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Introduction

GrafixStar 400, Videologic's S3 Trio64V+-based video-graphics card, provides you with high performance graphics, along with SmartTools for Windows 95 display control software.

To run GrafixStar 400 you need an IBM or fully compatible 486 PC or above which complies with the PCI local bus specification and which has a spare PCI bus slot.

You can upgrade your GrafixStar 400 to play full-screen, full-frame rate MPEG video by adding the MPEGStar option card, and to display higher resolutions and more colors by adding an extra 1 MB of memory. To order upgrades, refer to page 20 of this guide for contact points.

Before installing the card, read the file `vlgx400a.doc` in the `gs400\win95\disk1` folder of the CD if you are installing for Windows 95, or the file `readme.txt` in the root directory for other operating systems.

Conventions used in this guide

Throughout this guide: **bold** text is used for anything you type; *italic* is used for references to other documents; and small capitals are used for keyboard keys, for example, ENTER, SHIFT, CTRL.

Handling GrafixStar 400

Follow these guidelines to minimize the risk of electrostatic charges damaging the card:

- Keep the card in its protective packaging until you are ready to install it.
- Just before handling the card, touch the metal frame of your PC with the back of your hand to discharge any static electricity which may have built up on you or your clothes.
- Hold the card by the adapter bracket or by its edges; do not touch the circuit board.
- Do not place the card on top of your computer or on any other metal surface.
- Make sure that the card is not accidentally touched by anyone else.
- Handle the card with care to avoid damage to the components on the circuit board.

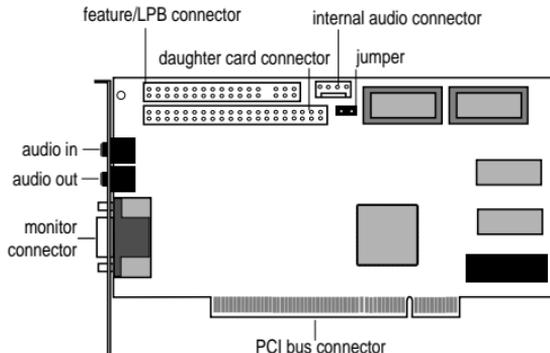
Installing GrafixStar 400

Installing the GrafixStar 400 hardware

Note: If you are installing GrafixStar 400 for Windows 3.1, make sure you have configured Windows to run with a standard VGA display before installation. You can do this by using the Windows Setup from the Main program group, clicking Change Systems settings from the Options menu and clicking VGA from the display list box. You can also run the Windows Setup program from DOS. See the *Windows User's Guide* for details on how to do this.

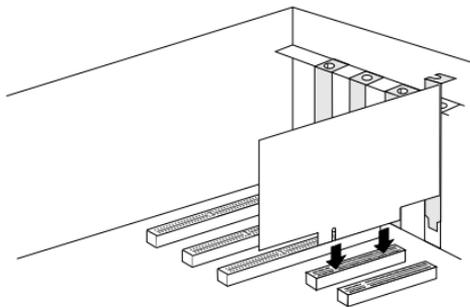
Warning: Always switch off your computer before removing the cover and observe the warnings specified in the manufacturer's documentation.

The following diagram shows the connectors on the card.



GrafixStar 400 User Guide

1. Switch off your computer, monitor, and any hardware devices such as printers connected to your computer. Leave the power cable connected to the power outlet so that your computer is grounded.
2. Disconnect the monitor cable from your computer.
3. Remove the computer's cover. You may need to refer to the documentation supplied with your computer for instructions on how to do this.
4. Remove your existing display card or disable your built-in graphics controller. Refer to the documentation supplied with your computer for instructions on how to disable a built-in graphics controller.
5. Locate an empty PCI bus expansion slot and remove the slot cover. Keep the screw, you will need it later to secure the card.
6. Touch the bare metal chassis of your computer with the back of your hand to discharge any static that may have built up on you or your clothes.
7. Align GrafixStar 400 with the slot you have chosen. Firmly press the card into the slot, as shown in the diagram below. You will need to use some pressure to push the card into position, but do not use excessive force.



- Secure GrafixStar 400 using the screw that you removed previously.
- Replace the cover of your computer.
- Connect the monitor cable to GrafixStar 400. All cables connected to GrafixStar 400 should be properly shielded and comply with radio frequency interference standards.
- Switch on your computer and your computer monitor. You are now ready to install the software. If you are installing for Windows 95, continue below. If you are installing for Windows 3.1, turn to page 6.

Installing the GrafixStar 400 Windows 95 software

The easiest way to install the software is by using the Display Properties window.

- Open the Control Panel window by clicking the Start button, pointing to Settings and clicking Control Panel.
- Double-click the Display icon to open the Display Properties Window.
- Click the Settings tab. The Settings page is displayed.
- Click the Change Display Type button.
- Make sure that the Monitor Type line contains the name of your monitor. If not, click the Change button and click the name of your monitor on the list.
- Click the Change button for the Adapter Type.
- Insert the VideoLogic Software Library CD-ROM into your computer and click Have Disk from the Select Device menu. Browse to the folder [drive]:\gs400\win95\disk1 where [drive] is your CD drive.
- Click GrafixStar 400 GrafixMAX from the list. Click OK.
- When the GrafixStar files have been copied to your PC, the Change Display Type window is displayed again. Click Close.
- The Display Properties windows is displayed again. Click Apply.

GrafixStar 400 User Guide

11. A message appears asking whether you want to restart your computer. Click Yes. Windows 95 restarts with the new GrafixStar Windows 95 drivers.
12. You are now ready to install SmartTools. Click the Start button and point to Run.
13. Browse to [drive]:\gs400\win95\disk1\dxinstal.exe where [drive] is your CD drive. Click OK.
14. A dialog box is displayed asking whether you want to install SmartTools with DirectVideo, or just SmartTools, or neither.

SmartTools is desktop control software that uses the powerful capabilities of the card. If you want control over the appearance and behavior of your desktop, click SmartTools. This installs SmartTools and DirectVideo.

DirectVideo is a set of drivers that optimize your computer's performance when running DirectDraw video applications. If you only want to install DirectVideo, click DirectVideo.

If you don't want to install either SmartTools or DirectVideo, click Cancel. Note that video playback performance will not be optimized without DirectVideo.

15. Follow the instructions that appear on the screen.

Installing GrafixStar 400 for Windows 3.1

Note: If you are running Windows 3.1 or 3.11, Windows should be set for a standard VGA display before you install the hardware, as explained on page 3 of this guide.

To install the GrafixStar 400 software for Windows 3.1:

1. Insert the VideoLogic Software Library CD-ROM into your CD drive.
2. Start Windows, click the File menu in Program Manager, and click Run.
3. Browse to [drive]:\gs400\win31\disk1\setup where [drive] is your CD drive, and click OK.
4. Follow the instructions that appear on the screen.

Removing SmartTools

Note: Removing SmartTools involves restarting Windows, so save any open documents before you start.

Removing SmartTools from Windows 95

To remove SmartTools:

1. Click the Start menu, and point to Settings.
2. Click Control Panel.
3. Click Add/Remove Programs.
4. From the list of programs displayed, click VideoLogic SmartTools, and click Add/Remove.
5. Follow the instructions that appear on the screen.

Removing SmartTools from Windows 3.1

To remove SmartTools:

1. Insert the VideoLogic Software Library CD-ROM into your CD drive.
2. Start Windows, click the File menu in Program Manager, and click Run.
3. Browse to [drive]:\gs400\win31\disk1\setup where [drive] is your CD drive, and click OK.
4. At the VideoLogic Installer screen, click Remove.
5. At the Remove screen, click GrafixStar display driver software. Click OK, and follow the instructions that appear on the screen.

SmartTools for Windows 95

The SmartTools software is a set of applications that enables you to get the most out of the powerful capabilities of your graphics card, giving you more control over the appearance and behavior of your Windows desktop.

The instructions in this section give you an overview of how SmartTools work. For more detailed instructions, refer to the online help supplied with SmartTools.

There are three Smart applications: SmartTools, SmartDisplay and SmartDesktop.

SmartTools

SmartTools enables you to create toolbars for quicker access to your applications and documents.

With SmartTools you can:

- Use toolbars for the other Smart applications, and customize these toolbars to suit your needs.
- Create toolbars for other applications, adding buttons for the programs, documents and files that you use most often.
- Assign hotkeys for the commands that you use most often.

SmartDisplay

SmartDisplay makes it easier and quicker for you to set up the properties for your monitor.

With SmartDisplay you can:

- Find the ideal display settings for the kind of work you are doing, helped by the SmartDisplay Wizard, which guides you through a step-by-step procedure.
- Select the display size, color palette, refresh rate, desktop size, connectivity and monitor alignment for your display, using a SmartDisplay set-up procedure for advanced users.

SmartDesktop

SmartDesktop controls the size and behavior of your desktop.

With SmartDesktop you can:

- Set a virtual desktop that is larger than the display size.
- Control the way you move around the desktop and reach an off-screen virtual desktop portion.
- Change the display size at the touch of a button, enabling you to zoom in and zoom out while you are working.

Using SmartTools

With SmartTools, you can customize the toolbars for the other Smart applications and create toolbars of your own.

Starting SmartTools

To start SmartTools, click the Start button, point to Programs, then VideoLogic SmartTools, then SmartTools, or click the SmartTools shortcut icon on the Windows 95 desktop.

The SmartTools window contains three pages: Toolbar Properties, Customize Toolbars and Customize Hotkeys.

Toolbar properties

With Toolbar Properties selected, you can:

- Open and close existing toolbars by checking and unchecking them.
- Set the properties (Name, On Top, Tool Tips, Status Bar and Lock) for each toolbar.

Customize Toolbars

With Customize Toolbars selected, you can:

- Create new toolbars and add them to the list of toolbars on the Toolbar Properties page by dragging applications from the Applications list onto the desktop, or by dragging one of the buttons in the commands list onto the desktop.
- Add buttons to toolbars by dragging them from the Commands list onto the toolbar, move buttons by holding down the SHIFT key and dragging them along the toolbar, or remove buttons by holding down the SHIFT key and dragging them off the toolbar.
- Add buttons for other applications to the Other Apps list and set properties for these buttons.

Assigning hotkeys

With Customize Hotkeys selected, you can assign hotkey combinations to the commands that you use most often, using combinations of SHIFT, CTRL and ALT, plus the other keys on the keyboard.

Using SmartDisplay

SmartDisplay is an application that enables you to select, customize and create display modes for your monitor. If you have never set a display mode before, or if you need help in choosing your settings, you should use the SmartDisplay Settings Wizard. If you are familiar with setting display modes, you should use the Advanced Settings Settings button.

Starting SmartDisplay

1. Select the Display Properties Control Panel either by right-clicking on the Windows desktop and choosing Properties from the menu or by clicking the Start button and pointing at Settings, then Control Panel, then double-clicking Display.

2. Click the SmartDisplay tab. The following window appears:



Setting display modes using the Wizard

The Wizard takes you through a step-by-step procedure for setting up a display mode.

To use the Wizard:

1. Click the SmartDisplay page on the Display Properties window.
2. Click the display mode you want to modify from the Display Modes list.
3. Click the SmartDisplay Settings Wizard button.
4. Follow the instructions given by the Wizard.

Setting display modes using the Advanced Settings button

This procedure enables you to choose the settings for your display mode. You should only use it if you are familiar with setting display modes.

To set a display mode:

1. Click the SmartDisplay page on the Display Properties window.
2. Click the display mode you want to modify from the Display Modes list.
3. Click the Advanced Settings button.

This takes you to the SmartDisplay Advanced Settings window. This window has five pages:

- Display for setting the display size
- Desktop for setting the desktop size
- Connectivity for the type of connection to multimedia option cards
- Screen for centering the display on your monitor
- Properties for creating and naming display modes

Using SmartDesktop

SmartDesktop is an application which controls the appearance and behavior of your desktop. You can use SmartDesktop to set a virtual desktop, where the desktop size is larger than the display size, and you can change the display size at the touch of a button, enabling you to zoom in and zoom out while you are working.

You can use the SmartDesktop Properties page to set properties that control the way SmartDesktop works.

The SmartDesktop Display Properties page

The SmartDesktop Display Properties page provides you with an alternative way of setting SmartDesktop's characteristics.

To open the Display Properties page, click the Display Properties Control Panel and click the SmartDesktop tab.

The following page appears:



By setting Schemes, you can save different combinations of SmartDesktop settings.

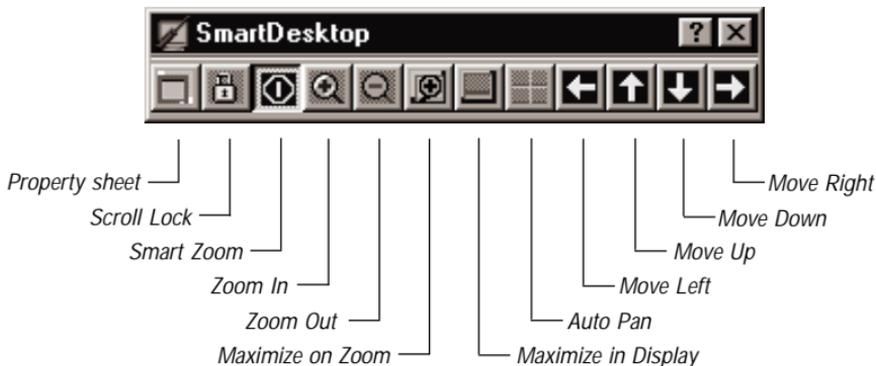
The SmartDesktop toolbar

Using SmartTools, you can create a toolbar for running SmartDesktop.

To create a SmartDesktop toolbar:

1. Start SmartTools.
2. Click the Customize Toolbars tab.
3. Click SmartDesktop in the applications list and drag it onto the desktop.

The SmartDesktop toolbar appears as follows:



Property Sheet accesses the SmartDesktop Display Properties page.

Scroll Lock disables scrolling functions. This is useful if you are using a virtual desktop and you want to work on a particular area of the desktop without accidentally moving to other areas.

When you have **Smart Zoom** selected, you can use all the virtual desktop functions. When you zoom in or zoom out with Smart Zoom selected, only the display size changes, the desktop size stays the same. You can also use the functions such as Scroll Lock, Auto Pan, Maximize on Zoom and Maximize on Display to control the way your desktop behaves. If Smart Zoom is not selected, you can only use Zoom In and Zoom Out.

Zoom In and **Zoom Out** are used to change the size of your display. You can click the Zoom In button until the display size reaches the smallest size available (640x480). You can click the Zoom Out button until the display size reaches the largest size, which is set in SmartDisplay.

You can also use the Zoom Display Fully In and Zoom Display Fully Out functions to zoom directly to the smallest and largest display sizes for your monitor. These functions are available as hot keys and menu items.

When **Maximize on Zoom** is selected, all maximized windows fit the new display size when you zoom in or zoom out.

When **Maximize in Display** is selected, maximized windows fit the display size. When this is not selected, maximized windows fit the desktop size.

If you have **Auto Pan** enabled, and you switch to a window which is currently off-screen (using ALT+TAB, or using the taskbar), the screen scrolls automatically to the window that you selected.

The **Move Up**, **Move Down**, **Move Left** and **Move Right** buttons on the toolbar move to the parts of the desktop which are currently off-screen (when the desktop size is larger than the display size). You can also move to these areas using the mouse.

Technical details

Display modes

The display modes supported by GrafixStar 400 depend on the amount of memory installed on your card, as shown in the tables below. If you have the feature connector enabled, the number of display modes available may be reduced.

WINDOWS DISPLAY MODES AVAILABLE WITH ALL CARDS			
Display Size	Colors	Vertical Refresh Rate (Hz)	VESA Mode
640 x 480	65,536	60, 72, 75, 85, 90, 100, 120	111
	256	60, 72, 75, 85, 90, 100, 120	101
	16	60*	100
800 x 600	65, 536	56, 60, 72, 75, 85, 90	114
	256	56, 60, 72, 75, 85, 90, 100, 120	103
	16	60*	102
1024 x 768	256	43i, 60, 70, 72, 75, 80, 85, 90	105
1152 x 864	256	60, 70, 72, 75, 80, 85, 90	207
1280 x 1024	16	60*	107

i = interlaced, * = Windows 95 only

ADDITIONAL DISPLAY MODES AVAILABLE WITH 2 MB MEMORY			
Display Size	Colors	Vertical Refresh Rate (Hz)	Vesa Mode
640 x 480	16.7 million	60, 72*, 75*, 85*, 90	112
800 x 600	16.7 million	56, 60, 72, 75, 85	115
	65, 536	100, 120	114
1024 x 768	65, 536	43i*, 60*, 70*, 72*, 75*, 80, 85, 90, 100	117
1152 x 864	65, 536	60, 70, 72, 75, 80, 85	206
1280 x 1024	256	43i, 60, 72, 75	107
1600 x 1200	256	48i, 60	120

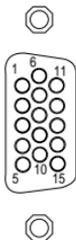
i = interlaced, * = Windows 95 only

DISPLAY MODES AVAILABLE WITH VIDEO ACCELERATION			
Display Size	Colors	Vertical Refresh Rate (Hz)	Memory
640 x 480	16.7 million	60, 72, 75, 85	2 MB
	65, 536	60, 72, 75, 85	1 MB
	256	60, 72, 75, 85	1 MB
800 x 600	65, 536	56, 60, 72, 75, 85	1 MB
	256	56, 60, 72, 75, 85	1 MB
1024 x 768	65, 536	43i, 60, 70, 75, 85	2 MB
	256	43i, 60, 70, 75, 85	1 MB

i = interlaced

Monitor connector

GrafixStar 400 uses a standard 15-way high density 'D' socket. If your monitor uses a different connector your monitor dealer will be able to supply an adapter. The pin-outs are as follows:



PIN	SIGNAL	PIN	SIGNAL	PIN	SIGNAL
1	Red video	6	Red return	11	Unused
2	Green video	7	Green return	12	DDC2B-Data
3	Blue video	8	Blue return	13	Horizontal
4	Reserved	9	+5 V	14	Vertical
5	Ground	10	Sync return	15	DDC2B-Clock

Power and temperature specifications

GrafixStar 400 operates at a nominal power rating of +6.5 Watts (8.5 Watts max), at temperatures between 10°C (50°F) and 50°C (122°F).

Troubleshooting

This section provides solutions to the problems that can happen when installing and using GrafixStar 400. For more information refer to the file vlgx400a.doc in the gs400\win95\disk1 folder of the CD for Windows 95, or readme.txt in the root folder for other operating systems.

Problem: After installing GrafixStar 400, my PC does not start.

Solution: Your old graphics controller or graphics card is still active. Remove the old card or disable your graphics controller, referring to your computer's documentation for instructions on how to do this.

The card is not seated properly in your PC. Check that the card's connectors are fitted properly into the PCI slot. You may need to move the card into another slot.

Problem: My screen is blank (black) when Windows 95 has loaded.

Solution: The Hardware Acceleration bar in the Graphics section of the System Properties Performance page has been set to None, and must be changed to Full.

Restart your computer in Safe Mode, then display the 'My Computer' group, point at the monitor icon at the top left corner of the group and click the right-hand mouse button to display the context-sensitive menu. Click Properties, then Performance, then Graphics, and then set the bar to Full.

Problem: My screen is blank (black), flickering, or corrupted.

Solution: You have the wrong monitor type selected in Display Properties. Restart your PC (if you can't see the screen, use ALT+F4, DOWN ARROW, ENTER), and when the Starting Windows 95 message is displayed, press the F8 key and choose Safe Mode. When Windows has restarted, choose a different monitor in Display Properties.

The refresh rate is too high for your monitor. Restart your PC (if you can't see the screen, use ALT+F4, DOWN ARROW, ENTER), and when the Starting Windows 95 message is displayed, press the CTRL key, keeping it pressed until Windows has restarted. This selects the lowest refresh rate for your monitor for the color and desktop settings. You can now choose a suitable refresh rate in Display Properties.

Technical support

If you have any problems while installing or using GrafixStar 400, go through the steps below.

1. Check the troubleshooting information in the readme files on the Software Library CD.
2. Contact us online using one of the following services:
 - Internet web site: <http://www.videologic.com>
 - Internet FTP site: <ftp://ftp.videologic.com>
 - e-mail ((USA, Canada & South America): support_usa@videologic.com
 - e-mail (Germany): support_gmbh@videologic.com
 - e-mail (UK & all other countries): support@videologic.com
 - bulletin board (USA, Canada & South America): +1 415 875 7748 (to 28.8, 8-N-1)
 - bulletin board (Germany): +49 (0) 61 03 37 12 57 (to 28.8, 8-N-1)
 - bulletin board (UK & all other countries): +44 (0) 1923 271301 (to 28.8, 8-N-1)
3. Contact your original supplier for technical help.
4. Call our customer support group. Try to have relevant details to hand, such as how much memory the card has, the PC make and model, the display mode used, other cards installed, and how to recreate the problem, as this will make it easier for us to help you.

USA, Canada & South America: 415 875 0606

Germany: +49 (0) 61 03 93 47 14

UK & all other countries: +44 (0) 1923 271300

The VideoLogic FaxBack service

The FaxBack service provides a listing of VideoLogic products, with summary descriptions and reviews. When you use this service you will be asked to provide your fax number. If calling from outside the USA, Canada and South America your number is 011, your country code, then your fax number. Use the # key when prompted to press the pound sign key.

USA, Canada & South America: 800 203 8587

Outside USA, Canada & South America: +1 800 203 8587

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