

# Laplink DoubleView™ Quick Start Guide

MN-DBLV10-01-05/05/06

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For technical support issues or questions, please visit: [www.laplink.com/support](http://www.laplink.com/support)

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Laplink DoubleView allows you to double your screen real estate in minutes. You can use any spare Windows computer with a monitor as an extra display for your primary PC. As you move a program window between the two displays, they behave as one large monitor. DoubleView also enables you to control both PCs with the mouse and the keyboard of your primary PC. Simply move the mouse cursor past the edge of the display where you are currently working, and the focus will automatically switch to the other PC.

### Glossary

**Primary PC:** The PC whose monitor's viewing range you wish to extend.

**Secondary PC:** The PC that extends the primary PC's viewing range.

**Server program:** The DoubleView program that runs on the primary PC. It sends screen content as well as the mouse and keyboard signals from the primary PC to the secondary PC.

**Viewer program:** The DoubleView program that runs on the secondary PC. It receives screen content as well as the mouse and keyboard signals from the primary PC.

**Primary display:** The display of your primary PC.

**Secondary display:** The display that shows the program windows that you moved from your primary display. Secondary display can be viewed in full-screen or in window mode.

**Server (or viewer) system tray icon:** The DoubleView program icon in the System Tray (bottom-right of the display next to the clock).

### System Requirements

Both computers must be connected via a network connection that uses the TCP/IP protocol, such as: Firewire, Wireless LAN, a "cross-over" Ethernet cable, a network hub, or a USB network cable.

#### **Primary PC:**

- Operating System: Microsoft Windows XP / 2000 / 2003
- Available hard-disk space: 5 MB
- CPU speed: 133 MHz

#### **Secondary PC:**

- Operating System: Microsoft Windows 98 / 98SE / Me / XP / 2000 / 2003
- Available hard-disk space: 500 KB

## Install DoubleView Server

1. Double-click the **DoubleView\_setup.exe** icon on your primary PC.

### 2. Select Setup Language

Choose the language and click **OK**.

### 3. Welcome to the DoubleView Server Setup Wizard

Close all applications, especially the software that uses the videocard, such as: nView, UltraMon, PowerDesk or PivotPro . Click **Next**.

### 4. Select Destination Location

Accept the default location for installing DoubleView, or click **Browse** to choose a different location. Click **Next** when ready.

### 5. Select Start Menu Folder

**Setup** will create program shortcuts. Click **Next** to accept the default folders, or click **Browse** to save the shortcuts to a different folder.

### 6. Select Additional Tasks

Check any additional tasks that you would like **Setup** to perform while installing DoubleView Server. Click **Next**.

### 7. Installing

During installation, the screen may flicker and turn blank for a few seconds.

### 8. Completing the DoubleView Server Setup Wizard

Check the option to run DoubleView after software installation has completed. Click **Finish**.

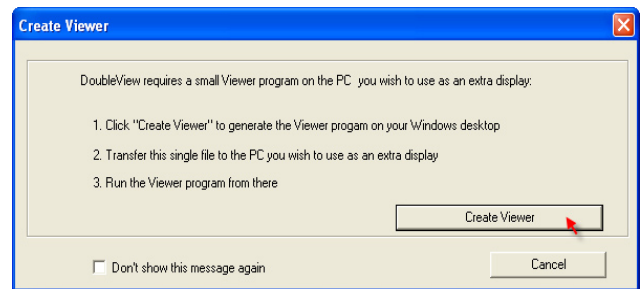
### 9. Enter Your Serial Number

This dialog box appears when you run DoubleView for the first time. Enter your license key exactly as it is provided, then click **Continue**. If you enter an incorrect number, please restart the program and try again.

## Install DoubleView Viewer

You will next copy a small viewer program to the secondary PC.

1. Click on the **Create Viewer** button in the **Create Viewer** dialog.



DoubleView will save the **DoubleView\_Viewer** file to the desktop of your primary PC.

2. Copy the **DoubleView\_Viewer** file to a folder or a removable medium that your secondary PC can read.

3. From your secondary PC, locate and double-click the **DoubleView\_Viewer** file that you saved on your primary PC. If there is a connection between the two PCs, both monitors will flicker briefly and the color of the server system tray icon will change to blue:



If the color is not blue, please refer to "System tray icon color is not blue" in the troubleshooting section of this manual.

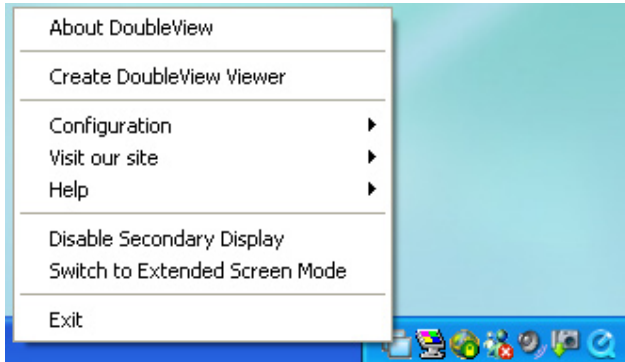
The extended screen on the secondary PC should display the background of the primary PC's desktop. If you now drag the mouse in the direction of the secondary PC's monitor, the cursor should disappear from the primary display and reappear on the secondary display. If this does not happen, please refer to "The cursor does not move into the secondary display" in the troubleshooting section of this manual.

Congratulations! You are now ready to use DoubleView. The sections that follow contain tips on the program's main features, configuring the Windows XP or ZoneAlarm firewall, and troubleshooting.

## Main Features

### Access primary display options

The easiest way to access the DoubleView options is to right-click on the server system tray icon:



### Enable / Disable secondary display

Ensure the following:

1. The server program and the viewer program are both running.
2. The DoubleView system tray icon is blue and solid yellow on the primary PC, and yellow on the secondary PC.

To activate the secondary display, choose one of these two methods:

- Double-click on the server system tray icon.
- Right-click on the server system tray icon and select **Enable** or **Disable Secondary Display** from the server program pop-up menu.

### Use DoubleView with existing dual monitor systems

- If you have a dual monitor setup on your primary PC, no additional action is required.
- If you have a dual monitor system on your secondary PC, you will only be able to extend the primary PC's view to one monitor at a time.

### Control the secondary PC by switching to the Remote Control Mode

1. Confirm that the secondary display is enabled.
2. On the primary PC, right-click on the server system tray icon and choose **Switch to Remote Control Mode**.

Note: You can use the **Scroll Lock** hotkey to change between the two DoubleView modes.

When you select **Switch to Remote Control Mode**, the extended screen minimizes into the background. Once you move the cursor into the secondary display, you will be able to control your secondary PC with the mouse and the keyboard of your primary PC.

Note: The remote control mode is not available while DoubleView is in Window mode (**Use Secondary Display in full-screen** is unchecked).

### Synchronize clipboard contents

When using DoubleView in the **Remote Control** mode, you can transfer simple text between the two PCs. Note that changing the clipboard contents on one PC overwrites them on the other PC.

### Switch between the full-screen and the window display modes of the secondary display

In **Extended Screen Mode**, the secondary display can be viewed as a window or as a full screen inside the secondary PC's screen. Right-click on the server system tray icon and choose **Configuration**, then **Use Secondary Display in full-screen**.



Secondary display set as a window inside the secondary PC's screen.



As a full screen, the secondary display uses the entire area of the screen.

## System tray icon color is not blue



(Solid yellow)

Almost ready. The DoubleView server program has detected the DoubleViewer\_Viewer program and is waiting for your command. Double-click on the server system tray icon (primary PC) to enable the secondary display. You can also right-click on the icon and select **Enable Secondary Display**.

- If the icon does not change to blue, restart the primary PC, then restart the DoubleView program.
- If this still does not work, uninstall DoubleView on the primary PC, restart the computer, and reinstall the program.



(Black)

No response from the secondary display.

1. Right-click on the server system tray icon (primary PC) and select **Exit**.
2. Restart the viewer program on your secondary PC. Check the server system tray icon: when its color changes to solid yellow, you are ready to activate the secondary display.



(Alternating black and yellow)

The server program could not find the viewer program because: (a) your computers are not connected, or (b) the firewall is preventing the computers from connecting to each other.

- Close and restart the program on your primary and secondary PCs.
- Check that the firewall is properly configured (see the sections on configuring Windows XP or ZoneAlarm firewalls).
- Refer to Cannot activate the secondary display in the Troubleshooting section of this guide.

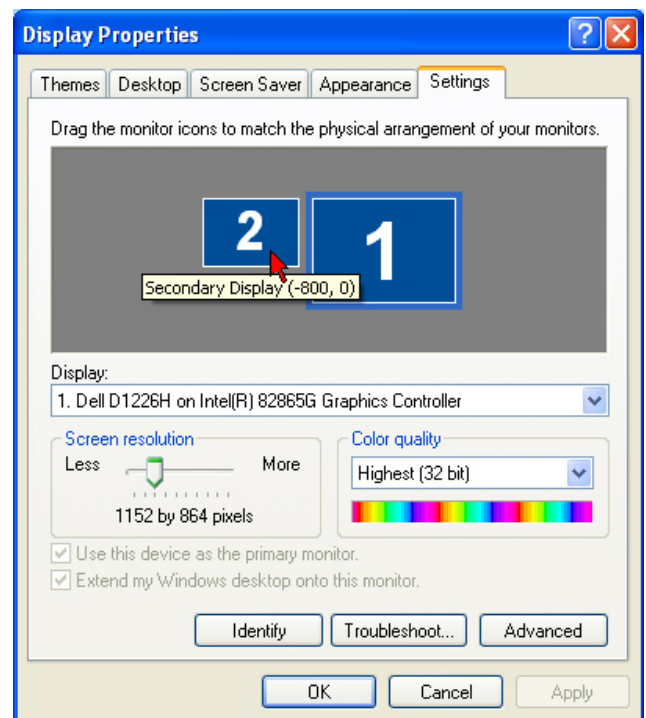
## The cursor does not move into the secondary display

You may have to adjust the location of the secondary display relative to the primary display.

1. Right-click on the server system tray icon, select **Configuration**, then "..." (three dots).

Note: you can open the same dialog box by right-clicking your Windows desktop and selecting **Properties** in the drop-down menu.

2. Click the **Settings** tab. Drag the secondary display icon to the location that corresponds to its physical arrangement relative to the primary display.



## Cannot see the system tray icon

Windows XP only: right-click on **Start**, select **Properties**, press the **Taskbar** tab, and disable the **Hide inactive icons** option. This prevents the taskbar from hiding the DoubleView icon.

### Cannot activate the secondary display (System tray icon is alternating black and yellow)

1. Check that both computers meet the system requirements, the server program is running on the primary PC, and the viewer program is running on the secondary PC.
2. Restart the primary PC and try connecting again. If this does not solve the problem, uninstall the server program, restart your primary PC, and reinstall the software.
3. Check that the network adapters and drivers are installed properly and the network cable is firmly connected (most network adapters indicate the presence of connection via the LED light).
4. When connecting through Ethernet, make sure that you are using the correct cable: "cross-over" cable for the PC-to-PC connection, and a "patch" cable for the network hub/router/switch connections.
5. Check that the TCP/IP protocol is installed. On each PC:

**A.** Click on **Start, Control Panel, Network and Internet Connections, Network Connections**.

**B.** Right-click on the **Local Area Connection** icon. From the drop-down menu, select **Properties**. Check that **TCP/IP protocol** is installed and enabled.

6. Check for IP address correctness. On each PC:

**A.** Repeat the sequence of steps in 5A and 5B, but instead of selecting Properties in 5B, select **Status** from the drop-down menu.

**B.** Click on the **Support** tab and write down the IP address. If no value is shown, click on the **Repair** button. If there is still no value shown, the network may not be working properly. For further assistance, please go to

<http://support.microsoft.com/>

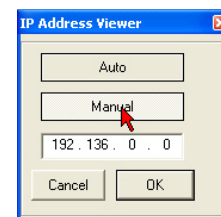
IP addresses for a local network usually look like "169.254.x.y" or "192.168.x.y," where "x" and "y" are the numbers between 0 and 255.

"x" represents the subnet number; both PCs must have the same value for "x" in order to communicate with each other. "y" is the computer's ID number; it must be different for each PC. If the IP address does not begin with either 169 or 192, it is likely that the network is connected to the Internet rather than the local network. DoubleView only works through a local network.

- C.** You may need to manually set the IP address for your secondary PC.

By default, DoubleView server scans the network for the first PC running DoubleView\_Viewer program. If there are other viewer programs running on the network, your server may connect you to the wrong PC.

On your primary PC, right-click on the system tray icon, select **Configuration**, then **Network Options**. In the **IP Address Viewer** window, click on the **Manual** button, enter the IP address of your secondary PC, then click **OK**.



7. Check that TCP/IP protocol works properly.

**A.** Click **Start** and select **Run**. In the text box type "\\ " followed by the IP address for the PC where you are presently working, then click **OK**.

**B.** Repeat **A**, but instead of entering the PC's own IP address, enter that of the other (!) PC.

A separate Windows Explorer window should open, showing the folders that can be shared over the network. If you receive the "Request timed out" message instead, the TCP/IP protocol may be malfunctioning or the firewall may be blocking the connection. For further assistance with the TCP/IP protocol, please go to <http://support.microsoft.com/>. To properly configure the firewall, please refer to the sections on configuring Windows XP or ZoneAlarm firewalls.

## Configuring Windows XP Firewall

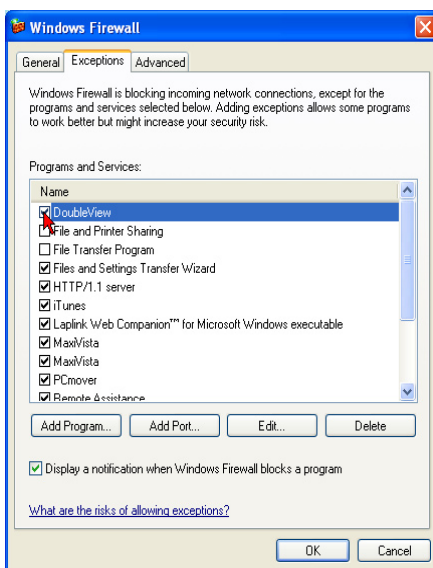
This section describes how to properly configure the Windows XP firewall. Refer to it if DoubleView fails to run after you have read the preceding sections of this guide.

### Windows XP with Service Pack 2

- During the installation or the first run of DoubleView, the **Windows Security Alert** dialog will ask you if you want to keep blocking DoubleView. Click the **Unblock** button:



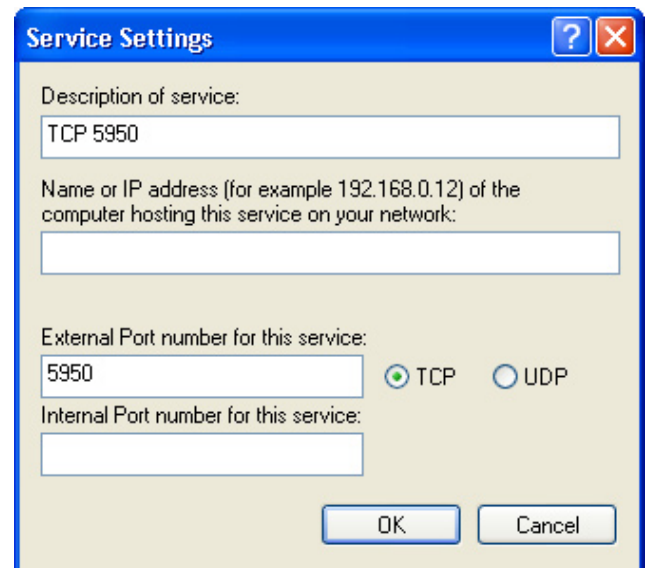
- You can also manually prevent Windows firewall from blocking DoubleView. Click **Start, Control Panel, Security Center, Windows Firewall**. Open the **Exceptions** tab and put a check mark next to **DoubleView**:



### Windows XP without Service Pack 2

For each PC:

1. Obtain the IP address: click **Start, Control Panel, Network Connections**. Right-click on the current network connection icon, select **Status** and click on the **Support** tab within the **Local Area Connection Status** window. Record the IP address.
2. Open the **General** tab, click on the **Properties** button, then on the **Advanced** tab. Check the box under **Internet Connection Firewall** if it is not checked. Click the **Settings** button, then the **Add** button. Select the **TCP** radio button and enter the following information: "TCP 5950" for **Description of Service**; the IP address of the other PC (e.g. if you are on the secondary PC, enter the IP address for the primary PC, and vice versa) for **Name or IP address**; and "5950" for **External Port number**. Click **OK**.

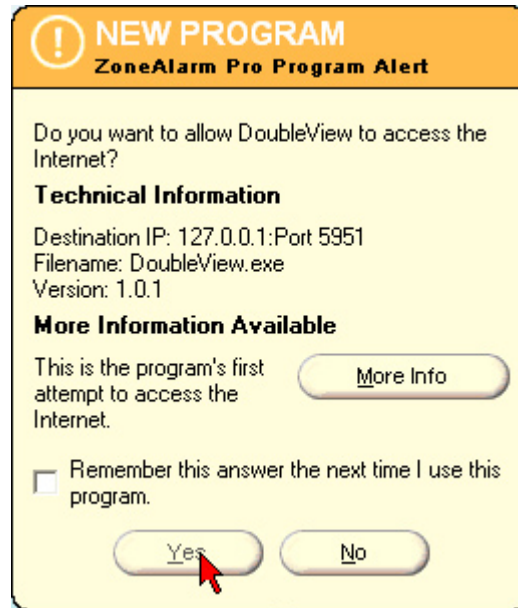


In the same window, select the **UDP** radio button and enter the following information: "TCP 5999" for **Description of Service**; the IP address of the other PC for **Name or IP address**; and "5999" for **External Port number**. Click **OK** when done.

## Configuring ZoneAlarm® Firewall

This section describes how to properly configure the ZoneAlarm firewall. Refer to it only if you use ZoneAlarm on one or both of your PCs.

1. When you run DoubleView for the first time, ZoneAlarm will generate the **NEW PROGRAM** window, asking for your permission to access the Internet. Select the **Remember this answer** checkbox and click **Yes**.



2. Adjust ZoneAlarm security settings for each PC. Double-click on the ZoneAlarm icon in the system tray, click on the **Security** button, and set the **Internet** security to medium:

