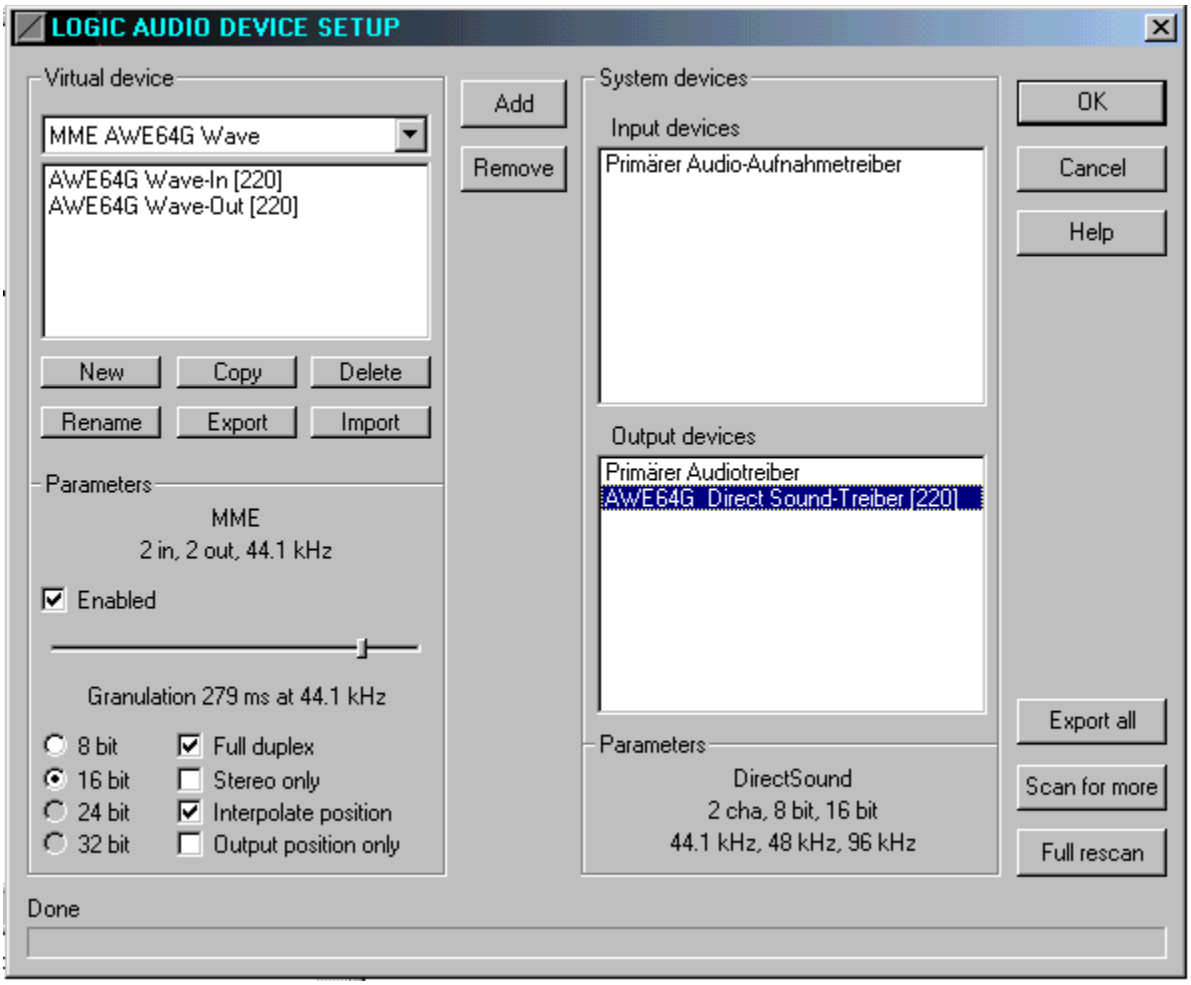
The Logic Audio Device Setup Program

In order to effectively use the multi-channel abilities of modern audio hardware, the Windows MME and DirectSound Driver concept for version 4.0 of Logic Audio has been enhanced. To allow cards with multiple Stereo Driver instances to be efficiently supported, the Virtual Device has been introduced. This gives you, the user, the option to optimize the configuration according to your system and requirements.

Contents:

Quick Guide

Please click on the different section of this screenshot.



Back to Contents

Automatic Hardware Recognition

In most cases Logic Audio Device Setup does not have to be specifically executed, as Logic searches the system for Audio Cards during installation, and automatically summarizes them as Virtual Devices. In some cases, however, this Automatic Recognition is not ideal. In these cases you should start Logic Audio Device Setup, in order to get the optimum performance from Logic with your system.

Back to Contents

Overview

After starting Logic Audio Device Setup, the Virtual Devices that have been found are tested. Depending on the system this may take a few seconds. Then the Logic Audio Device Setup screen will appear. On the right hand side of this screen you will see the MME drivers provided by your system. At the top are the input drivers, at the bottom, the output drivers. On the left of the screen these drivers can be combined into Virtual Devices, by double-clicking on the MME drivers on the right, or by selecting it and pressing the 'Add' button. You can remove MME drivers from the Virtual Device on the left by double-clicking on them, or by selecting them and pressing the 'Remove' button. Theoretically you could use any combination of audio drivers as a Virtual Device in this way. Please bear in mind, however, that only certain combinations are useful. In particular, it is difficult to connect drivers, which use different hardware, into a Virtual Device. In this way it could indeed be possible to connect the input of one audio card to the output of another, and to operate them together as a Virtual Device. In practise, however, the inputs and

outputs are rarely synchronized, as the individual cards rarely have compatible audio frequencies.

Back to Contents

An Example

Imagine you have bought a new sound card. For Logic and this card to work optimally together you will have to run Logic Audio Device Setup and create a Virtual Device for your new card. You could make this easy for yourself and click on the button 'Scan for more'. This causes Logic Audio Device Setup to search for newly installed cards and to create Virtual Devices for them. Occasionally, however, the automatic recognition can go wrong. In these cases you have to create the Virtual Devices for your card(s) by hand. To do this, press the button 'New' underneath the list of Virtual Devices. By doing this you create a new, empty, Virtual Device. Click the rename button and give the Device a name. Next, choose the drivers required from the input and output lists on the right, and add them, with a double-click or the 'Add' button, to the new Virtual Device. Logic Audio Device Setup supports you in this process in as far as that it only allows you to import system drivers that can be operated simultaneously (unless you have deactivated the option 'Full Duplex', more about that below). When you leave the program with 'OK', your new Virtual Device will be stored and will be immediately available for use in Logic.

Back to Contents

Special options for Virtual Devices

To prevent problems with some, more exotic, types of audio cards, there are a few special options for Virtual Devices, which you can select on the left of the screen under the heading 'Parameters'. Here are brief descriptions of the individual options.

Back to Contents

Enabled

When you turn this option off, the Virtual Device will no longer appear in Logic's driver list. It is not erased, just deactivated. As soon as you turn the option back on, the Virtual Device will be available to Logic again.

Back to Contents

Granulation

You will probably not have to change this option. With the controller you can set the delay, with which the audio playback reacts to changes, for example, from the volume control. This delay is a characteristic of the operating system, and can only be changed by the user within certain limits. If you want to, you can experiment with Granulation, however, you should note the old value, so that you replace it if you have problems.

Back to Contents

8 bit, 16 bit, 24 bit, 32 bit

With this option you can set the bit resolution for the inputs and outputs. In most cases this will be 16 bit, which is the resolution of a normal audio CD. Please note that some sound cards do not distinguish the difference between 24 bit and 32 bit resolution. If you choose 32 Bit on these cards, the actual resolution is 'only' 24 bit.

Back to Contents

Full duplex

There are still some cards which do not allow simultaneous recording and playing. If you have one of these cards you must turn this option off. Your Virtual Device can still contain MME drivers for input and output, but when

using it in Logic you will not be able to listen to playback whilst recording.

Back to Contents

Stereo only

With this option you can cause cards to behave as cards with only one stereo input and output. You should only choose this option if you have a card with more than two inputs and/or outputs, which causes problems when using multiple channels.

Back to Contents

Interpolate song position

Some MME drivers deliver an inaccurate sample position. Therefore, when faced with synchronization problems, it will sometimes help to select this option. It causes the positions to be interpolated by Logic.

Back to Contents

Use output position only

With this option you can cause the Virtual Device to use the sample position of the output for time reference, even when recording. If you have deactivated 'Full duplex' this option will be ignored..

// ---
// Es folgen die Beschreibungen der einzelnen Dialogelemente (Popups im Screenshot)
// ---

// Fenster

This list shows all available MME input drivers on your system. Double-click on a driver to include it in the current Virtual Device. Some MME drivers cannot be added to the Virtual Device..

This list shows all available MME output drivers on your system. Double-click on a driver to include it in the current Virtual Device. Some MME drivers cannot be added to the Virtual Device.

Here you can chose a Virtual Device, to display its properties.

This list shows the MME drivers that are contained in the Virtual Device shown above. To remove a MME driver, double-click it.

// Texte

Here you are shown the properties of a MME driver chosen in one of the lists above.

Here you are shown the properties of the selected Virtual Device.

// Knöpfe und Regler

Leaves the program, saving any changes.

Leaves the program, without saving any changes.

With this button you can store the complete system configuration as an export file.

Use this button to automatically recognize newly installed sound cards.

This button causes all Virtual Devices to be erased and the automatic hardware recognition to be redone. Important: If you have pressed this key accidentally, close Logic Audio Device Setup using the Cancel button, so that your changes are not saved.

You can use this button to add a MME driver, selected on the right, to the current Virtual Device.

This button removes a MME driver, selected on the left, from the current Virtual Device.

Creates a new Virtual Device.

Copies the current Virtual Device with all of its settings.

Erases the chosen Virtual Device.

With this button you can give a Virtual Device a new name.

With this button you cane store a Virtual Device as an export file.

This button imports one or more Virtual Devices from an export file.

If you disable this option, the Virtual Device will not be displayed in Logic.

With this control bar you can set the reaction time of the audio output.

Sets the Virtual Driver to 8 bit resolution.

Sets the Virtual Driver to 16 bit resolution.

Sets the Virtual Driver to 24 bit resolution.

Sets the Virtual Driver to 32 bit resolution. Please note that most system drivers only use 24 bit resolution, even when set here to 32 bit.

With this option you can choose Full or Half duplex mode. In half duplex mode no playback is possible when recording.

Forces multichannel cards to play in stereo mode.

Activate this option if the sample positioning of the MME driver is inaccurate and leading to timing problems.

When this option is activated, the timing position will be based on the output.