SP8836

SPARKLE COMPUTER CO., LTD.

3D GRAPHIC ACCELERATOR MANUAL

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NVIDIA CineFX 2.0 engine

-Support for DX 9 pixel shader 2.0+
-Support for DX 9 vertex shader 2.0+
-Very long pixel programs up to 1024 instructions
-Very long vertex programs with up to 256 static instructions and up to 65536 instructions executed before termination
-Looping and subroutines with up to 256 loops per vertex program
-Subroutines in shader programs
-Dynamic flow control
-Conditional write masking
-Conditional execution
-Procedural shading
-Full instruction set for vertex and pixel programs
-Z-correct bump-mapping
-Hardware-accelerated shadow effects with shadow buffers
-Two-sided stencil
-Programmable matrix palette skinning
-Keyframe animation
-Custom lens effects: fish eye, wide angle, fresnel effects, water refraction

High-performance, high-precision 3D rendering engine

-4-pixels per clock rendering engine
-128-bit, studio-quality floating point precision through the entire graphics pipeline
-Native support for 128-bit floating point, 64-bit floating point and 32-bit integer rendering modes
-Up to 16 textures per pass
-Support for sRGB texture format for gamma textures
-DirectX and S3TC texture compression

High-performance 2D rendering engine

-Optimized for 32-, 24-, 16-, 15- and 8-bpp modes
-True-color, 64x64 hardware cursor with alpha
-Multi-buffering (double, triple or quad) for smooth animation and video playback

need for panning with built-in Macrovision copy protection
-DVD and HDTV-ready MPEG-2 decoding up to 1920x1080i resolutions
-Dual, integrated 400MHz RAMDACs for display resolutions up to and including 2048x1536@85Hz
-DVI Support for compatibility with next-generation flat panel displays with resolutions up to and including 1600x1200
-NVIDIA NVRotate™ application for advanced viewing flexibility
-NVIDIA NVKeystone™ application for advanced display correction

NVidia Digital Vibrance Control ™ (DVC) 3.0

-DVC image sharpening controls
-DVC color controls

Rocket science for a system-level solution

-0.13u process technology for higher levels of integration and higher operating clock speeds
- Copper vias and wiring
- Advanced thermal monitoring and thermal management
- AGP 8X including Fast Writes and sideband addressing

Broad operating system support

-Windows® XP
-Windows 2000
-Windows Me
-Windows 9X

API support

-Comprehensive Microsoft DirectX 9.0 (and lower) support
-OpenGL 1.5 (and lower) support

Compatibility

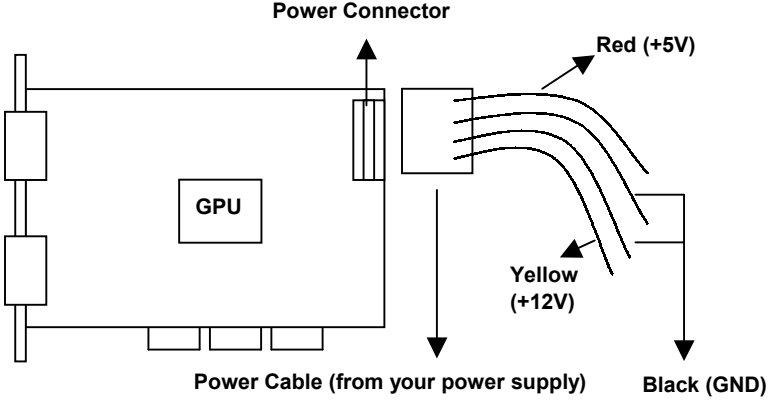
-NVIDIA Unified Driver Architecture (UDA)
-Fully compliant professional OpenGL 1.5 API with NVIDIA extensions, on all Windows operating systems
-WHQL-certified for Windows XP, Windows Me, Windows 2000

pull straight out of the motherboard slot. If the card is stuck, rock from side to side to dislodge it. Remember to keep the screw.

4. Locate the empty slot in the motherboard and then install the card in the AGP bus slots
5. Replug the cable into the computer and replace the cover.

2.3 Installing notice (5700 Ultra only)

1. In order to make your system more stable, we recommend the minimum requirement for the power supply is 300 Watts.
2. To ensure optimal performance, verify that the Molex hard drive power connector is properly connected to the white port on the edge of the graphics card. Failure to do so will result in running in a lower operating frequency and therefore result in decreased performance.
3. If you experience any problems upon boot up, please verify that the motherboard is of the AGP 2.0/3.0 specification. Please check with the motherboard manual or consult with your motherboard manufacturer.
4. How to use the power connector port:



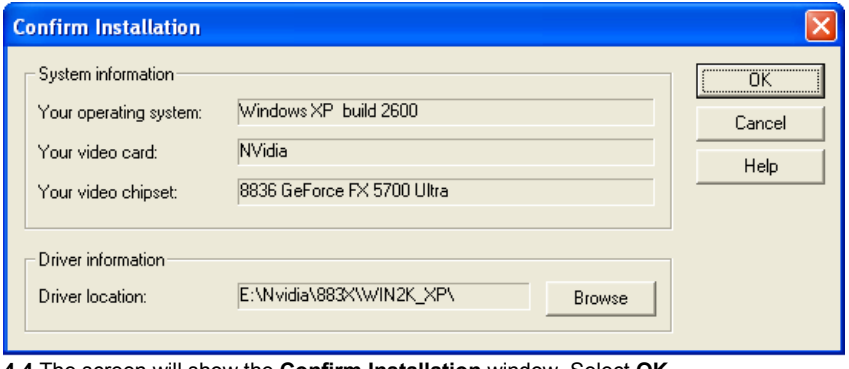
1024*768	16	60/70/72/75/85/100/120/140/144/150/170/200/240
	32	60/70/72/75/85/100/120/140/144/150/170/200
1152*864	8	60/70/72/75/85/100/120/140/144/150/170/200
	16	60/70/72/75/85/100/120/140/144/150/170/200
	32	60/70/72/75/85/100/120/140/150/170
1280*960	8	60/70/72/75/85/100/120/140/144/150/170
	16	60/70/72/75/85/100/120/140/144/150/170
	32	60/70/72/75/85/100/120/140/150
1280*1024	8	60/70/72/75/85/100/120/140/144/150/170
	16	60/70/72/75/85/100/120/140/144/150/170
	32	60/70/72/75/85/100/120/140/150
1600*900	8	60/70/72/75/85/100/120/140/144/150
	16	60/70/72/75/85/100/120/140/144/150
	32	60/70/72/75/85/100/120
1600*1200	8	60/70/72/75/85/100/120
	16	60/70/72/75/85/100/120
	32	60/70/72/75/85/100

Different driver version or different windows platform may have different support table.

4. Smart Installation

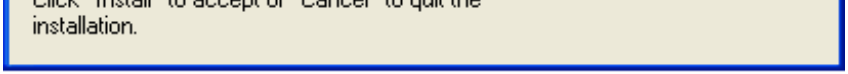
Supports Windows XP, Windows 2000, Windows 98 and Windows ME System.

4.3 Click **Driver installation**



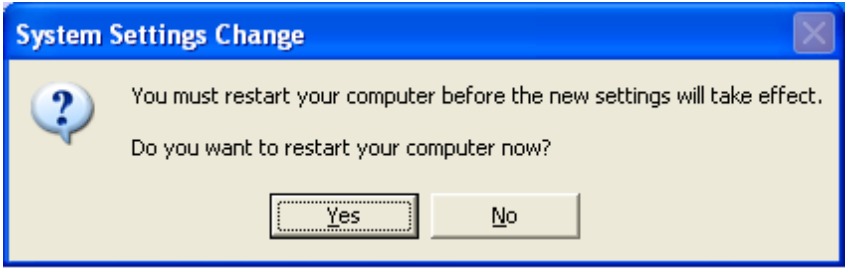
4.4 The screen will show the **Confirm Installation** window. Select **OK**

4.5 The **Driver Confirmation** window appears, select **Install.**

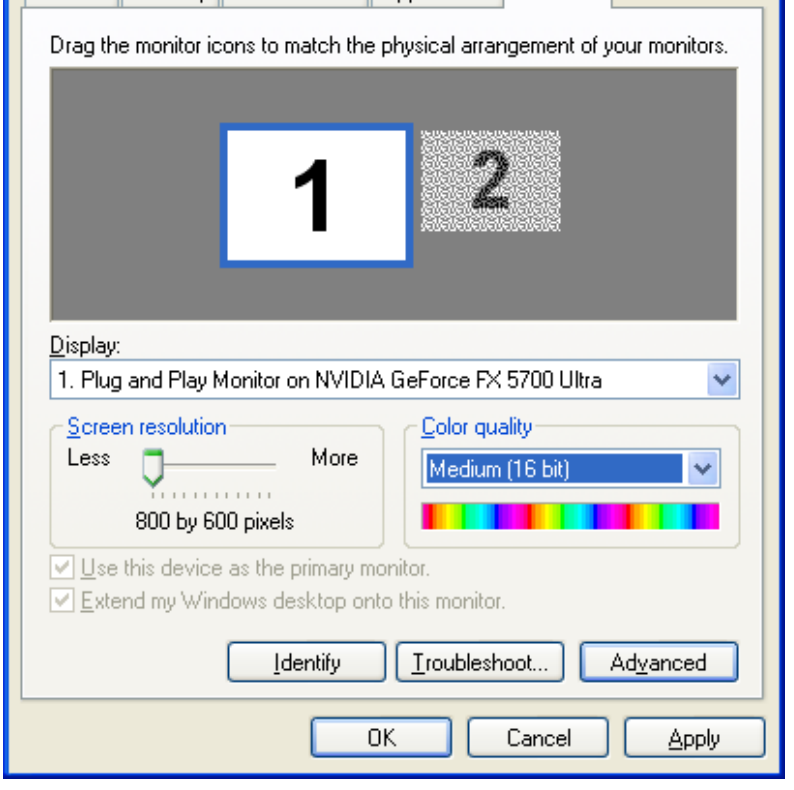


If the drivers are very new, you may get the following system prompt. Please click “Continue Anyway” and the software will continue to install.

4.6 Then click **“Yes”** to restart your computer.

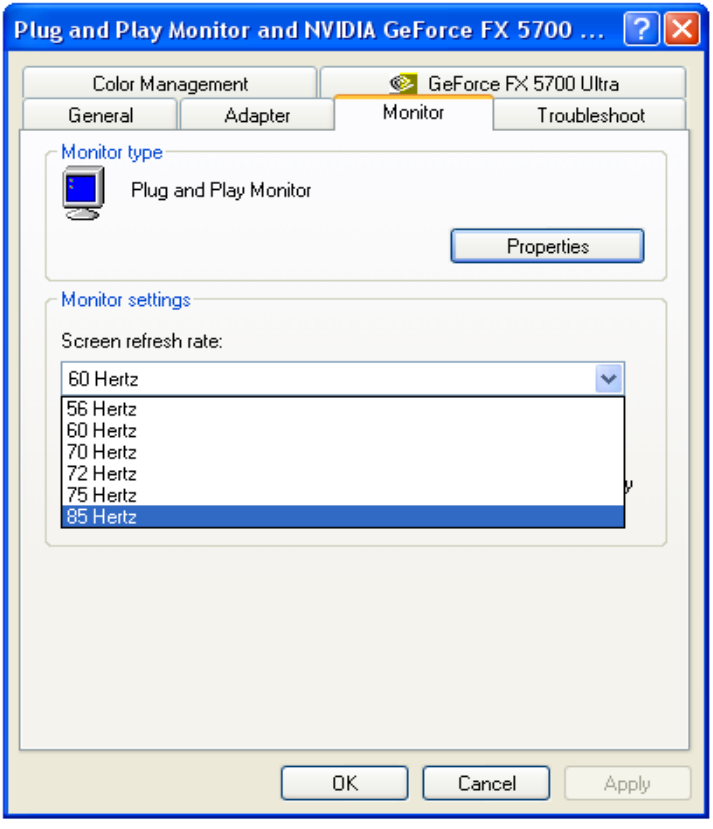


4. Double-click on the **Display** icon in the **Control Panel** folder. You can also click the right mouse button anywhere on the desktop and select the Properties option from the pop-out menu.
5. Click **Settings**, and then **Advanced**
6. Now at the **[Plug And Play Monitor and NVIDIA…] window**
   Select **Adapter**
7. **Standard PCI Graphics…(or NVIDIA GeForce…)** appears**,**
   Select **Properties**
8. From **Adapter Properties …**
   Select **Driver** and click **Update driver…**
9. Next the **Hardware Update Wizard** will appear,
   Select **Install from a list or specific location (Advanced)** – recommended for saving installation time
   Then select **Next.**
10. Default setting will select **Search for the best driver in these locations**
    Please check **Include this location in the search** – recommended for saving installation time
    Select **Browse**
11. Next, **Browse for Folder appears**,
    Select E:\NVIDIA\883X\win2K_XP\
    Note: "E:"-> CD Drive, **"NVIDIA"**-> VGA chip brand name, **"883X"**-> VGA model name
    Then select OK and click Next
12. If there are no problems, the system will start to install the driver
13. Next the **Completing the Hardware Update Wizard** appears
    Select **Finish**
14. Close the **Adapter Properties window**
15. Next at **System Settings Change**
    Select **OK**, the system will restart automatically.

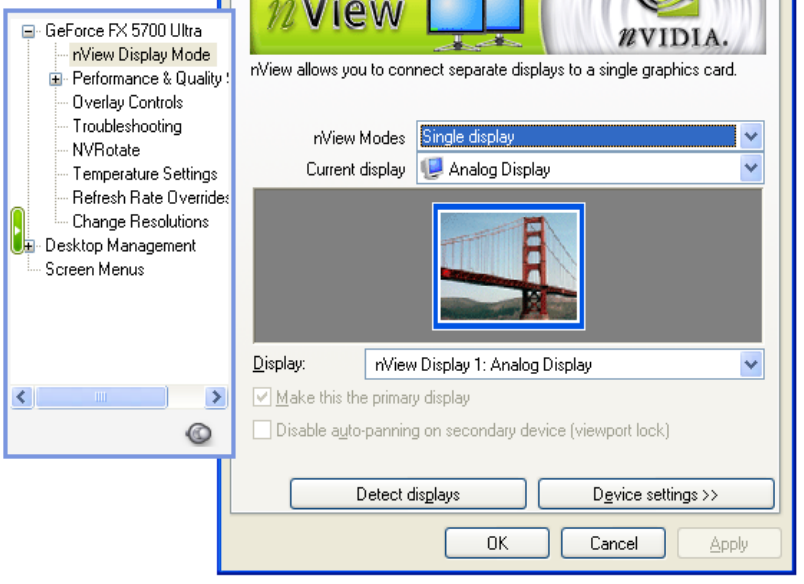


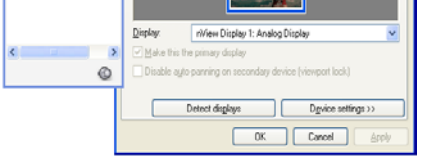
Click on the pull-down arrow from the Color palette area to select color depth or adjust the sliding bar to either **Less** or **More** from the Desktop area
Select **OK** to restart System and new color depth or new resolution will take effect.

your monitor. Otherwise you can't select the refresh rate you want.

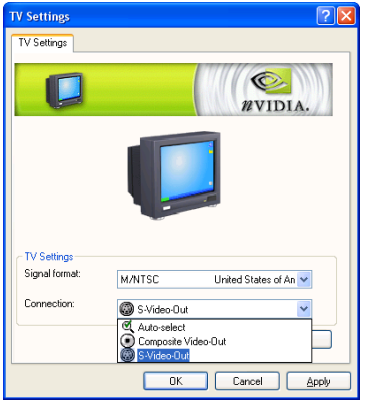


Color Management
GeForce FX 5700 Ultra
NVIDIA.
Processor: GeForce FX 5700 Ultra
IRQ: 16
BIOS: 4.36.20.18.01
TV Encoder Type: NVIDIA integrated
NVIDIA.
Adapter information
Bus: AGP 8X
Memory: 128 MB
System information
System processor: Intel Pentium(r) 4 with SSE2
DirectX version: DirectX 9.0 or better
Driver version information
Filename Description Version
nv4_disp.dll Display driver 6.14.10.5216
nv4_mini.sys Display driver miniport 6.14.10.5216
nvoglnt.dll OpenGL installable client driver 6.14.10.5216
nvcpl.dll Display Properties extension 6.14.10.5216
Additional properties...
NVIDIA on the Internet >>
OK
Cancel
Apply

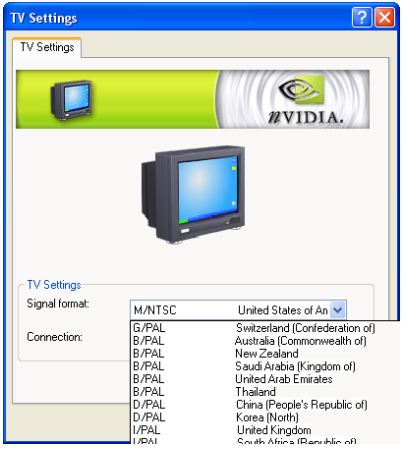

GeForce FX 5700 Ultra
nView Display Mode
Performance & Quality
Overlay Controls
Troubleshooting
NVRotate
Temperature Settings
Refresh Rate Overrides
Change Resolutions
Desktop Management
Screen Menus
nView
NVIDIA.
nView allows you to connect separate displays to a single graphics card.
nView Modes
Single display
Current display
Analog Display
Display:
nView Display 1: Analog Display
Make this the primary display
Disable auto-panning on secondary device (viewport lock)
Detect displays
Device settings >>
OK
Cancel
Apply



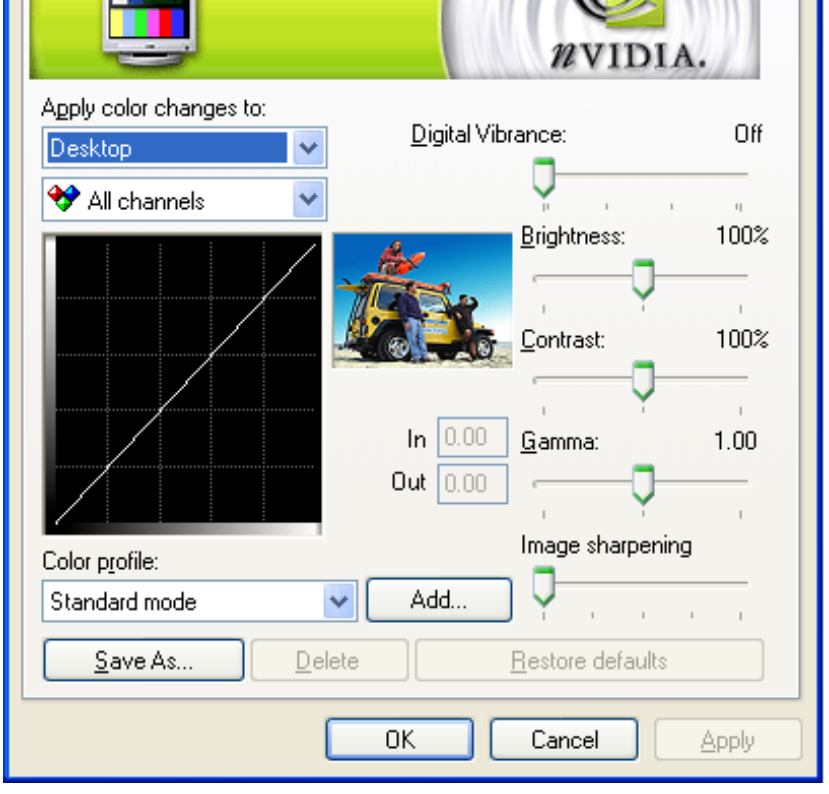
choose the right out put device, Do not use Auto select.

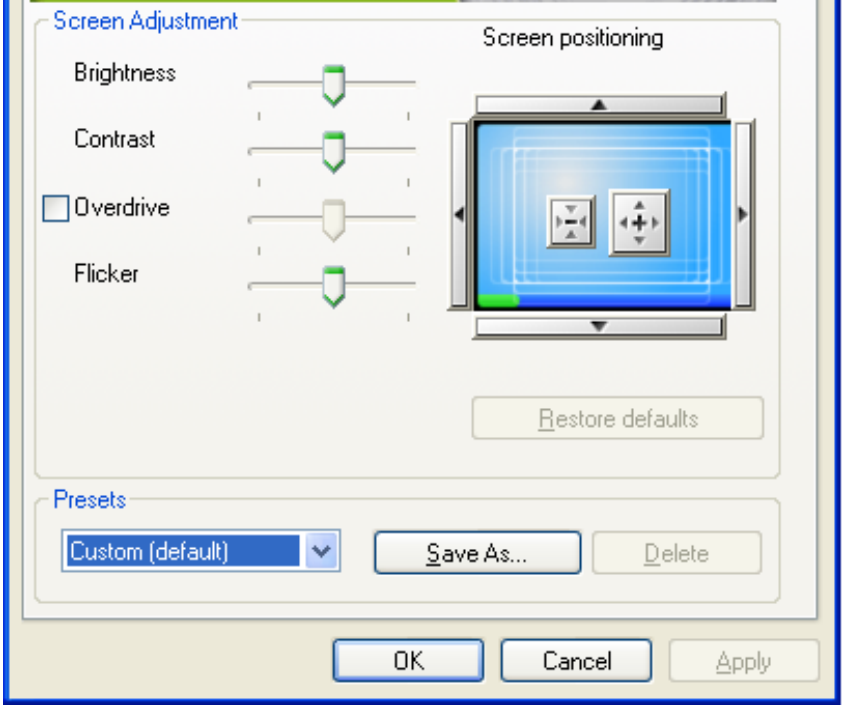


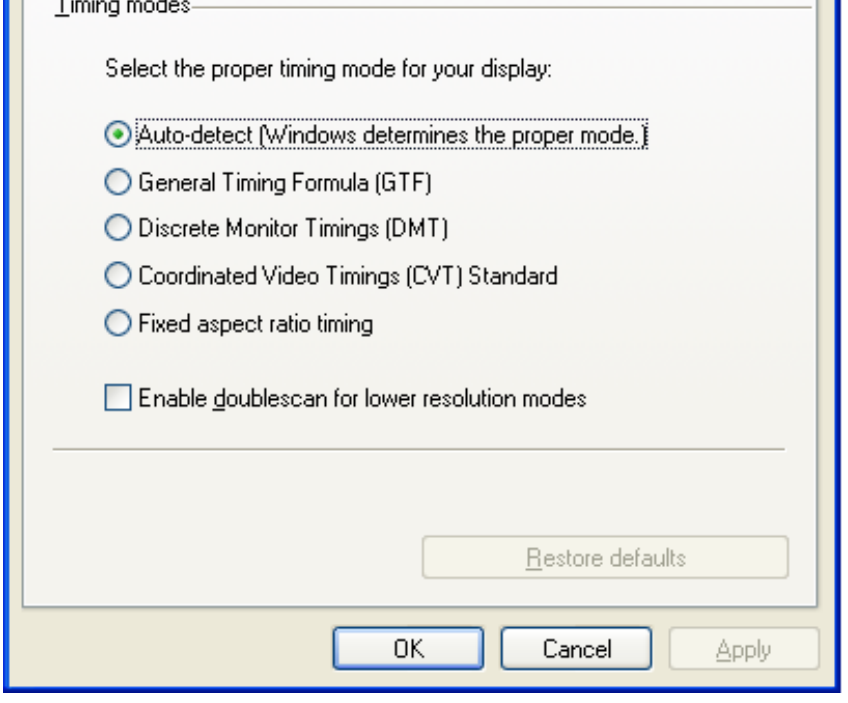
Click **Signal Format** to select your country and TV system – NTSC or PAL, no SECAM.

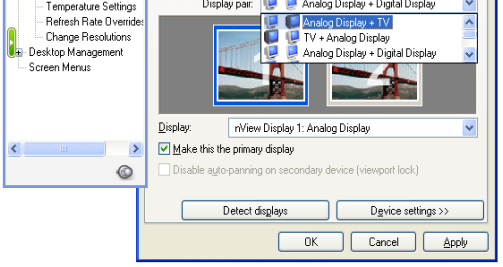


Note:
If you can't switch from PAL back to NTSC, please set resolution to 640x480 and try again


NVIDIA.
Apply color changes to:
Desktop
All channels
Digital Vibrance:
Off
Brightness:
100%
Contrast:
100%
In
0.00
Out
0.00
Gamma:
1.00
Image sharpening
Color profile:
Standard mode
Add...
Save As...
Delete
Restore defaults
OK
Cancel
Apply


Screen Adjustment
Brightness
Contrast
Overdrive
Flicker
Screen positioning
Restore defaults
Presets
Custom (default)
Save As...
Delete
OK
Cancel
Apply

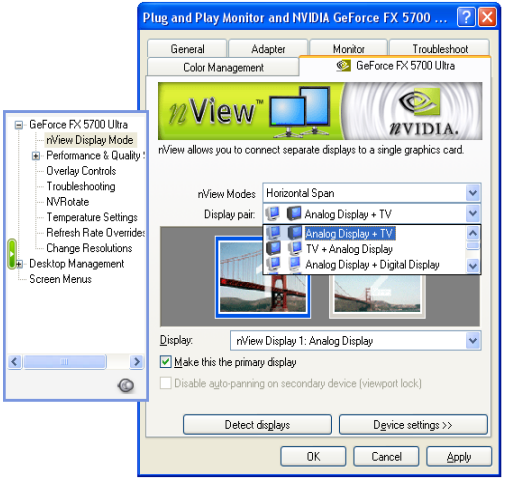

Timing modes
Select the proper timing mode for your display:
Auto-detect (Windows determines the proper mode.)
General Timing Formula (GTF)
Discrete Monitor Timings (DMT)
Coordinated Video Timings (CVT) Standard
Fixed aspect ratio timing
Enable doublescan for lower resolution modes
Restore defaults
OK
Cancel
Apply

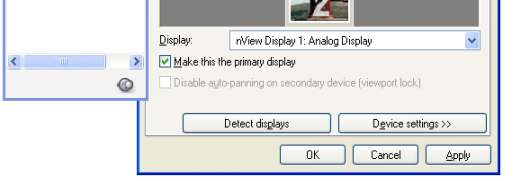


Horizontal span mode:

Picture spans horizontally on 2 monitors.

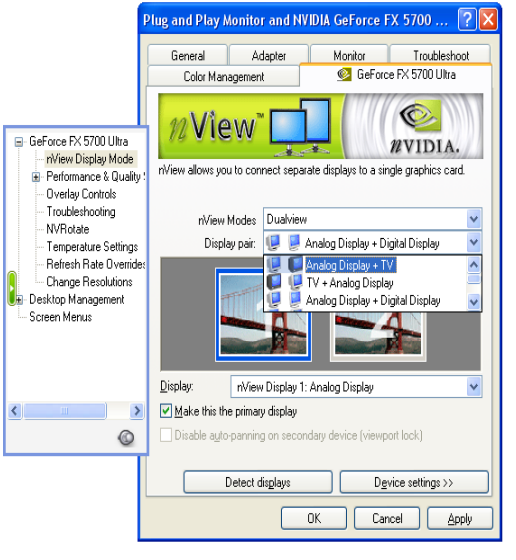
Select **Horizontal span**, Click **Apply** to activate.



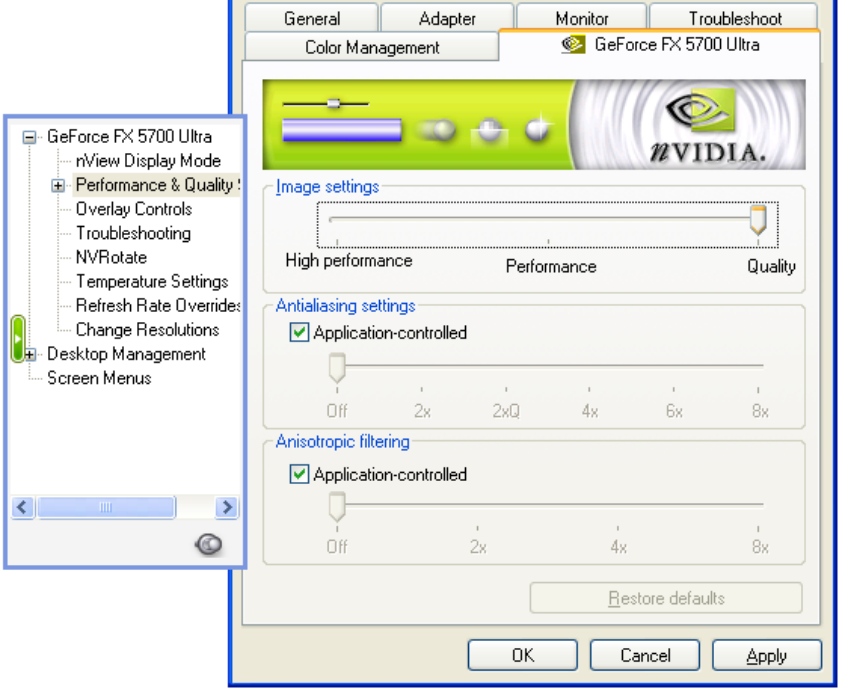


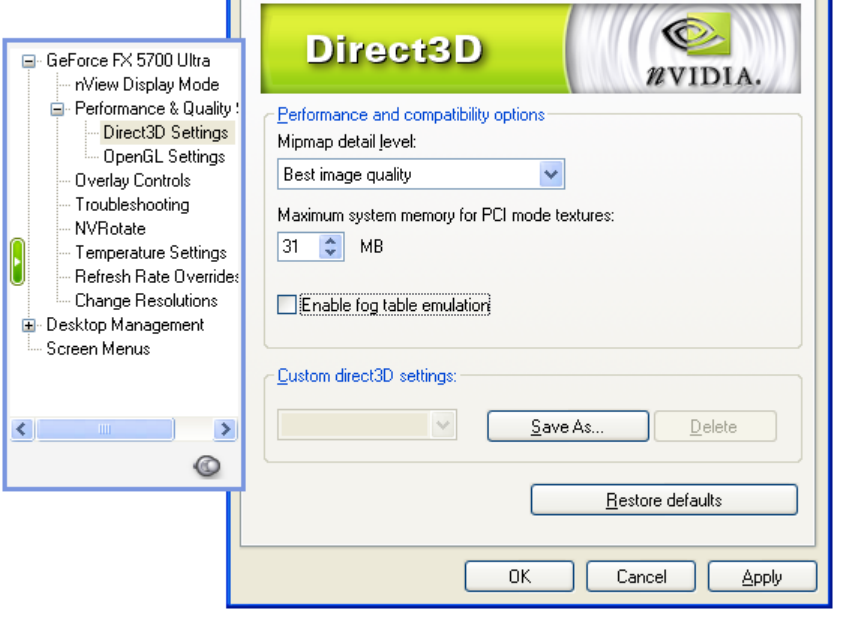
Dualview:

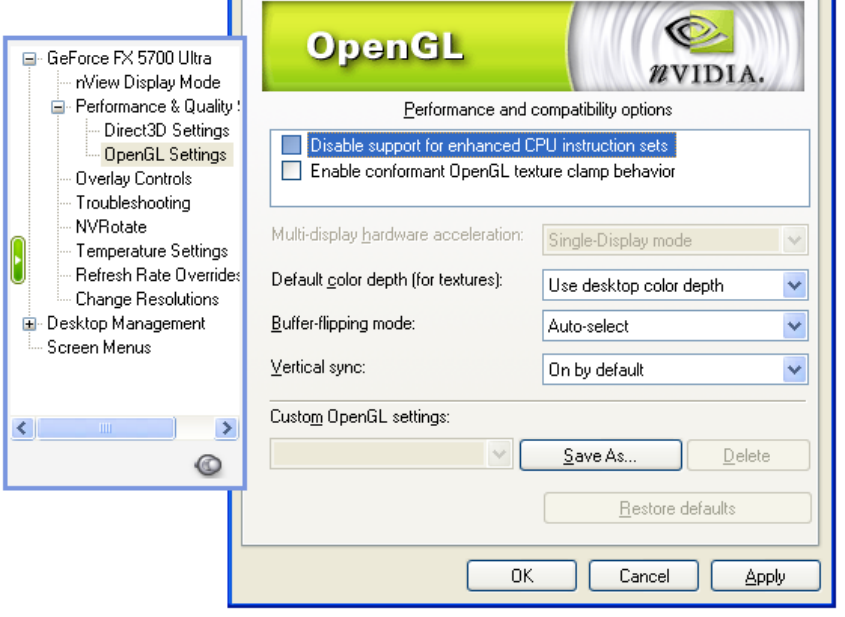
Picture spans horizontally on 2 monitors. Select **Dualview** and Click **Apply** to activate.

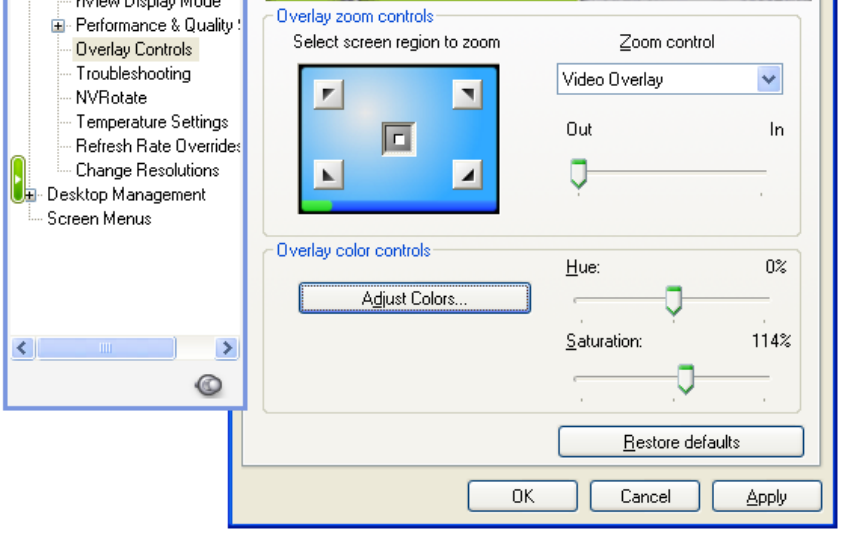


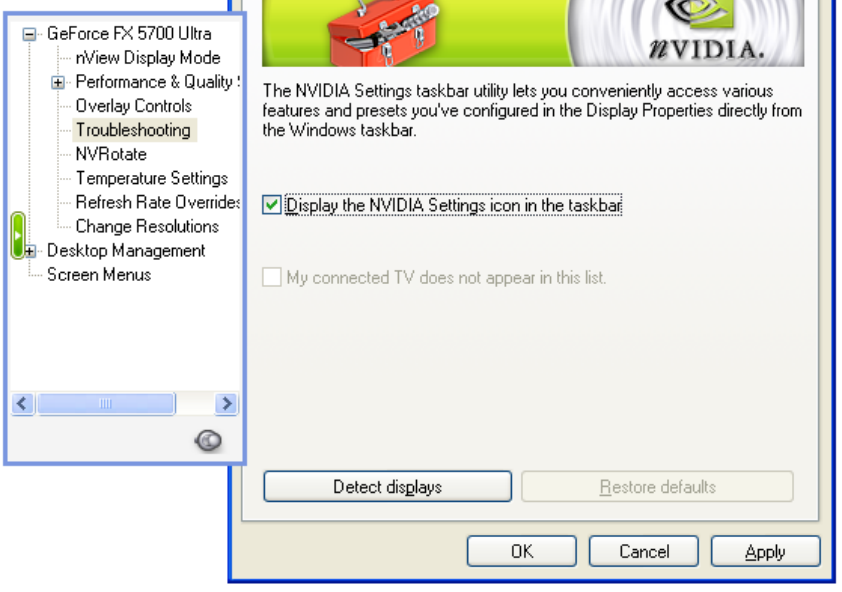
Monitor with blue frame is active. Right click on it and the configuration menu will appear.
Or you can click **Device Settings>>** to set all the functions to “Standard mode”.

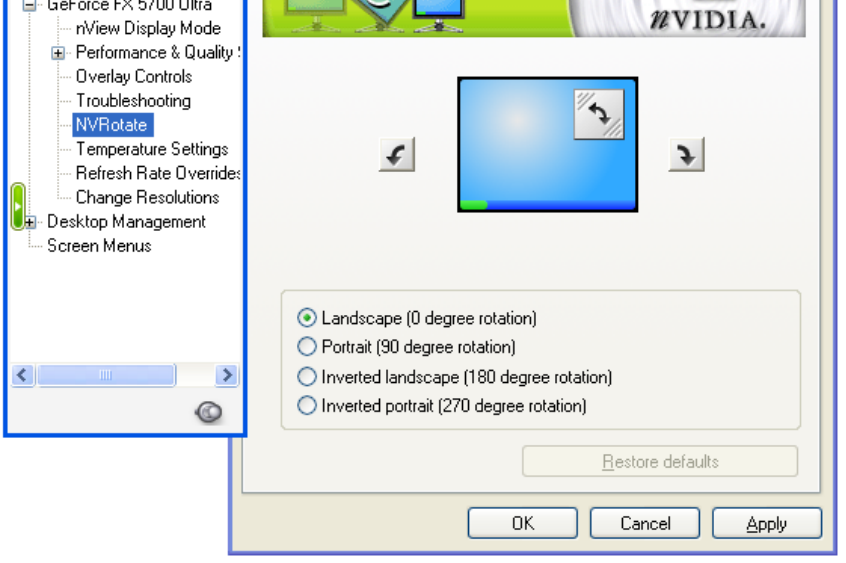

General
Adapter
Monitor
Troubleshoot
Color Management
GeForce FX 5700 Ultra
GeForce FX 5700 Ultra
nView Display Mode
Performance & Quality
Overlay Controls
Troubleshooting
NVRotate
Temperature Settings
Refresh Rate Overrides
Change Resolutions
Desktop Management
Screen Menus
NVIDIA.
Image settings
High performance
Performance
Quality
Antialiasing settings
Application-controlled
Off
2x
2xQ
4x
6x
8x
Anisotropic filtering
Application-controlled
Off
2x
4x
8x
Restore defaults
OK
Cancel
Apply

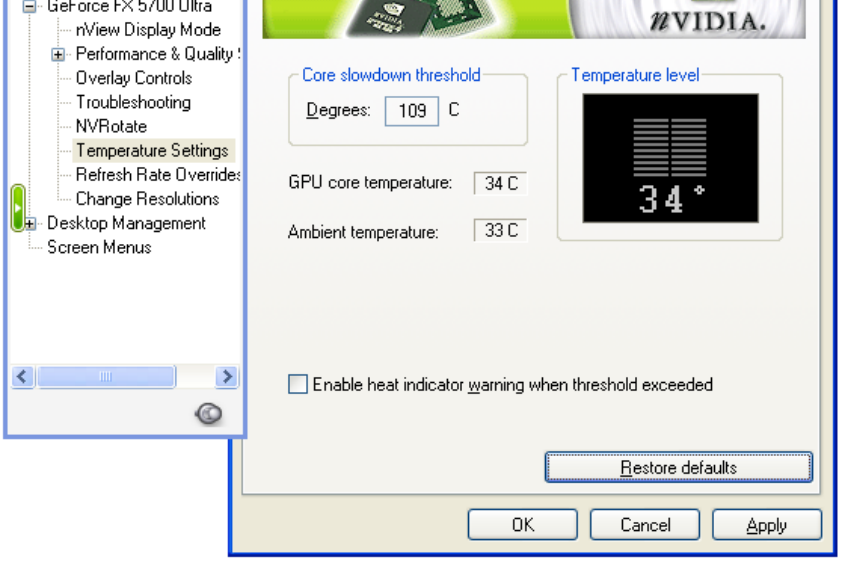

GeForce FX 5700 Ultra
nView Display Mode
Performance & Quality
Direct3D Settings
OpenGL Settings
Overlay Controls
Troubleshooting
NVRotate
Temperature Settings
Refresh Rate Overrides
Change Resolutions
Desktop Management
Screen Menus
Direct3D
NVIDIA.
Performance and compatibility options
Mipmap detail level:
Best image quality
Maximum system memory for PCI mode textures:
31
MB
Enable fog table emulation
Custom direct3D settings:
Save As...
Delete
Restore defaults
OK
Cancel
Apply

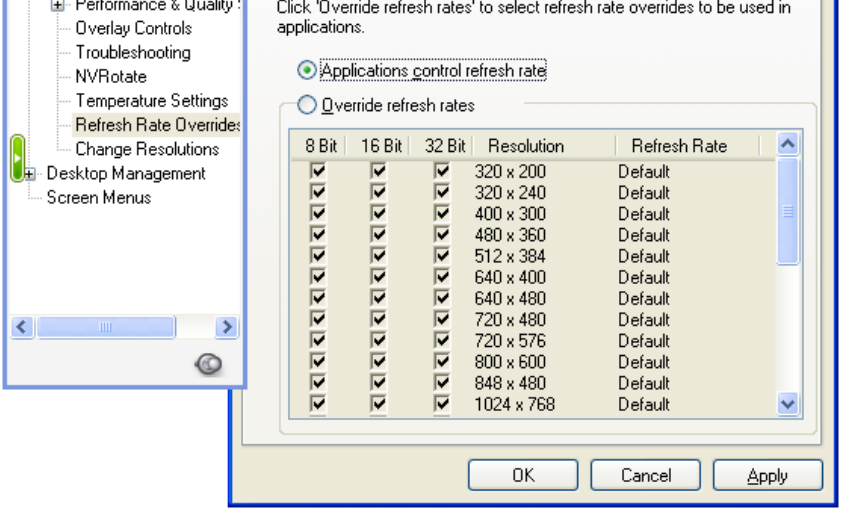

GeForce FX 5700 Ultra
nView Display Mode
Performance & Quality
Direct3D Settings
OpenGL Settings
Overlay Controls
Troubleshooting
NVRotate
Temperature Settings
Refresh Rate Overrides
Change Resolutions
Desktop Management
Screen Menus
OpenGL
NVIDIA.
Performance and compatibility options
Disable support for enhanced CPU instruction sets
Enable conformant OpenGL texture clamp behavior
Multi-display hardware acceleration:
Single-Display mode
Default color depth (for textures):
Use desktop color depth
Buffer-flipping mode:
Auto-select
Vertical sync:
On by default
Custom OpenGL settings:
Save As...
Delete
Restore defaults
OK
Cancel
Apply

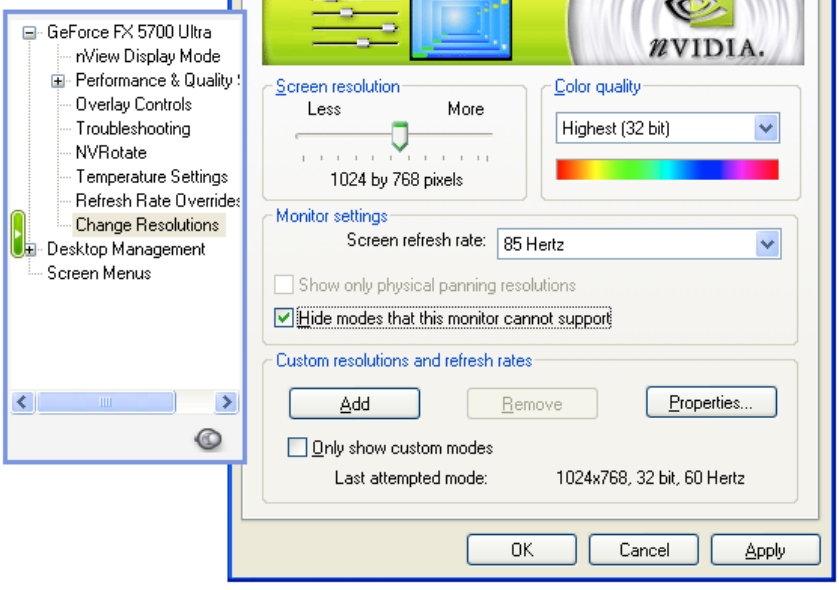

Performance & Quality
Overlay Controls
Troubleshooting
NVRotate
Temperature Settings
Refresh Rate Overrides
Change Resolutions
Desktop Management
Screen Menus
Overlay zoom controls
Select screen region to zoom
Zoom control
Video Overlay
Out
In
Overlay color controls
Adjust Colors...
Hue:
0%
Saturation:
114%
Restore defaults
OK
Cancel
Apply

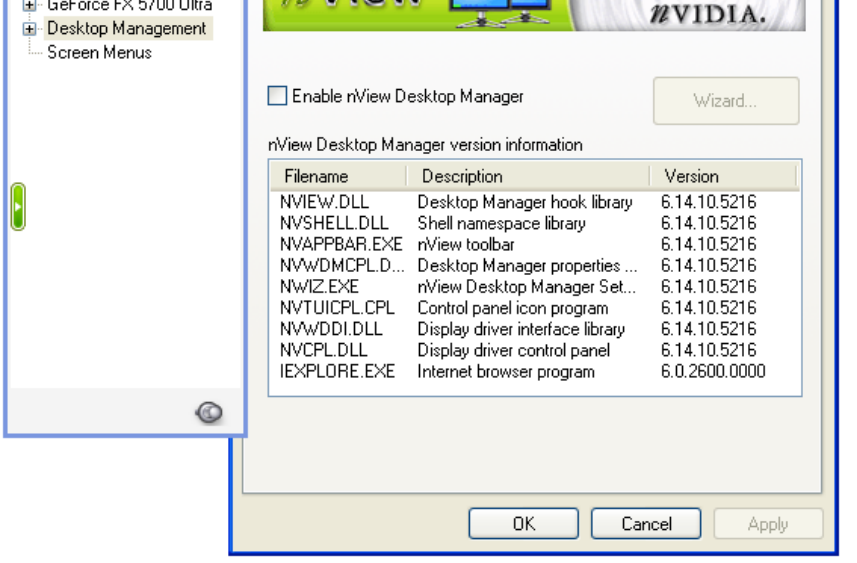

GeForce FX 5700 Ultra
nView Display Mode
Performance & Quality
Overlay Controls
Troubleshooting
NVRotate
Temperature Settings
Refresh Rate Overrides
Change Resolutions
Desktop Management
Screen Menus
NVIDIA.
The NVIDIA Settings taskbar utility lets you conveniently access various features and presets you've configured in the Display Properties directly from the Windows taskbar.
Display the NVIDIA Settings icon in the taskbar
My connected TV does not appear in this list.
Detect displays
Restore defaults
OK
Cancel
Apply

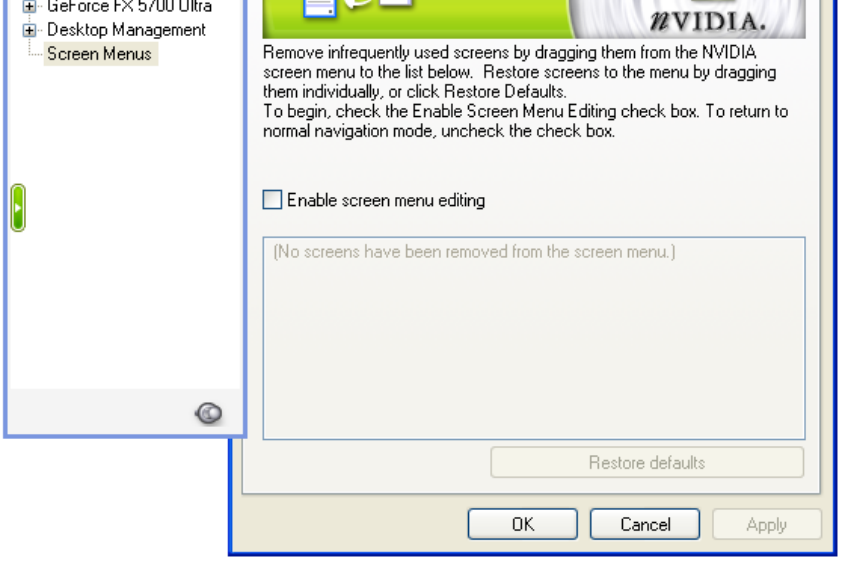

GeForce FX 5700 Ultra
nView Display Mode
Performance & Quality
Overlay Controls
Troubleshooting
NVRotate
Temperature Settings
Refresh Rate Overrides
Change Resolutions
Desktop Management
Screen Menus
NVIDIA.
Landscape (0 degree rotation)
Portrait (90 degree rotation)
Inverted landscape (180 degree rotation)
Inverted portrait (270 degree rotation)
Restore defaults
OK
Cancel
Apply


GeForce FX 5700 Ultra
nView Display Mode
Performance & Quality
Overlay Controls
Troubleshooting
NVRotate
Temperature Settings
Refresh Rate Overrides
Change Resolutions
Desktop Management
Screen Menus
NVIDIA.
Core slowdown threshold
Degrees: 109 C
Temperature level
34 °
GPU core temperature: 34 C
Ambient temperature: 33 C
Enable heat indicator warning when threshold exceeded
Restore defaults
OK
Cancel
Apply


Performance & Quality
Overlay Controls
Troubleshooting
NVRotate
Temperature Settings
Refresh Rate Overrides
Change Resolutions
Desktop Management
Screen Menus
Click 'Override refresh rates' to select refresh rate overrides to be used in applications.
Applications control refresh rate
Override refresh rates
8 Bit
16 Bit
32 Bit
Resolution
Refresh Rate
320 x 200 Default
320 x 240 Default
400 x 300 Default
480 x 360 Default
512 x 384 Default
640 x 400 Default
640 x 480 Default
720 x 480 Default
720 x 576 Default
800 x 600 Default
848 x 480 Default
1024 x 768 Default
OK
Cancel
Apply


GeForce FX 5700 Ultra
nView Display Mode
Performance & Quality
Overlay Controls
Troubleshooting
NVRotate
Temperature Settings
Refresh Rate Overrides
Change Resolutions
Desktop Management
Screen Menus
NVIDIA.
Screen resolution
Less
More
1024 by 768 pixels
Color quality
Highest (32 bit)
Monitor settings
Screen refresh rate:
85 Hertz
Show only physical panning resolutions
Hide modes that this monitor cannot support
Custom resolutions and refresh rates
Add
Remove
Properties...
Only show custom modes
Last attempted mode:
1024x768, 32 bit, 60 Hertz
OK
Cancel
Apply


GeForce FX 5700 Ultra
Desktop Management
Screen Menus
NVIDIA.
Enable nView Desktop Manager
Wizard...
nView Desktop Manager version information
Filename Description Version
NVIEW.DLL Desktop Manager hook library 6.14.10.5216
NVSHELL.DLL Shell namespace library 6.14.10.5216
NVAPPBAR.EXE nView toolbar 6.14.10.5216
NVWDMCPL.D... Desktop Manager properties ... 6.14.10.5216
NWIZ.EXE nView Desktop Manager Set... 6.14.10.5216
NVTUICPL.CPL Control panel icon program 6.14.10.5216
NVWDDI.DLL Display driver interface library 6.14.10.5216
NVCPL.DLL Display driver control panel 6.14.10.5216
IEXPLORE.EXE Internet browser program 6.0.2600.0000
OK
Cancel
Apply


GeForce FX 5700 Ultra
Desktop Management
Screen Menus
NVIDIA.
Remove infrequently used screens by dragging them from the NVIDIA screen menu to the list below. Restore screens to the menu by dragging them individually, or click Restore Defaults.
To begin, check the Enable Screen Menu Editing check box. To return to normal navigation mode, uncheck the check box.
Enable screen menu editing
(No screens have been removed from the screen menu.)
Restore defaults
OK
Cancel
Apply

4. Double-click on the **Display** icon in the Setting -> **Control Panel** folder. You can also click the right mouse button anywhere on the desktop and select the Properties option form the pop-out menu.
5. Click the **Settings** tab.
6. Next at, **[Unknown Device.] Properties** tab
   Select **Adapter**
7. From **Standard PCI Graphics…** tab
   Select **Change**
8. From **Update Device …** tab
   Select **Next**
9. From **Update Device …** tab
   Select **Search for a better…**
   Then select **Next.**
10. From **Update Device …** tab
    If the **Specify a location** is wrong
    Please select **Brows**
11. From **Browse for Folder** tab
    Select E:\NVIDIA\883X\Win9X_ME
    Note: **"E:"**-> CD Drive, **"NVIDIA"**-> VGA chip brand name, **"883X"**-> VGA model name
    Select **OK**
12. From the **Update Device Driver Wizard** tab
    Select **CD-ROM driver**
    Click the **Specify a locator,** if right
    Select **Next**
13. From **Update Device Driver Wizard** tab
    Select **Next**
14. From **Update Device Driver Wizard** tab
    Select **Finish**
15. From **System Settings Change** tab
    Select **OK**

folder and choose **Settings,** click the **Advance Settings** choose **Adapter**

3. Click on the **Refresh Rate** sub window to change refresh rate
4. Select **OK** and new refresh rate takes effect
5. Refresh Rate default is Optimal.
6. If you change Refresh Rate from Optimal to another, you may need to restart Windows System for functional.

Note: If your monitor is not Branded or Plug&Play, you will only see Adapter default and optimal. Please contact your monitor supplier to get right or compatible drivers for your monitor. Otherwise you can’t select the refresh rate you want.

7.2 The following steps describe how to update Windows2000 display drivers

Note: If you already have old NVIDIA drivers in your system, please remove before install new drivers.

To remove old Drivers: (only if you have old NVIDIA drivers)

From “Start”, “Setting”, select “Control Panel”, double click “Add or remove drivers”. Then from the list, select. Find “NVIDIA WINDOWS …”, and click “install or remove” to remove it. Reboot your system and go on to the next step.

1. Place the Disc (CD Title) into CDROM Drive. If the SmartInstall window now shows, please click **EXIT** button to quit
2. Right click mouse button on Desktop Area, a sub menu window will appear. Please select **Properties**.
3. From **Display Properties** window, please select **Settings**.
4. Select **Advanced**
5. Select **Adapter**.
6. Select **Change**
7. Now the update drivers wizard window will appear. Please follow the on screen instruction.
8. Please specify the drivers location at your CDROM letter: \NVIDIA\883X\win2K_XP
9. Select **Install** and click “**YES**” when the Installing Driver dialog box appears.

A message appears stating that drivers were successfully installed. Click **OK**. Another message will appear stating that the driver could not be restarted dynamically. Restart Windows2000 to run the new driver. Click **OK.**

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 to correct the interference by one or 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 form that to which the receiver in connected.
- Consult the dealer or an experienced radio/TV technician for help.

Notice:
(1) An Unshielded-type power cord is required in order to meet FCC emission limits and also to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord by used.
(2) Use only shielded cables to connect I/O devices to this equipment.3
(3) Changes or modifications not expressly approved by the party responsible for compliance could void the use's authority to operate the equipment.

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