

Contents of Video for Windows Performance Test Help

[Video for Windows](#) Performance Test (VidTest) is an application that helps you determine how well your personal computer system can play digital video clips created with Microsoft Video for Windows. VidTest examines the overall ability of your personal computer to play digital video, and the capabilities of the hardware subsystems that support video playback. VidTest can examine the following portions of your computer system:

- * [Audio](#)
- * [Display](#)
- * [Data Streaming](#)

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Starting VidTest

To start VidTest

- ▶ In the Main Program Manager group, choose the VidTest icon.

See Also

[Starting the Performance Tests](#)

Starting the Performance Tests

The large area in the center of the main VidTest window shows a picture of a PC and a pair of speakers. VidTest will use this area to show you which test is in progress. VidTest provides textual descriptions or instructions in the area beneath the picture.

To run the tests

- Choose Begin Testing to check the overall performance of your system by running the complete set of tests: video playback, display, audio and data streaming.
- Choose the Advanced button to test a specific portion (video playback, display, audio, or data streaming) of your computer system.

See Also

[Running the Complete Set of Tests](#)

[Running Component Tests \(Advanced\)](#)

Running the Complete Set of Tests

Running the complete set of tests checks the overall ability of your computer to play digital-video clips. Each time you run the complete set of tests, VidTest measures video-playback performance for one mass-storage device:

- CD-ROM drive
- Hard disk drive
- Another drive (such as a network drive) connected to your system

You can select the storage device to use in the tests. You can also select a video-playback test file from several video formats and compression methods, or choose your own file to use in the tests.

Note: This version of VidTest does not measure system resources used to decompress video frames in its tests. If VidTest reports satisfactory results for all components and yet drops frames or skips sound portions, the additional burden of decompressing video frames might be the cause of these dropped frames or skipped sound portions.

To run the complete set of tests

1 In the main VidTest window, choose Begin Testing. The Begin Testing dialog box appears.

2 Select the [drive you want to test](#).

You should test all drives that you plan to use when playing Video for Windows sequences.

When you launch VidTest, the CD-ROM drive containing the Multimedia Pack CD-ROM acts as the default drive to test. If the Multimedia Pack CD-ROM isn't detected, the hard disk drive C becomes the default drive to test.

3 Select the type of test [AVI file](#) you want to use in the tests.

The Multimedia Pack CD-ROM includes default files for the first four types listed. The default test type is 8-bit Microsoft Video 1.

- [Microsoft RLE](#)
- 8-bit [Microsoft Video 1](#)
- 16-bit Microsoft Video 1
- [Intel Indeo](#)
- [Custom](#)

4 Choose OK.

VidTest copies the selected test file to the drive you want to test if it isn't already on that device. (The selected test file is used for the video playback and the data streaming tests.)

Then, VidTest performs the set of component tests in the following order: video playback, display, audio, and data streaming.

See Also

[Running Component Tests \(Advanced\)](#)

Running Component Tests (Advanced)

The component tests included in VidTest can be run as a set by choosing the Begin Testing button. You can also test components individually by choosing the Advanced button from the main window and then choosing the individual test(s) you want to run. From the Advanced window, you can run the following component tests:

- Video Playback
- Display
- Audio
- Streaming

Running a component test provides two advantages:

- You can test the portion of the system in question; you needn't run the entire set of tests.
- For the Video Playback, Audio, and Streaming tests, you can select specific files to use in the tests.

VidTest displays the test results when a component test is complete.

Note Running one or more component tests individually should be reserved for advanced users and video authors who need to measure system components for production purposes. If your need is to test the Video for Windows performance, run the entire set of tests by choosing the Begin Testing button.

To run a single component test

- 1 In the main VidTest window, choose Advanced. The Advanced window appears.
- 2 Choose the test you want to run.
A dialog box appears that allows you to specify the test file and/or test variables.
- 3 If you want to use another file in the test or change one or more test variables, select the new value(s) you want to use.
- 4 Choose OK.

See Also

[Running the Complete Set of Tests](#)

[Selecting Video Playback Test Options](#)

[Selecting Display Test Options](#)

[Selecting Audio Test Options](#)

[Selecting Data Streaming Test Options](#)

Interpreting Overall VidTest Test Results

When you run the complete set of tests, VidTest performs four tests - video playback, audio, display, and data streaming - and reports the results of those tests to you. The video playback test is performed first, and you can choose whether to run the other tests.

The graphs resulting from the audio, display, and data streaming tests, which are color-coded to show different performance levels, let you quickly understand the motion video performance capabilities of your system. When the tests are complete, VidTest provides a pointer and a number to indicate the performance level of your computer:

- Good
- Satisfactory
- Unsatisfactory

If VidTest indicates satisfactory or unsatisfactory performance for one or more testing areas, be sure to read the additional information provided for suggestions about how to improve overall performance. You can display the additional detail for each component test by choosing the buttons beneath the graphs.

Note This version of VidTest does not measure system resources used to decompress video frames in its tests. Therefore, your system's performance may vary from the results predicted by VidTest test results.

To see individual component performance test results

- Choose Audio Info to display more information about the audio test results.
- Choose Display Info to display more information about the display test results.
- Choose Streaming Info to display more information about the streaming (data transfer) test results.

See Also

[Configuring Video for Windows](#)

[Running the Complete Set of Tests](#)

[Interpreting Component Test Results](#)

Interpreting Video Playback Test Results

The Video Playback test is the first of four performance tests that VidTest can run. This test plays a video sequence from a CD-ROM, hard disk drive, or network drive. The test monitors both the video and the audio data and reports the number of skipped frames and sound breaks that occur when the video sequence plays.

If skipped video frames or sound breaks occur during this test, your personal computer cannot keep pace with the content of the tested video clip. (The data that makes up the video clip isn't being transferred quickly enough from the disk or CD-ROM to the sound and video playback subsystems. The volume of data is overloading the CPU, the audio, the display, or the data streaming subsystem of your computer.) Choose Continue to proceed to the next few tests that check the performance of these subsystems.

If the video clip plays cleanly (without skipped frames and without sound breaks), choose Continue to perform the remaining tests or choose Done to return to the main VidTest window.

You might notice audio sputtering (characterized by a consistent stutter during playback), and then find that VidTest reports no sound breaks. Sputtering indicates that your audio subsystem is receiving data correctly, but the system is struggling to keep the audio and video correctly synchronized. Playing the sound typically requires only a small amount of your computer's CPU resources. If you experience audio sputtering, consider the following ways to improve audio performance:

- Make sure you have the correct drivers for your equipment, and that you have the latest versions of those drivers.
- Upgrade the sound card in your computer.
- Try to find a more efficient file decompressor.
- As a last resort, consider upgrading to a faster computer.

To continue the VidTest performance tests

- From the Video Playback Test Results dialog box, choose Continue.

See Also

[Running the Complete Set of Tests](#)

[Interpreting Overall VidTest Results](#)

[Interpreting Component Test Results](#)

Interpreting Component Test Results

The tests for audio, display, and data streaming components of your system measure the performance of the components in your system involved in playing video sequences.

When you run the complete set of tests, VidTest provides a bar graph and an information button for each component test. The bar graphs rate the overall component performance as good, satisfactory, or unsatisfactory. The information buttons display text that describes common problems, solutions, and technical data relating to each of the component tests.

To display test data

- Choose Raw Data at the lower portion of the test results dialog box.

See Also

[Interpreting Overall VidTest Results](#)

Exiting VidTest

There are two ways to exit VidTest and return to Windows. You can use either of the following methods:

To exit VidTest

- Double-click the Control-menu box in the upper left corner of the window.
- Choose the Close button in the main VidTest window.

See Also

[Starting VidTest](#)

Video for Windows

Microsoft Video for Windows is a separate product that brings digital video (synchronized video and sound) to Windows. The Multimedia Pack CD-ROM includes all the files you need to play files from Video for Windows, but not the files required to create digital video files.

Using Video for Windows, you can do the following:

- Play video on your computer without specialized hardware.
- Capture digital video from any analog source such as a camcorder, VCR, or laserdisc.
- Edit existing digital video clips.
- Incorporate digital video clips into existing Windows applications.

Because the Video for Windows architecture relies on standard Windows components, you can access and deliver digital video from many standard Windows applications and accessories.

Drive to Test

You can test any mass-storage device connected to your computer system by playing an .AVI file stored on that device. VidTest lets you test the following devices:

- Hard-disk drives
- CD-ROM drives
- Network disk drives

Microsoft RLE Compression Method

The Microsoft RLE compression method is normally used in two scenarios:

- Playing video sequences from a base-level multimedia PC (80386SX CPU, 8-bit video display adapter, 150K per second CD-ROM drive).
- The content is computer-generated animation or has little movement (such as the face of a newscaster reading the news).

Microsoft RLE compresses a video sequence by saving differences between successive frames of the video and then compresses the pixel information with [run-length encoding](#).

This compressor is available only for 8-bit video clips. (An 8-bit video clip supports a maximum of 256 colors.)

Microsoft Video 1 Compression Method

The Microsoft Video 1 compression method gives the best overall quality and performance for playing back digital video sequences across a wide range of software-only configurations, including the following:

- A base-level multimedia PC
- A more powerful (80486-based) multimedia PC

This is the default compression method for Video for Windows. As a result, most compressed video files from Video for Windows will use this method.

Intel Indeo Compression Method

The Intel Indeo compression method can be used with software only, or with additional hardware to enhance video playback quality. This compression method is used when creating video clips for:

- Systems with an 80486 or higher processor and a display adapter that is supported by a Windows-compatible video display driver.
- Systems with the Intel ActionMedia II adapter. This adapter can enhance video playback quality.

The Intel Indeo compressor allows full-motion video playback at 30 frames per second, the same as broadcast television. The Intel Indeo compression method stores video clips in 24-bit video format.

Video clips compressed with this method are stored in a 24-bit video format. The Video for Windows runtime (part of the Multimedia Pack CD-ROM) includes a software version of the Intel Indeo compressor. You can use this software to play files compressed with the Intel Indeo method.

Custom Video Playback File

The custom file option lets you specify and use your own Video for Windows file (.AVI file extension) in the test. You can type a filename in the box to the right of this option or choose Browse to locate the [AVI file](#) you want to use in the test. To obtain accurate results, use a test file that is 1.5M or larger.

Audio Subsystem

The components of your system that are used to play audio (sound) include the following:

- **Central Processing Unit (CPU)**
The computer's main component. The CPU reads data, separates audio and video data, and sends digital sound to the audio (sound) board.
- **Audio board**
The audio board provides the audio signals that your speakers generate as sound. Normally, the audio board either occupies one or more of the slots in your computer, or is included on the motherboard of a computer.
- **Speakers**
The speakers convert signals from the audio board into sounds such as music, sound effects, and speech.
- **Device driver**
Control individual devices, such as an audio board. Drivers are small, specialized applications. You can identify the Windows audio (sound) drivers installed on your system by using the Drivers icon in Control Panel.

Display Subsystem

The components of your PC that are used to display images on the monitor include the following:

- **Mass storage device**
Stores video clips. This is usually a CD-ROM drive or a hard disk drive. When playing a video clip, the clip's content is transferred a portion at a time from the mass storage device to random access memory (RAM).
- **Central Processing Unit (CPU)**
Builds frame images and transfers the images to the display adapter.
- **Display adapter**
Provides the video signal to your monitor. The adapter either occupies one or more of the slots in your computer or is included on the motherboard of your computer.
- **System monitor**
Converts the video signal from the display adapter into text, images, and motion video you see on the screen.
- **Device drivers**
Small, specialized applications that control individual devices, such as a display adapter. To identify the display driver installed on your system, run the Windows Setup application.

Data Streaming Subsystem

The data streaming subsystem moves large amounts of information from a mass-storage device to random access memory (RAM). The components of your PC that are used in the data transfer include the following:

- **Mass storage device**

Storage medium for video clips, sound, and other files on a computer. This is usually a CD-ROM drive or a hard disk drive. When playing a video clip, the clip's content is transferred a portion at a time from the mass storage device to random access memory (RAM).

- **Central Processing Unit (CPU)**

The computer's main component is the CPU. The CPU requests and coordinates data transferred from the mass-storage device to RAM.

- **Device drivers**

Device drivers for your hard disk are part of the MS-DOS operating system. Device drivers for a CD-ROM drive are extensions to the MS-DOS operating system. Your system configuration files, CONFIG.SYS and AUTOEXEC.BAT, contain entries to load the CD-ROM drivers into MS-DOS memory.

AVI File

AVI files contain digital video clips and are produced by the Video for Windows product. AVI is an acronym for Audio Video Interleaved. AVI files can interleave (store in alternating layers) sections of sound and video data, and this provides the following benefits for video files:

- Efficient playback from hard disk and CD-ROM.
- Efficient playback on systems with limited memory. Playback applications can read and play video files without pre-loading lengthy sound segments.
- Quick loading in an application. Playback applications can start playing quickly because they only need to access a few frames of video and a portion of sound at a given time.

