Manual for

ELSA WinCtrl for Windows NT 3.51

Version 1.06

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1   Introduction

The ELSA WinCtrl utility enables you to configure the ELSA WINNER Windows NT graphics driver. By modifing buttons and entries all driver parameters can be changed. These changes are stored in the registry database.

2   Installation

The ELSA WinCtrl utility consists of the files WINCTRL.CPL, WINCTDEU.DLL and WINCTENG.DLL. These files are copied to your SYSTEM32 folder while installing the ELSA WINNER graphics driver. After that the utility can be started in the Control Panel by doubleclicking the icon "ELSA WinCtrl".

3   Using WinCtrl

3.1   Starting of WinCtrl

In the Control Panel of the "Main" program group you find an icon for "ELSA WinCtrl". Doubleclicking this icon will activate WinCtrl.

3.2   Quit WinCtrl

The buttons "OK" and "Cancel" will close the WinCtrl utility.

After "Cancel" all changes are dropped.

After "OK" all changes are written to the Windows NT registry database. Some settings will only be active after you have restartet your computer. A following dialog asks to restart directly or not. In the latter case the settings will not be active after you have rebooted.

3.3   Receiving the drivers version number

Above the exit-buttons the version number is displayed.

3.4   Options in WinCtrl

WinCtrl is devided into three areas:

-    GLoria Options, for the 3D-support of GLoria cards
-    Monitor timings, for individual monitor timings
-    Multi Screen Options, for the support of several ELSA graphics adapters

4   GLoria Options

The following descriptions are only meant for the ELSA GLoria 4/8 graphic adapters. They belong to the 3D extensions supported by the OpenGL graphics interface.

4.1   DMA buffers

This is used to determine the number of individual DMA buffers that can be in use at any one time. After the next restart this change will take effect.

Valid values: 0 to 8, the default is 4.

4.2   DMA buffer size

This is the total size of the DMA buffer which is devided up amongst the individual processes that use DMA. After the next restart this change will take effect.

Valid values: 0x100 to 0x10000 (hex), the default is 0x8000 (32 kB).

4.3   DMA subbuffers

Used to control the ICD drivers subdivision of the DMA buffer.

Valid values: 0 to 9, the default is 5.

4.4   Interface buffer size

This is used to control the size in longs of the shared memory block allocated to each individual rendering context. This buffer is used when DMA is disabled or the entire DMA buffer is in use. After the next restart this change will take effect.

Valid values: 0x100 to 0x10000 (hex), the default is 0x10000 (64kB).

4.5   OpenGL buffers

This value defines the number of buffers reserved for OpenGL. More than one buffer enables DoubleBuffering. The entry stands for the number of buffers.

- 1:   Only one display buffer is used; no DoubleBuffering.
- 2:   DoubleBuffering enabled (default).

4.6   Disable 3D-Extensions

This switch enables or disables the OpenGL support by the ICD driver.

[ ]:   OpenGL will be supported by the Gloria.
[X]:   Software-OpenGL (no GLINT) or OpenGL using 3D-DDI

4.7   Disable 3D-DDI

This switch enables or disables the drivers support for 3D-DDI. 3D-DDI will not be supported in further versions though Microsoft will stop all developements on 3D-DDI.

[ ]:   3D-DDI is enabled
[X]:   3D-DDI is disabled

4.8   GDI in single buffered modes

Lets OpenGL export the ability to let OpenGL and GDI draw in the front buffer simultaneously.

[ ]:   GDI commands cannot be drawn in OpenGL windows.
[X]:   OpenGL and GDI can simultaneously use the front buffer.

4.9   GDI in double buffered modes

Lets OpenGL export the ability to let OpenGL and GDI draw in the back buffer.

[ ]:   GDI commands cannot be drawn in OpenGL windows.
[X]:   OpenGL and GDI can simultaneously use the back buffer. Nevertheless, GDI will
              only draw in the front buffer.

4.10   Use alpha channels

Allows the hardware to use the softwares alpha channel. With programs which don't use the alpha channel this may cause an performance loss up to 25 %.

[ ]:   The driver doesn't export an alpha channel.
[X]:   The driver exports an alpha channel.

4.11   Use Fast Clear Pages

This value affects the usage of fast clear planes. When running multi-threaded applications it may be necessary to disable the use of the fast clear planes. After the next restart this change will take effect.

[ ]:   Fast clear planes disabled.
[X]:   Fast clear planes enabled

4.12   High Quality Textures

This flag allows you to set the accuracy and resolution in texure mapping.

[ ]:   Low quality textures
[X]:   High quality textures enabled

4.13   Cached DMA

This switch enables the driver to cache GLint data in the
processors cache. Though the GLint reads all data from the
main memory, differences between memory and cache may appear.
After the next restart this change will take effect.

- No: forces uncached DMA
- Yes: forces cached DMA
- Driver select: let the driver decide whether it uses cached or non cached DMA (default).

5 Monitor timings

For a better usage of the possibilities supported by your monitor, you can create timing files in whisch new resolutions and timings are defined. A file with timing entries has the extension ".TIM". It has to be placed in the SYSTEM32 folder of your Windows NT.

5.1 Monitor timings for: Monitor X

As you use more graphics adapters and monitors in your computer you may here decide for which monitor you wish to set a new timing.

5.2 Timings ...

This entry selects how the timing file shall be used.

- ignore: All entries in the timing file will be ignored.
- prefere: Resolutions listed in the timing file will be favored. If the driver supports the
                 same resolution as listed in the timing file, the timings of the file will be
                 prefered. Driver resolutions without correspondence in the
timing file are not   affected and displayed.
- exclusive: All standard resolutions of the driver are thrown away. Only the new timings
                 of the timing file are offered in the "Display"-Tool.

5.3 Selecting the timing file

A String which identifies your monitor is listed at the bottom of the box. Select one of the entries, e.g.:
     ELSA GDM-17E40T

6 Multi Screen Options

Some ELSA graphics adapters can be used in a multi screen mode. Two or more adapter cards and just as much monitors are driven from one computer. This will result in an enlarged desktop. A list with graphics adapters that support multi screen is found in the file README.TXT

6.1 Maximize on all screens

This switch adjusts how dialogs and windows are displayed on the N screens.

[ ]:   When maximizing a window it be displayed only on the left screen. Dialogues will
               appear on the left screen. Advantage: Dialogues and windows aren't split by
screen   borders. Disadvantage: Dialogues always appear left, even if the application
runs on   the right screen. Position settings of MDI-applications (e.g. Microstation)
will be lost   after a restart of the program.
[X]:   When maximizing a window it fills out all N screens. Advantage: Position settings of
               MDI-applications (e.g. Microstation) will be restored after a restart.
Disadvantage: Dialogues and windows may be displayed on screen borders.

6.2 Reverse screen order

This entry exchanges the order of the N screens.

[ ]:   The order of the adapters is 1, 2, ..., N
[X]:   The order of the adapters is N, ..., 2, 1

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