SoundCheck(tm)

SoundCheck(tm) is a product of Voyetra Technologies.

NOTE

Before running any of SoundCheck's diagnostics, locate and run the Mixer Application that came with your sound card. You will most likely need to run this application during testing to adjust volume and settings.

The following Help Topics are available:

<u>MIDI</u> <u>Digital Audio</u> <u>CD Audio</u> <u>Utilities</u>

Voyetra Contact Information

Utilities

The status box at the right of the WAV and MIDI modules suggest procedures to follow. Click on the button you wish to learn more about.

| Log | About |
|---------|-------|
| Summary | Help? |
| Refresh | Exit |

MIDI Diagnostics

When the program is opened, the MIDI diagnostic screen shows all the installed MIDI drivers with the driver's file name, input and output devices used by the driver and the status of the driver. The status of the driver is shown as an OK or Error Condition. You can view the MIDI Mapper setup by clicking the MIDI Mapper button.

If the status of any MIDI driver does not read OK, consult the manual for the device to make sure the hardware and drivers are correctly installed.

Click on the area you wish to learn more about.



Once the Status Box shows OK, you can test and configure the MIDI device. If you have performed device configuration changes from within SoundCheck, click the <u>Refresh button</u> to update SoundCheck before performing any of the tests.

Digital Audio Diagnostics

When the program is opened, the WAV diagnostic screen shows all the installed WAV drivers with the driver's file name, input and output devices used by the driver and the status of the driver. The status of the driver is shown as an OK or Error condition. You can view the Sound Mapper setup by clicking the Sound Mapper button.

If the status of any WAV driver does not read OK, consult the manual for the device to make sure the hardware and drivers are correctly installed.

Click on the area you wish to learn more about.

| Wave D | rivers: 🗰 | | | |
|--|---|--------------------------------|--|------------------|
| Driver: File: Device: Status: | Soundscape DVD AD-1848 WAVE, AUX aapipkb4.DRV 34304 9/2/94 12:02am Soundscape (Wave) Wave Out Soundscape (Wave) Wave Input Driver OK! | , Mixer (output) (input) | Test Output (a) Test Input Configure Sound Mapper Suggestion: | <u>∕</u> 2 ∢∾ |
| Driver: File: Device: Status: | Microsoft Sound Mapper msacm.drv 21872 7/11/95 4:50pm Microsoft Sound Mapper Driver OK! | (output) | Press test buttons to record and play Digital Aud If you don't hear anything, check your mixer settings and/or speakers. | lio. |

Once the status box shows OK, you can test and configure the device. If you have performed device configuration changes from within SoundCheck, click the <u>Refresh button</u> to update SoundCheck before performing any of the tests.

Test MIDI Output

Clicking the Test Output button brings up a series of MIDI Output Test dialog boxes. In the first box you can choose which MIDI device to test. In the second box, you can elect to play a Base Level, Extended Level or Dual (Both) MIDI test file. A sample file for each type of synthesizer is played when you click the appropriate button.

| ₩IDI Output Tes | :† | × |
|--|--|--------------------------|
| Choose the arrang | ement you would like to | o play. |
| Base arrangements extended arrangen | s have drums on chanr hents have drums on c | nel 16 and hannel 10. |
| Play <u>B</u> ase | Play B <u>o</u> th | Play E <u>x</u> tended |
| If you don't hear anything, check your mixer settings and/or speakers. | | |
| | Close | |

Note that the SoundCheck diagnostic program bypasses the MIDI Mapper -- unless the MIDI Mapper itself is being tested -- and plays the file according to the parameters set by the device. This lets you differentiate between incorrect MIDI Mapper settings and device driver problems.

By comparing the sound of the three different types of MIDI files as they play, you can determine the type of synthesizer in use and, consequently, which type of file to select for your MIDI programs.

See also...
<u>Configure MIDI</u>

MIDI Mapper

Test MIDI Input

Clicking the Test Input button opens the MIDI Input dialog box. The Input dialog box shows a row of 17 LED's for each MIDI device connected and the port assignment for the device. The first 16 LED's correspond to the 16 channels of MIDI and the additional LED is for any MIDI messages that are not channel specific.

As you play the sequencer or any other MIDI device connected to your system, one or more of the LED's light to indicate which MIDI channel is in use.

MIDI input testing allows you to quickly determine the following:

- Whether or not MIDI data is being received from the MIDI keyboard.
- On which channel it is being received.
- Which MIDI jack is connected to which MIDI device.
- Whether or not the problem is a MIDI hardware problem.

See also... Configure MIDI MIDI Mapper

Configure MIDI

Clicking the Configuration button brings up a dialog box in which you can change the configuration of the currently selected driver. Although you can access the same utility from the Windows Control Panel, you are able to change the driver's configuration without exiting SoundCheck. Once you've done this, click the <u>Refresh button</u> so that SoundCheck recognizes the configuration changes.

If the change in the configuration settings was successful, the driver will be shown as OK in the status box. If not, see your sound card manufacturer's manual for details.

See also... <u>Test MIDI Output</u> <u>Test MIDI Input</u> <u>MIDI Mapper</u>

MIDI Mapper

Clicking the MIDI Mapper button opens the Windows MIDI Mapper configuration screen. If you have already determined that your synthesizer is set incorrectly, use this utility to set it to the correct channel assignments:

- Base Level Synths, typically FM synthesizers, use channels 11 16 with drums mapped to channel 16.
- Extended Level Synths, also FM synthesizers, use channels 1 10 with drums on channel 10.
- General MIDI, typically external keyboards as well as Wavetable synthesizers, use channels 1 16 with drums on channel 10.

See also

Test MIDI Output Test MIDI Input Configure MIDI

Test Digital Audio Input

Clicking the Test Input button in the Wave Drivers module opens the Wave Input Test dialog box. Use this box to check the recording capability of your sound card.

| Wave Input Test | | |
|--|--|--|
| To test the input or record functions of your hardware, you must first connect a microphone to your sound board and select Mic as your record source in your Mixer application. Press the Record button and speak into the microphone. Press Play to hear the recording. | | |
| Stop Play Record | | |
| Device Status: Stopped | | |
| Current Time: 0:00 | | |
| Close | | |

Click the Record button to begin recording, record a few seconds of speech or music through the recording source your mixer is set to, then click the Stop button.

If you're unsure of your mixer settings, check the documentation that came with your sound card.

Play back your test recording by clicking the Play button.

See also ...

Test Digital Audio Output Configure Digital Audio Sound Mapper

Test Digital Audio Output

Clicking the Test Output button in the Wave Drivers module plays a test file. A dialog box appears to indicate that the file is actually playing.

If there is no sound, first check the most likely sources of digital audio output problems:

- Speakers are incorrectly connected.
- Incorrect sound card volume setting.

If these are not at fault, use the <u>Configure Digital Audio</u> and <u>Sound Mapper</u> utilities along with your sound card's manual to locate the problem.

See also

Test Digital Audio Input

Configure Digital Audio

Clicking the Configuration button displays a dialog box where you can change the configuration of the currently selected driver. Although you can access the same dialog box from the Windows Control Panel, this function allows you to change the driver's configuration without exiting SoundCheck. Once you've done this, click the <u>Refresh buttons</u> so that SoundCheck recognizes the configuration changes, then check to make sure the driver's status is OK. If it is, go on to run the Digital Output test.

See also

Test Digital Audio Output

Test Digital Audio Input

Sound Mapper

Sound Mapper

Clicking the Sound Mapper button to opens the Microsoft Sound Mapper utility. This lets you change digital audio settings.

See also...

Test Digital Audio Output Test Digital Audio Input Configure Digital Audio

Play Both

Plays a pre-selected file that conforms to both the Extended Level and Base Level synthesizer standards. Use this type of file if you have a General MIDI synthesizer.

Play Base

Plays a pre-selected file that conforms to Base Level synthesizer standards.

Play Extended

Plays a pre-selected file that conforms to the Extended Level synthesizer standards.

Stop

Stops recording or playing of the temporary WAV file you've created for this test.

Play

Plays the temporary WAV file you have just recorded.

Record

Creates a WAV file for testing the Record function of the digital audio device currently in use.

CD Audio

When SoundCheck is opened, the CD information window shows the type of CD driver, the drive designation of your CD-ROM and its status.

| Test | () |
|-----------|-------------------|
| Configure | |
| | Test Configure |

Check the information box at the bottom left of the SoundCheck screen to make sure that SoundCheck has detected the MSCDEX driver, a multimedia utility that enables your computer to read CD audio tracks as data. If this box shows that SoundCheck was unable to locate the MSCDEX driver, check your hardware's documentation.

If SoundCheck shows an Error condition in opening the MCI-CD driver, click the <u>Configure button</u> and set up the CD driver.

Before beginning to test, make sure there is a disc containing audio tracks currently in the CD-ROM drive.

Once everything checks out OK, click the Test button to test play a CD Audio track.

A dialog box appears to indicate that the CD audio is playing.

Configure CD Audio

Clicking the Configure button opens the CD Audio Box from the Windows Control Panel so you can see the configuration for CD Audio. If you have more than one CD-ROM installed, you will be asked to select which one you want to use.

See also...

CD Audio

Refresh Button

When clicked, this button updates all of SoundCheck's information displays. This is useful when making changes to any of the configurations.

Test CD Audio

Plays the first track of the Audio CD.

Device Driver Display Area

This area lists all the installed devices and drivers. Drivers are separated by a divider line. Only one driver may be tested at a time. To select a different driver, simply click on it.

Log Button

Opens Notepad and creates a log file containing extensive configuration information. This file contains information generated during testing that can be useful to tech support people. SoundCheck is designed, of course, to enable you to resolve hardware and software problems on your own from the computer screen.

Summary Button

The Summary screen displays an overview of your system's audio capabilities. You can also run a speed diagnostic of your system from this screen. Just select which hard drive you would like to test and click the Run button.

Not all sound card actually play at precisely the same sample rate. SoundCheck can measure how accurate the playback of your sound card is. At the bottom of this screen is the Wave Sync button. This runs a diagnostic to test the actual sample rates of your sound card.

See also...

Wave Sync

About Button

Displays what version of SoundCheck you have.

Help Button

Opens Online Help.

Exit Button

Closes SoundCheck and returns to Windows.

Wave Sync

Wave Sync tests your hardware's ability to accurately synchronize digital audio and MIDI.

NOTE

It is only necessary to use Wave Sync if you are working with applications that have this option -- such as Voyetra's Digital Orchestrator Plus.(tm)

To test Wave Sync:

- 1 In SoundCheck, click Summary to display the Audio Capabilities & Related Data dialog box. Then click WaveSync.
- 2 Choose the Wave Out Device. (This is how sound will be played out of your sound card. Usually you will see the name of the sound card displayed in this box.)
- 3 Select the Sample Rate to test.
- 4 Click the Start button.
- 5 When you are done, also check the Wave In Device by selecting "None" for Wave Out and selecting the sound card for Wave In.

You will notice numbers calculating. Note that this may take a LONG time.

Here's an explanation of the terms used in the Wave Sync test:

| Elapsed Time | Is a measure of how much time has passed, in milliseconds, since you clicked the Start button. |
|-------------------|---|
| Actual SampleRate | Is the true sample rate of the sound card. As time passes, the accuracy of this number increases. You will be able to see the Actual Sample Rate number begin to stabilize as time goes on. |
| Deviation | Is the running margin of error that your sound card's drivers may produce. |

What the Deviation numbers mean:

- Between 0 and 10 Excellent for synching digital audio and MIDI.
- Between 11 and 50 Good for synching digital audio and MIDI.
- Between 50 and 500 Fair (it may be a bit unstable) for synching digital audio and MIDI.

Over 500 Synching digital audio and MIDI will not work.

Be aware that many sound cards have a very low Wave Out deviation and a high Wave In deviation.

The timing of digital audio playback is handled solely by your sound card driver. If you have a multimedia program that synchronizes digital audio with another function -- such as MIDI to WAV -- it must ask the sound card exactly where into the playback of the WAV file it is at any given moment. This information is

gathered by the application communicating with your sound card's WAV driver. This information is then used to calculate at what point the WAV file should sound. If there is a large discrepancy in this number ----where the sound is and where the sound card driver thinks it is -- the application will not play the sound at the correct moment. This can result in an out-of-sync playback.

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