

# DirectX Diagnostic Tool

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# About the DirectX Diagnostic Tool

The DirectX® Diagnostic Tool gives information about the Microsoft® DirectX application programming interface components and drivers on your system and lets you test sound and graphics output. It also allows you to disable some hardware acceleration features.

You can use the tool to gather information for a technician during a support call, or you can save the information gathered by the tool and paste it into an e-mail message.

Information is presented on a series of pages. You can move from page to page by any of the following methods:

- Click on the tabs.
- Click the **Next Page** button.
- Press the left or right arrow key when the input focus is on a tab.

**Note** Some information, such as the amount of memory on a display card, may be approximate.

# What to Look For

If you are experiencing problems when running DirectX applications, DirectX Diagnostic Tool can help you find the source of the trouble. Here are some of the things you should be looking for:

- *Incorrect versions of DirectX components.* In the **Notes** section of the **DirectX Files** page, look for warnings about beta and debug files. Beta files are early test versions and should not be installed with commercial applications. Debug versions, which are used in program development and likewise should not be installed with the final product, can cause applications to run significantly more slowly than they do under the retail versions of the components.
- *Uncertified drivers.* In the file list on the **DirectX Drivers** page, look for drivers that are marked as uncertified. Other problems might be shown in the **Notes** section of the **Display**, **Sound**, and **Input** pages. Uncertified drivers have not been tested by Microsoft for full compatibility with the latest version of DirectX.
- *Lack of hardware acceleration.* Some programs will run very slowly or not at all unless DirectDraw® or Direct3D® hardware acceleration is available. On the **Display** page, look under **DirectX Features** to see whether DirectDraw or Direct3D is marked "No acceleration available." If so, you might consider upgrading your hardware.
- *Device not connected.* If a joystick or other input device fails to respond, it may not be properly set up. Make sure the device is accounted for on the **Input** page of the DirectX Diagnostic Tool. If not, add the device through Control Panel.

# Testing DirectX Components

You can test DirectDraw and Direct3D on each monitor attached to your system, DirectSound® on each wave output device, and DirectMusic™ on each music port.

Click the **Test** button, read any messages that appear, and watch or listen to the tests. Let each test run until you see a message asking if the test was successful. If you respond **No**, no more tests are run.

In the case of DirectMusic, there is a single test. Simply click **OK** when you are satisfied that the music is or is not playing correctly.

Results of tests are not included when you save information.

# Overriding Default Behavior

On the **Display** page for each display device installed on your system, you can disable hardware acceleration for DirectDraw or Direct3D (if such acceleration is available) by clicking the **Disable** button. Once you have disabled acceleration, it remains disabled even after you close the DirectX Diagnostic Tool, and acceleration will not be available to any applications. To re-enable it, click the **Enable** button.

**Note** Disabling DirectDraw acceleration also disables acceleration for Direct3D.

You can also override the monitor refresh rate set by DirectDraw full-screen applications. You should do this only if you are experiencing display problems with certain applications and have good reason to believe that the application is setting an invalid refresh rate.

▶ **To set an override refresh rate:**

1. On the **More Help** page, click the **Override** button.
2. In the **Override DirectDraw Refresh Behavior** dialog box, select the edit box and type in a valid refresh rate for your monitor. The **Override Value** option button is automatically selected when you do this.
3. Click **OK**.

▶ **To cancel the override refresh rate and allow DirectDraw applications to set their own refresh rate:**

1. On the **More Help** page, click the **Override** button.
2. In the **Override DirectDraw Refresh Behavior** dialog box, select the **Default** option button.
3. Click **OK**.

# Restoring Drivers

On some configurations, DirectX® Diagnostic Tool allows you to restore older audio and video drivers. This may be the best way of solving problems with incompatible drivers.

If a **Restore** button appears on the **More Help** page, you can click this button to run the DirectX Setup program.

DirectX Setup has two buttons labeled **Restore Audio Drivers** and **Restore Display Drivers**. Clicking either of these buttons will restore drivers that were replaced when DirectX was installed on your system. If a button is disabled, you do not have older drivers to switch back to. In that case, you should contact the hardware manufacturer for the newest drivers.

DirectX Setup also provides a checkbox to disable D3D hardware acceleration, which is something you can already do from within DxDiag. (See [Overriding Default Behavior](#).)

# Saving Information

There are two ways to save information gathered by DirectX Diagnostic Tool:

- Click on the **Save All Information** button. Information from all the pages is saved in a file under a name and in a location you choose.

Or, if you are a software developer with the developer release of this tool:

- On the **More Help** page, click on **Report**. A **Bug Report Information** dialog box appears. When you have entered all the necessary data, click **Send**. A text file called Dxinfo.txt is created in your temporary directory (for example, C:\Windows\Temp) and appears in a Notepad window. This file contains the same information as that gathered by the previous method, but also includes the personal and other information you have entered.

# Reporting Problems

If you are experiencing a problem that you believe is related to a DirectX component or driver, you can contact Microsoft Technical Support (see Microsoft® Windows® Help under Troubleshooting). If you are a software developer and have the developer release of the diagnostic tool, you can report the problem by e-mail.

**Note** These instructions apply only to the developer release of this tool. This option is not available for all users.

## ▶ **To report the problem by e-mail:**

1. Click **Report** on the **More Help** page.
2. Fill in all relevant sections of the **Bug Report Information** dialog box, then click **Send**.
3. A message appears, giving the full path of the text file that has been created and the e-mail address. Make a note of the e-mail address. Click **OK**. A Notepad window appears with the contents of Dxinfo.txt.
4. From the **Edit** menu in Notepad, choose **Select All** and then **Copy** in order to place the entire contents of the file on the clipboard.
5. Create a new message in your e-mail program and paste the contents of the clipboard into the message body. Send the message to the address you noted in step 3.



