

NuGraf Rendering System Release Notes

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Welcome!

Thank you for purchasing NuGraf for Windows. This document contains important information that should be read before running the software. Please note that much of this document is replicated in the online Windows Help.

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Registration

Registering your copy of NuGraf brings you a number of benefits including free technical support, advance information on product updates and information on other products from Okino Computer Graphics. Please take the time to fill out the registration card enclosed in this package and return it to Okino Computer Graphics. Be sure to place one of the product serial numbers labels on the card before mailing it.

System Requirements

NuGraf will only run on an IBM PC machine running Microsoft Windows 3.1, Windows for WorkGroups, Windows 95 or Windows NT. **It is recommended that the program run at a video resolution of 800x600x256 or higher.**

The system requirements are as follows:

1. Microsoft Windows 3.1, Windows for WorkGroups, Windows 95 or Windows NT.
2. An i386 processor with an i387 math coprocessor or a i486.
3. A mouse.
4. This program can function with 8Mb and Windows 95, but 16Mb would be the absolute minimum for adequate performance and 32Mb would make the program run with little performance degradation during rendering.
5. A super VGA video card that can display 640x480 with a minimum of 256 colors. Video cards capable of showing more colors (such as 32000 or 24-bit true color cards) are preferred. The program works best at a resolution of 800x600 or higher.
6. A video display driver for the super VGA video card above.
7. A 3.25" floppy diskette drive or CDROM.
8. A permanent swap file.

Setting Up a Swap File

Experience has shown that this program works best if 32Mb or more of virtual memory is available to it during the rendering process. Even though the renderer only uses 2 to 10Mb on average for typical 3d scenes, more memory is required to hold the Windows operating system, the disk cache, disk buffers and other ancillary data files.

If you have 16Mb of real memory then it is recommended that you increase the size of your swap file to at least 32Mb-48Mb in size. If you have 32Mb or more of real memory then a proportionally smaller swap file is acceptable.

Under Windows NT a swap file can be created by running the '**System**' program located in the '**Control Panel**' icon. Click on the Virtual Memory button then install a 16-32Mb swap file, if one is not already installed.

Under Windows 95 a swap file is automatically enabled by default. To increase the size of the current swap file follow these steps:

- Click on the "My Computer" icon.
- Click on the "Control Panel" icon.
- Click on the "System" icon.
- Select the "Performance" tab.
- Click on the "Virtual Memory" button.
- Click on the "Let me specify my own virtual memory settings..."
- Modify the virtual memory settings as you see fit.

Under Windows 3.1 or Windows for Workgroups, a swap file can be created by following these steps:

- Click on the "Control Panel" icon.
- Click on the "386 Enhanced" icon (if this icon is not present then your version of Microsoft Windows is not running in enhanced mode).
- Click on the "Virtual Memory" button.
- If virtual memory is currently not enabled then press the "Change >>" button and choose an appropriate size for the new swap file. A 16-32Mb swap file should suffice. To increase swap file efficiency select a permanent swap file; however, you might not be able to do so if your hard disk is badly fragmented - try running a disk defragmentor program first. See the Microsoft Windows User's Guide, Chapter 14 for more information on swap files.
- Press the "OK" button once you are done.
- If you have trouble enabling the swap file then make sure the command ``device=*pageswap'` is uncommented in the section [386Enh] of the system.ini file located in the windows main directory.

Upgrading Windows NT 3.51

The NuGraf Rendering System is designed to work under Windows NT version 3.51, not version 3.5. In addition, it is highly recommended that you upgrade your Windows NT operating system to Service Pack # 4 which is available by contacting Microsoft or by downloading a copy from the Microsoft Internet Web page at <http://www.microsoft.com/support>.

Learning How to Use NuGraf

The best way to learn **NuGraf** is to follow these simple steps:

- Read all of the "**Tips-of-the-Day**" messages that appear in the dialog box when the program first appears.
- Select the "**Online Tutorials**" from the **Help** menu item and follow the numbered tutorials.
- Try the "**3D Text Scene Creator**" located under the File menu.
- Load in and render some of the prebuilt 3d scenes using the **File/Load** menu item.
- Select the "**Show Demo Dialog Box**" from the **Help** menu. This dialog box provides easy access to the main dialog boxes within NuGraf. Use it to explore the various features and capabilities of NuGraf.

Additional Configuration Information

'Setup.win' Configuration File

NuGraf can be customized by changing the startup parameter values listed in the '**setup.win**' file located in the '**runtime**' sub-directory. The file can be edited with the Windows '**Notepad**' program or any other word processor in text mode. This file is read in whenever the program is started or reset.

Configuring for Import of 3D Studio(R) Files

If you have AutoDesk 3D Studio installed on your hard disk then you should edit the '**setup.win**' file and modify the '**NG_SEARCHPATH_3DSTUDIO_MAPS**' environment variable to point to the directory where the 3D Studio texture images are located; this variable is currently set to '**c:\3ds4\maps**'. By doing so the renderer will be able to locate the texture images referenced by imported 3D Studio files.

Adding Open GL Support to Windows 95

NuGraf requires that the Open GL realtime renderer be installed in Windows 95. The **InstallShield** installation program should automatically detect and install Open GL for Windows 95. However, if InstallShield could not successfully install the necessary files then NuGraf will complain that it cannot find **opengl32.dll** and/or **glu32.dll** when it executes; in this case copy the two DLL files located in the **win95** subdirectory (distributed with NuGraf) to your local **win95\system** directory.

3D Controls DLL

If NuGraf reports that the file "**CTL3D32.DLL**" is missing then please copy the file "**ctl3d32.dll**" from the "**system**" sub-directory (distributed with this software) to **\winnt\system32** if running Windows NT. This file should be automatically installed by the InstallShield program and is not required if running Windows 95.

Unexpected User Interface Crashes or Anomalies

A minor few instances have been reported of the NuGraf software crashing randomly or acting in strange manners while operating under Windows 95 and to a lesser extent under Windows NT. We would like to ensure our users that this is not caused by the NuGraf software itself but in all

cases has been due to faulty or buggy video card drivers. NuGraf has been in heavy production use on Windows NT and Windows 95 since mid-1994 and is known to be very stable. Hence, any crashes or anomalies that occur within the program are probably due to external problems. Please contact our technical support department if you encounter such problems and we will try to suggest a remedy.

Here are known problems with related fixes:

Problem # 1: NuGraf crashes in Tutorial # 1 when the chair is being viewed in shaded (OpenGL) viewing mode. System was a Intel Pentium running Windows NT 3.51 (no service packs installed). Video card was a Matrox MGA Millenium with video drivers that came packaged with the card.

Fix: Upgraded to Windows NT 3.51 service pack # 4 and upgraded Matrox video drivers to current release (available from Matrox WEB site at www.matrox.com).

Problems with Open GL Under Windows 95

When running under Windows 95 the NuGraf software uses the pre-release, beta version of Microsoft Open GL. This software has not been officially released by Microsoft at the time of this writing due to multiple bugs in the Open GL code. As such, we cannot guarantee the stability of the NuGraf software when the "shaded" viewing mode is enabled (which uses the Open GL real-time rendering capabilities). In addition, the Windows 95 video drivers shipped with 3d hardware accelerated video cards (such as the Matrox Millenium) are still somewhat buggy, hence the "shaded" mode within the NuGraf software may not be stable on some machines.

Nonetheless, we do guarantee that the "shaded" mode works without problem under Windows NT.

Known Problems and Work-Arounds

The following are the currently know problems with the software:

- When running in 256 color mode, the billboards shown during the installation process have incorrect colors on some older 8-bit video cards. This is a bug with the InstallShield program.
- Under Windows 95 the real-time shaded sphere shown on the "Light Librarian" dialog box has been disabled due to bugs in the pre-release version of the Open GL DLLs for Windows 95. This feature has not been disabled under Windows NT.

Contacting Technical Support

Registered users receive complimentary technical support. A technical support representative will be available to answer your queries between 9am and 5pm (Pacific) or Noon and 8pm (Eastern), Monday through Friday.

You can receive technical support for this software program in a variety of ways, either by contacting Okino Computer Graphics directly by telephone/FAX or electronically by Internet.

Please refer to the "Technical Support" section of the online Windows Help for information about how to receive technical support.

If you leave a message, send a fax, or send e-mail, a technical support representative will respond to your inquiry within two business days (Monday through Friday).

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