

Before installing this PCI VGA display card, please read this manual carefully and retain it for future reference

NOTE : The prints of screen dumps used in this manual were prepared and printed based on the software drivers available at time of printing. Since the nature of software drivers for VGA cards is that they change frequently, it should be noted that some screens may appear slightly different on your computer to those printed in this manual.

NOTE : LOADING SOFTWARE FROM YOUR CD-ROM DRIVE..

You will notice in the instructions concerning installation of software drivers contained in this manual, references to the CD-ROM drive letter 'd' (i.e. `d:\eng\9685vga\win95`) If this drive letter is not correct according to your system configuration, then please change as necessary.

FCC Compliance Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) that this device may not cause harmful interference, and (2) that this device must accept any interference received, including interference that may cause undesirable operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used properly, in strict accordance with the manufacturer's instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one of more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult an experienced radio/TV technician for help and additional suggestions.

The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems." It is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock No. 004-000-00345-4.

FCC Warning

The user is cautioned that changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

NOTE : *In order for the installation of this product to maintain compliance with the limits for a class B device, shielded cables and power cord must be used.*

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SECTION 1. INTRODUCTION

Congratulations on your purchase of the **MegaVision 3D & TV-Out** Graphic Adapter. The **MegaVision 3D & TV-Out** Graphic Adapter is based on **Trident's ProVidia9685™** chipset which works with your IBM, or compatible, 486 or Pentium™ Peripheral Component Interconnect (PCI) Local Bus System. The ProVidia9685™ is the first single-chip Direct3D graphics controller solution specifically designed for the entertainment graphics and video markets. The **MegaVision 3D** Graphic Adapter includes an advanced hardware video accelerator, video overlay and vertical & horizontal hardware interpolation for vastly improved MPEG performance, Direct3D graphics acceleration and TV-Out function. These features allow you to experience exceptional display qualities on either a VGA monitor or TV display.

1.1 What is in your package ?

You should have the following items in your package :

- **MegaVision 3D & TV-Out** Graphic Adapter
- **MegaVision 3D & TV-Out** MMCD CD-ROM containing
 - DOS & Utilities Drivers
 - Drivers for Windows 3.1/3.11
 - Windows NT 4.0 Driver
 - Windows '95 Driver
 - XingMPEG Player Ver. 1.4 or later for Windows 3.1/3.11
 - XingMPEG Player Ver. 3.0 or later for Windows '95
- **MegaVision 3D** User Manual (or manual on MMCD)
- Sega Games Bundle (optional) - pls refer to section 4.4 for details
- Cable (optional) - please refer to section 4.3 for details

1.2 Supplied Driver & Utilities

The **MEGAVISION 3D & TV-OUT** Graphics Adapter includes software drivers which support the following applications:

- | | |
|------------------------------|-------------------------|
| - MS Windows 3.1/3.11/95 | - Windows NT 4.0 |
| - MSWord for DOS 5.0 & 5.5 | - Symphony 2.x |
| - Quattro Pro 2.x for DOS | - Ventura 2.x & 3.x |
| - Gem DeskTop 3.xx | - WordPerfect 5.1 & 6.0 |
| - Lotus 123 2.1 & 2.2 | - OS/2 Warp (optional)* |
| -AutoCAD/386Release 10,11,12 | |

The utility programs provided are:

- SVM : Set All TVGA Modes
- SMONITOR : Select Monitor Group and Type(Colour/Mono)
- TMONITOR : Monitor selection and screen adjust Program
- TPATCH : TVGA General Purpose Patch Program
- TDKIT : **Set to switch between TV and VGA monitor under DOS mode**

SECTION 2. FEATURES

2.1 - General Features

- √ Accelerates the most frequently used GUI/video operations
- √ Supports a 64-Bit display memory data bus
- √ Supports up to 2MB of Extended Data Output (EDO) DRAM
- √ Supports a wide variety of resolutions, color depths, and refresh rate

2.2 - Advanced Features

- √ Hardware video accelerator function
- √ Direct3D graphics acceleration
- √ Can output to either a VGA monitor or an NTSC/PAL TV
- √ Video overlay
- √ Vertical & horizontal scaling (interpolation)
- √ MPEG support

2.3 - Compatibility

- √ 486SX/DX/DX2/DX4 and Pentium PCI Systems
- √ 100% IBM VGA on BIOS, register and hardware levels
- √ Non-interlaced and/or interlaced monitor support
- √ Compatible with multi-scanning and PS/2™ monitors
- √ Compatible with PAL & NTSC TV's, connecting with a standard Composite Video jack or S-Video jack
- √ Supports VESA Display Power Management Signaling (DPMS) which decreases energy consumption when used with a compatible monitor
- √ Supports the standard IBM Feature Connector (FC) for sending graphics data to an add-on video controller or for receiving video from the video controller for video overlay
- √ Can auto configure by communicating with VESA DDC2B monitors
- √ Contains drivers for the most popular operating systems and software available today

2.4 - Resolution and Color Selection

- √ Supports 640x480 in 16, 256, 64k and 16M colors non-interlaced
- √ Supports 800x600 in 16, 256, 64k and 16M colors non-interlaced
- √ Supports 1024x768 in 16 & 256k colors non-interlaced

2.5 - Extended Text Display

- √ 80 column text modes in 30, 43 and 60 rows
- √ 132 column text modes in 25, 30, 43 and 60 rows

2.6 - GUI Accelerator

- √ Accelerates the most frequently used functions in today's graphics intensive environment in :
 - BitBLT
 - Image and Text Transfer
 - Area Fill
 - Line Draw
 - Short Stroke Vector Draw
 - Hardware Cursor

2.7 - Direct 3D

Direct 3D™ was developed by Microsoft® and is the true standard by which 3D graphics software and hardware is based. Many of today's games, educational, business and internet applications are using **Direct3D™** in their programming in order to bring amazing 3D graphics in to the home and office. The **ProVidia9685™** is fully compatible with **Direct3D™** together with its advanced Video Accelerator Function to un-burden the CPU of performance sapping tasks, allowing applications to run at higher resolutions & frame rates, and with higher 3D imagery, which vastly enhances the effect of 3D graphics.

2.8 - Video Accelerator Function

An essential part of the **MegaVision 3D ProVidia9685™** chipset is its hardware acceleration of video functions, the most important of which are ; Video Overlay, Color Space Conversion and Scaling. By implementing these features in hardware the **ProVidia9685™** allows smooth, full-color, mixed mode playback of video with less usage of the CPU compared to other video controllers and methods.

2.9 - TV-Out

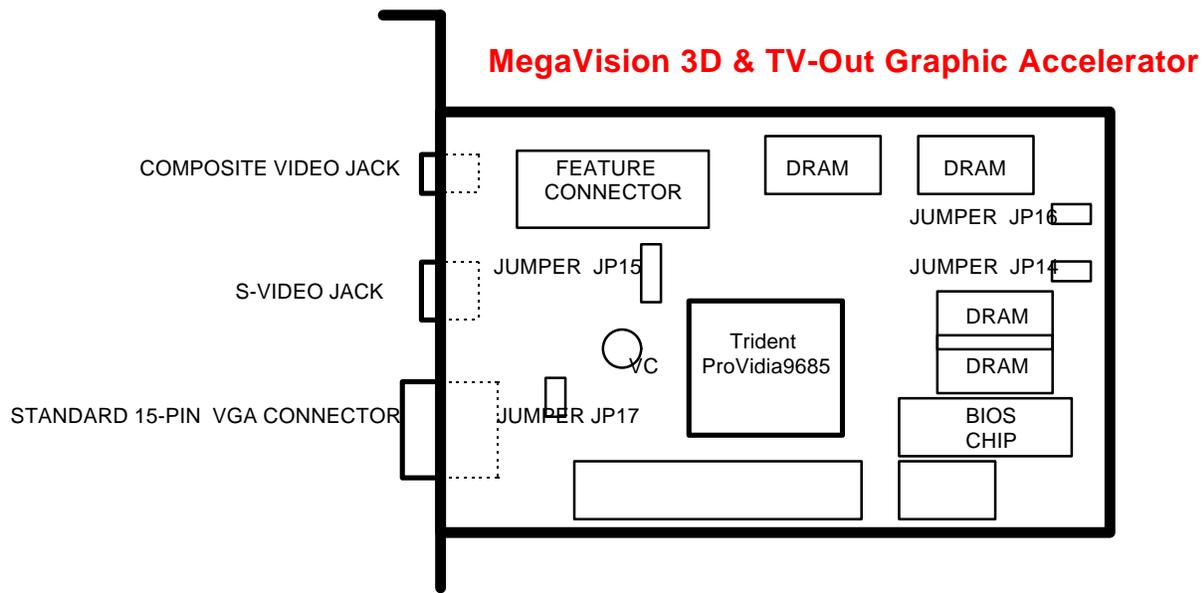
The **MegaVision 3D** is capable of displaying all standard and some extended VGA video modes on a PAL or NTSC TV. Resolutions up to 640x480 can be displayed on an NTSC TV's, while resolutions up to 800x600 can be displayed on PAL TV's. Extra features are built-in to reduce line flickering and to vertically scale the image for TV display. The image can be displayed on a TV display in either OverScan mode, as in normal TV displays where the image fills the entire screen, or in UnderScan mode as is done in normal VGA monitors where the image edges are visible with a dark space between them and the monitor's edges.

Note :

- i) Factory default on TV standard (PAL or NTSC) is set based on where the cards are distributed to. Normally, NTSC for North America and PAL is for European customers.
- ii) For Multi System TV users, we would recommend you to use 'PAL' setting, as PAL can support a higher resolution 800x600 (NTSC supports up to 640x480).

SECTION 3. HARDWARE

3.1 - Hardware Product Layout



3.2 - Jumpers and Connectors

FEATURE CONNECTOR

Standard IBM Feature Connector (FC) for connecting to other add-on cards for receiving video data.

JP14

Selects the primary routing for the video display output signal.

Settings	OPEN	=	To VGA Monitor
	CLOSE	=	To TV-Out

Note : Since the output to TV can be assigned at a later stage through software, we recommend that the *default* setting be 'OPEN' (see 'Display Devices' Page 16)

JP15, JP16, JP17

These three jumpers are all relating to whether the TV you are using is either a PAL system or NTSC system TV.

JP15

Selects the type of TV-Out signal, PAL or NTSC

Settings



1-2 = PAL



2-3 = NTSC

JP16, JP17

These jumpers change the frequency of the video signals to suit either PAL or NTSC TV systems. The settings are as follows.

JP16 CLOSE = NTSC TV OPEN = PAL TV

JP17 CLOSE = PAL ENCODING OPEN = NTSC ENCORDING

FACTORY DEFAULT JUMPER SETTINGS

At time of production these jumpers were set to suit a PAL system TV, with the video display output signal going to the VGA Monitor. However please check what type of TV system you use and change the jumpers if necessary.

JP14 = OPEN JP15 = 1-2 JP16 = OPEN JP17 = CLOSE

SECTION 4. HARDWARE INSTALLATION PROCEDURE

4.1 - Adapter Installation

To install the **MEGAVISION 3D & TV-OUT** Graphics Adapter into your system, please follow these steps:

- ☑ 1. TURN OFF all POWER to your system, including any peripherals (printer, external drives, modem, etc.).
- ☑ 2. UNFASTEN the cover mounting screws on your system. Refer your system user manual to determine the location of the mounting screws.
- ☑ 3. OPEN the system cover. Refer your system user manual for instructions on how to remove the system cover.
- ☑ 4. SELECT an appropriate (unused) PCI Bus expansion slot for the **MEGAVISION 3D & TV-OUT** Graphics Adapter. Please refer to your computer system manual for the location of the PCI Bus expansion slot. REMOVE the retaining screw that holds the slot cover in place. SLIDE the slot cover out and keep this screw handy.
- ☑ 5. Alternatively, if you are REPLACING AN EXISTING GRAPHICS ADAPTER with the **MEGAVISION 3D & TV-OUT** Graphics Adapter, carefully remove the screw to your existing adapter and remove the old/existing adapter from your system.
- ☑ 6. INSTALL the card. To install the **MEGAVISION 3D & TV-OUT** Graphics Adapter in the selected PCI Bus expansion slot, align the gold-fingered edge-connector of the card directly above the selected expansion slot on the motherboard, then gently but firmly insert the adapter fully into the slot.
- ☑ 7. SECURE the **MEGAVISION 3D & TV-OUT** Graphics Adapter. Use the screw you removed from the expansion slot in Step 4 to secure the card in place.
- ☑ 8. CLOSE the computer cover. Secure the cover with the mounting screws removed in Step 2.

You have now completed the installation of your new **MEGAVISION 3D & TV-OUT** Graphics Adapter into your system. Before you use the system, however, please refer to the following section.

4.2 - Connection to a VGA Monitor

The **MEGAVISION 3D & TV-OUT** Graphics Adapter is provided with a 15 pin analog connector. When you connect your monitor to the VGA Card, ensure you have the right cable and cable connector. Fixed-frequency analog monitors come equipped with a 15 pin connector. Variable frequency analog or analog / digital monitors will require a 9-to-15 pin cable adapter.

4.3 - Connection to a TV

The **MEGAVISION 3D & TV-OUT** Graphics Adapter is provided with an S-Video jack and a Composite (RCA) jack for connecting to a PAL or NTSC TV. You can use either type of jack for connection to a TV, however the S-Video jack will provide a higher quality signal.

Note ; The two types of cable are as follows.

COMPOSITE CABLE - This type of cable is commonly used to connect your TV set to the aerial outlet or VCR output. For the **MEGAVISION 3D & TV-OUT** Graphics Adapter a 'male' connection is required, and usually the input to your TV will also be 'male'

S-VIDEO CABLE - This cable is a higher quality 4-pin cable which is suitable for modern day TV's and VCR's. Using this type of cable will provide **a higher quality signal.**

4.4 - Sega 3D Games

The **MEGAVISION 3D & TV-OUT** Graphics Adapter is bundled with **Sega 3D Games** (optional)

-

Virtua Fighter



Virtua Squad



Daytona Racing



These games are written specifically for Microsoft Direct3D and as such display stunning graphics along with superb action. All of these games are DEMO versions only, restricting some of the choices within the game. To obtain the full version please contact your local SEGA Games sales representative or visit the SEGA Web page on www.sega.com

SECTION 5. SOFTWARE INSTALLATION PROCEDURE

Your **MEGAVISION 3D & TV-OUT** Graphics Adapter comes complete with a host of software drivers and utilities which enable you to configure your adapter to suit most of today's popular applications. We will go into detail on three of the main applications, Windows '95, Windows 3.1, DOS and Windows NT, however text files for installation of other application drivers can be found on the MMCD included.

5.1 - Driver Installation procedures readme.txt files

Driver installation procedures for the following applications are included in readme.txt files located on this MMCD.

- Lotus™ 1-2-3 V2.1/2.2
- Symphony™ V2.x
- GEM™Desktop V3.xx
- Ventura Publisher™
- Wordperfect™ V5.1/6.0
- MS.Word™ for DOS V5.0/5.5
- AutoCAD™ TURBODLD Classic driver by Panacea for Trident
- AutoCAD™/386 Release 10 and 11
- AutoCAD™/386 Release 12 and 13
- Quattro Pro™ V2.x for DOS
- Windows NT 4.0

5.2 - Windows '95 Driver Installation

The **MegaVision 3D & TV-OUT** Graphic Adapter is fully compliant with Windows'95 Plug & Play, and as such your system will recognize that this is a Trident 968x series VGA controller chip and assign a driver accordingly. However it is recommended that you install the drivers included on the diskette in this package, as they will be the most updated drivers available.

If you are **REPLACING** an existing graphic adapter with the VisioonXtra3D Graphics Adapter, then you must first set your 'Display Settings' back to 'Standard VGA'. You do this as follows.

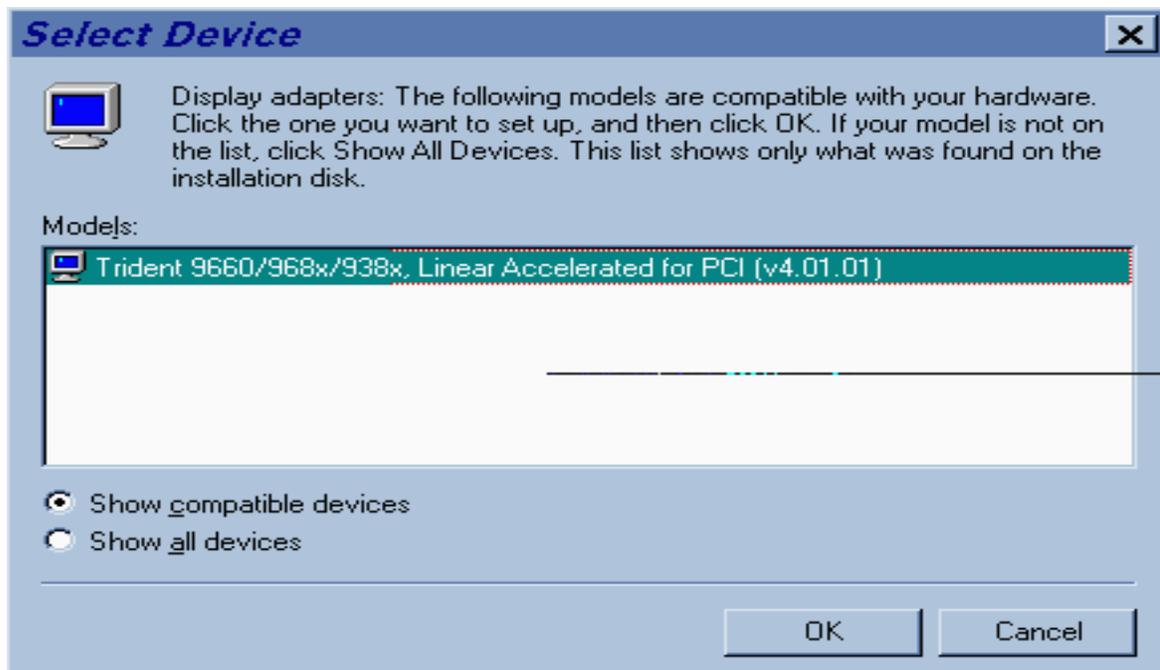
1. Go to **My Computer** and double click on this icon
2. Choose **Control Panel** and double click that icon to open
3. Choose **Display** and double click to open this feature
4. Choose **Settings** and then **Change display type...**
5. For the **Adapter type** section choose **Change**
6. Choose **Show all devices**
7. Under the heading 'Manufacturers' choose the first option **Standard Display Type**
8. Under the heading 'Models' choose **Standard display adapter (VGA)**
9. Click **OK** and you'll be prompted to re-start your computer.

Once you have completed the above tasks, and installed the **MegaVision 3D & TV-Out Graphics Adapter** into your system, then you are ready to load the **Trident ProVidia9685™ Drivers & Utilities**. After turning on your system again follow these procedures for Windows '95 software installation.

1. Go to **My Computer** and double click on this icon
2. Choose **Control Panel** and double click that icon to open
3. Choose **Display** and double click to open this feature
4. Choose **Settings** and then **Change display type...**
5. For the **Adapter type** section choose **Change**
6. At the **Select Device** screen choose **Have disk..** and the following screen will appear



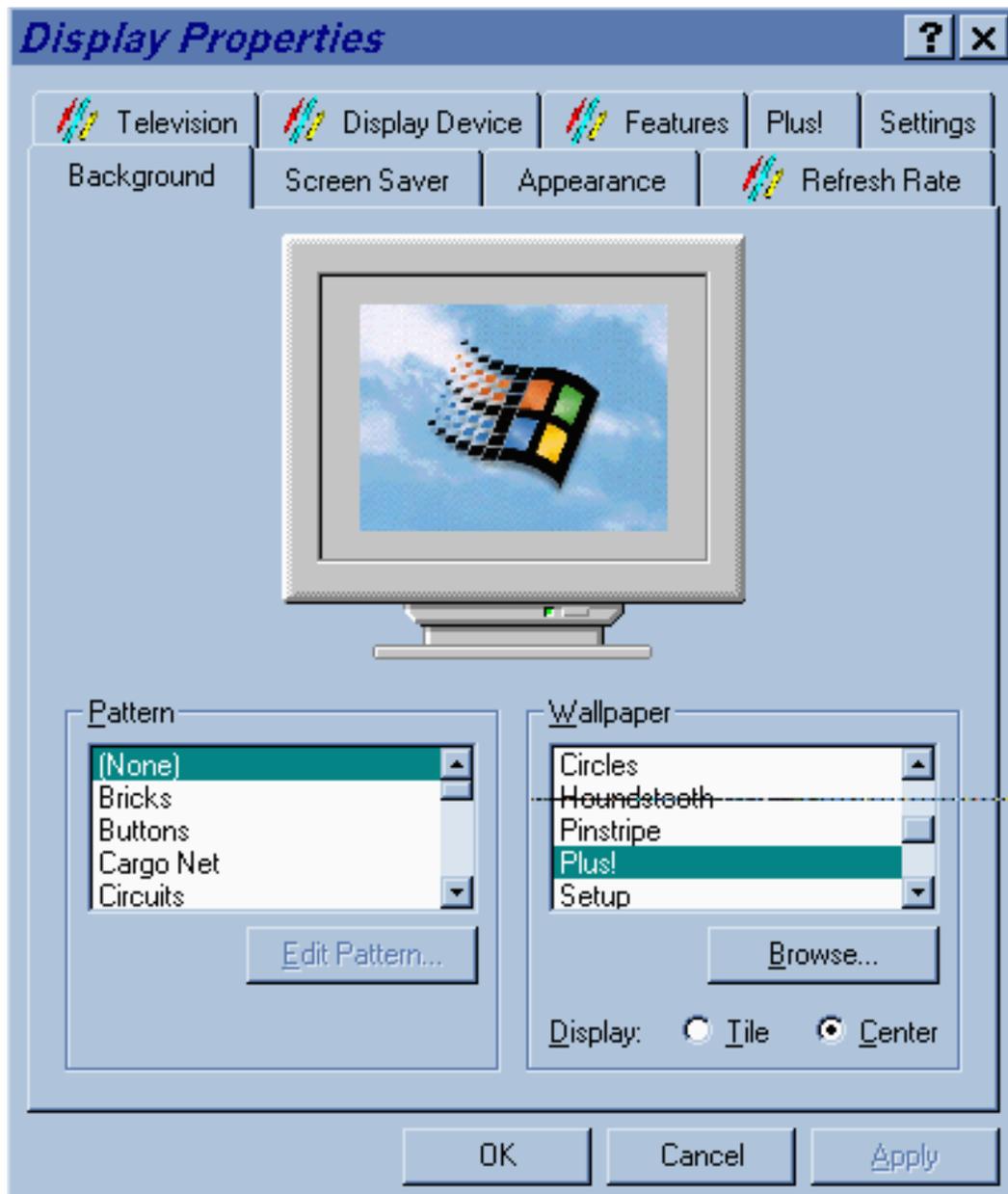
7. Insert the MMCD in to your CD-ROM Drive and type the following directory location in to the box "Copy manufacturer's files from" **d:\eng\9685vga\win95**
8. Click on **OK** from '**INSTALL**' from Disk Screen.
9. The next screen will show you the compatible **Trident ProVidia9685** devices



10. Click on Trident 9660/968X/938X, Linear Accelerated for PCI
11. Click on **OK** and then **Close** and then you will be prompted to re-start the computer

Note : Due to revised drivers the driver version number and screens may not correspond as shown here and in the rest of the manual

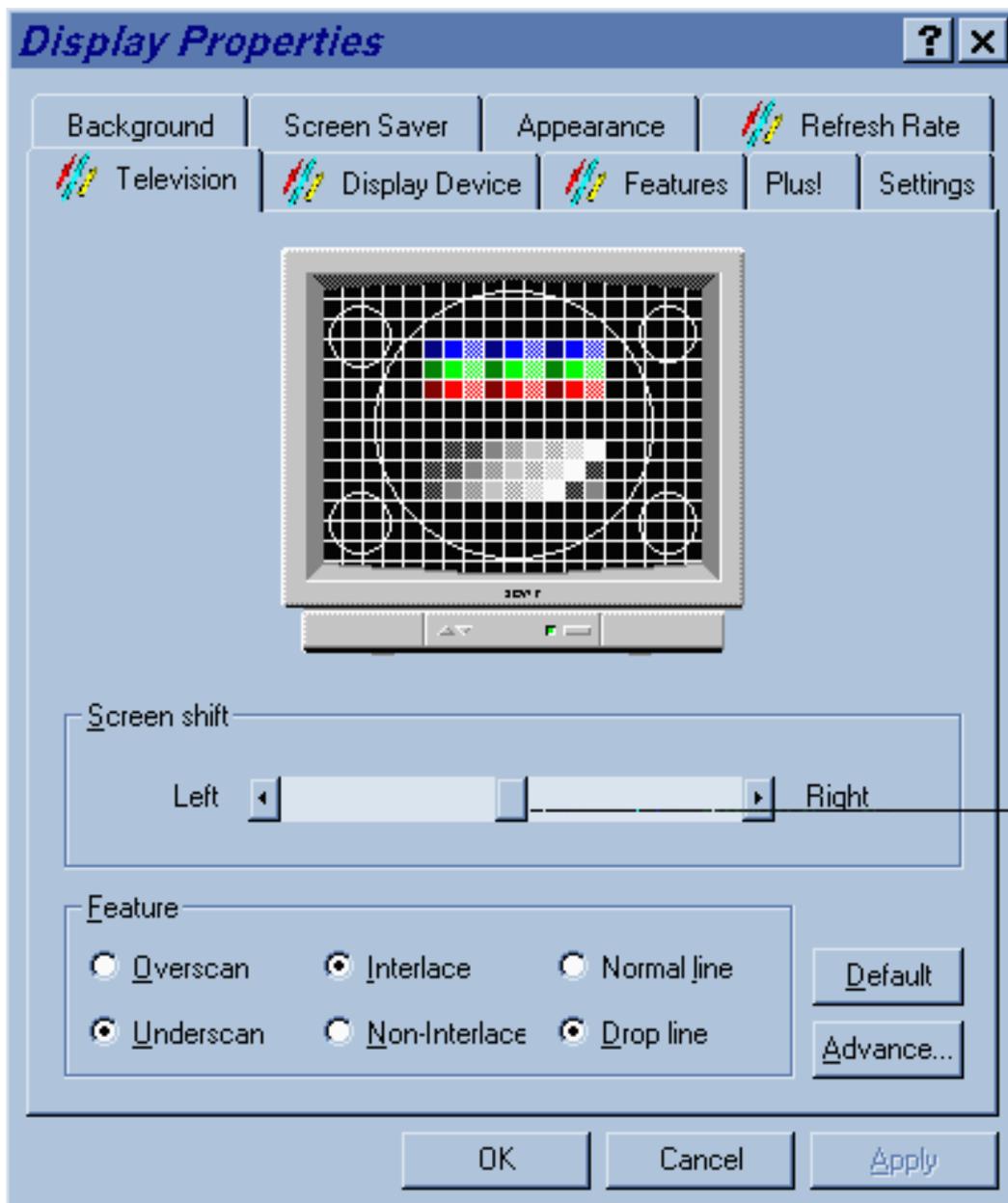
12. Installation of the **ProVidia9685™** Drivers for Windows'95 is now complete and your new **Display Properties** window under **Display** in the **Control Panel** will appear as follows



13. The MegaVision 3D Graphic Adapter now includes a setting within the **Display Properties** page called...



This control page allows the user to select features such as '**UnderScan**' and '**OverScan**', '**Interlaced**' or '**Non-Interlaced**', and to adjust the '**Screen Shift**', of the television display



Screen Shift acts very much like the screen shift on most monitors. If the picture on your TV is slightly out of center then adjust this accordingly.

UnderScan is a unique software control which allows you to adjust the size of the computer's graphic, program or picture so that you are able to see the entire picture on your TV set. Therefore if you experience parts of your computer program (etc) out of the TV picture then choose this option.

OverScan works in the opposite way to UnderScan. By choosing this option, parts of the computer program (etc) will be out of the TV picture area and partially covered by the TV casing. You may wish to choose this option if you want to increase the picture size, and the partially covered area does not affect your application.

Interlace / Non-Interlace - If your television screen flickers excessively choose Non-Interlaced to reduce this affect.

Advance -By choosing Advance .. the following screen will appear.



By choosing Advance.. the following screen will appear.

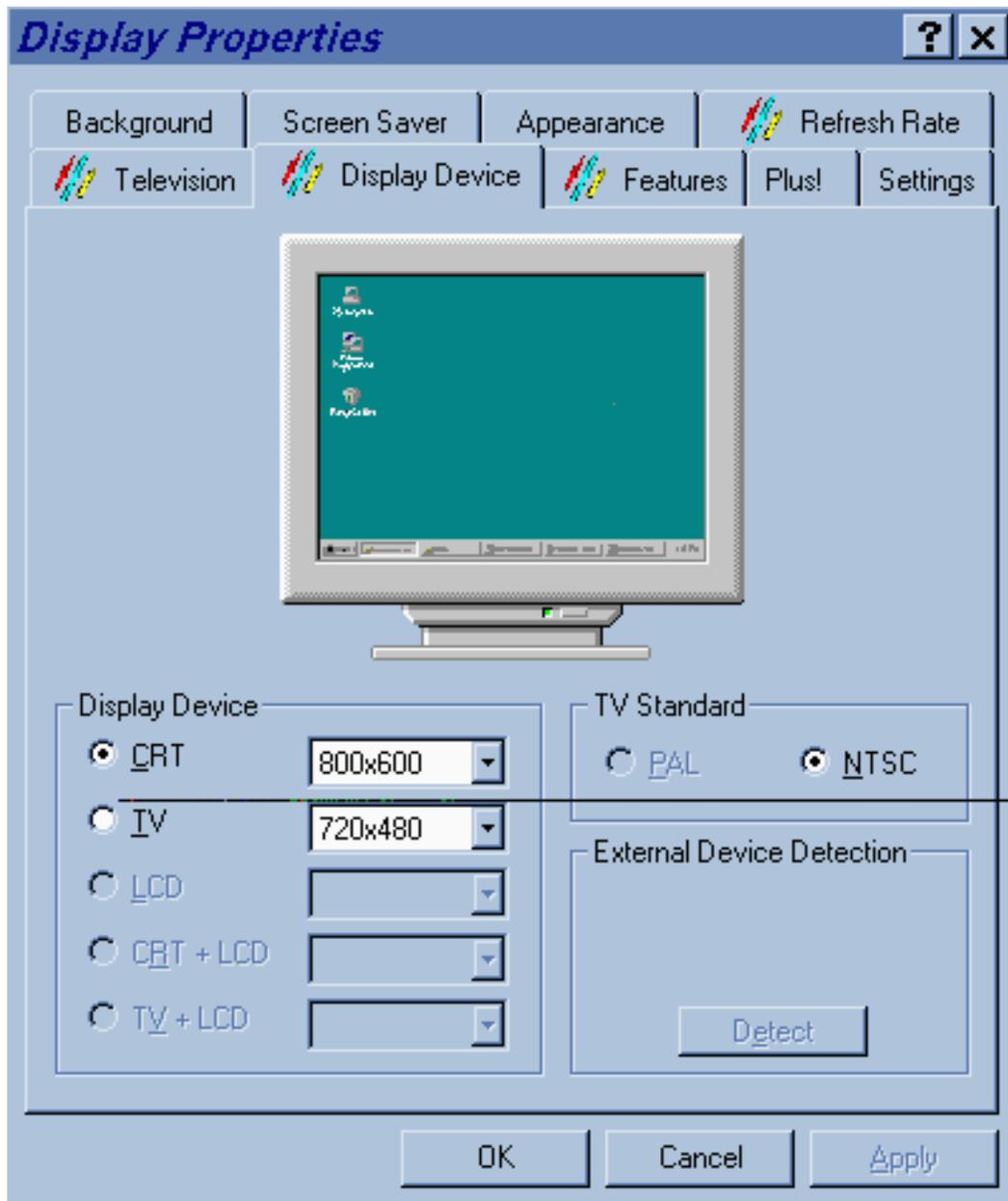


Flicker Reduction To further reduce any possible flicker reduction check 'Better' or 'Best'

14. Display Properties



This screen allows you to switch between CRT Mode and output-to-TV mode



TV Standard is set automatically according to the jumper settings of JP14, JP15, JP16, JP17.

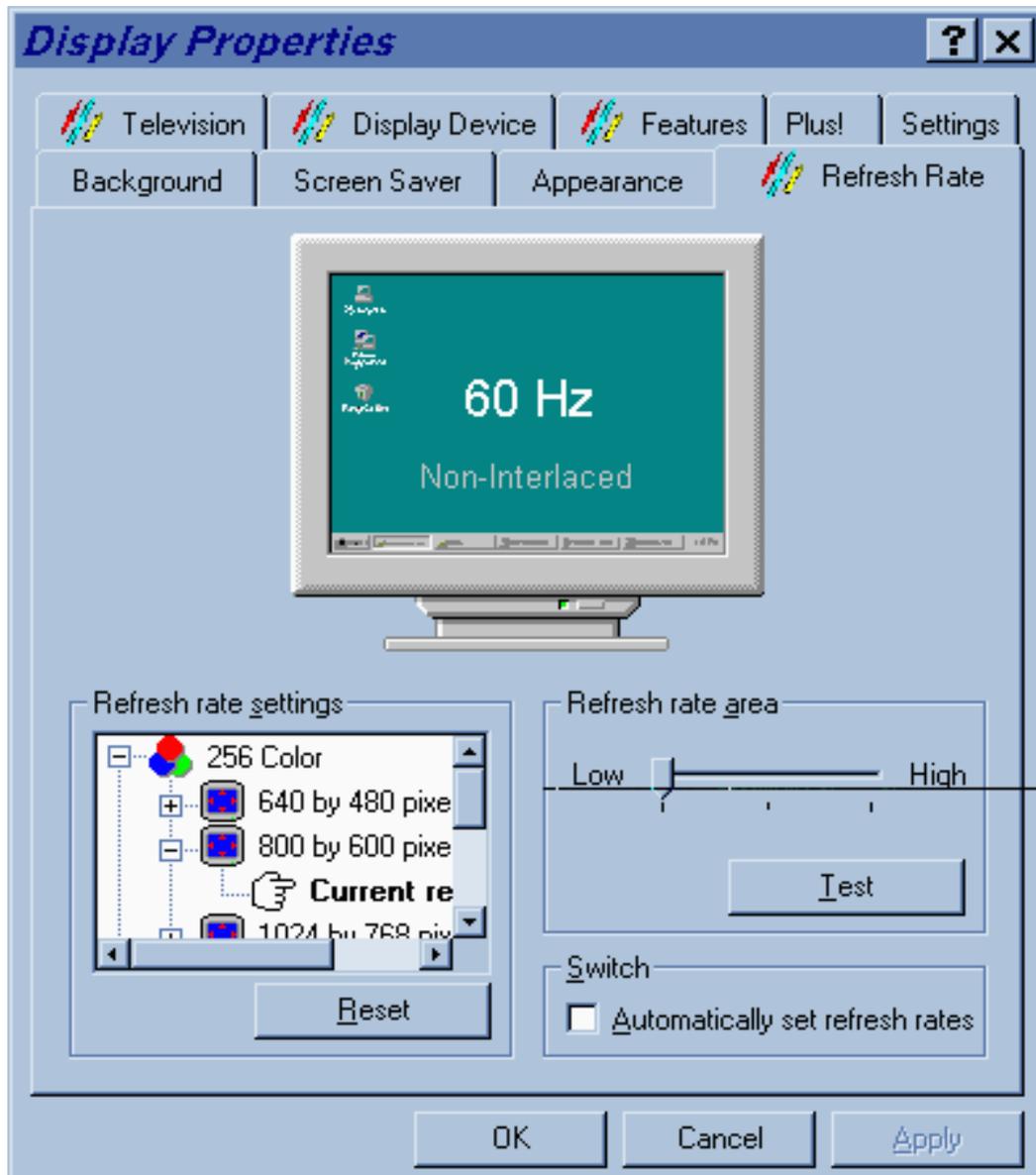
Display Device lets you select whether output is to CRT Monitor or to TV, and it further lets you select the resolutions of both.

15. Refresh Rate



The refresh rate is the rate at which the screen re-draws the graphic data (or 'refreshes' that data). This can depend on the type of monitor you are using, however there is a convenient **TEST** button which will automatically test your monitor against the settings you make.

Note : if your monitor is of DDCL type, the MegaVision will automatically set the refresh rate to the highest one supported by your monitor.



5.3 - Windows 3.1 Driver Installation

The Graphic installation procedure **TINSTALL** supports a simple installation procedure for the display driver program, the power management program and the Uninstall program.

1. Run the MMCD
2. Go to the product page for the MegaVision3D Trident 9685 VGA product
3. Click on the **Windows 3.1 driver button**
4. A menu will appear, presenting a choice of *Express* or *Custom* Installation

Express installation is quick and decision free. Display drivers will be copied into the **TRIDENT.HGI** directory and Utility files will be copied into the **TRIDENT.UTL** directory. Once all files are copied, a program group called **DISPLAY DRIVER AND UTILITIES** will be created.

Custom installation allows control over file storage and in what program group the icons are placed. The first dialog box that appears shows the default directory to which the display drivers will be copied. To change the directory name select the default name, delete it and then enter the desired directory name. Once the desired directory name is selected, continue the installation procedure by selecting **CONTINUE**, or by pressing **ENTER**. The next dialog box displays a summary of where files are stored. Select **CONTINUE** to copy the drivers and utilities files. When all files are copied, the program will present a choice of program groups where the icons will be created. Create a new group to place the utility icons or select from pre-existing groups (e.g. main, applications, accessories etc.).

When all necessary files are copied and a group name is selected, the **TINSTALL** program will create four icons:

- ☑ a. Screen Control (Used to configure display drivers).
- ☑ b. Display Control (Used to select the settings for the TV-Out feature)
- ☑ c. DPMS (Used for power management configurations).
- ☑ d. UNinstall (Used to delete the installed TRIDENT drivers).

NOTE: Different “display driver set” versions cannot be installed to the same directory name. “Display driver sets” of the same version number (e.g. UH6.x) will replace the existing one.

5.3. 1 - SCREEN CONTROL

The Screen Control panel contains controls for setting screen resolution, color depth, font size, refresh rates. Not all combinations of screen resolution, color depth, font size and refresh rate are attainable.

Color depths of 16, 256, 64K, or 16.7M colors can be selected by clicking next to the desired option. Color depth determines the number of colors that may be simultaneously displayed on the screen. The selected color depth determines the possible resolutions.

Screen resolutions of 640x480, 800x600 or 1024x768 can be selected by clicking next to the available options. The virtual screen size is automatically adjusted to be at least as large as the selected screen resolution.

Available refresh rates are dependent on the selected color depth and resolution. The "Back to Default" option is used to reset the refresh rate to the factory default value in case your monitor does not support a high refresh rate.

Configuring the Display Driver

- ☑ Select the color depth first.
- ☑ Select the resolution.
- ☑ Select the font size (if available as an option).
- ☑ Select the refresh rate.
- ☑ Select DCI from Video Display Control
- ☑ Click on OK. If the current driver does not support the selected configuration, Windows will have to be restarted.



Video Applications

Video playback on the **MegaVision 3D & TV-Out** Graphics Adapter can be achieved with the installation of most MPEG software decoder or with MS Video for Windows 1.1e Runtime or later; however, better display quality and playback performance can be achieved by installing the Trident Display Control Interface (DCI) driver since this driver utilizes the Accelerated Video Engine of the **ProVidia9685[™]** chip.

While MPEG software decoders are available from third-party software providers, Trident's DCI driver may be enabled after display driver has been installed; it may be enabled or disabled by checking the box next to "DCI" option under Video Display Control in Trident's Screen Control program.

Microsoft's Video for Windows 1.1e Runtime or third-party MPEG software decoder need to be installed to take advantage of Trident's DCI driver. Installation procedures as well as installation software for Microsoft Video for Windows 1.1e can be found in the Microsoft Video for Windows 1.1e software package which may be purchased separately. Installation procedures for third-party MPEG software decoder is usually found in the README.TXT file of the perspective MPEG software decoder diskette.

Once Windows is re-started after Microsoft's Video for Windows 1.1e or third-party MPEG software decoder is installed, go into the "Accessories" program group to run "Media Player". Trident DCI driver is now activated and the line "Video for Windows" will now appear under the "Device" option. Select "Video for Windows" to run any files with AVI extension. Select the driver installed by third-party MPEG software decoder in "Media Player" to run files with MPG or DAT extension.

Installation Verification

If the desired performance is not achieved after the DCI driver is enabled, the following procedure verifies if Trident's DCI driver is installed correctly.

1. OPEN your SYSTEM.INI file under C:\WINDOWS with any text editor.
2. LOOK under the section [drivers].
3. LOOK behind the line of "DCI=".
4. If Trident's DCI driver is installed properly, the word "TDCI" should appear behind "DCI=".

For AVI (Audio Video Interleave) video playback, better performance requires at least Intel 486DX2 class CPU and double speed CD player. For MPEG software decoders, better performance requires at least Pentium™ class CPU and quad speed CD player.

Advanced Features (Virtual Screen Control)

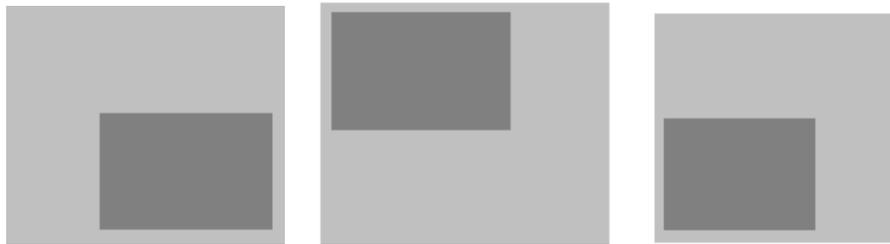
The advanced features of the program is accessed by pressing ALT + D or by clicking on the box marked Advanced.

This action opens up an extension of the Main Panel that presents the following features:

- ☑ 1. **Hot Key** selection. Enabling this function allows setting up predefined key strokes achieve specific virtual screen related actions.
- ☑ 2. **Turn On** virtual screen. This function allows the use of the predefined virtual screen sizes. The predefined virtual screen sizes are selected by clicking next to available options. The size of the available predefined virtual screen is dependent on the selected color depth and resolution.
- ☑ 3. **Customize** Virtual screen area. Selecting this feature opens up a new screen titled Virtual Screen Advanced Settings. The features presented through this screen are as follows:

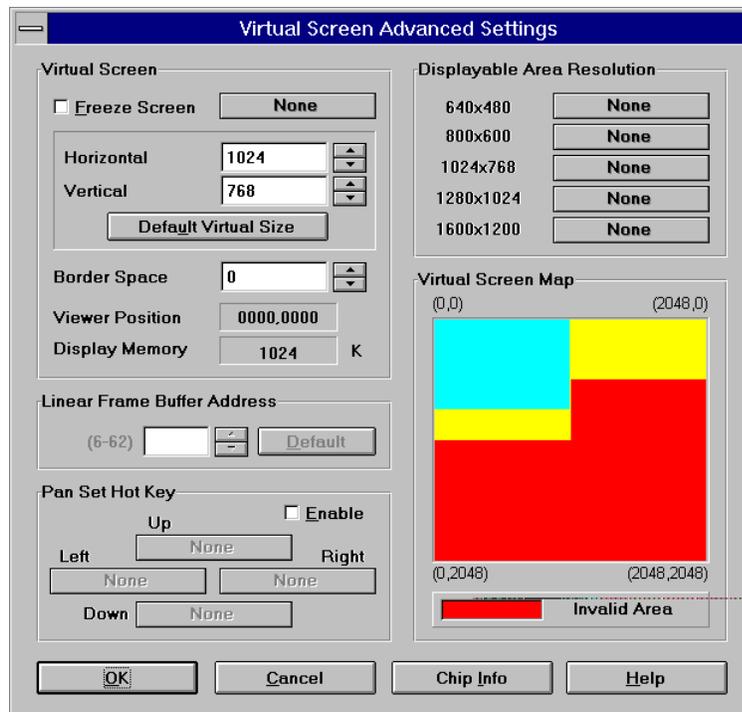
Standard display resolutions are 640x480, 800x600, 1024x768 or 1280x1024. The amount of display memory used depends on the selected resolution and color depth. For resolutions of 640x480, 800x600 and 1024x768, there is a substantial amount of display memory left unused. The Virtual Screen features takes advantage of this unused memory by “expanding” the display area into the off-screen area.

Virtual Screen Control allows the user to make effective use of a display screen larger than the standard 640x480, 800x600 or 1024x768, and the standard resolution is the center of the screen. The user can “pan” around the larger Virtual Screen area by the use of a standard mouse or a set of “HOT KEYS.” For example, it is possible to select a resolution of 640x480 and set the Virtual Screen size to 800x600. Thus, the 640x480 screen sits at the center of a 800x600 matrix, and the user can “pan” through the entire 800x600 matrix in a 640x480 window.



Panning allows traversing a larger screen through a smaller window.
 VIRTUAL SCREEN AREA ACTUAL DISPLAY AREA

The **Customize** feature provide functions to customize the virtual screen, as shown below.:



Freeze Screen

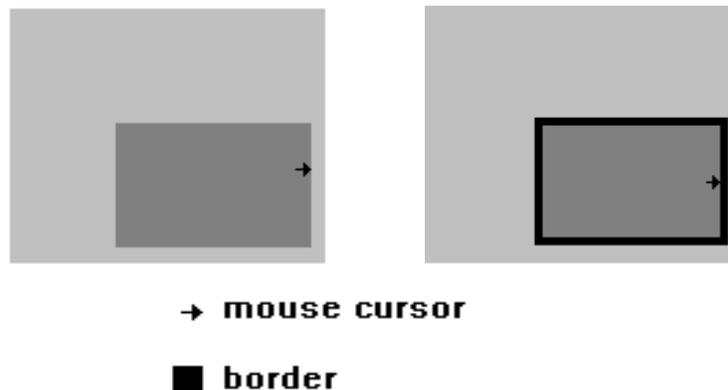
The Freeze Screen option is used to disable the panning feature, giving the illusion of a frozen screen but keeping other virtual screen functions available. Hot key functions are available for this feature.

Linear Frame Buffer Address

The Linear Addressing driver will automatically detect the system's memory size and sets the frame buffer to an unused area above the system memory (VL bus card only). The Linear Frame Buffer Address setting is useful in avoiding conflicts with Windows applications which use the same linear frame buffer address as the Display Driver. Addresses between 18 and 63 MB can be selected. If there is no conflict, the default setting is highly recommended.

Border Space

The Border Space option is used to set up a border (thickness measured in pixels) within the Displayable Area, which is used as a marker for panning the screen, i.e. when the cursor hits against this border, screen panning occurs .



NOTE: Border space sets up a transparent border (black area) on the display area, that is used as a threshold to start panning the virtual screen.

Pan Set Hot Key

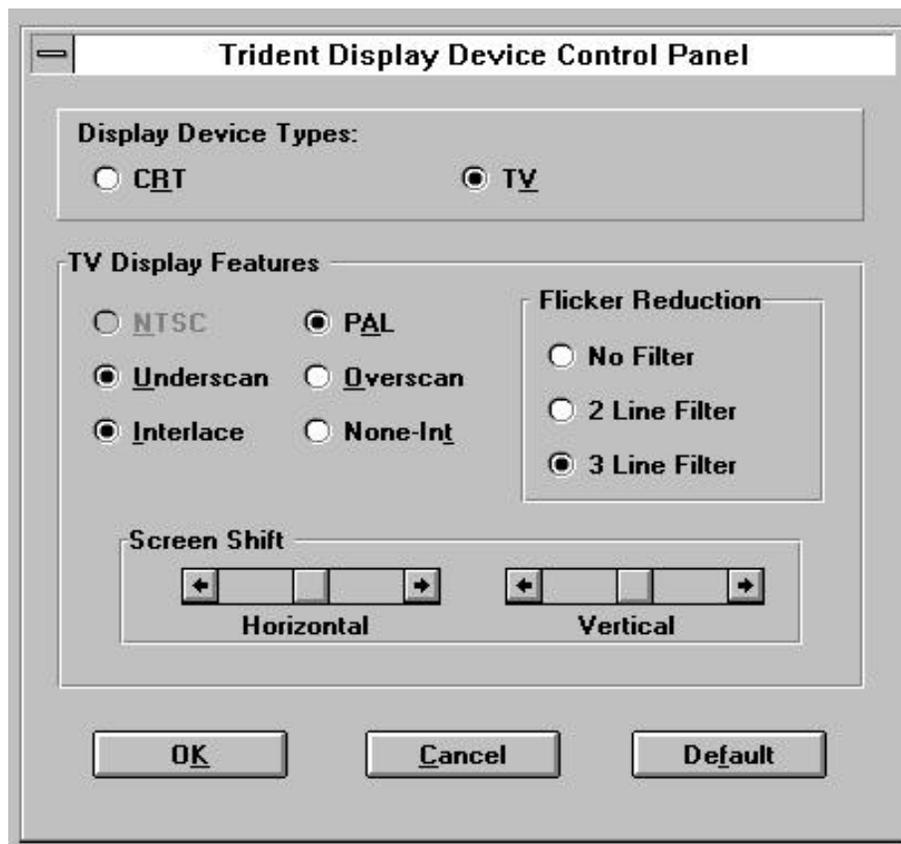
Hot keys can be set up to pan the virtual screen left, right, up and down. The feature has to be enabled first by clicking on the ENABLE box, before hot keys can be selected.

Once all selections are made, click on **OK** or press ALT + O to exit the advanced setup.

5.3.2 - DISPLAY CONTROL

Display Output to TV in Windows 3.x

Display output to TV is possible by connecting a video cable from the Composite or S-Video jack on the back of the adapter card to the Video-in jack of your TV set. The default setting of your adapter card is set to output to CRT only. (See jumper #JP14), however the setting to CRT or TV can be selected by software using the 'Display Control' utility. When the adapter card is set to this mode, only the Windows 3.x and Windows 95 drivers will work correctly. All other drivers such as DOS driver will work only in CRT mode. The 'Display Control' utility allows the user to select/deselect UnderScan, Interlaced; to adjust Screen Shift; and select either CRT or TV as the device type.



Select "**UnderScan**" to be able to see the entire graphic/video screen on your TV set. If this is not selected, graphic/video screen will be partly covered by the edges of the TV monitor case. If the TV set screen flickers excessively while in the output-to-television mode, un-check "**Interlaced**" or check "**3 Line Filter**" to reduce flickering on TV.

The Screen Shift bar adjust the horizontal positioning or vertical positioning of display of your TV set.

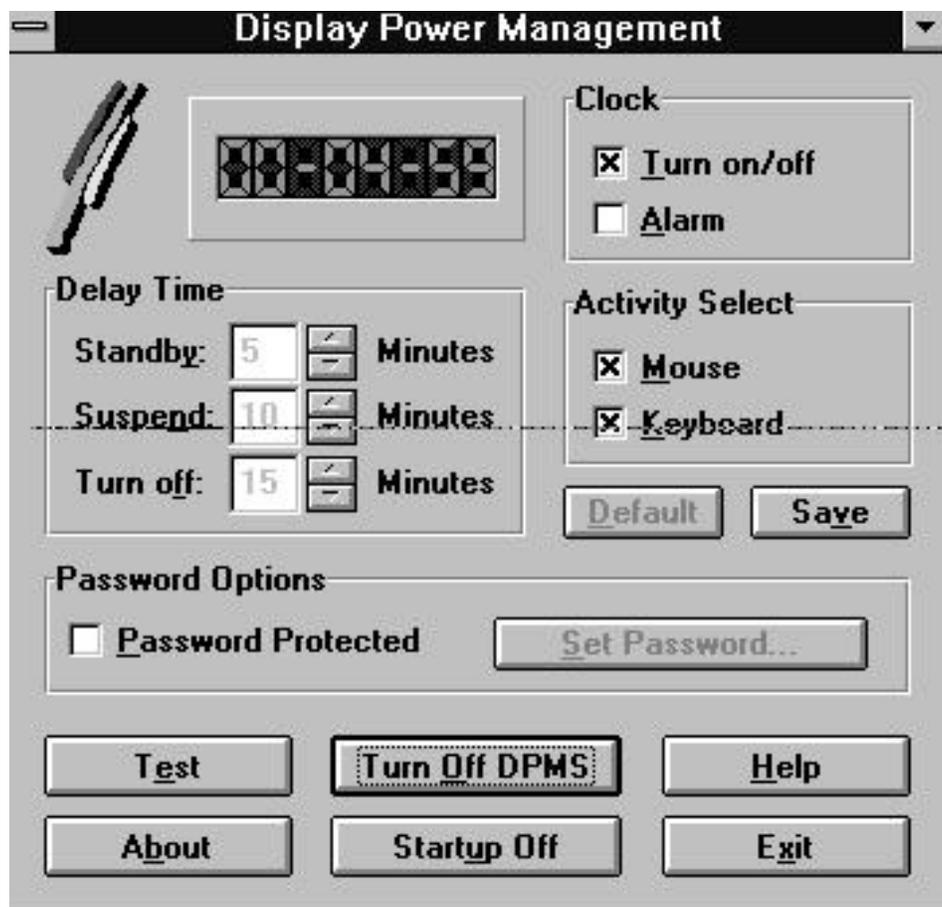
5.3.3 - DPMS (Display Power Management SIGNALING)

The POWER MANAGEMENT program is designed for energy-saving monitors that conform to the VESA™ Display Power Management Signaling (DPMS) standard.

WARNING: THE USE OF THIS PROGRAM IS NOT RECOMMENDED FOR MONITORS THAT DO NOT SUPPORT THE VESA DPMS STANDARD.

The program offers three power-down modes

1. Standby (minimum power savings)
2. Suspend (substantial power savings)
3. Off state (maximum power savings)

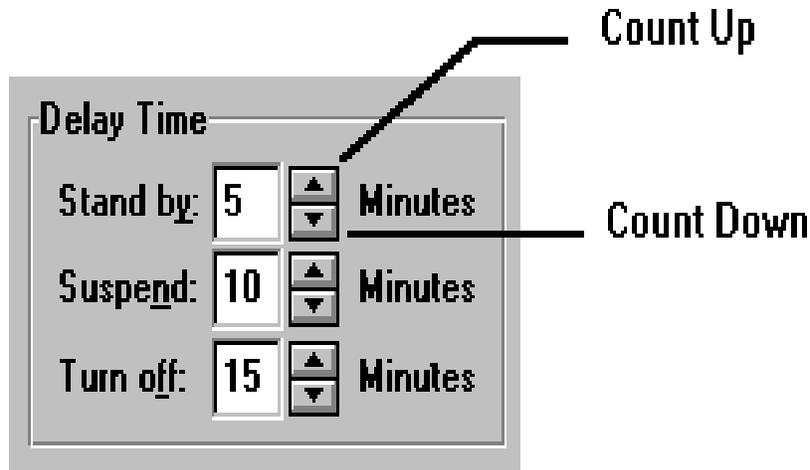


The program monitors for mouse and/or keyboard activity. When activity is not detected for a specified delay period (controlled by the Delay Time parameter), the program signals the ProVidia9685™ to enter the selected power-down modes.

The Display Power Management program offers several options to customize the DPMS operation:

Delay Time

The delay time to enter each mode can be set by entering the value (in minutes) in the Delay Time parameters. Values can be entered by either clicking on the count-up or count-down button, or by clicking on the number, deleting it, and typing in the desired time in minutes



Activity Select

The Activity Select option selects which activity the program senses in order to restore the display to the monitor. For example, if both mouse and keyboard are selected, then either activity will re-establish the powered down signals.

Password Option

The Password Option sets up a password to get back onto the screen.

- ☑ 1. A password is set up by first CLICKING on the box marked PASSWORD PROTECTED or by PRESSING ALT + P (this is confirmed by the presence of an "X" in the box).
- ☑ 2. PRESS ALT + S or click on the box marked SET PASSWORD.
- ☑ 3. TYPE in the selected password (twice) and SELECT OK, or PRESS ENTER.

Clock

Turning on the clock enables the digital count down display.

Alarm

If the Alarm option is enabled, then the last 5 seconds of countdown to Stand by mode is synchronized with beeps from the PC speaker.

Startup On/Off

This option installs the Display Power Management program onto the Windows Startup file, so that DPMS is active upon entering Windows.

Default

The default button sets all parameters back to the factory default values.

Test

The test feature is used to give a demonstration of the DPMS power down function.

Save

This feature is used to save all the current settings.

Once all settings are selected, the program is activated by pressing ALT + O or by clicking on the box marked Turn On DPMS.

5.3.4 - UNINSTALL DISPLAY DRIVERS

The UNinstall program enables the user to safely delete specific display drivers or an entire display driver set.

To remove an entire Display Driver Set, complete the following steps:

1. Using the arrow keys or mouse, SELECT the Display Driver Set that is to be removed (the set to be deleted should be high-lighted).
2. Once the desired Driver Set is selected, simply SELECT the Delete button or PRESS ENTER.

NOTE: The UNinstall program will not permit the deletion of a Display Driver set that is currently used.

To remove an individual driver from a Display Driver Set, complete the following steps:

1. Using the arrow keys or mouse, SELECT the Display Driver Set that is to be removed (the set to be deleted should be high-lighted).
2. Once the desired Driver Set is selected, CLICK on the Enter button. This will call up a list of available display drivers.
3. SELECT the display driver to be deleted by using the mouse or the up/down arrow keys to scroll through the list.
4. CLICK on the DELETE button or PRESS ALT + D to delete the selected display driver.

5.4 - DOS/Utilities Driver Installation

To install Windows NT 4.0 driver, or DOS drivers for MSWord, Symphony, Lotus 123, Quattro Pro, Ventura, AutoCAD, Gem DeskTop , WordPerfect 5.1 & 6.0 and Utilities, please follow the below steps:

1. Insert the MMCD in to your CD-ROM drive
2. Exit to MS DOS and change directory to your CD-ROM assigned letter (usually 'D')
3. Change directories to **d:\eng\9685vga\dos**
4. At this directory type **readme** to start the installation program
5. Select a drive where you want your desired drivers copied to.
6. A main menu appears as below, please select
'A' to browse the driver diskette contents,
'B' to list utility programs provided by **TRIDENT 9685**
'C' to get instructions for installation your desired drivers.

DRIVER/UTILITY	Version UX6.5 (06) 09/14/96
A. Contents	
B. TVGA Utilities	
C. Display Drivers	
Select a letter to continue: (ESC to Exit)	

Note : The Utility programs are stored on your hard disk under the directory **vgautil\utility**.

5.5 - Windows NT 4.0 Driver Installation

Windows NT drivers are included on Windows NT 4.0 driver diskette of this package. They are located in the \NT40\ sub-directory. Please follow the below procedure for installation.

1. Run the Windows NT display Setup program located in the Control Panel, Main group.
2. Select "**Change Display Type...**" button from the Display Settings options.
3. Select "**Change...**" button from the Display Type options.
4. Select "**Other...**" button from the Select Device options.
5. Insert the MMCD in to your CD-ROM drive
6. Windows NT will prompt you for the correct path.
7. Type **d:\eng\9685vga\winnt4** in to the command line
8. Choose "**Trident Accelerator**" from the list of drivers.
9. Restart Windows NT. Windows NT will start up with 640x480x256 mode using the Trident drivers.
10. Choose desired resolution, color depth and refresh rate from the Display Setting applet, and click OK.

5.6 - XingMPEG Driver Installation

XingMPEG Drivers and Utilities are necessary for playback of .AVI, .DAT and .MPG files for MPEG, Video CD and Video Conferencing purposes. Versions of the latest XingMPEG software for Windows 3.1x and Windows'95 are included in this package. Installation is achieved simply by clicking on the relevant buttons on the MMCD MegaVision3D Trident 9685 VGA product page.

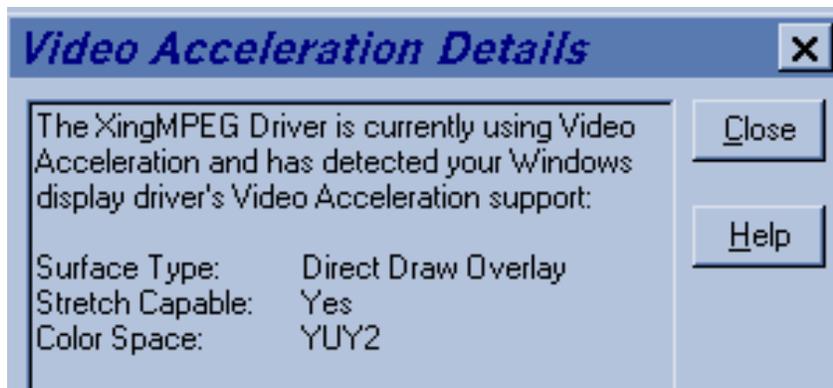
DCI Drivers are required under Windows 3.1x to run MPEG software, and are included as part of the included Windows 3.1x Driver.

DirectDRAW Drivers for Windows '95 are required to run MPEG software and are included as part of the included Windows'95 Driver.

To check what driver your system is running under there is a *Diagnostics* program in the Xing software which will show you which drivers you are running under. After installation **Run...** the Xing software and then choose **Settings...** and then choose **Diagnostics..**



Then choose **Video Mode** and then following screen will appear showing you what type of Driver you are running under.



SECTION 6. DDC MONITOR AUTO DETECTION

If your monitor is a “PLUG & PLAY” monitor and is in compliance with VESA DDC2 Standard, the display driver will automatically detect the information provided by the DDC2 complaint monitor. If the display driver is not able to correctly detect the information provided by the monitor, a message will be displayed that allows you to:

Accept it: The display driver will save the information from the DDC2 monitor that it was able to detect.

Ignore DDC: The display driver will not save the information from the DDC2 monitor and this monitor will not be treated as an DDC2 complaint monitor.

Try Again: The display driver will attempt again to detect the information provided by the DDC2 monitor.



Useful E-Mail Addresses

If you find that the installation driver for your particular operating system is not included on this MMCD CD-ROM then please visit one of the following web sites for further information..

www.trid.com

www.sega.com

Trident & Sega Games Home Pages

www.mmcd.com

MMCD Home Page

Thank you