

Nitemare-3D for Windows

Installation and Technical Notes

There are three components to this installation:

1. Nitemare-3D
2. WinG
3. Joystick Driver

You do not need to install WinG or the Joystick driver if you already have them on your system. Nitemare-3D requires WinG but does not require a joystick driver. You can install the joystick driver at a later time if you wish. This installation program will safely version-check any drivers it installs so select all three components if you are unsure. It will also create an UNINSTALL icon for easy de-installation.

Note: When un-installing, we recommend you **ONLY** select the automatic mode. This is because the custom mode allows you to select windows system files which may be in use by other programs.

WinG

WinG is a set of drivers released by Microsoft to enable high performance games such as Nitemare-3D to run under Windows. The first time you run Nitemare-3D under any particular Windows display mode, the WinG driver will perform a short display test to optimize itself for your computer. If you select this component, the following files are copied to your WINDOWS\SYSTEM directory:

WING.DLL
WINGDE.DLL
WINGDIB.DRV
WINGPAL.WND
DVA.386

NOTE: If you install WinG, the following line is added to the [386Enh] section of the SYSTEM.INI file (if it is not there already), and you must restart Windows before running Nitemare-3D for the first time:

```
device=dva.386
```

Joystick Driver

This consists of a joystick driver released by Microsoft to support joysticks under Windows. If you select this component, the following files are copied to your WINDOWS\SYSTEM directory:

ibmjoy.driv (joystick driver)
joystick.cpl (callibration applet for control panel)

Select this component if you don't already have joystick support under Windows. Nitemare-3D

will inform you if joystick support is not present if you attempt to enable the joystick within the game. At this point you can re-run the installation to install the joystick component.

After joystick installation, you must follow the steps below to make Windows aware of the new joystick driver:

If you have not used the Windows Control Panel application before, you can read about what this does in the Windows user guide, chapter 5, in the section entitled "Installing a Driver Not Supplied with Windows". Follow these steps to add the joystick driver:

1. In the Control Panel window, choose the Drivers icon.
2. Choose the Add button.
3. In the List of Drivers box, select "Add Unlisted Or Updated Driver" and choose the OK button.
4. Type the drive and directory where you installed Nitemare-3D, the default is "C:\N3W". Then choose the OK button. At this point the List of Drivers box should read "Driver for Joystick". Choose the OK button.
5. Unless the driver is already installed on your system, you will be asked to specify the type of joystick you have connected. The default is one or two 2-Dimensional joysticks. Choose the OK button.
6. Restart Windows for the joystick driver to take effect. You can now enable or disable joystick support within the game, as you please.
7. To calibrate your joystick under Windows (which should only be necessary once), run the new calibration applet from the Windows Control Panel and follow the instructions. Your calibration is now available for Nitemare-3D and any new Windows game you install that supports use of the Microsoft joystick driver.

Nitemare-3D Technical Notes

This section contains notes in the form of frequently asked questions on running Nitemare-3D for Windows.

1. What computer does Nitemare-3D require?

Nitemare-3D for Windows requires a 386 cpu or higher, at least 4Mb of memory, Windows 3.1 or higher, and a VGA display or better. A sound card is recommended. Mouse and joystick input are supported.

The faster your computer and the faster your video card, the smoother the game will appear or, alternatively, the bigger the window you can have without the game slowing down. See the discussion below on the special fullscreen mode.

2. Is my sound card supported?

If Windows supports it, then yes. Nitemare-3D uses the standard multimedia programming interface which is not specific to any type or make of sound card. If your card is supported under Windows and installed correctly then in theory you should have no problems with it. Any problems you do have should be a result of incorrect installation or problems with the sound card manufacturer's drivers. The MCISEQ sequencer device is used for General MIDI music, the waveaudio device is used for sound effects.

Please note some sound cards do not support volume control from within the game. Older 8-bit cards often do not have the necessary hardware and some newer cards require you to use a Mixer application that the card manufacturers provide with the card.

3. What is fullscreen mode?

Fullscreen mode is a special display mode which takes over the entire screen and disables the Windows display driver. You toggle between this mode and regular Windows mode in the game by typing ALT-Enter. This mode looks like you are running in a full screen DOS window but in fact the game is still running as a native Windows application.

This mode is provided for two reasons. Firstly for speed. When Windows is in a high resolution mode, say 1024x768, the game will run slower due to the much higher number of pixels on the screen. The game has over ten times the number of pixels to write on every frame. Instead of reducing the window size you can switch to fullscreen mode to regain the speed. Lack of speed will manifest itself by the game becoming jerky or control becoming too coarse, making it hard to aim. This can be compensated to some extent by using the Left-Shift key for finer control.

The second reason is because the game is optimized for 256 color mode. Obviously if you are running Windows in 16 color mode the game cannot display correctly. Instead of restarting Windows in 256-color mode, simply press ALT-Enter in the game to switch to fullscreen mode which automatically switches the display into the optimal 256-color mode. Note that if you are running Windows in higher than 256-color mode you may still wish to use the fullscreen mode since this will almost certainly run faster. In 24-bit color mode (16M) there are three times as many bytes to process for each pixel as in 256-color mode so the game will run slower unless you select the fullscreen mode.

4. Why do I get a warning message when I enable the joystick?

To enable joystick support in the game, select CONFIGURE GAME/HARDWARE from the main menu. Select the joystick option. If you get an error message at this point, such as "Joystick not present" then you need to install joystick support on your computer. Re-run the game installation program and make sure you install the joystick component. This copies the joystick files onto your system. After you have done this you need to make Windows aware of the new joystick driver. Follow the instructions given above in the section "Joystick Driver".

5. How do I get to the secret level 5?

There is a secret level 5 in episode one, accessed from level 4 which would otherwise bypass it straight to level 6. Here is a hint to find the secret level entrance:

Having completed the rest of level 4, find the pile of boxes at 8,24. [Use the position readout on the status display]. Go into the small room nearby which contains two adjacent dumb waiters. Enter either dumb waiter and notice how you fall out of the other one without getting anywhere. The secret is to obstruct one of the dumb waiters (either will do) which will prevent you from inadvertently emerging from the other in the same room. Then you will be able to proceed to a

secret ante-chamber which leads to a second transportation booth which leads to the secret level 5.

6. What was the red display box for, the first time I ran Nitemare-3D?

The first time you run a WinG application such as Nitemare-3D in a particular Windows display mode, the WinG driver will perform a short test to optimize its internal display algorithms to your display card and driver combination. This is nothing to do with Nitemare-3D but is a built-in function of Microsoft's WinG product. You will only ever see this display again if you change your Windows display mode, e.g. by changing the number of colors or the screen resolution.

7. Are there any known problems with WinG?

Unfortunately, yes. The following list of known compatibility problems is taken from the Microsoft WinG documentation. If you suspect that your graphics card driver may be at fault, try replacing the driver with the plain VGA driver using Windows Setup (in the Main program group). If the problem goes away then this indicates the driver is at fault and there may be a more current driver available from the manufacturer of your graphics card. If you think you need a new driver, you must request one either from them or the place you acquired your computer. Sometimes new drivers are also available for download on large BBSs, like CompuServe.

Some names in this list are trademarks of the respective manufacturer.

- Early drivers for Diamond Viper cards included a "Power Palette" option that is no longer supported by Diamond. They recommend that you upgrade your drivers if you have this option. WinG may be slower when power palette is enabled.
- IBM no longer supports the IBM ThinkPad 720c. There are some problems using WinG with the ThinkPad 720c display drivers.
- Cirrus drivers before version 1.43 have many known bugs which have been fixed in the more recent drivers. Be sure to upgrade your drivers if you are still running with this version.
- Some ATI drivers offer a "Crystal Fonts" option. Turning Crystal Fonts on in 8-bit modes sets up a non-palettized driver that can slow WinG significantly.
- The ATI mach8 Radical drivers cause a number of problems in both WinG and in Windows with some versions of the ATI chipset. Be aware.
- The ATI VGA Wonder drivers (W31-*.drv) will crash during a call to StretchDIBits in the profiler. Users can run the SVGA256.DRV driver that shipped with Windows.
- Many miro Crystal drivers have problems with StretchDIBits, so they crash during profiling.
- Early ATI Mach 32 PCI cards have a hardware timing problem and will hang while blitting. ATI will replace these cards for no cost.
- WinG is incompatible with the #9GXE "TurboCopy" mode. Use the #9 control panel to disable TurboCopy (it is off by default).

- WinG uses a GetPixel to synchronize with display hardware when writing directly to the screen. The ATI Mach 32 driver's GetPixel does not work properly, so it is possible to use GDI to draw to the screen, then use WinG to blt to the screen and have them overwrite each other. Be careful mixing GDI drawing commands and WinG blts to the display.
- The Orchid mmtllo.drv driver for the Prodesigner IIs has duplicate system colors which prevents applications from getting an identity palette and greatly reduces the WinG blt speed. A workaround is to set SYSPAL_NOSTATIC mode or use standard the Tseng ET4000 drivers instead of the mmtllo drivers.