



Multi-monitor Support for the Matrox Millennium II Graphics Controller

TechNote

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Configuring Your System for Multi-monitor Operation

This document provides instructions to configure a Compaq Professional Workstation as a multi-monitor desktop. A multi-monitor desktop includes the display areas of more than one monitor. You can use a multi-monitor desktop only if you have more than one Matrox Millennium II graphics controller installed in your system. Matrox Millennium II graphics controllers offer multi-monitor support for Microsoft Windows NT 3.51 and 4.0 only.



Any surface or area of the equipment marked with these symbols indicates the presence of electrical shock hazards. Enclosed area contains no operator serviceable parts.

WARNING: To reduce risk of injury from electrical shock hazards, do not open this enclosure.



Any surface or area of the equipment marked with these symbols indicates the presence of a hot surface or hot component. If this surface is contacted, the potential for injury exists.

WARNING: To reduce the risk of injury from a hot component, allow the surface to cool before touching.



Power Supplies or Systems marked with these symbols indicate the equipment is supplied by multiple sources of power.



WARNING: To reduce the risk of injury from electrical shock, remove all power cords to completely disconnect power from the system.

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NOTE: In a multiple-board configuration, all boards must run with the same resolution, pixel depth (number of colors), and video memory. The VGA-enabled board will drive the top-left monitor.

IMPORTANT: Before installing additional Millennium II graphics controllers, be sure that the appropriate driver is installed for Microsoft Windows NT for Workstations, and that the primary Millennium II graphics controller is installed in a PCI slot. Installing the driver before installing additional controllers and monitors makes configuring easier.

NOTE: When installing additional controllers, you do not need to re-install the driver software. However, if you have different driver versions, Compaq recommends that you install the latest drivers in order to take advantage of any system enhancements.

1. Turn off the computer, remove the cover, and locate the unused PCI slots.
 2. Install the additional graphics controllers securely into PCI slots. Replace the cover, and connect the additional monitors to the 15-pin connectors of the newly installed controllers.
 3. Turn on the additional monitors.
 4. Turn on the computer. During system boot, the Power-On-Self-Test (POST) messages will be displayed on a single monitor; all other monitors will remain dark.
 5. When the Windows NT operating system is up and running on the first monitor, you can configure the additional monitors by using the Windows NT Display Properties utility or by using the MGA PowerDesk utilities.
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Configuring Additional Monitors Using Windows NT Display Properties

1. From the Control Panel, double-click the Display icon. This displays the Windows NT Display Properties dialog box. In Windows NT 4.0, click the Settings property sheet.
2. Move the Desktop Area slider with the left mouse button or click List All Modes, and observe the resolutions that are offered.

Table 1
Monitor Resolutions

Typical Single- Display Resolutions	Possible Double- Display Resolutions	Possible Triple- Display Resolutions	Possible Quadruple- Display Resolutions
640 x 480	1280 x 480 640 x 960	1920 x 480 640 x 1440	2560 x 480 640 x 1920 1280 x 960
800 x 600	1600 x 600 800 x 1200	2400 x 600 800 x 1800	3200 x 600 800 x 2400 1600 x 1200
1024 x 768	2048 x 768 1024 x 1536	3072 x 768 1024 x 2304	4096 x 768 1024 x 3072 2048 x 1536

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3. Select a multi-monitor resolution and click Test. Some monitors may not warm up fast enough to display the test pattern in the 5 seconds allowed by the test. If you do not see all monitors active during the test but you know you are testing a valid configuration, click OK when prompted, "Did you see the test bitmap properly?"

NOTE: A multi-monitor resolution is a multiple of a resolution that a single Millennium II can support. For example, the Millennium II supports 1024 x 768 so the dual-monitor configuration would be 2048 x 768 or 1024 x 1536.

4. Click OK or Apply to change to the new multi-monitor resolution. You might have to restart the computer for the new settings to take effect.

Configuring Additional Monitors Using the MGA PowerDesk Utilities

In addition to allowing you to configure multiple monitors, the MGA PowerDesk utilities allow you to check that the system properly recognizes each controller and monitor, graphically preview multi-monitor configurations (for example, side-by-side or stacked), and provide some control over the multi-monitor desktop.

1. Do one of the following:
 - a. For Windows NT 4.0, click the right mouse button on the Windows NT desktop background, and select MGA Display Properties.
 - b. For Windows NT 3.51, double-click the Control Panel (in the Main program group); then double-click the MGA Panel icon.
2. Select the Information property sheet to view information on each controller
3. Select the Monitor property sheet to view and change settings for the monitor attached to each controller.

NOTE: Steps 4 and 5 apply only to Windows NT 4.0. To further configure additional monitors using Windows NT 3.51, close the MGA Display Properties dialog box and refer back to "Configuring Additional Monitors Using the Windows NT Display Properties."

4. Select the Settings property sheet and click the Multi-Display Desktop button. The Multi-Display Desktop button displays two monitors at the bottom of a column of buttons on the left side of the dialog box.
5. Move the Desktop Area slider with the left mouse button and watch the Desktop Preview region above the slider as it displays multi-monitor configurations. Select a multi-monitor resolution and click OK or Apply, then click OK again at the prompt: "Windows will now resize your desktop/display. . .," and OK once more to keep the new settings.

Getting Help

If you have a problem and have exhausted the information in this document, you can get further information and other help in the following locations.

For the name of your nearest Compaq Authorized Reseller:

In the United States, call 1-800-345-1518

In Canada, call 1-800-263-5868

For Compaq technical support:

In the United States and Canada, call 1-800-386-2172

For Compaq technical support phone numbers outside the United States and Canada, visit the Compaq website.