Selecting Audio Test Options

The Audio Test monitors the effect of playing a digital sound file. When a short file is selected for this test, VidTest plays the file several times. With a longer file, VidTest plays the file once in its entirety.

The Audio Performance Test Configuration dialog box includes controls that let you specify the audio file used in the test, the type of audio device being tested, and the number of writes per second to use in the test.

To select Audio Test options

1 From the Audio Performance Test Configuration dialog box, select the options you want to use.

2 If you chose the Browse button, choose OK from the File Open dialog box to return to the Audio Performance Test Configuration dialog box. You must use a .WAV file for this test.

3 Choose OK.

Audio Test Options

▪ Wave Device
Identifies the audio driver and associated audio board to test. Select one of the devices (such as Sound Mapper) from the list.

▪ File Name
Identifies the audio file to use in the test. VIDTEST.WAV is the audio file supplied for VidTest; audio data in this file format is the default format used by Video for Windows (uncompressed, 8-bit data size, and recorded at 22.050 kHz).

▪ Writes per second
Specifies the frequency that the audio test writes blocks of audio data to the audio device. Video for Windows retrieves and plays audio and video at the rate you specify, so be sure to use the same value here, for the file you use in the Video Playback test, and for the Display Test. Most .AVI files use 15 fps for this value.

▪ Browse button
Invokes the File Open dialog box for locating and selecting a file on a disk or CD-ROM drive.

See Also

Interpreting Audio Test Raw Data

Interpreting Audio Test Raw Data

Raw data from the Audio Performance Test consists of three sections:

Test Results

Test Parameters

File Information

A description of each test statistic appears in the following sections:

Test Results

Information presented in the test results is gathered during the test or calculated from information gathered during the test.

- CPU Usage
Specifies the amount of CPU processing power this test used. The CPU usage is expressed as a percentage of the total processing power of the CPU in your computer. For good performance, the CPU usage should be rated at 10 percent or less.
- Total Test Time
Specifies the duration of the test in milliseconds. A sound file that is seven seconds or less is played more than once to give more accurate results.

Test Parameters

Information in this section is a re-statement of the options specified before running the test.

- File Name
Identifies the file used in the test: the drive, path, and filename.
- Device ID
Identifies the audio device driver that has been tested.
- Writes Per Second
Specifies the number of times each second that data is passed to the audio device driver. When playing video clips, both the video data and the audio data are retrieved into RAM by the CPU and transferred to the audio and video hardware at the same rate.

Test File Information

The file used in the Audio Test has the following characteristics:

- Total Data Read
Specifies the number of bytes of audio data read from the test file.
- Channels
Identifies the audio stream as Monaural (1 channel) or Stereo (2 channels).
- Sample Rate
Identifies the audio recording frequency. Three recording frequencies are commonly used:
11.025 kHz   equivalent to a voice grade telephone line.
22.05 kHz   equivalent to FM radio quality signal.
44.1 kHz   audio CD recording quality.
- Sample Size
Samples are 8 or 16 bits. 16-bit samples provide better quality; 8-bit samples require less storage.
- Block Alignment
Identifies either the number of bytes in a sample or the data block size. The Block Alignment is used by the audio device driver to allocate its buffers.
- Average Bytes per Second
Identifies the number of bytes required to play each second of the audio file. For example, for audio data in pulse-coded modulated (PCM) format, the average bytes per second is the product of the number of channels, sample rate, and the sample size

previously mentioned.

- Format Tag
  Identifies the audio data type, such as PCM or ADPCM.

  Pulse Code Modulation (PCM) is a method of digitizing sound by representing it as a series of numeric values. PCM samples the sound source at a fixed rate and stores the sampled values.

  Adaptive Differential Pulse Code Modulation (ADPCM) is another method of digitizing sound. ADPCM extends the PCM method by predicting sample values and then storing the difference of the predicted and sampled values. ADPCM typically produces smaller values (and files) than PCM.

  For this release, VidTest only tests PCM sound files.

See Also
Selecting Audio Test Options

Audio Device Driver

An audio device driver is a small application that controls the sound system. To use a sound system with Windows, you must install an audio device driver for it.

One audio device driver in your system is the Sound Mapper. This driver ensures that Windows uses an audio device driver that matches the characteristics of the audio file (or data) that you want to play. If your computer does not support the audio format, Sound Mapper will convert the files so you can play them on your computer.