

# **AVGA-X400**

**User Manual Version 1.0**

**June 13, 2003**



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## **Support**

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## **1. Objective**

The objective of this User Manual is to define and describe all utilities and functions provided in AVGA-X400 applications for Windows 98/ME/2000/XP. This document consists of "Architecture", "Utility Description", and related information.

## **2. Introduction of AVGA-X400**

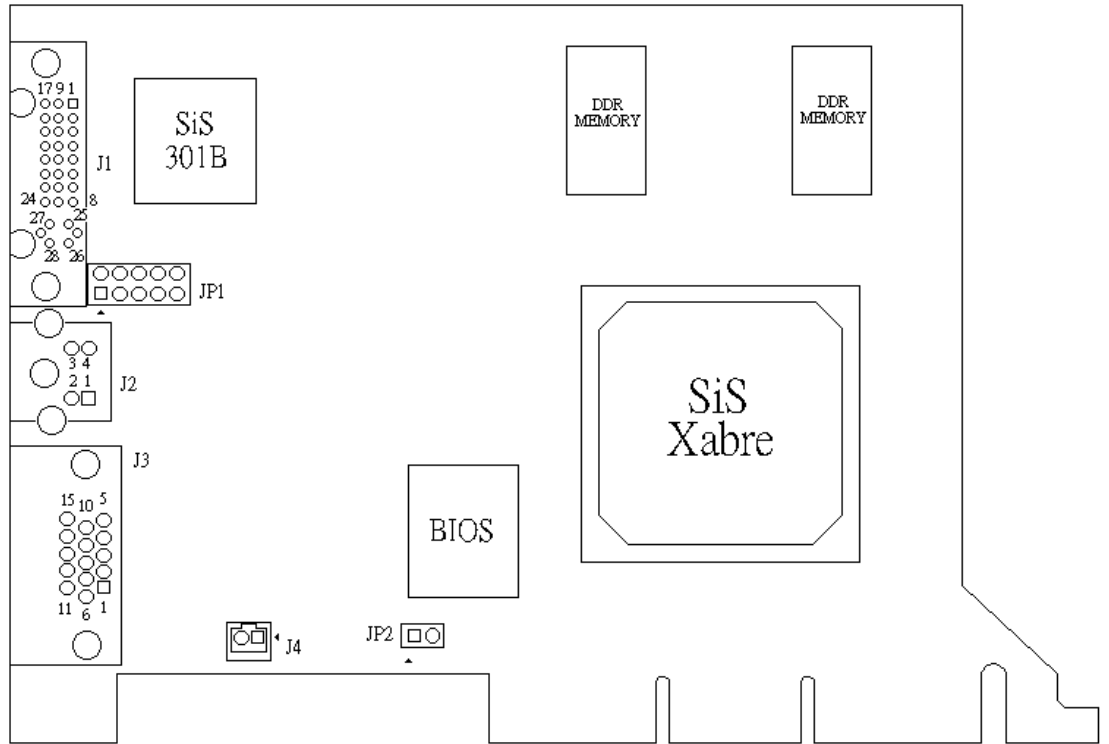
### **2.1 Features**

- AGP 8X/4X/2X 256-bit 3D/2D VGA card powered by SiS Xabre400 super graphics accelerator
- SiS 301, provides NTSC/PAL TV display (option), secondary CRT port and DVI TFT LCD display
- Full Microsoft DirectX8.1 & OpenGL ICD support for Windows 98/2000/ME/XP
- 64MB DDR memory
- Maximum 375 MHz Palette-DAC
- Extended 2D resolution up of to 2048 x 1536 @85Hz
- DVD accelerator (Motion Compensation). Supports playing real time DVD movies

### **2.2 Package Contents**

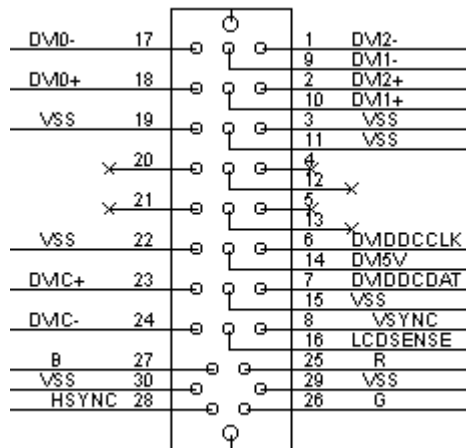
- AVGA-X400 VGA card x 1
- Driver and Utility CD-ROM disk x 1
- User manual x 1
- Secondary CRT cable x 1

## 2.3 Board Layout

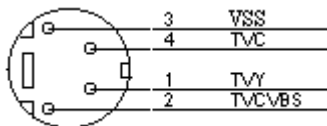


## 2.4 Hardware Information

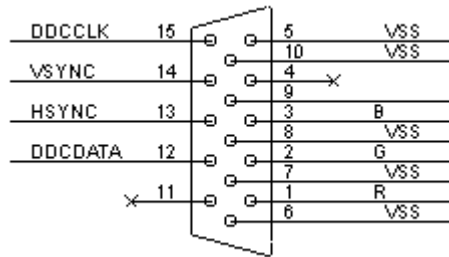
### J1: DVI Connector



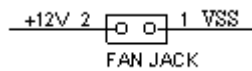
### J2: S-VIDEO Connector



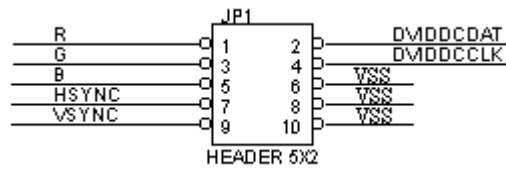
### J3: VGA Connector



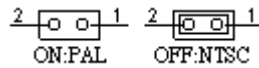
### J4: FAN Connector



### JP1: SECONDARY VGA HEADER



### JP2: SELECT NTSC / PAL TV-OUT



### CRT CABLE CONNECTOR



## 2.5 Software Information

Windows XP/2000/ME/98/95  
 Windows NT (Service Pack 3 or later)  
 OPEN GL ICD for full OPEN GL support

## **3. Installation Description**

### **3.1 Hardware Installation**

Follow the steps below to install AVGA-X400 VGA card into your system.

1. Power off the computer, and then disconnect the power cord and monitor cable
2. Remove the computer cover
3. Locate the available AGP expansion slot
4. The new generation's M/B can support the AGP expansion slot. There is only one AGP slot on your M/B.
5. Remove the slot cover
6. Fix the AVGA-X400 VGA card firmly into the AGP expansion slot
7. Fasten the retaining bracket with a screw
8. Reinstall the computer cover
9. Connect the monitor cable to the VGA (DB-15pins) output connector of the board
10. Connect the power cord, then power on the computer

### **3.2 Software Installation**

#### **System Introduction**

The previous installation utility is developed with Microsoft setup tool kit, which copies necessary files to destination directory on hard disk. It does not support partial installation and un-installation functions. The installation utility is developed with InstallShield International setup tool kit, which is the industry standard for software distribution. It provides more functions and powerful dialogs, and is easy to use. It supports about 28 languages for complex installation messages and resources.

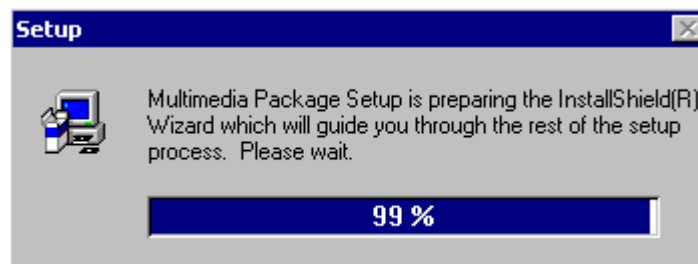
#### **System Description**

InstallShield International does not dynamically check the language of the end users' system. So there are two parts of installation: the first script detects the system language, and then the second script performs the rest of the installation with the appropriate localized resources.

## System Installation

- (1) Insert the CD-ROM disk, the program will run automatically and detect the VGA card you are using.
- (2) Run **D:\Xabre310.EXE** (assuming your CD-ROM drive is drive "D" and the driver path is in root directorate) and press the next button.

When running "Xabre310.exe", the splash screen (bitmap) and startup message dialog box will be displayed during setup initialization process.



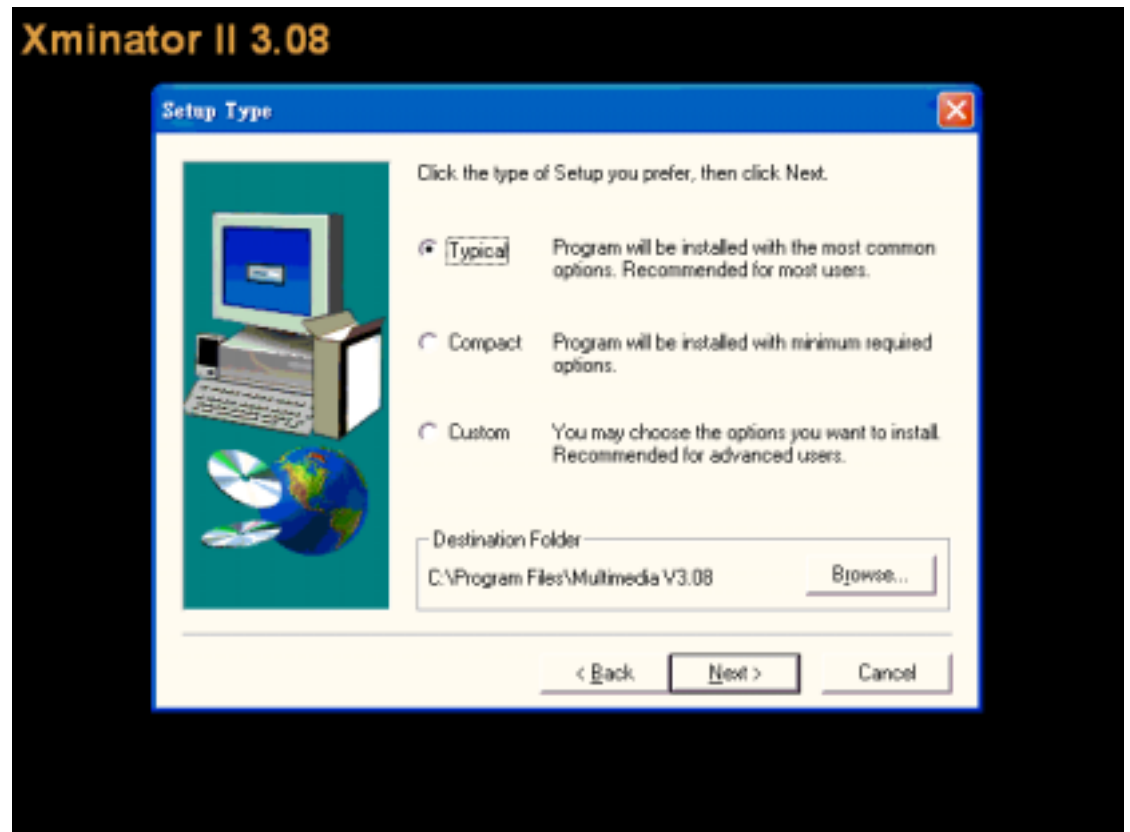
When the welcome dialog screen appears, click Next to continue the installation, or Cancel to exit.



Choose a setup type:

- Typical type: Install all drivers and utilities
- Compact type: Only install Direct Draw drivers (display and Display Control Interface drivers in Windows 3.x)
- Custom type: Customize installation option.

Click Browse to select a destination directory, or Next to continue. To return to the previous screen, click Back. To exit, click Cancel.



When Custom Setup is selected, the following screen will appear to show the components and sub-components for selection in side-by-side lists. The description of and space required for each item will be show. Information of available space will also be displayed.



Specify a program folder name (a program group name in Windows 3.x).

The Program Manager shell, which is used on Windows 3.x, handles access to applications differently than does the Explorer shell, which is used on Windows 95.

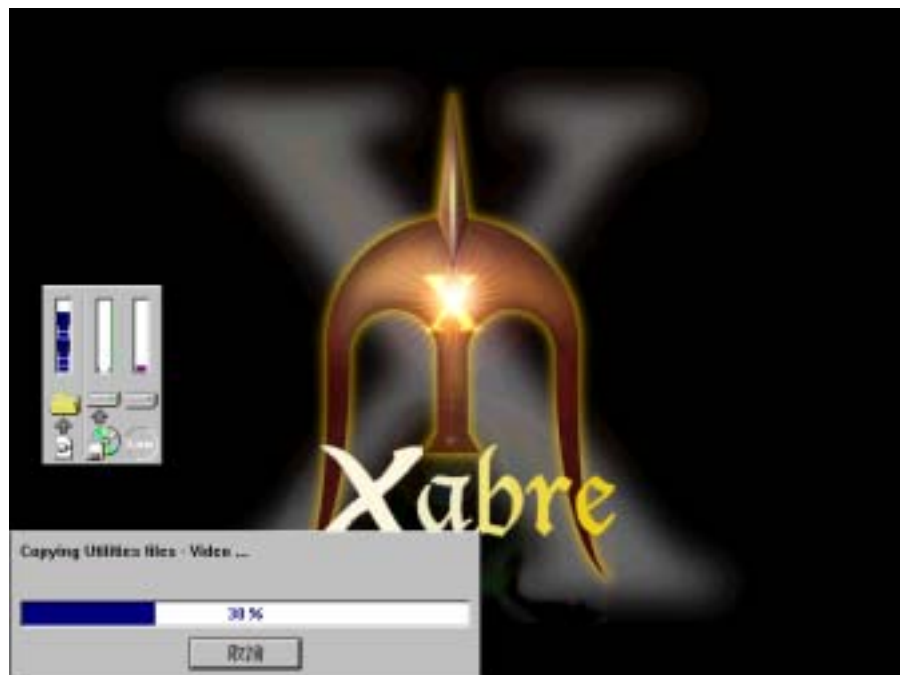
In Program Manager shell, the program groups are populated with program item icons, which launch applications. In Explorer shell, icons placed on the Start menu and its submenus can launch applications directly, can open program folders containing icons to launch applications, or can open submenus containing icons.



The settings and selections made during the installation will be shown. The user has the opportunity to view and change previous dialogs.

During the installation, the progress indicator will show how much of installation is completed. The three information gauges in the left portion provide the user with important feedback during installation.

The leftmost gauge shows the progress of each file as it is being copied to the target system. The middle gauge displays the progress of each distribution disk as it is being copied to the target system. The rightmost gauge indicates how much the disk space is still available on the target drive. When the target drive has less than 5% space available, the Low light becomes bright red.



When the Setup process is completed, select restart computer now or later. The option to restart Windows is displayed only when the target operation system is running Windows 9.x.

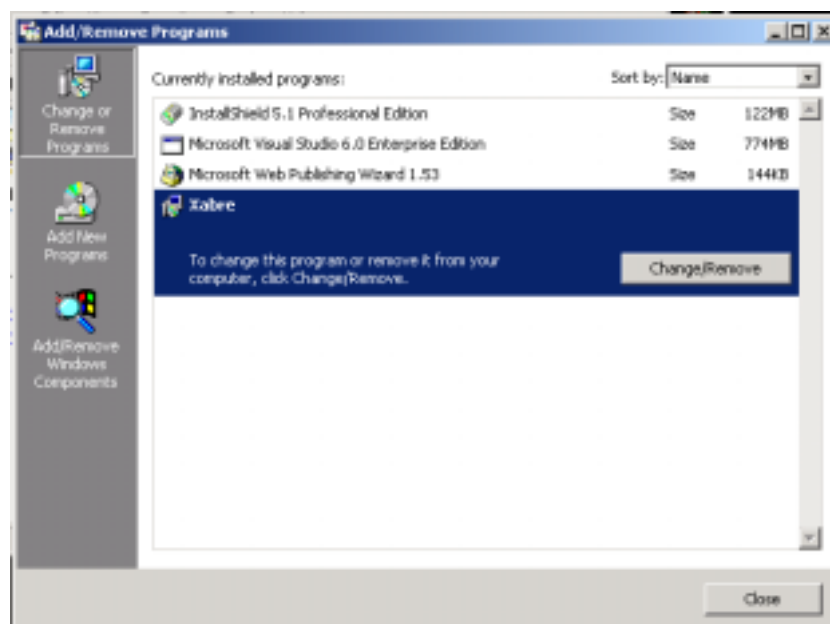
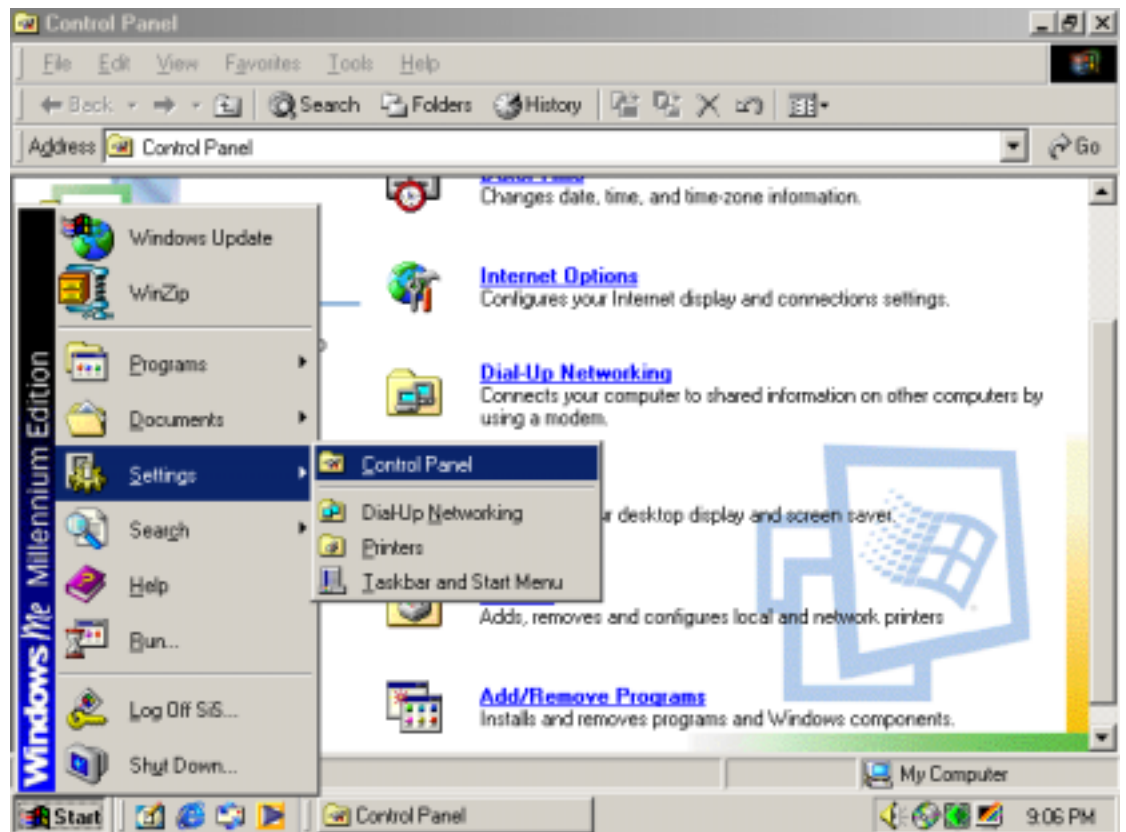


## Un-installation

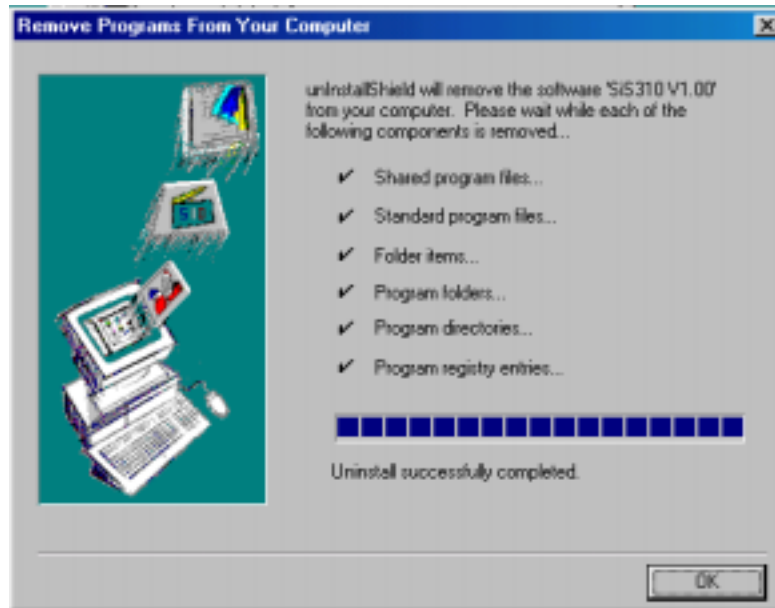
To uninstall Xabre utility, use 'Control Panel' or 'SiS Utility Tray'.

- **Control Panel**

Under the Explorer shell, choose Add/Remove Programs from the Control Panel. Select VGA package folder from the list and click "Add/Remove".



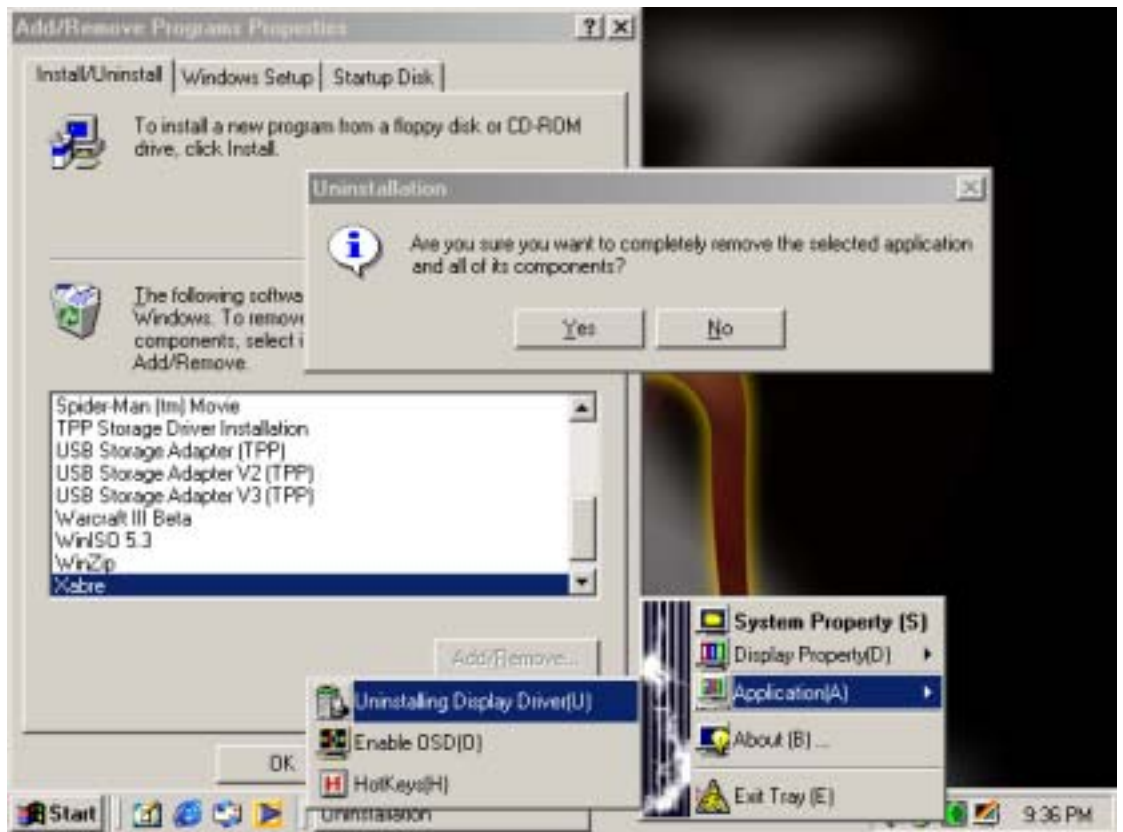
Restart your computer when the program is uninstalled successfully.



- **SiS Utility Tray**

Follow the steps below to uninstall Xabre:

1. [SiS Utility Tray] > [Application] > [Uninstalling Display Driver]
2. Choose [Yes] in 'uninstalling shield' to start uninstall Xabre driver.



## 4. Manage and Use Utilities

### 4.1 Summary

There are two methods to control Xabre's Utility and execute Xabre's strong functions. The two methods are "Utility Manager" and "SiS Utility Tray". Below chapters introduce how to control it.

### Utility Manager

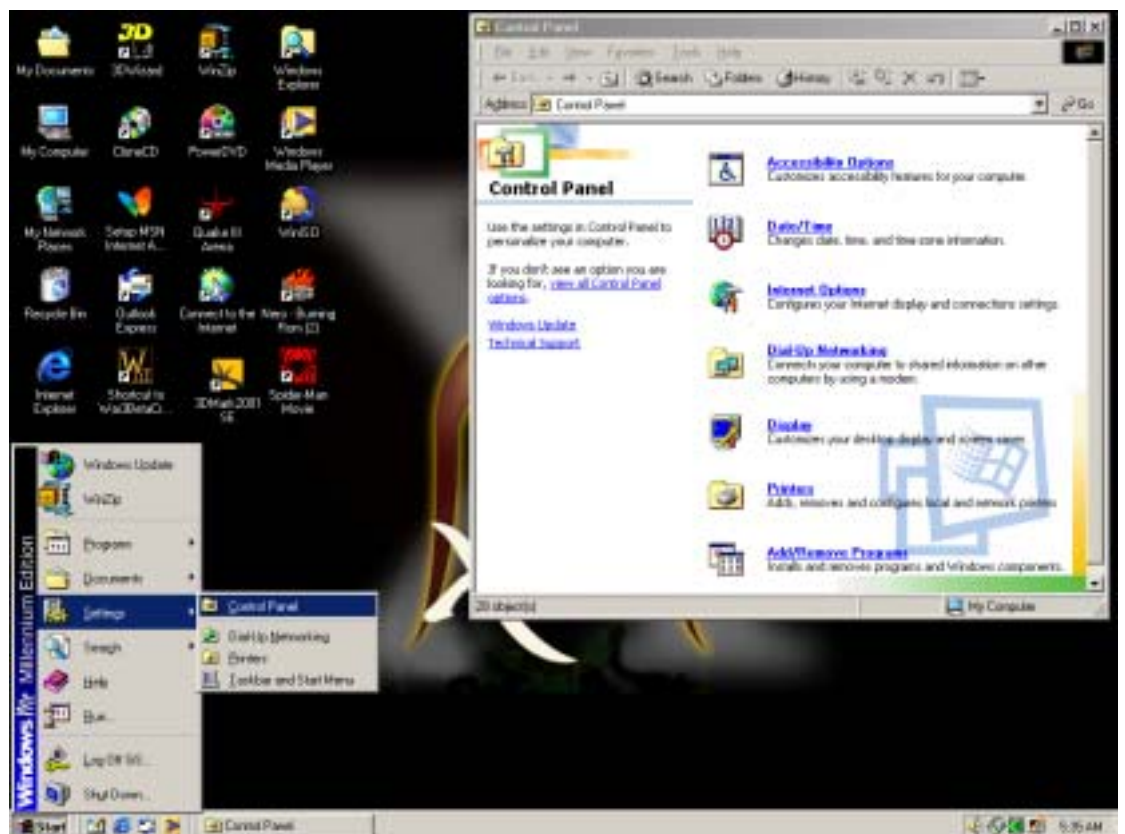
Utility manager includes of all of SiS utilities in the Xabre VGA package. It acts as an entrance for users to enter all SiS utilities. This software had been developed on all Xabre (above) chips for Windows 98/ME/2K/XP platforms. It's integrated into SiS Multimedia utility package now. Here we describe it on Xabre.

Utility manager contains 4 groups that indicate 4 utilities we provide for users to modify. Our SiS utilities are, "Gamma Correction, Video Setting, Driver mode setting, and Product and Files Information". Utility manager will check the utility state and enable /disable utilities according to the current environment. The architecture can be illustrated as below:

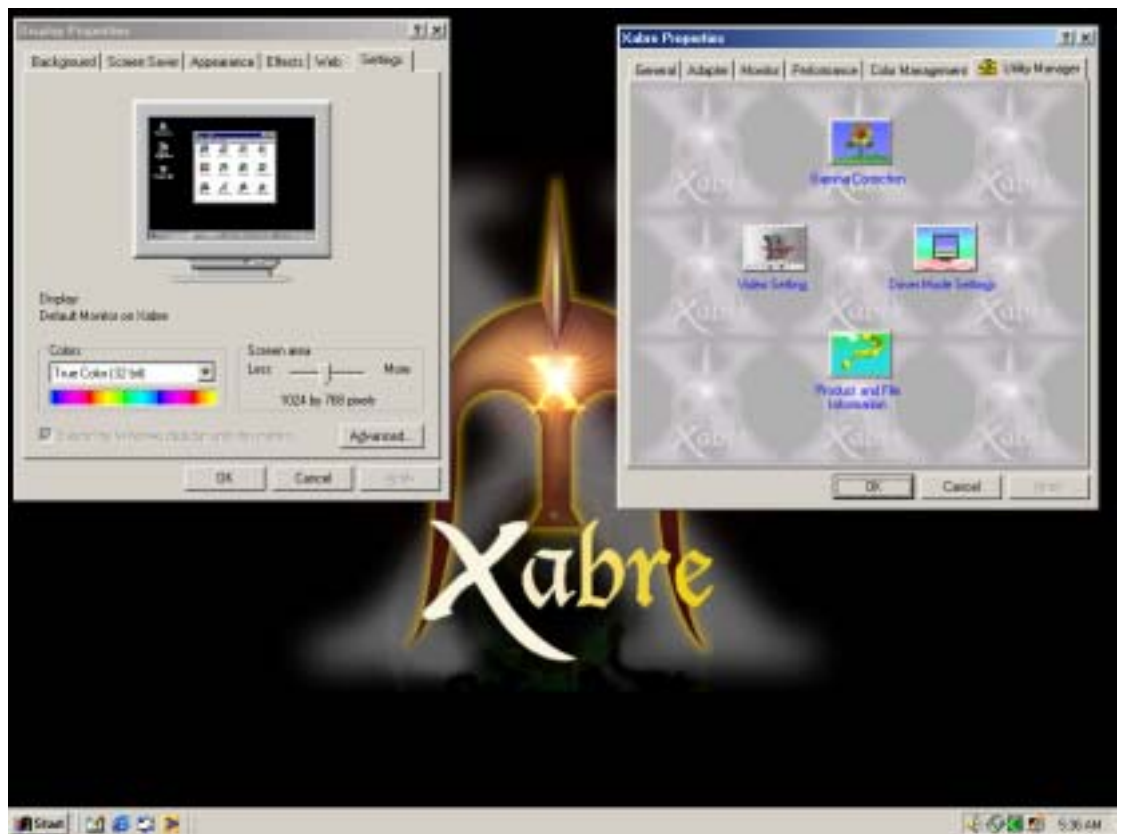
- **Outlook**

User can follow next step into Utility Manager.

(1) Chose [Start] > [Setting] > [Control Panel] > [Display]



(2) Select [Settings] > [Advanced] > [Utility Manager]



- **Function Description**

Utility manager contains 4 groups that indicate 4 utilities we provide for users to modify. Simply move the cursor to the desired group and left click the item. A utility dialog will pop up immediately enabling you to modify the features in the utility dialog.



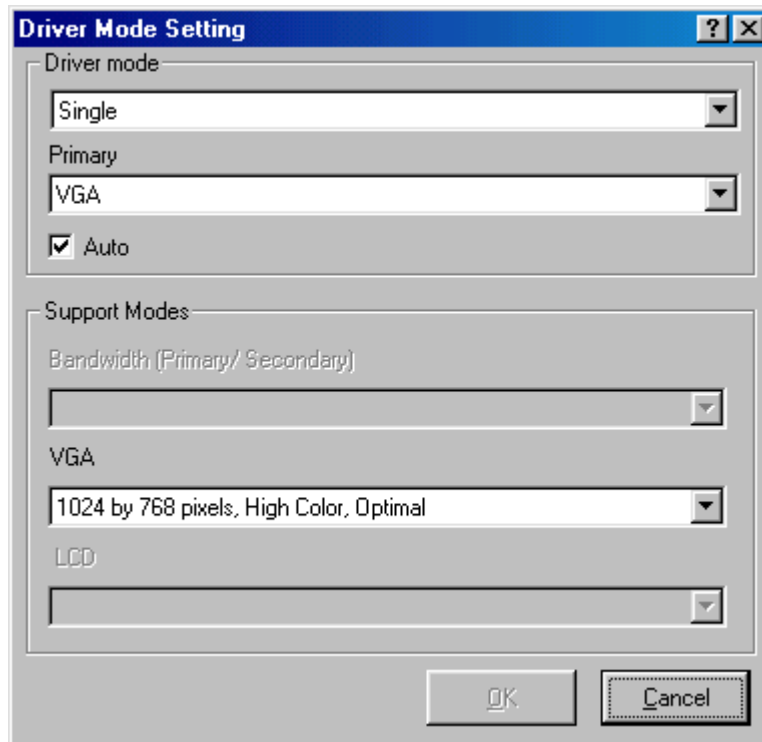
- **Function Description**

The purpose of "SiS Task Bar Icon" is to act the launcher of SiS utilities, such as

- i. System Property: To open system property for system information.
- ii. Display property: User can launch SiS display utility from this pop menu directly. These utilities include Display Setting, Gamma Correction, Video Setting, and SiS Information.
- iii. Application program: including Uninstalling Display Driver, OSD and Hotkey setting.
- iv. SiS About information: Show the company information and driver version.

### **Driver Mode Setting (Display Setting)**

Driver Mode Setting is a utility to change display state, including Driver Mode and output device etc. This software is applicable for all Xabre (above) chips for Windows 98/ME/2000/XP platforms.



- **Driver Mode**

- You can change driver mode selection between Single, Mirror, Multi-Monitor Mode.
- Primary: set the primary display device
- Secondary: set the secondary display device. Secondary device is enabled only under Mirror and Multi-Monitor Mode. If driver mode is single, only primary display device is enabled.
- Auto detection: it means auto detect connected devices.

If the checkbox is checked, only currently connected devices are showed in Primary/secondary list box for selection. And if only one device is connected, then only Single mode is allowed for selection. If the checkbox is not checked, all possible connected devices the card could provide will showed for selection.

- **Support Mode**

- i. Bandwidth: Set the bandwidth percentage to primary and secondary device. Bandwidth is enabled only under Multi-Monitor Mode.
- ii. Support Mode: We will show the caption of list box according to the device selected in device combination. The upper one is mapped to primary device, and the other one is mapped to the secondary device. And the list box will show the possible combination to user. If secondary device is disabling, the second support mode list box will be disable too.

- **Function Description**

- Change driver mode – Single/ Mirror/ Multi-Monitor
- Change secondary display device
- Change bandwidth
- Show primary output support mode
- Show secondary output support mode

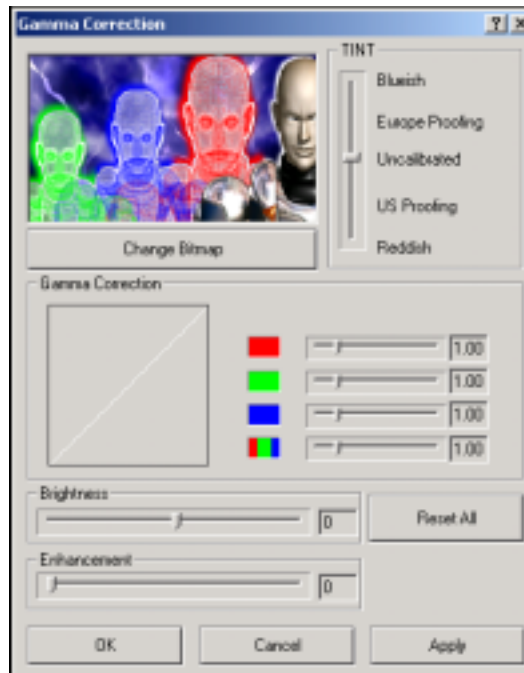
- **Step for Mirror / Multi-Monitor**

- i. Input the Cable which one TV into Xabre
- ii. Restart your computer
- iii. Check [Display properties] > [Settings] > [Advanced] > [Utility Manager] > [Driver mode manager] > [Driver mode]
- iv. Please changes the Driver Mode form 'single' to 'mirror'/'Multi-monitor'.

## Gamma Correction

Gamma correction provides friendly ways for user to adjust the screen color & tint. The basic function of gamma correction is to calibration the screen gamma value by Red, Green, Blue, or by RGB combination.

- **Outlook**



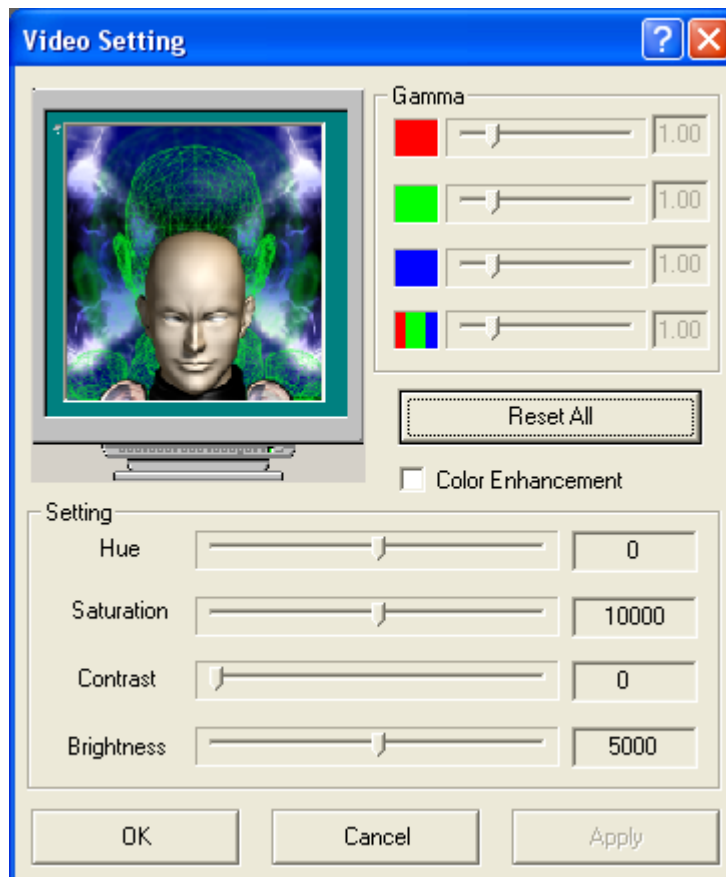
- **Function Description**

- i. **Change Bitmap:** To customize the bitmap of gamma correction utility.
- ii. **TINT:** To adjust the Tint. The tint can be warmer (reddish) or cooler (bluish). The gamma correction utility defines 5 suggestion levels (bluish, Europe Proofing, calibration, US Proofing, and reddish), and divided the range (from most bluish to most reddish) into 20 levels.
- iii. **Gamma Correction:** This option enables users to adjust the screen color. You can use gamma correction to calibrate the abnormal color pr adjust the screen color to the best effect for playing movie with SVGA monitor.
- iv. **Brightness:** To adjust the brightness of SVGA monitor. The default value of brightness is (-128, 128).
- v. **Enhancement:** To adjust screen color enhancement. The default value of enhancement is (0, 7)

## Video Setting

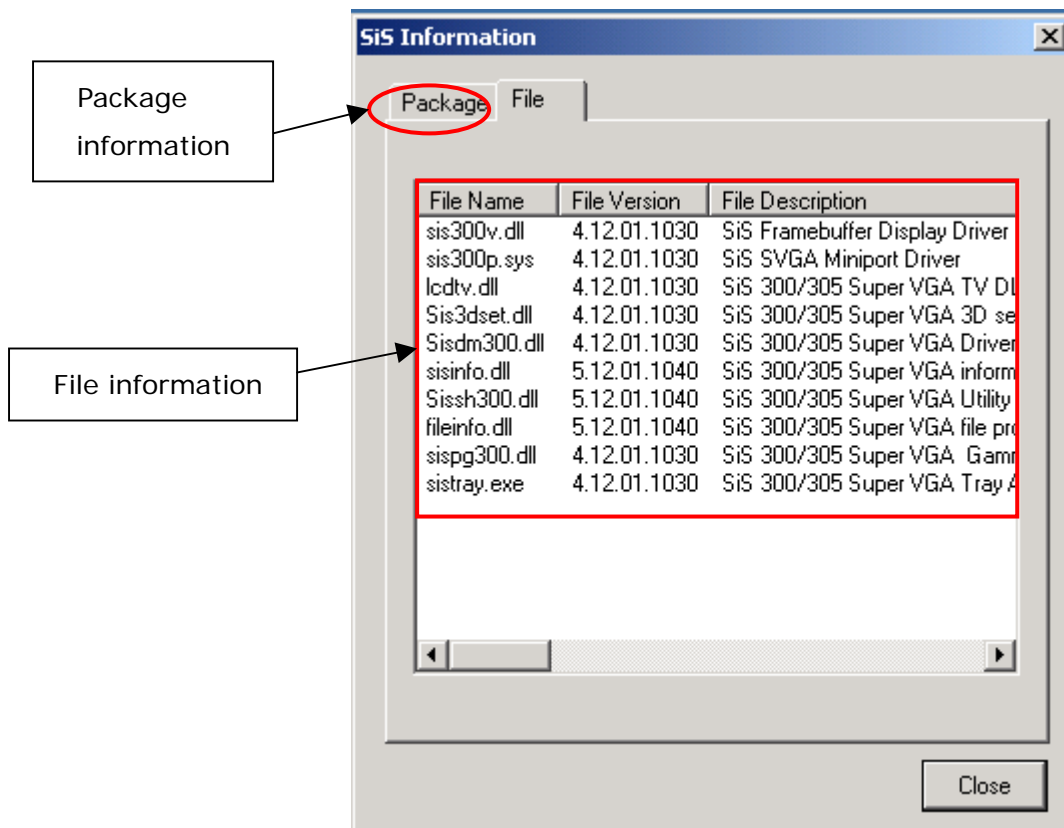
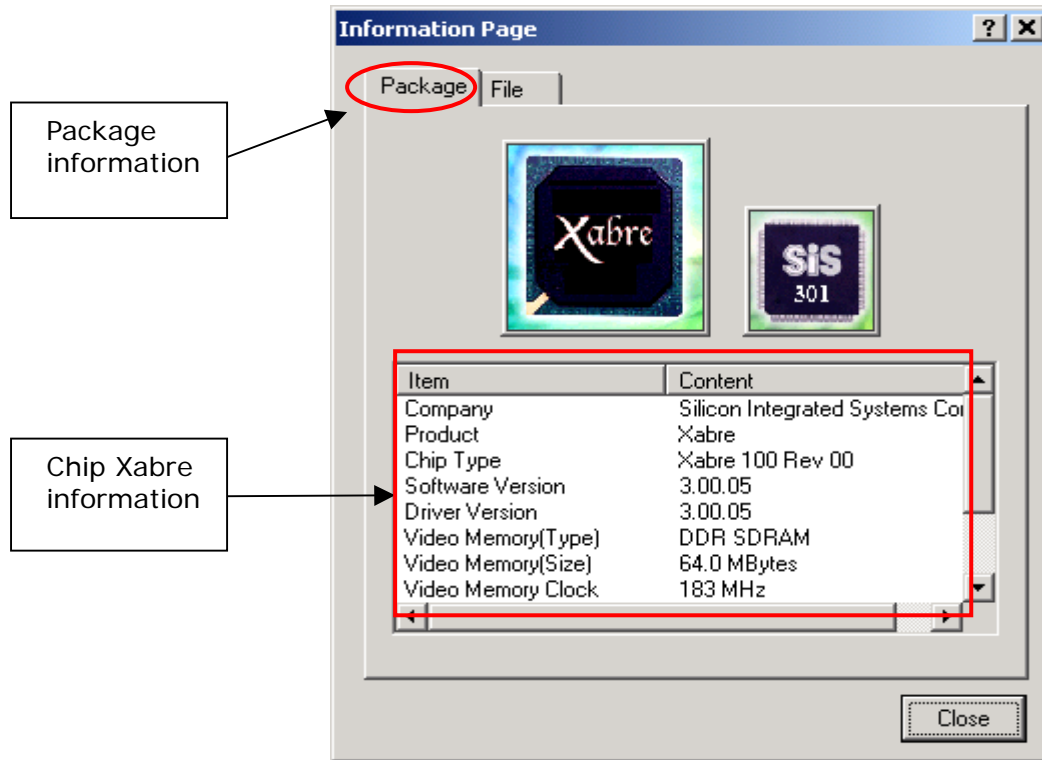
AVGA-X400 provides friendly ways for users to adjust the hue, saturation, contrast, and brightness of video display. You can also adjust the gamma ramp and select the color enhancement to adjust the vivid. These applications all work just in video overlay mode.

- **Outlook**



## Product and File Information

- User Interface Description

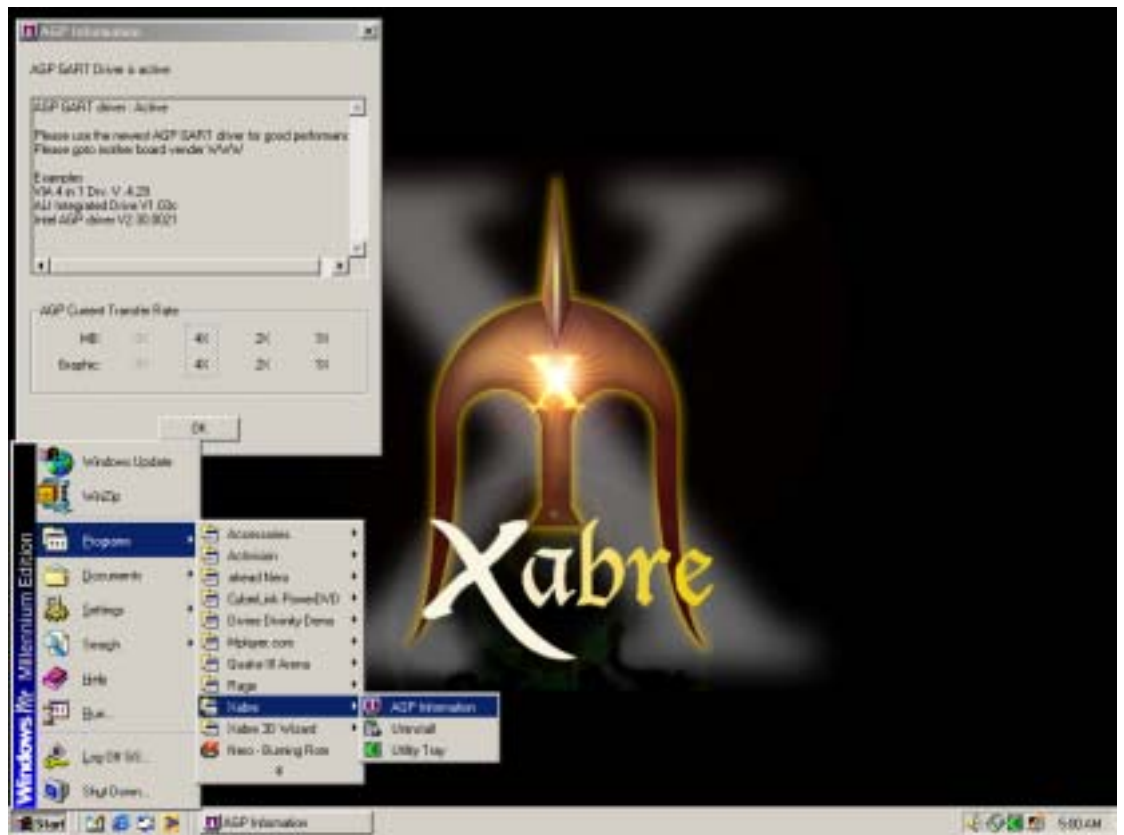


- **Function Description**

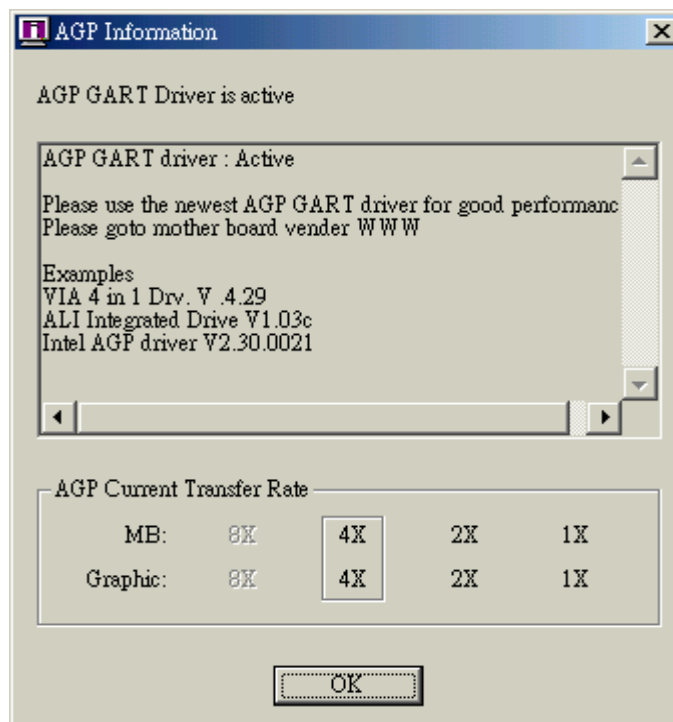
There are two property pages displaying the product and files information included in Xabre VGA package respectively. One property page is so called "Product" page, describing the company name, chip type, driver version, package version, memory type & required size, BIOS (OEM String), BIOS vender name, BIOS (OEM product name), BIOS (OEM product version) of Xabre VGA product.

Another property page is so called "File" page, describing the filename, file version, file description, copyright, internal filename, company name, original filename, product name and product version in the Xabre VGA package.

## 4.2 AGP Information



- **User Interface**



- **Function Description**

- AGP GART Driver**

1. "AGP GART Driver" static text: Show the AGP GART Driver being active or not.
2. "AGP GART Driver" edit control: Show additional information about the AGP GART driver

- AGP Current Transfer Rate**

1. MB: List the AGP transfer rates the main-board supports. The grayed item represents the unsupported transfer-rate.
2. Graphic: List the AGP transfer rates the graphic card supports a dimmed rectangle frame circling a common item of the MB and Graphics shows the current transfer rate that our driver chooses. By default, the driver will select the maximum transfer rate that both MB and Graphics support. Click the "OK" button (or the close button on the upper-right corner of the dialog) to terminate and close the application.

- **Interface with Drivers**

This application uses DirectX API to check the status of the GART driver. Additionally, Define a set of escape function entries for this application to get the transfer-rate capabilities and status from the 2D driver.