your TVs User Manual to see if this is an option for you. If you can do so, then you will not need to use the Fit to TV function of the DisplayLink UI.

Fit to TV can be used to reduce the size of the Windows desktop on the TV screen.

Notes:
*Fit to TV only works in extend mode. If choosing the option while in mirror mode, the USB Graphics device screen will change to extend and be placed above the laptop screen in Windows Display Properties.*

Fit to TV will only operate correctly when one USB Graphics device is connected. It is not designed to work on multiple USB Graphics device screens.

Fit to TV does not support rotated modes.

Configuration

1. To configure Fit to TV, choose the option from the DisplayLink GUI. The following interface appears
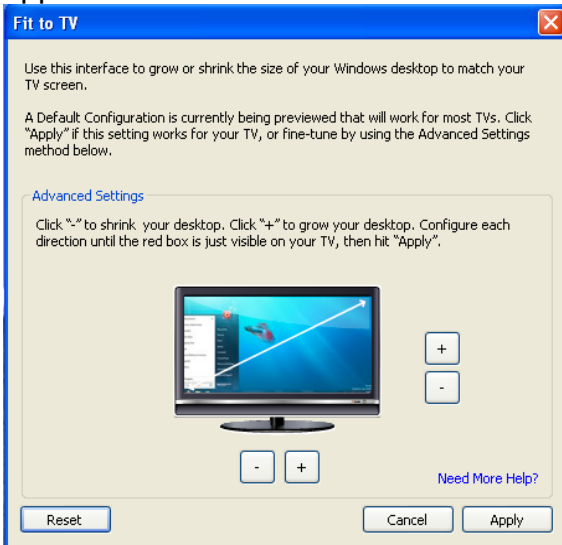
2. You will also see a red border on the USB Graphics device screen

    The red border shows the size of the new Windows desktop. Use the "+" and "-" controls on the Fit to TV GUI to change the size of the red border until it fits on the TV screen.

    Note: Finer configuration of the size of the border can be achieved by holding down the CTRL key and clicking the "+"and "-".

3. Once the red border is at the edges of the TV screen, click "Apply" to resize the Windows desktop.

3.5 Audio Configuration

This section describes how to configure the audio settings.

Configuring USB audio on Windows 8, Windows 7 or Windows Vista

Setting USB audio as the default output

The audio settings can be opened from the USB Graphics device UI, by choosing the *Audio Setup* option. The Sound window is shown:
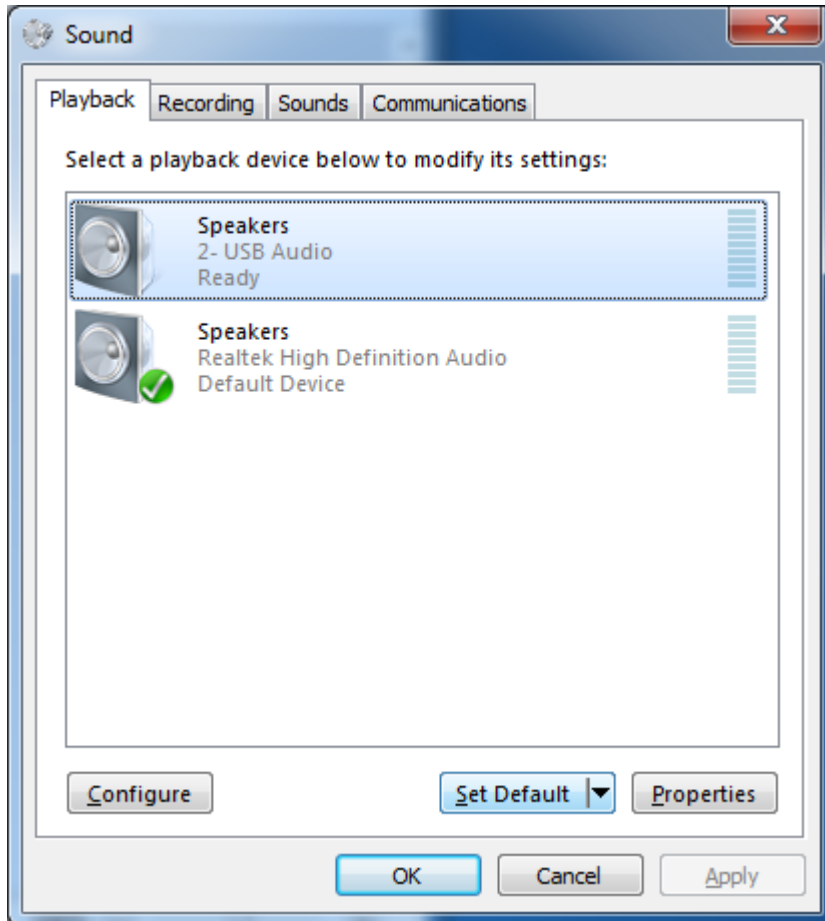
To make the USB audio device default:

1. Click on the *USB audio* device

   Note: The actual name of this device will differ depending on the product.

2. Choose *Set Default* to make this the default audio output

It may be necessary to restart applications using audio to force them to use the new default audio output.

Configuring the audio output

To configure the audio output to match your speaker setup

1. Open the *Audio setup* from the USB Graphics device UI

2. Select the *USB Audio* device

3. Click on *Configure*. The audio configuration window is shown
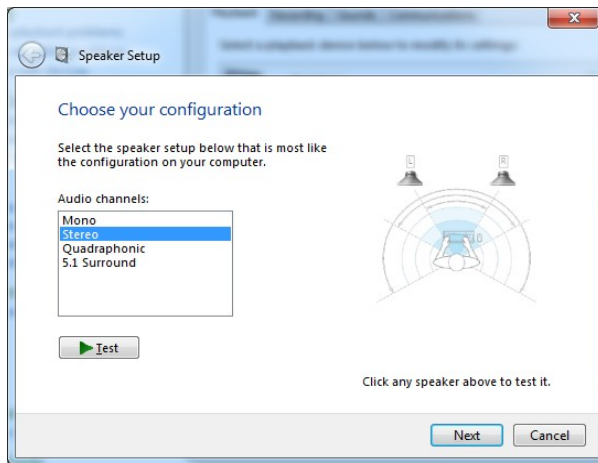
4. Choose your audio configuration to match your speaker setup. Click *Next*

5. Customize your configuration as required and Click *Next*

6. Click *Finish*

Configuring USB audio on Windows XP

Setting USB audio as the default output

The audio settings can be opened from the USB Graphics device UI, by choosing the *Audio Setup* option. The Sound and Audio
Devices Properties window is shown

1. Click on the *Audio* tab

2. Under *Sound Playback*, select the *USB Audio Device*. This changes the default sound output to the USB Audio

3. Under Sound Recording, select the *USB Audio Device*. This changes the default recording input to the USB Audio

4. Click OK to apply the changes and close the window.

It may be necessary to restart applications using audio to force them to use the new default audio output.
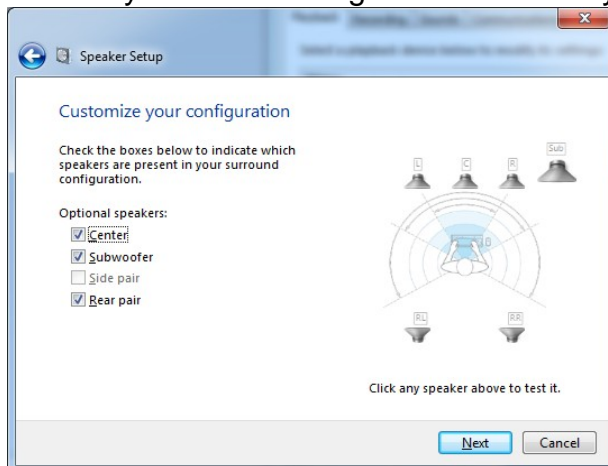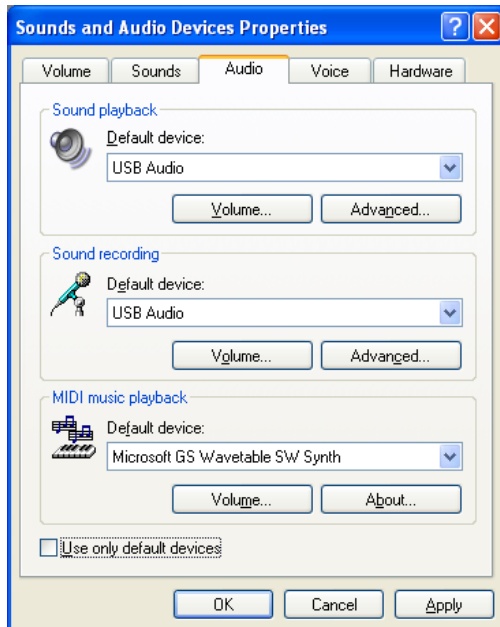
Configuring the audio output

To configure the audio output to match your speaker setup

1. Open the *Audio setup* from the USB Graphics device UI

2. Click on the *Audio* tab

3. Under *Sound Playback*, select the *USB Audio Device*. This changes the default sound output to the USB Graphics audio device

4. Click *Advanced*

5. Under the *Speaker Setup*, select your speaker configuration from the dropdown
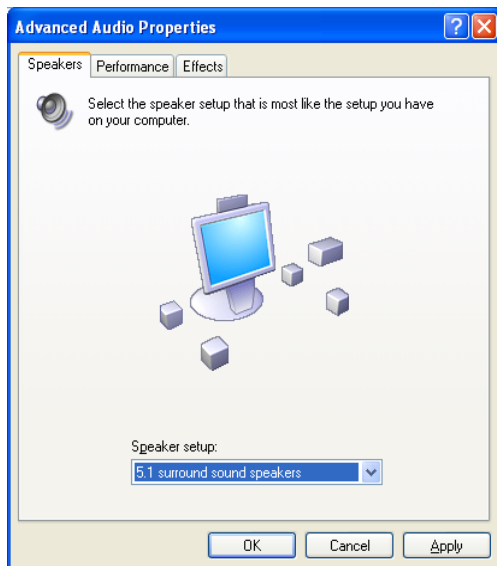
6. Click *OK*

NOTE:

USB3.0 Graphics Adapter can output both video and 2-channel audio signals to monitor over HDMI connection. But DVI-I and VGA connectivity only support video output.

HDMI

Video & Audio output over HDMI or DP connectivity

3.6 Others

1. Standby and Hibernate, Shut Down and Restart

When USB3.0 Graphics Adapter is connected to a computer and an external monitor, if the computer goes into standby or hibernate mode, the external monitor display goes blank.

When the computer returns to an active state, the external monitor display keeps the same settings it had before the computer went into standby or hibernate mode. However, if the add-on monitor was set for extended mode, windows that were previously on the external monitor will not move back to that secondary monitor. Also, if the add-on monitor is in extended mode and the computer requires a login after standby or hibernate mode, the login screen appears on the primary computer monitor, not the external monitor.

If the computer is shut down, restarted and logged in, again the add-on monitor returns to the same mode as it was before shutdown.

2. Disconnecting the Adapter

If USB3.0 Graphics Adapter is unplugged from the computer, the add-on monitor goes blank. All windows and icons move to the primary screen.

On reconnection of the adapter, the adapter returns to the same mode as it was before disconnection. However, windows and icons that were previously on the screen will not be moved back.

3. Using Multi Adapters

Up to four adapters can be simultaneously attached to one computer. For example, to use 2 adapters steps:

1. Install driver and connect the first adapter to your computer.

2. Then connect the second adapter to your computer. The system will automatically complete the installation. While two adapters are connected to a computer, in most cases both adapters support extended and mirror modes.

4.

MAC Software

This chapter is description how to quickly get to grips with the Mac software. It will explain how to obtain and install the latest software, what hardware you require and how to configure your USB connected displays. We cover the following topics.

4.1 Introduction

4.2 Setup USB Graphics Driver

4.3 Connecting displays to your Mac

4.4 Managing Multiple Displays

4.5 Setting the Display Resolutions

4.6 Rotating a Display

4.7 Setting the Position of Displays

4.8 Setting the Display to Mirror /Extend mode

4.9 Changing the main display

4.1 Introduction

The USB graphics adapter Mac software is designed for Mac OS X 10.6 (Snow Leopard), 10.7 (Lion) and 10.8 (Mountain Lion) to enable you to add an additional monitors to your Mac system. This software allows you to run your USB graphics adapter on any Intel based desktop or laptop Mac, allowing you to connect up to 4 additional monitors via USB.

Note: Power PC-based Macintosh computers, such as late-model iMacs, Power Books and PowerMacs, are not supported.

4.2 Setup USB Graphics Driver

The latest version of this software can be obtained from: http://www.displaylink.com/mac

Installing/Uninstalling the USB Graphics Driver

When download and running installation the DisplayLink USB graphics driver. The screen will show as :

The left side bottom function and description as :

- Select 'DisplayLink Software Installer' to begin installing the USB graphics driver on your Mac. This will run a standard Mac installer and will require a restart once complete.
- Select 'User Guide' to view the User Guide.
- Select 'DisplayLink Software Uninstaller' to uninstall the USB graphics driver from your Mac. This will require a restart once

4.3 Connecting displays to your Mac

Once you have installed the DisplayLink USB graphics software, simply plug in your USB graphics devices powered products via USB and connect each display to a device. You can now connect up to 4 additional displays. Example setups as:

Mac Mini connects to first monitor via standard DVI cable, and second monitor connects to USB graphics adapter via VGA / DVI / HDMI cable, depending on the adapter output and monitor input.

Video Cable   USB Cable   Video Cable
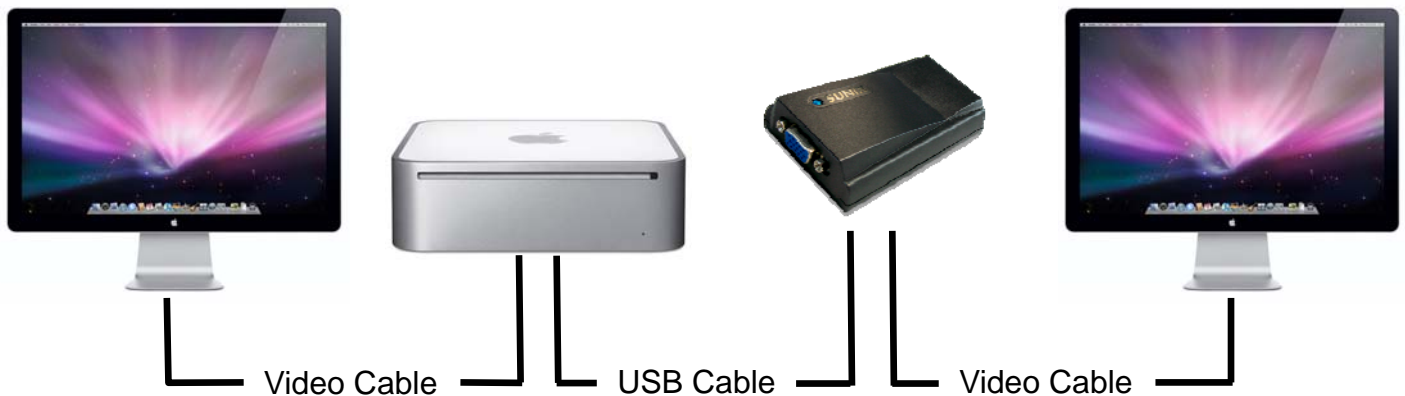
4.4 Managing Multiple Displays

When attaching a display that the software has not seen before, the display will default to being extended to the right of the main display.

To configure the settings for each of your USB attached displays, select '**Displays**' from the '**System Preferences**' menu. This will open a '**Display Preferences**' window on each of your attached displays allowing you to configure each display as required.

It is possible to use the '**Gather Windows**' button to bring all the '**Display Preferences**' windows onto the main display.

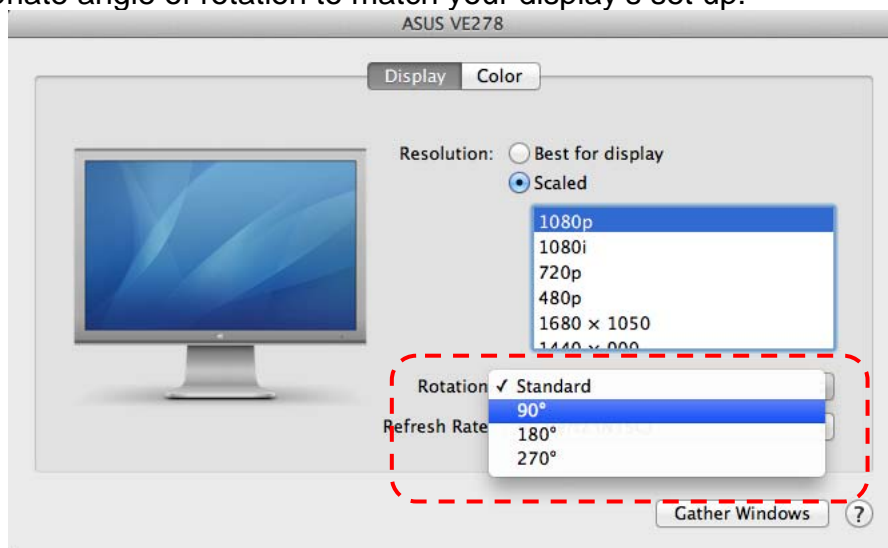## 4.5 Setting the Display Resolutions

To change the display's resolution, select an available resolution from the Display Preferences window of the display you wish to change:
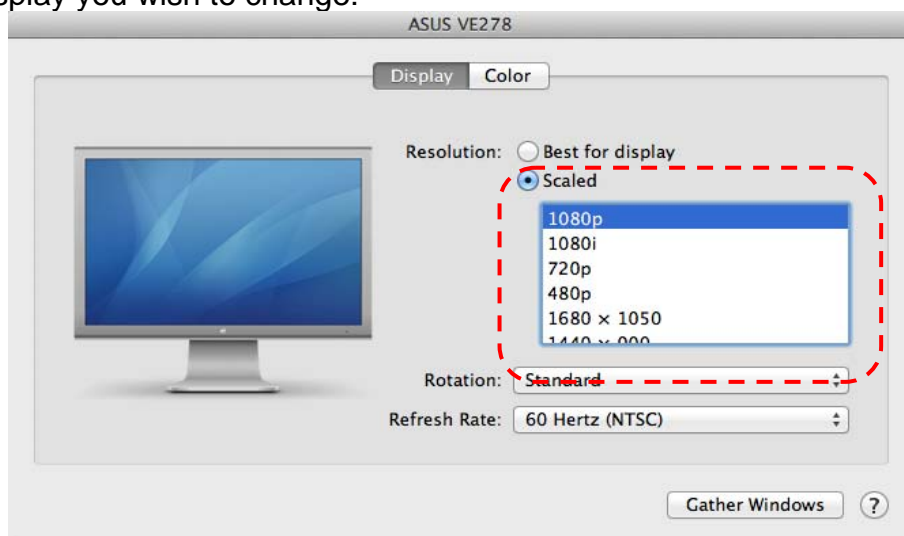
The resolutions available depend on both the USB graphics devices enabled product and the capabilities of the connected display.

4.6 Rotating a Display

If you wish to rotate your display, you can configure the orientation using the 'Rotate' drop down. Select the appropriate angle of rotation to match your display's set up:

Each time the user rotates, any settings made to the mode, resolution or frequency are remembered the next time the user switches back to that angle of rotation.

4.7 Setting the Position of Displays

If your computer is connected to more than two displays, you can specify that some are mirrored displays and others show the extended desktop.

A mirrored display shows the same content as the main display whereas an extended display will be an extension to your existing desktop.

You can arrange your displays so that they match the physical layout of your displays by selecting the 'Arrangement' pane within Display Preferences. This ensures that you can easily navigate between all connected displays.

To move the position of a display, click and hold the display you wish to move then drag it to the desired position. The display will be highlighted with a red border whilst you are moving the display to its new position.
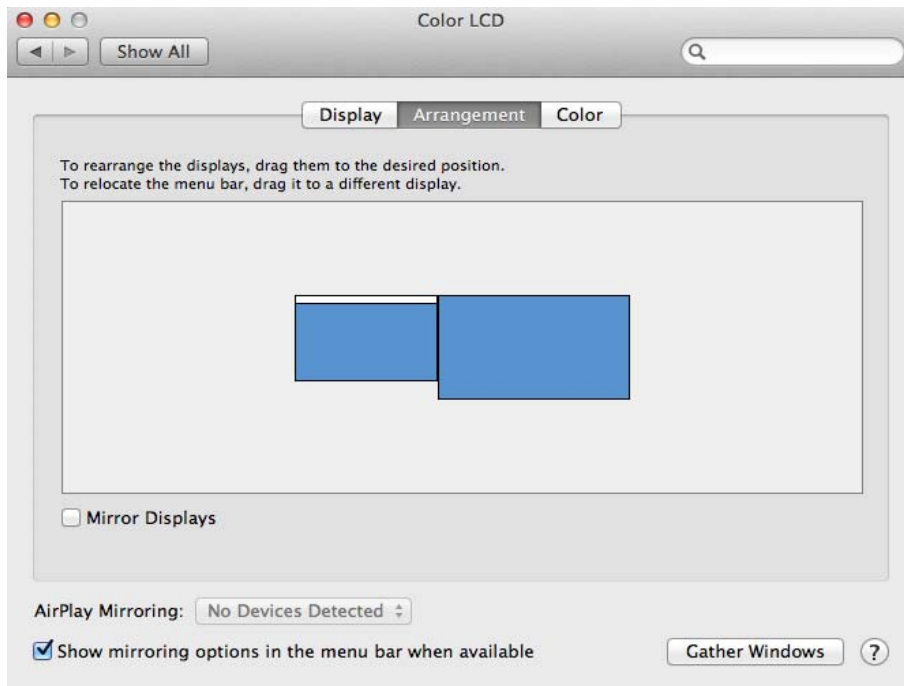
4.8 Setting the Display to Mirror /Extend mode

Setting to Mirror mode

When in Mirror mode, additional displays will display what is being shown on the primary display. Checking the "Mirror
Display" on the 'Arrangement' pane enables this feature.
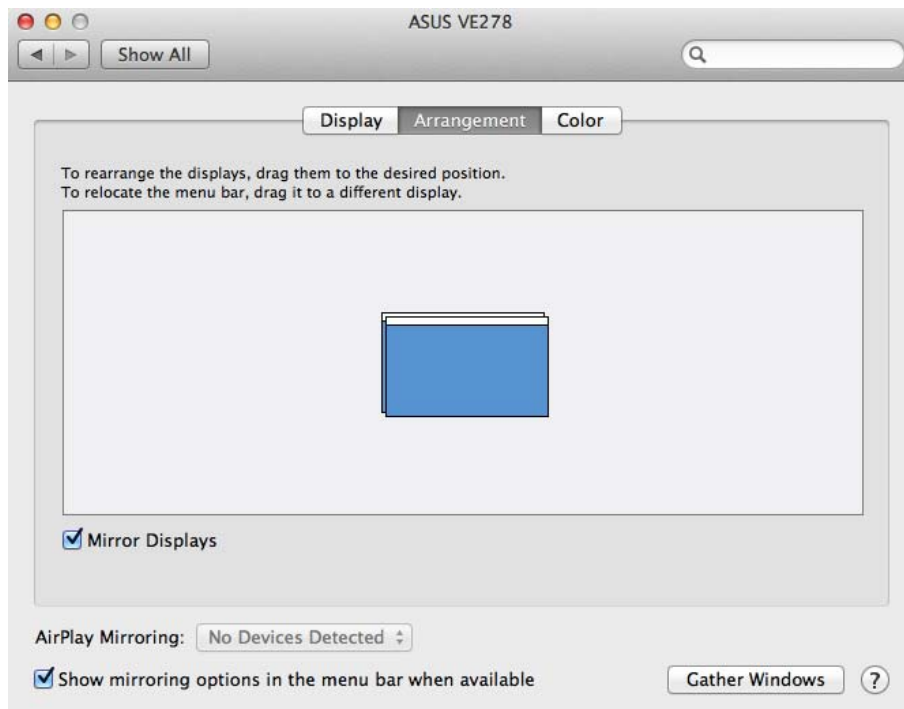
Setting to Extend mode

To extend connected displays, make sure that the "Mirror Display" on the 'Arrangement' pane is unchecked.
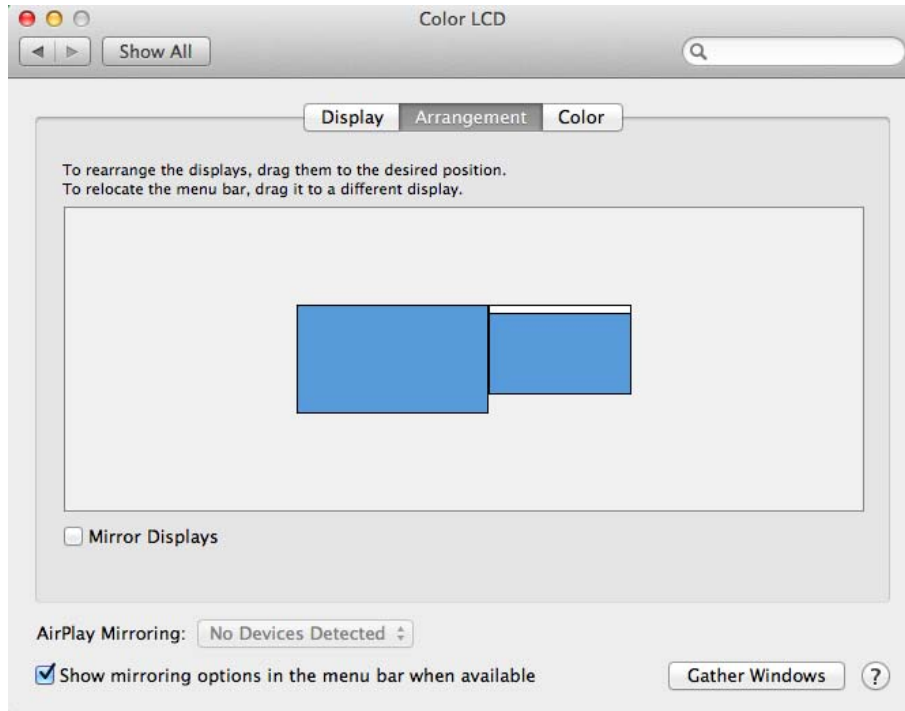

4.9 Changing the main display

You can change which is the main display by moving the Menu Bar between displays. Changing the main display affects where new windows appear and the position of the Dock.

The 'Menu Bar' can be moved so that it is shown on an alternative display. Clicking the white menu bar and dragging it to the desired display will perform this action.

Menu Bar
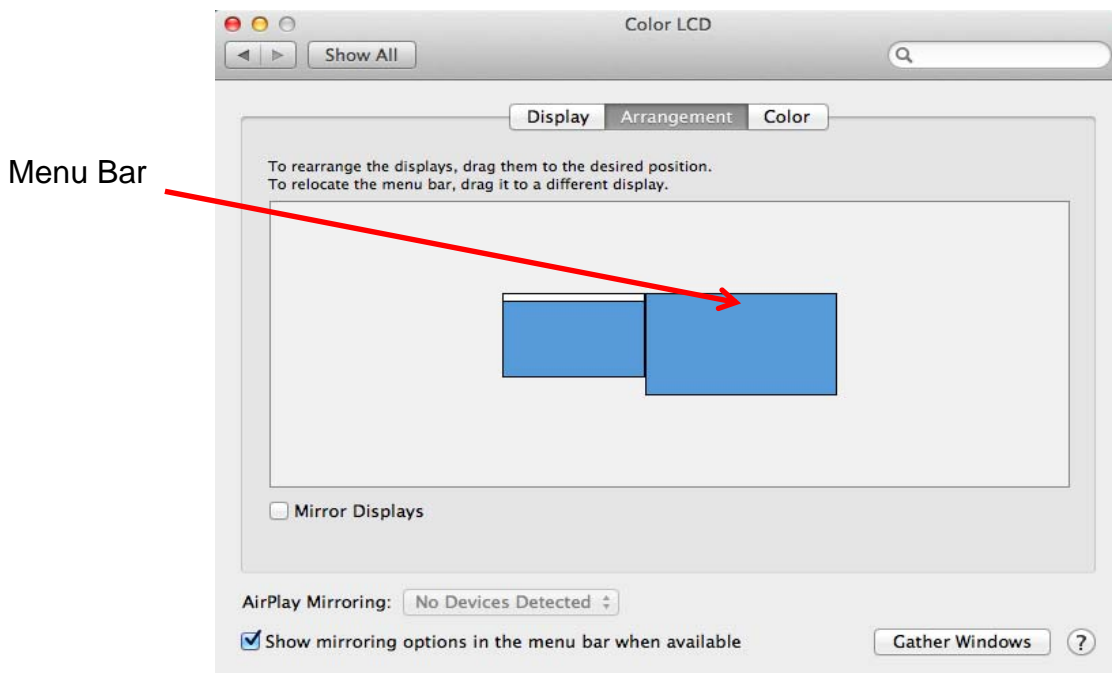
5.

Appendix

This chapter shows some problems that user came with usually. Also you can check it if the USB3.0 Graphics Adapter can not work properly in your system after following hardware and software installation steps.

In this appendix, we cover the following topics.

5.1 Troubleshooting

5.2 Regulatory Compliance

5.3 Limited Warranty

5.4 Contact Information

5.1 Troubleshooting

1. There is no sound (audio) out from my monitor?

A: It may cause by following issues.

    a. Make sure you are using HDMI connection to your monitor (display). DVI and VGA connection do not support audio output function.

    b. Make sure your monitor (display) owns speaker feature and turn audio volume on.

    c. Be sure to turn on system sound volume in system tray, instead of mute mode.

    d. Please check USB3.0 Audio device shows in the device manager. If system does not detect USB3.0 Audio device, please remove USB3.0 Graphics Adapter from your system and hot-plug it again.
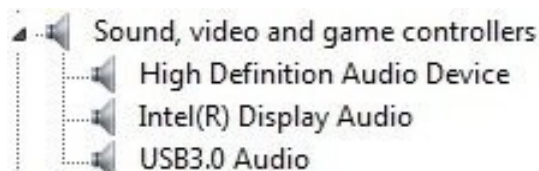
    e. Please remove both software driver and hardware from system, and then re-install it again. Please try to insert USB3.0 Graphics Adapter to another USB3.0 or 2.0 ports.

2. My display on the add-on monitor is blank. There's no video signal from my monitor?

A: It may cause by following issues.

    a. Make sure you already enable USB3.0 Graphics Adapter function, such as Extension or Mirror mode. You can check it by LED lighting or not. Blue or red LED has to act, if USB3.0 Graphics Adapter outputs video signal to your monitor (display).

    b. Be sure to switch your monitor (display) video connectivity source matching with USB3.0 Graphics Adapter interface. For example, switch display OSD to HDMI input if you are using USB3.0 to HDMI Adapter.

    c. Make sure VGA video cable connection between monitor and adapter are stable. We do recommend connecting video cable to adapter firstly, and then connecting USB cable to PC. You can re-plug all cables again to make system re-detecting devices.

    e. Please reboot your system. If problem still exists, uninstall the driver, unplug the adapter and reinstall the driver to try again.

3. I can not play media content over this adapter?

A: It may cause by following issues.

   a. As some media players require DirectX hardware support to correctly operate, try a different media player which requires less DirectX support.

   b. Drag the media player to the add-on screen and close the player. Restart the player and it should open on the add-on monitor. Now try playing the media file again.

   c. The video playback may be unusual when the add-on monitor is mirroring the primary display and there is another extended screen connected to the computer. The extended screen must be disabled before the content will be correctly cloned to the add-on monitor.

   d. Try to update current firmware and driver version from your vendor.

4. My cursor disappeared.

A: If you're in extended mode but the add-on monitor is not connected, the desktop still pans to the add-on monitor and it's possible that your cursor has moved to the extended desktop, so that you cannot find it on the primary display. To solve the problem in such a case, connect the add-on monitor to the adapter or keep moving your mouse to try or unplug the adapter first to restore the cursor.

5. Under extended mode, the add-on monitor appears to have a black border around the desktop.

A: This happens when the resolution used by the add-on monitor is larger than the resolution used by the primary monitor. To solve this problem, configure the add-on monitor to use the same resolution as the primary monitor.

5.2 Regulatory Compliance

FCC Conditions

This equipment has been tested and found to comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference

(2) This device must accept any interference received. Including interference that may cause undesired operation.

Important! Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment. Use an approved phone set.

CE

This equipment is in compliance with the requirements of the following regulations:
EN 55022: CLASS B

WEEE Information

For EU (European Union) member users: According to the WEEE (Waste electrical and electronic equipment) Directive, do not dispose of this product as household waste or commercial waste. Waste electrical and electronic equipment should be appropriately collected and recycled as required by practices established for your country. For information on recycling of this product, please contact your local authorities, your household waste disposal service or the shop where you purchased the product.

5.3 Limited Warranty

IN NO EVENT SHALL THE DIRECT VENDOR'S LIABILITY FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THE PRODUCT, DISK, OR ITS DOCUMENTATION EXCEED THE PRICE PAID FOR THE PRODUCT.

The direct vendor makes no warranty or representation, expressed, implied, or statutory with respect to the contents or use of this documentation, and especially disclaims its quality, performance, merchantability, or fitness for any particular purpose. The direct vendor also reserves the right to revise or update the device or documentation without obligation to notify any individual or entity of such revisions, or updates. For further inquiries please contact vendor you bought.

5.4 Contact Information

Customer satisfaction is our number one concern, and to ensure that customers receive the full benefit of our products, SUNIX services has been set up to provide technical support, driver updates, product information, and user's manual updates.

The following services are provided
E-mail for technical support
info@sunix.com

World Wide Web (WWW) Site for product information:
http://www.sunix.com

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