

Article ID: 238886 - Last Review: August 6, 2007 - Revision: 4.2

HOW TO: Set Up and Troubleshoot Multiple Monitors in Windows 2000

This article was previously published under Q238886

SUMMARY

You can configure your desktop to be displayed on multiple monitors in Windows 2000. Support for multiple monitors requires two or more video cards and monitors. This article covers the following topics:

- What to do before you set up multiple monitors.
- How to set up multiple-monitor support.
- How to troubleshoot multiple monitor Setup.

The following terms are defined to help you understand multiple monitors:

- **Primary display adapter:** The adapter that displays the computer posting.
- **Secondary display adapter:** Any additional display adapters in the computer.
- **Onboard display adapter:** A display adapter that is built into the motherboard of a computer.



Requirements

- Check the Windows 2000 Hardware Compatibility List (HCL) to ensure that your display adapters are compatible. For a list of display adapters that may work with multiple monitors see the HCL.txt file in the Support folder on the Windows 2000 CD-ROM. Note that versions of the HCL that are currently available from www.microsoft.com/hcl do not specify if an adapter is compatible with multiple monitors.
- Set up your primary video card with Windows 2000 and ensure it is functioning before you attempt to set up multiple-monitor support.
- Make sure your primary display adapter is installed in the PCI slot 0 or 1. This slot usually is the farthest from the ISA slots and nearest the edge of the motherboard. Some motherboards indicate which slot is designed to host the primary video card. For more information, please refer to the documentation that comes with your computer.
- Make sure your secondary adapters support the option to disable VGA in the display driver or through a jumper or dip switch on the adapter.
- If you set up multiple-monitor support before you install Windows 2000, connect a monitor to all adapters to make sure you can view the Setup process on the monitor. It is possible for Setup to run on any of the installed display adapters. If a monitor is not connected, you are unable to interact with Windows 2000 Setup. For more information, refer to the following Microsoft Knowledge Base article: [228247](http://support.microsoft.com/kb/228247/EN-US/) (<http://support.microsoft.com/kb/228247/EN-US/>) Windows 2000 Setup Switches the Primary Monitor During Setup
- If you plan to use an onboard display adapter, you must use a secondary display adapter that has jumpers or switches to disable VGA or the computer's BIOS must have an option to choose which card should post. The onboard adapter must be the primary video adapter and post VGA. In most computers with an onboard display adapter and a secondary adapter, the secondary adapter posts. BIOS have different methods for detecting and disabling onboard adapters so each hardware Setup may require different steps for multiple monitors to function.

Installation of Multiple Display Adapters with Windows 2000

NOTE: Windows 2000 supports a maximum of 10 adapters.

1. Turn on your computer and log on to Windows 2000.
2. Click **Start**, point to **Settings**, click **Control Panel**, and then double-click **Display**.
3. On the **Settings** tab, confirm that your display adapter is listed correctly.

NOTE: If your display adapter is listed as VGA, you cannot configure your computer for multiple monitors. Contact the manufacturer of your display adapter to see if you can obtain a Windows 2000 driver.

4. Make sure that the color depth is set to at least 256 colors (16 BPP is recommended).
5. Shut down the computer.
6. Before you insert your secondary display adapter, confirm that it has VGA-disabled selected. (This is done with either a jumper or a small dip switch located on the secondary display adapter. If you cannot locate a jumper or switch, then consult the manufacturer's documentation or contact the manufacturer for more information.)
7. Insert your secondary display adapter into an available PCI slot and connect a second monitor to the secondary display adapter.
8. Turn on both the monitors, start the computer, and allow the computer to start into Windows 2000. You should see the computer post on the primary video card. When you log on, Windows 2000 detects your new display adapter and installs the appropriate driver for your display adapter and monitor if your monitor is Plug and Play.
9. Right-click a blank portion of your desktop, and then click **Properties**.
10. On the **Settings** tab two monitor icons are displayed. Click the new monitor, and then click **Extend my Windows desktop onto this monitor**.

NOTE: You can use these steps to install additional adapters.

Troubleshooting

NOTE: On portable computers, Windows XP supports multiple monitors when you use the computer's built-in display and an external display. By default, Windows 2000 does not include this capability. However, manufacturers of display adapters may include this capability in their non-Microsoft display drivers.

- You set up a secondary adapter on the computer, but the adapter is not detected when you restart the computer. You chose a non-supported secondary adapter, or one that requires third-party drivers.
- You set up the computer with a secondary adapter and when you restart the computer, the Startup screen is displayed on the primary monitor and your desktop is displayed on the secondary monitor. VGA is not disabled on the secondary display adapter, a compatibility issue exists between the two display adapters, or a resource conflict exists between the secondary adapter and another hardware device in your computer.
- The display is showing only on the primary monitor when you restart your computer. Make sure the **Extend my Windows desktop into this monitor** check box is selected for each monitor. If two monitor icons are not displayed on the **Settings** tab, you have selected a non-supported secondary display adapter or the primary and secondary adapter combination you have chosen is incompatible. In Device Manager check to see if any display adapters have an exclamation point in a yellow box displayed next to them (this indicates a problem with the device).
- You have screen redraw problems on one monitor, but not another.

There are several issues with display corruption because of old BIOS revisions, especially with newer computers. If you experience these types of problems, contact your motherboard manufacturer and obtain updated BIOS.

- After you upgrade from Windows 98 or Windows 98 Second Edition, your multiple monitor setup is lost.
For more information, refer to the following Microsoft Knowledge Base article: [197259](http://support.microsoft.com/kb/197259) (<http://support.microsoft.com/kb/197259/EN-US/>) Upgrading from Windows 98 Does Not Retain Multiple Monitors
- You experience problems getting multiple monitors to work with your onboard video adapter.
Try using a supported secondary display adapter that supports the option to disable VGA (for example, Matrox Millennium, Imagine 128, Imagine 128v2, Revolution32, or Revolution4). Check with the video card manufacturer to see if they support using their video card in a multiple-monitor Setup with Windows 2000.
- Your multiple monitor Setup works with Windows 98, but not with Windows 2000.
Windows 2000 requires that the video card that is unable to disable VGA to be the adapter that posts the system. Windows 98 does not require this.
- How to determine which monitor is being used with each display adapter.
On the **Settings** tab in display properties, click **Identify** to identify each monitor with a number on the screen.
- How to view a DVD movie title on secondary monitors.
You must view DVD movie titles on the primary monitor.

The third-party products that are discussed in this article are manufactured by companies that are independent of Microsoft. Microsoft makes no warranty, implied or otherwise, regarding the performance or reliability of these products.

APPLIES TO

- Microsoft Windows 2000 Server
- Microsoft Windows 2000 Advanced Server
- Microsoft Windows 2000 Professional Edition

Keywords: kb3rdparty kbhardware kbhowto kbhowtomaster KB238886



Get Help Now

Contact a support professional by E-mail, Online, or Phone

Help and Support

Microsoft

©2009 Microsoft