

MGA Millennium PowerDesk for Windows 95

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v 2.22

This document contains information on the topics listed directly below. It is included on your Matrox MGA Millennium PowerDesk for Windows 95 **diskette**, and also gets installed on your hard disk under the Millennium **PowerDesk** folder.

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Overview

The MGA Millennium PowerDesk for Windows 95 offering includes:

- Windows 95 display driver, v 2.x *(fast!)*
- DDC-2b and Windows 95 monitor support *(Plug and Play!)*
- MGA Monitor Program *(more control!)*
- MGA Property sheet *(Windows 95 - compatible!)*
- MGA Quick Access *(practical floating tool bar!)*

The **MGA Settings** sheet in the **Display Properties** dialog box complements the Windows 95 **Settings** sheet and provides access to the PowerDesk features:

- A **Desktop area** that supports display resolutions up to 1600 x 1200, to expand the working area beyond the limits of the monitor
- **PixelTOUCH**, for hardware pan and zoom (x2 to x4)
- **PanLOCK**, to lock the working area of the virtual desktop
- **CenterWINDOW**, to center the working area of the virtual desktop on the current popup or application window.
- An almost unlimited number of **Display Schemes**, to easily switch between your preferred configurations.

In addition, the following programs are included with the PowerDesk software:

- The **MGA Quick Access** program, which is a re-positionable iconic menu which complements the hotkeys to allow quick access to various PowerDesk functions, including four preset modes.
- The **MGA Monitor program**, which is an advanced program which can be used in place of the standard Windows 95 Monitor selection process, for users who wish to benefit from optimum refresh rates of their monitor and graphics accelerator through interactive testing and adjustment.

Installation

Installing MGA Millennium (Windows 95 is already installed):

This procedure applies to those installing the MGA Millennium adapter on a Windows 95 computer configured for VGA (or other display adapter).

- Shut down your system and install the MGA Millennium card (remove any other VGA card or disable any on-board VGA if you plan to use a single display screen).
- Start Windows 95. The system will detect that a "PCI VGA-Compatible Display Adapter" was added, and will ask for a hardware manufacturer disk.
- Using the *Matrox MGA Millennium PowerDesk for Windows 95* diskette, follow the on-screen instructions that will copy the Millennium driver to your system. Then reboot the system as requested. Windows 95 will start in Millennium mode, with a display area of 640 x 480, with 256 colors. At this point, however, the **PowerDesk software has not yet been installed**:
 - With the Matrox diskette still in drive a:, use the **Run** flyout in the **Start** menu to run *a:Setup.exe*. (You may also use the **Add New Programs** icon in the **Control Panel**.) Follow the on-screen instructions. Once PowerDesk has been installed, you will have to reboot the system.
 - After rebooting, your display will still be 640 x 480 with 256 colors. To change to your preferred mode, open the **Display Properties** applet (right-click on the desktop and select **Properties**, or double-click on the **Display** icon in the **Control Panel**). You will see that a new page called **MGA Settings** sheet has been added. This is described in detail in the "MGA Settings" section later in this document.

Installing Windows 95 (Millennium is already installed):

This procedure applies to those installing Windows 95 on a Windows 3.1 computer already configured with a MGA Millennium.

- Uninstall the Matrox Windows 3.1 PowerDesk software prior to the installation of Windows 95, using the program in the PowerDesk group.
- Start the Windows 95 Setup program. As part of the installation, a hardware detection process will detect an "Oak Technology SuperVGA" board. There is no cause for alarm - your computer will reboot in standard VGA mode (640 x 480 with 16 colors), which is, of course, supported by the Millennium.
- To install the Millennium driver and PowerDesk software, insert the *Matrox MGA Millennium PowerDesk for Windows 95* diskette in drive a: and use the **Run** flyout in the **Start** menu to run *a:Setup.exe*.
- You'll be prompted for a destination directory (*C:\Matrox\Millen* is the default), and asked if you want to install the Quick Access and MGA Monitor applications.
- The setup program will check to see if a Matrox *mga.inf* monitor file exists on your system, which would be the case if you are upgrading from Windows 3.1 to Windows 95 with your Millennium adapter. If so, you will be able to keep your old monitor settings instead of relying on the Windows 95 monitor. However if you were using the 1152 X 882 resolution under Windows 3.1, we recommend that you run the MGA Monitor Program as soon as possible to reselect your monitor, as the Windows 95 driver now supports 1152 X 864 instead. Also note that if your monitor is Plug and Play compliant (i.e. supports VESA DDC) and you wish to use the DDC timings, you must go with the Windows 95 monitor selection.
- Once all the files are installed, a Matrox Wizard will guide you through the steps to take in order to change the Windows 95 display adapter type from VGA to Millennium mode. This is done in the Windows 95 **Display Properties** dialog box. You will have to re-boot at the end of this procedure.
- After rebooting, your display will be 640 x 480 with 256 colors. To change to your preferred mode, open the Windows 95 **Display Properties** dialog box again (right-click on the desktop background), and you will notice a new page called **MGA Settings**. This is described in detail in the 'MGA Settings' section later in this document.

Upgrading the Windows 95 Millennium driver v. 1.0:

- If you are upgrading the Millennium driver obtained from the Microsoft WDL, insert the *Matrox MGA Millennium PowerDesk for Windows 95* diskette in drive a: and use the **Run** flyout in the **Start** menu to run *a:Setup.exe*. After the installation of the PowerDesk files, the Matrox Wizard will guide you through the steps to take in order to change the display adapter from "Millennium" to "Millennium PowerDesk". See the Q&A section later in this document for more information about the Millennium 1.0 driver.

Re-installing PowerDesk for Windows 95:

- If you are re-installing the PowerDesk software, the setup program will detect an earlier installation, and you will be asked if you wish to reset or keep your current settings. If you choose to reset, your schemes, your hotkeys, and your performance preferences will be lost, but you will still reboot with the same **Display area** and **Color Palette** as before.

Monitor Selection

The MGA Millennium display driver supports Windows 95 monitors. This means that the monitor that is listed in the **Change Display Type** dialog box is handled by the MGA Millennium display driver, in terms of maximum resolution and refresh rates. The driver supports various video timings ranging from 60Hz to 85Hz, including all standard VESA timings. The MGA Millennium display driver will take the timings that best match the frequency ranges reported by Windows 95 for the chosen monitor. Also, the **MGA Settings** page will not allow you to select a **Display area** (resolution) that is higher than supported resolution for your monitor. The MGA Millennium display driver also recognizes Plug and Play (DDC) monitors.

It is very important that you not leave your Windows 95 monitor as "unknown" (unless you have chosen to use the MGA Monitor Program, described later in this document). It is also important to update the monitor type if you change your monitor (except if you are changing from one DDC monitor to another). Do this **before** connecting the new monitor, then reboot right away with the new monitor. This will ensure that you will not boot in an unsupported resolution.

Tip:

Few DDC-compliant monitors support the 1152 x 864 resolution. You can obtain that resolution by overwriting the Plug and Play monitor with the actual monitor name in the **Change Display Type** dialog box. By doing so, you may not have a perfect image adjustment for the various resolutions, so you may have to fine tune the image position and size using your monitor's built in controls.

The Windows 95 monitor selection can be overwritten by using the Matrox MGA Monitor Program. See the "MGA Monitor Program" section later in this document.

MGA Settings

The **MGA Settings** sheet is a property sheet that is added to the Windows 95 **Display Properties** dialog box when you install our driver. This page supercedes the standard **Settings** page, whose contents are greyed out (dimmed, and unavailable) when a MGA Millennium adapter is present.

In addition to the usual settings for the **Display area**, **Color Palette**, and **Font Size**, the **MGA Settings** page introduces an enhanced **Desktop area** feature whereby you can create a **Desktop area** that is larger than the current **Display area** (you can expand your working area beyond the limits of many monitors). This page also

gives you the ability to save multiple configurations as Display Schemes. Additionally, a few **Advanced** setting pages are available for driver configuration, hotkey setup, and information about your board.

On-line help is available exactly as for other Windows 95 sheets, that is: click on the question mark icon in the upper right corner, then click on the item on the sheet that you want help on.

Quick Access

MGA Quick Access is part of the MGA Millennium PowerDesk folder, which is accessible from the Programs flyout on the **Start** menu. It allows quick access to the following PowerDesk features: PixelTOUCH zoom, PanLOCK, CenterWINDOW, and four pre-defined **Display Schemes** that are read from the **MGA Settings** page.

- You can see a "tool tip" for each button if you leave the mouse cursor over the desired button for a few seconds.
- Reassign **Display Schemes** you created on the **MGA Settings** page to the four mode buttons by right-clicking on them.
- When panning and zooming, you can use the Quick Access "follow display" feature whereby the panel always remains visible. To enable or disable this, click on the **Quick Access** system menu box in the upper left corner of the toolbar and select **Follow Display** (you can also press Alt+Space, then F to toggle this setting).
- You may want to put the Quick Access program in your **Startup** folder. To do so, right-click on the Windows 95 Taskbar and follow the on-screen instructions. The Quick Access program is located in the `\Matrox\Millen\Qa` directory.

MGA Monitor Program

The MGA Monitor Program is part of the MGA Millennium **PowerDesk** folder, which is accessible from the **Programs** fly-out on the **Start** menu. If you ever wish to find this program using the **Browse** button, it is located in the `\Matrox\Millen\Mon` directory.

This program is for advanced users. Under normal conditions, you could rely on Windows 95 to provide acceptable monitor setup, based on the monitor you select during setup or on the **Settings** sheet on the Windows 95 **Display Properties** dialog box.

If you have a DDC-compliant monitor, you must use the Windows 95 monitor mechanism in order to remain DDC-compliant.

The MGA Monitor program can be used in place of the Windows 95 mechanism under the following conditions:

- Your monitor is not found in the extensive list of monitors provided in the Windows 95 setup.
- You are upgrading from a previous MGA installation, and you wish to retain any customized monitor settings.
- You have a requirement to perform fine tuning of a highly technical nature on your display.

Another advantage of the MGA Monitor Program is that you can test every **Display area** (resolution) and **Color Palette** (pixel depth) setting for your monitor selection before confirming your choice, thereby avoiding surprises when rebooting. For more details, read the on-line Help, which is accessible from the program.

Warning:

The MGA Monitor Program overwrites the Windows 95 monitor selection. If you change your monitor later on, remember to also change the monitor choice from within the MGA Monitor Program (otherwise, your display may not be correct when you reboot). The MGA PowerDesk Control Center will likely warn you about this, but as it cannot handle all cases, you may not be warned.

For more details, read the on-line Help, which is accessible from the **MGA Settings** sheet in the **Display Properties** dialog box.

DirectDraw driver issues

Millennium Windows 95 PowerDesk version 2.10 and up contains a DirectDraw driver.

Please note that for our DirectDraw driver to be called, you must have the Microsoft DirectX redistributable code installed on your system. The key file that you must have from this package is called ddraw.dll. This package (with the ddraw.dll file) is included and installed when you install any Microsoft DirectX-compliant game or application.

The **Information** tab of the **MGA Settings/Advanced** property sheet will help you verify that both our DirectDraw driver and the Microsoft DirectDraw (the redistributable code) is present.

- Also note that our DirectDraw driver includes support for the upcoming Microsoft DirectVideo release.

Q & A (typical problems solved)

Here are some common questions presented with some possible solutions.

- **Q: There is another MGA Millennium driver on the Windows 95 CD-ROM. What is it ?**
- A: This other driver is part of the Windows Driver Library (WDL), and is found in the \Drivers\Display directory. In the Adapter Type list, this driver is called the "Matrox MGA Millennium", while the PowerDesk one is called "Matrox MGA Millennium PowerDesk". The WDL driver does not support PowerDesk.
- **Q: Are the PowerDesk for Windows 3.1 features compatible with Windows 95?**
- A: Absolutely not. After upgrading from Windows 3.1 to Windows 95, you must stop using the programs in the Windows 3.1 PowerDesk group. We actually recommend that you uninstall the Millennium software prior to upgrading to Windows 95. If you install Windows 95 on top of Windows without first uninstalling the old MGA software, you should delete the PowerDesk group folder and all its icons, then install the Windows 95 version of the MGA software.
- **Q: I start Windows 95 and my monitor does not sync properly. What can I do?**
- A: This probably happens because the MGA driver is trying to boot in a resolution that your monitor does not support. This could occur if you had never selected a monitor, or if you physically changed your monitor without informing Windows 95 (or the MGA Monitor Program).

To recover from this problem, reboot your system (by pressing Ctrl-Alt-Del twice). When the screen displays "Starting Windows 95", press F5 to enter Windows 95 in "safe mode". In this mode, Windows 95 will boot in VGA at 640 x 480, and you will then be able to lower the resolution in the **Display Properties** dialog box. Pull it down to 640 x 480 and reboot again to get a display of 640 x 480 in Millennium mode. Then take the appropriate actions to check and correct your monitor type.

- **Q: I have a problem with an application that I suspect is caused by the display driver. What should I do?**
- A: You can try using the application with the standard VGA driver, or alternately, try using the Millennium driver, but with hardware accelerations disabled (see below).

To restart in VGA mode, simply open the **Display Properties** dialog box (right-click on the desktop background), and change the **Display Type** to VGA. You will have to reboot.

To restart using the Millennium driver with hardware accelerations off, click on the **System** application in the Windows 95 **Control Panel**, then go to the **Performance** page. Select **Graphics**, then move the **Hardware Acceleration** bar to **None**. You will have to reboot as well, but you will still have the same **Display area** and **Color Palette**. This is often better than using standard VGA, as some applications exhibit problems, specifically in High Color or True Color modes.

- **Q: Windows 95 reports a display adapter hardware conflict upon booting. I thought Windows 95 was Plug and Play! What can I do?**
- A: This does sometimes happen. If you have changed display adapters, especially non-PCI ones, you should let the Windows 95 hardware detection program take the appropriate steps as suggested; this might solve your problem.

If you have not changed any adapter, running this program is of no use. Instead, run the **System** application in the **Control Panel**, then select **Device Manager**, then **Display Adapters**. If you can't solve the problem here (or if no problem is reported), try re-installing the Millennium driver from the original diskette. To do this, open the **Display Properties** window, click on **Change Display Type**, then re-select the MGA Millennium.

- **Q: Can I use the Millennium Multimedia Superpack CD-ROM under Windows 95?**
- A: Yes, but depending on the version of the CD-ROM you have, some programs may either not work or not install well. Updates for specific programs are available on our BBS and CompuServe.
- **Q: Can I uninstall the MGA PowerDesk for Windows 95 software?**
- A: Yes, but not by using the standard Windows 95 **Install/Remove Applications** in **Control Panel**, since PowerDesk is so fully integrated with the display driver. Here is what you must do (this should only be attempted by advanced users):
 - Make sure you are not using a **Desktop area** that is larger than the **Display area** (look on the **MGA Settings** sheet in the **Display Properties** dialog box).
 - Run `\\Matrox\Millen\Paneloff.reg` to remove the **MGA Settings** page.
 - Edit `\\windows\win.ini` to remove `mgactrl.exe` from the `load=` line.
 - Remove the MGA Millennium **PowerDesk** folder from the **Programs** flyout of the **Start** menu, then delete the `\\Matrox` directory structure.

More Information

For more information, see the **readme file** included on the diskette. This file is also copied to the installation target directory (for example: `\\Matrox\Millen`), and accessible through the Millennium PowerDesk folder.