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MGA Panel

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Configuration tab

The Configuration page is where you configure the 3D options and select the language for MGA Panel.

3D:

The 3D options control the behavior of the 3D module provided with your MGA Windows NT driver. This 3D module is called by OpenGL applications to provide 3D hardware acceleration.

The 3D options group box offers the following features:

1. Z Buffer:

This is a basic 3D option, allowing rendering of 3D objects with hardware acceleration.

2. Double Buffer:

This is an additional 3D option, allowing smooth animation when 3D objects are manipulated.

3. Sub Pixel Precision:

For Windows NT version 3.50 and 3.51 only. This is an advanced 3D option, providing a higher quality rendering for 3D objects. When Sub Pixel Precision is enabled, rendering will be slower. For Windows NT version 4.0, this option is always available and enabled, so the checkbox is not displayed.

When Sub Pixel Precision is disabled, some undesirable artifacts may appear at the edges of 3D objects.

For a change of 3D options to take effect, you must **Save** and restart your system.

Not all display modes can support 3D hardware acceleration. Click on the **List 3D Modes** button (for Windows NT version 3.50 and 3.51 only) to see which display modes support the options you have selected, or check with the tables in the following topic, '3D Resolutions and modes'.

It is not possible to predict 3D capabilities under Windows NT 4.0, because off-screen memory is managed on a per-window basis when allocating Z-buffer and back-buffer areas. For example, it may happen that one small window will get sufficient off-screen resources on a 2MB board, while an 8MB board displaying many windows could use up all system resources, leaving some windows without 3D acceleration.

If the current display mode does not support the 3D options you request, you will have to change your resolution or pixel depth through the Windows NT **Control Panel/Display** application. Note that your OpenGL application will still run (using software 3D emulation) even if hardware 3D acceleration is not available.

Language:

The languages supported by your version of MGA Panel are shown in this list. Select your preferred language, click on **Save**, then restart MGA Panel to see the new language in effect.

Please read also the topic below:

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3D Resolutions and modes

The Matrox board allocates Double-buffering and Z Buffer memory from the WRAM or SGRAM installed on the board, which results in reduced available resolutions and pixel depths. Note that 3D is available only in 15-, 16-, and 32-bit pixel depths.

The tables below indicate which modes can offer 3D capabilities such as Z-buffering (Z), Double-buffering (DB), or both (DBZ). A 'NA' in a column means that this combination of resolution and colors is not supported at all, whereas 'No 3D' means that this mode offers none of the above listed options.

These tables reflect only the resolutions available with a single screen setup. In a multiple screen setup, you will have more combinations of these basic resolutions. Consult the **List 3D Modes** button for a complete list of available modes for your particular setup.

2 MB Board

Resolution	15 bpp (32 K colors)	16 bpp (64 K colors)	32 bpp (16 M colors)
640 x 480	Z,DB,DBZ	Z,DB,DBZ	Z
800 x 600	Z,DB	Z,DB	No 3D
1024 x 768	No 3D	No 3D	NA
1152 x 864	No 3D	No 3D	NA
1280 x 1024	NA	NA	NA
1600 x 1200	NA	NA	NA

4 MB Board

Resolution	15 bpp (32 K colors)	16 bpp (64 K colors)	32 bpp (16 M colors)
640 x 480	Z,DB,DBZ	Z,DB,DBZ	Z,DB,DBZ
800 x 600	Z,DB,DBZ	Z,DB,DBZ	Z,DB
1024 x 768	Z,DB	Z,DB	No 3D
1152 x 864	Z,DB	Z,DB	No 3D
1280 x 1024	No 3D	No 3D	NA
1600 x 1200	No 3D	No 3D	NA

8 MB Board

Resolution	15 bpp (32 K colors)	16 bpp (64 K colors)	32 bpp (16 M colors)
640 x 480	Z,DB,DBZ	Z,DB,DBZ	Z,DB,DBZ
800 x 600	Z,DB,DBZ	Z,DB,DBZ	Z,DB,DBZ
1024 x 768	Z,DB,DBZ	Z,DB,DBZ	Z,DB,DBZ
1152 x 864	Z,DB,DBZ	Z,DB,DBZ	Z,DB
1280 x 1024	Z,DB,DBZ	Z,DB,DBZ	Z
1600 x 1200	Z,DB	Z,DB	NA

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PowerDesk tab

On the PowerDesk page, you can enable the Quick Access floating toolbar (available only with Windows NT version 3.51) and enable and configure four Hot keys for MGA Panel. Click on the **Enable Hot Key** check box within a group box to enable that feature. You can select a particular hot key for a feature from the drop-down list box inside each group box. By default, all the hot keys are disabled. Each of the features is explained below. Click on any green text below for additional information.

[PixelTOUCH group box](#)

[CenterWINDOW group box](#)

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PixelTOUCH

PixelTOUCH offers you hardware-accelerated zooming and panning. You can zoom in by pressing the (enabled) hot key for PixelTOUCH, or by clicking on the '+' magnifying glass button in Quick Access. Repeated hot key calls for PixelTOUCH will switch your display in a circular manner through the three zoom factors (x1, x2, x4, x1,...). If you use the magnifying glass buttons in Quick Access, the '+' button becomes grayed out at maximum magnification, and at this point, only the '-' button will work. Note that the x4 zoom is not available at resolutions 800 x 600 or lower.

When the **PixelTOUCH** hotkey is enabled, you can use the hot key combination to instantly change the zoom factor. The zoom is centered over the current mouse position. This feature can be quite useful for image retouching and for close-up inspection of part of a large, high resolution display.

Panning:

When you zoom into an image, other areas of the image are outside your viewing area. To see the hidden parts when you're at zoom factors greater than 1, move the mouse cursor to the edge of the screen and the screen will pan in that direction.

Multiple screens:

In a multiple screen configuration, the PixelTOUCH zoom is applied only to the screen displaying the cursor. When you move the cursor to another screen, the new screen will inherit the zoom factor, and the previous screen will be restored to a zoom factor of x1.

CenterWINDOW

Using the hot key:

When you press the (enabled) hot key for CenterWINDOW, the currently active window will be centered in the screen.

Multiple screen:

If you press the CenterWINDOW hot key again, the currently active window will be centered in the next display screen (monitor). Another call to CenterWINDOW will move the window to the center of the next display, and so on, in a circular manner.

Using Quick Access:

CenterWINDOW can also be called from Quick Access, but the mode of action is different. Click on the button to the right of the zoom buttons. A list will appear of all the programs currently running on your Windows desktop and you can select which one to center. Programs that are minimized will not appear in the selection list.

Display Settings hot key

When you press the (enabled) hot key for Display Settings, the Windows NT **Control Panel/Display** application is called to your current screen, so that you can quickly change your resolution and pixel depth.

MGA Panel hot key


When you press the (enabled) hot key for MGA Panel, the MGA Panel window becomes current. You can select one of the tabs to quickly and easily change your configuration.

Quick Access

Enable this checkbox to have the Quick Access floating toolbar in your display area. Quick Access gives you instant access to features such as PixelTOUCH (zoom in and out), and CenterWINDOW (select an application window to be centered), and can also start the MGA Panel program.

With Windows NT 3.50 the Quick Access icon is added to the StartUp group, and you must use the hot keys to call the commands. The floating toolbar is not available for Windows NT version 3.50.

Quick Access buttons:

Zoom In or Out: 

CenterWINDOW: 

Call MGA Panel: 



About tab

Select the **About** tab to view information about :

- The version of MGA Panel
- Our Windows NT driver version
- The current display resolution
- The current pixel depth
- The current refresh rate
- Whether 3D acceleration is available in the current mode (Windows NT version 3.50 and 3.51 only), With Windows NT 4.0 the 3D acceleration status report tells you if 3D is 'enabled', but this does not necessarily mean that it is 'available'. If you are running in 8- or 24-bit mode, the status report tells you that 3D acceleration is 'Not available in the Current pixel depth'.

Please have this information on hand if you need to communicate with our Technical Support about a particular problem.

In a multiple board configuration, the refresh for each monitor is shown, starting with board '1'. A refresh rate of 60Hz could mean that no monitor has been selected yet.

3D acceleration is available if all of the following conditions have been met:

1. The Double-buffer and/or Z buffer switches are activated. (See 'Configuration tab')
2. The current pixel depth supports 3D (that is, 15, 16, or 32 bpp).
3. There is enough on-board memory in the current display mode to accommodate the level of 3D support you requested.

If 3D options are selected, but conditions 2 or 3 are not met, 3D will be listed as 'Not available in current mode'.

Please read also the topic below:

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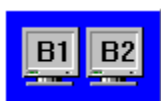
Information tab

Select the **Information** tab to view information about each board's:

- Board Type, ID number, and Serial Number
- Graphic chip version
- RAMDAC speed (175 MHz, 220,...)
- VGA BIOS version
- Board memory Mapping

Please have this information on hand if you need to communicate with our Technical Support about a particular problem.

At the bottom left corner, you can click on a button for the board you wish to query. There will be one button for each board in your system, even if the current configuration does not use all of the boards.



The small bitmap at the bottom right of the page shows you which board(s) is/are currently in use. When multiple boards are in use, this window also reflects the layout of the desktop (horizontal or vertical).





Monitor tab

The Monitor page is where you select the appropriate timing for your monitor(s). First select the Board number for the monitor you wish to configure, then select a monitor file from the list, and click on **Save**. For a change of monitor file to take effect, you must restart your system.

The MGA driver supports Plug n Play (VESA DDC) monitors. The driver will test for DDC availability at boot up, and actually use the DDC timings by default. In this case, the first entry of the monitor list will say 'DDC Compliant Monitor'. We recommend that you take this selection, but you can also overwrite DDC by selecting another monitor from the list. Note that DDC monitors will probably not return timings for the 1152 x 864 resolution, and if this is the case, this resolution will not be available.

If DDC is not available, the default refresh rate is 60 Hz, and the first entry on the monitor list will be 'Unknown Monitor (60Hz)'. When adding another board to your system, make sure to connect it to an additional monitor before rebooting, otherwise the driver will not be able to detect DDC presence (if it exists).

Our comprehensive list supports many popular monitors. If your DDC-compliant monitor is not on the list, select one of the generic VESA monitors with the same maximum resolution as your monitor.

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