DisplayLink USB Graphics User Manual

Software Version 6.0

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Introduction

Welcome to your DisplayLink USB Graphics software. It allows you to easily connect extra monitors 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 DisplayLink USB Graphics devices can also be configured to be the primary display.

DisplayLink's Graphics Host Software allows full configuration of all additional USB displays, including:

- Support for up to 6 additional USB Displays
- Resolutions up to 2560 x 1600 (Product dependant)
- Rotation
- Layout of displays
- Color Depth
- "Fit to TV" to enable the user to configure the desktop size on a TV
- "Optimze for Video" feature to enable higher video frame rates on full screen video.

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

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PC 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 will provide better 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

DisplayLink provide a version of Software for Windows Multipoint server. Please visit http://www.displaylink.com/support/downloads_wms.php to download software for Windows Multipoint Server.

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

Recommended typical system requirements are:

Windows 7

For 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 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.

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 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). SIS graphics cards are not supported.

The following GPU configurations may exhibit compatibility issues on 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 7/Vista:

- 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.

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.

Installing the DisplayLink USB Graphics Software

The following section shows you how to install the DisplayLink USB Graphics 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.

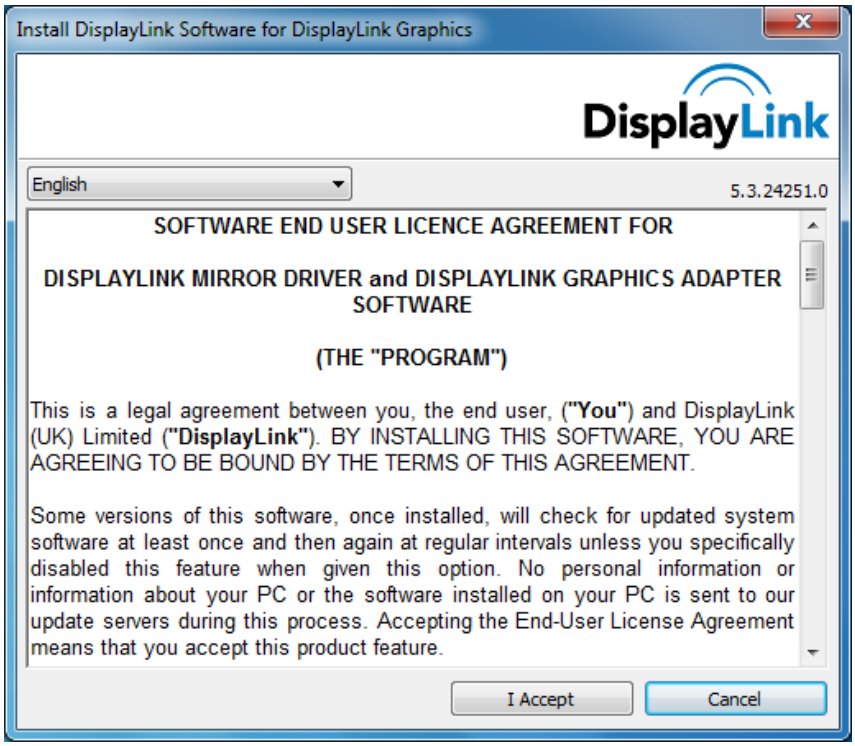
Windows 7

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

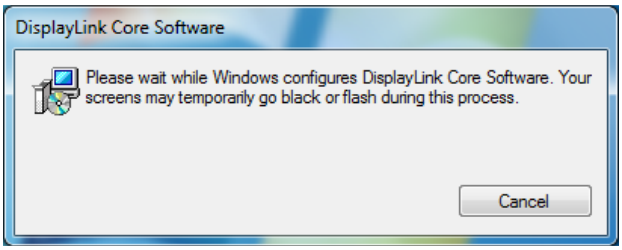
To Install the DisplayLink USB Graphics on Windows 7

1. Connect your DisplayLink 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

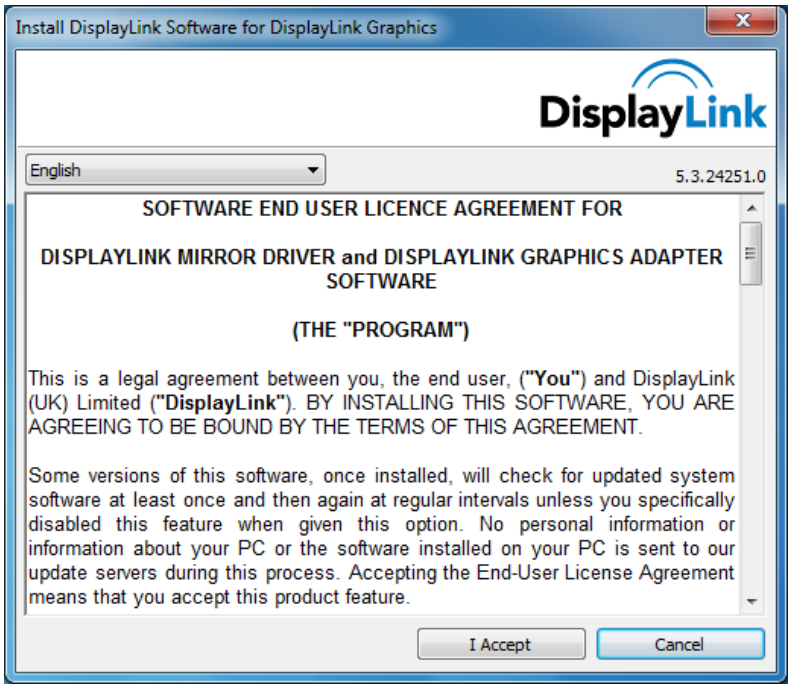


Note: The screen may flash or go black during the install.

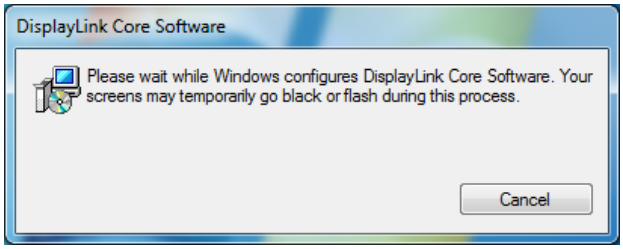
Alternatively you may install the software from a website download or CD-ROM:

Important! Do not connect a DisplayLink 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.



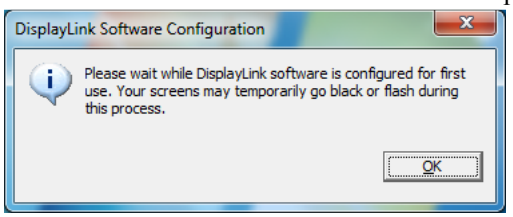
3. Click *I Accept*.
   DisplayLink Core software and DisplayLink Graphics installs.



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 DisplayLink device 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 USB Graphics software installs, without notification that it has completed.

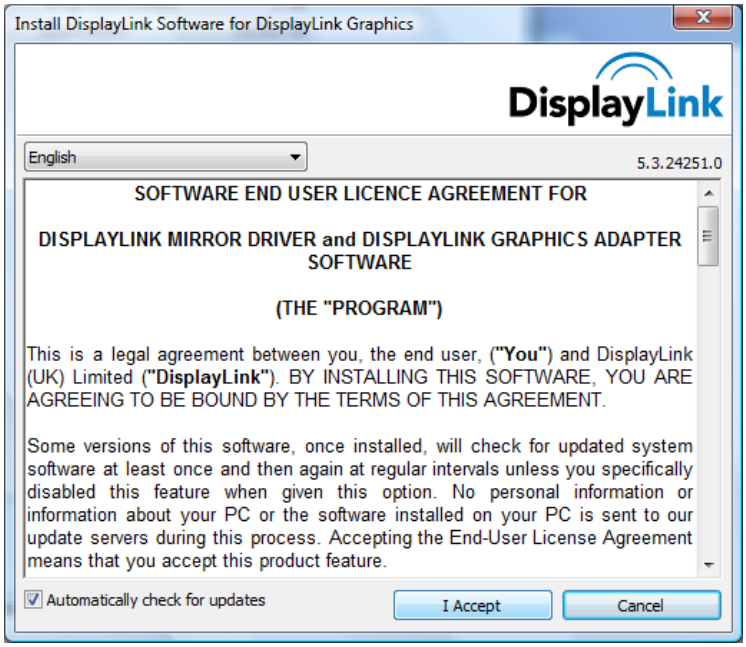
Note: On some machines you may need to reboot before you can use your DisplayLink enabled device.

Windows Vista

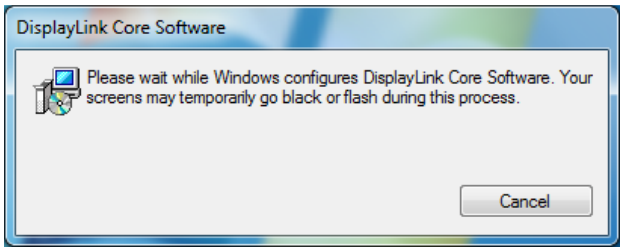
To Install the DisplayLink USB Graphics on Windows Vista

Important! Do not connect a DisplayLink 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.



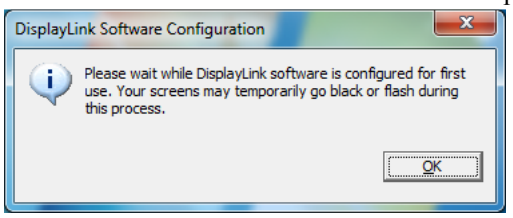
3. Click *I Accept*.
   DisplayLink Core software and DisplayLink Graphics installs.



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 DisplayLink device 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 USB Graphics software installs, without notification that it has completed.

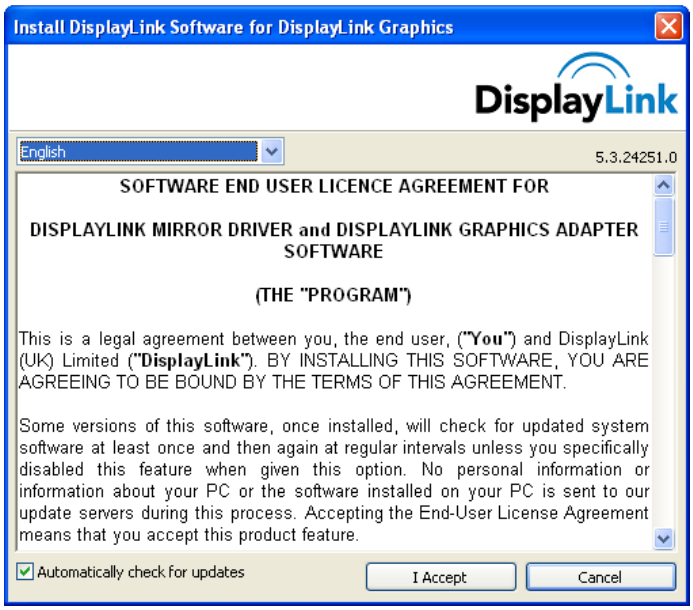
Note: On some machines you may need to reboot before you can use your DisplayLink enabled device.

Windows XP

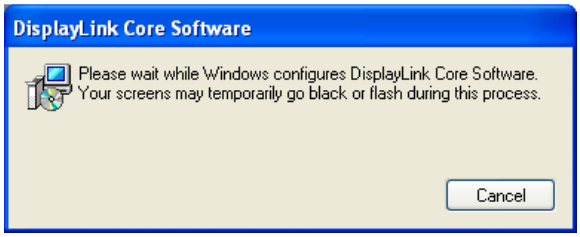
To Install the DisplayLink USB Graphics on Windows XP

Important! Do not connect a DisplayLink 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 DisplayLink device via the USB cable to your PC. The following message (or similar) will be seen.

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

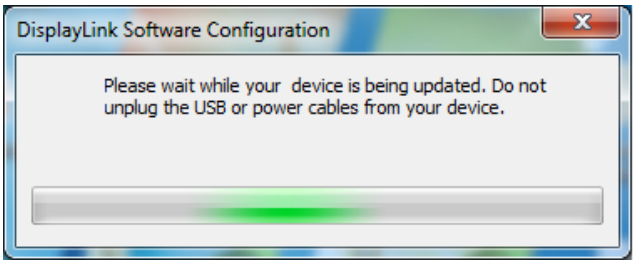
Using the DisplayLink Software

This section describes how to use DisplayLink's 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" areinterchangeable and provide the same function of making the contents of the 2 selected displays identical..

Behaviour on first connect

When connecting a device based on the DL-3x00 family, the firmware version 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 DisplayLink System tray GUI, covered below, will only be available when a DisplayLink device is detected on the USB bus.

When using a DL-1x0 or DL-1x5 based product, a new monitor will also be added in Windows Display Properties, even if there is no monitor connected to the device.

DL-3x00 devices 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 DisplayLink device, the DisplayLink host software reads the supported modes from the display. These are the only supported modes offered by the DisplayLink software, through the DisplayLink UI or Windows Display Properties. The DisplayLink software will use the montior's preferred mode by default.
If the monitor does not report any supported modes, DisplayLink will offer a list of default modes.
Note: not all supported monitor modes may be offered if they are not supported by your DisplayLink device.

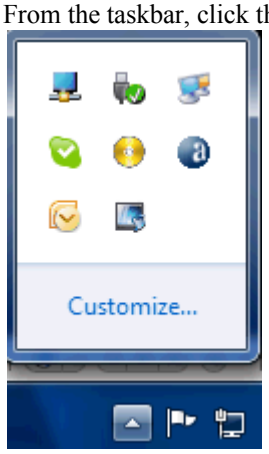
Windows 7 - Controlling the Display

Controlling the Display

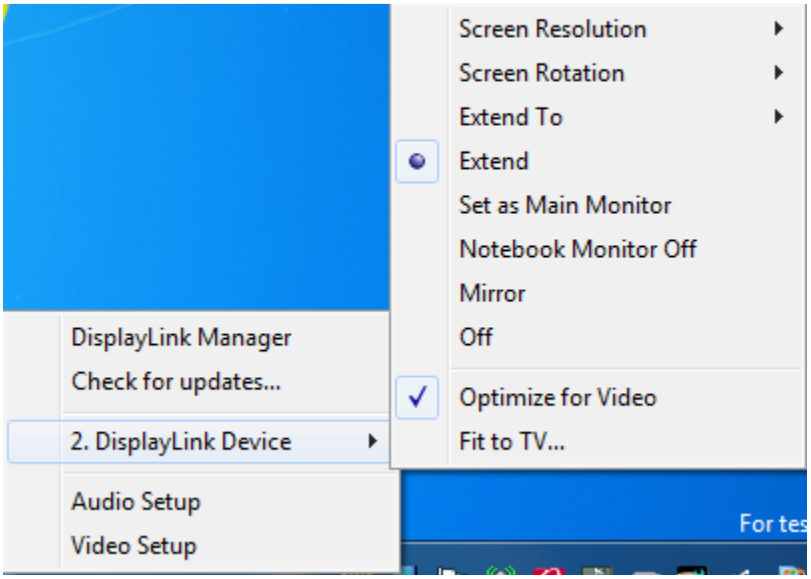
When devices are attached, an icon appears in the taskbar. This gives you access to the DisplayLink manager menu.

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



Menu Option	Sub-menu Option	Description
DisplayLink Manager		This is the UI title. Clicking on this item will open Windows screen resolution.
Check for Updates		Connects to the Update Server to check for newer driver versions and downloads them, if available.
DisplayLink devices	Options to configure this DisplayLink device	In this section of the menu, a list of connected DisplayLink devices will appear. Each of these devices has its own sub-configuration menu. These Submenu options are covered in the table below.
Audio Setup		Opens the Windows Audio Configuration Window.
Video Setup		Opens the Windows Screen Resolution window.

Display Menu	Description	
Screen Resolution		Displays a list of available resolutions. Some resolutions may be enclosed by [ ]. 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 DisplayLink 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 DisplayLink display the main display. Note: This option will only appear when 1 DisplayLink USB 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 DisplayLink displays and not available.
Off		Switches off this display.
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.
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 DisplayLink USB screen, is connected • This option will only work in extend mode. Selecting the option in mirror mode will extend the displays.

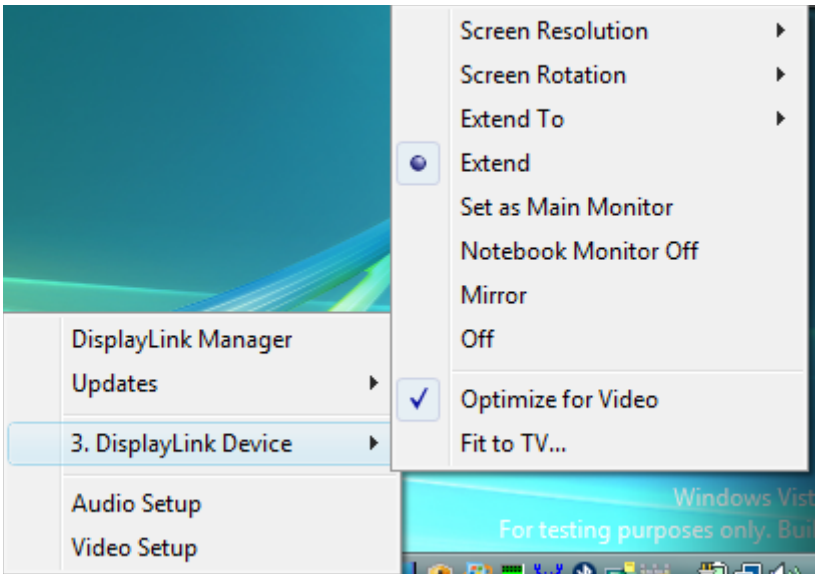
Table 2: DisplayLink menu – Windows 7

Windows Vista and Windows XP – 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
DisplayLink Manager		This is the UI title. Clicking on this item will open Windows screen resolution.
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.
DisplayLink devices	Options to configure this DisplayLink device	In this section of the menu, a list of connected DisplayLink devices will appear. Each of these devices has its own sub-configuration menu. These Submenu options are covered in the table below.
Audio Setup		Opens the Windows Audio Configuration Window.
Video Setup		Opens the Windows Display Settings window.

Display Menu	Description	
Screen Resolution		Displays a list of available resolutions. Some resolutions may be enclosed by [ ]. 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 DisplayLink display

Display Menu	Description	
	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 primary display.
	Left	Extends the display to the left of the primary display.
	Above	Extends the display above of the primary display.
	Below	Extends the display below the primary display.
Extend		Extends your Windows desktop onto this display.
Set as Main Monitor		Sets this screen as the primary display.
Notebook Monitor Off		Switches off the display of the notebook and makes the DisplayLink display the main display. Note: This option will only appear when 1 DisplayLink USB 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.
Off		Switches off this display.
Optimize for Video (Windows Vista Only)		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.
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 DisplayLink USB screen, is connected • This option will only work in extend mode. Selecting the option in mirror mode will extend the displays.

Table 3: DisplayLink menu – Windows Vista

Setting the Display into Extend Mode

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

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

Windows Vista and XP – Windows Display Properties

You can also configure the DisplayLink 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.

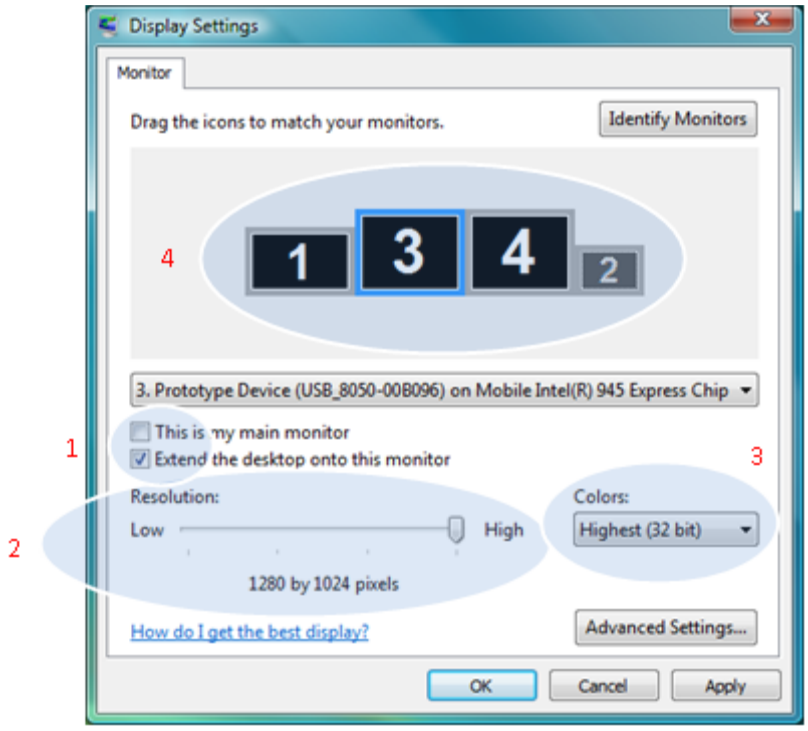


Figure 1: Display Setting - Vista

Select the display to be configured. Its mode, resolution, colour 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 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 DisplayLink USB Graphics 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 DisplayLink USB Graphics device stays primary if the PC enters hibernate or suspend mode or is rebooted. If the DisplayLink 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 DisplayLink USB Graphics 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 DisplayLink USB Graphics device screen and with and external keyboard and mouse.

To set a laptop to do nothing

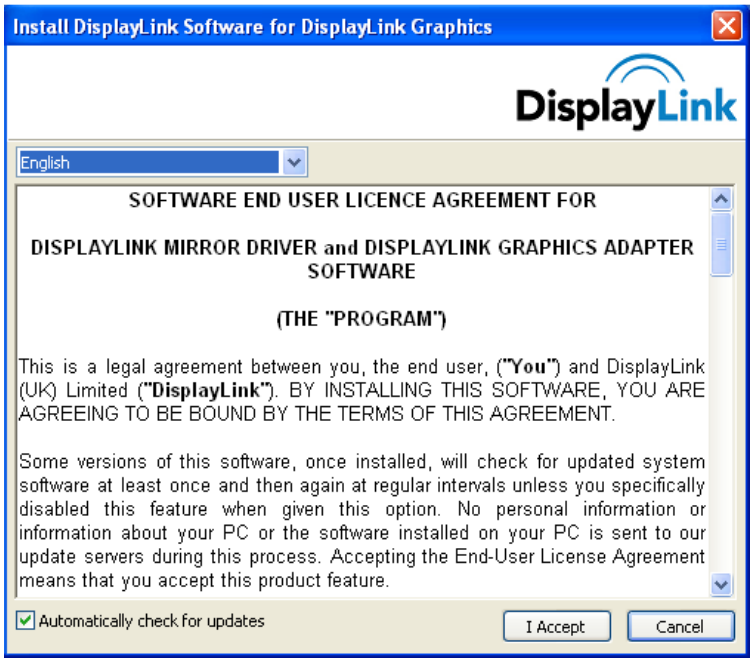
1. Select Start menu > Control Panel > Power Options.
2. Select *Choose* what closing the lid does.
3. From When I close the lid, select *Do nothing* from the *On battery* and *Plugged in* drop down list.

Windows 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

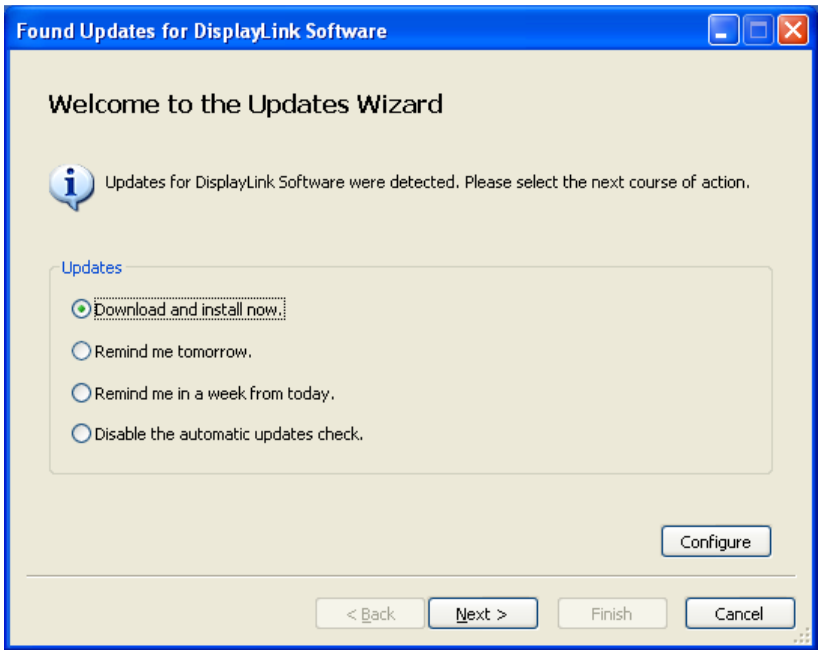
DisplayLink Automatic Updates is a product maintenance feature from DisplayLink, supported on Windows XP and Vista. The automatic update mechanism ensures that the DisplayLink USB Graphics has the most up-to-date drivers and software, providing you with increased performance and stability.



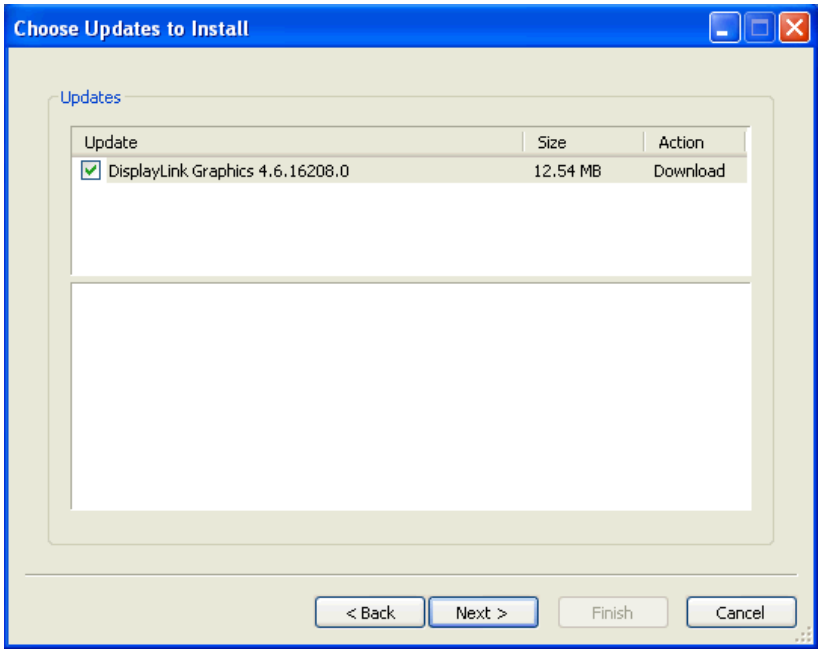
You can be disable this feature during install by clearing the Automatically check for updates checkbox.

Using the Updates Wizard

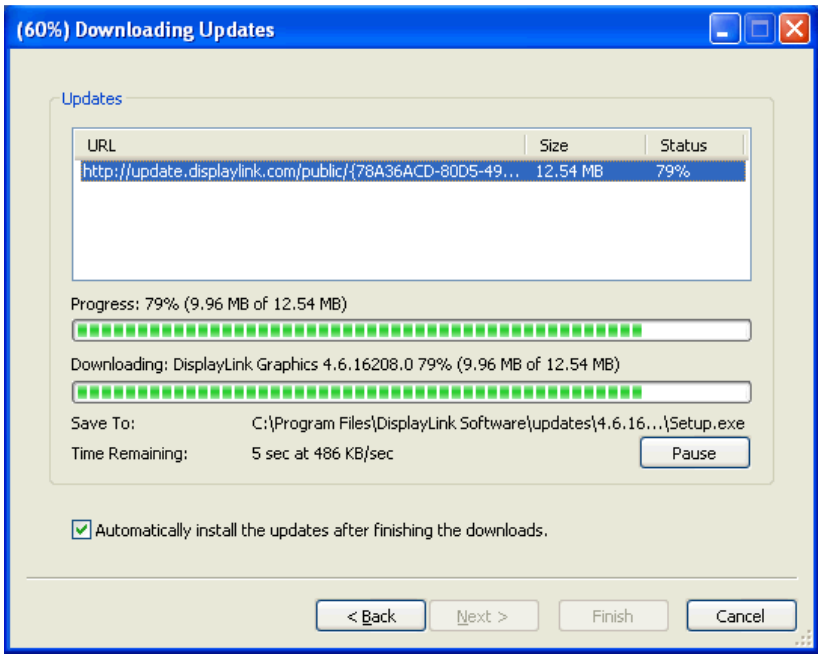
By default, automatic updates is configured to check for updated software on the plugging in of a DisplayLink USB Graphics, or the resume or start of your PC, every seven days. When newer software is available, the Updates Wizard launches.



1. Select *Download and install now.*
   Note: You can download and install the software immediately, but it is also possible to hide the reminder until a later date, or disable the reminder and future update checks entirely.
   The Choose Updates to Install screen opens showing all the available updates. The most recent update is automatically set to Download, whilst others are skipped.



2. Click 'Next' to download the latest update.
   The Downloading Updates screen opens.



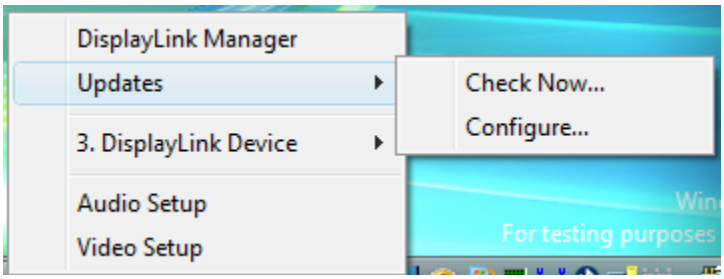
3. If you check the highlighted box, then installation of the latest software begins immediately after the download has finished, otherwise click 'Next' to begin software installation.

Manual Updates

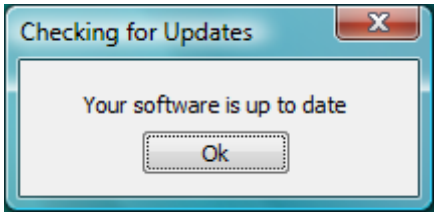
You can check for updates manually at any time.

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.

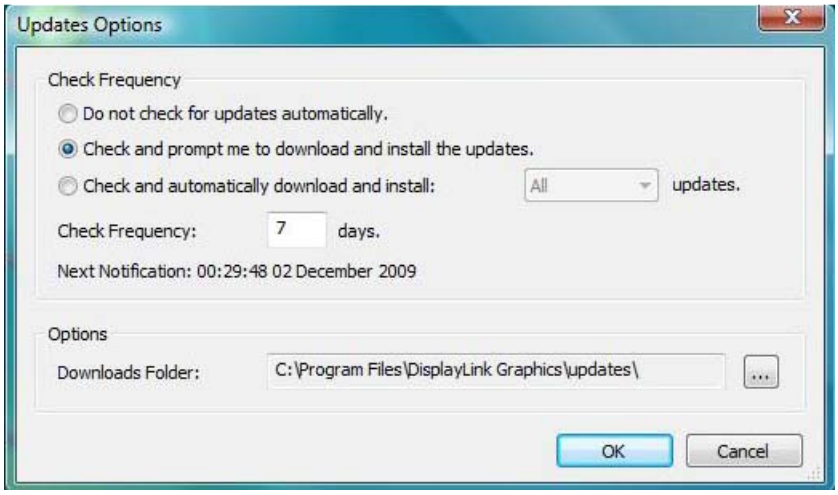


Configuring Updates

You can configure the check frequency, the updater's action on finding newer software and the download folder,

To configure updates

1. Click on the DisplayLink icon .
2. Select Updates > Configure.
   The Updates Options dialog opens.



3. Select the options you want to change and click *OK*.
   DisplayLink saves your changes.

Uninstalling the DisplayLink USB Graphics Software

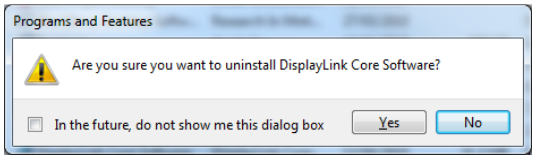
The method for uninstalling differs slightly depending on your operating system.

Uninstalling on Windows 7

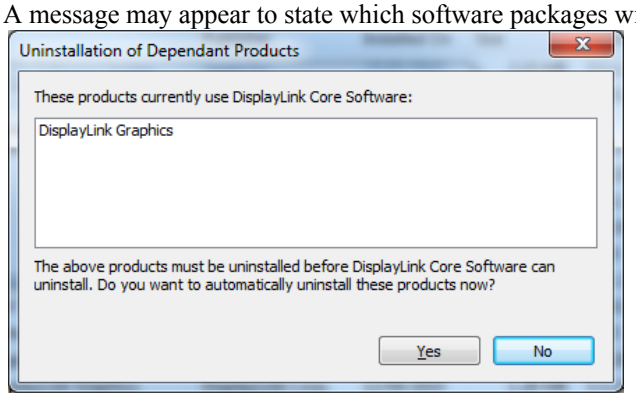
Use this procedure to uninstall the DisplayLink USB Graphics software from Windows 7.

To uninstall the DisplayLink USB Graphics software on Windows 7

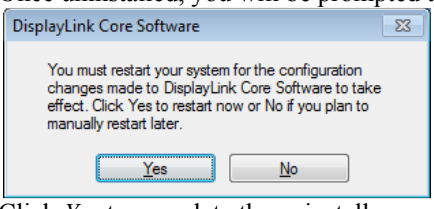
1. From the Start Menu, select Control Panel.
2. From the Programs item, click *Uninstall program*.
3. Double click on *DisplayLink Core software*.
   A windows confirmation dialog opens (if enabled)



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.

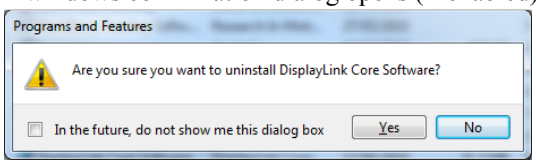
Uninstalling on Windows Vista and XP

The DisplayLink 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).

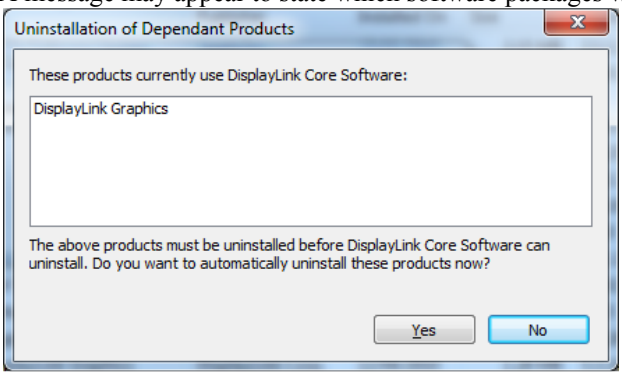
To uninstall the DisplayLink USB Graphics software on Windows Vista

1. Select Start > Control Panel > Programs and Features.
2. Select *DisplayLink Core software* and click on *Uninstall*.

A windows confirmation dialog opens (if enabled)

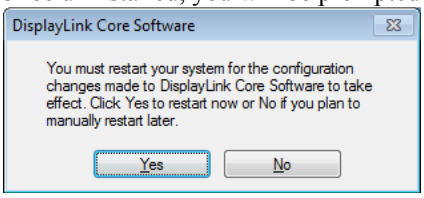


3. Click *Yes*.
4. A message may appear to state which software packages will also be uninstalled



Click *Yes* to uninstall the packages that use DisplayLink Core Software
The uninstaller automatically uninstalls the software.

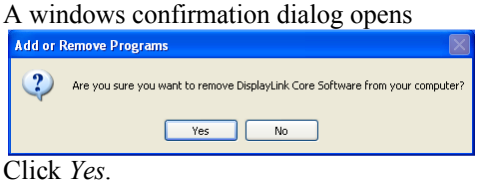
5. Once uninstalled, you will be prompted to reboot



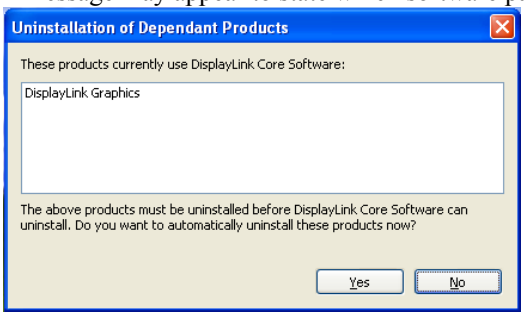
6. Click *Yes* to complete the uninstall.

To uninstall the DisplayLink USB Graphics software 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

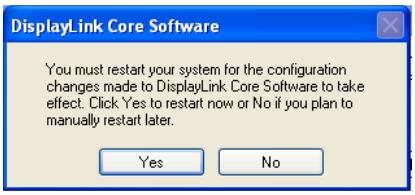


3. Click *Yes*.
4. A message may appear to state which software packages will also be uninstalled



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. A message may appear to state which software packages will also be uninstalled



7. Click *Yes* to complete the uninstall.

Fit to TV

What is Fit to TV?

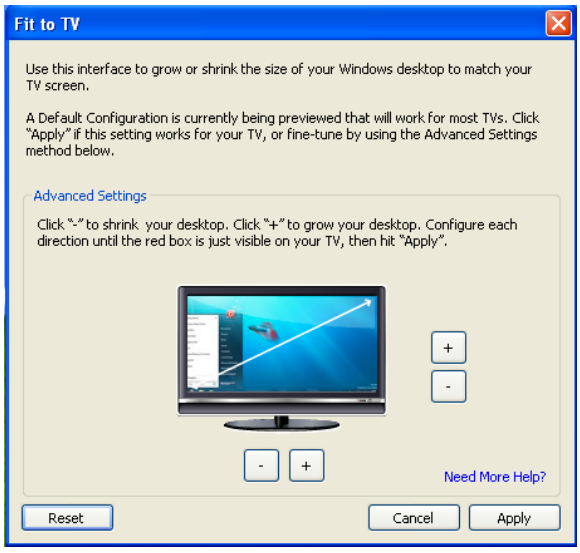
If using your DisplayLink product to connect to a TV, all of the Windows desktop may not be available. Many TVs will automatically 'overscan' the image they get by cutting off the borders and filling the screen with the image. On some TVs it may be possible to turn this 'overscan' off in your TVs settings 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 DisplayLink 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 DisplayLink device is connected. It is not designed to work on multiple DisplayLink 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 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 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 7, Vista and Windows XP (in extend mode), the DisplayLink USB Graphics device can display media files and DVDs using the following media players:

- Windows Media Player 11 (http://www.microsoft.com/windows/windowsmedia/default.mspx)
- WinDVD 10 (www.intervideo.com)
- PowerDVD 9 (www.cyberlink.com)
- RealPlayer 11 (www.real.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.

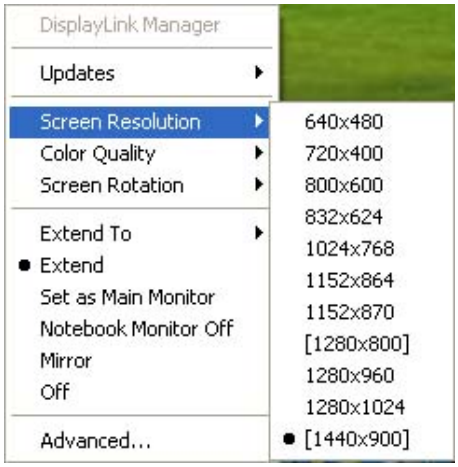
Supported Screen Modes

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.

Error Messages

DisplayLink USB 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.

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.