

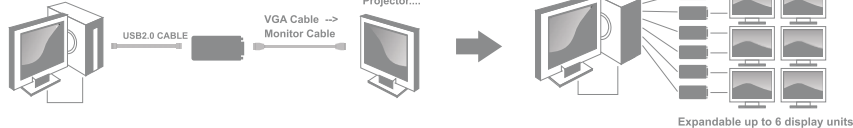


## USB 2.0 to DVI ADAPTER

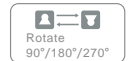
MODEL: U2-DHV-AD

### How it works?

DESKTOP OR  
NOTEBOOK COMPUTER



Expandable up to 6 display units



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.

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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.

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○ More operation details please refer to User Manual in CD

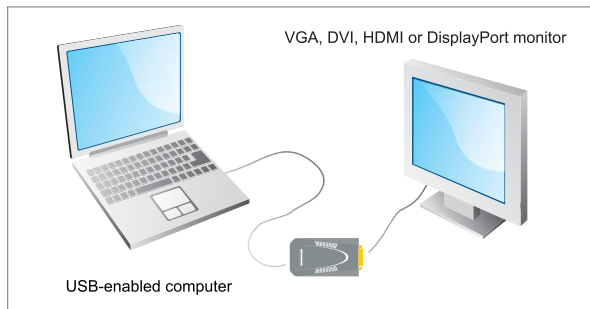
## Introduction

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 (Windows)
- Support for up to 4 additional USB displays ( Mac OS X)
- Extended, Mirrored, Primary Display
- Extend left, right, above, or below
- Rotation
- Layout of displays
- Color Depth



## Features:

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

**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:

### Package Contents:

1. USB 2.0 to DVI Converter
2. DVI to HDMI AdapterX1PC
3. DVI to VGA AdapterX1PC
4. USB 2.0 A male to mini 5pin male 1M
5. Manual
6. CD

## System Requirements

DisplayLink software can be used on PCs, from Netbooks, Notebooks/Laptops to Desktops.

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.

- 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
- For 6 screens where 1 screen can run full screen DVD video: 1.8GHz Core Duo, 1GB 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 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
- Network access for software downloads, or access to a CD-ROM drive.
- At least one USB 3.0 or 2.0 port.
- Computer screen for use with the device

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

- Windows 10 / 8 / 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
- Mac OS X based on intel\* processor

**Note:** 64-bit editions of XP are not supported. No Windows Server editions are supported. Power PC-based Macintosh computers, such as late-model iMacs, PowerBooks and PowerMacs, are not currently 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>

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

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

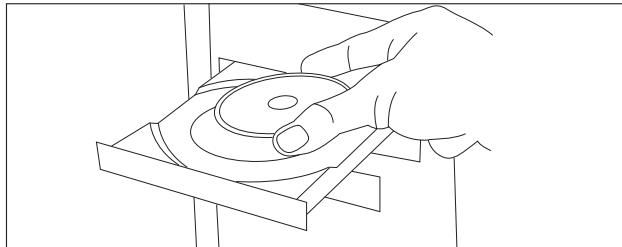
Other GPU configurations, including the following, are currently unsupported and will not function on Windows 8/Windows 7/Vista

- 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.

## Download and install the latest drivers



Drivers are provided on CD-ROM, but as with any product, the latest drivers are best. On Windows, you can skip the CD-ROM and just plug in your adapter and allow Microsoft's Windows Update to automatically download the latest drivers.

please visit [displaylink.com](http://displaylink.com) and download the latest drivers. DisplayLink-provided drivers are always compatible with the USB Graphic adapter.

As part of major operating system updates, the most recent driver updates may be necessary. For drivers in beta, visit [displaylink.org/forum](http://displaylink.org/forum)

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 8

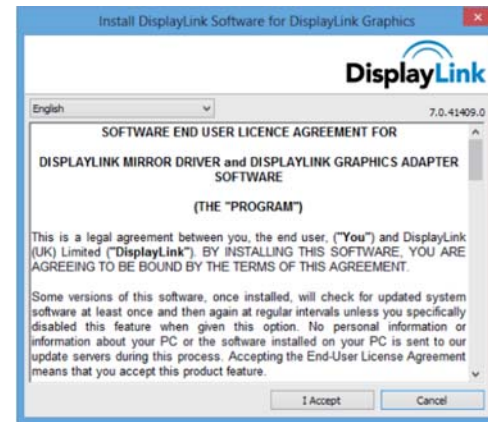
Windows 8 DisplayLink software can be installed from Windows update. Alternatively, the software can be downloaded and installed from the DisplayLink website following the steps below.

1. Double click on **Setup.exe**.

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

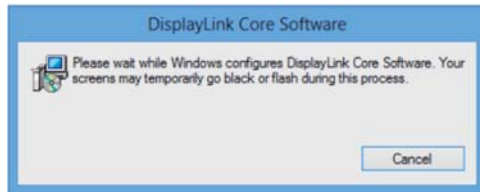
2. Click **Yes**.

The DisplayLink software end user licence agreement window opens.



3. Click **I Accept**.

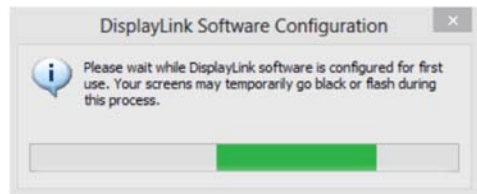
DisplayLink Core software and DisplayLink Graphics installs.



**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 DisplayLink device via the USB cable to your PC.

A message will be shown that DisplayLink software is configuring itself for first use:



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 DisplayLink enabled device.

## To Install the Software on Windows 7 Update

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

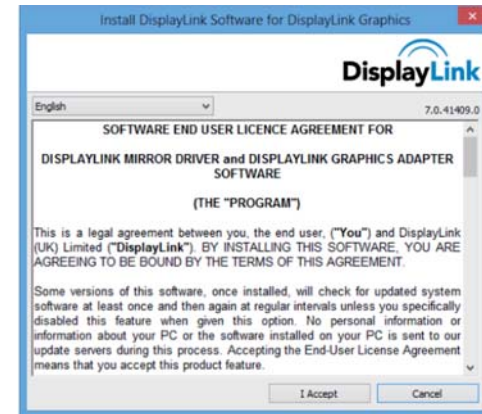
1. Connect your UGA device via the USB cable to your PC. Windows detects the new hardware and automatically downloads the driver.



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.

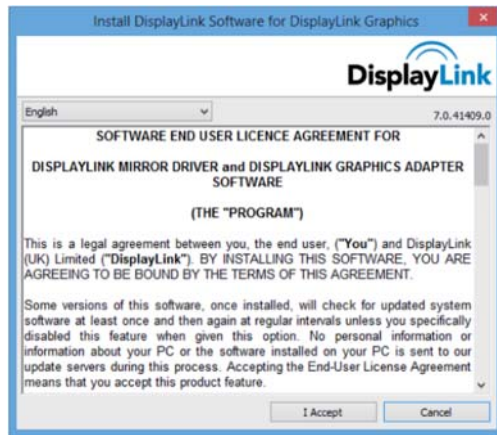
The Windows User Account Control window opens (if enabled in the OS).

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**.

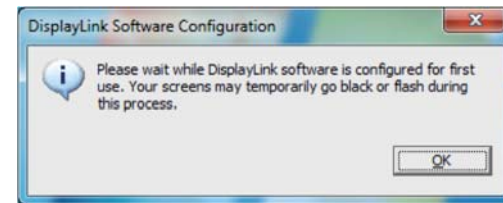
DisplayLink automatically installs the device.

The DisplayLink software end user licence agreement window opens (see above).

6. Click **I Accept**.

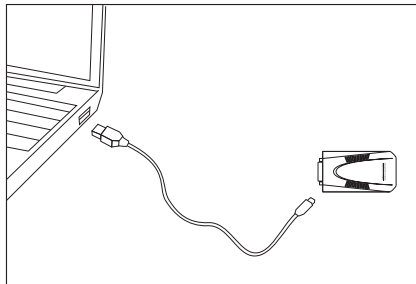
The DisplayLink graphics software installs, without notification that it has completed.

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



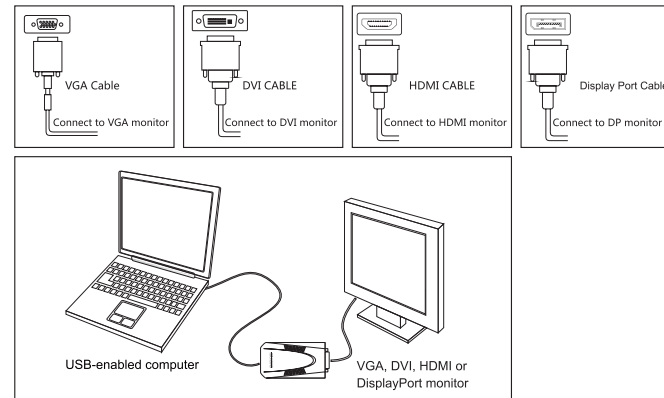
## Hardware Installation

### Step 1



Connect the small end of the USB cable to the USB graphic adapter.  
Plug in the USB cable to your PC or notebook

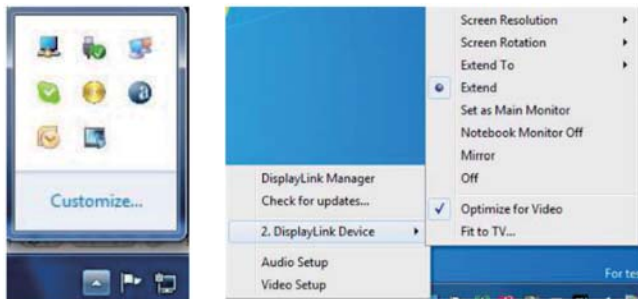
### Step 2




Connect the required video cable to the device.



## Step 3



Right-click the UGA Software icon  (lower right corner) to configure your screens

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

- Extended, Mirrored, Primary Display
- Extend left, right, above, or below
- Screen Rotation
- Monitor On / Off
- Screen Resolution / Color Depth
- Optimize for Video
- Fit to TV

You can configure a UGA device through the use of Windows Display Properties (WDP).



#### Get updated information on using the product

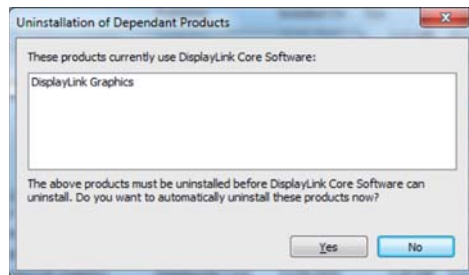
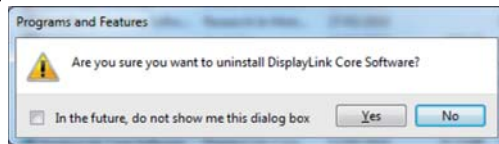
More operation details please refer to User Manual in CD.  
USB-attached displays open up new and interesting possibilities.

## Uninstalling the UGA 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 nabled)
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.

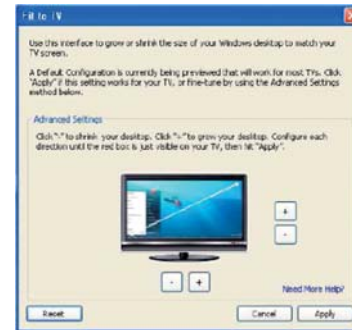
**Note:** Fit to TV only works in extend mode. If choosing the option while in mirror mode, the DisplayLink screen will change to extend and be placed above the laptop screen in Windows Display Properties. Fit to TV does not support rotated modes.

### 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.



## 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), 10.7.5 (Lion) 10.8.2 (Mountain Lion) 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, 10.5, 10.6, 10.7 or 10.8 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 DriverInstaller.

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 USB cables. 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'!



## Additional Information

The following section provides additional information on the use of the DisplayLink USB Graphics 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 8, Windows 7, Vista and Windows XP (XP in extend mode), the DisplayLink USB Graphics device can display media files and DVDs using the following media players:

- Windows Media Player 12 (<http://www.microsoft.com/windows/windowsmedia/default.msp>)
- Windows Media Player 11 (<http://www.microsoft.com/windows/windowsmedia/default.msp>)
- WinDVD 11 ([www.intervideo.com](http://www.intervideo.com))
- PowerDVD 12 ([www.cyberlink.com](http://www.cyberlink.com))

The DisplayLink USB Graphics device 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 DisplayLink USB Graphics devices

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 DisplayLink USB Graphics device 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.

DisplayLink USB Graphics with Multiple Users

DisplayLink USB Graphics 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 DisplayLink USB Graphics

If the DisplayLink USB Graphics device 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 DisplayLink USB Graphics device, 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 DisplayLink USB Graphics device identifies the supported modes from the monitor. If the monitor does not advertise the supported modes, the DisplayLink USB Graphics 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.

DisplayLink Manager	
Updates	
Screen Resolution	640x480
Color Quality	720x400
Screen Rotation	800x600
Extend To	832x624
● Extend	1024x768
Set as Main Monitor	1152x864
Notebook Monitor Off	1152x870
Mirror	[1280x800]
Off	1280x960
	1280x1024
Advanced...	● [1440x900]

### 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

Please visit <http://www.displaylink.com/support> or <http://www.displaylink.org/forum>

### Troubleshooting

Minor issues can generally be resolved by:

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

#### USB 3.0 support

USB 3.0 Host controllers on PCs are relatively new and the drivers may not be mature. Connecting DisplayLink devices to a USB 3.0 port may show issues that are not present when connecting to USB 2.0.

Please make sure your USB 3.0 host controller drivers are up to date, as this can solve many issues with DisplayLink connected on USB 3.0. DisplayLink provide a knowledgebase article with links to the latest host controller drivers at:

<http://kb.displaylink.com/315>

#### On Windows 8/7/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 for your primary graphics card.
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.