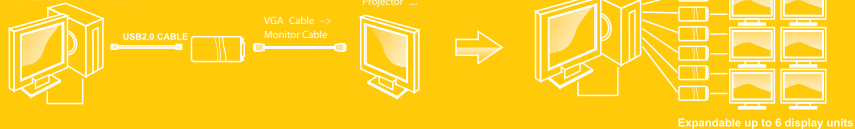


How it works?

DESKTOP OR
NOTEBOOK COMPUTER



Expandable up to 6 display units



USB to VGA

USB to VGA

USB to DVI

USB to DVI w/Audio

USB to HDMI

Net UGA+Audio

PC Docking+UGA

Wireless UGA

EXPANDING YOUR VIEW

USB DISPLAY ADAPTER



Safety Instructions

Always read the safety instructions carefully
 Keep this User's Manual for future reference
 Keep this equipment away from humidity

If any of the following situation arises, get the equipment checked by a service technician:

- The equipment has been exposed to moisture.
- The equipment has been dropped and damaged.
- The equipment has obvious sign of breakage.
- The equipment has not been working well or you cannot get it work according to User's Manual.

Copyright Statement

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Disclaimer

Information in this document is subject to change without notice. The manufacturer does not make any representations or warranties (implied or otherwise) regarding the accuracy and completeness of this document and shall in no event be liable for any loss of profit or any commercial damage, including but not limited to special, incidental, consequential, or other damage.

WEEE Directive & Product Disposal



At the end of its serviceable life, this product should not be treated as household or general waste. It should be handed over to the applicable collection point for the recycling of electrical and electronic equipment, or returned to the supplier for disposal.

1. Introduction 01
 Applications 02
 Features/ Package Contents 03
 System Requirements 04
2. Hardware Connect 05
3. Installing the USB Graphics Software 07
 To Install the Software on Windows 7 Update 07
 To Install the Software on Windows 7/Vista/XP/2000 08
4. Using the USB Graphics Software 10
 Windows 7 - Controlling the Display 10
 Windows Vista/XP/2000 – Controlling the Display 14
 Windows Vista/XP/2000 – Windows Display Properties 17
5. USB Graphic Software Update 21
6. Audio Configure 23
7. Uninstalling the DisplayLink Graphics Software 25
8. Additional Information 26
9. Troubleshooting 30
10. Mac OS X User Guide 31
11. Technical Data Overview 36

Note: Menu items and screen selections are shown in italics.

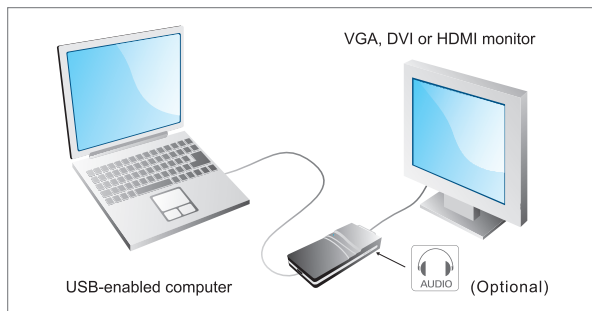
Introduction

Welcome to use USB Graphics Adapter. It allows you to easily connect extra monitors(TV) to your laptop or desktop PC's USB port.

The connected monitors can be configured to either mirror your main screen, or extend the Windows desktop allowing visibility of more applications at the same time. The USB graphics adapter can also be configured to be the primary display

The USB Graphics Adapter Software allows full configuration of all additional USB displays, including:

- Support for up to 6 additional USB Displays
- Extended, Mirrored, Primary Display
- Extend left, right, above, or below
- Rotation
- Layout of displays
- Color Depth



Applications

Office workstation

- View your large spreadsheets across two screens with display continuity
- Multitask more effectively without overlapping windows
- Edit on one screen while surfing the Internet information on the other

On the road

- Do multiple screen presentations without bringing another computer
- Easily provide multiple screen exhibitions in a trade show

Graphics workstation

- Use second display for palettes/tools
- Get a panoramic view of large documents

Editing workstation

- Type documents on one screen while viewing reference material on the other
- Compare two documents simultaneously across two screens

Financial analysis

- Have one monitor per data stream
- View charts and live data at the same time

Entertainment

- View videos/TV on one screen and reviews on the other
- Get additional perspectives when playing games

Features:

- Can easily Mirror the main display
- Extend left, right, above, or below
- Can be rotated left, right, or upside-down
- USB 2.0 Powered - Ultra Low Power
- CRT, LCD, Projector, TV Displays
- Standard and Widescreen ratio aspects
- Uses a virtual driver
- Stackable by design with a small footprint
- Completely silent operation
- Onboard power and status indicator LEDs
- Portable, making it easy for travel

Model: with Audio output

Audio Output
Microphone Support
Mixed output RCA*2(Left and Right Track) Interface

Model: HDMI output with audio

Output through HDMI cable connect to HDTV
Support LCD Monitor or LCD TV with HDMI input.
Resolution upto 1080P (1920x1080)

Note: USB to HDMI Adapter scaling for all HDTV. When TV doesn't scale properly then use the function key (noted: different brand of TV maker may named differently for that function on their remote) from your TV remote to adjust scaling till it return to the proper display.

Package Contents

Before installation, please check the items in the package. The package should contain the following items:

- | | |
|----------------------------------|----|
| • USB Graphic Adapter | x1 |
| • Driver CD | x1 |
| • USB Cable | x1 |
| • Quick Installation Guide | x1 |
| • DVI to VGA Adapter (Optional) | x1 |
| • DVI to HDMI Adapter (Optional) | x1 |
| • Audio RCA Adapter (Optional) | x1 |

System Requirements

DisplayLink 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 performance of the software is dependent upon the processing power available, as well as the operating system in use. More capable systems offer higher performance.

DisplayLink software is available for PCs running one of the following Windows operating systems:

- Windows 7 (32-bit or 64-bit)
- Windows Vista with Service Pack 1 or 2 (32-bit or 64-bit)
- Windows XP Home or Professional (including Tablet edition) with Service Pack 2 or 3
- Windows Server 2003, 2008 and 2008 R2
- Windows 2000 with Service Pack 4

Note: 64-bit editions of XP are not supported.

Mac OS X support can be found at <http://www.displaylink.com/mac>

Linux support can be found at <http://libdlo.freedesktop.org/wiki/> or <http://www.displaylink.org>

Supported Languages

The following languages are supported in version 5.6, on all supported operating systems:

Arabic	Danish	German	Russian
Bahasa Indonesian	Dutch	Hungarian	Slovak
Bulgarian	English	Italian	Slovenian
Chinese (Traditional)	Finnish	Japanese	Spanish
Chinese (Simplified)	French	Norwegian	Swedish
Croatian	Greek	Polish	Turkish
Czech	Korean	Portuguese	

Unsupported languages default to English.

Windows 7 / Vista

For Windows 7/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.

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 Vista/Windows 7)

On Windows Vista and Windows 7, 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)

The following GPU configurations may exhibit compatibility issues on Windows 7 and Vista in certain circumstances:

- Switchable Graphics (ATI/Intel)
- Switchable Graphics (ATI/ATI)
- Switchable Graphics (NVIDIA/Intel)
- NVIDIA SLI in SLI mode

Other GPU configurations, including the following, are currently unsupported and will not function on Windows 7/Vista:

- Hybrid Graphics
- Hybrid SLI
- Hybrid Crossfire
- Crossfire
- SLI not in SLI mode
- Multiple WDDM 1.1 graphics drivers active at once

Graphics Card Support (Windows XP)

All graphics cards are supported on Windows XP.

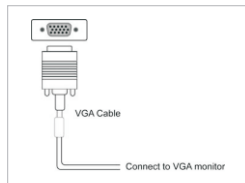
Hardware Connect

Connect the adapter to your computer and monitor (TV)

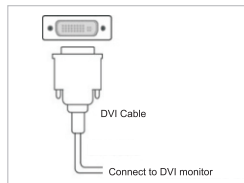
Connect the smaller end of the USB cable to the adapter. Then connect the other end of the USB cable to an USB 2.0 port on your computer. If your monitor is not yet connected to the adapter, make the connection and power on your monitor



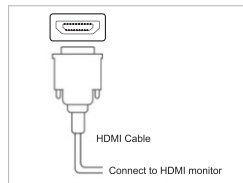
Connect to CRT, LCD, TV, Project, Speaker, USB



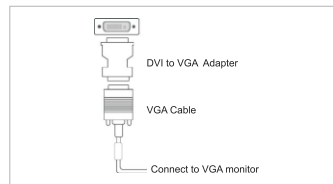
VGA Connect
for VGA port product



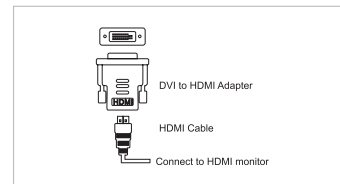
DVI connect
for DVI port product



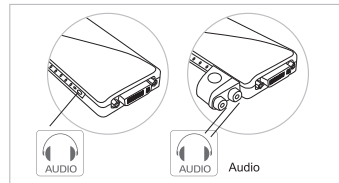
HDMI connect
for HDMI port product



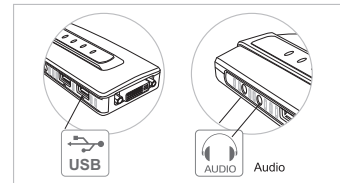
VGA connect via DVI to VGA adapter
for DVI port product



HDMI connect via DVI to HDMI adapter
for DVI port product



Audio connect
* with Audio support product



USB Device Connect
* with USB port product

Installing the USB Graphics Software

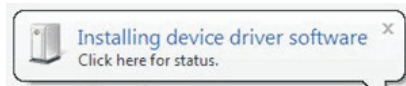
The following section shows you how to install the USB Graphics Adapter software on different operating systems.

Note: If you have v3.x, R4.1 or R4.2 DisplayLink software installed you must uninstall it, using the Windows Add/Remove Programs feature, before installing this release. Devices will continue working after this release is installed.

To Install the Software on Windows 7 Update

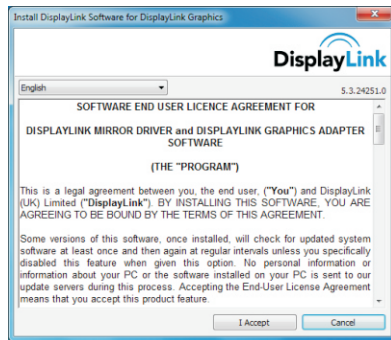
The preferred method of installation is using Window 7's Windows Update facility.

1. Connect your UGA device via the USB cable to your PC. Windows detects the new hardware and automatically downloads the driver.

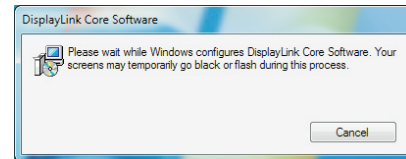


2. Once downloaded, the install will run. The DisplayLink software end user licence agreement window opens.

3. Click **I Accept**.
The DisplayLink Core software installs.



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

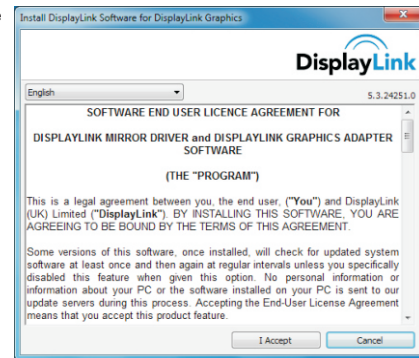


To Install the Software on Windows 7/Vista/XP/2000

Alternatively you may install the software from a website download or CD-ROM:

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

1. Double click on **Setup.exe** or click from Autorun setup cover page. 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.

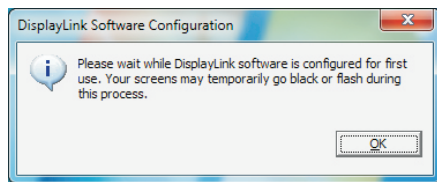
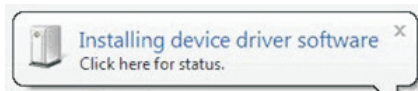
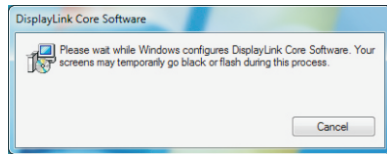
4. Connect your USB Graphic Adapter via the USB cable to your PC.
Installing device driver message

The Windows User Account Control window opens.

5. Click **Yes**.
DisplayLink automatically installs the device.
The DisplayLink software end user licence agreement window opens (see above).

6. Click **I Accept**.
The DisplayLink graphics software installs, without notification that it has completed.

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



Using the USB Graphics Software

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

Windows 7 - Controlling the Display

On Windows 7, you can configure a UGA device through the use of Windows Display Properties (WDP). WDP provides a simple method to attach, rotate, duplicate or extend screens as well as modify screen resolution.

To open WDP


There are several ways to open WDP.

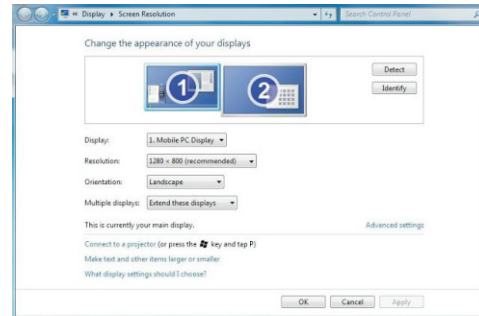
1. Right-click on the desktop.
2. Select Screen Resolution from the menu.
3. WDP opens.

OR

1. From Start menu > Devices and Printers.
2. Double-click the DisplayLink Device icon.
3. WDP opens.

OR

1. Right click on the DisplayLink icon 
2. Click Advanced.
3. WDP opens.



Setting the Display

Follow this procedure to set the display.

To set the display

1. Open WDP.
2. Set the display options. Refer to the table below for details on each option.

Menu	Sub-Menu	Description
Display		Use the drop down list to select a display to be configured.
Resolution		Use the drop down list and user the slider to choose a resolution.
	Landscape	Sets the display to landscape view.
Orientation	Portrait	Sets the display to portrait mode.
	Landscape (flipped)	Sets the display to upside down landscape mode.
	Portrait (flipped)	Sets the display to upside down portrait mode.
	Duplicates these displays	Reproduces the main display on the second display.
	Extend these displays	Extends the main display onto the secondary display.
Multiple displays	Show Desktop only on 1	The desktop appears on the display marked 1. The display marked 2 becomes blank.
	Shows Desktop only on 2	The desktop appears on the display marked 2. The display marked 1 becomes blank.

Table 1: WDP Options

To control the behaviour of an attached DisplayLink display, it is also possible to use Windows Key+P to display a menu (and cycle through it) to switch mode.

To control the Display

1. Select the Windows **Key + P**.
The following menu appears.




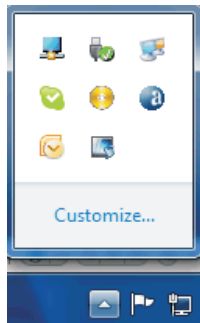
2. Click on one of the options.
The display updates to reflect your choice.

The DisplayLink Icon Application

You can configure the behaviour of the USB Graphics Adapter through the DisplayLink icon application on the taskbar, where present.

To show the DisplayLink Manager menu

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




A menu appears with several options, as described in the following table.

Menu	Description
Check for updates	Connects to the Windows Update and checks for newer versions and downloads them, if available.
Optimize for Video	Select this option for better movie playback performance on the DisplayLink enabled displays. Only select this option when playing back video content. Note: Text may appear less clear when enabled.
Advanced	Opens the Windows Display Properties (WDP)

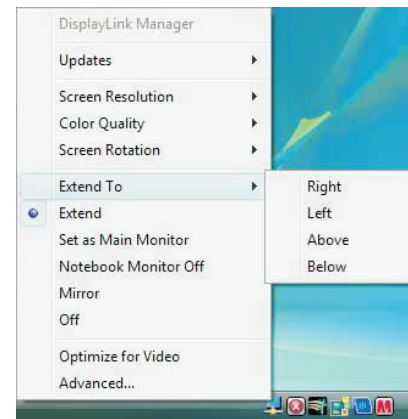
Table 2: DisplayLink menu – Windows 7

Windows Vista/XP/2000 – 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. Click the DisplayLink icon  on the taskbar.
The menu appears as shown below.

2. Select an option from the menu, using the following table for the options available.



Menu Option	Sub-menu option	Description
Updates	Check Now	Connects to the Update Server to check for newer driver versions and downloads them, if available.
	Configure	Opens the Update Options window where you can configure automatic updates.
Screen Resolution		Displays a list of available resolutions. Some resolutions may be enclosed by []. Please see, Inferred Modes.
Color Quality	Medium (16-bit)	Changes the colour depth of the extending display to 16 bit
	Highest (32-bit)	Changes the colour depth of the extending display to 32bit
Screen Rotation	Normal	No rotation is applied to the DisplayLink display
	Rotated Left	Rotates the extended or mirrored display by 270 degrees.
	Rotated Right	Rotates the extended or mirrored display by 90 degrees.
	Upside-Down	Rotates the extended or mirrored display by 180 degrees.
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 desktop onto the secondary display.
Set as Main Monitor		Sets the secondary display as the main display.
Notebook Monitor Off		Switches off the display of an attached notebook and makes the DisplayLink display primary.
Mirror		Copies what is on the main display and reproduces it on the secondary display.
Off		Switches off the secondary display.
Optimize for Video (Vista and Windows 7 Only)		Configures the secondary display for optimum full screen video performance output. Note: Text may appear less clear.
Advanced		Opens the Display Settings window.

Table 3: DisplayLink Software menu – Windows

Setting the Display into Extend Mode

In extend mode, the monitor attached to the USB Graphics Adapter 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 Adapter 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, colour depth and refresh rate of the primary screen are replicated on the monitor connected to the USB Graphics Adapter.

If the monitor connected to the USB Graphics Adapter 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 Adapter is of a larger size than the primary screen the image will be letter-boxed to keep the aspect ratio correct.

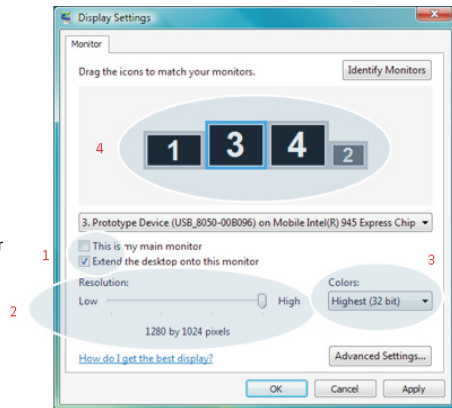
Windows Vista/XP/2000 – Windows Display Properties

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

To open the Windows Display Properties on Windows

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, colour quality and position can all be controlled from here.



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 colour 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, colour 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 DisplayLink 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 1).
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 DisplayLink 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 DisplayLink display as the primary laptop display, as it is unlikely to provide the optimum resolution for the DisplayLink display. Please see, [Setting the DisplayLink display as the Primary Display](#).

Setting the DisplayLink display as the Primary Display**To make the USB Graphics Adapter the Primary Display**

1. Select the This is my main monitor checkbox (1 in Figure 1).
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 1) 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 Adapter stays primary if the PC enters hibernate or suspend mode or is rebooted. If the USB Graphics Adapter is detached, the main display becomes primary again.

To make the USB Graphics Adapter 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 work conveniently with a laptop by setting its action on lid closed to 'do nothing' then making the USB Graphics Adapter screen primary while disabling the main screen. The laptop lid can then be closed and the laptop used with USB Graphics Adapter screen and with external keyboard and mouse.

To set a laptop to do nothing

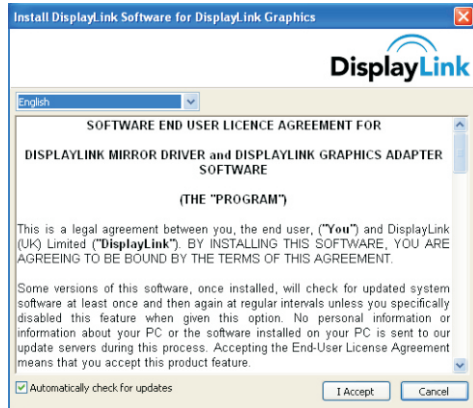
1. Select Start menu > Control Panel > Power Options.
2. Select Choose what closing the lid does.
3. From When I close the lid, select Do nothing from the On battery and Plugged in drop down list.

USB Graphic Software Update

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

Automatic Updates

DisplayLink Automatic Updates is a product maintenance feature from DisplayLink, supported on Windows 2000/XP and Vista. The automatic update mechanism ensures that the USB Graphics Adapter has the most up-to-date drivers and software, providing you with increased performance and stability.



You can be disable this feature during install by clearing the Automatically check for updates checkbox.


Using the Updates Wizard

By default, automatic updates is configured to check for updated software on the plugging in of a USB Graphics Adapter, or the resume or start of your PC, every seven days. When newer software is available, the Updates Wizard launches.

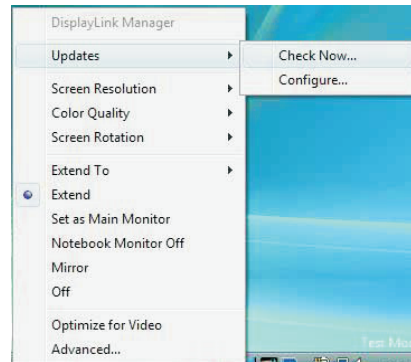
Manual Updates

You can check for updates manually at any time.

To manually check for updates

1. Click on the DisplayLink icon 
 - The DisplayLink menu opens.
2. Select Updates > Check Now.

If you have the most recent software, the dialog box, shown below, appears. Otherwise the **Choose updates to install** dialog opens.



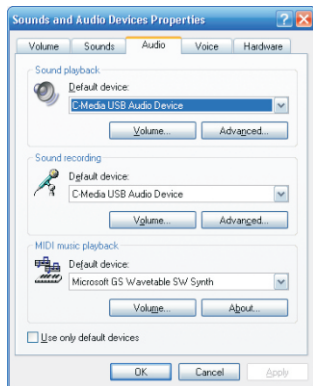
Audio Modes (for UGA + Audio Model)

Prior to using the speaker/microphone connected to the Adapter, you have to correctly configure your application to use USB (Multimedia) Audio Device, i.e., the audio components of the UGA Adapter.

When the UGA Adapter is connected to your computer, the audio devices named USB (Multimedia) Audio Device are automatically installed and may override Windows default audio settings. The most obvious effect is that your original music playback will be re-directed to the speaker connected to the UGA Adapter. However, it's possible that users may want to use original sound card for music playback and use the Adapter's audio ports for Play Movie via Media Player software (such as Windows Media Player, Real Player, WinDVD, PowerDVD etc...). In such cases users need to manually configure required audio device for each application.

Configuring Windows Audio Device

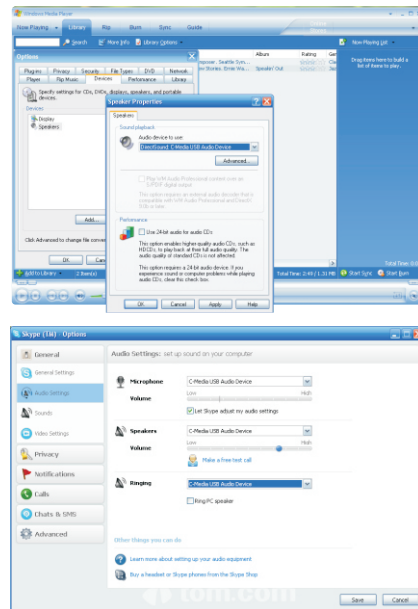
To specify a sound device for music playback in Windows, open Control Panel and double-click the sound or audio icon. Then select a desired device in the playback section. If you want to use your original sound card for music playback, make sure to select it instead of USB Audio Device.



Configuring Application Audio Device

To Play Movie via Media Player software using the Headphone or Speaker connected to the UGA Adapter, make sure the Media Player software (such as Windows Media Player, Real Player, WinDVD, PowerDVD etc...) are configured to use USB Audio Device as the 3audio in and out devices.

To chat via instant messaging software using the headphone and microphone connected to the UGA Adapter, make sure the instant messaging software, (such as MSN messenger, Yahoo messenger or Skype) are configured to use USB Audio Device as the audio in and out devices.

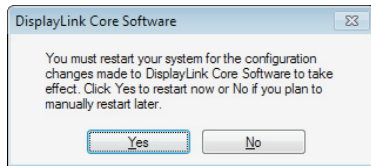
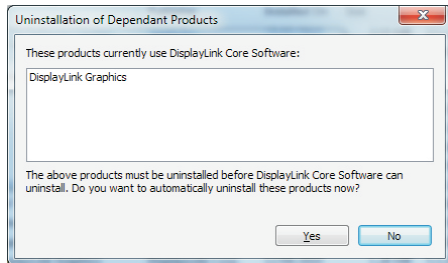
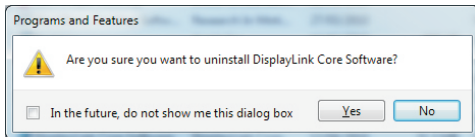


Uninstalling the DisplayLink Graphics Software

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

To uninstall the USB Graphics Adapter on Windows

1. From the Start Menu, select 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.



Fit to TV

Why do I need Fit to TV?

If using your DisplayLink product to connect to a TV, all of the Windows desktop may not be available. This is because TVs can use overscan, which prevents the edges of the image to be visible. When showing a Windows desktop, overscan prevents the edges of the screen being visible, which can hide the task bar and icons.

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

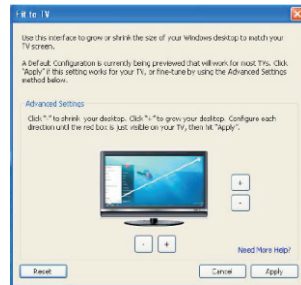
Note: Fit to TV only works in extend mode. If choosing the option while in mirror mode, the DisplayLink screen will change to extend and be placed above the laptop screen in Windows Display Properties. Fit to TV does not support rotated modes.

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 DisplayLink 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.



Additional Information

The following section provides additional information on the use of the USB Graphics Adapter software.

DirectX 10 Game support

This software release contains support for some DirectX 10 games on Windows 7. To improve the gaming experience, it is recommended that:

Antialiasing (AA) settings are turned OFF

Locking to vsync is turned ON

These options are usually configurable within the DirectX 10 game.

To play 3D games on a DisplayLink screen with reasonable performance the system specs must meet the game “recommended” hardware specification, not just the minimum specification.

Monitor Calibration

Monitors can be calibrated with applications that use the Display Data Channel Command Interface (DDC/CI). Both the monitor and application must support DDC/CI for this to work. An example of an application that is now supported is ScreenWhite. DDC/CI is not supported on displays with integrated DisplayLink technology, for example mini monitors.

Media Playback

On Windows 7, Vista and Windows XP (in extend mode), the USB Graphics Adapter can display media files and DVDs using the following media players:

- Windows Media Player 11 (<http://www.microsoft.com/windows/windowsmedia/default.msp>)
- WinDVD 8 (www.intervideo.com)
- PowerDVD 7 (www.cyberlink.com)
- RealPlayer 11 (www.real.com)

The USB Graphics adapter can display media files and DVDs using most media players. Media playback in mirror mode (XP) or in Basic mode (Vista and Windows 7) is not recommended.

Using Multiple USB Graphics Adapters

The software supports up to six simultaneously USB attached screens. It is also possible that different sets of screens are being used at different times, for example two in the office and two at home. The software saves each screen's display profile separately. This allows for different physical positioning, or different resolutions, of connected monitors in the office and the home.

Standby and Hibernate, Shut down and Restart

If the PC that the USB Graphics Adapter is connected to is placed into standby or hibernate mode, the display goes blank. When the PC is again powered up (and unlocked if necessary) the connected monitor returns to the same mode as it was before stand by or hibernation.

If the PC is shut down, restarted and logged in, again the connected display returns to the same mode as it was before shutdown.

USB Graphics Adapters with Multiple Users

USB Graphics Adapters work with multiple users on the PC. The mode settings are saved for each user so each can use their own desktop configuration.

Disconnecting the USB Graphics Adapter

If the USB Graphics Adapter is powered off or the USB cable is removed from the computer, the display blanks. All windows and icons move to the primary screen.

On reconnection or powering up of the USB Graphics Adapter, the display 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.

Supported Screen Modes

There are three components that make up the screen mode:

Resolution: The number of pixels displayed on screen horizontally and vertically.
 Color Quality: The number of different colors that can be shown on the screen at the same time.
 Refresh Rate: The speed that the entire screen is rescanned. Higher refresh rates reduce flicker.

Some monitors advertise the supported modes through the VGA or DVI connector. If this is the case, the USB Graphics Adapter identifies the supported modes from the monitor. If the monitor does not advertise the supported modes, the USB Graphics Adapter software chooses a set of common screen modes for the monitor.

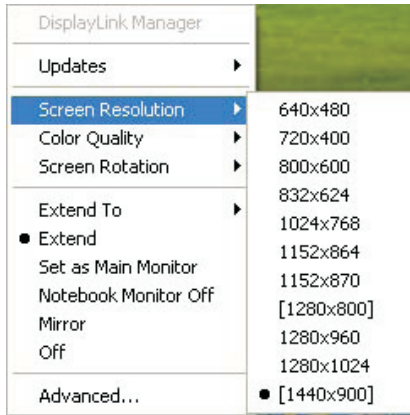
Inferred Modes

Some modes in the DisplayLink GUI are shown with [] around them.

This occurs when connecting a monitor with a preferred mode higher than the maximum supported resolution of the DisplayLink device

In this case, the preferred resolution of the monitor cannot be supported. However we add lower resolutions of the same aspect ratio to be tried with the monitor. Modes in square brackets [] imply that these are modes not reported by the monitor, but have been made available by the DisplayLink software for you to try.

As these are inferred modes from the preferred mode of the monitor, they are not guaranteed to work with the display.



Error Messages

DisplayLink Graphics software occasionally displays user messages in a bubble in the notification area. The table below lists the user messages and their description.

Message	Description
Insufficient system resources exist to complete the requested service	This can occur when entering extend mode with low system resources. The PC does not have enough memory to start an extend display. Close down any unused applications. The situation may also be improved by rebooting the PC.
The requested allocation size was too large	This can occur if trying to mirror a primary display with a resolution above 2300x1700 (4:3) or 2600x1500 (16:9).
Incompatible Display Driver	This message will appear if the primary graphics card drivers installed are not WDDM compatible. Windows 7 is not designed to operate without WDDM drivers. Download and install the latest Windows 7 (WDDM) drivers for your primary graphics card.
The system cannot write to the specified device	This warning may be displayed in Windows XP after changing the display mode several times (e.g. Extend/Dock mode) from the DisplayLink GUI. If this happens, detach and reattach the device to restore normal operation.

Further Support

<http://www.displaylink.com/support> .

Troubleshooting

Minor issues can generally be resolved by:

- unplugging and re-plugging the UGA device,
- changing the display mode via the DisplayLink GUI,
- or changing the display mode via Windows Display Properties.

On Windows 7/Vista WDDM (Aero and Basic)

DisplayLink software works closely with the graphics card and there may be interoperability issues with some graphics cards. If this happens:

1. Try to upgrade to the latest graphics drivers.
2. Try to upgrade to latest DisplayLink software.
3. Report the issue via your support channel.
4. If necessary, boot into Safe Mode and use Windows' Backup and Restore Center to recover.

Mac OS X User Guide

Introduction

This guide applies to software version 1.0 and above of the MAC software.

What is the Mac Driver?

The Mac driver is designed for Mac OS X 10.4 (Tiger), 10.5 (Leopard) and 10.6(Snow Leopard) to enable you to add an additional monitor to your Mac using DisplayLink technology. This software allows you to run your UGA devices on any Intel based desktop or laptop Mac, allowing you to connect up to 4 additional monitors via USB.

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

What else do I need to use this driver?

As well as an Intel based Mac running the latest versions of Mac OS X 10.4 or 10.5, 10.6 you will need a UGA device. One UGA device is required for each of the additional displays you wish to connect to your Mac.

Setup Guide

Installing/Uninstalling the MAC Driver

To run the MAC Installer, double-click the MAC DriverInstaller image: this will mount the MAC Driver installer.

Select 'Software Installer' to begin installing the MAC 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 'Software Uninstaller' to uninstall the MAC Driver from your Mac. This will require a restart once complete.



Connecting displays to your Mac

Once you have installed the MAC Driver, simply plug in your UGA products via USB and connect each display to a device. You can now connect up to 4 additional displays. Example setups include:

Example 1: Adding two displays to a MacBook Pro MacBook Pro connects to two monitors via USB cables using UGA adapters. Monitors connect to graphics adapters via standard VGA/DVI cables.



Example 2: Adding three displays to a MacBook Air MacBook Air connects to a standard powered USB hub. Three monitors are connected to the USB hub via UGA adapters. Monitors connect to graphics adapters via standard VGA/DVI cables.

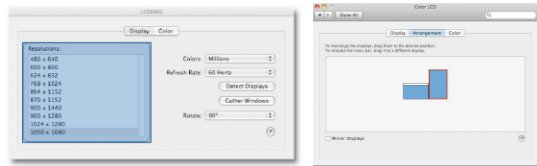
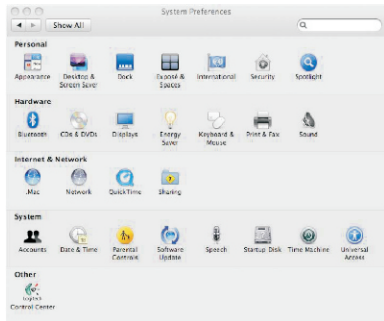


Managing Multiple Displays

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.

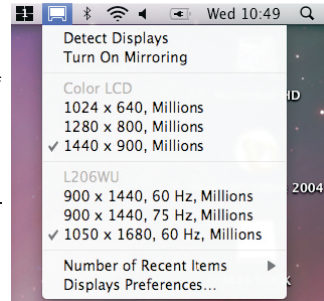
Display Preferences:

- Display Resolutions
- Rotating a Display
- Position of Displays
- Display Positions
- Display to Mirror mode
- Display to Extend
- Using both extended and mirrored displays
- Changing the main display



Configuring Displays from the Menu Bar

If you have checked the "Show displays in menu bar" in Display Preferences then you can configure displays by clicking the display icon in the menu bar. This will show a menu similar to the following:



This menu allows you to perform the following actions:

- Detect all displays connected to the Mac.
- Turn display mirroring on/off
- Set the resolution of both the primary display, and the additional display(s), by selecting one of the recently used resolutions.
- Configure how many 'recent resolutions' should be shown in this menu.
- Open 'Display Preferences'!

Specifications

Host Interface	USB 2.0
Video Interface	VGA or DVI-I or HDMI
Connectivity	Up to 6 adapters on a computer
RAM	8M x 16 DDR Synchronous DRAM (SDRAM)
Power Mode	Bus-powered
Operation System Support	Windows 2000/XP-32Bit, Vista, 7, Server 2003, 2008 and 2008 R2 MAC OS X / Linux
Supported Modes	Extended Desktop (Default), Mirrored Desktop, Primary Display
Color Depth Resolution	640x480, 800x600, 1024x768, 1280x720, 1280x960, 1280x1024, 1360x768, 1366x768, 1368x768, 1400x1050, 1440x900 *1600x1200, *1680x1050, *1920x1080, **1920x1200, **2048x1152 Note: that interlaced modes are not supported. * Only supported by 1600x1200 model. ** Only supported by 1900x1200 model.
Operating temperature	10-40°C
Storage temperature	-10~80°C
Relative Humidity	< 85%non-condensing

* Specifications are subject to change without notice.