Operation Manual

WAVELAB CAST

For Podcast and Social Media Content Creation

steinberg

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New Features

The following list informs you about the most important improvements in WaveLab Cast and provides links to the corresponding descriptions.

New Features in Version 2.0.0

Highlights

Displaying Keyboard and Mouse Input

- You can now display your mouse and keyboard input activity in real time, which is useful for screenshots and screencasting purposes, such as demos, presentations, and tutorials. See Visualization of Keyboard and Mouse Input.

Startup Assistant

- The new **Startup Assistant** allows you to choose the working environment that suits your workflow, to create and open files or projects, and to establish your audio connections – all in a single place. In addition to this, it offers you WaveLab-related information and news and provides useful links. See Startup Assistant Window.

More New Features

Creating Audio Montages from Files via the Startup Assistant

- The new **Startup Assistant** allows you to assemble your audio files in an audio montage in just a few simple steps. See Creating an Audio Montage from Audio Files via the Startup Assistant.

Quantizing Audio Selections based on Time Ruler Marks

- In the **Audio Editor**, you can now make audio selections snap to time ruler marks and quantize the audio selection at the same time. See Quantizing Audio Selections based on Time Ruler Marks.

New Zooming Feature

- You can now zoom in or out while selecting an audio range. See Zooming while Selecting an Audio Range.

New Envelope Tab Options to Quickly Reduce the Level of an Audio Selection

- Two new options in the Level section of the **Envelope** tab allow you to reduce the level of an audio selection by -6 dB or -9 dB via a single mouse click. See Envelope Tab (Audio Montage).

New Option to Move the Edit Cursor to an Envelope Point

- You can now easily move the edit cursor to the exact position of an envelope point via the **Envelope** context menu of the **Audio Montage** window. See Moving the Edit Cursor to an Envelope Point.

Chapter Generator for YouTube and Spotify

- The new **Chapter Generator** allows you to divide your audio material into chapters via marker pairs and to create a text file listing them, for use on YouTube or Spotify. See Generating Chapters for YouTube and Spotify via Markers.

Last but Not Least

Improved Clip Cue Point Options

- The cue point options have been revised and extended. See Edit Tab (Audio Montage).

Envelope Points Snapping to Anchors

- When you edit envelope points with the mouse, you can now set them to snap to active anchors. See Snapping Envelope Points to Anchors.

WaveLab Cast Introduction

Welcome to WaveLab Cast! Whether your goal is to record, edit, and publish podcasts, to create video content for social media like Facebook, or to record interviews of small groups of people – WaveLab Cast is always the perfect choice for creating perfect audio!

Subscribers to podcasts and social media platforms expect no less than flawless audio and video. Excellent intelligibility, clarity, and great content are mandatory to win over your target audience. WaveLab Cast helps you to create podcasts and interviews with a wide range of high-quality, easy-to-use recording, editing, refinement, and distribution tools, perfectly suited to achieve stunning results – and to attract more listeners or viewers.

Have fun!

Your WaveLab Team

Platform-Independent Documentation

The documentation applies to the operating systems Windows and macOS.

Features and settings that are specific to one of these platforms are clearly indicated. In all other cases, the descriptions and procedures in the documentation are valid for Windows and macOS.

Some points to consider:

- The screenshots are taken from Windows.
- Some functions that are available on the **File** menu on Windows can be found in the program name menu on macOS.

Help System

You can access the help system in several ways. The documentation is available online, on steinberg.help.

Documentation

The documentation consists of several documents.

To visit steinberg.help, do one of the following:

- Enter **www.steinberg.help** in the address bar of your web browser.
- In WaveLab, select **Help** > **steinberg.help**.
- Windows: To open the help for an active dialog on steinberg.help, click the question mark icon on the title bar to show the **Help** button. Click the **Help** button, or press **F1**.
- macOS: To open the help for an active dialog on steinberg.help, click the question mark icon in the dialog to show the **Help** button.Click the **Help** button, or press **Cmd**-**?**.

Operation Manual

The main WaveLab Cast reference documentation, with detailed descriptions of operations, parameters, functions, and techniques.

Plug-in Reference

Describes the features and parameters of the included plug-ins.

Tooltips and Further Information

- To show tooltips, move the mouse over an interface icon.
- To use the menu help, move the mouse over a menu item.
- To see information on how to perform editing in the **Audio Montage** window via the mouse and the modifier keys, move the mouse over the **Audio Montage** window. The help text is displayed on the info line at the bottom of the window.

What's This

The **What's This** help feature provides extended tooltips about interface icons and functions. Some **What's This** tooltips include a link to a dedicated help topic on steinberg.help.

To access the **What's This** help feature, do one of the following:

- In a window, press **Shift** - **F1**, and move the mouse over an interface item, or select **Help** > **What's This?**.
- In a dialog, select the question mark icon on any title bar (Windows) or in the dialog (macOS), and move the mouse over an interface item or a menu option.

RELATED LINKS
Info Line on page 157

Visualization of Keyboard and Mouse Input

You can set WaveLab to display your mouse activity and the modifier and navigation keys you press in real time. This feature is useful for screenshots and screencasting purposes, such as demos, presentations, and tutorials.

To display your mouse input as you click and modifier and navigation keys as you press them, do one of the following:

- Select **Help** from the menu bar at the top of the workspace, and activate **Visualize Mouse and Modifier Keys** in the pop-up menu.
- Press **Alt/Opt** - **F1**.

As a result, a small window is displayed, which reflects your mouse and key input activity.

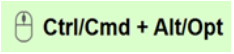
Examples: Visualization of Input Activity



Left mouse button



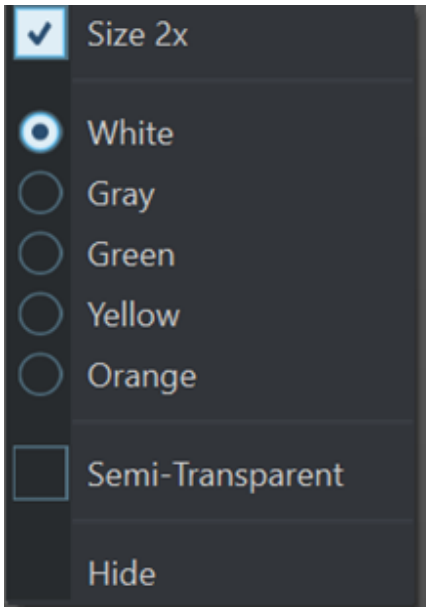
Right mouse button



Modifier keys

In addition to this, you can drag and move the small window to any position on the screen, and you can customize the display.

To customize the display, right-click to open a menu with the following options:



Size 2x
Scales the display of the mouse input and the modifier keys to twice the original size.

White
Sets the background color of the window to white.

Gray
Sets the background color of the window to gray.

Green
Sets the background color of the window to green.

Yellow
Sets the background color of the window to yellow.

Orange
Sets the background color of the window to orange.

Semi-Transparent
Reduces the opacity of the window.

Hide
Hides the display of the window.

To deactivate the display of the mouse and key input activity, deselect **Visualize Mouse and Modifier Keys** in the **Help** menu, or press **Alt/Opt** - **F1**.

Documentation Structure

In our documentation, we divide information into three different types of topics, according to their content.

Descriptions of the User Interface
Topics that describe the functionality of user interface items and list the options and settings of dialogs, panels, or other items.

Descriptions of Basic Concepts

Topics that describe concepts and explain the functionality of a specific software feature.

Descriptions of Procedures

Topics that provide step-by-step instructions for how to perform a specific task. These topics often provide an example for why you might want to follow the steps and a brief summary of the result, including consequences to be aware of.

Because of this division of information, our documentation structure functions as a reference you can consult for specific information or instructions as required, rather than a guide you must read from start to finish.

TIP

Descriptive topics do not describe how to perform a task, and procedural topics do not explain what something is. To find general information about items or concepts, we recommend searching for them by name, such as “events”. To find instructions for performing particular actions, we recommend including a relevant verb in your search, such as “recording”.

Links at the bottom of topics guide you to further relevant content. You can also check the sidebar for nearby, related topics in the documentation structure.

Typographical Conventions

In our documentation, we use structural and markup elements to present information according to its purpose.

Structural Elements

Prerequisite

Describes any actions or conditions you must have fulfilled before starting a procedure.

Procedure

Lists the steps that you must take to achieve a specific result.

Important

Informs you about serious issues; for example, issues that affect the system, the connected hardware, or that risk data loss.

Note

Informs you about issues or other relevant information.

Tip

Adds further information or useful suggestions.

Example

Provides you with an example.

Result

Describes the result of the procedure.

After Completing This Task

Informs you about actions or tasks that you can perform after completing the procedure.

Related Links

Lists related topics that you can find in this documentation.

Markup

Bold text indicates the name of a menu, option, function, dialog, window, and so on.

EXAMPLE

In the **Audio Montage**, click **Edit**.

If bold text is separated by a greater-than symbol, this indicates a sequence of different menus to open.

EXAMPLE

Select **File** > **Preferences** > **Audio Connections**.

File names and folder paths are shown in a different font.

EXAMPLE

`example_file.txt`

Key Commands

Many of the default key commands, also known as keyboard shortcuts, use modifier keys, some of which are specific to each operating system.

Whenever key commands with modifier keys are described in this manual, the Windows modifier key is indicated first, followed by the macOS modifier key and the key.

EXAMPLE

Ctrl/Cmd-**Z** means: press **Ctrl** on Windows or **Cmd** on macOS, then press **Z**.

Getting Started

Once you have set up your system, many dedicated features in WaveLab, such as the **Startup Assistant** and a variety of templates, enable you to instantly start working on your projects.

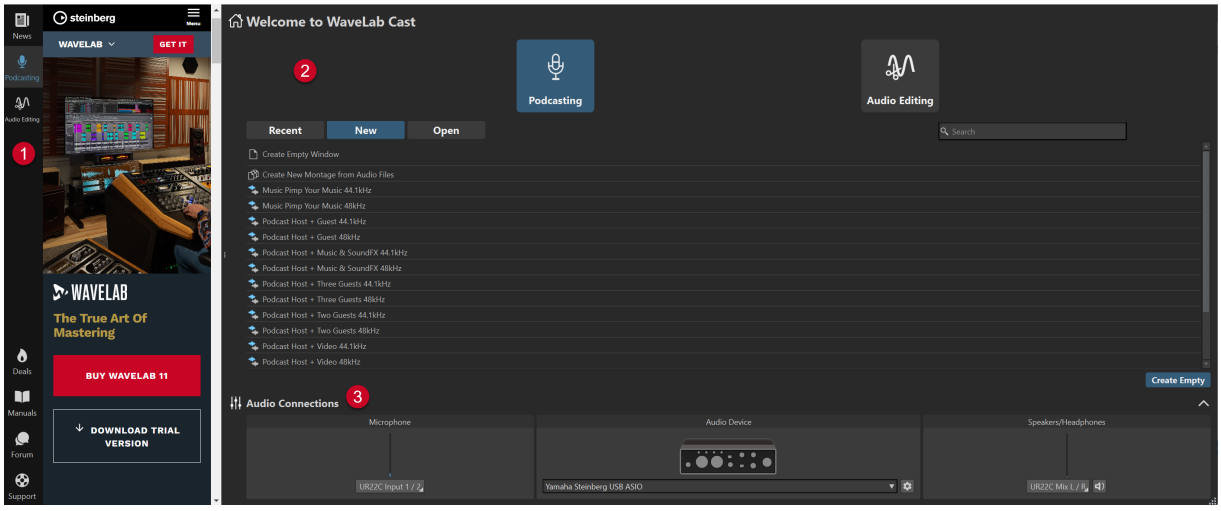
RELATED LINKS
Setting Up Your System on page 16

Startup Assistant Window

The **Startup Assistant** allows you to choose the working environment that suits your workflow, to create and open files, and to establish your audio connections – all in a single place. In addition to this, the **Startup Assistant** offers you WaveLab-related information and news and provides useful links.

On starting WaveLab, the **Startup Assistant** window is opened automatically.

In addition to this, you can manually open it by clicking **File** on the menu bar and selecting **Open Startup Assistant**.



The **Startup Assistant** window is composed of the following elements:

- 1 Info panel on the left:
  - **News** displays Steinberg-related news.
  - **Podcasting** displays general information about podcast creation.
  - **Audio Editing** displays general information about audio editing.
  - **Deals** displays information about current and upcoming Steinberg promotions and discounts.
  - **Manuals** links to the WaveLab documentation. The user manuals are available as PDF files and in WebHelp format.
  - **Forum** links to the WaveLab forums, where WaveLab users share their experiences and provide help to each other.

- **Support** links to the Steinberg Support Team, where our WaveLab experts are always happy to help you solve any issues and to answer your questions.

- 2 Workflows to choose from:
  - **Podcasting**

    You can choose from the following options:

    - **Recent**: Allows you to choose from a list of your most recently used audio montages and to open them by clicking the **Open** button.
    - **New**: Allows you to create an audio montage from scratch by selecting a template or by choosing **Create New Montage from Audio Files**.
    - **Open**: Allows you to drag audio montages into the field to open them or to click **Browse** to navigate to and open an audio montage.

    NOTE

    The workspace for the workflows related to **Podcasting** is the **Audio Montage** window.

    To open an empty WaveLab window instead, click **Create Empty**, or select **New** > **Create Empty Window**. This option is only available in the initial **Startup Assistant** window that is opened on starting WaveLab. You cannot access it when opening the **Startup Assistant** via **File** > **Open Startup Assistant**.

  - **Audio Editing**

    You can choose from the following options:

    - **Recent**: Allows you to choose from a list of your most recently used audio files and to open them by clicking the **Open** button.
    - **Open**: Allows you drag audio files into the field to open them or to click **Browse** to navigate to and open audio files.

    NOTE

    The workspace for the workflows related to **Audio Editing** is the **Audio Editor**.

    To open an empty WaveLab window instead, click **Create Empty**. This option is only available in the initial **Startup Assistant** window that is opened on starting WaveLab. You cannot access it when opening the **Startup Assistant** via **File** > **Open Startup Assistant**.

- 3 **Audio Connections** panel:
  - **Microphone**: Allows you to select your microphone.
  - **Audio Device**: Allows you to select your audio interface. Clicking the cogwheel button opens a dialog, where you can set parameters for your device.
  - **Speakers/Headphones**: Allows you to select your speakers or headphones.

NOTE

The **Startup Assistant** offers shortcuts to particular features and alternatives to established workflows of WaveLab Cast. This means that you can also accomplish all the tasks and access all the features that are available in the **Startup Assistant** in different ways and/or from other locations in the application. You can find the corresponding instructions in this manual.

Audio Montage Creation via the Startup Assistant

The easiest and quickest way to produce output made up of several audio files, such as a podcast episode or an album, is to create an audio montage via the **Startup Assistant**.

An audio montage is a multitrack non-destructive editing environment.

You can import audio files into audio montages. As soon as they are part of the audio montage, audio files are referred to as "clips". Clips are just referenced representations of the original audio files, so you can edit and alter them as you like, without affecting the original audio files.

There are two ways of creating audio montages via the **Startup Assistant**. You can choose the approach that best suits your workflow:

- You can use existing audio files as a basis and create an audio montage from them.

  As a result, a new audio montage is created in the **Audio Montage** window, which includes your audio files.
- You can start with the general setup of the audio montage by choosing a template. This allows you to select or record the corresponding audio files at a later point in time.

  As a result, a new audio montage is opened in the **Audio Montage** window, with the tracks and the sample rate set up as specified by the template. For example, choosing the **Podcast Host + Music & SoundFX 44.1 kHz** template creates three tracks, labeled as **Host**, **Music**, and **Sound FX**, but without any actual audio on the tracks. You can select and allocate audio files to the tracks at a later point in time.

NOTE

There are other ways to create audio montages from audio files in WaveLab, which may be more convenient for you, depending on your workflow. You can find the descriptions in the corresponding sections of this manual.

RELATED LINKS
Startup Assistant Window on page 12
Audio Montage on page 132
Creating Audio Montages from an Audio File on page 143
Creating an Audio Montage from Audio Files via the Startup Assistant on page 14
Inserting Audio Files into Audio Montages on page 151

Creating an Audio Montage from Audio Files via the Startup Assistant

The **Startup Assistant** allows you to assemble your audio files in an audio montage in just a few simple steps.

PREREQUISITE

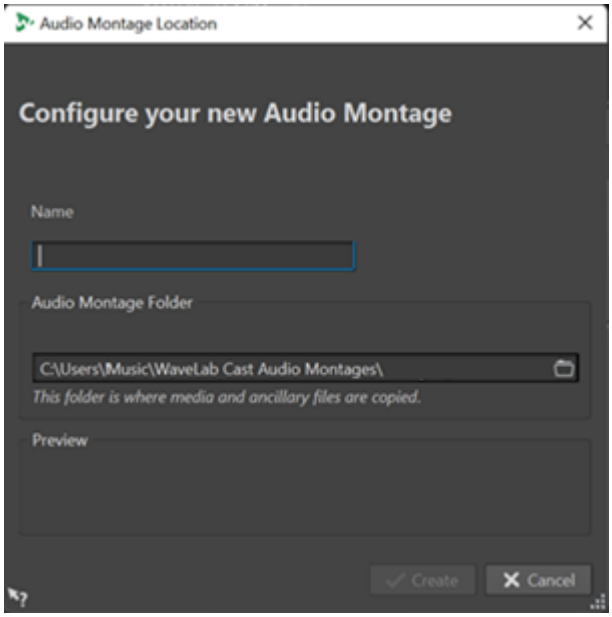
You have created one or several audio files.

PROCEDURE

1. To access the **Startup Assistant**, do one of the following:
   - Start WaveLab Cast. The **Startup Assistant** window is opened automatically.
   - With the WaveLab Cast workspace already open, click **File** on the menu bar at the top of the workspace, and select **Open Startup Assistant**.
   - Press **Alt/Opt** - **Pos1**.
2. Select **Podcasting**.

3. Click **New**.
4. Select **Create New Montage from Audio Files**, and click **Create**.

   The file browser is opened.
5. Navigate to your audio files, and select them. To select multiple adjacent files at the same time, press and hold **Shift** while selecting.
6. Click **Open**.
7. In the **Audio Montage Location** dialog, enter a name, and choose a target location for your audio montage.



8. Click **Create** to create your audio montage.

AFTER COMPLETING THIS TASK

For audio montages composed of multiple files/clips, after entering the required information into the **Audio Montage Location** dialog, the **Insert Audio Files** dialog allows you to set further parameters for your audio montage.

RELATED LINKS

Startup Assistant Window on page 12
Audio Montage on page 132
Audio Montage Creation via the Startup Assistant on page 14
Creating Audio Montages from an Audio File on page 143

Setting Up Your System

Before you can start working, you need to set up your system.

IMPORTANT

Make sure that all equipment is turned off before making any connections.

Your system setup depends on many different factors, such as the kind of project, the external equipment that you want to use, or the computer hardware available to you.

RELATED LINKS
Defining Audio Connections on page 17

Audio Cards and Background Playback

You can run WaveLab Cast together with other applications, granting the currently active application access to the audio card.

When you activate playback or recording in WaveLab Cast, other applications cannot access the audio card. Likewise, if another application uses the audio card, WaveLab Cast is unable to play back.

PROCEDURE

1. Select **File** > **Preferences** > **Audio Connections**.
2. Select the **Options** tab.
3. Activate **Release Driver when WaveLab Cast is in Background**.

RELATED LINKS
Audio Connections Tab on page 19

Latency

Latency is the delay between when audio is sent from the application and when you actually hear it. While a very low latency can be crucial in a real-time DAW application such as Steinberg Nuendo or Cubase, this is not as relevant for WaveLab Cast.

When working with WaveLab Cast, what matters most are a stable playback and high editing precision.

The latency in an audio system depends on the audio hardware, its drivers and settings. In the event of dropouts, crackles, or glitches during playback, we recommend to raise the **ASIO-Guard** value on the **Options** tab in the **Audio Connections** or to increase the buffer size for the respective audio card via the ASIO control panel.

RELATED LINKS
ASIO-Guard on page 17
Audio Connections Tab on page 19

ASIO-Guard

The ASIO-Guard allows you to pre-process all channels as well as VST plug-ins, which prevents dropouts and allows you to process more tracks or plug-ins.

High ASIO-Guard levels result in an increased ASIO-Guard latency. For example, when you adjust a volume fader, you hear parameter changes with a slight delay.

NOTE

Resampler plug-ins and other plug-ins with high latencies accumulate samples prior to processing them. This requires a higher ASIO-Guard setting.

RELATED LINKS
Setting up the ASIO-Guard on page 17

Setting up the ASIO-Guard

You can specify the length of the ASIO-Guard buffer.

PROCEDURE

1. Select **File** > **Preferences** > **Audio Connections**.
2. Click the **Options** tab.
3. In the **ASIO-Guard** menu, specify the length of the ASIO-Guard buffer.

   The higher the level, the higher the processing stability and audio processing performance. However, higher levels also lead to an increased ASIO-Guard latency and memory usage.

RELATED LINKS
Audio Connections Tab on page 19

Defining Audio Connections

To be able to play back and record audio in WaveLab Cast, you must specify how to connect the internal input and output channels in WaveLab Cast to your sound card and indicate the device to be used for audio playback and recording.

You can define the buffer settings for your device. We recommend to select at least two channels for stereo playback and recording.

If you have no third-party audio card, you can select the **Steinberg built-in ASIO** driver or **Built-in Audio** (macOS only) options. You can also use the **Steinberg built-in ASIO** driver with most third-party audio cards. This allows you to record and play at different sample rates.

RELATED LINKS
Selecting an Audio Driver on page 18
Audio Connections Tab on page 19
Recording on page 188

Selecting an Audio Driver

By selecting an audio driver, you allow WaveLab Cast to communicate with the audio hardware.

NOTE

On Windows operating systems, we recommend that you access your hardware via an ASIO driver developed specifically for the hardware. If no ASIO driver is installed, contact the manufacturer of your audio hardware for information on available ASIO drivers. In case no specific ASIO driver is available, you can use the **Steinberg built-in ASIO** driver.

PROCEDURE

1. Select **File** > **Preferences** > **Audio Connections**.
2. Open the **Audio Device** pop-up menu, and select your driver.
3. Optional: Click **Control Panel**, and make your settings.

RELATED LINKS
Audio Connections Tab on page 19
ASIO Driver on page 18
Selecting the Steinberg Built-In ASIO Driver (Windows only) on page 18

ASIO Driver

Audio Stream Input/Output (ASIO) is a computer device driver protocol for digital audio specified by Steinberg. It provides a low-latency and high fidelity interface between a software application and the sound card of a computer.

RELATED LINKS
Selecting an Audio Driver on page 18
Selecting the Steinberg Built-In ASIO Driver (Windows only) on page 18

Selecting the Steinberg Built-In ASIO Driver (Windows only)

If no specific ASIO driver is available, you can use the **Steinberg built-in ASIO** driver.

NOTE

The documentation for the **Steinberg built-in ASIO** driver is located here: `C:\Program Files\Steinberg\Asio\Help`

PROCEDURE

1. Select **File** > **Preferences** > **Audio Connections**.
2. Open the **Audio Device** pop-up menu, and select the **Steinberg built-in ASIO**driver.
3. Optional: Click **Control Panel**, and make your settings.

RELATED LINKS
Selecting an Audio Driver on page 18
Audio Connections Tab on page 19

Audio Connections Tab

This tab allows you to specify how to connect the internal input and output buses in WaveLab Cast to your sound card and to choose a device for audio playback and recording.

- To open the **Audio Connections** tab, select **File** > **Preferences** > **Audio Connections**.

Global Settings

Audio Device

Allows you to select the audio device that you want to use for playback and recording audio. If you do not have a third-party audio card, you can select the **Steinberg built-in ASIO** driver or **Built-in Audio** (macOS only) options.

Port Names

Opens the **Audio Port Names** dialog, where you can specify a custom name for each input and output audio port.

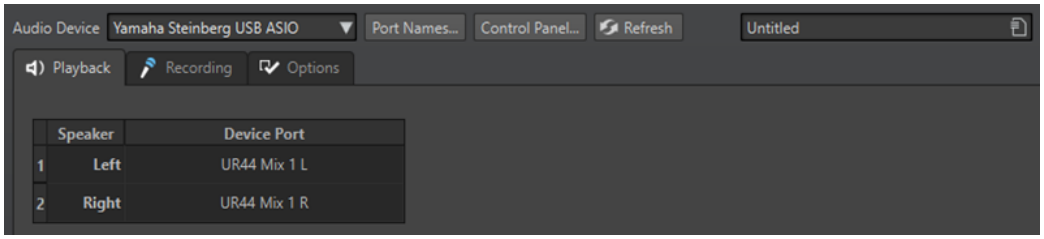
Control Panel

When you select an ASIO driver, the **Control Panel** button is activated. Click the button to open the settings application of your sound card, which is usually installed with the sound card. Depending on your sound card and driver, this provides settings for buffer size, digital formats, additional I/O connections, etc.

Refresh

This button causes audio devices to be evaluated again to reflect device changes.

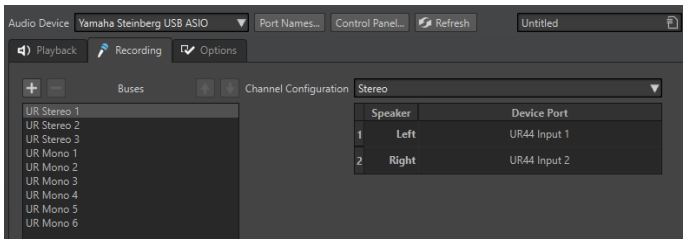
Playback Tab



This tab allows you to select buses that are used for playback.

Recording Tab

The first time an audio device is detected, WaveLab Cast automatically assigns input buses. You can use this configuration or edit the input buses.



This tab allows you to select buses that are used for recording.

Add Bus

Adds a new recording bus to the bus list.

Remove Selected Bus

Removes the selected bus from the bus list.

Move Bus Up

Moves the selected bus up in the bus list. This also modifies the bus order in the WaveLab Cast menus.

Move Bus Down

Moves the selected bus down in the bus list. This also modifies the bus order in the WaveLab Cast menus.

Channel Configuration

Allows you to route recording buses to device ports. You can choose a mono or a stereo channel configuration. In the table below the **Channel Configuration** menu, you can specify the **Device Port** for each channel of a recording bus.

Buses List

Displays all buses. You can rename and move buses in the list. To rename a bus, double-click it, and enter a new name.

Options Tab

This tab allows you to specify the number of buffers and the control driver functionality.

ASIO-Guard

Increasing this value improves the elasticity of audio streaming to avoid dropouts. The higher the level, the higher the processing stability and the audio processing performance. However, higher levels also lead to an increased ASIO-Guard latency and memory usage.

Perform Short Fade In When Starting Playback

If this option is activated, a short fade in is performed when you start playback. This avoids clicks caused by waveforms that do not start at a zero-crossing point.

The fade is linear and either ten milliseconds long or corresponds to the audio device block size if the block size is below ten milliseconds.

Perform Short Fade Out When Stopping Playback

If this option is activated, a short fade out is performed when you stop playback. This avoids clicks caused by waveforms that do not end on a zero-crossing point. This also discards any audio signal that is caused by latency and any tail that is caused by reverb plug-ins.

The fade is linear and either ten milliseconds long or corresponds to the audio device block size if the block size is below ten milliseconds.

Release Driver when WaveLab Cast is in Background

If this option is activated, WaveLab Cast releases the ASIO driver when WaveLab Cast is in background. This gives the active application access to the audio card.

Preferred Sample Rate

Allows you to specify the **Preferred Sample Rate** for playback.

Sample Rate Change Timeout

After WaveLab Cast requests the audio device to operate at a new sample rate, the driver sends WaveLab Cast feedback when the task has been completed.

Most drivers do not require you to specify a sample rate change timeout. However, some drivers send delayed feedback or no feedback at all. For these cases, you can specify a timeout.

After the time you specify here, WaveLab Cast assumes the sample rate was accepted and attempts to start playback or recording. However, if WaveLab Cast receives feedback from the driver, the timeout expires.

If you experience sample rate change issues, increase the timeout to three or more seconds. The ideal time is the shortest time that works.

The bottom right of the **Master Section** displays a progress bar while waiting for the driver feedback.

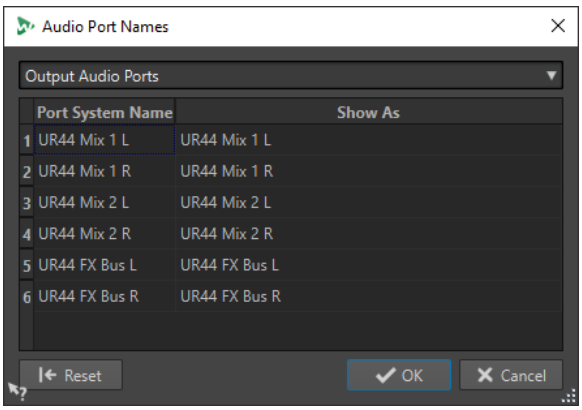
RELATED LINKS
ASIO-Guard on page 17
Master Section on page 198
Playback and Transport on page 69
Recording on page 188

Specifying Custom Names for Audio Ports

You can specify custom names for each input and output audio port of your connected audio gear. When you save an audio connections preset, the custom audio port names are part of the preset. You can save multiple audio connections presets with different names for the same audio device.

PROCEDURE

1. Select **File** > **Preferences** > **Audio Connections**.
2. Click **Port Names**.
3. At the top of the **Audio Port Names** dialog, select **Output Audio Ports** or **Input Audio Ports** from the pop-up menu.
4. In the audio port list, double-click the port name that you want to edit, and enter a new name.



5. Optional: Repeat this for all the port names that you want to change.
6. Click **OK**.

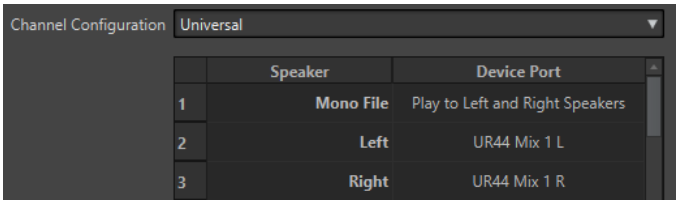
RELATED LINKS
Audio Connections Tab on page 19

Sending Mono File Audio Streams to a Dedicated Speaker

You can choose to send the audio stream of mono files to a dedicated speaker.

PROCEDURE

1. On the **Audio Connections** tab, click **Playback**.
2. From the **Channel Configuration** menu, select **Universal**.
3. Specify a **Device Port** for the **Mono File**.



RELATED LINKS
Audio Connections Tab on page 19

Combining Multiple Audio Devices on macOS

On macOS, you can combine several audio interfaces so that they appear and act as a single aggregate device.

To use a different audio device for output than for input in WaveLab, or to extend the number of inputs and outputs available to you, on macOs, you can combine multiple audio devices and create an aggregate device.

PREREQUISITE

You have connected all external audio devices that you want to use.

PROCEDURE

- Follow the detailed step-by-step instructions on the official Apple Support sites.

  TIP

  We recommend to use “Aggregate Device” as a search term.

WaveLab Cast Concepts

We recommend to familiarize yourself with the general concepts of WaveLab Cast, to ensure the highest possible efficiency when using the application.

RELATED LINKS
General Editing Rules on page 23
Basic Window Handling on page 23

General Editing Rules

The common editing operations apply to any Steinberg product.

- To select and move interface items, and to select ranges, click and drag with the mouse.
- Use the keys of your computer keyboard to enter numeric values and text, to navigate lists and other selectable interface items, and to control the transport functions.
- Common operations like cutting, copying, pasting, or selecting multiple items can be performed using standard keyboard shortcuts.

NOTE

The behavior of your product is also governed by your preference settings.

RELATED LINKS
WaveLab Cast Concepts on page 23

Basic Window Handling

WaveLab Cast adheres to the basic conventions for the Windows/macOS interface, which means that standard Windows/macOS procedures apply.

RELATED LINKS
WaveLab Cast Concepts on page 23

Selecting Audio

Almost all types of editing and processing that you perform in WaveLab Cast take effect on an audio selection. There are numerous ways to make an audio selection.

- To select the entire audio file, double-click it.
- To select an audio file that contains markers, triple-click it.

RELATED LINKS
Selecting a Range by Dragging on page 24
Selecting Channels in Audio Files on page 24

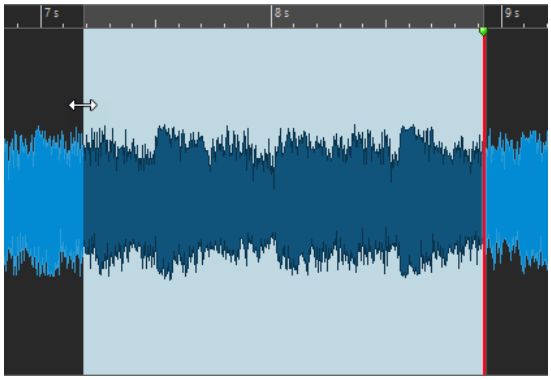
Selecting a Range by Dragging

The standard way to select a range in the **Audio Editor** or in the **Audio Montage** window is to click and drag.

CHOICES

- To select a range, drag all the way to the left or right side of the **Audio Editor** or the **Audio Montage** window.

  The waveform scrolls automatically, allowing you to select larger sections than what can be shown in the wave window. The speed of the scrolling depends on how far from the window edge you are.
- To resize a selection range horizontally or vertically in the **Audio Editor**, click and drag the selection box.



- To resize a selection range vertically in the **Audio Montage** window, click and drag the selection box.

RELATED LINKS

Selecting Audio on page 23
Audio Editor Window on page 83
Audio Montage Window on page 132

Selecting Channels in Audio Files

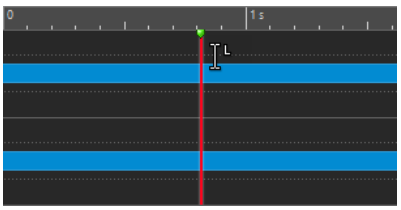
In the **Audio Editor**, you can apply an operation to one channel only or to the entire stereo material.

CHOICES

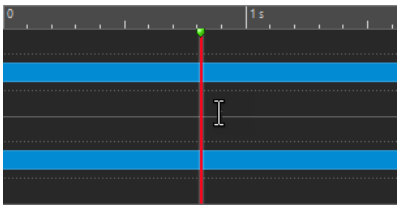
- Which channel is selected when you click in the **Waveform** window of the **Audio Editor** depends on where you click.

  The edit cursor shows which channel is selected. The mouse pointer indicates which channel is affected.

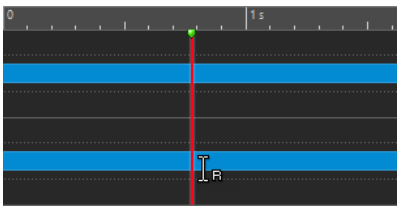
  - To select the left channel, click the upper half of the left channel.



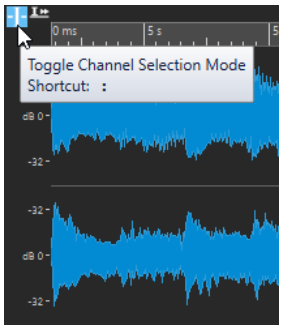
  - To select both channels, click the middle area between the left and the right channel.



- To select the right channel, click the lower half of the right channel.



- To switch from selecting all channels to selecting individual channels, and vice versa, when you click in the **Audio Editor**, click **Toggle Channel Selection Mode** to the left of the timeline.



- To move the edit cursor to the next/previous channel, press **Alt**-**Page Down** or **Alt**-**Page Up**.

RELATED LINKS

Selecting Audio on page 23
Moving the Selection Range to Other Channels on page 26
Audio Editor Window on page 83
Playing Back Focused Audio Channels on page 79

Quantizing Audio Selections based on Time Ruler Marks

In the **Audio Editor**, you can make audio selections snap to time ruler marks and quantize the audio selection at the same time.

PREREQUISITE

You have set the time ruler to the desired unit; for example, to **Bars and Beats** or **Samples**.

PROCEDURE

1. Zoom in or out to display the audio to be quantized.
2. Hover the mouse over the time ruler.
3. Press **Alt/Opt**.

   The mouse pointer turns into the square brackets symbol [ ].
4. Click and drag to select an audio range.

NOTE

This feature is available anytime, and it is independent of the snapping options.

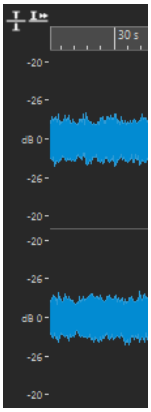
RELATED LINKS
Edit Tab (Audio Editor)
Time Ruler and Level Ruler on page 40

Moving the Selection Range to Other Channels

You can move the selection range that you have made for a channel to all channels or to another channel.

PROCEDURE

1. In the **Waveform** view of the **Audio Editor**, select a range.
2. Do one of the following:
   - In the channel control area, click the channel to which you want to move the selection range.



   - To move the selection range to the next/previous channel via key commands, press **Alt** - **Page Down** or **Alt** - **Page Up**.
   - To move the selection range to another channel via the mouse, press **Ctrl/Cmd** - **Shift**, and drag the selection to another position.

RELATED LINKS
Selecting Channels in Audio Files on page 24
Channel Control Area on page 83
Audio Editor Window on page 83

Selecting in the Overview of the Audio Editor

The ranges that you select in the overview of the **Audio Editor** also apply to the main view.

PROCEDURE

- In the **Waveform** view of the **Audio Editor**, hold down **Ctrl/Cmd**, and click and drag in the overview.

RELATED LINKS
Audio Editor Window on page 83

Moving a Selection Range

If a selection range has the correct length but the wrong position, you can move it.

PROCEDURE

1. In the **Waveform** view of the **Audio Editor**, hold down **Ctrl/Cmd**-**Shift**.
2. Click in the middle of the selection, and drag to the left or to the right.

RELATED LINKS
Audio Editor Window on page 83

Extending and Reducing the Selection

You can resize a selection range in the **Audio Editor** or in the **Audio Montage** window.

To extend/reduce the selection, you have the following options:

Using the Mouse and Key Commands

- To extend the selection, select a range, **Shift**-click outside the selection range, and drag to the left/right. You can also click and drag the edges of the selection range to the left/right.
- To extend the selection to the previous/next boundary (marker or start/end of file), press **Shift**, and double-click the non-selected area between the boundaries.

Using Key Commands

- To move the start or end of a selection in the **Waveform** view of the **Audio Editor** to the left or right, hold down **Shift**, and press the **Left Arrow** / **Right Arrow**. To move it in bigger steps, hold down **Shift**, and press **Page Up** or **Page Down**.
- To extend a selection to the previous or next boundary in the **Waveform** view of the **Audio Editor** (marker or start/end of the audio file), hold down **Ctrl/Cmd**-**Shift**, and press the **Left Arrow** or **Right Arrow**.

Deleting Selections

There are several options for deleting a selected range.

Audio Editor

The following options can be found on the **Edit** tab in the **Cutting** section.

Crop
Removes the data outside the selection.

Delete
Removes the selection. The audio to the right of the selection is moved to the left to fill the gap.

Audio Montage Window

The following option can be found on the **Edit** tab, in the **Removal** section.

Delete Selected Clips/Delete Selected Range

If there is a selection range, the clip parts inside the selection range on the active track are deleted, and the right section of the clips is moved to the left, to fill the gap.

If there is no selection, the selected clips are deleted.

Value Editing

In various areas of the application, you can edit numerical values by using a combination of text fields and dials.

Values are sometimes composed of several elements, for example, 12 mn 30 sec 120 ms. You can edit values by one of the following methods:

- To change a value, click in a value field, and type in a new value, or click the small arrows in the value field.
- To change the value by one unit at a time, press **Up Arrow** or **Down Arrow**.
- To change the value using the mouse wheel, position the mouse cursor over a value, and use the mouse wheel.
- To change the value with the mouse, click a value, and drag the mouse up or down.
- To jump to the maximum and minimum values, press the **Home** or **End** key, respectively.
- To move from one element of the value to another, press **Left Arrow** or **Right Arrow**.

Sliders

In various places in WaveLab Cast, you can change parameters and the respective values via slider controls.

To adjust a value via a slider, you have the following options:

- Position the mouse over the slider, and use the mouse wheel without clicking. Hold **Ctrl/Cmd** while using the mouse wheel to scroll faster. This modifier also applies to the zoom wheels.
- To move a slider, click and drag it.
- To move the slider handle to a specific position, click the slider at the position.
- To move the slider handle in smaller steps, right-click, or click below the handle. Keep the mouse button pressed to automatically step to the next value.
- To reset the slider to the default value, if available, **Ctrl/Cmd**-click the slider, or click using the middle mouse button, or double-click the handle.

RELATED LINKS
WaveLab Cast Concepts on page 23

Renaming Items in Tables

You can rename items in tables in the **Markers** window and in the **Clips** window.

- To rename an item, double-click it, or select it. Press **Return**, and enter the new name.

- To rename the previous item, press the **Up Arrow**. This moves the focus to the previous item, while staying in edit mode.
- To rename the next item, press the **Down Arrow**. This moves the focus to the next item, while staying in edit mode.

RELATED LINKS
Markers Window on page 215
Clips Window on page 155

Peak Files

A peak file (extension .gpk) is automatically created by WaveLab Cast each time an audio file is modified or opened in WaveLab Cast for the first time. The peak file contains information about the waveform and determines how it is drawn in the **Audio Editor** or in the **Audio Montage** window.

Peak files reduce the time it takes to draw the corresponding waveform. The peak file is saved in the same location as the audio file.

Processing Precision

WaveLab Cast can load audio samples in many formats. Internally, it processes them as 64-bit float samples.

Mixing inside WaveLab Cast is also done in 64-bit float. 32-bit PCM samples can be transferred to 64-bit float and back.

Plug-ins are processed in 64-bit float by default. You can also set the plug-in processing to 32-bit float.

You can set up the processing precision for plug-ins and for temporary files via the **Audio** tab of the **Global Preferences**.

NOTE

Processing in 64-bit float results in double precision but slightly longer processing times than 32-bit float.

Temporary files in 64-bit float are processed with double precision but take longer to read and write than 32-bit float, and their file size is twice as big.

RELATED LINKS
Temporary Files on page 54
Audio Tab (Global Preferences) on page 256

EBU Loudness Standard R-128

The EBU loudness recommendation R-128 establishes well-defined methods to measure loudness, dynamics, and peak values, and also defines reference values to achieve for these measurements. Though the reference values are intended for the broadcast world, the measurement methods are helpful in any application dealing with audio and loudness control.

WaveLab Cast supports these audio measurements for metering, audio analysis, and processing in many places.

Loudness Measurement

Loudness measurement takes the frequency sensitivity of the human ear to loudness levels into account. There are three types of measurements:

- Integrated loudness, also called program loudness, establishes the average loudness of an audio piece. This measurement uses a gating method to ignore long periods of silence.
- Short-term loudness measures the loudness once a second, on an audio block of three seconds. This provides you with information about the loudest audio passages.
- Momentary loudness measures a range of 400 ms of audio at intervals of 100 ms. This provides you with instantaneous feedback on the loudness.

Loudness Range

The loudness range measurement serves to establish the dynamics of the audio signal. It reports the ratio between the loudest and the quietest (but non-silent) sections. The audio is divided into small blocks. There is one audio block every second, and each block lasts three seconds. Analyzed blocks overlap.

The top 10% of the quiet blocks and the top 5% of the loud blocks are excluded from the final analysis. The calculated loudness range is the ratio between the loudest and the quietest remaining audio blocks. This measurement helps you to decide if and how much compression or expansion to apply to the audio.

True Peaks

When a digital signal is converted to an analog signal, EBU R-128 recommends measuring an estimation of the real peaks, rather than relying on digital peaks, to avoid clipping and distortion. This is accomplished by over-sampling the signal four times, while retaining the peak values.

Naming and Units

EBU R-128 proposes the following naming and unit conventions:

- A relative measurement, such as a value relative to a reference level:

  “LU” as “Loudness Unit” (1 LU is 1 dB).
- An absolute measurement, “LUFS” as “Loudness Unit Full Scale”. 1 LUFS corresponds to 1 dB in the AES-17 scaling.

When WaveLab Cast relates to the EBU R-128 loudness, it uses these units rather than dB.

RELATED LINKS
Loudness Normalizer on page 127
Audio Editor Only: Global Analysis on page 113
Formats Tab (Global Preferences) on page 257

Resetting Default Answers

In WaveLab Cast, you can set some dialogs and warning messages to **Do not show again**. To show these dialogs and messages again, you must reset the default answers.

PROCEDURE

1. Select **File** > **Preferences** > **Global**.
2. Click **Options**.

3. Click **Reset Default Answers**.

RESULT

All message box options are reset to their default settings.

RELATED LINKS

Options Tab (Global Preferences) on page 258

Workspace Window

The **Workspace** window provides a range of editing and playback environments whose functions are tailored to the specific purposes of particular file types.

WaveLab Cast allows you to choose from different editors and windows, designed to accommodate different needs and serving different purposes:

- The **Audio Editor** for viewing and editing audio files.
- The **Audio Montage** window, a non-destructive editing environment for assembling and editing audio clips on tracks.

You can customize the **Workspace** window to suit your needs and your workflow.

Elements of the Workspace Window

The **Workspace** window contains the following elements:

- A menu bar
- A set of tool windows. Their availability depends on the file type you are working on. The tool windows can be activated/deactivated individually.

RELATED LINKS
Audio Editor on page 32
Audio Montage on page 32

Audio Editor

The **Audio Editor** provides tools and functions for sample-accurate audio editing.

The **Audio Editor** includes various metering tools.

RELATED LINKS
Audio Editor Window on page 83

Audio Montage

In the **Audio Montage** window, you can assemble audio clips to create a montage. You can arrange, edit, and play back clips on stereo or mono tracks.

You can place any number of clips on an audio track. A clip represents a reference to a source audio file on your hard disk, as well as to the start and end positions in the file. Editing clips in an audio montage is non-destructive; that is, the original audio files are unaffected by it.

The **Audio Montage** window provides you with a graphical representation of the clips on tracks. It enables you to view, play back, and edit the tracks and clips.

RELATED LINKS
Audio Montage on page 132

Tool Windows

WaveLab Cast offers various tool windows that allow you to view, analyze, and edit your audio.

Generally, the content of a tool window is synchronized with the active file, with the exception of the audio meters, which display the audio file being played back. Tool windows can be docked and undocked, and saved in your custom layouts. Some tool windows are only available for specific file types.

You can access the tool windows via the **Tool Windows** menu.

RELATED LINKS
Opening and Closing Tool Windows on page 33

Opening and Closing Tool Windows

You can close tool windows that are not relevant for your project, or you can open additional tool windows.

- To open a tool window, select **Tool Windows**, and choose a tool window.
- To close a docked tool window, right-click the tool window tab, and select **Hide**.
- To close an undocked tool window, click its **X** button.

RELATED LINKS
Tool Windows on page 33

Docking and Undocking Tool Windows and Meter Windows

Tool windows and meter windows can be used as docked windows, as floating windows, or as slide-out windows. You can freely drag around the windows and dock them to various locations.

- To undock a tool window or a meter window, drag the corresponding tab to another position.

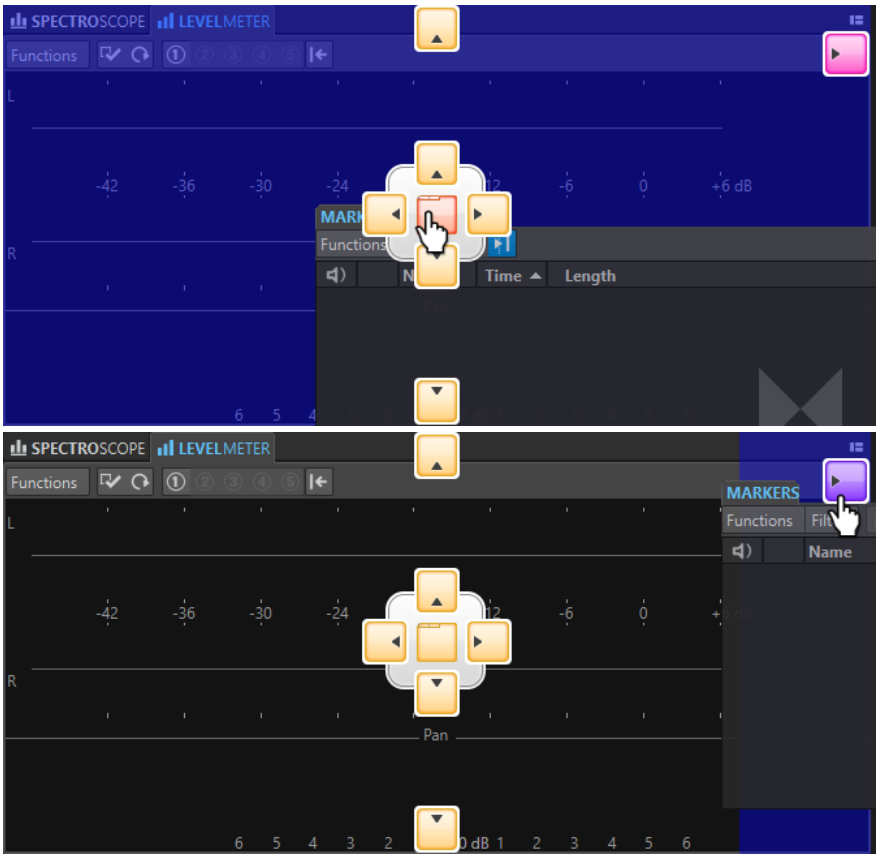
  Now the tool window or meter window is a floating window, which you can freely move around.
- To dock a tool window or a meter window, click and hold the caption bar, or click the **Options** button to the right of the caption bar, and select **Dock Tab Group Elsewhere**.

  NOTE

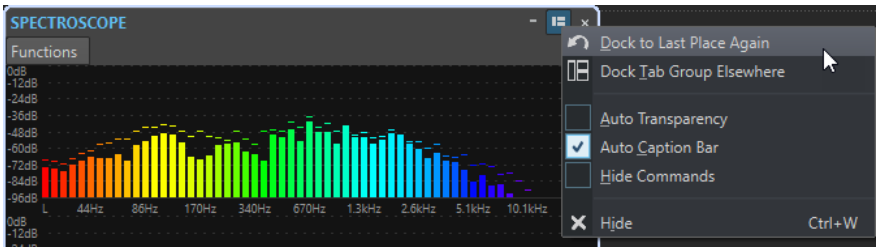
  Yellow symbols indicate locations for docked windows.

  Pink symbols indicate locations for slide-out windows.

  Drag the window to one of the locations.



- To dock a floating tool window or a meter window to its last docked position, click the **Options** button to the right of the caption bar, and select **Dock to Last Place Again**.



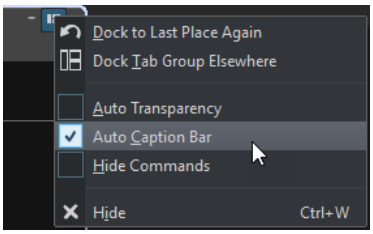
RELATED LINKS
Slide-Out Windows on page 35

Hiding the Caption Bar in Floating Meter Windows

To save screen space, you can automatically hide the caption bar of floating meter windows, when the window is not the active window. You can make the setting for each individual floating window.

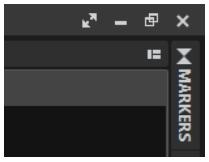
PROCEDURE

1. In a floating meter window, click the **Options** button at the top right of the window.
2. Select **Auto Caption Bar**.

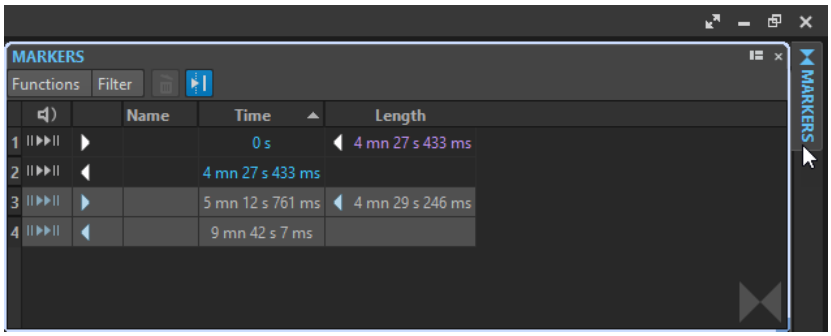


Slide-Out Windows

Slide-out windows are hidden in the frame of the **Workspace** window. When you hover the mouse pointer over the window name, the window slides out. It is hidden again when you click anywhere else.



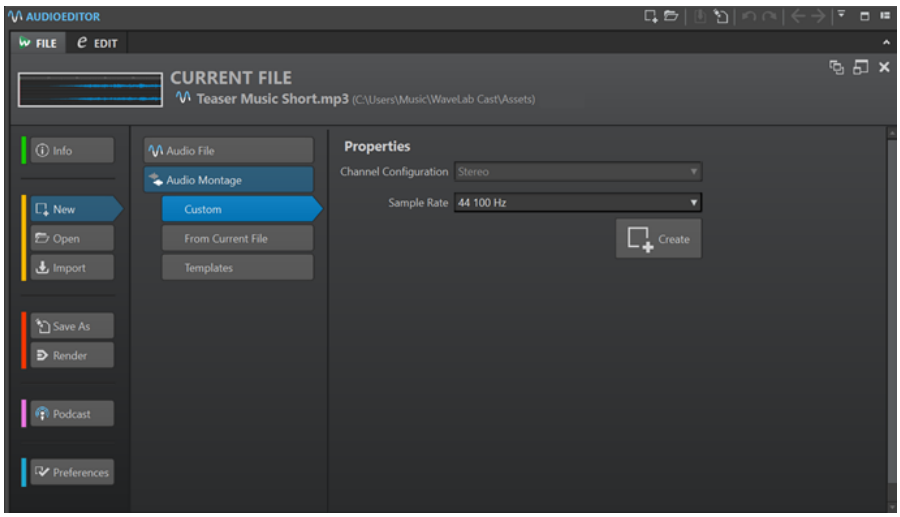
Slide-out window tab



An open slide-out window

File Tab

The **File** tab is the control center of WaveLab Cast. This is where you save, open, render, import, and export files. It also gives you detailed information about your files and allows you to set up the WaveLab Cast preferences.



Info

Provides information about the active file and allows you to edit the audio properties of audio files and audio montages.

New

Allows you to create an audio file or an audio montage.

Open

Allows you to open audio files or audio montages.

You can also open files that you have previously copied to the clipboard in the File Explorer/macOS Finder.

Save As

Allows you to save the active file or the project. You can specify the name, file format, and location. You can also save a copy of the active file.

Render

Allows you to render the active file.

Podcast

Allows you to publish podcasts.

Preferences

Allows you to view and change the preferences of WaveLab Cast. You can set up the preferences for the following parts of WaveLab Cast:

- **Global**
- **Audio Connections**
- **Shortcuts**
- **Plug-ins**
- **Audio Files**

RELATED LINKS

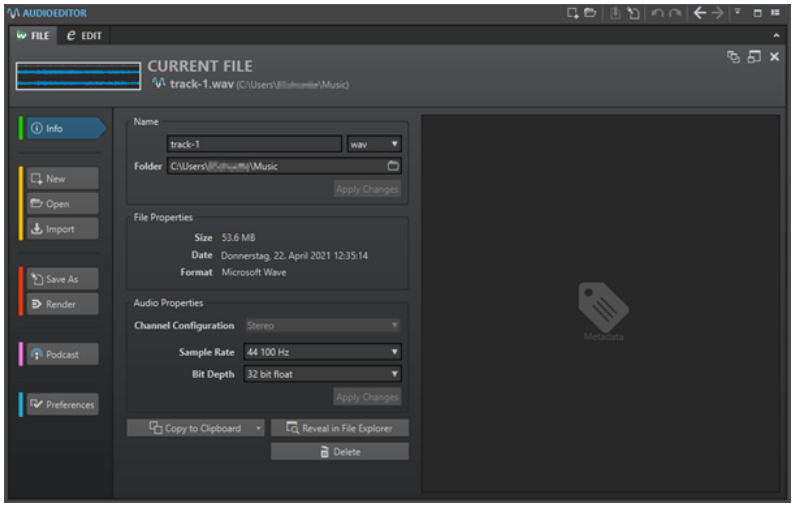
Info Dialog on page 37

Configuring WaveLab Cast on page 255

Info Dialog

The **Info** dialog provides information about the active file and allows you to edit the audio properties of audio files and audio montages.

- To access the **Info** dialog, select the **File** tab, and click **Info**.



Depending on the selected file, different information and options are available.

Name

Displays the name, file extension, and file location of the active file. You can edit these attributes.

File Properties

Displays the size, date, and file format of the active file.

Audio Properties

For audio files, this displays the **Channel Configuration**, the **Sample Rate**, and the **Bit Depth** of the active file.

For audio montages, this displays the **Channel Configuration** and the **Sample Rate** of the active file.

You can edit these attributes.

Metadata

Displays the metadata of the active file or the file that you have selected in the **File Browser** window.

Copy to Clipboard

Opens a menu from which you can select which information about the active file you want to copy to the clipboard.

Reveal in File Explorer/macOS Finder

Opens the File Explorer/macOS Finder to show the location of the active file.

Delete

Deletes the active file.

RELATED LINKS

File Browser Window on page 51

Command Bar

The command bar at the top of the editor windows allows you to create, open, and save files, and to undo/redo changes.



New

Allows you to create an audio file or an audio montage.

Open

Allows you to open an audio file or an audio montage.

Save

Saves the active file.

Save As

Allows you to save the active file. You can specify the name, file format, and location. You can also save a copy of the active file.

Undo

Allows you to undo changes.

Redo

Allows you to redo changes that were undone.

Navigate Backwards/Navigate Forwards

In the **Audio Editor** and in the **Audio Montage** window, this allows you to navigate to the previous/next cursor position, zoom factor, or selection range without undoing/redoing the edit operation.

Customize Command Bar

Allows you to select the buttons to be displayed on the command bar.

Maximize Window

Maximizes the window. To restore the window size, click the button again.

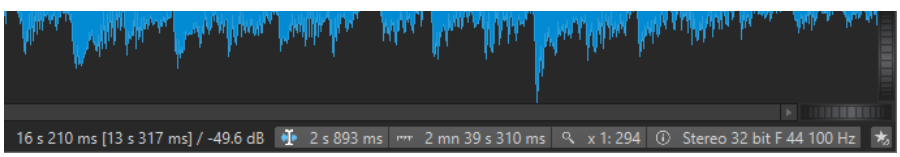
Layout Options

Allow you to determine the position of the command bar and the transport bar.

Status Bar

The status bar at the bottom of the screen of the **Audio Editor** and the **Audio Montage** window shows information about the active window using the units specified for the rulers.

The information displayed on the status bar is continuously updated, based on the movement of the cursor and on your audio selections.



Time/Level (dB)

Displays the time of the audio file at the mouse cursor position. In the **Audio Editor**, it also displays the level.

The value in brackets shows the time from the edit cursor position to the mouse cursor position.

Audio Information at Edit Cursor

Displays the time at the position of the edit cursor. This information changes as you move the cursor.

- To define the cursor position, click the **Audio Information at Edit Cursor** field to open the **Cursor Position** dialog.
- To focus the cursor position, right-click the **Audio Information at Edit Cursor** field.

Audio Selection Indicator (Audio Editor)/Audio Range Indicator (Audio Montage)

In the **Audio Editor**, this displays the length of the current selection, or the total length of the audio file if no selection has been made.

In the **Audio Montage** window, this displays the length of the audio selection if a clip is selected, or the size of the audio montage.

If you have zoomed in, you can right-click the indicator to display the selected audio range, the active clip, or the whole file. Left-click the indicator to open the **Range Selection** dialog, where you can define or refine a selection.

Zoom Indicator

Displays the current zoom factor.

- To open a pop-up menu that allows you to make additional zoom settings, click the indicator.
- To open the **Zoom Factor** dialog that allows you to edit the zoom factor, right-click the indicator.

Audio File Properties/Audio Montage Properties

In the **Audio Editor**, this displays the bit depth and the sample rate. It also indicates whether the audio file is mono or stereo. Click the indicator to open the **Audio Properties** dialog.

In the **Audio Montage** window, this displays the sample rate of the audio montage. Click the indicator to open the **Sample Rate** dialog.

Bypass Master Section

If this option is deactivated, the **Master Section** is ignored during playback. However, rendering still takes all plug-ins into account.

Background Information

The status bar shows the progress of some background operations, such as rendering an effect. The operation can be paused or canceled using the corresponding buttons.



Context Menus

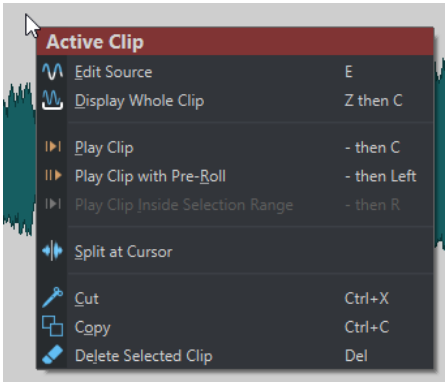
WaveLab Cast offers various context menus, which contain commands and/or options pertaining to the active window.

Context menus appear when you right-click in specific areas.

TIP

Most commands and options that you can find in context menus are also accessible via other control elements of the application, such as windows, dialogs, or main menus. Context menus are mainly intended to speed up your workflow by allowing you to access the corresponding features more quickly.

However, some options are exclusively available in context menus. When looking for a specific feature, right-click the active window to check if it provides a context menu.



Context menu in the Audio Montage window

RELATED LINKS
Time Ruler and Level Ruler on page 40

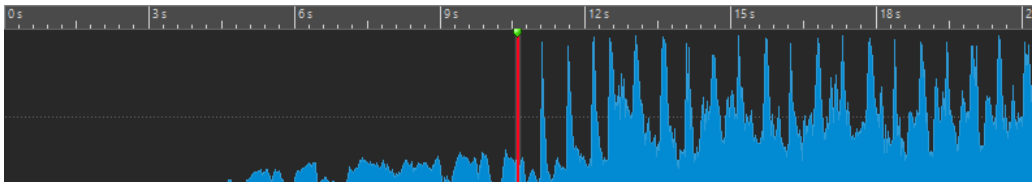
Time Ruler and Level Ruler

Both in the **Audio Editor** and in the **Audio Montage** window, you can display a time ruler. In addition to this, a level ruler is available in the **Audio Editor**.

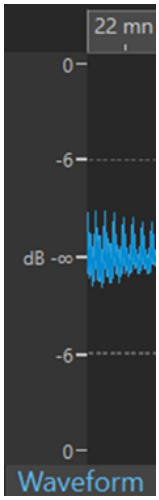
You can specify the time and level units to be displayed by the rulers. The following units are available:

- **Timecode**
- **Clock**
- **Samples**
- **Bars and Beats**

Time Ruler



Level Ruler (Audio Editor only)



RELATED LINKS
Audio Montage Window on page 132
Time Ruler and Level Ruler Options on page 41
Time Format Dialog on page 44

Time Ruler and Level Ruler Options

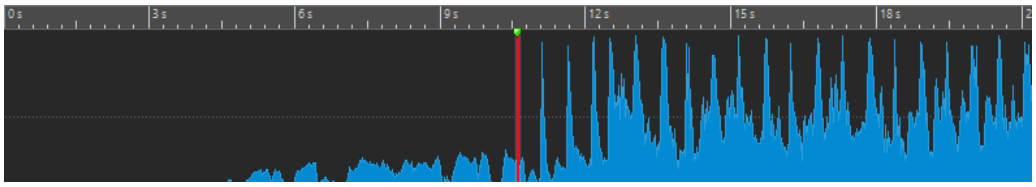
In the **Audio Editor**, you can specify a time and level (amplitude) format for each individual ruler. In the **Audio Montage** window, you can define a format for the time ruler display.

RELATED LINKS
Time Ruler and Level Ruler on page 40
Time Ruler Menu on page 41
Level Ruler Menu (Audio Editor only) on page 42

Time Ruler Menu

The time ruler menu allows you to set up the time ruler display, such as the timecode and the time format.

- To open the time ruler menu, right-click the time ruler.



Timecode

Displays frames per second for various SMPTE timecode types and for CD resolution.

You can specify the timecode type in the **Time Format** dialog.

Clock

Displays time units. You can make additional settings for the time units in the **Time Format** dialog.

Samples

Displays positions based on the number of samples. The number of samples per second depends on the sample rate of the audio file. For example, at 44.1 kHz, there are 44100 samples per second. You can make additional settings for the samples in the **Time Format** dialog.

Bars and Beats

Displays bars and beats. You can make additional settings for the bars and beats in the **Time Format** dialog.

File Size (Audio Editor only)

Displays positions in megabytes. Decimals represent kilobytes.

Show grid (Audio Montage window only)

Displays vertical lines in the montage window, aligned with time ruler marks.

Time Format

Opens the **Time Format** dialog, which allows you to edit the appearance of the time ruler formats.

Save Current Settings as Default

If this option is activated, the time ruler uses the current time format in all new **Audio Editor** or **Audio Montage** windows.

Set Ruler's Origin to Start of File

If this option is activated, the ruler's zero position is set to the beginning of the first sample.

Set Ruler's Origin at Cursor

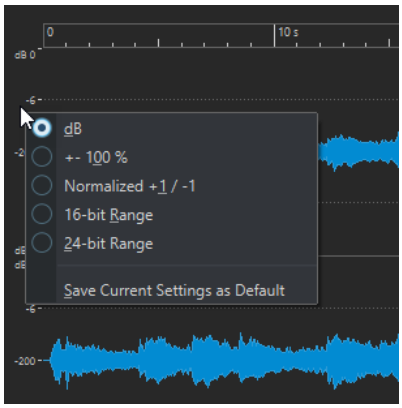
If this option is activated, the ruler's zero position is set to the current edit cursor position.

RELATED LINKS
Time Ruler and Level Ruler on page 40
Time Format Dialog on page 44
Level Ruler Menu (Audio Editor only) on page 42

Level Ruler Menu (Audio Editor only)

The level ruler menu allows you to set up the level format of the level ruler.

- To open the level ruler menu, right-click the level ruler in the **Audio Editor**.



dB

Sets the level format to decibels.

+-100%

Sets the level format to percentage.

Normalized +1/-1

Sets the level format to a ruler gradation corresponding to 64-bit float audio.

16-bit Range

Sets the level format to a ruler gradation corresponding to 16-bit audio.

24-bit Range

Sets the level format to a ruler gradation corresponding to 24-bit audio.

Save Current Settings as Default

If this option is activated, the level ruler uses the current level format in all new **Audio Editor** windows.

RELATED LINKS
Time Ruler and Level Ruler on page 40
Time Ruler Menu on page 41

Working with a Meter-Based Display

If your working material is tempo-based, you can select the meter format (bars, beats, and ticks) for the ruler legend. This makes it easier to find musically related cutting points.

PROCEDURE

1. In the **Audio Editor** or in the **Audio Montage** window, right-click the time ruler, and select **Bars and Beats**.
2. Right-click the time ruler, and select **Time Format**.
3. On the **Bars and Beats** tab, set **Time Signature** and **Tempo** to values that match your audio file.
4. Set **Ticks per Quarter Note** to a number that you feel comfortable with.

   This can be the same value that is used by your MIDI sequencer, for example.
5. Click **OK**.

RELATED LINKS
Time Ruler and Level Ruler on page 40
Time Format Dialog on page 44

Setting the Edit Cursor Position

Many operations, such as playback and selection, depend on the current edit cursor position. For example, playback often starts at the edit cursor position. The current edit cursor position is indicated by a vertical flashing line.

There are various ways to move the edit cursor:

- Click anywhere in the **Audio Editor**, the **Audio Montage** window, or the time ruler. After making a selection, click the time ruler to prevent deselecting.
- Click and drag in the time ruler.
- Use the transport controls.
- Use the cursor keys.

- Double-click a marker.

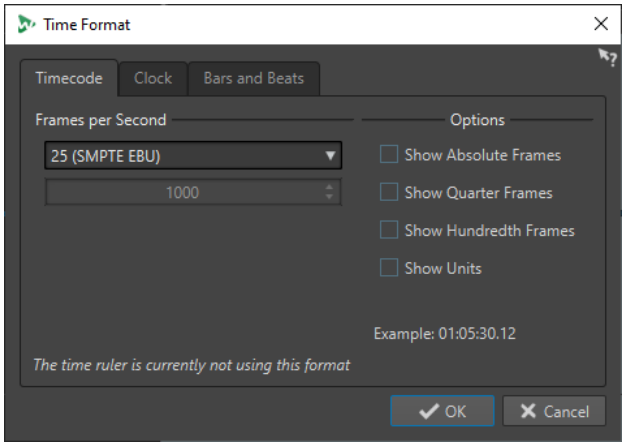
RELATED LINKS
Time Ruler and Level Ruler on page 40
Time Format Dialog on page 44

Time Format Dialog

In the **Time Format** dialog, you can customize the time format of the ruler. The time format of the ruler is also used in various time fields, for example, the status bar and some dialogs.

- To open the **Time Format** dialog, right-click the ruler in the **Audio Editor** or in the **Audio Montage** window, and select **Time Format**.

  In the **Audio Editor**, you can set different time formats for the overview display and the main display.



Timecode Tab

On this tab, you can configure the appearance of the **Timecode**.

Frames per Second

Lists standard frame rates. From the pop-up menu, select **Other** to enter a custom frame rate. You can also choose which frames or units to display.

Show Absolute Frames

Shows the time format as a number of frames, without other time elements.

Show Quarter Frames

Adds the quarter frame number to the time format.

Show Hundredth Frames

Adds the number of a hundredth of a frame to the time format.

Show Units

Adds time units to the time format of the ruler.

Clock Tab

On this tab, you can configure the appearance of the **Clock** ruler.

Show Units

Adds time units to the time format of the ruler.

Compact

Shows the time without unit indicators.

Bars and Beats Tab

On this tab, you can configure the appearance of the **Bars and Beats** ruler.

Time Signature

Allows you to edit the time signature used to display the time represented as a musical notation.

Tempo

Allows you to edit the tempo used to display the time represented as a musical notation.

Ticks per Quarter Note

Allows you to edit the number of ticks per quarter note. These are used to display times that are compatible with your sequencer.

Show Ticks

Allows you to show/hide ticks on the **Bars and Beats** ruler.

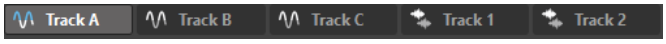
RELATED LINKS
Time Ruler and Level Ruler on page 40

Managing Tabs in the Audio Editor / Audio Montage Window

A tab that is situated in the **Audio Editor** or the **Audio Montage** window is a container for a file in WaveLab Cast. You can open several tabs, but only one can be active at a time. The **Tabs** context menus offer tab-related options.

File Tabs

The following options are available when you right-click a file tab.



Create Audio Montage

Allows you to select **From Current Audio File** to create an audio montage with the current audio file as a clip.

Add to

Allows you to add the active file to another editor.

Close

Closes the active tab.

Close All But This

Closes all files but the active file.

Close All Audio Files

Closes all audio files.

Info

Displays information about the active file.

Reveal in File Explorer/macOS Finder

Opens the File Explorer/macOS Finder to show the location of the file.

Copy to Clipboard

Opens a menu, from which you can select which information about the file you want to copy to the clipboard.

Recent Files

Allows you to open recently used files.

RELATED LINKS

Closing Files on page 48
Creating Audio Montages from an Audio File on page 143

Activating Full Screen Mode

You can use WaveLab Cast in full screen mode.

PROCEDURE

- Select **Workspace** > **Full Screen**.

Resetting the Default Workspace Layout

PROCEDURE

- Select **Workspace** > **Reset Default Layout**.

File Handling

WaveLab Cast offers you many options to handle your files. For example, you can rename files from within WaveLab Cast or save files in various ways.

RELATED LINKS
Opening Files on page 47
Saving Files on page 48
File Browser on page 50

Opening Files

You can open one file or several files at a time.

PROCEDURE

1. Select **File** > **Open**.
2. Select a file type; for example, **Audio File**.
3. From the File Explorer/macOS Finder, select the files that you want to open.
4. Click **Open**.

RESULT

The selected files are opened in separate file tabs.

RELATED LINKS
Closing Files on page 48
Saving Files on page 48
Opening Files from the Clipboard on page 47

Opening Files from the Clipboard

You can open files in WaveLab Cast that you have previously copied to the clipboard in the File Explorer/macOS Finder.

PROCEDURE

1. In the File Explorer/macOS Finder, copy the files to the clipboard.
2. Select **File** > **Open**.
3. Click **Open Files from Clipboard**.

RESULT

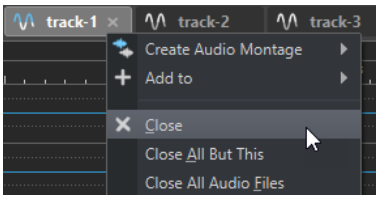
The files are opened in new file tabs.

Closing Files

You can close a single file, multiple files, or all files but the selected one by closing the file tabs.

CHOICES

- To close a file tab, click the **X** button of the corresponding tab, or press **Ctrl/Cmd** - **W**, or right-click the file tab, and select **Close**.



- To close a file tab without saving your changes, hold **Ctrl/Cmd** - **Shift**, and click the **X** button of the tab. This avoids having to confirm a warning message whenever you want to close an unsaved tab.
- To close all file tabs but the selected file tab, right-click a file tab, and select **Close All But This**.

RELATED LINKS

Opening Files on page 47

Saving Files

You can choose to save files under an existing name, in the same location, or to specify a new name, location, and file format when saving.

IMPORTANT

In the **Audio Editor**, all save operations clear the undo history, which means that after saving, you cannot undo or redo any operation.

CHOICES

- Once a file has been saved, select **File** > **Save**, or press **Ctrl/Cmd** - **S** to update the file and make the changes permanent.
- To specify a new name, location, and/or file format, select **File** > **Save As**.

RELATED LINKS

Tab Change Indicators on page 48

Tab Change Indicators

The colored tab corner provides information on whether a file is saved or not.

White

The file is not modified.

Green (Audio Editor only)

The file uses a decoded file format and is saved.

Red

The file has been modified, but the changes have not been saved yet.

Unsaved Changes Indicator

When you have made changes to a file, an asterisk is displayed next to the file name until you save the file.



Reverting to Saved File

You can set a file back to its last saved state. This reverts all the changes made to the file since the last time it was saved.

PROCEDURE

1. Select **File** > **Open**.
2. Select a file type.
3. Click **Revert to Saved File**.
4. In the warning dialog, click **Yes** to revert to the last saved state.

RESULT

The most recently saved version of the file is loaded from disk.

Automatic Backups

You can automatically create backups of your files to prevent data loss.

For example, if you select **Save As** and specify a file name that is already used in the folder, you can choose to replace the existing file or to replace the existing file and to keep the old file. If you click **Replace and Keep Old**, the backup audio file assumes the original name, with `.bak` added at the end.

Saving Audio Montages

The saving procedures for audio montages are the same as for audio files. However, there are a few things to keep in mind when saving audio montages.

- Audio montage files only contain references to audio files. To rename audio files that are referenced by audio montages, rename the audio files in the **Info** window of the **Audio Editor**. All clip references are updated automatically.
- If the audio montage contains clips that refer to untitled audio files, you have to save these audio files before saving the audio montage.

RELATED LINKS

Renaming Files on page 50
Saving Files on page 48

Deleting Files

You can delete active files from within WaveLab Cast.

PREREQUISITE

The file that you want to delete has neither been copied to the clipboard nor pasted into another open file, and it is not open in another application.

PROCEDURE

1. Open the file that you want to delete.
2. Select the **File** tab.
3. Click **Info**.
4. Click **Delete**.
5. Click **OK**.

RESULT

The file, including its peak and marker files, is deleted.

File Renaming

You can rename a file and update all references automatically. For example, if you rename an audio file named **India** to **Sitar**, all open files that reference the file **India** are updated to reference the file as **Sitar**.

Audio files, peak files, and marker files are also renamed accordingly.

RELATED LINKS
Peak Files on page 29
Renaming Files on page 50

Renaming Files

You can rename files from within WaveLab Cast.

PREREQUISITE

To rename a file that is referenced by other files, you have opened the files that reference the file you are about to rename in WaveLab Cast.

PROCEDURE

1. Open the file that you want to rename.
2. Do one of the following:
   - Select the **File** tab, click **Info**, specify a new **Name**, **Folder**, and/or file extension, and click **Apply Changes**.
   - Press **F2**, specify a new **Name**, **Folder**, and/or file extension, and click **OK**.

RELATED LINKS
File Renaming on page 50
File Tab on page 36

File Browser

The **File Browser** window allows you to navigate to files from within WaveLab Cast.

The **File Browser** window provides you with all the standard browsing functions.

You can use the **File Browser** to open files, or you can insert files by dragging them to another location.

You can also choose to exclusively view specific file types.

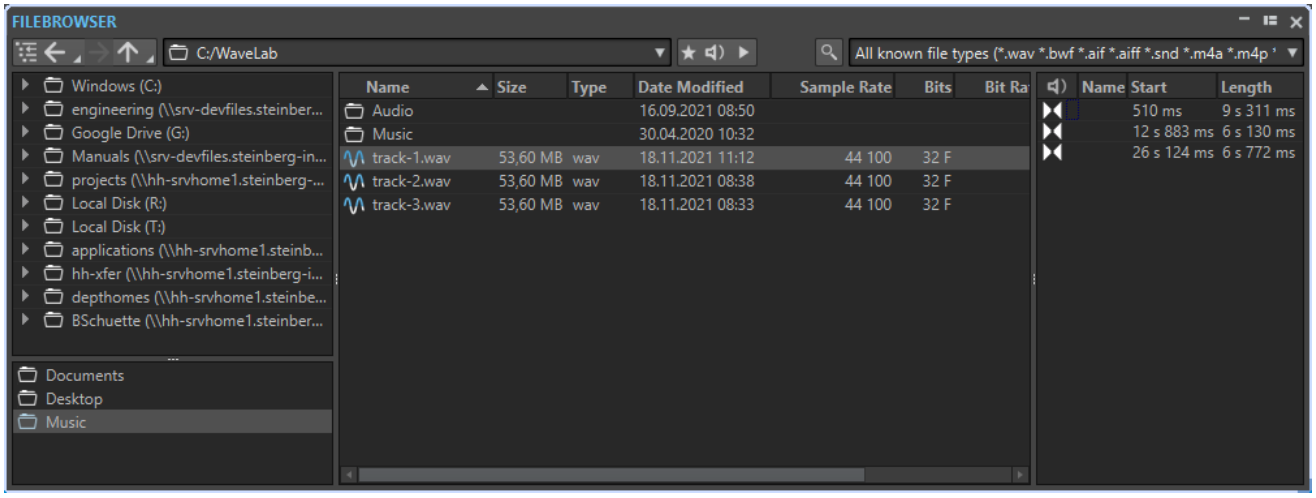
The **Auto Play Mode** is useful for speeding up the process of auditioning sound files.

RELATED LINKS
File Browser Window on page 51

File Browser Window

In the **File Browser** window, you can look for files and open them in WaveLab Cast.

- To open the **File Browser** window, select **Tool Windows** > **File Browser**.



Show Current Folder in Folder Tree

Synchronizes the folder tree to the file list, so that the folder that is selected in the file list is also shown in the folder tree.

Back/Forward/Parent Directory

Allows you to navigate through the list and file hierarchy.

Location

This menu allows you to select a file location to browse and lists the recently used locations.

Play through Master Section

When you start playback with this option is activated, the audio file is played back through the **Master Section** plug-ins.

Auto-Play Mode

If this button is activated, playback starts automatically when you select a file.

Play Selected Audio File

Plays the selected audio file.

Search

If this button is activated, you can enter text in the search field. If it is deactivated, you can search specific file formats.

File type list

Allows you to choose which file type and file format to display.

Folder tree

Shows the folders that are available on your computer.

Favorite folders

The favorite folders list allows you to quickly access folders. Each file type has its own favorite folder. You can add folders to the favorite folders list by dragging them from the folder tree to the favorite folders area, or by right-clicking a folder and selecting **Add to Favorite Folders List**.

File list

Shows the following information about each file:

- **Name** shows the name of the audio file.
- **Size** shows the size of the audio file.
- **Type** shows the file type of the audio file.
- **Date Modified** shows the date on which the audio file was last saved.
- **Sample Rate** shows the sample rate in Hz.
- **Bits** shows the bit depth in bits. “32F” means 32-bit float and “64F” means 64-bit float.
- **Bit Rate** shows the bit rate in kbps.
- **Length** shows the length of the audio file.
- **Channels** shows the number of channels.

When you select an audio file in the **File Browser** window, the corresponding metadata is displayed in the **Metadata** window and the **Metadata** section of the **Info** tab. When you click elsewhere, the **Metadata** window displays the metadata of the selected audio file, audio montage, or batch process.

Reveal in File Explorer/Reveal in macOS Finder

If you right-click in the file list, you can select **Reveal in File Explorer/Reveal in macOS Finder** to open the selected file in the File Explorer/macOS Finder.

Create Folder

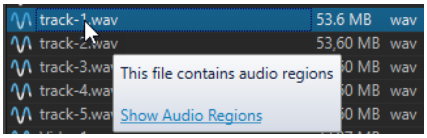
If you right-click in the file list, you can select **Create Folder** to add a new folder for structuring your files.

Audio Regions

If the selected file contains markers, the markers are displayed in the audio regions section.

If the audio regions section is hidden, select a file that contains markers, and click **Show Audio Regions**.

To hide the audio regions section, right-click it, and select **Hide**.



RELATED LINKS

File Browser Window on page 51
Adding Folders to the Favorite Folders List on page 53
Metadata Window on page 107
Info Dialog on page 37

Adding Folders to the Favorite Folders List

The favorite folders list in the **File Browser** window allows you to quickly access folders. Each file type has its own favorite folder.

PROCEDURE

- In the **File Browser** window, do one of the following:
  - Drag a folder from the folder tree to the favorite folders area.
  - Right-click a folder, and select **Add to Favorite Folders List**.
  - Right-click the favorite folders area, and select **Add Selected Folder to Favorite Folders List** to add the selected folder to the favorite folders list.

RELATED LINKS
File Browser Window on page 51

Switching Between Files

You can have multiple files open and switch between them.

CHOICES

- To move a file to the front, click the corresponding tab.
- To switch between the files, hold **Ctrl/Cmd**, and press **Tab** continuously.
- To switch back and forth between the last two active files, press **Ctrl/Cmd** - **Tab**. Be sure to release all keys after each step.
- To switch backwards, press **Ctrl/Cmd** - **Shift** - **Tab**.
- To switch from the active file to the most recently edited file, and vice versa, press **F5**.

Recently Used Files

All files that you have recently used in WaveLab Cast are saved in a list. This gives you quick access to recent projects.

Opening Recently Used Files

You can open recently used files via the **File** menu or the **Recent Files** tab. The latter displays more files and offers additional options.

PROCEDURE

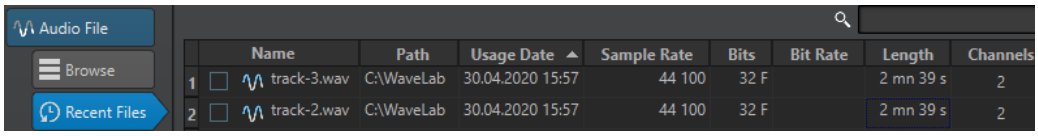
1. Select **File** > **Open**.
2. Select the file type that you want to open.
3. Click **Recent Files**.
4. Optional: Use the search field to enter the name of the file that you are looking for.
5. Select the file that you want to open.
6. Click **Open**.

RELATED LINKS
Recent Files Tab on page 54

Recent Files Tab

This tab allows you to view and manage files that you have recently used in WaveLab Cast. You can search for files, open multiple files at once, and remove individual files or files that cannot be located.

- To open the **Recent Files** tab, select **File** > **Open**, select one of the file types, and click **Recent Files**.



Only Show Files Created by WaveLab Cast

Only shows the files that have not been opened since they were created by WaveLab Cast. For example, a file that is rendered has this status until it is opened.

Search field

Allows you to search for text in the **Name** or **Path** column, depending on which column is selected.

Remove Non-Existing Files

Removes files from the list that cannot be located on the medium.

Remove Selected Files

Removes all selected files from the list.

Open

Opens the selected files.

Filtering Recently Used Files by Name

The search field in the **Recent Files** tab allows you to filter the files list by name.

- To specify whether the **Name** or the **Path** column is used, click the **Name** or **Path** column header.
- To search for a file, enter text into the search field.
- To switch the focus from the search field to the list of recently used files, press **Down Arrow**.
- To switch the focus from the list of recently used files to the search field, press **Ctrl/Cmd**-**F**.

Temporary Files

WaveLab Cast creates temporary files to save intermediary results of the audio file processing, and for the undo/redo functions.

Favorite Files

You can add files that you regularly use to the list of favorite files.

- To open the list of favorite files, select **File** > **Open**, select the file type, and click **Favorites**.
- To add the open file to the list of favorite files, click **Add Current File**.

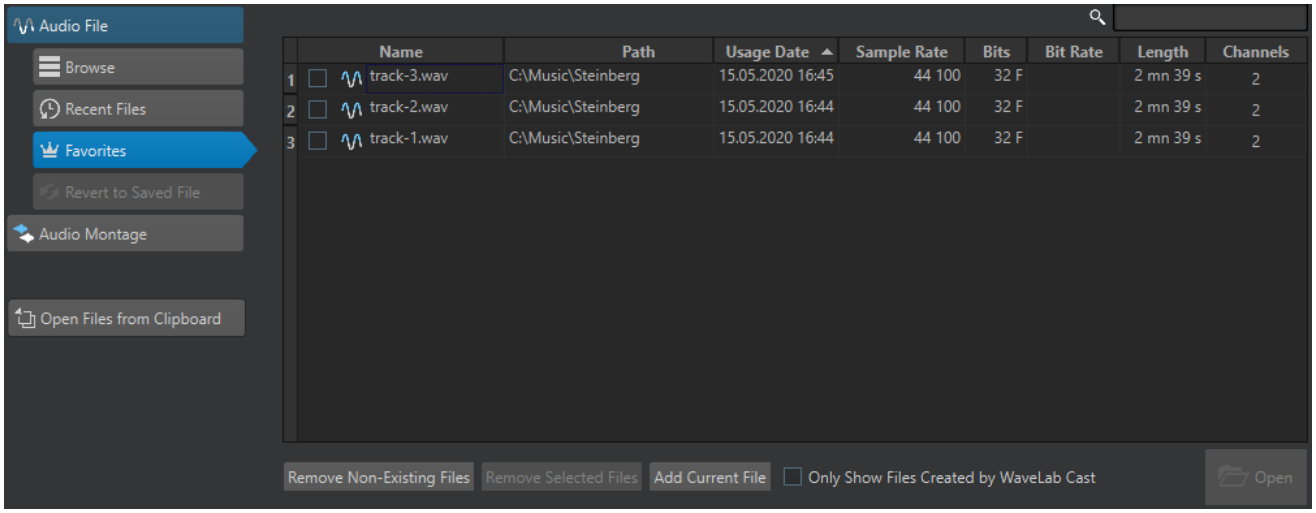
- To open a file from the list of favorite files, select a file from the file list, and click **Open**.
- To remove files from the list of favorite files, select the files that you want to remove, and click **Remove Selected Files**.
- To remove files from the list that are no longer present on the medium, click **Remove Non-Existing Files**.

RELATED LINKS
Favorites Tab on page 55

Favorites Tab

The **Favorites** tab allows you to display and edit the list of favorite files.

- To open the **Favorites** tab, select **File** > **Open**, select the file type, and click **Favorites**.



List of favorite files

Shows the favorite files.

Search

Allows you to filter the favorite files list by name.

Remove Non-Existing Files

Removes files from the list that cannot be located on the medium.

Remove Selected Files

Removes all selected files from the list.

Add Current File

Adds the open file to the favorites list.

Only Show Files Created by WaveLab Cast

Only shows the files that have not been opened since they were created by WaveLab Cast.

This allows you to quickly access files that were created in WaveLab Cast via the **Save As** or **Render** option, for example.

Open

Opens the selected files in WaveLab Cast.

RELATED LINKS
Favorite Files on page 54

Filtering Favorite Files

The search field on the **Favorites** tab allows you to filter the list of favorite files.

- Via the **Favorites** tab, enter a particular file name or part of a file name into the search field.
- To switch the focus from the search field to the list of favorite files, press **Down Arrow**.
- To switch the focus from the list of favorite files to the search field, press **Ctrl/Cmd** - **F**.

RELATED LINKS
Favorites Tab on page 55

Undoing and Redoing Operations

You can undo and redo as many operations as you like, even after saving the file. The only limitation is the available hard disk space.

When undoing or redoing any operation in the **Audio Editor** or the **Audio Montage** window, the zoom factor, cursor position, scroll position, clip selection status, and time range are restored to the state before the operation.

- To undo or redo an operation, click **Undo** or **Redo** in the command bar bar of the **Audio Editor** or **Audio Montage** window.

RELATED LINKS
Undoing Effect Changes

Drag Operations

WaveLab Cast requires you to use drag-and-drop techniques to perform various operations, some of which can only be performed in this manner.

- To drag an object, click and hold down the mouse button when positioned on the object, and drag it. Drop the object by releasing the button.

You can drag many types of objects across different source and destination locations; for example, files, text, clips, items in a list, and markers.

NOTE

It is also possible to drag and drop files from WaveLab Cast to Steinberg's Nuendo.

- To reorder a tab within its own tabbed group, drag horizontally.
- To move a tab to another window, drag vertically.
- To open a file, drag it from the **File Browser** window of WaveLab Cast, from the File Explorer/ macOS Finder, or from another application to the tab bar.
- To create a copy of a file, drag its tab vertically to another position of the tab bar, then press **Ctrl/Cmd**, and release the mouse button.
- You can dock and undock tool windows and meter windows via dragging.

RELATED LINKS
Docking and Undocking Tool Windows and Meter Windows on page 33

Dragging in the Audio Editor and in the Audio Montage Window

You can perform different operations, depending on where in the **Audio Editor** or in the **Audio Montage** window you drag.

- To insert an audio file into another audio file, drag the title bar of the file onto the waveform of another file. You can also drag an audio file from the **File Browser** window, the File Explorer/macOS Finder, or from another application into the **Audio Editor**.
- To move a marker, drag it to another position on the time ruler.
- To create a copy of a marker, press **Shift**, and drag it to another position on the time ruler.
- To delete a marker, drag it upwards outside the time ruler.
- To copy an audio selection, drag a selected region of audio onto the waveform area of the same file or another file.
- To change the extent of a selection range, position the edit cursor at the start/end of the selection range, and drag to the left or right.
- To move the edit cursor without losing the current selection, and to snap it to an anchor, press **Shift**, and move the mouse near the audio file/montage cursor. The mouse cursor shape changes, and you can drag the cursor left and right.
- To move the edit cursor without changing or losing the current selection, press **Shift**, click the edit cursor, and drag it to another position.
- To scroll the waveform horizontally, click the bar above the time ruler, and drag left or right. You can also click anywhere on the waveform using the middle mouse button, and drag left or right.
- To create a generic marker from a selected text, drop the text that you have selected in an external application onto the time ruler. The text becomes the marker name.
- To create a stereo copy of a mono file, or a mixed copy of a stereo file, drag a tab to another position of the tab bar, press **Ctrl**-**Alt** /-**Opt**, and release the mouse button.

RELATED LINKS
Audio Editor Window on page 83
Audio Montage Window on page 132
File Browser Window on page 51

Dragging in the Master Section

You can reorder effects in the **Master Section** via dragging.

- To change the order of processing in the **Master Section**, drag effects to different effects slots.

RELATED LINKS
Master Section Window on page 198

Zooming

WaveLab offers you a wide range of options and tools for zooming in the **Audio Editor** and in the **Audio Montage** window.

To zoom in or out, you can choose from dedicated controls, tools, and buttons, and you can use the mouse or the computer keyboard, so that, regardless of what part of the workspace you are currently working in, you can easily access the zooming features best suited to your workflow and goals.

Zooming via the Scroll Wheels

In the **Audio Editor** or in the **Audio Montage** window, you can use the scroll wheels to zoom in or out.

PROCEDURE

- Do one of the following:
- 

  To zoom horizontally, click the **Horizontal Zoom** scroll wheel (**3**), and drag left or right, or use the mouse wheel.

  To fully zoom out, double-click the **Horizontal Zoom** scroll wheel (**3**).

  NOTE

  - When you zoom out as far as possible, the entire file fits in the window.
  - When you zoom in as far as possible, each sample occupies several pixels on the screen. This allows for sample-accurate editing of waveforms.

- To zoom vertically, click the **Vertical Zoom** scroll wheel (**2**), and drag up or down, or use the mouse wheel.

  To switch between an optimized height and the default zoom, double-click the **Vertical Zoom** scroll wheel (**2**).

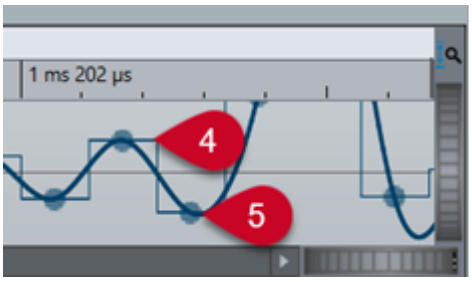
  NOTE

  As you progressively zoom in, only part of the total height of the waveform is displayed. The vertical scrollbar (**1**) allows you to precisely determine which area to display. You can check the ruler to see which detail of the waveform is currently displayed.

To optimize the vertical zoom of the waveform, press **Ctrl/Cmd**, then the time ruler. Keep the mouse button pressed, and drag the mouse up or down.

NOTE

- When the zooming level is very high, each sample is represented by a step (**4**) and a dot (**5**). The steps show the actual digitized state. The dots make it easier to identify the samples, especially with zeroed samples.



- The curve also represents an estimation of the analog reconstructed signal, to provide hints on true peaks.

RELATED LINKS
Zooming on page 58

Zooming with the Mouse

In the **Audio Editor** or in the **Audio Montage** window, you can click and drag or use the mouse wheel to zoom in or out.

PROCEDURE

- You have the following options:
  - To zoom horizontally, position the mouse pointer over the time ruler. Click, and drag up or down.

    TIP

    To maintain the mouse pointer position while doing so, press **Shift** before you drag. Alternatively, press **Ctrl/Cmd**-**Shift**, point at a waveform, and use the mouse wheel.
  - To zoom horizontally around the edit cursor position, press **Ctrl/Cmd**-**Shift**, point at a waveform, and use the mouse wheel.

    TIP

    To zoom around the mouse pointer position, press **Ctrl/Cmd** instead.
  - To zoom vertically, press **Shift**, point at a waveform, and use the mouse wheel.

RELATED LINKS
Zooming on page 58

Zooming while Selecting an Audio Range

In the **Audio Montage** window and in the **Audio Editor**, you can zoom in or out while selecting an audio range.

PROCEDURE

1. In the **Audio Montage** window or in the **Audio Editor**, click and drag to select an audio range.
2. Click into the selection and, with the mouse button pressed, press and hold down **Shift**.
3. Move the mouse up to zoom in or down to zoom out.
4. To adjust the selected audio range, with the mouse button still pressed, release **Shift**, and drag to the left or to the right.

RELATED LINKS
Zooming on page 58

Zooming with the Keyboard

A quick way to zoom in or out in the **Audio Editor** or in the **Audio Montage** window is to use the arrow keys on your computer keyboard.

PROCEDURE

- You have the following options:
  - To zoom horizontally, press the **Up Arrow** or the **Down Arrow**.
  - To zoom vertically, hold **Shift**, and press the **Up Arrow** or the **Down Arrow**.
  - To zoom vertically to fit the available height, press **Ctrl/Cmd** - **Shift** - **Up Arrow**.
  - To fully zoom out, press **Ctrl/Cmd** - **Down Arrow**.
  - To fully zoom in, press **Ctrl/Cmd** - **Up Arrow**.

RELATED LINKS
Global Preferences on page 255
Zooming on page 58

Zoom Options on the Tab Bar

Various zoom options are available via the tab bar, both in the **Audio Montage** window and in the **Audio Editor**.

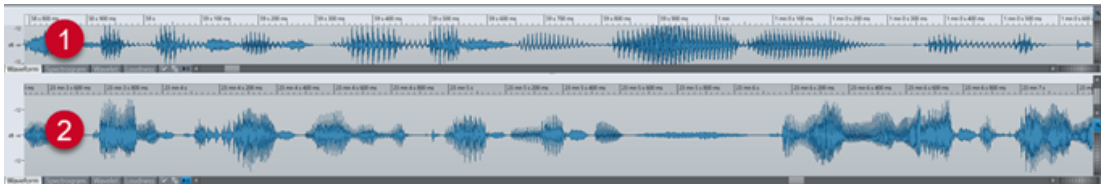
The zoom options are available in the **Zoom** section of the **Edit** tab, in the **Audio Editor** and in the **Audio Montage** window.

RELATED LINKS
Edit Tab (Audio Editor) on page 84
Edit Tab (Audio Montage) on page 137
Zooming on page 58

Audio Editor-Specific Zoom Options

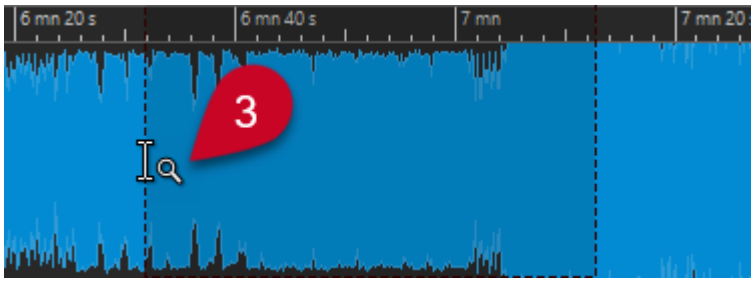
The **Audio Editor** offers a few zoom options that are exclusively available in this editor, such as an additional **Zoom** tool.

The **Audio Editor** allows for separate zoom level settings for the overview (**1**) and the main view (**2**).



In the overview, a range indicator on the time ruler indicates which section of the file is displayed in the main view.

You can use the **Zoom** tool (**3**) in both the main view and the overview, to zoom in on a detail of the waveform so that it occupies the entire window.



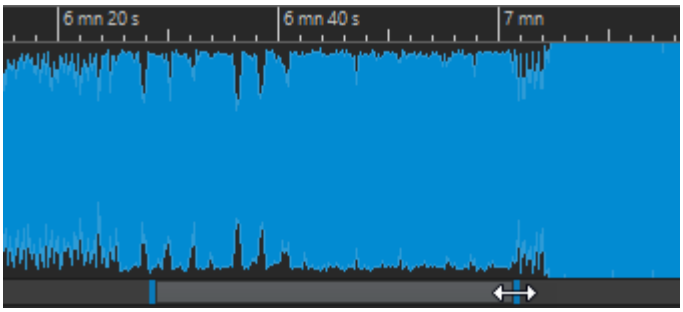
RELATED LINKS
Zooming on page 58
Setting Zoom Levels in the Audio Editor on page 61
Zooming with the Zoom Tool on page 62
Zooming via the Level Ruler on page 63

Setting Zoom Levels in the Audio Editor

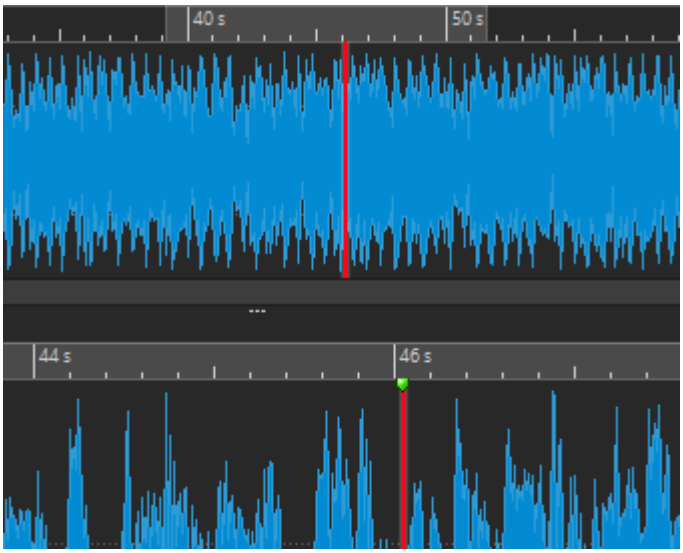
In the **Audio Editor**, you can set different zoom levels for the overview and the main view area.

PROCEDURE

- You have the following options:
  - To adjust the zoom level using the scrollbar, drag the edges of the scrollbar.



  - To scroll in the main view, drag the range indicator. The range indicator is located at the top of the overview display.



- To adjust the zoom level, drag the edges of the range indicator.

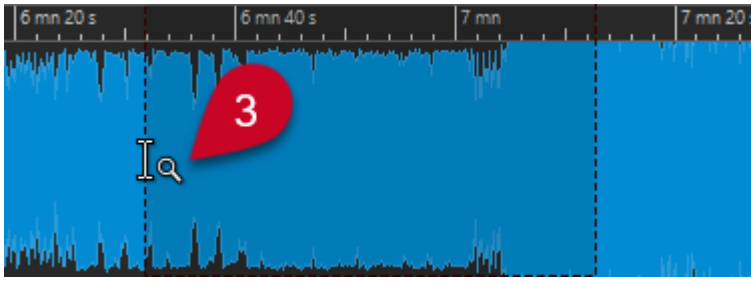
RELATED LINKS
Zooming on page 58
Audio Editor-Specific Zoom Options on page 61

Zooming with the Zoom Tool

You can use the **Zoom** tool to enlarge a detail of the waveform and to display it in the main view.

PROCEDURE

1. In the **Audio Editor**, activate the **Edit** tab.
2. In the **Zoom** section, click **Zoom**. When you hover the mouse over the main view, the mouse pointer changes to a magnifying glass icon (**3**).



3. Click and drag left or right to make a selection.
4. Release the mouse button.

TIP

Alternatively, you can skip the first two steps and make a selection in the overview. Regardless of the status of the **Zoom** button in the **Zoom** section, when you hover the mouse over the overview, the mouse pointer corresponds to the **Zoom** tool.

RESULT

The selection is magnified and fills up the entire main view.

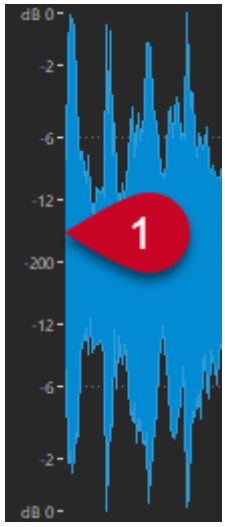
RELATED LINKS
Audio Editor-Specific Zoom Options on page 61
Zooming on page 58

Zooming via the Level Ruler

With the waveform displayed in the **Audio Editor**, you can perform zoom options via the level ruler.

PROCEDURE

- You have the following options:
  - To zoom vertically, position the mouse pointer over the level ruler (**1**). Click, and drag left or right.



  - To reset the vertical zoom to 0 dB, double-click the level ruler.
  - To set the vertical zoom to the best level, that is, the currently displayed minimum and maximum samples, set the level ruler to 0 dB, and double-click the level ruler.

RELATED LINKS
Audio Editor-Specific Zoom Options on page 61
Zooming on page 58

Audio Montage-Specific Zoom Options

The **Audio Montage** window offers a few zoom options that are exclusively available in this editor.

You can use additional zoom buttons in the **Audio Montage** window, and there are track-related zoom options.

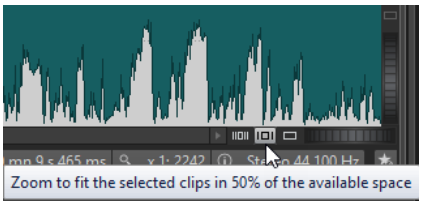
RELATED LINKS
Zooming with the Zoom Buttons on page 64
Zooming to Display More or Less Tracks on page 64

Zooming with the Zoom Buttons

The zoom buttons in the **Audio Montage** window allow you to apply zoom presets.

PROCEDURE

- You have the following options:
  - To fit the active clips into 25%, 50%, or 100% of the available space, click the corresponding buttons.



  - To select a specific area, click **Ctrl/Cmd**, and drag the rectangle over the tracks and clips that you want to zoom in on.

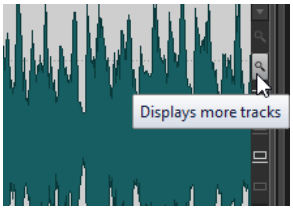
RELATED LINKS
Audio Montage-Specific Zoom Options on page 63
Zooming on page 58

Zooming to Display More or Less Tracks

You can zoom in and zoom out to display more or less tracks in the **Audio Montage** window.

PROCEDURE

- You have the following options:
  - To display more tracks, click the smaller magnifying glass icon.



  - To display fewer tracks, click the larger magnifying glass icon.
  - To make a single track fit the entire **Audio Montage** window, click the down arrow at the bottom of the track control area. Select **Zoom In** from the **Track Settings** pop-up menu.
  - To zoom out again, click the down arrow at the bottom of the track control area, and select **Zoom Out**.

    You can also right-click a track and select **Display Whole Clip** from the pop-up menu.

RELATED LINKS
Audio Montage-Specific Zoom Options on page 63
Track Control Area on page 133
Zooming on page 58

Presets

You can create presets to save your preferred settings.

WaveLab Cast includes a selection of factory presets that are available for most dialogs.

In addition to this, you can save customized presets, which are available after restarting the application.

Presets are saved as single files and can be organized in subfolders. The root folder of the preset is unique for each type of preset and cannot be changed.

RELATED LINKS
Saving Presets on page 65
Loading Presets on page 65
Saving Default Presets for VST Plug-ins on page 67

Saving Presets

You can save presets and load them at a later point in time.

PROCEDURE

1. Open the dialog that you want to use, and modify the parameters.
2. Open the **Presets** pop-up menu, and select **Save As**.
3. Optional: Click the folder icon, and enter a name for the subfolder that you want to use as the location for this preset.
4. Type in a name.
5. Click **Save**.

RELATED LINKS
Loading Presets on page 65

Loading Presets

To apply a saved preset or a factory preset to a dialog or to a plug-in, you must load the preset.

PROCEDURE

1. In the dialog, open the **Presets** pop-up menu.
2. Select the preset that you want to apply.

RELATED LINKS
Saving Presets on page 65

Modifying Presets

You can modify presets and save the changes.

PROCEDURE

1. Open the dialog that you want to use.
2. Load the preset that you want to modify.

3. Modify the parameters of the dialog.
4. Open the **Presets** pop-up menu, and select **Save**.

Deleting Presets

PROCEDURE

1. Open the dialog that you want to use.
2. Select the preset that you want to delete.
3. Open the **Presets** pop-up menu, and select **Organize Presets**.
4. In the File Explorer/macOS Finder, select the preset file that you want to delete, and press **Delete**.

Temporary Presets

Some dialogs allow you to save and load up to five temporary presets, which is useful to quickly test and compare different settings.

RELATED LINKS
Saving Presets Temporarily on page 66
Restoring Temporary Presets on page 66

Saving Presets Temporarily

PROCEDURE

1. Open the dialog that you want to use, and make your settings.
2. Open the **Presets** pop-up menu.
3. From the **Store Temporarily** submenu, select a slot.

RELATED LINKS
Temporary Presets on page 66
Restoring Temporary Presets on page 66

Restoring Temporary Presets

PROCEDURE

1. Open the dialog in which you have saved a preset.
2. Open the **Presets** pop-up menu.
3. From the **Restore** submenu, select a preset.

RELATED LINKS
Temporary Presets on page 66
Saving Presets Temporarily on page 66

Saving Default Presets for VST Plug-ins

You can save your effect parameter settings for VST 3 and VST 2 plug-ins as the default effect preset, which allows you to load them automatically, every time you create a new instance of the effect.

PROCEDURE

1. Open the plug-in for which you want to customize the default preset.
2. At the top of the plug-in window, click the **Presets** button.



3. Do one of the following:
   - For VST 3 plug-ins, select **Default Preset** > **Save as Default Preset**.
   - For VST 2 plug-ins, select **Default Bank** > **Save as Default Bank**.

RESULT

The effect settings are saved as the default preset. Every time that you open a new instance of the effect, the default preset is loaded automatically.

RELATED LINKS

Loading Default Presets on page 67
Removing Default Presets on page 67

Loading Default Presets

You can load plug-in parameter settings that you have saved as the default preset.

PROCEDURE

1. Open the plug-in for which you want to load the default preset.
2. At the top of the plug-in window, click the **Presets** button.



3. Do one of the following:
   - For VST 3 plug-ins, select **Default Preset** > **Load Default Preset**.
   - For VST 2 plug-ins, select **Default Bank** > **Load Default Bank**.

RELATED LINKS

Saving Default Presets for VST Plug-ins on page 67
Removing Default Presets on page 67

Removing Default Presets

You can remove the preset that you have saved as the default preset.

PROCEDURE

1. Open the plug-in for which you want to remove the default preset.

2. At the top of the plug-in window, click the **Presets** button.



3. Do one of the following:
   - For VST 3 plug-ins, select **Default Preset** > **Remove Default Preset**.
   - For VST 2 plug-ins, select **Default Bank** > **Remove Default Bank**.

RESULT

The next time that you open a new instance of the selected plug-in, the factory default preset is applied.

RELATED LINKS

Saving Default Presets for VST Plug-ins on page 67
Loading Default Presets on page 67

Copying Audio Information to the Clipboard

You can copy information about the name and location of the selected audio file, including any selection information and the cursor position. This information can be pasted into an external text application.

This is useful if you need accurate file path/selection information when writing a script, for example.

PROCEDURE

1. Click the **File** tab.
2. Click **Info**.
3. Click **Copy to Clipboard**, and select the information that you want to copy to the clipboard.

Setting the Focus on the Current File

When you are editing inside a floating window or a tool window and you want to switch the focus back to the **Audio Editor** or the **Audio Montage** window, you can use the **Set Focus on Current File** option.

PROCEDURE

- In any window, press **Ctrl/Cmd** - **F12** to set the focus on **Audio Editor** or the **Audio Montage** window.

Playback and Transport

WaveLab offers you a wide range of options for playback and transport.

RELATED LINKS
Transport Bar on page 69

Transport Bar

The **Transport Bar** allows you to control the playback of an audio file or an audio montage, to navigate to various positions in your audio, and to open the **Recording** dialog.

The entire range of features of the transport bar is available in the **Audio Editor** and in the **Audio Montage** window.

By default, the extended transport bar options are hidden.

- To activate the extended transport bar, click **Extend Transport Bar** ».



Playback Speed

Opens a menu where you can specify the playback speed.

Perform Pre-Roll/Perform Post-Roll

Activates pre-roll or post-roll for the commands **Play from Anchor**, **Play until Anchor**, and **Play Audio Range**.

NOTE

Pre-roll allows you to start playback slightly before a specific position.

Post-roll stops playback slightly after a specific position.

Right-click the button to select the pre-roll or post-roll length and to specify which commands you want to apply pre-roll/post-roll to. To edit the pre-roll/post-roll times, select **Edit Pre-Roll and Post-Roll Times**.

Play Audio Range

Plays the selected audio range. Post-roll and pre-roll settings are taken into account. Right-click the button to open a menu with related options and auto selection modes.

- If **Auto Select Range** is activated, the range is automatically selected according to the editing actions.
- If **Play from Start of New Time Selection** is activated when you select a range by dragging the mouse from left to right and starting playback, playback starts from the beginning of the selection. If you stop and start playback again or move the edit cursor, playback starts from the edit cursor position. If this option is deactivated, playback always starts from the edit cursor position.

  If **Play from Start of New Time Selection** and **Loop** are activated, playback restarts automatically when you select a new range.

- If **Auto Replay While Editing** is activated, playback is automatically restarted when you hold down the mouse button while editing ranges and use the shortcuts to trigger playback. This is useful to find a loop, for example.

  NOTE

  This option even works with the automated selection mode deactivated.

- If **Solo Track When Editing** is activated and you keep the mouse button pressed when editing ranges in the **Audio Montage** window, the track is soloed when you start playback using the shortcuts for **Play Audio Range**, **Play from Anchor**, or **Play until Anchor**. This option is only available in the **Audio Montage** window.

You can choose from different audio ranges for playback:

- **Time Selection**
- **Region between Marker Pairs**

Additional options that are exclusively available in the **Audio Montage** window:

- **Clip**
- **Crossfade**
- **Fade In**
- **Fade Out**

Play until Anchor/Play from Anchor

Plays until or from the anchor. Pre-roll and post-roll settings are taken into account. Right-click the button to open a menu with related options and auto selection modes.

- If **Auto Select Anchor** is activated, the anchor is automatically selected according to the editing actions.
- If **Space Bar Triggers Play from Anchor** is activated and you press **Space** to start playback, the selected **Play from Anchor** setting is taken into account. If the selected anchor is not available, playback starts from the default playback position.
- If **Auto Replay While Editing** is activated, playback is automatically restarted when you hold down the mouse button while editing anchors and use the shortcuts to trigger playback. This is useful to find a loop, for example.

  NOTE

  This option even works with the automated selection mode deactivated.

- If **Solo Track When Editing** is activated and you keep the mouse button pressed when editing anchors in the **Audio Montage** window, the track is soloed when you start playback using the shortcuts for **Play Audio Range**, **Play from Anchor**, or **Play until Anchor**. This option is only available in the **Audio Montage** window.

You can select which anchor to use as a reference for the commands **Play from Anchor** and **Play until Anchor**. In case there are multiple possibilities, such as multiple markers, the last selected item is used as a reference anchor or, if no item was selected, the closest item near the edit cursor position is used.

You can select one of the following anchors:

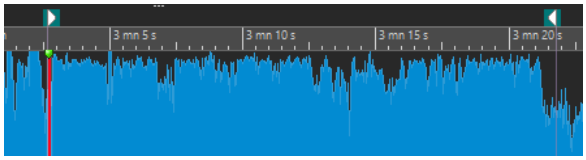
- **Edit Cursor**
- **Start of File**
- **Start of Selected Time Range**
- **End of Selected Time Range**

- **Any Marker**
- **Region Start Marker**
- **Region End Marker**

Additional options that are exclusively available in the **Audio Montage** window:

- **Clip Start**
- **Clip End**
- **Selected Envelope Point in Active Clip**

When an anchor is detected, for example, a region marker pair, this is indicated by a green anchor marker.



Move Cursor to Start of File/Move Cursor to End of File

Moves the edit cursor to the start/end of the file.

Move Playback Position Backwards/Move Playback Position Forwards

Moves the edit cursor position to the left/right. If you click during playback, playback jumps to the new edit cursor position.

To move the edit cursor to the start/end of the file, press **Ctrl/Cmd**, and click the **Move Playback Position Backwards/Move Playback Position Forwards** buttons.

Navigation anchors allow you to move the edit cursor to specific positions in the audio file or audio montage. Right-click the **Move Playback Position Backwards/Move Playback Position Forwards** buttons to open the **Navigation Anchors** pop-up menu. Here, you can set the type of navigation anchor. If you click during playback, playback continues from the anchor position.

Loop

Activates loop mode. Right-click the loop button to select whether to loop continuously or only a few times.

Stop Playback

Stops playback. If playback is already stopped, the edit cursor is moved to the previous start position. Right-click the button to open the **Move Cursor Back to Start Position** pop-up menu.

- If **After Standard Playback** is activated, the edit cursor jumps back to the start position when regular playback stops.
- If **After Automated Playback** is activated, the edit cursor jumps back to the start position when playback stops after **Play from Anchor**, **Play until Anchor**, or **Play Audio Range**.

Start Playback from Edit Cursor

Starts playing back the active audio file or audio montage from the edit cursor position.

If the audio being played back is not the active audio file, the **Play** button has a different color. This happens if you switch to another file window during playback, for example.



The playback button when playing back in the active window (left) and when playing in another window (right)

You can also start playback from the last stop position. Right-click the button to open the **Lead Sequence** pop-up menu.

- If you select **Start**, playback starts from the cursor position.
- If you select **Resume from Last Interruption**, playback starts from the last stop position.

Record

Opens the **Recording** dialog.

Time Display

Displays the edit cursor or playback position. Click to select another time unit.

RELATED LINKS
Pre-Roll and Post-Roll on page 75

Play Button

Clicking the **Play** ▸ (**Start Playback from Edit Cursor**) button on the transport bar starts playing back the active audio file, an audio montage, or the active clip from the edit cursor position.

You can also use **Space** or the **Enter** key on your keyboard to start playback. Pressing **Space** during playback stops playback. Pressing **Enter** during playback makes playback restart from the last start position.

If the **Loop** button is activated, the audio selection is looped, if available. If there is no selection range, the entire file is looped.

The standard play command is not influenced by the **Play Audio Range**, **Play from Anchor**, and **Play until Anchor** options.

Stop Playback Button

The result of clicking the **Stop Playback** button ■ on the transport bar or **0** on your numeric keypad depends on the context.

- If you trigger **Stop Playback** in stop mode, the edit cursor moves either to the previous playback start marker or to the selection start (whichever is closer), until the start of the file is reached.
- If there is no selection or if the edit cursor is positioned to the left of the selection, it is moved to the beginning of the file instead.

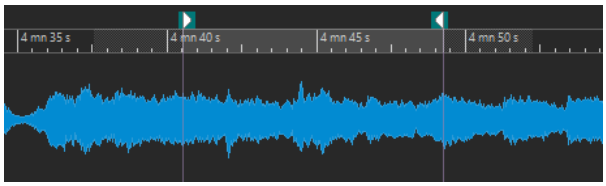
Playing Back Audio Ranges

You can play back audio ranges using the **Play Audio Range** options on the transport bar.

PROCEDURE

1. On the transport bar, right-click **Play Audio Range**, and select the range type that you want to play back.
2. Optional: Activate **Perform Pre-Roll** and/or **Perform Post-Roll**.
3. Position the edit cursor inside the range that you want to play back, or make a selection range.

   The selected range and, if activated, the pre-roll and post-roll times, are displayed on the time ruler.



4. To play back the selected range, click **Play Audio Range** on the transport bar, or press **F6**.

RESULT

The selected range is played back. Any pre-roll and post-roll settings are taken into account. If the **Loop** mode is active, pre-roll is used before the first loop only, and post-roll is only used after the last loop.

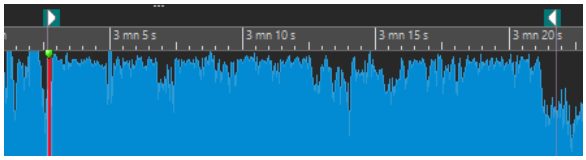
Playing Back from an Anchor or up to an Anchor

You can play back audio from an anchor or up to a specific anchor using the **Play from Anchor** or **Play until Anchor** options on the transport bar.

PROCEDURE

1. On the transport bar, right-click **Play from Anchor** or **Play until Anchor**, and select an anchor type.
2. Depending on the selected anchor type, in the **Audio Editor** and in the **Audio Montage** window, position the edit cursor within the range that you want to play back.

   Example: Select **Region Start Marker**, and click in the area of the region marker pair that you want to play back from/to. As a result, the green anchor marker jumps to the selected anchor.



3. Optional: Activate **Perform Pre-Roll** and/or **Perform Post-Roll**.
4. To play back from the anchor marker, click the **Play from Anchor** button on the transport bar, or press **F7**. To play back to the anchor marker, click the **Play until Anchor** button on the transport bar, or press **F8**.

RESULT

Playback starts from the anchor or stops at the anchor. Pre-roll and post-roll settings are taken into account.

“Play from Anchor” and “Play until Anchor”

The behavior of the **Play from Anchor** or **Play until Anchor** functions on the transport bar depends on the pre-roll and post-roll settings.

Play from Anchor

- If post-roll is activated, playback starts at the anchor position and stops after the post-roll time. If no post-roll is selected, playback continues until the end of the audio file or audio montage.
- If pre-roll is activated, playback starts from the selected anchor, minus the pre-roll time.

- If pre-roll and post-roll are activated, playback starts from the selected anchor, minus the pre-roll time, and stops after the anchor point plus the post-roll time.
- With the loop mode activated, the pre-roll and post-roll settings are taken into account. This enables you to play a loop around the edit cursor position, without having to make further range settings.

Play until Anchor

- Playback starts from the cursor and stops at the selected anchor. If the cursor is beyond the selected anchor, playback starts at the selected anchor. If pre-roll is activated, it is taken into account.
- If pre-roll is activated, playback starts from the selected anchor, minus the pre-roll time, up to the selected anchor.
- If no anchor is selected, **Play until Anchor** is deactivated.
- The loop settings have no effect.

Using the Auto Selection Mode

Using the auto selection mode, in combination with the playback shortcuts, for playing back audio ranges or anchors makes it easy to monitor your editing operations.

PROCEDURE

1. On the transport bar, right-click the **Play from Anchor** or **Play until Anchor** button, and activate **Auto Select Anchor**.
2. Right-click the **Play Audio Range** button, and activate **Auto Select Range**.
3. In the **Audio Editor** or in the **Audio Montage** window, do one of the following:
   - Make a selection range.
   - Click inside the area of a marker pair.
   - Click a fade in, fade out, or crossfade.
   - Click anywhere in the **Audio Editor** or in the **Audio Montage** window.
   - Drag a marker.

   Depending on your action, the most appropriate range, or anchor, is selected. For example, if you click inside a marker pair, this region is selected as the playback range.

   The time ruler shows the selected range or anchor.

   NOTE

   In **Auto Select Anchor** and **Auto Select Range** mode, you can still change some range and anchor options on the transport bar to play a different range/anchor. However, the range/anchor is reselected when you start editing again with the mouse.
4. Use the playback shortcuts to start playback.
   - To play back the selected audio range, press **F6**.
   - To play back from an anchor, press **F7**.
   - To play back up to an anchor, press **F8**.

RESULT

The selection range is played back, or playback starts from the anchor or stops at the anchor. Pre-roll and post-roll settings are taken into account.

NOTE

A selection range has priority over any other range. To grant other ranges permission to be auto-selected, deselect the selection range.

Using Auto Replay While Editing

You can automatically re-trigger playback while editing audio with the mouse, which is useful to monitor the adjustment of a selection boundary, for example.

PROCEDURE

1. On the transport bar, right-click the **Play from Anchor** or **Play until Anchor** button, and activate **Auto Replay While Editing**.
2. In the **Audio Editor** or in the **Audio Montage** window, define a selection range, and keep the mouse button pressed.
3. Start playback by using one of the following shortcuts:
   - To play back the selected audio range, press **F6**.
   - To play back from an anchor, press **F7**.
   - To play back up to an anchor, press **F8**.
4. Drag the cursor to the right or left.

   The selection range is adjusted and played back until you release the mouse button. When playback ends, the new selection range is played back.

Loop Playback

You can loop an audio selection, if available.

Loop points are continuously updated during playback. If you change the loop start or end during playback, the loop changes. This allows you to audition selection points for rhythmic material.

If there is no selection range, the entire file is looped.

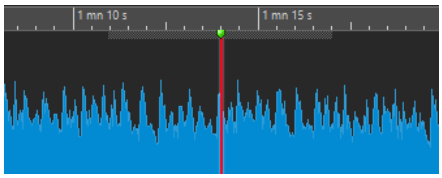
If you loop a section in an audio montage, playback loops within the boundaries of the current selection range. You can define a selection range on any track, even on an empty one. The vertical position of the selection range is of no relevance for loop playback. Only the left and right selection boundaries are taken into account.

RELATED LINKS
Loops on page 231

Pre-Roll and Post-Roll

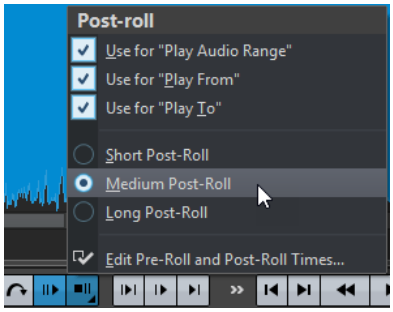
You can start playback slightly before a specific position (pre-roll) and stop it slightly after another position (post-roll).

The position to be defined can be an anchor or the start or end of a range. The pre-roll and post-roll times are displayed on the time ruler.



To activate pre-roll and/or post-roll, activate **Perform Post-Roll** and/or **Perform Pre-Roll** on the transport bar.

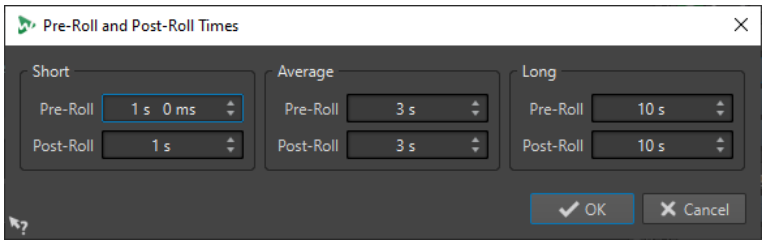
When right-clicking the pre-roll or post-roll button on the transport bar, you can select a pre-roll/post-roll time. You can also select a play option and open the **Pre-Roll and Post-Roll Times** dialog.



Pre-Roll and Post-Roll Times Dialog

The **Pre-Roll and Post-Roll Times** dialog allows you to specify exact pre-roll and post-roll times.

- To open the **Pre-Roll and Post-Roll Times** dialog, right-click the pre-roll or post-roll button on the transport bar, and select **Edit Pre-Roll and Post-Roll Times**.



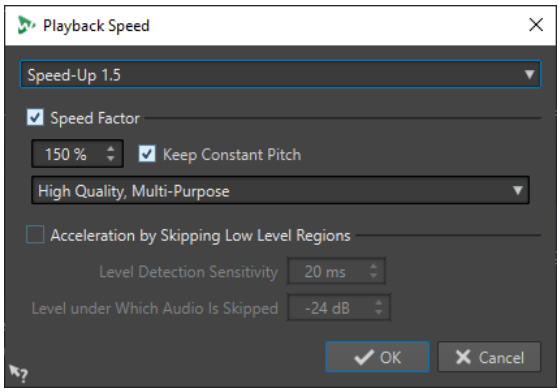
NOTE

The settings you make in this dialog are globally applied throughout WaveLab Cast.

Playback Speed Dialog

The **Playback Speed** dialog allows you to specify a playback speed for an active audio file and all clips of an active audio montage.

- To open the **Playback Speed** dialog, right-click **Playback Speed** on the transport bar, and select **Edit Playback Speed**.



Presets

Allows you to enter a name and save the settings as a preset. You can select the preset from the **Playback Speed** pop-up menu at a later point in time.

Speed Factor

Allows you to set the playback speed as a percentage of the normal speed.

Keep Constant Pitch

Prevents the pitch of the audio from being affected by any changes in playback speed.

Quality pop-up menu

Allows you to choose from three options:

High Quality (Multi- Purpose) is suited for most audio files but takes time to be processed.

Fast Preview is processed quickly and allows you to preview a setting.

Speech is particularly suited for voice material.

Acceleration by Skipping Low Level Regions

Skips the playback of audio regions that are below the threshold level.

Level Detection Sensitivity

Determines the sensitivity of the level detection analysis.

Level under Which Audio Is Skipped

Determines the threshold level for a region to be skipped during playback.

NOTE

Changing the playback speed does not change the original audio in WaveLab Cast.

Playback Shortcuts

In addition to the buttons on the transport bar, you can use shortcuts to control the playback.

Space

Starts or stops playback. This shortcut can even be used when the **Audio Editor** or the **Audio Montage** window is not the active window.

0 on numeric keypad

Stops playback. If the playback is stopped and you press this shortcut, the edit cursor moves either to the previous playback start marker or to the selection start (whichever is closer), until the start of the file is reached. This is identical to clicking **Stop Playback** on the transport bar. The shortcut is available even when the **Audio Editor** or the **Audio Montage** window is not the active window.

Enter

Starts playback. If pressed during playback, playback restarts from the previous start position. This is the same as clicking **Start Playback from Edit Cursor** on the transport bar.

Alt-Space

Starts playback from the mouse cursor position.

F6

Starts playback of the selected range, depending on the selected option in the **Ranges** section of the transport bar.

F7

Starts playback from the selected anchor, depending on the selected option in the **Anchors** section of the transport bar.

F8

Starts playback and stops it at the selected anchor, depending on the selected option in the **Anchors** section of the transport bar.

Changing the Position of the Transport Bar

You can position the transport bar at the top, in the middle, or at the bottom of an editor window.

PROCEDURE

1. On the command bar of the **Audio Editor** or **Audio Montage** window, click **Layout Options**.



2. In the **Transport Bar** section, select whether to position the transport bar at the **Top**, in the **Middle**, or at the **Bottom**.

Hiding the Transport Bar

You can hide the **Transport Bar** to save screen space.

PROCEDURE

1. On the title bar of the **Audio Editor** or the **Audio Montage** window, click **Layout Options**.



2. In the **Transport Bar** section, select **Hidden**.

Starting Playback From the Time Ruler

You can use the time ruler to jump to a position and start playback from there.

- Double-clicking the time ruler starts playback from that position. Playback continues until you click **Stop Playback** or until the end of the audio file or audio montage.

- To set the playback position to a specific location, click the time ruler during playback. This also applies for clicking the time rulers of another audio file or audio montage, which allows you to quickly switch playback between audio files or audio montages.
- To start playback from a marker position, press **Ctrl/Cmd**, and double-click the marker.

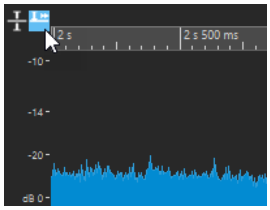
RELATED LINKS
Time Ruler and Level Ruler on page 40

Playing Back Focused Audio Channels

During playback, you can alternate between playing back the left/right, mid/side, channel clusters of multichannel audio files, or both audio channels.

PROCEDURE

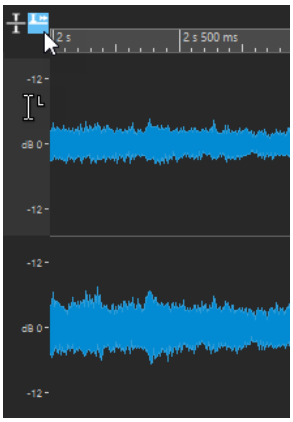
1. In the **Audio Editor**, activate **Play Back Focused Audio Channels**.



NOTE

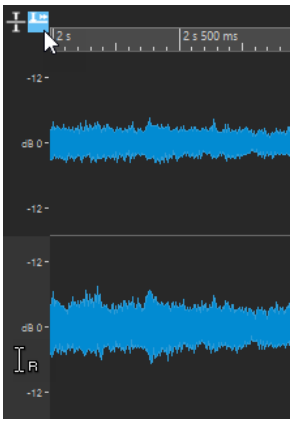
If you are using the **Play Back Focused Audio Channels** option for multichannel audio files, the **Mute** and **Solo** buttons are not available.

2. Start playback.
3. To switch playback between the different audio channels, do one of the following:
   - To play back the left or mid audio channel, click the upper area of the level ruler.



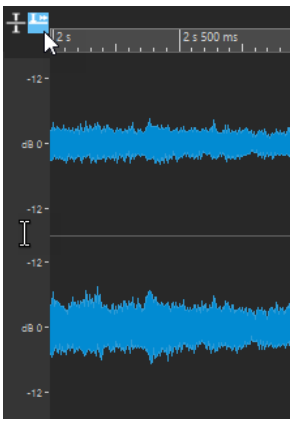
Cursor position for playing back the left audio channel

   - To play back the right or side audio channel, click the lower area of the level ruler.



Cursor position for playing back the right audio channel

- To play back both audio channels, click the middle area of the level ruler.



Cursor position for playing back the left and right audio channels

- To play back a channel cluster of a multichannel audio file, click the channel control area of the channel cluster.
- To switch through the audio channels via key commands, press **Alt** - **Page Down** or **Alt** - **Page Up**.

RELATED LINKS
Time Ruler and Level Ruler on page 40

Playback Scrubbing

Playback scrubbing helps you to find a specific position in an audio file by restarting playback repeatedly while you click and drag on the time ruler during playback or using the **Play** tool.

RELATED LINKS
Scrubbing Using the Play Tool on page 81
Scrubbing Using the Time Ruler on page 81

Scrubbing Using the Play Tool

The **Play** tool allows you to play back from any position, on one or both stereo channels.

PROCEDURE

1. In the **Audio Editor**, select the **Edit** tab.
2. In the **Tools** section, select the **Play** tool, or press and hold **Alt**.
3. Click in the waveform window.
4. In the waveform window, click at the position where you want playback to start.

   The cursor shape indicates whether the left (L) or the right (R) channel is played back. Using the **Play** tool in the middle of the channels plays back both channels.

RESULT

Playback continues for as long as you keep the mouse button pressed, or until the audio file ends. After playback has stopped, the cursor moves back to the playback start position.

RELATED LINKS

Playback Scrubbing on page 80

Scrubbing Using the Time Ruler

During playback, you can click the time ruler to play back from the selected position.

PROCEDURE

1. Start playback.
2. Click the time ruler, hold the mouse button pressed, and drag left or right.



3. When you are done scrubbing, release the mouse button.

   The audio is played back from the edit cursor position, and a small section is looped once.

RELATED LINKS

Playback Scrubbing on page 80

Playback in the Audio Montage Window

Controlling playback in the **Audio Montage** window basically works just like in the **Audio Editor**, aside from a few features that are exclusively available for audio montages.

Mute and Solo

You can mute or solo tracks in an audio montage via the corresponding buttons in the track control area.

CHOICES

- In the track control area of a track, do one of the following:
  - To mute a track, click **Mute**.

When a track is muted, the mute button is yellow.

- To solo a track, click **Solo**.

  When a track is soloed, the solo button is red.
- To solo multiple tracks, **Ctrl/Cmd**-click **Solo** for all tracks that you want to solo.
- To activate solo defeat for a track, press **Ctrl/Cmd**-**Alt/Opt**, and click **Solo**.

  In this mode, the track is not muted when you solo another track. To deactivate solo defeat, click **Solo** again.

RELATED LINKS
Track Control Area on page 133

Playing Back Individual Clips

You can play back an individual clip on a track.

PROCEDURE

1. In the **Audio Montage** window, right-click the lower part of the clip that you want to play back.
2. On the menu, select one of the following play options:
   - To play back the clip, select **Play Clip**.
   - To play back the clip with pre-roll, select **Play Clip with Pre-Roll**.

   Overlapping clips or clips on other tracks are muted.

Playing Back a Selection Range of a Track

You can select a section of a clip and play it back.

PROCEDURE

1. In the **Audio Montage** window, make a selection range, either in a clip or in an empty section of a track.
2. Right-click the selection range, and select **Play Clip Inside Selection Range**.

   Overlapping clips or clips on other tracks are muted.

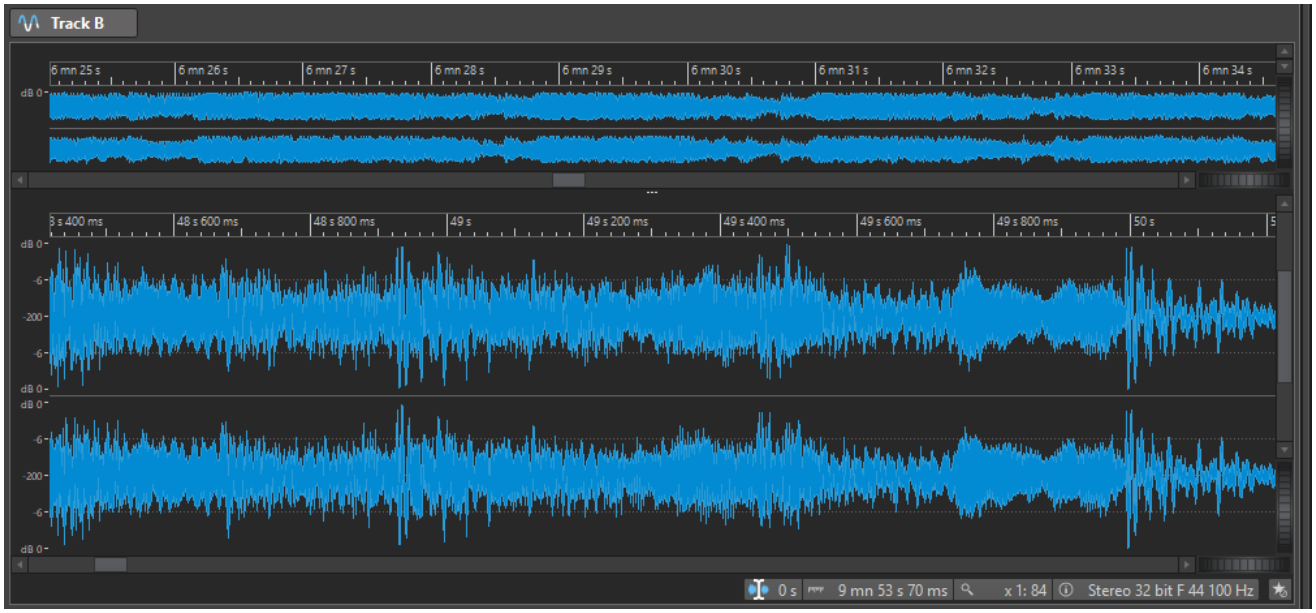
Audio File Editing

Audio file editing encompasses opening, modifying, and saving audio files.

RELATED LINKS
Audio Editor Window on page 83
File Handling in the Audio Editor on page 88
Mixing Down and Rendering on page 105

Audio Editor Window

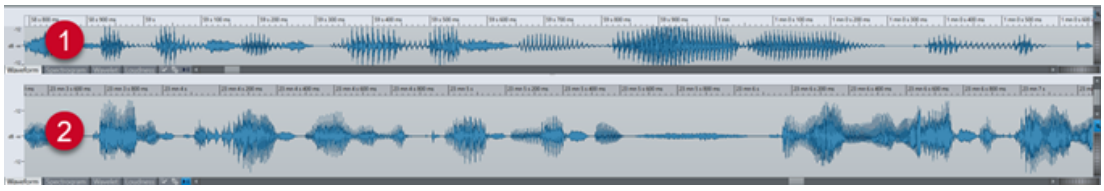
The **Audio Editor** window displays audio files graphically. It allows you to view, play back, and edit individual audio files.



The **Audio Editor** displays your audio in two views:

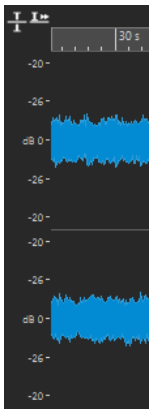
The **Overview** (**1**) serves to navigate in the project.

The **Main View** (**2**) is the area where you can edit your audio files.



Channel Control Area

The channel control area to the left of the waveform in the **Audio Editor** allows you to select channels.



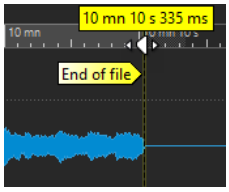
Channel control area of a stereo audio file

RELATED LINKS
Audio Editor Window on page 83

Magnetic Bounds in Audio Files

Some positions, such as markers or selection edges, are magnetic. Dragged elements can snap to these positions. This makes it easier to position items accurately.

For example, if you move a marker and it gets close to one of the magnetic bounds, the marker snaps to this position. A label is displayed, indicating the snap position.

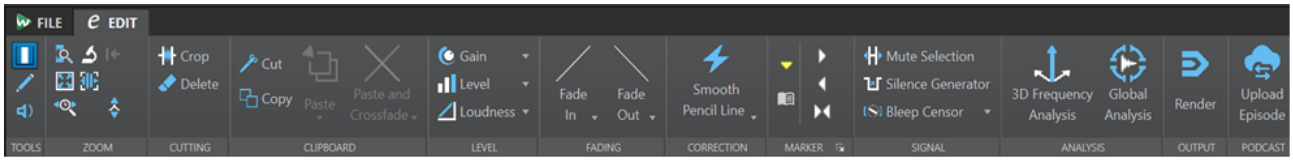


You can place the cursor at a magnetic position by clicking the timeline and keeping the mouse button pressed. When you now move the cursor, it jumps to the next magnetic bound.

Edit Tab (Audio Editor)

The **Edit** tab gives you access to tools for editing your audio files.

- In the **Audio Editor**, click **Edit**.



Tools

Time Selection

Allows you to select a time range.

Pen

Allows you to redraw the waveform in the **Audio Editor**. This helps you to quickly repair waveform errors.

Play

Allows you to play back the audio file at the position where you click.

Zoom

Zoom

Activates the **Zoom** tool, which allows you to define a time range that is zoomed in.

Time

Opens a pop-up menu that allows you to adjust the zoom to display the selected time range. **Zoom in 1:1** zooms in so that one pixel on the screen represents one sample.

You can edit the zoom factor by clicking **Edit Zoom Factor**. This opens the **Zoom Factor** dialog, where you can choose from the following options:

- **Set Time Range** allows you to define the time range to be displayed.
- **Samples per Screen Point** allows you to specify the number of audio samples encompassed by each screen point.
- **Screen Points per Sample** allows you to specify the number of screen points that represent a single audio sample.

Zoom Selection

Zooms the window so that the current selection occupies the entire window.

Microscope

Zooms in as far as possible.

View All

Zooms out as far as possible.

Display Whole Clip

Adjusts the view to display the active clip.

Zoom in Audio (10x)/Zoom out Audio (10x)

Zooms in/out in big steps.

Zoom in Audio/Zoom out Audio

Zooms in/out in small steps.

Zoom in Vertically/Zoom out Vertically

Zooms in/out to show waveforms at a lower/higher level.

Level

Adjusts the zoom to only display samples below the selected dB value.

Reset Zoom to 0 dB

Adjusts the zoom to display audio levels up to 0 dB.

Analysis

3D Frequency Analysis

Opens the **3D Frequency Analysis** dialog, where you can define the frequency range to be analyzed and modify the appearance of the graph for the 3D frequency analysis.

Cutting

Crop

Deletes any data outside the selection.

Delete

Deletes the selection. The audio to the right of the selection is moved to the left to fill the gap.

Clipboard

Copy

Copies the active clip or the selected audio range to the clipboard.

Cut

Cuts the selected audio range to the clipboard.

Paste

Pastes the clipboard content.

Right-clicking **Paste** opens a pop-up menu that allows you to select a paste type.

- **Overwrite** replaces the audio at the cursor position.
- **Append** inserts the pasted audio after the end of the file.
- **Prepend** inserts the pasted audio prior at the beginning of the file.
- **Multiple Copies** opens a dialog which allows you to enter the number of copies that you want to create.
- **Mix** blends two files into each other, starting at the selection or, if there is no selection, at the cursor position.

  If you select **Mix**, a dialog opens, allowing you to specify the gain and phase for the audio on the clipboard and at the destination. The clipboard data is mixed in, regardless of the length of the selection.

Paste and Crossfade

Pastes the clipboard content and creates a crossfade.

Right-clicking **Paste and Crossfade** opens a pop-up menu that allows you to select a crossfade type for pasting.

- **Linear (Equal Gain)** changes the level linearly.
- **Sinus (Equal Power)** changes the level according to a sine curve, while the power of the mix remains constant.
- **Square-Root (Equal Power)** changes the level according to a square-root curve, while the power of the mix remains constant.

Level

Gain

Opens the **Gain** dialog, where you can apply a gain to change the level of an audio file.

Level

Opens the **Level Normalizer** dialog, where you can change the peak level of an audio file.

Loudness

Opens the **Loudness Normalizer** dialog, where you can specify the loudness of a file.

Fading

Fade In/Fade Out

Allows you to apply a fade in or a fade out. Right-clicking the button opens the **Curve** pop-up menu.

Curve

Allows you to select preset fade curves.

- **Linear** changes the level linearly.
- **Sinus (*)** changes the level according to a sine curve. When used in a crossfade, the loudness (RMS) remains constant during the transition.
- **Square-Root (*)** changes the level according to a square-root curve. When used in a crossfade, the loudness (RMS) remains constant during the transition.
- **Sinusoid** changes the level according to a sine curve.
- **Logarithmic** changes the level according to a logarithmic curve.
- **Exponential** changes the level according to an exponential curve.
- **Exponential+** changes the level according to a more pronounced exponential curve.

Correction

Error Correction Method

Allows you to select an error correction method.

- **Short Resynthesis** is best suited for minor errors. WaveLab Cast analyzes the immediate surroundings of the error to find the most appropriate method of correction.
- **Smooth Pencil Line** is particularly suited for tiny clicks. This method corresponds to drawing an accurate line with a soft pencil. It replaces the corrupted sample with the pencil line.

Markers

Create Generic Marker

Allows you to create markers and marker pairs at the edit cursor position.

Generate Chapters

Allows you to generate a text file that lists the chapters in your audio material, based on the markers you set, for use on YouTube or Spotify.

Signal

Mute Selection

Replaces the audio selection with silence.

Silence Generator

Opens the **Silence Generator** dialog, which allows you to add silence or ambience sounds to an audio file.

Bleep Censor

Opens the **Bleep Censor** dialog, which allows you to replace a section of an audio file with a beeping sound; for example, to cover up a swear word.

Output

Render

Starts the rendering process.

Podcast

Upload Episode

Allows you to upload your Podcast episode to a hosting service.

RELATED LINKS
Level Normalizer Dialog on page 126
Loudness Normalizer Dialog on page 127
Gain Dialog on page 126
Silence Generator Dialog on page 109
Chapter Generator Dialog on page 224

File Handling in the Audio Editor

Before you start editing files in the **Audio Editor**, we recommend to familiarize yourself with some basic file handling procedures, as editing in the **Audio Editor** is not non-destructive, unlike editing clips in the **Audio Montage** window, which leaves the source files untouched.

RELATED LINKS
Audio Montage on page 132
Audio Montage Window on page 132

Mono/Stereo Handling

WaveLab Cast is very flexible with regard to handling mono and stereo files. As for stereo files, you can perform all editing operations either on one channel or on both channels.

Supported File Formats

WaveLab Cast can open and save audio files in a number of file formats.

AIFF (.aif, .aiff, .snd)

Audio Interchange File Format, a standard defined by Apple Computers Inc. The following bit depths are supported: 8 bit, 16 bit, 20 bit, and 24 bit.

FLAC (.flac)

Free Lossless Audio Codec (FLAC) is a codec which allows digital audio to be losslessly compressed.

MPEG-1 Layer 2 (.mp2, .mpa, .mpg, .mus)

MP2 (sometimes referred to as “Musicam files”) is a common file format in the broadcast industry.

MPEG-1 Layer 3 (.mp3)

The most common audio compression format. The major advantage of MPEG compression is that the file size is significantly reduced, while there is little degradation of the sound quality.

NOTE

When you open an MPEG compressed file in WaveLab Cast, the file is converted to a temporary wave file. On saving, the temporary wave file is converted back to MP3.

Ogg Vorbis (.ogg)

Ogg Vorbis is a compressed file format that is open, patent-free, and creates very small audio files while maintaining a comparatively high audio quality.

Wave (.wav)

The following bit depths are supported: 8 bit, 16 bit, 20 bit, 24 bit, 32 bit, 32 bit float, and 64 bit float.

Wave 64 (.w64)

This file format is very similar to the Wave format, but with one important difference: it allows you to record and/or edit files of virtually any length. Standard Wave files are limited to 2 GB (stereo files) in WaveLab Cast.

NOTE

Wave 64 does not support metadata. If you need large files and metadata, use Wave files, and activate the RF64 option.

Windows Media Audio (.wma, .asf)

Microsoft's own compressed format. WaveLab Cast allows you to import/export audio in this format (Windows only). To import/export audio in WMA surround format, Windows Media Player 9 or later must be installed on your system.

Original Sound Quality (.osq, read-only)

This is the proprietary lossless compressed audio format of WaveLab.

RELATED LINKS
Windows Media Audio Encoding Dialog on page 98
Ogg Vorbis Dialog on page 97
FLAC Encoding Dialog on page 97
MP3 Encoding Dialog on page 94
MPEG-1 Layer 2 Encoding Dialog on page 96
20-bit, 24-bit, and 32-bit Float Files on page 89

20-bit, 24-bit, and 32-bit Float Files

You do not need a 20-bit or 24-bit audio card to take advantage of the fact that WaveLab Cast can handle 20-bit and 24-bit audio files. Any processing or editing of the files is performed with full precision (64-bit float), even if your card does not support this degree of precision.

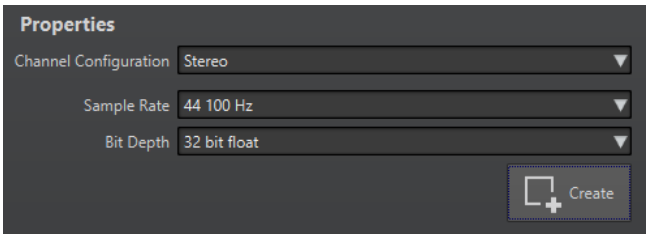
For playback, WaveLab Cast automatically adapts to the card that you have installed.

Creating New Audio Files

You can create an empty audio file, which allows you to assemble material from other audio files, for example.

PROCEDURE

1. Select **File** > **New**.
2. Select **Audio File** > **Custom**.
3. Specify the audio properties, and click **Create**.



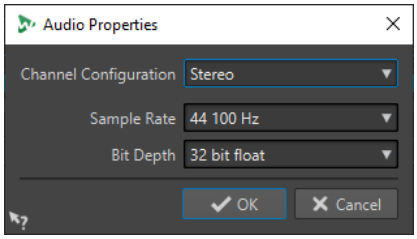
RELATED LINKS
Audio Properties Dialog on page 90

Audio Properties Dialog

You can define the channel configuration, the sample rate, and the bit depth of the audio file.

You can set these properties when you create a new audio file.

- To change the properties for the selected audio file, select the **File** tab, and click **Info**, or click the **Audio Properties** button at the bottom right of the **Audio Editor**.



Channel Configuration

Allows you to select the number of audio channels.

Sample Rate

Allows you to select the number of audio samples per second.

Bit Depth

Allows you to select the accuracy of samples in the audio stream.

RELATED LINKS
Info Dialog on page 37

Saving an Audio File

PROCEDURE

1. Do one of the following:
   - To save an audio file for the first time, select **File** > **Save As**.
   - To save an audio file that has been saved before, click the **Save** button, or select **File** > **Save**.
2. In the **Save As** window, specify a file name and a location.
3. Click **Save**.

RESULT

You can use undo/redo even after saving.

Saving in Another Format

You can change the file format, the sampling frequency, the bit depth, and the stereo/mono status when saving.

PROCEDURE

1. Select **File** > **Save As**.
2. In the **Save As** window, specify a file name and a location.
3. Click in the **Format** field, and select **Edit**.
4. In the **Audio File Format** dialog, set the file format, and specify the properties.
5. Click **OK**.
6. Click **Save**.

RESULT

A new file is created. The original file is not affected by the operation.

RELATED LINKS

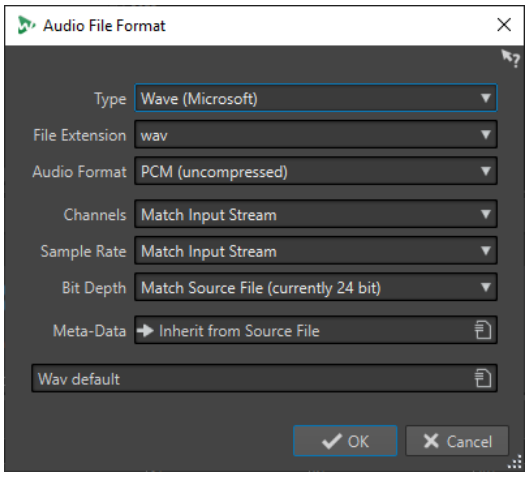
Audio File Format Dialog on page 91
Format Changes on page 92

Audio File Format Dialog

The **Audio File Format** dialog allows you to change various file settings when saving.

- To open the **Audio File Format** dialog, select **File** > **Export**, and **Render**. Activate **Named File**, click in the **Format** field, and select **Edit**.

This dialog can also be opened from various other locations in WaveLab Cast.



Type

Allows you to select an audio file type. This affects which options are available on the **Audio Format** pop-up menu.

File Extension

Allows you to select a file extension that is compatible with the current file type.

Audio Format

Allows you to select an audio format that is compatible with the current file type.

Channels

Allows you to specify the number of audio channels for the files to be created.

The following channels are available:

- **Match Input Stream**
- **Mono**
- **Stereo**

Sample Rate

Allows you to select a sample rate for the audio file. If you change this setting, a sample rate conversion takes place.

IMPORTANT

We recommend to use this for simple conversions only. For professional results, using the **Resample** plug-in and adding limiting and dithering is a better option.

Bit Depth

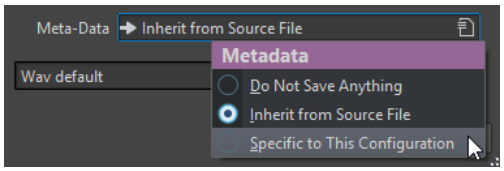
Allows you to select a bit depth for the audio file. This option is only available for specific file types.

IMPORTANT

We recommend to reduce the bit depth for simple conversions only. For professional results, adding dithering in the **Master Section** is a better option.

Metadata

Allows you to make metadata settings that are saved with the file. This option is not available for all file types.



- If **Do Not Save Anything** is selected, no metadata is saved with the file.
- If **Inherit from Source File** is selected, the metadata of the source file is used. If the source metadata is empty, the default metadata is used, if available.
- If **Specific to This Configuration** is selected, you can edit the metadata or replace it with a metadata preset. To edit the metadata, open the metadata pop-up menu again, and select **Edit**.

RELATED LINKS
Saving in Another Format on page 91

Format Changes

When you change the sample rate, the bit depth, and the number of channels of an audio file, several operations are performed.

Sample Rate

After specifying a new sample rate, a sample rate conversion is performed.

Bit Depth

After specifying a new bit depth, the file is either truncated down to 8 bits or padded up to 64 bits. For converting to a lower bit depth, we recommend to add dithering.

Mono/Stereo

If the file is converted from mono to stereo, the same material is used in both channels. For a conversion from stereo to mono, a mix of the two channels is created.

NOTE

- If you only want to change the bit depth, you can do this in the **Audio Properties** section of the **Info** window instead, and then save the audio file.
- For high quality mastering purposes, we recommend not to change the sample rate and the number of channels using the **Audio Properties** section, but to use plug-ins and features of the **Master Section** instead.

Rendering a Selection as an Audio File

You can render a selection in an open audio file as a new audio file.

PROCEDURE

1. In the **Audio Editor**, select an audio range.
2. Select the **Edit** tab.
3. In the **Output** section, click **Render**.
4. From the **Source** pop-up menu, select **Selected Audio Range**.
5. In the **Output** section, specify a file name, a location, and a file format.
6. Click **Start**.

RELATED LINKS
Audio Editor Window on page 83
Edit Tab (Audio Editor) on page 84
Audio File Format Dialog on page 91

Rendering the Left/Right Channel as an Audio File

You can save each individual channel as a separate file.

PROCEDURE

1. In the **Audio Editor**, select the **Edit** tab.
2. In the **Output** section, click **Render**.
3. In the **Output** section, specify a file name and a location.
4. Open the **Format** pop-up menu, and select **Edit**.
5. In the **Audio File Format** dialog, open the **Channels** pop-up menu, and select **Left Channel** or **Right Channel**.
6. Make additional output settings, and click **OK**.
7. Click **Start**.

RELATED LINKS
Edit Tab (Audio Editor) on page 84
Audio File Format Dialog on page 91

Creating Audio File Format Presets

PROCEDURE

1. In the **Audio File Format** dialog, specify the audio file format.
2. Open the **Presets** pop-up menu, and select **Save As**.
3. Enter a name for the preset, and click **Save**.

RELATED LINKS
Audio File Format Dialog on page 91

Encoding Audio Files

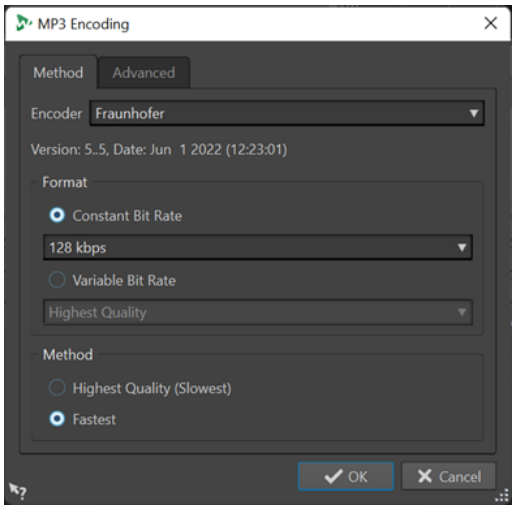
You can save audio in different formats. The process of converting audio to another format is called encoding. When saving audio files, many file formats allow you to choose from a variety of encoding parameters.

RELATED LINKS
MP3 Encoding Dialog on page 94
MPEG-1 Layer 2 Encoding Dialog on page 96

MP3 Encoding Dialog

On saving an MP3 audio file, you can adjust the encoding settings.

You can open the **MP3 Encoding** dialog from most places where you can select an output file format.



EXAMPLE

Open an audio file. Select **File** > **Save As**. Click in the **Format** field, and select **Edit**. In the **Audio File Format** dialog, set **MPEG Layer-3** as the type. Click in the **Encoding** field, and select **Edit**.

Method tab

Encoder

Allows you to select the encoder (**Fraunhofer** or **Lame**).

Constant Bit Rate/Variable Bit Rate

The bit rate is related to the quantity of data used to encode the audio signal. The higher the value, the better the quality, but the larger the output file. If you choose **Variable Bit Rate**, the rate changes according to the complexity of the audio material.

Highest Quality (Slowest)/Fastest

Allows you to select the quality to achieve. The higher the quality, the more resources and time are required to analyze and compress the audio signal.

NOTE

Highest Quality (Slowest) can require a specific sample rate for the audio file. If this is the case and the sample rate is different from the input sample rate, a warning message is displayed.

Advanced tab

Add File Length and Playback Position Information to VBR Header

Adds additional data to the VBR (variable bit rate) header that allows the playback device to estimate the length of the MP3 file and to jump to any time position in the MP3 file.

NOTE

This option is exclusively available for the Fraunhofer encoder.

Embed Ancillary Data for Time and Delay Compensation

Embeds ancillary data so that the duration of the resulting decoded file exactly matches the duration of the original file.

NOTE

This option is exclusively available for the Fraunhofer encoder.

The following options are exclusively available for the **Lame** encoder:

Allow Intensity Stereo Coding

Decreases the bit rate by reorganizing the intensity information between the channels.

Specify as Original Recording

Marks the encoded file as the original recording.

Write Private Bit

A custom flag.

Write Copyright Flag

Marks the encoded file as copyright-protected.

Write Check-Sum

Allows other applications to check the integrity of the file.

Create Long Frames

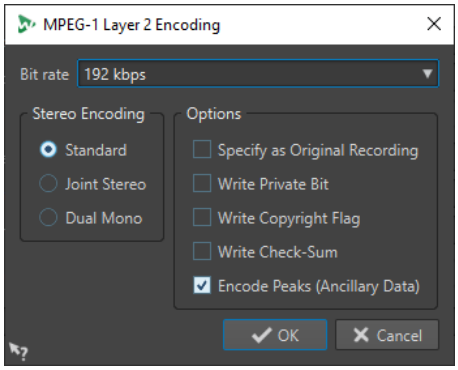
Saves space by writing fewer headers in the file (not compatible with all decoders).

RELATED LINKS
Encoding Audio Files on page 94

MPEG-1 Layer 2 Encoding Dialog

On saving an MPEG-1 Layer 2 (MP2) audio file, you can adjust the encoding settings.

You can open the **MPEG-1 Layer 2 Encoding** dialog from most places where you can select an output file format.



EXAMPLE

Open an audio file. Select **File** > **Save As**. Click in the **Format** field, and select **Edit**. In the **Audio File Format** dialog, set **MPEG Layer-2** as the type. Click in the **Encoding** field, and select **Edit**.

Bit Rate

Determines the bit rate. The bit rate is related to the quantity of data that is used to encode the audio signal. The higher the value, the better the quality, but the larger the output file.

Stereo Encoding

In **Standard** mode, the encoder does not use the correlation between channels. However, the encoder can take space from a channel that is easy to encode and use it for a complicated channel.

In **Joint Stereo** mode, the encoder uses the existing correlations between the two channels to increase the ratio quality/space.

In **Dual Mono** mode, both channels are independently encoded. We recommend to use this mode for signals with independent channels.

Specify as Original Recording

Marks the encoded file as the original recording.

Write Private Bit

A custom flag.

Write Copyright Flag

Marks the encoded file as copyright-protected.

Write Check-Sum

Allows other applications to check the integrity of the file.

Encode Peaks (Ancillary Data)

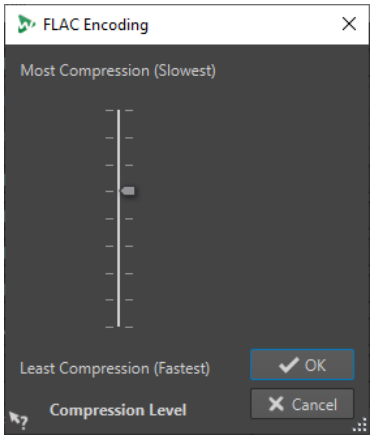
Must be activated for compatibility with specific systems, such as DIGAS.

RELATED LINKS
Encoding Audio Files on page 94

FLAC Encoding Dialog

On saving a FLAC audio file, you can adjust the encoding settings.

You can open the **FLAC Encoding** dialog from most places where you can select an output file format.



EXAMPLE

Open an audio file. Select **File** > **Save As**. Click in the **Format** field, and select **Edit**. In the **Audio File Format** dialog, set **FLAC** as the type. Click in the **Encoding** field, and select **Edit**.

Compression Level

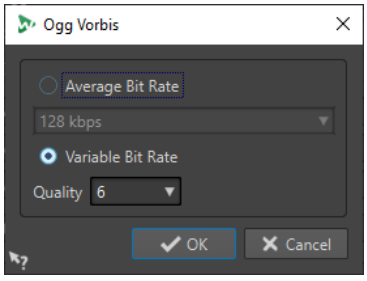
Allows you to specify the compression level. The more compression, the slower the encoding.

RELATED LINKS
Encoding Audio Files on page 94

Ogg Vorbis Dialog

On saving an Ogg Vorbis audio file, you can adjust the encoding settings.

You can open the **Ogg Vorbis** dialog from most places where you can select an output file format.



EXAMPLE

Open an audio file. Select **File** > **Save As**. Click in the **Format** field, and select **Edit**. In the **Audio File Format** dialog, set **Ogg Vorbis** as the type. Click in the **Encoding** field, and select **Edit**.

Average Bit Rate

If this option is activated, the average bit rate in the file remains constant during encoding. As the file size is proportional to the time, this makes the localization of a given point easier, but it can result in a lower quality, compared to the **Variable Bit Rate** option.

Variable Bit Rate

If this option is activated, the bit rate in the file varies during encoding, depending on the complexity of the material. This can produce a better quality/size ratio in the resulting file.

In the **Quality** field, select the quality. Lower quality settings result in smaller files.

RELATED LINKS

Encoding Audio Files on page 94

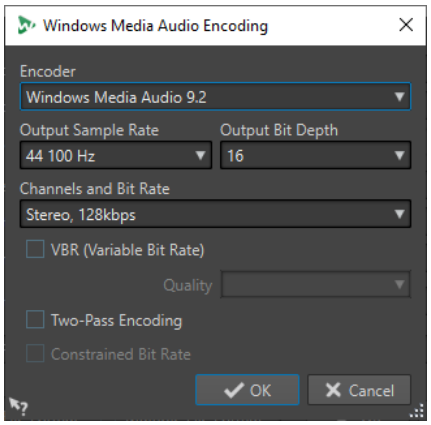
Windows Media Audio Encoding Dialog

On saving a Windows Media Audio (WMA) file, you can adjust the encoding settings.

NOTE

This dialog is only available for Windows.

You can open the **Windows Media Audio Encoding** dialog from most places where you can select an output file format.



EXAMPLE

Open an audio file. Select **File** > **Save As**. Click in the **Format** field, and select **Edit**. In the **Audio File Format** dialog, set **Windows Media Audio (WMA)** as the type. Click in the **Encoding** field, and select **Edit**.

Encoder

Sets the encoder.

Output Sample Rate

Sets the output sample rate of the encoded file. The higher the sample rate, the higher the quality, but the larger the output file.

Output Bit Depth

Sets the output bit depth of the encoded file.

NOTE

This parameter is not available for all encoders.

Channels and Bit Rate

The available items depend on the selected encoding method and the output sample rate.

VBR (Variable Bit Rate)

If this option is activated, the bit rate in the file varies during encoding, depending on the complexity of the material. This can produce a better quality/size ratio in the output file.

In the **Quality** field, select the quality. Lower quality settings result in smaller files.

Two-Pass Encoding

If this option is activated, the encoding quality increases, but the process takes twice as long.

Constrained Bit Rate

Only available with **VBR** and **Two-Pass Encoding** activated, you can use this option to avoid peaks by limiting the bit rate. We recommend using it for media, such as CDs or DVDs.

RELATED LINKS
Encoding Audio Files on page 94

Turning Selections Into New Files

You can turn selections into new files via drag and drop or via the context menu in the **Audio Editor**.

RELATED LINKS
Turning Selections Into New Files By Dragging on page 99
Turning Selections Into New Files via the Menu on page 99

Turning Selections Into New Files By Dragging

PROCEDURE

1. Make a selection in **Waveform** window of the **Audio Editor**.
2. Drag the selection to the tab bar above the **Waveform** window, and release the mouse button.

RESULT

The selection is opened in a new stereo window.

RELATED LINKS
Audio Editor Window on page 83

Turning Selections Into New Files via the Menu

PROCEDURE

1. Make a selection in the **Waveform** window of the **Audio Editor**.

2. Right-click the selection, and select **Copy Selection to New Window**.
3. From the submenu, select one of the following options:
   - **Duplicate**
   - **Stereo Version**
   - **Mono Mixdown**
   - **Mono Mixdown (Subtract Right Channel from Left Channel)**

RESULT

The selection is opened in a new stereo or mono window.

RELATED LINKS

Audio Editor Window on page 83

Converting From Stereo to Mono/From Mono to Stereo

You can convert audio files from mono to stereo and from stereo to mono.

Converting a mono file into a stereo file produces an audio file that contains the same material in both channels; for example, for further processing into real stereo. Converting a stereo file into a mono file mixes the stereo channels to a mono channel.

RELATED LINKS

Converting a Selection From Stereo to Mono on page 100
Converting From Stereo to Mono While Saving on page 101
Converting a Selection From Mono to Stereo on page 101

Converting a Selection From Stereo to Mono

PROCEDURE

1. Make a stereo selection in the **Audio Editor**.
2. Select **File** > **New**.
3. Select **Audio File** > **From Current File**.
4. Select one of the following options:
   - To mix the left and right stereo channels when converting to mono, click **Mono Mixdown**.
   - To mix the left channel with the inverse of the right channel when converting to mono, click **Mono Mixdown (Subtract Right Channel from Left Channel)**.

     The resulting mono waveform contains the difference between the channels. This enables you to check if a wave file is a genuine stereo file or a mono file converted to stereo, for example.

RESULT

The selection is opened in a new mono window.

RELATED LINKS

Audio Editor Window on page 83

Converting From Stereo to Mono While Saving

PROCEDURE

1. Make a stereo selection in the **Audio Editor**.
2. Select **File** > **Save As**.
3. In the **Save As** window, specify a file name and a location.
4. Click in the **Format** field, and select **Edit**.
5. In the **Audio File Format** dialog, open the **Channels** pop-up menu, and select one of the mono settings.
6. Click **OK**.
7. Click **Save**.

RELATED LINKS
Audio Editor Window on page 83
Audio File Format Dialog on page 91

Converting a Selection From Mono to Stereo

PROCEDURE

1. Make a mono selection in the **Audio Editor**.
2. Select **File** > **New**.
3. Select **Audio File** > **From Current File**.
4. Click **Stereo Version**.
5. Click **Create**.

RESULT
The selection is opened in a new stereo window.

RELATED LINKS
Audio Editor Window on page 83

Special Paste Options

The **Paste** pop-up menu in the **Audio Editor** offers additional paste options.

- To access the special paste options, open the **Audio Editor**, and select the **Edit** tab. In the **Clipboard** section, right-click **Paste**.

Overwrite

Overwrites data in the destination file, rather than moving data to make room for the inserted audio. How much is overwritten depends on the selection in the destination file:

- If there is no selection in the destination file, a section of the same length as the pasted selection is overwritten.
- If there is a selection in the destination file, the pasted selection replaces the selection.

Append

Adds the pasted audio after the end of the file.

Prepend

Adds the pasted audio before the beginning of the file.

Multiple Copies

Opens a dialog, in which you can enter the number of copies that you want to create.

Mix

Opens the **Mix** dialog, which allows you to blend two files into each other, starting at the selection or, if there is no selection, at the cursor position. You can specify the gain for the audio on the clipboard and at the destination.

All the data on the clipboard is mixed in, regardless of the length of the selection.

Moving Audio

You can rearrange the order of the audio in a file by dragging, and by cutting and pasting.

Moving Audio by Dragging

PROCEDURE

1. In the **Waveform** view of the **Audio Editor**, make a selection.
2. Drag the selection to a position outside the selection in the same file, or to another waveform window.

RESULT

The selection is removed from its original position and inserted where you drop it.

NOTE

To undo a transfer to another file, you must first undo the paste operation in the destination window and then undo the cut operation in the source window.

RELATED LINKS

Audio Editor Window on page 83

Moving Audio by Cutting and Pasting

PROCEDURE

1. In the **Waveform** view of the **Audio Editor**, make a selection.
2. Cut the audio in one of the following ways:
   - Select the **Edit** tab, and click **Cut**.
   - Press **Ctrl/Cmd** - **X**.
3. Select how to insert the selection:
   - To insert the audio, click the position in the same file or in another file.
   - To replace a section of the audio, select it.
4. To paste the selection, do one of the following:
   - Select the **Edit** tab, and click **Paste**.

- Press **Ctrl/Cmd**-**V**.

RESULT

The selection is removed from its original position and inserted where you drop it.

NOTE

To undo a transfer to another file, you must first undo the paste in the destination window and then undo the cut operation in the source window.

RELATED LINKS

Audio Editor Window on page 83
Edit Tab (Audio Editor) on page 84

Copying Audio

You can copy sections of audio within the same file or from one audio file to another.

Stereo/Mono Handling when Copying or Dragging

When you drag or copy stereo or mono files to other locations, the target location determines how the files are inserted.

When you drag across files, stereo/mono is handled as follows:

Dragged section	Drop wave	Action
Stereo	Stereo	The dragged audio is always inserted into both channels.
Stereo	Mono	Only the left channel is inserted.
Mono	Stereo	What happens depends on the vertical drop position. This is indicated by the cursor shape. The selection can be inserted into only one of the channels, or the same material can be inserted into both channels.

When you copy and paste files, stereo/mono is handled as follows:

Copied section	Paste wave	Action
Stereo	Stereo	If the cursor extends across both channels of the destination file, the material is inserted into both channels.
Mono	Mono	If the cursor is only in one channel, the audio is only pasted in that channel. Material from the left channel is pasted in the left channel and material from the right channel is pasted in the right channel.
Stereo	Mono	Only the left channel is pasted.

Copied section	Paste wave	Action
Mono	Stereo	What happens depends on whether the cursor is in one channel or both. The audio is either pasted in one of the channels, or the same material is inserted into both channels.

Sample Rate Conflicts

If you copy or move audio from one window to another and the sample rates of the two files are not the same, the copied/moved sound plays back at the wrong pitch (speed). WaveLab Cast warns you if this is about to happen.

While mixing sample rates can be used as an effect, more often than not, it is not intended. You have two options to prevent sample rate conflicts:

- You can convert the sample rate of the source file to the same sample rate as the destination file before editing.
- You can convert the sample rate of the destination file to the same sample rate as the source file before adding the audio.

Duplicating Audio by Copying and Pasting

PROCEDURE

1. In the **Waveform** view of the **Audio Editor**, make a selection.
2. Use one of the following copying methods:
   - Select the **Edit** tab, and click **Copy**.
   - Press **Ctrl/Cmd**-**C**.
3. Select how to insert the selection:
   - To insert the audio, click at the desired position, either in the same file or in another file.
   - To replace a section of an audio file, select it.
4. To paste the selection, do one of the following:
   - Select the **Edit** tab, and click **Paste**.
   - Press **Ctrl/Cmd**-**V**.

RELATED LINKS
Audio Editor Window on page 83
Edit Tab (Audio Editor) on page 84

Copying Audio by Dragging

PROCEDURE

1. In the **Waveform** view of the **Audio Editor**, make a selection.
2. Click the middle of the selection, and drag it to a position outside the selection in the same file, or to another waveform window.

RESULT

The selection is inserted at the indicated point. The audio that previously started at that point is moved to the right.

RELATED LINKS

Audio Editor Window on page 83

Mixing Down and Rendering

You can render regions of an audio files or whole audio files to a single audio file.

RELATED LINKS

Rendering in the Master Section on page 207
Rendering Audio Files on page 105

Rendering Audio Files

PREREQUISITE

You have set up your audio file.

PROCEDURE

1. In the **Audio Editor**, select the **Edit** tab.
2. In the **Output** section, click **Render**.
3. In the **Source** menu, specify which part of the audio file you want to render.
4. In the **Result** section, activate **Named File**.
5. In the **Output** section, click the **Format** field, and click **Edit**.
6. Make your settings in the **Audio File Format** dialog.
7. Click **OK**.
8. Optional: Make additional settings in the **Options** section.
9. Click **Start**.

RESULT

The audio file is rendered.

RELATED LINKS

Audio File Format Dialog on page 91

Changing the Audio Properties

You can change the sample rate and the bit depth of audio files.

Changing values for audio properties does not process the audio file in any way (in contrast to using **Save As**). However, the following rules apply:

- If you change the sample rate, the file plays back at a new pitch.
- If you change the bit depth, the file is converted to the new precision the next time you save it.

NOTE

There is no undo for this. If you save a file with a lower bit depth, the file is converted permanently.

PROCEDURE

1. In the **Audio Editor**, open an audio file.
2. Select the **File** tab.
3. Click **Info**.
4. In the **Audio Properties** section, select a new **Sample Rate** and/or **Bit Depth**.
5. Click **Apply Changes**.

RELATED LINKS
Info Dialog on page 37

Metadata

Metadata consists of attributes that describe the audio contents; for example, the titles of an album, the author, or the recording date of a title. The availability of the data varies, depending on the file format of the selected audio file.

When opening an audio file or audio montage, the metadata found in the file is loaded. You can create different metadata presets for audio files and audio montages.

A preview of the metadata is displayed in the **Metadata** window. To view the complete metadata of a file and to be able to edit the metadata, open the **Metadata** dialog.

Not all file formats can save metadata. Depending on the output file format, all metadata or only part of the metadata is saved in an audio file. The following file formats can contain metadata:

- .wav
- .mp3
- .ogg
- .wma
- .flac
- .m4a
- .mp4

For MP3, the following metadata types are available:

- ID3v1 and ID3v2, including picture support

NOTE

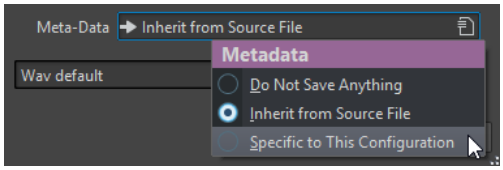
- MP4 is not ID3v2-compatible. However, in WaveLab Cast, it uses the same editor.
- The metadata codes that are followed by an “(i)” indicate the iTunes-compatible fields. Lyrics and pictures are also iTunes-compatible.

For WAV, the following metadata types are available:

- BWF

- ID3, including picture support

When saving or recording an audio file in the **Audio File Format** dialog, you can choose not to use any metadata, to inherit the metadata from the source file, or to edit the metadata of the file.



Metadata can be entered manually or generated automatically.

The following options can be generated automatically:

- Unique Source Identifier (USID)

  You can activate **USID** on the **Basics** tab of the **BWF** tab.

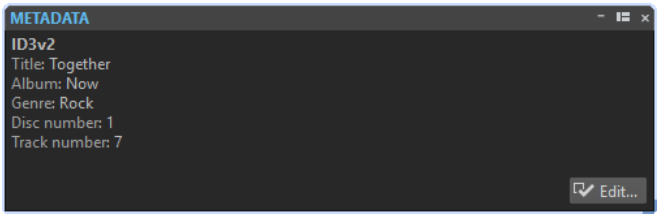
WaveLab Cast includes several metadata presets. They are used as examples and can be customized to your needs. You can load metadata presets from the **Metadata Presets** pop-up menu in the **Audio File Format** dialog or from the **Metadata** dialog.

RELATED LINKS
Metadata Window on page 107
Metadata Dialog on page 108
Audio File Format Dialog on page 91
Metadata Presets on page 109

Metadata Window

In the **Metadata** window, you can see and edit metadata of the file in the **Audio Editor**, the **Audio Montage** window, or the **Batch Processor** window.

- To open the **Metadata** window, open the **Audio Editor**, the **Audio Montage** window, or the **Batch Processor** window, and select **Tool Windows** > **Metadata**.



When you select an audio file in the **File Browser** window, the corresponding metadata is displayed in the **Metadata** window and the metadata section of the **Info** tab. When you click elsewhere, the **Metadata** window displays the metadata of the selected audio file, audio montage, or batch process.

Preview

Displays the metadata of the selected audio file, audio montage, or batch process.

Edit

Opens the **Metadata** dialog, where you can view and edit the entire metadata of the selected file.

RELATED LINKS
Metadata on page 106
Metadata Dialog on page 108

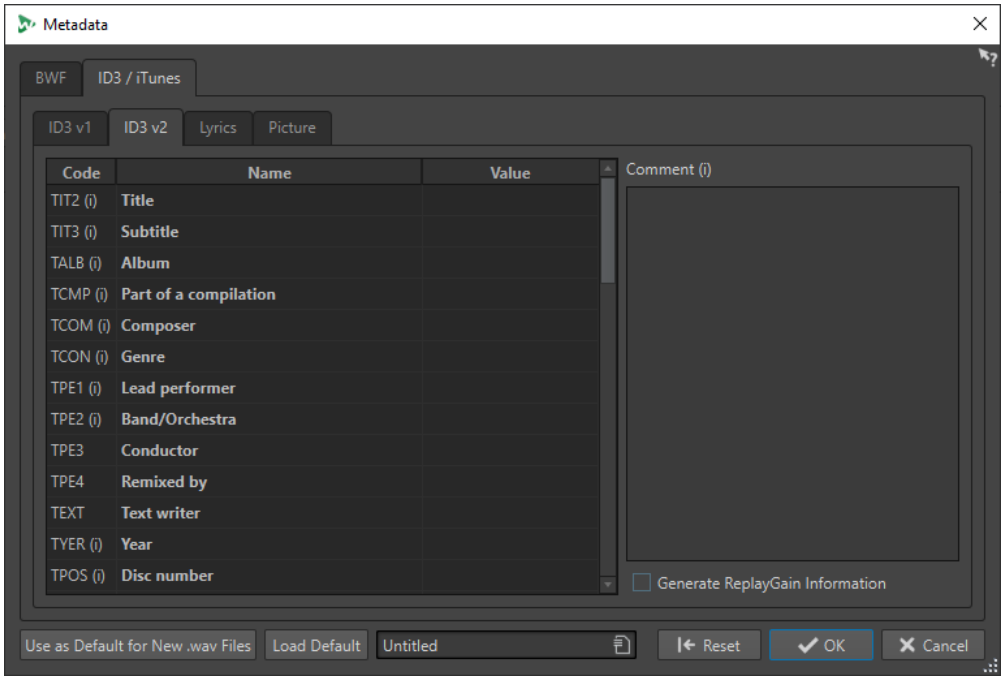
Editing Metadata on page 108
File Browser Window on page 51

Metadata Dialog

The **Metadata** dialog allows you to define the metadata to be embedded in your audio file.

- To open the **Metadata** dialog, open the **Metadata** window, and click **Edit**.

Further processing of the metadata may vary, depending on the particular file type.



Metadata dialog for WAV files

When opening the **Metadata** dialog for files in the **Audio Editor**, you can edit the metadata that is saved with the audio file. This metadata is saved to disk at a later point in time.

When opening the **Metadata** dialog for files in the **Audio Montage** window, you can edit the metadata for the audio files that are created when rendering the audio montage. If you render to WAV format, the metadata is associated to these files.

RELATED LINKS
Metadata on page 106
Metadata Window on page 107
Editing Metadata on page 108

Editing Metadata

You can edit metadata for audio files, audio montages, and batch processes.

PREREQUISITE

You have opened an audio file, audio montage, or batch process.

PROCEDURE

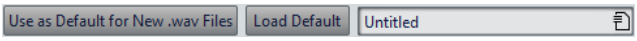
1. In the **Metadata** window, click **Edit**.
2. In the **Metadata** dialog, make your settings.

3. Click **OK**.

RELATED LINKS
Metadata on page 106
Metadata Window on page 107
Metadata Dialog on page 108

Metadata Presets

In the **Metadata** dialog, you can save metadata presets and apply these presets to WAV, MP3, MP4, and M4A files.



The **Use as Default for New .wav Files** option allows you to define a set of metadata as default.

When you create a new file and do not add any metadata, this default metadata is applied to the file when saving or rendering it. For example, you can save or record WAV files with BWF metadata and automatically add a Unique Material Identifier.

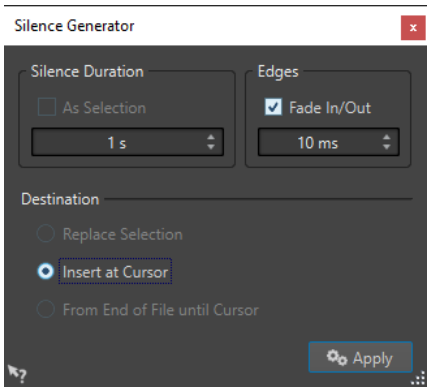
To edit the default metadata preset, select **Load Default**, and edit the preset.

RELATED LINKS
Metadata Dialog on page 108

Silence Generator Dialog

The **Silence Generator** dialog allows you to add silence to an audio file.

- To open the **Silence Generator** dialog, select the **Edit** tab in the **Audio Editor**, and click **Silence Generator**.



Silence Duration

As Selection uses the duration of the active audio selection as the duration of the silent section. You can specify the duration of the silent section in the value field below.

Edges

Fade In/Fade Out performs a crossfade at the start and at the end of the silent section, for smoother transitions. You can specify the fade time in the value field below.

Destination

- **Replace Selection** replaces the current audio selection with the silent section.
- **Insert at Cursor** inserts the silent section at the cursor position.

- **From End of File Until Cursor** extends the audio file with silence up to the cursor position. Activating this option also defines the silence duration and ignores the **Silence Duration** setting.

RELATED LINKS
Inserting Silence and Replacing Audio with Silence on page 110

Inserting Silence and Replacing Audio with Silence

You can insert a specified length of silence at any position of the audio file, and you can replace an existing section of an audio file with silence.

PROCEDURE

1. Do one of the following:
   - To insert silence, in the **Audio Editor**, set the cursor where you want the silence to begin.
   - To replace an existing audio section with silence, make a selection in the **Audio Editor**.
2. Select the **Edit** tab.
3. In the **Signal** section, click **Silence Generator**.
4. Do one of the following:
   - To insert silence, in the **Silence Generator** dialog, deactivate **As Selection**, and specify the length. Set the destination to **Insert at Cursor**.
   - To replace an existing audio section with silence, in the **Silence Generator** dialog, set the silence duration to **As Selection**, and the destination to **Replace Selection**.
5. Click **Apply**.

RELATED LINKS
Edit Tab (Audio Editor) on page 84
Silence Generator Dialog on page 109

Muting a Selection

The **Mute Selection** function replaces the selection with true silence.

PROCEDURE

1. In the **Waveform** view of the **Audio Editor**, make a selection.
2. Select the **Edit** tab.
3. In the **Signal** section, click **Mute Selection**.

RELATED LINKS
Edit Tab (Audio Editor) on page 84

Replacing Audio with a Beep Sound

You can replace a part of an audio file with a beep sound, to cover up a swear word, for example.

PROCEDURE

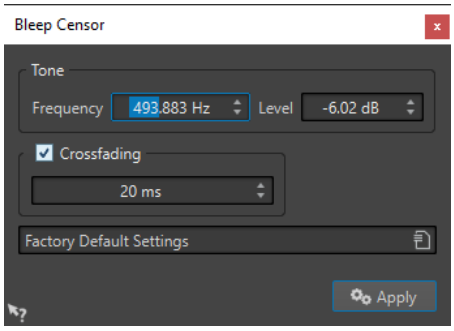
1. In the **Audio Editor**, make a selection.
2. Select the **Edit** tab.
3. In the **Signal** section, click **Bleep Censor**.
4. In the **Bleep Censor** dialog, specify the frequency and the level of the bleep censor tone.
5. Optional: Activate **Crossfading**, and specify the crossfade time.
   This creates a crossfade at the start and the end of the bleep censor region.
6. Click **Apply**.

RELATED LINKS
Edit Tab (Audio Editor) on page 84
Bleep Censor Dialog on page 111

Bleep Censor Dialog

The **Bleep Censor** dialog allows you to specify the bleep censor tone.

- To open the **Bleep Censor** dialog, select the **Edit** tab in the **Audio Editor**, and click **Bleep Censor** in the **Signal** section.



Frequency
Allows you to specify the frequency of the bleep censor tone.

Level
Allows you to specify the level of the bleep censor tone.

Crossfading
If this option is activated, WaveLab Cast creates a crossfade at the start and the end of the bleep censor region for a smoother transition. You can specify the crossfade time.

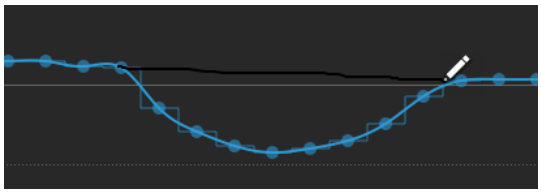
Presets
Allows you to save and restore bleep censor presets.

RELATED LINKS
Edit Tab (Audio Editor) on page 84
Replacing Audio with a Beep Sound on page 111

Waveform Restoration with the Pen Tool

The **Pen** tool allows you to redraw the waveform in the **Waveform** view, which enables you to quickly repair waveform errors.

The **Pen** tool can be used if the zoom resolution is set to 1:8 (one pixel on the screen equals 8 samples) or higher.



- To redraw the waveform, select the **Pen** tool on the **Edit** tab of the **Audio Editor**, click in the waveform, and draw the new waveform.
- To redraw the waveform of both channels at once, press **Shift** during the drawing process.

RELATED LINKS
Edit Tab (Audio Editor) on page 84

Audio Analysis

WaveLab Cast includes a comprehensive set of tools for analyzing your audio and for detecting errors.

For example, you can use the suite of audio meters or the **3D Frequency Analysis**. There are also several tools that help you examine any sample of your audio for errors or anomalies.

RELATED LINKS
Audio Editor Only: 3D Frequency Analysis on page 123
Audio Editor Only: Global Analysis on page 113

Audio Editor Only: Global Analysis

In the **Audio Editor**, you can perform an advanced analysis of your audio to identify areas with specific properties. This helps you to find problem areas such as glitches or clipped samples. You can also check general information, such as the pitch of a sound.

If you analyze a section of an audio file, WaveLab Cast scans the section or the audio file and extracts information, which is displayed in the dialog. WaveLab Cast also marks sections of the file that meet specific characteristics; for example, sections that are very loud or almost silent. You can then navigate between these points, set markers, or zoom in on markers. Most of the tabs allow you to determine exactly how to perform the analysis. Each tab focuses on a particular area for the analysis.

The **Global Analysis** dialog consists of the following tabs, which represent different types of analysis:

- The **Peaks** tab allows you to identify individual samples with very high values.
- The **Loudness** tab allows you to identify sections with a high intensity.
- The **Pitch** tab allows you to determine the exact pitch of a sound or section.
- The **Extra** tab provides information about DC offsets and the significant bit depth.
- The **Errors** tab allows you to find glitches and sections where the audio is clipped.

Most of the analysis types display “hot points”; that is, positions in the file that indicate peaks, glitches, etc.

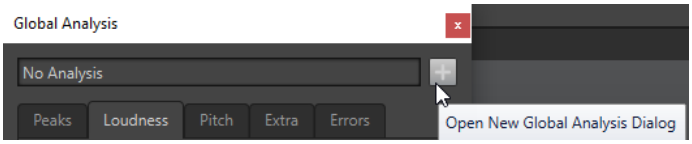
Preparing the Global Analysis

The **Global Analysis** dialog provides various analysis options.

PROCEDURE

1. In the **Audio Editor**, select the audio range that you want to analyze.
   To analyze the entire file, press **Ctrl/Cmd** - **A**. If **Process Whole File If There Is No Selection** is activated in the **Audio Files Preferences**, the whole file is analyzed automatically, provided that no selection has been made.
2. In the **Audio Editor**, select the **Edit** tab.
3. In the **Analysis** section, click **Global Analysis**.

4. Optional: Click **Open New Global Analysis Dialog** at the top of the **Global Analysis** dialog to open another **Global Analysis** dialog.



RELATED LINKS
Audio Editor Only: Global Analysis on page 113

Choosing the Analysis Type

You can choose from several types of analysis.

NOTE

Analyzing files takes some time, regardless of the analysis type. For this reason, we recommend to exclusively select the types required to obtain the desired information.

You can select the analysis types in the **Global Analysis** dialog by activating them via the corresponding tabs.

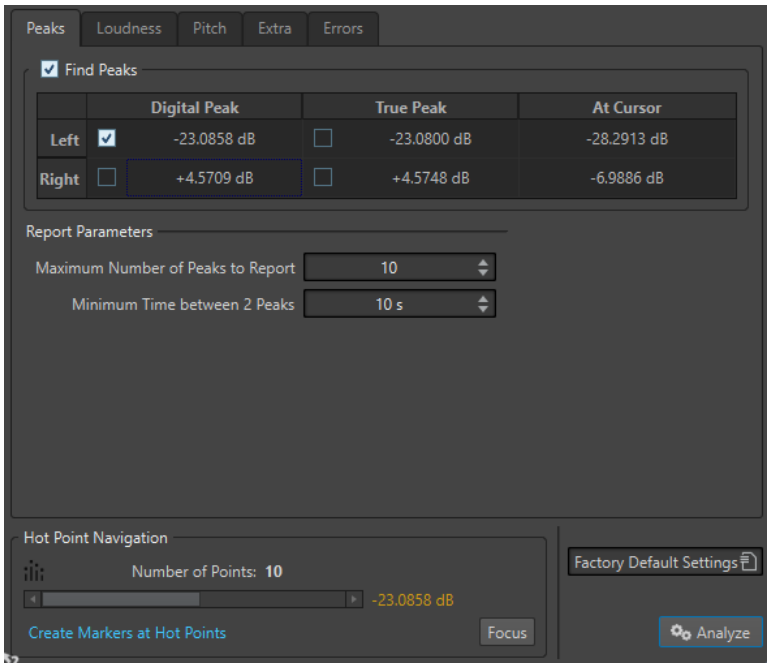
- To perform a peaks analysis, select the **Peaks** tab, and activate **Find Peaks**.
- To perform a loudness analysis, select the **Loudness** tab, and activate **Analyze Loudness**.
- To perform a pitch analysis, select the **Pitch** tab, and activate **Find Average Pitch**.
- To perform a DC offset analysis, select the **Extra** tab, and activate **Find DC Offset**.
- To perform an error analysis, select the **Errors** tab, and activate **Find Possible Glitches** and/or **Find Clipped Samples**.

RELATED LINKS
Audio Editor Only: Global Analysis on page 113

Peaks Tab (Global Analysis)

The **Peaks** tab allows you to make settings that help you to find digital peak values in your audio material; that is, single samples with very high values.

- In the **Global Analysis** dialog, select the **Peaks** tab.



Find Peaks

Enables the peak analysis.

Digital Peak/True Peak

Displays the highest peak in the analyzed section. When you click this value, the number of peaks that are detected in the selection is shown in the **Number of Points** section in the lower left corner of the dialog. You can use the hot points to move the cursor between the peaks.

At Cursor

Displays the level at the current audio file cursor position at the time of the analysis.

Maximum Number of Peaks to Report

Restricts the number of reported peaks. For example, setting this to **1** reports only the highest peak.

Minimum Time between 2 Peaks

Controls the distance between peaks, so that they do not appear too close to each other. For example, setting this to **1 s** ensures that two reported peaks are at least one second apart from each other.

Results of the Analysis

The **Find Peaks** fields show the highest peak in the analyzed section and the level of the sample at the cursor position at the time of the analysis.

RELATED LINKS
Audio Editor Only: Global Analysis on page 113

Loudness Tab (Global Analysis)

The **Loudness** tab allows you to make settings that help you to find sections that are perceived as louder or weaker in volume by the human ear.

NOTE

To identify sections that the ear perceives as significantly high in terms of volume, you must look at a longer section of audio.

- In the **Global Analysis** dialog, select the **Loudness** tab.

The following options are available for the **RMS Loudness** tab and the **EBU R-128** tab:

Maximum Number of Loudness Points to Report

Restricts the number of reported hot points. Only the highest points are reported. For example, setting this to **1** reports only the loudest section or one of the sections that have the same highest value.

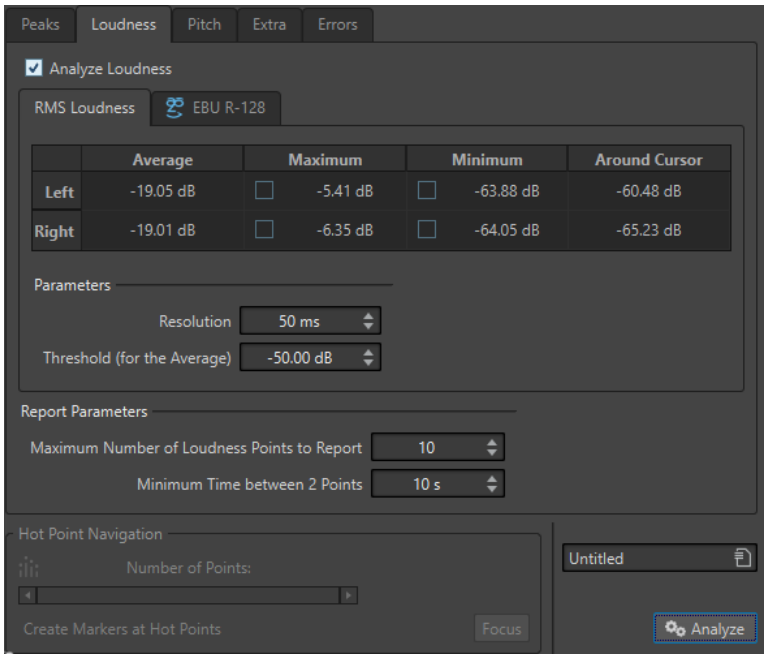
Minimum Time between 2 Points

Controls the distance between points, so they do not appear too close to each other. For example, setting this to **1 s** ensures that two reported peaks are at least one second apart from each other.

Analyze Loudness

Enables the RMS loudness analysis.

RMS Loudness tab



Analyze Loudness

Enables the RMS loudness analysis.

Average

Displays the overall loudness of the analyzed selection.

Maximum

Displays the level of the loudest section in the analyzed selection. Clicking this value displays the number of loud sections detected within the selection in the **Number of Points** section in the lower left corner of the dialog.

Minimum

Displays the level of the quietest section in the analyzed selection. Clicking this value displays the number of weak sections that are detected within the selection in the **Number of Points** section in the lower left corner of the dialog. This provides adequate information about the signal-to-noise ratio (SNR) of the audio material.

Around Cursor

Displays the loudness at the audio file cursor position at the time of the analysis.

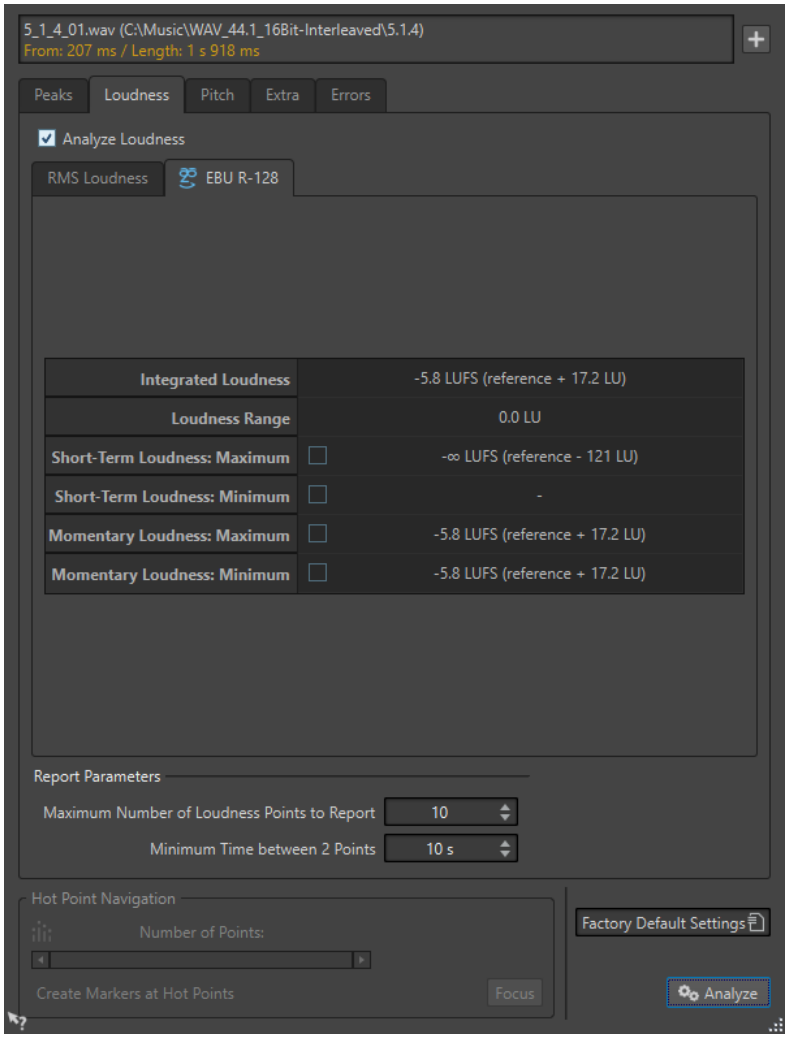
Resolution

The length of audio to be measured and averaged. If this value is lowered, short passages of loud/weak audio are detected. If the value is raised, the sound must be loud/weak for a longer period to result in a hot point.

Threshold (for the Average)

Ensures that the average value is calculated correctly for recordings with pauses. The value that you set here determines a threshold below which any detected audio is considered to be silence, and is therefore excluded from average value calculations.

EBU R-128 tab



Integrated Loudness

Displays the integrated loudness of the analyzed selection, also known as programme loudness, according to the loudness analysis reference value. This indicates the average loudness of the audio.

Loudness Range

Displays the loudness range according to the loudness analysis reference value. It is based on a statistical distribution of loudness within a programme, thereby excluding the extremes.

Short-Term Loudness: Maximum

Displays the level of the loudest 3 second section in the analyzed selection. When you click this value, the number of loud sections that are detected within the selection is shown in the **Number of Points** section in the lower left corner of the dialog.

Short-Term Loudness: Minimum

Displays the level of the quietest 3 second section in the analyzed selection. When you click this value, the number of quiet sections that are detected within the selection is shown in the **Number of Points** section in the lower left corner of the dialog. This provides adequate information about the signal-to-noise ratio (SNR) of the audio material.

Momentary Loudness: Maximum

Displays the level of the loudest very short section (400 milliseconds) in the analyzed selection. When you click this value, the number of loud sections that are detected within the selection is shown in the **Number of Points** section in the lower left corner of the dialog.

Momentary Loudness: Minimum

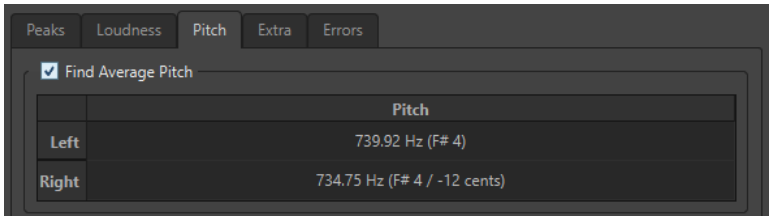
Displays the level of the quietest very short section (400 milliseconds) in the analyzed selection. When you click this value, the number of quiet sections that are detected within the selection is shown in the **Number of Points** section in the lower left corner of the dialog.

RELATED LINKS
EBU Loudness Standard R-128 on page 29
Audio Editor Only: Global Analysis on page 113

Pitch Tab (Global Analysis)

On this tab, you can make settings that help you find the average pitch of an audio section.

- In the **Global Analysis** dialog, select the **Pitch** tab.



Settings on this tab allow you to gather information for pitch shifting, for example, to get one sound in tune with another. The display shows the pitch for each channel, in Hertz (Hz) and as semitones and cents (hundredths of a semitone). Because the display shows an overall value for the entire analyzed section, the hot point controls in the lower section of the dialog are not used on this tab.

Usage guidelines for the **Pitch** tab:

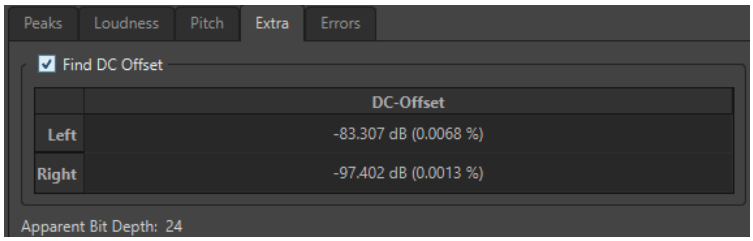
- The result is an average value for the whole selection.
- The method only works on monophonic material, not on chords or harmonies.
- The algorithm assumes that the analyzed section has a reasonably stable pitch.
- The material must be relatively well isolated from other sounds.
- It is preferable to analyze the sustain portion of a sound rather than the attack. The pitch is usually not stable during the attack.
- Some synthetic sounds may have a weak fundamental (first harmonic) which can irritate the algorithm.

RELATED LINKS
Audio Editor Only: Global Analysis on page 113

Extra Tab (Global Analysis)

This tab shows the average DC Offset of the analyzed section and the **Apparent Bit Depth**.

- In the **Global Analysis** dialog, select the **Extra** tab.



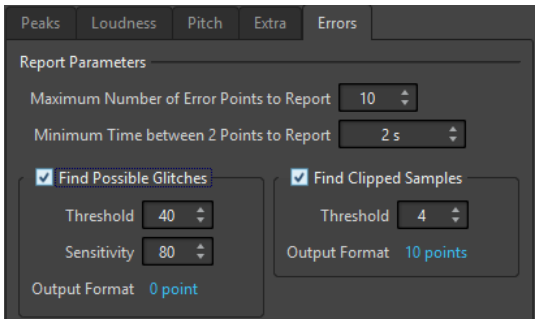
The **Apparent Bit Depth** attempts to detect the actual precision in the audio. This is useful, for example, if you want to check, whether a 24-bit file really uses 24 bits or if it was actually recorded with 16-bit precision and then expanded to 24 bits.

RELATED LINKS
Audio Editor Only: Global Analysis on page 113

Errors Tab (Global Analysis)

This tab helps you find glitches and sections where the audio has clipped.

- In the **Global Analysis** dialog, select the **Errors** tab.



Maximum Number of Error Points to Report

Allows you to restrict the reported number of hot points.

Minimum Time between 2 Points to Report

Controls the distance between points, so they do not appear too close to each other. For example, setting this to **1 s** ensures that there is always at least one second between reported points.

Find Possible Glitches

Enables glitch analysis.

- **Threshold** sets the value at which a change in level is considered to be a glitch. The higher the value, the less sensitive the detection.
- **Sensitivity** is a length value that represents the length of time in which the waveform must exceed the threshold to be reported as a glitch. The higher the value, the less sensitive the detection.
- **Output Format** displays the number of clipping occurrences that are detected by the analysis. Clicking this value displays the number of clips in the **Number of Points** section in the lower left corner of the dialog.

NOTE

Make sure that the points that are detected by the algorithm are real glitches. Zoom in and play back to check whether the detected points really indicate a problem.

Find Clipped Samples

Enables clipping analysis.

- **Threshold** checks for a number of consecutive samples at full value to determine whether clipping has occurred. The **Threshold** setting determines the exact number of these consecutive samples that must occur for the program to report clipping.
- **Output Format** displays the number of clipping occurrences that are detected by the analysis. Clicking this value displays the number of clips in the **Number of Points** section in the lower left corner of the dialog.

RELATED LINKS
Audio Editor Only: Global Analysis on page 113

Error Detection

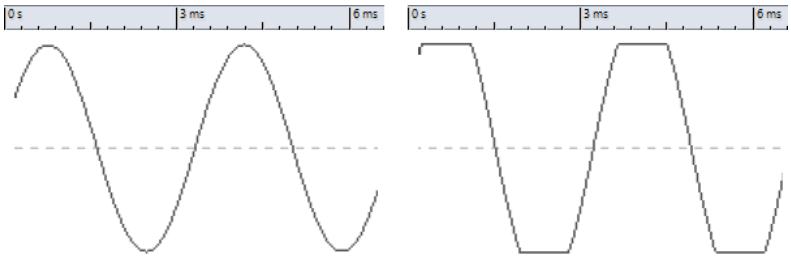
You can detect errors, such as glitches and sections where the audio has clipped.

Glitches

- These are disruptions in the audio. Glitches may occur after problematic digital transfers, after careless editing, etc. They manifest themselves as “clicks” or “pops” in the audio.

Clipping

- A digital system has a finite number of levels that it can represent properly. When recorded sound levels are too high or when the system cannot handle levels that have been raised by digital processing, hard clipping occurs that you can hear as strong distortion.



A sine waveform before clipping and after.

Result of the Analysis

This reports the number of glitches and clipping instances that have been detected.

Performing a Global Analysis

PREREQUISITE

In the **Audio Editor**, select the **Edit** tab, click **Global Analysis**, and select the tab that you want to include in the analysis.

PROCEDURE

1. In the **Global Analysis** dialog, set up the parameters.
   Most of the tabs have settings that determine how the analysis should be performed.
2. If the **Peaks** or **Loudness** tab is selected, move the cursor to the position that you want to analyze.
   The **Peaks** and **Loudness** tabs report values for the position of the cursor.

3. Click **Analyze**.

Results of the Global Analysis

Depending on the analysis type, one or several values are returned for the analyzed audio.

For the **Pitch** and **Extra** analyses, only one value is returned. The other analysis types provide a number of positions in the file that indicate peaks, glitches, etc. These points are called hot points.

RELATED LINKS
Checking the Results of the Global Analysis on page 122

Checking the Results of the Global Analysis

The results of the global analysis are marked with hot points. You can browse through these points to see the results of the analysis.

PREREQUISITE

In the **Audio Editor**, select the **Edit** tab, click **Global Analysis**, and perform the analysis.

PROCEDURE

1. In the **Global Analysis** dialog, click the tab that represents the values that you want to check.
2. Check the display for maximum/minimum values in the entire analyzed section.
3. Decide which of these values you want to check.
4. Click the value.
5. Check the **Number of Points** value at the bottom of the dialog.
   The value shows the number of positions that were detected by the analysis.
6. Use the scrollbar below the **Number of Points** value to browse between the detected positions.
   The edit cursor shows the position in the wave window.
7. To browse another property, click the corresponding tab, and then the value button.

   NOTE

   The result of the analysis is saved until you close the dialog or click **Analyze** again.

RELATED LINKS
Performing a Global Analysis on page 121
Creating Markers at Hot Points on page 122

Creating Markers at Hot Points

Creating markers at hot points simplifies browsing the results of the global analysis.

PREREQUISITE

In the **Audio Editor**, select the **Edit** tab, click **Global Analysis**, and perform the analysis.

PROCEDURE

1. In the **Global Analysis** dialog, select the analysis type for which you want to create markers at hot points.

   You can add markers for only one channel at a time.

2. Click **Create Markers at Hot Points** at the bottom of the **Global Analysis** dialog.

   Temporary markers are added at all hot points on the corresponding channel.

RESULT

The markers are named using the following principle: “Hot point number (Channel)”. For example, a marker at the third hot point in the left channel would be labeled “3 (L)”.

RELATED LINKS

Performing a Global Analysis on page 121
Checking the Results of the Global Analysis on page 122
Focusing Hot Points on page 123

Focusing Hot Points

After a global analysis, you can set the focus of the display to a specific hot point.

PREREQUISITE

In the **Audio Editor**, select the **Edit** tab, click **Global Analysis**, and perform the analysis.

PROCEDURE

1. Use the **Number of Points** scrollbar to move the position indicator to the position in which you are.
2. Click **Focus**.

   The wave window zooms in on the selected point. The **Global Analysis** dialog is reduced to the bottom part.

3. To return to the full view of the **Global Analysis** dialog, click **Focus** again.

RELATED LINKS

Performing a Global Analysis on page 121
Creating Markers at Hot Points on page 122
Checking the Results of the Global Analysis on page 122

Audio Editor Only: 3D Frequency Analysis

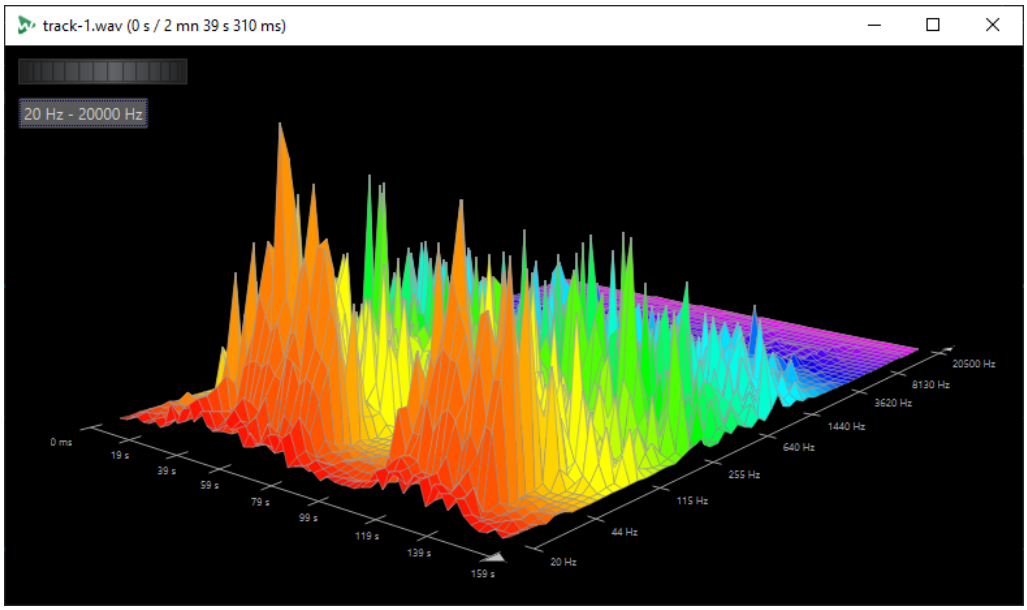
Using the 3D Frequency Analysis, you can view an audio file in the frequency domain.

Use the 3D Frequency Analysis for the following:

- Viewing the frequency spectrum distribution in a mix
- Identifying which frequencies can be reduced or boosted as a basis for equalizing
- Viewing how different sounds are built

A wave display (time domain) informs you about the start and end of a sound in a file, but lacks information about the timbral contents of the file that a frequency graph (frequency domain) provides. The graph that is used in WaveLab Cast is often referred to as an FFT (Fast Fourier Transform) plot. If you select a stereo recording, a mix of the two channels is analyzed.

The wheel control allows you to view the frequency spectrum from different angles. For example, you can open several **3D Frequency Analysis** windows, each with a different perspective. This allows you to get a better view of an otherwise cluttered graph.



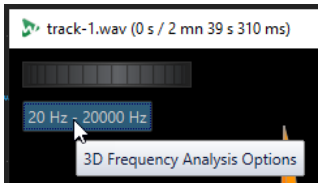
RELATED LINKS
Creating a Graph for 3D Frequency Analysis on page 124
3D Frequency Analysis Options Dialog on page 125

Creating a Graph for 3D Frequency Analysis

The length of the selected audio affects the accuracy of the analysis. For short selections, the result is more detailed. Consider making a separate analysis of the attack in which the most drastic variations occur.

PROCEDURE

1. In the wave window, select the section of the file that you want to analyze.
   If you make no selection, the whole audio file is analyzed.
2. In the **Audio Editor**, select the **Edit** tab.
3. In the **Analysis** section, click **3D Frequency Analysis**.
4. To edit the analysis parameters, click **3D Frequency Analysis Options**.



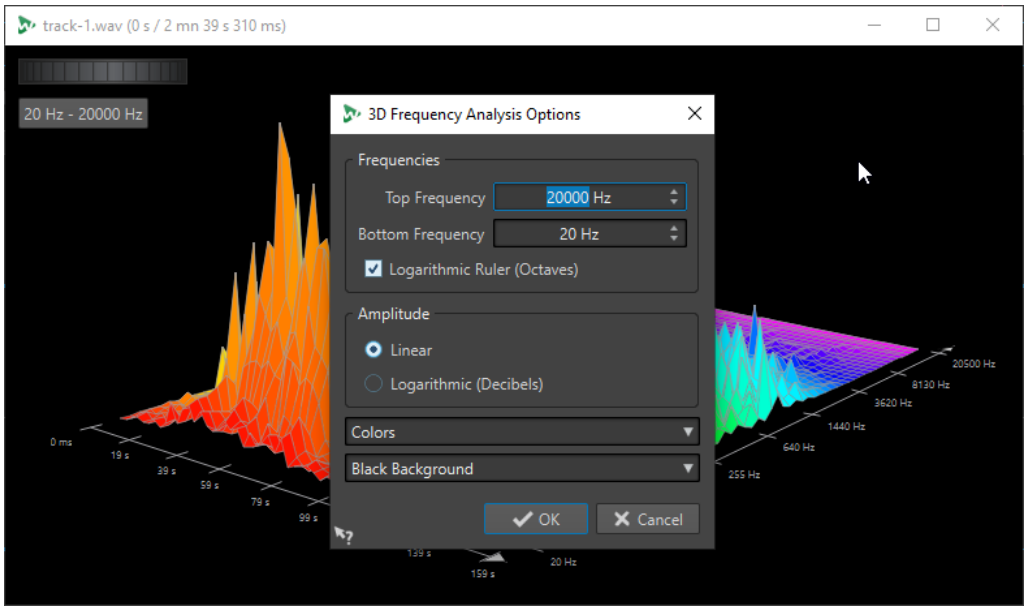
5. Adjust the parameters and click **OK**.
   The audio is re-analyzed.

RELATED LINKS
Edit Tab (Audio Editor) on page 84
3D Frequency Analysis Options Dialog on page 125

3D Frequency Analysis Options Dialog

In the options dialog of the **3D Frequency Analysis** dialog, you can define which frequency range is analyzed and modify the appearance of the graph for the 3D frequency analysis.

- In the **3D Frequency Analysis** dialog, click the **3D Frequency Analysis Options** button.



Top Frequency/Bottom Frequency

Specifies the highest/lowest frequency of the range.

Logarithmic Ruler (Octaves)

Divides the frequency ruler in equally spaced octaves.

Amplitude

Select whether you want the peaks to be proportional to their amplitude (**Linear**) or to their power (**Logarithmic Decibels**).

Colors

Defines the color scheme of the graph.

Background

Defines the background color.

RELATED LINKS

Audio Editor Only: 3D Frequency Analysis on page 123

Offline Processing

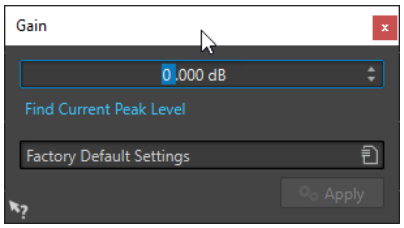
Offline processes are useful for a variety of editing purposes and creative effects, for example, if the computer is too slow for real-time processing or if the editing requires more than one pass.

After the processing, the audio file is permanently altered.

Gain Dialog

In this dialog, you can apply a gain to change the level of an audio file.

- To open the **Gain** dialog, select the **Edit** tab in the **Audio Editor**, and click **Gain** in the **Level** section.



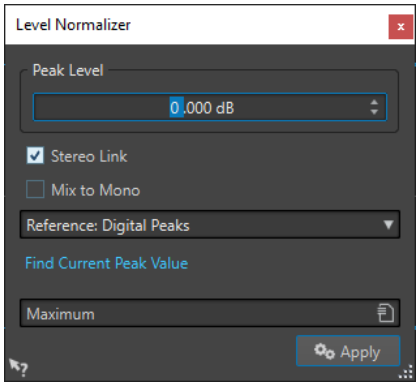
Click **Find Current Peak Level** to obtain a report on the peak level of the audio selection, or the whole file if there is no selection. This is useful if you want to calculate how much you can increase the overall gain of a file without clipping (exceeding 0 dB), for example.

This processor also lets you add clipping. Clipping happens when the gain is raised to a point where distortion is added. While this is normally not intended, mild clipping can add some punch, for example, to accentuate the attack of a drum sound.

Level Normalizer Dialog

In this dialog, you can change the peak level of an audio file.

- To open the **Level Normalizer** dialog, select the **Edit** tab in the **Audio Editor**, and click **Level** in the **Level** section.



Peak Level

Enter the peak level (in dB) that you want the audio selection to have.

Stereo Link

Applies the gain to both channels.

Reference

In this pop-up menu, select whether WaveLab Cast uses sample values (digital peaks) or analog reconstructed values (true peaks).

Mix to Mono

Mixes the left and the right channel. The resulting mono file has the specified peak level. This ensures a mix without clipping.

Find Current Peak Value

Creates a report on the peak level of the current audio selection or the whole audio file if there is no selection.

Loudness Normalizer

You can use the **Loudness Normalizer** to achieve a specific loudness.

Increasing the loudness to a specific value can provoke clipping. To remedy this, a peak limiter (**Peak Master** plug-in) can be part of the process. The **Loudness Normalizer** raises the loudness and limits peaks in the signal at the same time if needed, to achieve the wanted loudness.

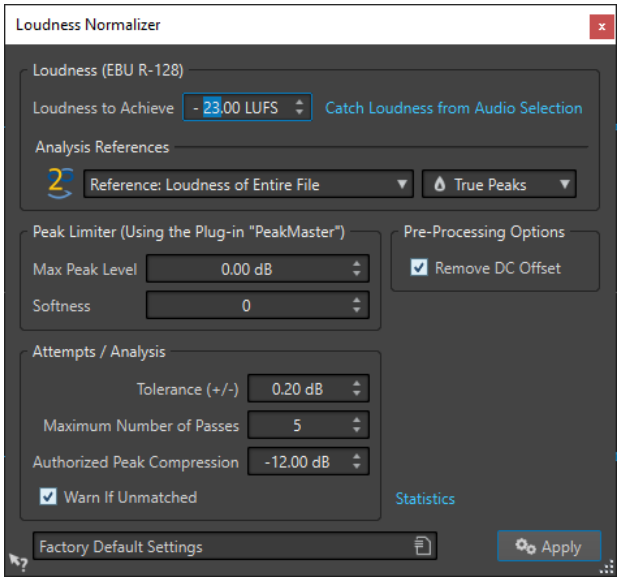
This process happens in several stages, first an analysis and then the final rendering.

RELATED LINKS
Loudness Normalizer Dialog on page 127

Loudness Normalizer Dialog

In this dialog, you can specify the loudness of a file.

- To open the **Loudness Normalizer** dialog, select the **Edit** tab in the **Audio Editor**, and click **Loudness** in the **Level** section.



Loudness (EBU R-128)

Loudness to Achieve

If the loudness cannot be achieved with a simple positive gain change, a limiter must come into action to prevent clipping.

Here, specify the loudness that you want to achieve. The EBU R-128 recommendation for broadcast is -23 LUFS.

Specifying high values might require a gain outside the normal capabilities of the limiter, which can cause distortion.

It is recommended to use **Statistics** after specifying a loudness. This way, you know how much the gain needs to be raised and if peak limiting needs to be applied. If heavy limiting is necessary, this might degrade the audio quality. In such cases, a warning is shown after applying the process, allowing you to undo it.

Catch Loudness from Audio Selection

Sets **Loudness to Achieve** to the average loudness found in the audio file or audio selection.

Reference

This pop-up menu allows you to select a reference: the loudness of the entire file (EBU R-128 recommendation), the average loudest 3 second audio section (**Top of Loudness Range**), or the loudest 3 second audio section (**Maximum Short-Term Loudness**).

Peaks

In this pop-up menu, select whether WaveLab Cast should limit the sample values (**Digital Peaks**) or the analog reconstructed samples (**True Peaks**).

Peak Limiter

Max Peak Level

Specifies the maximum peak level of the resulting audio. The lower this value, the lower the loudness.

Softness

Affects how the peak master operates. A high setting maximizes the perceived loudness effect, but can result in a slight harshness of the sound.

Adjust this parameter to optimize the balance between sound quality and the effect that you want to achieve.

Pre-Processing Options

Remove DC Offset

DC offset in the file affects the loudness computation. **Remove DC Offset** sets the DC offset to zero. We recommend that you keep this option activated.

Attempts/Analysis

Tolerance (+/-)

If **Loudness to Achieve** requires peak limiting, this also reduces the loudness to some degree. This cannot be computed in advance and cannot be automatically applied to the gain change. Instead, several simulation passes are performed to find the best possible gain. This option allows you to define the precision of the result that you want to achieve.

Maximum Number of Passes

WaveLab Cast performs as many analysis passes as needed to match the precision that you want to achieve. Use this option to specify the maximum number of passes to be performed.

Authorized Peak Compression

As too much compression degrades the audio quality, you can specify a limit for the applied compression. The value can be set between -1 and -20 dB. Consider lowering the **Loudness to Achieve**, as this renders better results.

Warn If Unmatched

If this option is activated, you are warned if the normalizing process does not meet the specified loudness/precision.

Statistics

Opens a window that shows you information about the file to be processed. It shows any DC offset, the current loudness, the current peak level, and the required gain to achieve the specified loudness. Furthermore, you are informed if limiting is required.

RELATED LINKS
Loudness Normalizer on page 127
EBU Loudness Standard R-128 on page 29

Fades in Audio Files

A fade in is a gradual increase in level and a fade out is a gradual decrease in level.

You can create fades by selecting an individual fading type for each fade in/fade out.

Creating a Fade In and Fade Out

PROCEDURE

1. In the wave window, make a selection.
2. In the **Audio Editor**, select the **Edit** tab.
3. Depending whether you want to create a fade in or a fade out, select one of the following options in the **Fading** section:
   - To apply the default fade type, click the **Fade In** or **Fade Out** icon.
   - To select another fade type, click **Fade In** or **Fade Out** below the fade icon. From the pop-up menu, select the type of fade that you want to create.

Applying Easy Fades

The **Easy Fade** function allows you to quickly apply a default fade in or fade out to an audio file via shortcut.

The shape of the fade is governed by the **Fade In** and **Fade Out** settings in the **Fading** section of the **Edit** tab.

PROCEDURE

1. In the **Audio Editor**, make one of the following selections:
   - From the start of the audio file to where you want the fade in to end.

- From the position where you want the fade out to start to the end of the audio file.

2. Click **Ctrl/Cmd** - **D**.

Crossfades

A crossfade is a gradual fade between two sounds, where one is faded in and the other faded out. You can automatically create a crossfade when pasting an audio section into another.

Creating Crossfades

The material that you want to crossfade can either be in two different sections of the same audio file or in two different audio files.

PROCEDURE

1. In the wave window, select the section that you want to fade in.
2. Select the **Edit** tab.
3. In the **Clipboard** section, click **Copy**.
4. Select the section that you want to fade out.

   The length of this selection determines the length of the actual crossfade and is shown on the status bar. The section can be within the selected audio file or in another wave window. However, the selection must not be longer than the selection that you just copied.
5. Depending whether you want to create a fade in or a fade out, select one of the following options in the **Clipboard** section:
   - To apply the default crossfade type, click the **Paste and Crossfade** icon.
   - To select another crossfade type, click **Paste and Crossfade** below the crossfade icon. From the pop-up menu, select the type of crossfade that you want to create.

RESULT

The crossfade is created. Any material that originally appeared after the selection in the file into which you paste, is moved so that it now appears after the pasted material.

Any excess material in the copied selection appears after the fade at full level.

NOTE

If both files already have full level sections in the crossfade area (for example, if you have normalized both files), clipping and distortion might occur. If this happens, reduce the amplitude of both files by 3 dB to 6 dB and try again.

AFTER COMPLETING THIS TASK

Play back the file and adjust the crossfade if necessary.

RELATED LINKS

Paste and Crossfade Options on page 131

Paste and Crossfade Options

These options allow you to select a crossfade type for pasting.

- Select the **Edit** tab in the **Audio Editor**, and click **Paste and Crossfade** in the **Clipboard** section.

Linear (Equal Gain)

Level changes linearly.

Sinus (Equal Power)

Level changes according to a sine curve, the power of the mix remains constant.

Square-Root (Equal Power)

Level changes according to a square-root curve, the power of the mix remains constant.

Audio Montage

An audio montage is a multitrack non-destructive editing environment.

You can import audio files into audio montages. As soon as they are part of the audio montage, audio files are referred to as "clips". As clips are just referenced representations of the original audio files, in the audio montage, you can edit and alter them as you like, without affecting the original audio files.

Audio montages are particularly suited for assembling and rendering files for podcasts, Spotify, YouTube, multimedia work, etc.

NOTE

Audio montages can contain a maximum of two stereo or mono audio tracks and a video track. You can use them to structure the work graphically.

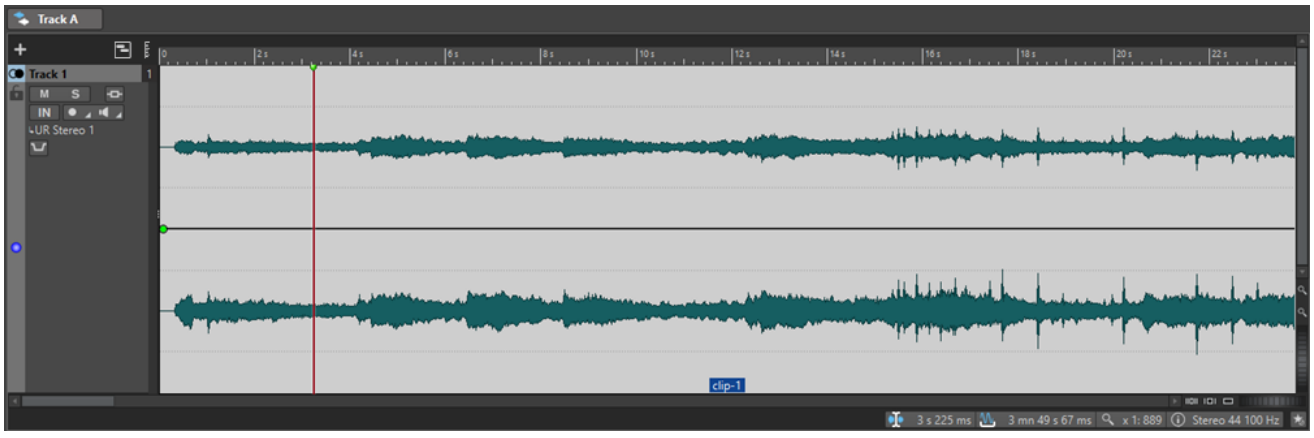
In addition to the reference to a source audio file on your hard disk, clips contain information about the start and end positions in the file, which means that clips can play back sections of the source audio files. Any number of clips can reference the same source file.

RELATED LINKS
Audio Montage Window on page 132
Creating Audio Montages on page 143
Assembling the Audio Montage on page 148
Clip Editing on page 154

Audio Montage Window

The **Audio Montage** window is where you assemble, view, play back, and edit audio montages.

The **Audio Montage** window provides you with an overview of tracks and clips.

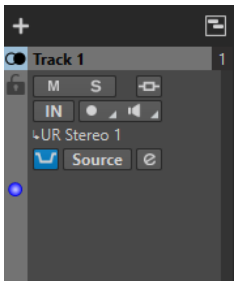


RELATED LINKS
Audio Montage Tabs on page 137
Track Control Area on page 133

Track Control Area

The track control area offers several track settings and options, for example, rearranging, muting, soloing, and routing tracks. Each track type has dedicated controls.

You can scroll through the tracks and resize them.



The track control area for mono and stereo tracks

The following options are available at the top of the track control area:

Add Track

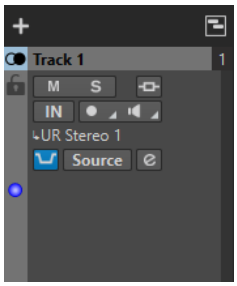
Allows you to add a track to the audio montage.

RELATED LINKS
Track Control Area for Stereo and Mono Tracks on page 133
Audio Montage Window on page 132

Track Control Area for Stereo and Mono Tracks

The track control area for stereo and mono tracks allows you, for example, to mute and solo tracks, add track effects, specify routing options, monitor the input signal, and record enable tracks.

Options



The track control area for mono and stereo tracks

Track Control Area Options

Lock

Disables all editing on the track.

Mute

Mutes the track.

Solo

Solos the track.

Effects

Opens the **Effects** pop-up menu where you can select effects for the track. A highlighted icon indicates that a track has track effects.

Audio Input

Allows you to select the audio input for recording.

Record

To be able to record, you must record enable the corresponding tracks. If you click the arrow, the following options are available:

File Properties for Recording opens a dialog that allows you to specify the name, location, and bit resolution of the audio file that you want to record.

If **Stop When Record Position Reaches Last Marker** is activated, recording stops when the record position reaches the last visible marker of the montage. Hidden markers are not taken into account. You can create and move the last marker during recording. This option is global to all audio montages.

If **Stop When Record Position Reaches Next Marker** is activated, recording stops when the record position reaches the next visible marker of the montage. Hidden markers are not taken into account. This option is global to all audio montages.

Monitor

Allows you to monitor the input signal.

Direct Monitoring

Allows you to monitor the input signal with lower latency. If **Direct Monitoring** is activated, the input signal is monitored directly without going through the audio montage and its effects.

Direct Monitoring is activated by default.

Ducker On/Off

Allows you to activate or deactivate ducking. You can then select the voice modulator track and make settings.

Source

Opens the **Modulator Tracks** menu that allows you to select the track that you want to use for ducking.

Ducker Settings

Opens the **Ducker** plug-in that allows you to edit ducking settings to fine tune the ducking effect.

Change Track Height of All Tracks

The lower left area of the track control area allows you to change the track height of all tracks simultaneously. Click and drag to change the track height.

Change Track Height of Active Track

The lower middle area of the track control area allows you to change the track height of the active track. Click and drag to change the track height.

Change Track Height of Active Track and Track Below

The lower right area of the track control area allows you to change the track height of the active track and the track below. Click and drag to change the track height.

Track peak meter

The track peak meter shows the volume level for audio tracks. It is located on the right side of the track control area.

Track Pop-up Menu

This pop-up menu contains all track-related options.

- To open the **Track** pop-up menu, right-click in the track control area.

Add Track

Adds a track below the active track.

Split into Left/Right Mono Tracks

Converts the stereo track into two mono tracks that represent the left and right channels of a stereo track. This does not alter the audio material.

Remove Track

Removes the active track.

Show Ducking Controls

Activates the ducking controls in the track control area.

Track Settings Menu

- To open the **Track Settings** menu, click the down arrow in the lower middle area of the track control area.

Zoom In

Shows the active track in the full available height.

Zoom Out

Shows as many tracks as possible.

Move Track Up/Move Track Down

Moves the active track up or down.

Track Color

Opens a submenu, where you can select a color for the active track.

RELATED LINKS
Ducking on page 173
Ducker Settings for Track Ducking on page 174
Input Monitoring on page 195
Direct Monitoring on page 196
Track Peak Meter on page 137
Track Control Area on page 133

Track Control Area for Video Tracks

The track control area for video tracks allows you, for example, to activate/deactivate thumbnails and show/hide the frame numbers of the video. Below the video track, the corresponding audio track has the same options as mono and stereo tracks.

Options



Track Name

Allows you to change the track name. Double-click the track name to open the **Track Name** dialog, where you can enter a name for the track.

Lock

Disables all editing on the track.

Show Thumbnails

Allows you to activate/deactivate the thumbnails of the video track.

Show Frame Numbers

Allows you to show each thumbnail with the corresponding video frame number.

Change Track Height of All Tracks

The lower left area of the track control area allows you to change the track height of all tracks simultaneously. Click and drag to change the track height.

Change Track Height of Active Track

The lower middle area of the track control area allows you to change the track height of the active track. Click and drag to change the track height.

Change Track Height of Active Track and Track Below

The lower right area of the track control area allows you to change the track height of the active track and the track below. Click and drag to change the track height.

Track Pop-up Menu

This pop-up menu contains all track-related options.

- To open the **Track** pop-up menu, right-click in the track control area.

Add Track

Allows you to add a track below the active track.

Remove Track

Deletes the active track.

Track Settings Menu

- To open the **Track Settings** menu, click the down arrow in the lower middle area of the track control area.

Zoom In

Shows the active track in the full available height.

Zoom Out

Shows as many tracks as possible.

Move Track Up/Move Track Down

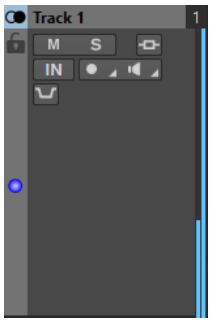
Moves the active track up or down.

RELATED LINKS
Track Control Area for Stereo and Mono Tracks on page 133
Track Control Area on page 133

Track Peak Meter

The track peak meter shows the volume level for the left channel and the right channel of stereo tracks. It is located on the right side of the track control area in the **Audio Montage** window.

The track peak meter provides an overview of which tracks are playing back audio at what approximate level. The left bar shows the volume level of the left stereo channel and the right bar shows the volume level of the right stereo channel.



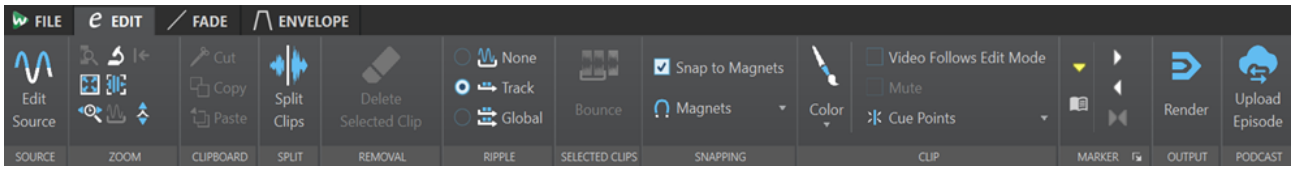
RELATED LINKS
Track Control Area for Stereo and Mono Tracks on page 133

Audio Montage Tabs

The tabs in the **Audio Montage** window give you access to the tools and options you need for editing audio montages. For example, you can edit fades in clips, make zoom settings, and render the audio montage.

Edit Tab (Audio Montage)

- In the **Audio Montage** window, click **Edit**.



Source

Edit Source

Opens the source audio file of the clip in the **Audio Editor**.

Zoom

Zoom

Activates the **Zoom** tool, which allows you to define a time range that is zoomed in.

Time

Opens a pop-up menu that allows you to adjust the zoom to display the selected time range. **Zoom in 1:1** zooms in so that one pixel on the screen represents one sample.

You can edit the zoom factor by clicking **Edit Zoom Factor**. This opens the **Zoom Factor** dialog, where you can choose from the following options:

- **Set Time Range** allows you to define the time range to be displayed.

- **Samples per Screen Point** allows you to specify the number of audio samples encompassed by each screen point.
- **Screen Points per Sample** allows you to specify the number of screen points that represent a single audio sample.

Zoom Selection

Zooms the window so that the current selection occupies the entire montage window.

Microscope

Zooms in as far as possible.

View All

Zooms out as far as possible.

Display Whole Clip

Adjusts the view to display the active clip.

Zoom in Audio (10x)/Zoom out Audio (10x)

Zooms in/out in big steps.

Zoom in Audio/Zoom out Audio

Zooms in/out in small steps.

Zoom in Vertically/Zoom out Vertically

Zooms in/out to show waveforms at a lower/higher level.

Level

Adjusts the zoom to only display samples below the selected dB value.

Reset Zoom to 0 dB

Adjusts the zoom to display audio levels up to 0 dB.

Clipboard

Cut

Cuts the selected audio range and saves it to the clipboard.

Copy

Copies the active clip or the selected audio range to the clipboard.

Paste

Pastes the clipboard content.

Split

Split Clips

Splits the clips at the edit cursor or playback cursor position.

Removal

Delete Selected Clip/Delete Selected Range

Deletes the part of the clip inside the selection range on the active track and moves the right section of the clip to the left, to fill the gap.

If there is no selection range, the selected clips are deleted.

Ripple

None

Deactivates the auto-shift function.

Track

If this option is activated and you move a clip horizontally, all clips on the active track that are located to the right of the edited clip are moved as well. This option also applies when moving or resizing clips, and when inserting or pasting more than one clip at a time.

Global

If this option is activated and you move a clip horizontally, all clips on all tracks that are located to the right of the edited clip are also moved. This option is taken into account when moving or resizing clips, and when inserting or pasting more than one clip at a time.

Selected Clips

Bounce

Renders the selected clips and replaces the clips with a single clip.

Snapping

Snap to Magnets

If this option is activated, moved elements such as clip edges, time selection edges, cursor, and markers snap to the magnets that are activated on the **Magnets** pop-up menu.

Magnets

Allows you to define items as magnetic.

Clip

Color

Allows you to apply a color to the active clip.

Video Follows Edit Mode

If this option is activated, the video in the **Video** window automatically follows each edit that you make. This allows you to instantly see where in the video your edit is being applied.

Mute

Mutes the active clip.

Cue Points

This pop-up menu allows you to make settings for front and back cue points.

- **Front Cue Point**
  - **Show** displays an existing front cue point.
  - **Set at Cursor** sets the front cue point to a fixed position from the start of the clip.
  - **Set at Default Gap Position** places the front cue point two seconds before the start of the clip.
  - **Follows Fade In End Point** sets the front cue point to the fade-in end point.

- **Follows Fade Out Start Point** sets the front cue point to the fade-out start point.

- **Back Cue Point**
  - **Show** displays an existing back cue point.
  - **Custom Cue End** allows you to set the back cue point at a custom position from the end of the clip, enabling you to edit the gap for each clip individually.
  - **End Offset** opens the **Back Cue Point Offset** dialog, which allows you to set the back cue point to a custom position from the end of the clip.

Marker

Create Generic Marker

Allows you to create markers and marker pairs at the edit cursor position.

Generate Chapters

Allows you to generate a text file that lists the chapters in your audio material, based on the markers you set, for use on YouTube or Spotify.

Output

Render

Opens the **Render** tab, where you can make render settings and render your audio montage.

Podcast

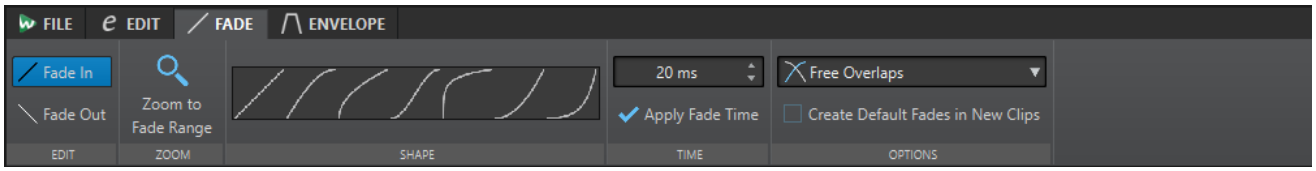
Upload Episode

Allows you to upload your Podcast episode to a hosting service.

RELATED LINKS
Editing Source Files of Clips on page 166
Clips and Cue Points on page 165

Fade Tab (Audio Montage)

- In the **Audio Montage**, click **Fade**.



Edit

Fade In/Fade Out

Allows you to switch between the fade in and the fade out settings.

Zoom

Zoom to Fade Range

Adjusts the view to display the fade in/fade out part of the active clip.

Shape

Curve

Allows you to select preset fade curves.

- **Linear** changes the level linearly.
- **Sinus (*)** changes the level according to a sine curve. When used in a crossfade, the loudness (RMS) remains constant during the transition.
- **Square-Root (*)** changes the level according to a square-root curve. When used in a crossfade, the loudness (RMS) remains constant during the transition.
- **Sinusoid** changes the level according to a sine curve.
- **Logarithmic** changes the level according to a logarithmic curve.
- **Exponential** changes the level according to an exponential curve.
- **Exponential+** changes the level according to a more pronounced exponential curve.

Time

Fade Time

Allows you to specify a fade in/fade out time for the clip.

Apply Fade Time

Applies the specified clip fade in/fade out time.

Options

Overlaps

This pop-up menu allows you to set the automatic crossfading behavior.

- If **No Automatic Crossfading** is activated, no automatic crossfading is performed when clips overlap.
- If **Free Overlaps** is activated, automatic crossfades are created when a clip overlaps another clip on the same track. The length of the overlap determines the length of the crossfade.

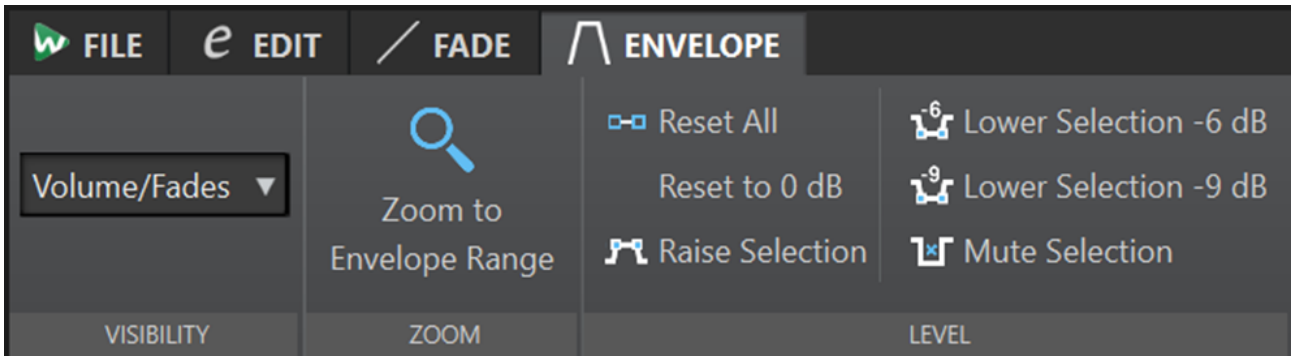
Create Default Fades in New Clips

If this option is activated, all new clips get the default fade in and fade out shape and length. For clips that are created by splitting a clip, only the default fade time is used.

RELATED LINKS
Audio Montage Tabs on page 137

Envelope Tab (Audio Montage)

- In the **Audio Montage** window, click **Envelope**.



Visibility

Envelope Type

Sets the type of the envelope. Depending on the selected type, you can choose from different options. The following options are available:

- **Hide All** hides all envelopes.
- **Volume/Fades** only displays the volume/fades envelope.

Zoom

Zoom to Envelope Range

Adjusts the view to display the active envelope of the active clip.

Level

Reset All

Resets the envelope to its neutral form.

Reset to 0 dB

Replaces the segments between the fade-in and fade-out points with a single neutral segment.

Raise Selection

Adds level envelope points and draws a curve to raise the audio level of the selection with 20 ms fall and rise times. You can drag the segment up and down to adjust the level.

Lower Selection -6 dB

Draws a level envelope curve to reduce the audio level of your selection by -6 dB, with 20 ms fall and rise times. You can drag the segment up and down to adjust the level.

Lower Selection -9 dB

Draws a level envelope curve to reduce the audio level of your selection by -9 dB, with 20 ms fall and rise times. You can drag the segment up and down to adjust the level.

Mute Selection

Adds level envelope points and draws a curve to mute the selection by lowering the level to zero with default 20 ms fall and rise times.

RELATED LINKS
Envelopes for Clips on page 167
Audio Montage Tabs on page 137

Signal Path in the Audio Montage

The audio signal follows a specific path when passing through the various areas of WaveLab Cast.

1. The audio samples are read.
2. Clip envelope
3. Clips are mixed into the track slot (for example, overlapping clips).
4. Track level settings
5. Each track is mixed into the stereo bus sent to the **Master Section**.

Signal Path in the Master Section

1. Channels/Sample rate can change at each plug-in slot.
2. **Master Section** meters
3. Playback or file format rendering

Creating Audio Montages

You can create new, empty audio montages with custom audio montage properties.

PROCEDURE

1. Select **File** > **New**.
2. Select **Audio Montage** > **Custom**.
3. Specify the sample rate of the audio montage.
4. Click **Create**.

RESULT

The audio montage is created.

RELATED LINKS

Audio Montage Properties on page 146
Creating Audio Montages from an Audio File on page 143

Creating Audio Montages from an Audio File

You can create an audio montage from an audio file or from a time selection in an audio file.

PROCEDURE

1. In the **Audio Editor**, open the audio file from which you want to create a new audio montage.
2. Optional: If you want to open a specific part of the audio file in a new audio montage, make a time selection in the audio file.
3. Right-click the file tab of the audio file.
4. Select **Create Audio Montage** > **From Current Audio File**.
5. In the **Create Audio Montage from Audio File** dialog, do one of the following:
   - To open the audio file in a new audio montage, select **Whole File**.

- To open the time selection that you have made in the audio file in a new audio montage, select **Current Time Selection**.

6. Optional: Do one of the following:
   - To import the markers of the audio file into the new audio montage, activate **Import Markers**.
   - To split the audio file at the generic region markers, activate **Split at Generic Region Markers**.
7. Click **OK**.

RESULT

The audio file opens in a new audio montage.

RELATED LINKS

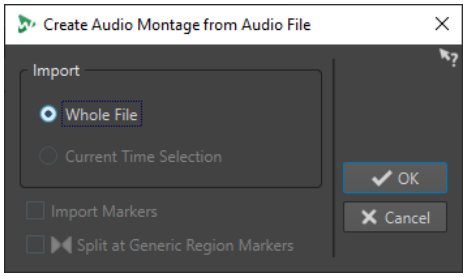
Create Audio Montage from Audio File Dialog on page 144

Create Audio Montage from Audio File Dialog

In this dialog, you can specify whether you want to open the audio file or a time selection inside an audio file as a new audio montage. You can also specify whether you want to import markers into the new audio montage and split at certain markers.

To open the **Create Audio Montage from Audio File** dialog, do one of the following:

- Right-click the file tab of an audio file, and select **Create Audio Montage** > **From Current Audio File**.
- Open an audio file in the **Audio Editor**, select **File** > **New** > **From Current File**, select **From Current Audio File**, and click **Create**.



Whole File

If this option is activated, the audio file opens in a new audio montage.

Current Time Selection

If this option is activated, the time selection that you have made in the audio file opens in a new audio montage.

Import Markers

If this option is activated, the markers inside the audio file are imported into the new audio montage.

Split at Generic Region Markers

If this option is activated and the audio file contains generic region markers, the audio file is split at the marker positions when it is imported into a new audio montage. Audio outside the marker boundaries is removed.

RELATED LINKS
Creating Audio Montages from an Audio File on page 143

Alternative Ways of Creating New Audio Montages

There are several ways to create a new audio montage.

- Convert wave files to an audio montage
- Duplicate audio montages
- Press **Ctrl**/**Opt**, and drag a montage tab on the tab bar

RELATED LINKS
Audio Montage Duplicates on page 145

Audio Montage Duplicates

You can duplicate audio montages in various ways. This allows you to quickly create new audio montages using the same properties and audio files as for previously created audio montages.

The following variants of audio montage duplicates are available:

Empty (With Same Properties)

Creates a new audio montage with the channel settings and sample rate of the original audio montage, without any clips.

Exact Duplicate (Using the Same Audio Files)

Creates an exact duplicate of the original audio montage and lets the new clips reference to the original audio files. The duplicated audio montage uses the channel settings and sample rate of the original audio montage.

This is useful if you want to create several versions of the audio montage, for example, to experiment with variations. However, any processing or editing that you apply to the actual audio files are reflected in all audio montages.

You can also press **Ctrl/Cmd**, drag a tab, and drop it on the tab bar to create an exact duplicate of an audio montage.

RELATED LINKS
Duplicating Audio Montages on page 145

Duplicating Audio Montages

PROCEDURE

1. Open the audio montage that you want to duplicate.
2. In the **Audio Montage** window, select the **File** tab.
3. Select **New** > **Audio Montage** > **From Current File**.
4. In the **From Current Audio Montage** section, select one of the following:
   - **Empty (With Same Properties)**
   - **Exact Duplicate (Using the Same Audio Files)**
5. Click **Create**.

RESULT

A duplicate of the audio montage opens in a new tab.

RELATED LINKS

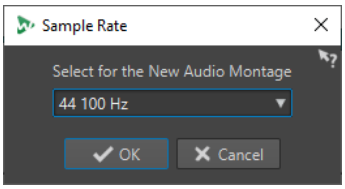
Audio Montage Duplicates on page 145

Audio Montage Properties

In the **Audio Montage Properties**, you can define the sample rate of the audio montage.

To open the sample rate settings for the selected audio montage, do one of the following:

- To open the sample rate settings for the selected audio montage, select the **File** tab and click **Info**.
- Click the **Audio Montage Properties** button at the bottom right of the montage window. This opens the **Sample Rate** dialog.



Changing the Sample Rate of Audio Montages

You can change the channel configuration of audio montages in the **Sample Rate** dialog.

PROCEDURE

1. At the bottom right of the montage window, click the **Audio Montage Properties** button.
2. In the **Sample Rate** dialog, select a new sample rate.
3. Click **OK**.

RELATED LINKS

Audio Montage Properties on page 146

Broken Audio File References

An audio montage consists of references to one or multiple audio files. These references can be broken if you move audio files to another location on your hard disk, for example. WaveLab Cast detects broken references and allows you to specify new file locations or replace the missing audio file with another audio file.

RELATED LINKS

Fixing Broken Audio File References on page 147
Missing Files Dialog on page 147

Fixing Broken Audio File References

When you open an audio montage that contains broken audio file references, the **Missing Files** dialog opens automatically.

PROCEDURE

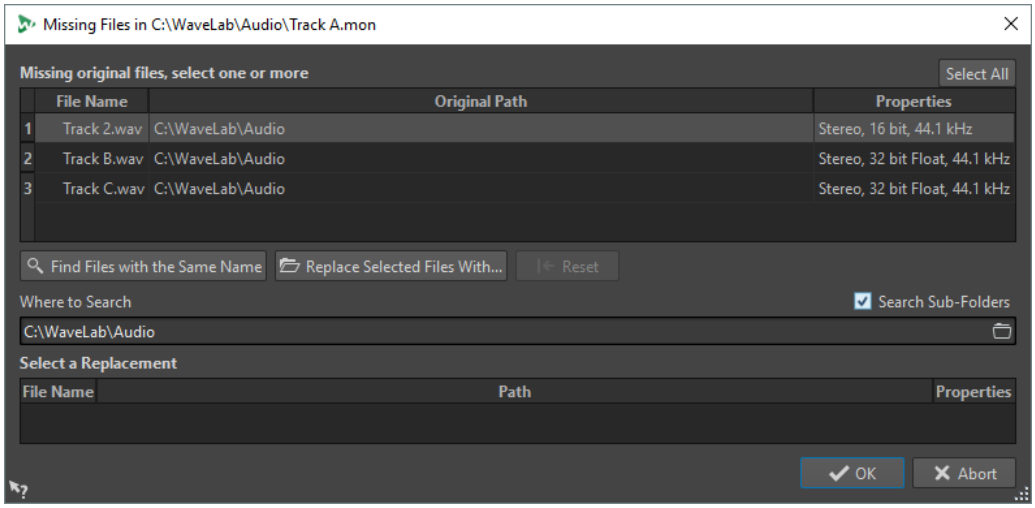
1. In the **Missing Files** dialog, select the missing audio file references that you want to fix.
2. In the **Where to Search** field, specify the file location of the new audio file reference.
3. Optional: Activate **Search Sub-Folders** to include subfolders in your search.
4. Do one of the following:
   - To let WaveLab Cast automatically search for audio files with the same name as the missing files, click **Find Files with the Same Name**.

     In the **Select a Replacement** field, select the new audio file references and click **OK**.
   - To select audio files to replace the missing files, click **Replace Selected Files With**, select the new files, and click **Open**.

RELATED LINKS
Missing Files Dialog on page 147

Missing Files Dialog

This dialog opens when you open an audio montage, and some audio files that the audio montage refers to cannot be found. You can then search for the files or select a replacement.



Missing Original Files

Lists the files that cannot be found. Each file can be replaced by an existing file. To search replacements for multiple files, select the files, and specify a new path in the **Where to Search** field.

A file with a green checkmark is associated with a valid replacement. A file with a red checkmark is not yet associated with a valid replacement, but there are possible replacement candidates available at the bottom of this dialog.

Find Files with the Same Name

Instructs WaveLab Cast to find all files with the same name in the folder specified in the **Where to Search** field.

Replace Selected Files With

Replaces the missing files with a single specific file.

Reset

Removes all possible replacements for the selected missing files.

Where to Search

Lets you specify a location for searching files. Click **Find Files with the Same Name** to start the search.

Replacement List

Lists the files that can be used as a replacement. You can also drag a file into the list from the File Explorer/macOS Finder.

Assembling the Audio Montage

You assemble your audio montage by adding tracks and clips.

RELATED LINKS
Tracks on page 148
Clips on page 150

Tracks

Tracks are the structure used to organize clips. You can add mono tracks, stereo tracks, and video tracks.

- Mono and stereo tracks allow you to add clips to an audio montage.
- Video tracks allow you to add videos to an audio montage.

RELATED LINKS
Video Track on page 236
Adding Tracks on page 148

Adding Tracks

You can add stereo tracks, mono tracks, and video tracks.

PROCEDURE

1. Do one of the following:
   - In the **Audio Montage** window, click **+** at the top of the track control area.
   - Right-click the track control area to open the **Track** pop-up menu and select **Add Track**.
2. Select the track type that you want to add to your audio montage.

RELATED LINKS
Tracks on page 148
Track Control Area on page 133

Moving Tracks in the Track List

You can move tracks up or down in the track list.

CHOICES

- In the **Audio Montage** window, select a track, and drag it up or down in the track list.
- At the bottom of the track control area, click the down arrow, and select **Move Track Up** or **Move Track Down**.

RELATED LINKS

Tracks on page 148
Track Control Area on page 133

Resizing Tracks

You can freely resize the track height and width.

There are different ways of resizing the track height and width, depending on where in the track control area of each track you click and drag.

CHOICES

- To change the track height of all tracks simultaneously, click and drag the lower left area of a track control area.
- To change the track height of the active track, click and drag the lower middle area of a track control area.
- To change the track height of the active track and the track below proportionally, click and drag the lower right area of a track control area.

RELATED LINKS

Tracks on page 148
Track Control Area on page 133

Removing Tracks

Removing a track with clips also removes the clips. However, the audio files to which the clips refer are not affected.

PROCEDURE

- In the track control area, right-click the track control area of the track that you want to remove and click **Remove Track**.

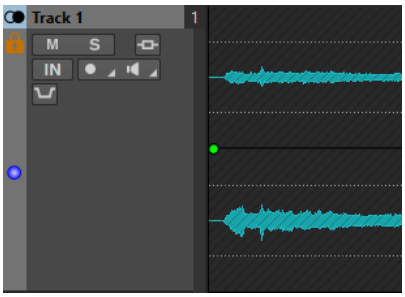
RELATED LINKS

Tracks on page 148
Track Control Area on page 133

Locking and Unlocking Tracks

You can lock tracks to prevent them from being accidentally moved, edited, or deleted.

- To lock a track, click the **Lock** button of the track in the track control area.



- To unlock a track, click the **Lock** button in the track control area again.

RELATED LINKS
Tracks on page 148
Track Control Area on page 133

Splitting Stereo Tracks into Mono Tracks

You can split stereo tracks into left/right or mid/side mono tracks. This is a virtual split which does not affect or create audio files.

PROCEDURE

- In the **Audio Montage** window, right-click the track control area of the track that you want to split and select **Split into Left/Right Mono Tracks**.

RESULT

The track is split. If there are clips on the track, the two stereo sides are now separate clips, allowing you to move and edit independently.

The mono tracks are automatically grouped and can only be moved and resized together.

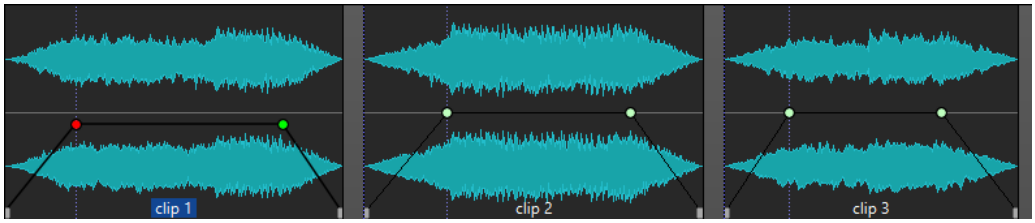
RELATED LINKS
Track Control Area on page 133

Clips

The audio files that you insert to audio montages are represented as clips. A clip contains a reference to a source audio file on your hard disk, as well as start and end positions in the file, fades, etc. This allows clips to play back smaller sections of their source audio files.

Any number of clips can reference the same source file. Because a clip only references to the original source file, it contains no audio data. Any number of clips can reference the same source file.

You can see the clips of the active audio montage in the **Clips** window.



3 clips on a track

RELATED LINKS
Clip Editing on page 154

Inserting Audio Files into Audio Montages

When you insert audio files into audio montages, the audio files are represented as clips. There are several ways to insert audio files into audio montages.

RELATED LINKS
Clips on page 150
Inserting Audio Files into Audio Montages Using Drag and Drop on page 151
Inserting Audio Files into Audio Montages Using the Context Menu on page 151
Inserting Audio Files into Audio Montages Using Copy and Paste on page 152
Inserting Audio Files into Audio Montages Using the File Explorer/macOS Finder on page 152
Inserting Audio Files into Audio Montages Using the File Browser Window on page 152
Inserting Audio File Regions into Audio Montages Using Drag and Drop on page 153
Inserting Audio Files into Audio Montages by Copying From Other Audio Montages on page 153
Inserting Stereo Audio Files into Mono Tracks or Vice Versa on page 153
Inserting Clips into Audio Montages Using the Clips Window on page 154
Audio Montage Creation via the Startup Assistant on page 14

Inserting Audio Files into Audio Montages Using Drag and Drop

You can drag an audio file or a section of an audio file from the wave window to the montage window to insert it into the audio montage.

PROCEDURE

1. In the wave window of the **Audio Editor**, do one of the following:
2. Do one of the following:
   - To add the whole audio file into the audio montage, drag the audio file tab to an audio montage tab and drop it on a track.
   - To add a part of the audio file into the audio montage, select the audio part that you want to add to the audio montage, drag it to the audio montage tab, and drop it on a track.

RESULT

A clip is created, named after the original file.

RELATED LINKS
Audio Editor Window on page 83
Audio Montage Window on page 132

Inserting Audio Files into Audio Montages Using the Context Menu

The context menu of the montage window allows you to insert audio files into audio montages.

PROCEDURE

1. In the montage window, right-click an empty area of a track.
2. In the pop-up menu, click **Insert Audio Files** and select the audio file that you want to insert into the track.

RESULT

A clip is created, named after the original file.

Inserting Audio Files into Audio Montages Using Copy and Paste

You can copy and paste an audio file or a section of an audio file from the wave window to the montage window to insert it into the audio montage.

PROCEDURE

1. In the wave window of the **Audio Editor**, select the audio section to which you want the clip to refer to.
2. Select the **Edit** tab and click **Copy**, or press **Ctrl/Cmd** - **C**.
3. In the montage window, select the track where you want to insert the clip.
   The clip insert position is indicated by the edit cursor.
4. Select the **Edit** tab and click **Paste**, or press **Ctrl/Cmd** - **V**.

RESULT

A clip is created, named after the original file.

Inserting Audio Files into Audio Montages Using the File Explorer/macOS Finder

You can copy and paste an audio file from the File Explorer/macOS Finder to the montage window to insert it into the audio montage.

PROCEDURE

1. In the File Explorer/macOS Finder, select an audio file and press **Ctrl/Cmd** - **C**.
2. In the montage window, set the edit cursor at the position where you want to insert the clip.
3. Select the **Edit** tab and click **Paste**, or press **Ctrl/Cmd** - **V**.

RESULT

A clip is created, named after the original file.

Inserting Audio Files into Audio Montages Using the File Browser Window

You can drag an audio file from the **File Browser** window to the montage window to insert it into the audio montage.

NOTE

The following can also be done from the File Explorer/macOS Finder.

PROCEDURE

1. Select **Tool Windows** > **File Browser**.
2. In the **File Browser** window, select the audio files to which you want the clip to refer, and drag them on a track.

RESULT

A clip is created, named after the original file.

RELATED LINKS
File Browser Window on page 51

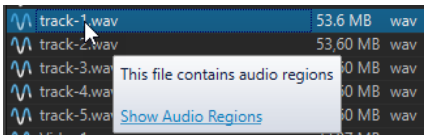
Inserting Audio File Regions into Audio Montages Using Drag and Drop

If you have defined marker regions in an audio file, you can drag these regions from the **File Browser** window onto a track.

PROCEDURE

1. Select **Tool Windows** > **File Browser**.
2. In the **File Browser** window, select the audio file from which you want to insert marker regions into your audio montage.

   On the right side of the **File Browser** window, the audio regions section shows the marker regions of the selected file. This section is hidden by default. To show the audio regions section, select an audio file that contains markers, and click **Show Audio Regions**.

3. Drag any region to the track.

RESULT

A clip is created, named after the original file.

RELATED LINKS
File Browser Window on page 51

Inserting Audio Files into Audio Montages by Copying From Other Audio Montages

If you have opened more than one audio montage, you can copy clips from one audio montage to another, either by using drag and drop or by using copy and paste.

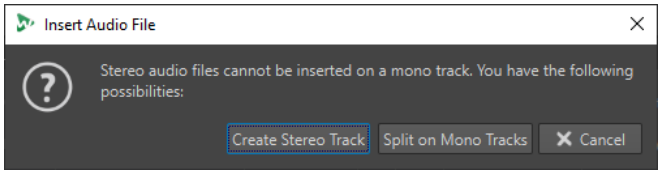
PROCEDURE

1. In an audio montage, select the clips that you want to insert into another audio montage.
2. Do one of the following:
   - Drag the clip to the tab of another audio montage and drop it on a track.
   - Click **Ctrl/Cmd** - **C**. Open another audio montage and place the edit cursor at the position where you want to insert the clip. Click **Ctrl/Cmd** - **V**.

Inserting Stereo Audio Files into Mono Tracks or Vice Versa

When you insert a stereo audio file into a mono track, you can decide whether to automatically create a stereo track or split the stereo file on two mono tracks.

Insert Stereo Audio Files on Mono Tracks



When you insert a stereo audio file into a mono track, the following options are available in the **Insert Audio File** dialog:

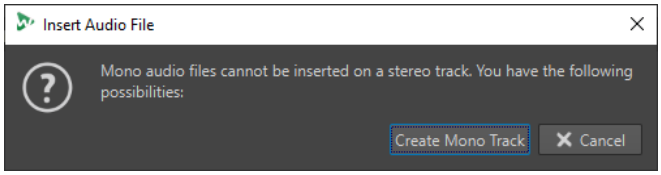
Create Stereo Track

Creates a stereo track and inserts the stereo audio file.

Split on Mono Tracks

Splits the stereo audio file on two mono tracks. If the track below the first track is already a mono track, this track is used for the second mono file. If there is no second mono track, a mono track is created automatically.

Insert Mono Audio Files on Stereo Tracks



When you insert a mono audio file into a stereo track, you can select **Create Mono Track** to automatically create a mono track below the stereo track and insert the mono audio file here.

RELATED LINKS
Inserting Audio Files into Audio Montages on page 151

Inserting Clips into Audio Montages Using the Clips Window

You can drag a clip from the **Clips** window to the montage window to insert it into the audio montage.

PROCEDURE

1. Select **Tool Windows** > **Clips**.
2. Select one or several clips, and drag them to a track.

RESULT

A clip is created, named after the original file.

Clip Editing

All clips are displayed in the **Clips** window. In this window, you can edit and rearrange clips and drag them into the audio montage.

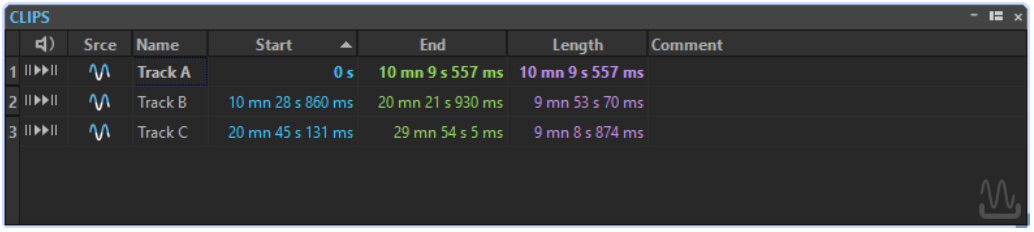
The active clip is highlighted in the clips list.

RELATED LINKS
Clips on page 150
Clips Window on page 155

Clips Window

This window contains a list of the clips that are placed in the active audio montage, with additional information about the clips.

- To open the **Clips** window, open an audio montage, and select **Tool Windows** > **Clips**.



Clip List

In the **Clips** window, the following columns are available:

- **Play Pre-Roll/Play** allows you to play the clip with or without pre-roll.
- **Srce** selects the clip in the montage window.
- **Name** displays the name of the clip. You can double-click the name to enter a new name for the clip.
- **FX** indicates whether a clip contains effects. Click the **FX** indicator to open the effects of the clip.
- **Pre-Gap** displays the distance to the previous clip. You can double-click the pre-gap value and enter a new distance value.
- **Start** displays the start time of the clip.
- **End** displays the end time of the clip.
- **Length** displays the length of the clip.
- **Time Lock** locks the clip to avoid that it is accidentally edited in the time domain.
- **Pre-Gain** allows you to set the pre-effect gain for the clip.
- **Comment** allows you to add a comment to a clip.

You can also play back a clip with or without pre-gap. The following playback buttons are available:

From Start with Pre-Roll

Playback from start with a pre-roll.

You can also press **Alt** and click **From Start with Pre-Roll** to play back from the start with a short pre-roll.

From Start

Playback from start.

Selecting Clips

You can edit multiple selected clips at once.

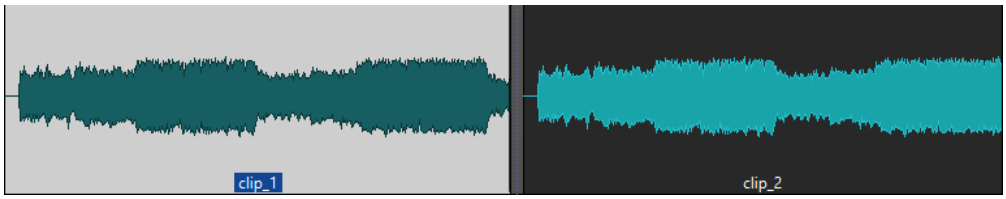
- To select a clip while deselecting all other selected clips, double-click the lower clip area.
- To select a clip, click it. Selected clips are displayed in a different color.

- To select multiple clips, **Ctrl/Cmd**-click the clips.
- To select a range of clips, **Shift**-click them.
- To select several adjacent clips, double-click the upper clip area, and after the second click, drag to select the adjacent clips.

RELATED LINKS
Clips Window on page 155
Selection Ranges in Audio Montages on page 156
Active Clip Menu on page 159

Active Clips vs. Non-Active Clips

An active clip is the clip that you selected, clicked, or edited last. Only one clip can be active at a time. By default, the active clip is distinguished by a highlighted name label. Some functions can only be processed on a active clip.



Active clip (left) and non-active clip (right)

- To open the **Active Clip** menu, right-click a clip.

RELATED LINKS
Selecting Clips on page 155

Selection Ranges in Audio Montages

A selection range is a selected area on a track. The selection range can be entirely or partially within a clip or an empty section of the track. You can make selection ranges on one or multiple tracks.

- To make a selection range, click the upper area of a track and drag to the left or right on one or multiple tracks.

Selection ranges are useful for the following:

- To edit clips by cutting or erasing the selection, or trimming the clip to the selection.
- To create a new clip by dragging the selection range to another track.
- To open a montage window with the selection range from the source audio file by dragging the selection range to the **Audio Editor**.
- To play back only the selection range, either the whole audio montage or only the clip with the intersecting clip part.
- To loop the playback within the selection by activating the loop and selecting the **Loop** mode on the transport bar.

Creating and Editing Selection Ranges in Audio Montages

You can resize, create, move, and remove selection ranges.

- To create a selection range in an empty area on a track, click and drag with the mouse. The start and end position and the length of the range are displayed on the info line.

- To create a selection range within a clip, click and drag with the mouse in the upper clip area. The start and end position and the length of the range are displayed on the info line.
- To create a selection range of the area between two markers, double-click between the markers.
- To create a selection range from a clip, open the **Clips** window and **Alt**-click the number to the left of the corresponding clip. To zoom in on the selected clip, click the number to the left of the clip.
- To resize a selection range, **Shift**-click and drag to the left or to the right, or click and drag the edges of the selection range.
- To move a selection range, press **Ctrl/Cmd** and **Shift**, and drag the selection range to the left or right.
- To deselect a selection range, click elsewhere in the audio montage, or press **Esc**.

RELATED LINKS
Clips Window on page 155

Rearranging Clips

You can freely arrange clips in the montage window.

Reordering Clips in Audio Montages By Dragging

In the **Clips** window, you can re-order clips by dragging them to another position in the list.

PROCEDURE

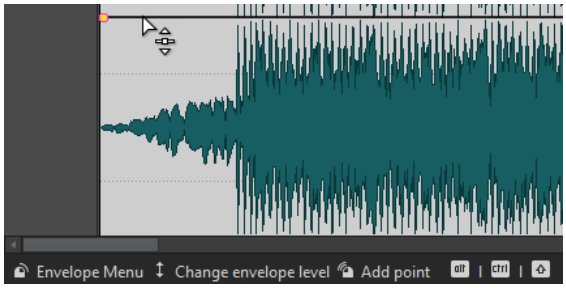
1. Open the **Clips** window.
2. In the clip list, drag a clip to another position in the list.

   You can move more than one clip at the same time, by selecting multiple clips and dragging them. If more than one clip is selected, all clips between the leftmost selected clip and the rightmost selected clips are moved.

RELATED LINKS
Clips Window on page 155

Info Line

The info line at the bottom of the **Audio Montage** window shows what happens when you click the mouse button with or without modifier keys, depending on the cursor position.



The following symbols are used on the info line:

Single-click



Indicates what happens when you click.

Double-click



Indicates what happens when you double-click.

Right-click



Indicates that you can right-click to display a menu. The name of the menu is displayed to the right of the symbol.

Ctrl/Cmd-click



Indicates that you can **Ctrl/Cmd**-click for an additional function.

Alt-click



Indicates that you can **Alt**-click for an additional function.

Shift-click



Indicates that you can **Shift**-click for an additional function.

Drag up/down



Indicates what happens when you click and drag up or down.

Drag left/right



Indicates what happens when you click and drag left or right.

Drag in any direction



Indicates what happens when you click and drag an item in any direction within the audio montage.

Drag out of the audio montage



Indicates what happens when you click and drag an item out of the audio montage.

Moving/Resizing clips or changing envelope values



This indicates that you are moving or resizing clips, or changing envelope values, for example.

Combined modifier keys

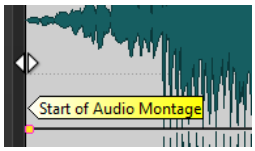


Indicates that you can use combined modifier keys.

Magnetic Bounds in Audio Montages

Some positions, such as markers or the start and end of a clip, are magnetic. Dragged elements can snap to these positions. This makes it easier to position items accurately.

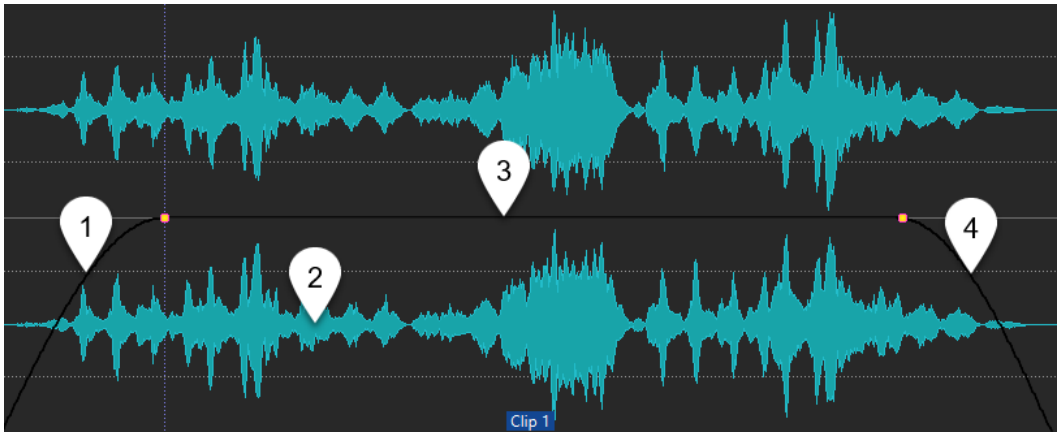
For example, when you move or resize a clip, and its edges or its front cue point get close to one of the magnetic bounds, the clip snaps to this position. A label is displayed, indicating the snap position.



To place the cursor at a magnetic position, click the time line and hold the mouse button pressed. When you now move the cursor vertically, the cursor jumps to the next magnetic bound.

Clip Context Menus

Many editing functions for clips can be accessed via the clip context menus. Depending on where you right-click the clip, different context menus are available.



1 **Fade in section**

Opens the **Fade In** pop-up menu, where you can edit the fade in.

2 **Sustain section**

Opens the **Envelope** pop-up menu, where you can edit the envelope.

3 **Fade out section**

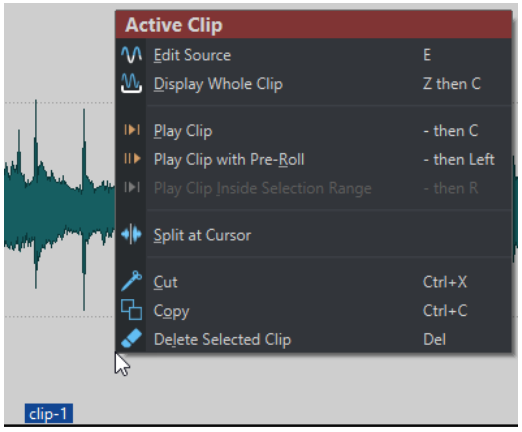
Opens the **Fade Out** pop-up menu, where you can edit the fade out.

RELATED LINKS
Active Clip Menu on page 159

Active Clip Menu

The **Active Clip** pop-up menu allows you to edit and play back the active clip with or without pre-roll.

- To open the **Active Clip** pop-up menu, right-click a clip.



Edit Source

Opens the source audio file of the clip in the **Audio Editor**.

Display Whole Clip

Adjusts the view to display the active clip.

Play Clip

Plays back the active clip.

Play Clip with Pre-Roll

Plays back the active clip with pre-roll.

Play Clip Inside Selection Range

Plays back the selected audio range. Overlapping clips or clips on other tracks are muted.

Split at Cursor

Splits the active clip at the edit cursor position. You can also split at the edit cursor position by double-clicking the edit cursor or pressing **S**.

Cut

Cuts the active clip to the clipboard. You can then paste it to another position on an audio montage track.

Copy

Copies the active clip to the clipboard.

Delete

Deletes the active clip.

RELATED LINKS
Editing Source Files of Clips on page 166
Clip Context Menus on page 159

Moving and Crossfading Clips

You can make clips overlap other clips, move them, and create crossfades between clips.

RELATED LINKS
Moving Clips on page 161

Moving Clips

You can drag one clip or all selected clips to another position.

NOTE

The channel configuration of the clip must match the destination track.

PROCEDURE

1. In the montage window, select the clips that you want to move.
2. Click the clip area, and drag the clips in any direction.
   While dragging, the info line displays the current start position of the clip.

RELATED LINKS
Moving and Crossfading Clips on page 160

Options for Moving and Crossfading Clips

There are several options that help you when moving and crossfading clips.

Ripple

Ripple determines whether clips to the right are moved, when you move a clip. The ripple options are available via the **Edit** tab of the **Audio Montage** window.

Track

If this option is activated and you move a clip horizontally, all clips on the active track that are located to the right of the edited clip are moved as well. This option also applies when moving or resizing clips, and when inserting or pasting more than one clip at a time.

Global

If this option is activated and you move a clip horizontally, all clips on all tracks that are located to the right of the edited clip are also moved. This option is taken into account when moving or resizing clips, and when inserting or pasting more than one clip at a time.

None

Deactivates the **Ripple** feature. That is, only the selected clip is moved.

Crossfading

The following crossfading options are available in the **Fade** tab of the **Audio Montage** window in the **Options** section.

Overlaps

This pop-up menu allows you to set the automatic crossfading behavior.

- If **No Automatic Crossfading** is activated, no automatic crossfading is performed when clips overlap.
- If **Free Overlaps** is activated, automatic crossfades are created when a clip overlaps another clip on the same track. The length of the overlap determines the length of the crossfade.

Options

- If **Create Default Fades in New Clips** is activated, all new clips get the default fade in and fade out shape and length. For clips that are created by splitting a clip, only the default fade time is used.

RELATED LINKS
Edit Tab (Audio Montage) on page 137
Fade Tab (Audio Montage) on page 140

Overlapping Clips

You can move clips so that they overlap each other.

Note the following:

- The tracks in the audio montage are polyphonic, which means that each track can play back several overlapping clips at the same time. Overlapping clips are transparent, allowing you to see the underlying clips and their waveforms.
- There are crossfading options that automatically adjust the level envelope curves when you overlap clips.

Duplicating Clips

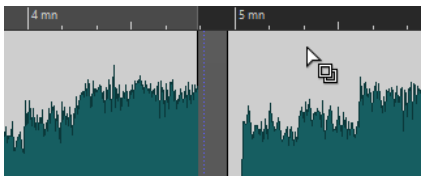
You can quickly duplicate one or several clips via drag and drop. You can drag the clip duplicates to another position on the same track, another track, or another audio montage.

NOTE

The channel configuration of the clip must match the destination track.

PROCEDURE

1. In the montage window, select one or more clips.
2. Click the upper clip area and drag the clips to another position on the same track, another track, or another audio montage tab.



The cursor changes to indicate that you are located in the upper clip area.

While you are dragging, a dotted line indicates where the first of the copied clips will be placed. The position is also indicated on the info line.

The **Ripple** settings that you can make in the **Edit** tab of the **Audio Montage** window are taken into account.

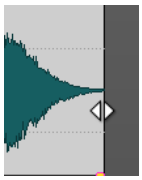
RELATED LINKS
Edit Tab (Audio Montage) on page 137

Clip Resizing

In this context, resizing usually means moving the start and end points of a clip. This reveals more or less of the original audio file.

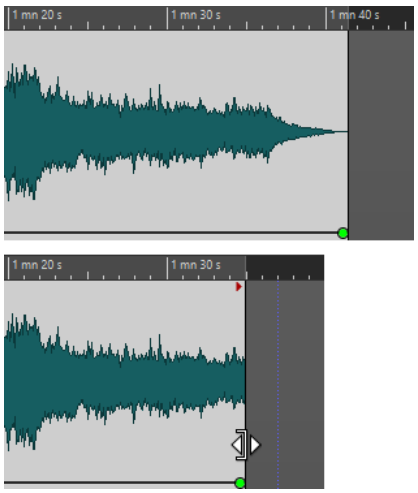
To resize a clip, click the left or right edge of the clip, and move the start or end point to the left or to the right. You cannot drag the edge of a clip past the start or end point of the audio file it refers to.

If you press **Alt** when resizing, all selected clips are resized by the same amount.



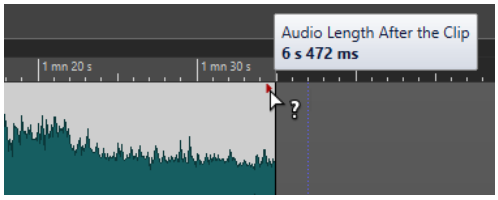
Resized Clip Indicator

When you resize a clip, a small triangle is shown in the upper left or right corner of the clip, depending on whether you resize the beginning or the end of the clip. This indicator can help you find and correct errors, for example, when you cut too much of the clip and the start or the end of the audio is missing.



Clip before and after resizing it. The indicator in the top right corner shows that the clip has been resized.

When you hover the mouse over the resized clip indicator, a tooltip shows the audio length before/after the clip. The displayed time unit depends on the time unit of the time ruler.



RELATED LINKS
Options for Moving and Crossfading Clips on page 161

Bouncing Selected Clips

Bouncing clips allows you to render several clips to a single clip. This creates a new audio file in the montage folder. The rendering takes envelope settings and gain settings of the clips into account. Track effects are not rendered.

Bouncing clips creates a new audio file that is used by the new clip. The new clip has no envelope settings or gain settings. After rendering, the new clip sounds as the clips before. Its audio is still processed through the track plug-ins.

RELATED LINKS
Creating Clips from Selected Clips on page 164

Creating Clips from Selected Clips

You can render several clips to a single clip. The plug-ins, envelope settings, and gain settings of the clips are rendered to the new clip.

PROCEDURE

1. In the audio montage, select the clips that you want to render to a single clip.
2. Select the **Edit** tab.
3. In the **Selected Clips** section, click **Bounce**.

RESULT

The selected clips are rendered to a single clip.

RELATED LINKS
Bouncing Selected Clips on page 164
Edit Tab (Audio Montage) on page 137

Splitting Clips

You can split clips to turn one clip into two independent clips. The two clips have the same name and settings. Envelopes and fades are converted so that the two clips play back as if they were still one clip.

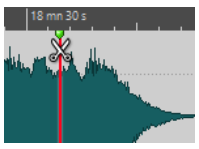
PREREQUISITE

Decide whether you want to automatically create crossfades between the left and right clip. To activate/deactivate this option, select the **Fade** tab, and activate/deactivate **Create Default Fades in New Clips** in the **Options** section.

PROCEDURE

1. In the montage window, click the position where you want to split the clip.
2. Position the mouse cursor on the edit cursor position in the top clip area.

   The cursor becomes a pair of scissors.



3. Double-click.

RESULT

The clip is split in two.

Deleting Clips

Deleting clips does not delete the audio file that is referenced by the clips.

PROCEDURE

- Do one of the following:
  - Right-click a clip and select **Delete**.
  - Select a clip and press **Delete**.

    To ensure that there is no selection range, press **Esc**.

Deleting Parts of Clips Inside Selection Ranges

Deleting the part of a clip inside a selection range removes the selected range and moves the right section of the clip to the left to fill the gap.

PROCEDURE

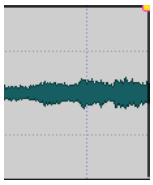
1. In the montage window, select a range in a clip.
2. Select the **Edit** tab.
3. In the **Removal** section, click **Delete Selected Range**.

RESULT

The selected range is deleted and the right section of the clip is moved to the left to fill the gap.

Clips and Cue Points

A cue point is a defined position marker that belongs to a clip. It may be positioned inside or outside the clip. Cue points are displayed as dotted vertical lines.



When you move a clip, its cue point is magnetic to any edges, markers, or positions. There are several uses for this:

- Set the cue point at a relevant position in the audio to align the clip with other clips, etc.
- Set the cue point before the start of a clip to position clips in a row with pre-defined spaces.
- Set the cue point at the fade in or fade out point of a clip to maintain defined fade lengths when crossfading.

NOTE

Each clip can only have one cue point. If you select another cue point insert option, the cue point is moved to a new position.

RELATED LINKS
Adding Cue Points on page 166

Adding Cue Points

You can add one cue point for each clip.

PROCEDURE

1. In the audio montage, click the clip position where you want to set a cue point.
2. Select the **Edit** tab.
3. In the **Clip** section, select **Cue Points**.
4. From the pop-up menu, select one of the following options:
   - **Set at Cursor**
   - **Set at Default Gap Position**
   - **Follows Fade In End Point**
   - **Follows Fade Out Start Point**
5. Optional: Select **Custom Cue End**, and specify a custom cue end point.

RELATED LINKS
Clips and Cue Points on page 165
Edit Tab (Audio Montage) on page 137

Source File Management

You can edit files that are used in the active audio montage in the **Audio Editor**.

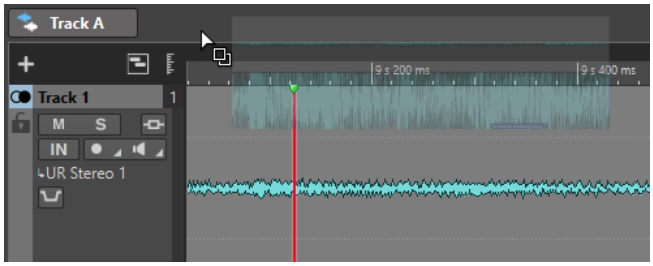
RELATED LINKS
Editing Source Files of Clips on page 166

Editing Source Files of Clips

Editing the audio montage may require that you process or edit the actual audio files that are referenced by the clips.

Use one of the following methods to edit the source file of a clip:

- Right-click the clip that you want to edit and select **Edit Source**. The source file of the clip opens in the **Audio Editor**. Edit the clip, save it, and return to the audio montage.
- Double-click the clip and drag the clip to the tab list or in the **Audio Editor**.



Note the following:

- Any editing that you perform this way affects the source audio file and thereby all clips that use the audio file, including clips in other audio montages.
- You can undo/redo all changes in audio files, even after saving the file. These changes are reflected immediately in all open audio montages.
- If you use **File** > **Save As** to save the source audio file with a different name, all open audio montages that refer to the file now refer to the new file.

Envelopes for Clips

For clips in the audio montage, you can create envelopes for volume and fades, and for panning.

You can create an independent level envelope curve to automate the level, to create fades and crossfades, and to mute clip sections.

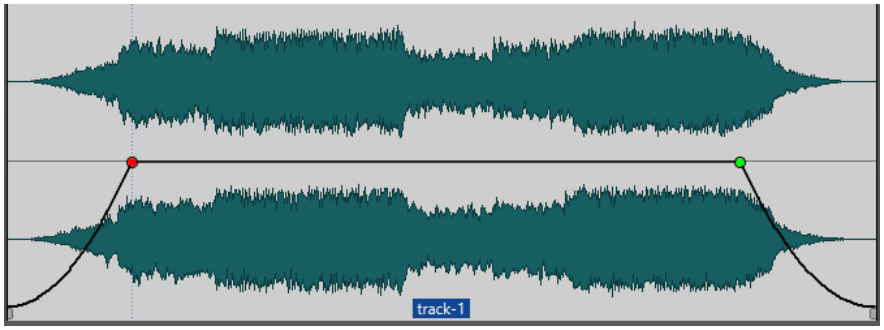
You can edit the envelope settings on the **Envelope** tab, or by right-clicking an envelope curve. The settings menu contains different options depending on whether you click the fade in part, the fade out part, or the sustain part.

RELATED LINKS
Envelope Tab (Audio Montage) on page 141

Level Envelopes

By default, all clips display a level envelope curve. The envelope consists of three parts: the fade in part, the sustain part, and the fade out part.

The points on the left and right side of the curve are the fade in and fade out junction points that separate the fade parts from the sustain part. The gray points at the start of a fade-in and at the end of a fade-out allow you to see small fades even when you have fully zoomed out.



The envelope curve indicates if points, fade ins, or fade outs have been defined. In addition to the curve, changes in the level envelope are also reflected in the waveform.

RELATED LINKS
Envelopes for Clips on page 167

Selecting Envelopes

You can select volume/fade envelopes and pan envelopes.

PROCEDURE

1. In the **Audio Montage** window, select a clip.
2. Select the **Envelope** tab.

3. In the **Visibility** section, open the **Envelope Type** pop-up menu, and choose the **Volume/Fades** envelope or the **Pan** envelope for editing.

RELATED LINKS
Envelopes for Clips on page 167
Envelope Tab (Audio Montage) on page 141

Hiding Envelope Curves

All clips display envelopes by default. You can hide these envelopes. However, hidden envelopes are still active.

PROCEDURE

1. In the **Audio Montage** window, select a clip.
2. Select the **Envelope** tab.
3. In the **Visibility** section, open the **Envelope Type** pop-up menu, and select **Hide All**.

RELATED LINKS
Envelopes for Clips on page 167
Envelope Tab (Audio Montage) on page 141

Adding Envelope Curve Points

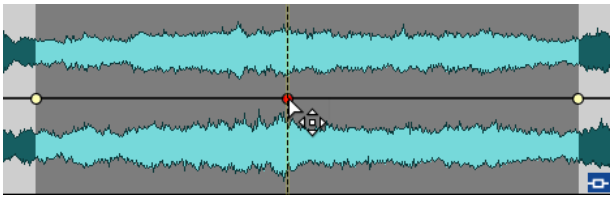
Curve points allow you to create volume curves, pan curves, and fade curves for a clip. You can edit the envelope curve by adding and moving curve points. You can add one or multiple envelope curve points.

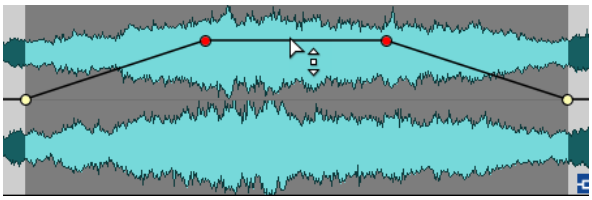
CHOICES

- To add a curve point, double-click the envelope curve.

  If you keep the mouse button pressed after double-clicking the envelope curve, you can move the curve point to another position.
- To add multiple curve points within a selection range, do one of the following:
  - To add three curve points, make a selection range, and double-click the envelope curve within the selection range.

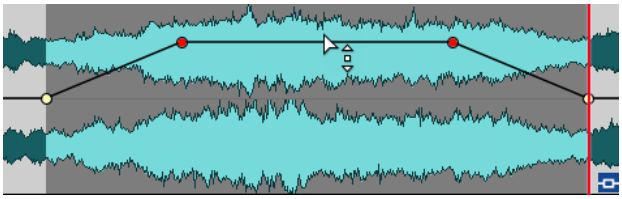
    This creates a curve point at the start and the end of the selection, and a curve point at the position that you have clicked. If the selection range already contains a curve point and you double-click the envelope curve, two curve points are created.

    
  - To add four curve points with two curve points at the beginning of the selection and two curve points at the end of the selection, make a selection range, and click and drag the envelope curve up or down.
  - To add four curve points that have an equal distance to each other, make a selection range, press **Ctrl/Cmd**, and click and drag the envelope curve up or down.



This only works if the selection range does not contain any curve points.

- To add four curve points where the two curve points in the middle have a greater distance to each other that to the first and last curve points, make a selection range, press **Ctrl/Cmd**-**Alt**, and click and drag the envelope curve up or down.



This only works if the selection range does not contain any curve points.

RELATED LINKS
Envelopes for Clips on page 167
Editing Envelope Curves on page 169

Editing Envelope Curves

Many of the editing operations that are commonly used in the context of your computer operating system can be applied when editing envelope curves. On top of these, a number of specific procedures apply.

CHOICES

- To delete a curve point, double-click the curve point. The curve point between the sustain and fade parts of the envelope cannot be deleted.
- To select multiple curve points, hold down **Ctrl/Cmd** and click the curve points that you want to select.
- To select a range of points, **Alt**-click and drag to create a selection rectangle.
- To delete multiple curve points, select the curve points that you want to delete, right-click one of the points, and select **Delete Selected Points**.
- To move all selected points, click one of the selected points and drag.
- To raise or lower the value of two consecutive curve points, **Ctrl/Cmd**-click the segment between the points and drag up or down.
- To change the time position of two consecutive curve points, **Shift**-click the segment between the points and drag left or right.
- To raise or lower the entire envelope curve, make sure that no curve point is selected, click the envelope curve, and drag up or down. Do not drag a segment that is limited by selected points.
- To adjust the envelopes in all selected clips, hold down **Alt**, and drag any envelope curve up or down. This is a quick way to adjust the level or pan of multiple clips at the same time and also to adjust both sides of a stereo envelope simultaneously.
- To move a fade in/fade out point vertically, **Ctrl/Cmd**-click and drag the fade point.
- To change the level or the fade in/out time of multiple envelopes at the same time, select the clips that you want to edit, press **Alt**, and edit the envelope with the mouse.

RELATED LINKS
Envelopes for Clips on page 167
Adding Envelope Curve Points on page 168

Resetting Envelope Curves

You can reset curve points to the default level 0 dB.

CHOICES

- To reset a single point to 0 dB, select the point, right-click it, and select **Reset Selected Points**.
- To reset the whole envelope curve to default, right-click the envelope curve, and select **Reset Level to 0 dB**.

RELATED LINKS
Envelopes for Clips on page 167

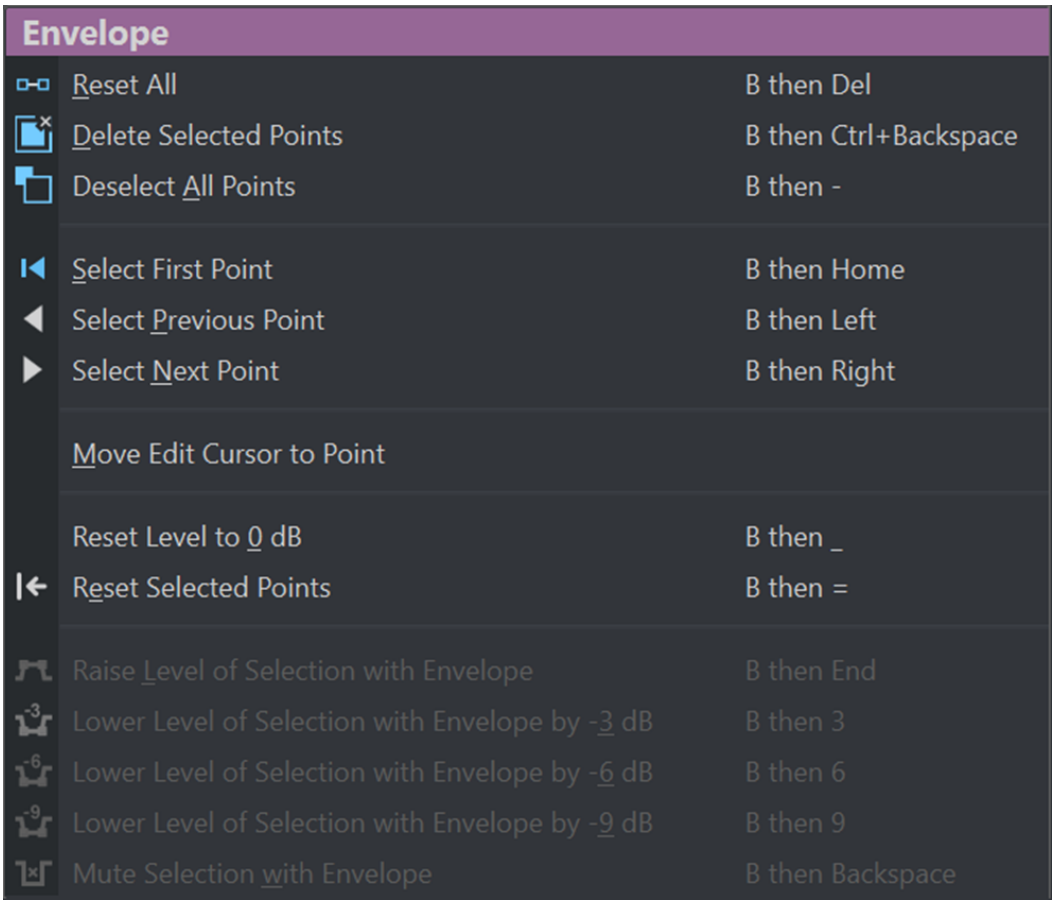
Moving the Edit Cursor to an Envelope Point

The **Envelope** context menu allows you to move the edit cursor to the exact position of an envelope point.

Moving the edit cursor to an envelope point is useful to insert a marker at the envelope point, for example. It also allows you to snap to the envelope point when you edit an envelope from another track.

PROCEDURE

1. Right-click an envelope point.
2. From the **Envelope** context menu, select **Move Edit Cursor to Point**.



Snapping Envelope Points to Anchors

When you edit envelope points with the mouse, you can set them to snap to active anchors.

PROCEDURE

1. In the **Audio Editor** or in the **Audio Montage** window, select the **Edit** tab.
2. In the **Snapping** section, activate **Snap to Magnets**.
3. Use the mouse to move an envelope point.

RESULT

As you move envelope points with the mouse, they snap to the following anchors:

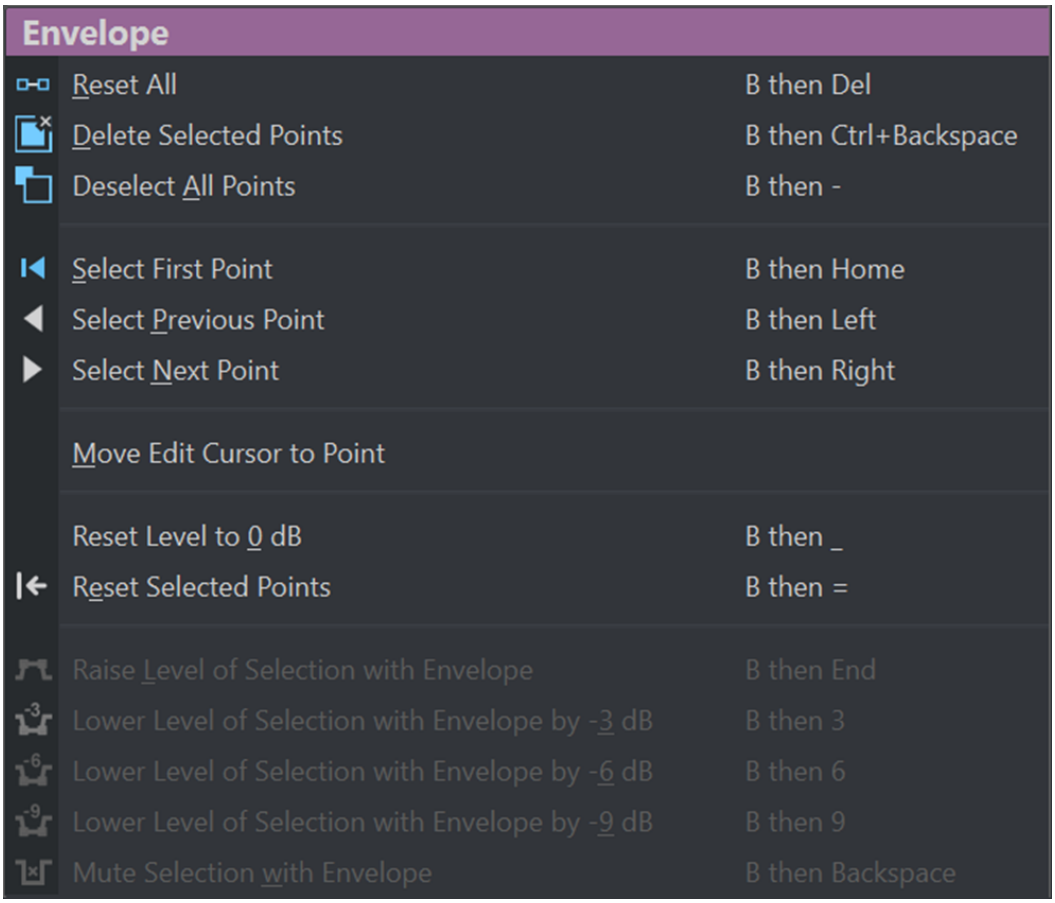
- Main Ticks of the Time Ruler
- Markers
- Edit Cursor
- Time Selection Edges

Navigating across Envelope Points

In the **Audio Montage** window, you can quickly navigate to specific envelope points and select them.

PROCEDURE

- Right-click on an envelope curve. From the **Envelope** context menu, choose **Select First Point**, **Select Previous Point**, or **Select Next Point** to navigate to the desired envelope point on the envelope curve.



Raising Selection Levels

You can raise the audio level with specific fall and rise times (by default 20 ms) and then adjust the level.

PROCEDURE

1. In the montage window, in a clip, select the range for the section that you want to raise in level.
2. Right-click the envelope curve, and select **Raise Level of Selection with Envelope**.

   The level of the selection range is raised.
3. Click the envelope of the selection range and drag up or down to adjust the level.

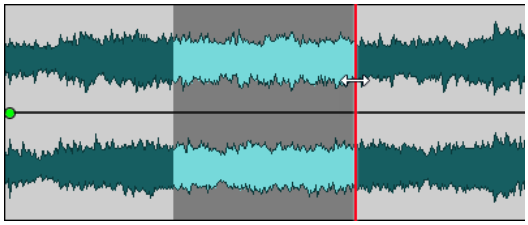
Muting Selected Ranges of Clips

You can mute a selected range by lowering the volume to -144 dB.

Muted sections are not affected when you drag the envelope curve up or down.

PROCEDURE

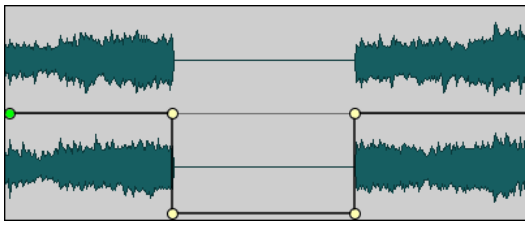
1. In the montage window, in a clip, make a selection range for the section that you want to mute.



2. Right-click the envelope curve, and select **Mute Selection with Envelope**.

RESULT

The section is muted. A fade in and fade out of 20 ms is applied to the muted section.



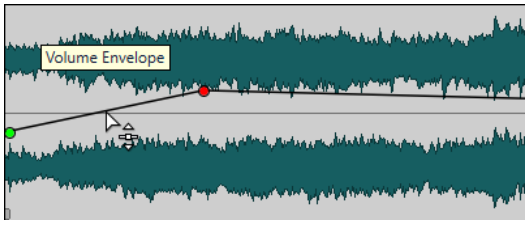
Changing Overall Level Envelopes of Clips

The default envelope curve contains no level envelope points, but you can use it to change the overall level for a clip.

PROCEDURE

1. In the montage window, place the mouse cursor on the envelope curve.

   The mouse cursor takes the shape of a circle with two arrows that point up and down.



2. Click and drag the curve up or down to change the clip envelope level.

Ducking

Ducking allows you to attenuate the level of an audio track so that the audio on another track is more prominent when both tracks are played back simultaneously.

A very common use case for ducking is the creation of two separate tracks, one for music and one for a voice-over, with the goal of the spoken content being accompanied by music on playback. With ducking applied, when the voice-over starts, the level of the music track is lowered by automatically created level envelope curves, so that the spoken content is perceived as in the foreground and the music in the background by the audience.

In this context, the track containing the music is called the carrier track. The track containing the voice recording is called the modulator track.

You can select multiple voice tracks as modulator tracks for a carrier track. You can also apply ducking to modulator tracks; for example, to give one voice track priority over another.

RELATED LINKS
Creating Voice-Over Ducking Effects for Tracks on page 174
Ducker Settings for Track Ducking on page 174

Creating Voice-Over Ducking Effects for Tracks

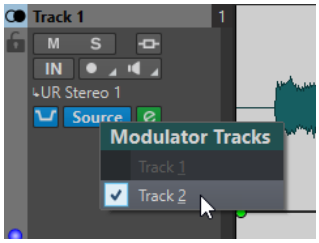
The ducking feature enables you to combine spoken content with music in such as way that, on playback, while the voice is more prominent and perceived by the listeners as being in the foreground, the music is playing at a lower level (in the background).

PREREQUISITE

You have two audio tracks, a music track and a voice-over track. You want to attenuate the level of one of the tracks (the music) whenever a signal is present on the other track (the voice recording).

PROCEDURE

1. Select the carrier track, that is, the track containing the music.
2. In the track control area of the carrier track, activate **Ducker On/Off**.
3. Click **Source** to open the **Modulator Tracks** menu, and select one or multiple modulator tracks, that is, the tracks containing the voice recording.



4. Play back the audio montage.

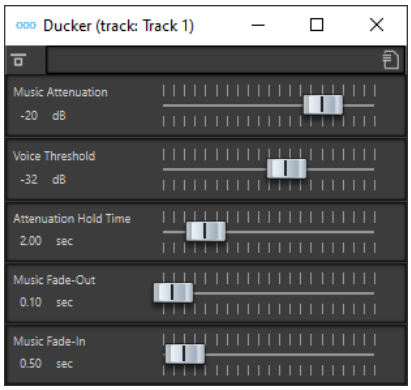
   The volume of the music track is lowered every time the voice track emits a signal.
5. Optional: Click **Ducker Settings** to open the **Ducker** plug-in, and adjust the settings to fine-tune the ducking effect.
6. Optional: If you are using multiple modulator tracks, you can also apply ducking to modulator tracks.

RELATED LINKS
Adding Tracks on page 148
Track Control Area for Stereo and Mono Tracks on page 133
Ducker Settings for Track Ducking on page 174

Ducker Settings for Track Ducking

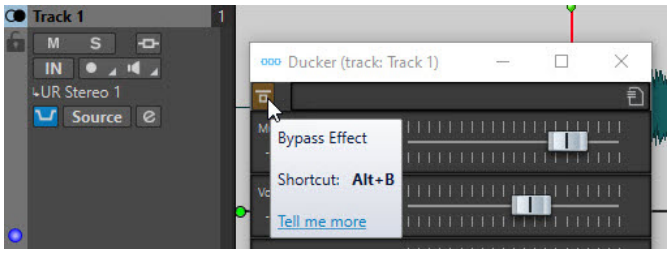
The **Ducker** settings allow you to make settings for applying the ducking effect to tracks.

- To open the **Ducker** settings, activate **Ducker On/Off** in the track control area, and click **Ducker Settings**.



Bypass Effect

If this option is activated, the **Ducker** is bypassed during playback.



Presets

Allows you to save and load ducking presets.

Music Attenuation

Allows you to specify the level reduction that is applied to the music track (carrier).

Voice Threshold

Allows you to set the level threshold of the voice track (modulator) that triggers ducking. If the level of the voice track exceeds the threshold, the level of the music track (carrier) is lowered.

Attenuation Hold Time

When the level of the voice track falls below the set voice threshold, the **Attenuation Hold Time** determines how long the level of the carrier track stays reduced before it starts rising to its original level again.

Music Fade-Out

Determines the time it takes for the music level to change from 0 dB to the set **Music Attenuation** level.

Music Fade-In

Determines the time after which the level rises to the original level, when the level of the voice track (modulator) falls below the set **Voice Threshold** and after the specified **Attenuation Hold Time**.

RELATED LINKS
Ducking on page 173
Track Control Area for Stereo and Mono Tracks on page 133

Fades and Crossfades in Audio Montages

A fade in is a gradual increase in level and a fade out is a gradual decrease in level. A crossfade is a gradual fade between two sounds, where one is faded in and the other faded out.

RELATED LINKS
Creating Fades in Clips on page 176

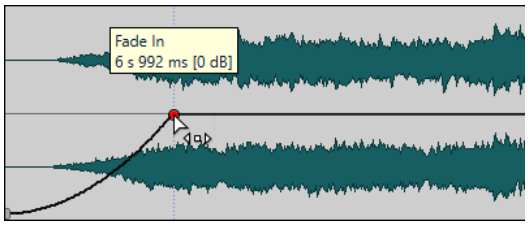
Creating Fades in Clips

By default, all clips display fade in and fade out junction points. These can be dragged horizontally to create a fade in or fade out for a clip.

You can add envelope points to a fade just as with level envelopes.

- To create a fade in, click the fade in point at the start of a clip, and drag it to the right.
- To create a fade out, click the fade out point at the end of a clip, and drag it to the left.
- To create a fade in or fade out at a specific time position, use set **Apply Fade Time** option in the **Fade** tab. Enter the time value in the time field and click **Apply Fade Time**.
- To move a fade in/fade out point vertically, press **Ctrl/Cmd** while dragging.
- To adjust the fade in/fade out points in all selected clips simultaneously, hold down **Alt**, and drag a fade in/fade out point up or down. This is a quick way to adjust the fades of multiple clips at the same time.
- To create a crossfade, move a clip on another. A crossfade is automatically created at the junction point.

The resulting fade in/fade out curve is displayed in the clip, and the fade is also reflected in the waveform. If you position the mouse over the fade in point, the fade in time is displayed in seconds and milliseconds and the volume in dB.



RELATED LINKS
Fades and Crossfades in Audio Montages on page 176
Fade Tab (Audio Montage) on page 140

Fade In and Fade Out Menus

In this menu, you can select various preset fade curves and other fade-related options.

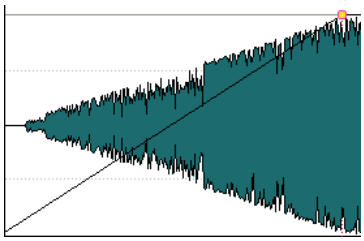
- To open the **Fade In** or **Fade Out** pop-up menu, right-click the fade in or fade out points.

Zoom to Fade In Range/Zoom to Fade Out Range

Adjusts the view to mainly display the fade in/fade out part of the active clip.

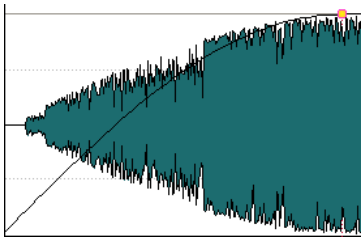
Linear

Changes the level linearly.



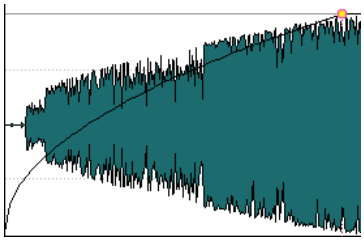
Sinus (*)

Changes the level according to the first quarter period of the sine curve. When used in a crossfade, the loudness (RMS) remains constant during the transition.



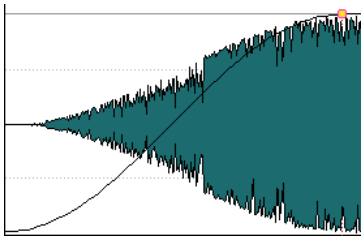
Square-root (*)

Changes the level according to the square-root curve. When used in a crossfade, the loudness (RMS) remains constant during the transition.



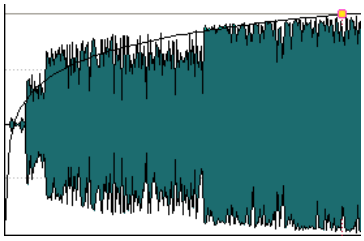
Sinusoid

Changes the level according to a half period part of the sine curve.



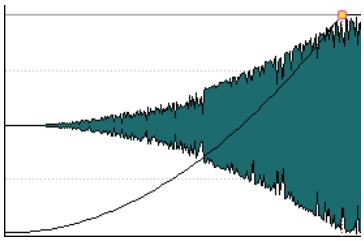
Logarithmic

Changes the level logarithmically.



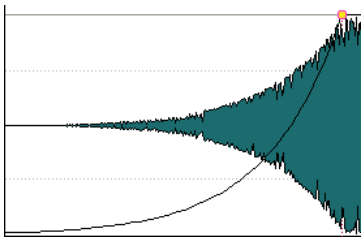
Exponential

Changes the level exponentially.



Exponential+

Changes the level strongly exponential.



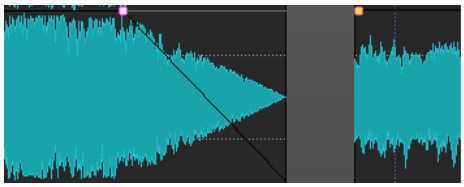
RELATED LINKS
Fades and Crossfades in Audio Montages on page 176

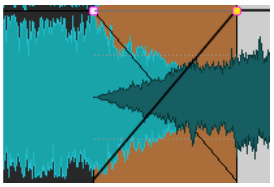
Crossfade Editing

You can create crossfades with independent shapes and lengths for the fade in and fade out curves.

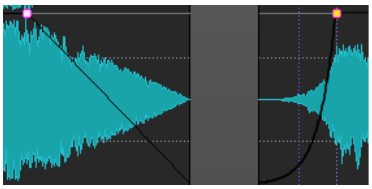
The default automatic crossfade is linear. It uses the same shape and fade lengths for fade in and fade out. The following rules apply:

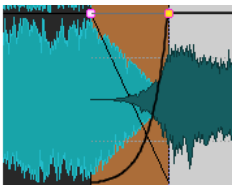
- A crossfade includes fade in and fade out.
- You can edit the fade in and fade out curves in crossfades in the same way as fades.
- To resize the crossfade time symmetrically, press **Shift**, click the crossfade area, and drag left and right.
- To move the crossfade region while keeping its length, press **Ctrl/Cmd**, click the crossfade area, and drag left and right.
- When you move a clip so that it overlaps another clip to create a crossfade, and neither clip has a defined fade in the overlap, a default crossfade is created.
- When moving a clip with a defined fade curve so that it overlaps another clip without a defined fade, the unmoved clip automatically gets the same fade shape as the moved clip, with amplitude compensation. This only applies if the fade out length of the unmoved clip is set to zero.





- If both clips have different defined fade curves, an asymmetrical crossfade is created.





RELATED LINKS
Options for Moving and Crossfading Clips on page 161

Track Effects

You can add VST effect plug-ins to tracks of an audio montage. Track effects affect all clips on a track.

VST 2 and VST 3 plug-ins can be used in the audio montage. Each track can be independently processed by up to 4 VST effect plug-ins.

NOTE

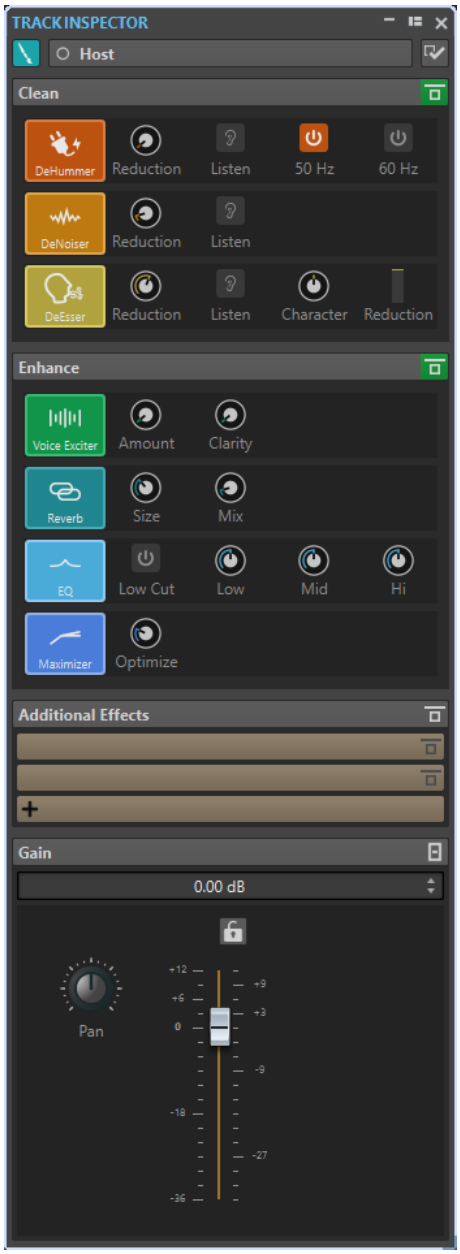
Effects that are used for tracks must support stereo audio, even if the audio track is mono.

RELATED LINKS
Track Inspector Window on page 179
Adding Effects to Tracks on page 184

Track Inspector Window

This window allows you to clean up and enhance your audio, add effect plug-ins to tracks, and make gain and pan settings. You can use the **DeEsser**, **DeNoiser**, and **DeHummer** to clean your audio. The **Voice Exciter**, **Reverb**, **EQ**, and **Maximizer** allow you to enhance your audio.

- To open the **Track Inspector** window, open an audio montage and select **Tool Windows** > **Track Inspector**.



Track Color and Name

Track Color

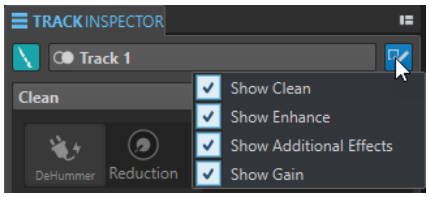
Allows you to specify a color for the waveform of the active track.

Name

Allows you to specify a name for the active track.

Pane Visibility

Allows you to show or hide panes in the **Track Inspector** window.



The following options are available:

- **Show Clean**
- **Show Enhance**
- **Show Additional Effects**
- **Show Gain**

Clean

The **Clean** pane contains a **DeHummer**, **DeNoiser**, and **DeEsser** to remove unwanted sounds and noises from your audio in real-time.

Fold/Unfold Clean Pane

Folds or unfolds the **Clean** pane.

Bypass All Effects Displayed here

Bypasses any effect processing during playback and rendering.

DeHummer

DeHummer allows you to decrease power hum interference that is caused by a bad grounding or unreliable recording equipment. This is done by removing the corresponding frequencies from the audio.

The following parameters are available:

- **Reduction** allows you to specify the amount of the hum reduction.
- **Listen** allows you to listen to the signal that was removed from the audio material. This allows you to verify that you did remove the correct portions of the audio.
- **50 Hz** and **60 Hz** allow you to remove harmonic noise with a fundamental frequency at 50 or 60 Hz. These disturbing frequencies can be caused by electric noise due to badly shielded recording equipment, for example.

DeNoiser

DeNoiser allows you to remove noise from the audio material, for example, ambience sound.

The following parameters are available:

- **Reduction** allows you to specify the amount of the noise reduction.
- **Listen** allows you to listen to the signal that was removed from the original audio material. This allows you to verify that you did remove the correct portions of the audio.

DeEsser

DeEsser is a compressor that reduces excessive sibilance, primarily for vocal recordings.

For example, you can use it when close proximity microphone placement and equalizing lead to situations where the overall sound is just right, but where unwanted sibilants occur.

When recording a voice, the position of **DeEsser** in the signal chain is usually after the microphone pre-amp and before a compressor/limiter. This keeps the compressor/limiter from unnecessarily limiting the overall signal dynamics.

The following parameters are available:

- **Reduction** allows you to specify the amount of the sibilance reduction.

- **Listen** allows you to listen to the signal that was removed from the original audio material. This allows you to verify that you did remove the correct portions of the audio.
- **Character** allows you to specify the frequency on which the **DeEsser** is applied. A low **Character** setting is generally used for low male voices, for example. Higher **Character** settings generally apply to higher voices of females or children, for example.
- The **Reduction** meter shows how much the **DeEsser** is working.

Enhance

The **Enhance** pane contains the **Voice Exciter**, **Reverb**, **EQ**, and **Maximizer** that allow you to increase the clarity, expression, and deepness of your audio in real-time.

Fold/Unfold Enhance Pane

Folds or unfolds the **Enhance** pane.

Bypass All Effects Displayed here

Bypasses any effect processing during playback and rendering.

Voice Exciter

Voice Exciter allows you to add upper harmonics and increase clarity and intelligibility of your voice recordings.

The following parameters are available:

- **Amount** allows you to specify the amount of the effect.
- **Clarity** allows you to increase the clarity and intelligibility of your voice recording.

Reverb

Reverb allows you to add more room and space to recordings that sound a bit lifeless.

The following parameters are available:

- **Size** allows you to specify the room size.
- **Mix** allows you to set the level balance between the dry signal and the wet signal.

EQ

The three band **EQ** allows you to tame or boost the **Low**, **Mid** and **High** frequency ranges. An additional **Low Cut** filter allows you to cut the low end below 30 Hz for even more clarity.

The EQ bands have the following specifications:

- **Low**: low-shelf, frequency 250 Hz, 12 dB/octave
- **Mid**: peak, frequency 1500 Hz, Q 1, 12 dB/octave
- **Hi**: high-shelf, frequency 5000 Hz, 12 dB/octave

Maximizer

Maximizer allows you to add loudness and punch to your recording while making sure that the signal does not exceed -1 dB. The **Optimize** dial lets you specify how much compression is applied.

Additional Effects

The **Additional Effects** pane allows you to add more track effects.

Fold/Unfold Additional Effects Pane

Folds or unfolds the **Additional Effects** pane.

Bypass All Effects Displayed here

Bypasses any effect processing during playback and rendering.

Add Effect

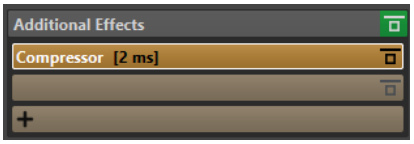
Allows you to add an effect.

Effect Name

Click the effect name to open the corresponding effects window. Right-click an effect name to open the **Plug-ins** menu where you can select a new effect.

Latency

If a plug-in has latency, the latency value is displayed next to the plug-in name.



Presets

Allows you to save and restore plug-in presets.

Effect Options

Opens the **Plug-ins** menu where you can select a new plug-in and remove the plug-in.

Bypass Effect

Bypasses the plug-in during playback and optionally during rendering. The signal is still processed by the plug-in, but is not injected in the audible stream.

Gain

In this pane, you can edit **Gain** and **Pan** settings of your tracks.

Fold/Unfold Gain Pane

Folds or unfolds the **Gain** pane.

Bypass All Effects Displayed here

Bypasses any effect processing during playback and rendering.

Gain

Allows you to set the gain for the effects.

Pan

Allows you to set the pan for the track effects.

RELATED LINKS

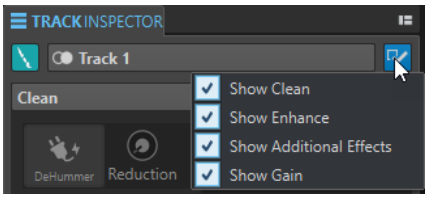
Track Effects on page 179
Presets on page 65
Showing/Hiding Panes in the Track Inspector Window on page 183

Showing/Hiding Panes in the Track Inspector Window

You can show or hide panes in the **Track Inspector** window to focus on the panes that you need.

PROCEDURE

1. In the **Track Inspector** window, click **Pane Visibility**.



2. Select the panes that you want to show. The following options are available:
   - **Show Clean**
   - **Show Enhance**
   - **Show Additional Effects**
   - **Show Gain**

RELATED LINKS
Track Inspector Window on page 179

Adding Effects to Tracks

You can add effect plug-ins to every track of the audio montage.

RELATED LINKS
Adding Effects via the Track Inspector Window on page 184
Adding Effects via the Track Control Area on page 185
Removing Effects from Tracks on page 185

Adding Effects via the Track Inspector Window

PROCEDURE

1. Open an audio montage.
2. Select the track for which you want to add effects.
3. In the **Track Inspector** window, in the **Additional Effects** pane, right-click an effect slot and select a plug-in.

RESULT

The selected plug-in opens in a window.

NOTE

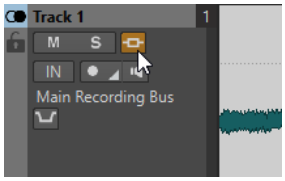
You can add plug-ins during playback. However, if you add a plug-in with a latency larger than zero, we recommend that you stop and restart playback to avoid timing discrepancies. In addition, a small number of VST plug-ins may change its latency depending on the parameter settings. If that is the case, make sure to stop and restart playback after the latency is changed.

RELATED LINKS
Track Inspector Window on page 179

Adding Effects via the Track Control Area

PROCEDURE

1. Open an audio montage.
2. In the track control area of a mono or stereo track, click **Effects**.



3. In the **Effects** menu, select a track effect.

RESULT

The selected plug-in opens in a window.

NOTE

You can add plug-ins during playback. However, if you add a plug-in with a latency larger than zero, we recommend that you stop and restart playback to avoid timing discrepancies. In addition, a small number of VST plug-ins may change its latency depending on the parameter settings. If that is the case, make sure to stop and restart playback after the latency is changed.

RELATED LINKS

Track Control Area for Stereo and Mono Tracks on page 133

Removing Effects from Tracks

PROCEDURE

1. Open an audio montage.
2. Open the **Track Inspector** window.
3. In the **Additional Effects** pane, right-click the effect that you want to remove and select **Remove Plug-in**.

RESULT

The effect is removed from the slot.

RELATED LINKS

Track Inspector Window on page 179
Adding Effects to Tracks on page 184

Rearranging the Order of Effects

The order of the effects in the list determines the processing order.

PROCEDURE

1. Open an audio montage.

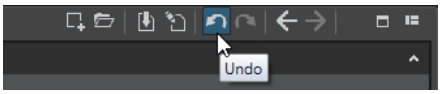
2. In the **Track Inspector** window, in the effects list, drag the effect that you want to rearrange to another position.

Undoing Effect Changes

You can undo/redo changes to the effect settings. However, WaveLab Cast only registers the changes when you close the plug-in window or select another tab in the plug-in window.

PROCEDURE

1. In the plug-in window, click another window to lose focus of the plug-in in which you want to undo the settings.
2. Go back to the plug-in in which you want to undo the settings.
3. On the command bar of the **Audio Montage** window, click **Undo** or **Redo**.



Setting Gain for Effects

You can set the **Gain** of the effects for each track individually.

PROCEDURE

1. Open an audio montage.
2. In the **Track Inspector** window, adjust the **Gain**.



RELATED LINKS
Track Inspector Window on page 179

Mixing Down – The Render Function

The **Render** function allows you to mix down the whole audio montage or a region of it to a single audio file.

A mixdown is necessary to produce an audio file from the audio montage.

RELATED LINKS
Rendering in the Master Section on page 207

Rendering Audio Montages to Audio Files

You can render regions of an audio montage or whole audio montages to a single audio file.

PREREQUISITE

Set up your audio montage.

PROCEDURE

1. In the **Audio Montage** window, select the **Edit** tab.
2. In the **Output** section, click **Render**.
3. In the **Source** menu, specify which part of the audio file you want to render.
4. In the **Result** section, activate **Named File**.
5. In the **Output** section, click the **Format** field and click **Edit**.
6. Make your settings in the **Audio File Format** dialog.
7. Click **OK**.
8. Optional: Make additional settings in the **Options** section.
9. Click **Start**.

RESULT

The audio montage is rendered.

RELATED LINKS
Mixing Down – The Render Function on page 186
Audio File Format Dialog on page 91

Importing Audio CDs

You can import audio CD files. The imported audio CD opens as an audio montage.

PROCEDURE

1. Select **File** > **Import**.
2. Click **Audio CD**.
3. In the File Explorer/macOS Finder, select the Basic Audio CD file that you want to import and click **Import**.

RESULT

The imported audio CD opens as a new, untitled audio montage that contains all the audio tracks that are saved in the audio CD file.

Recording

You can record audio in the **Audio Editor** and in the **Audio Montage** window.

You can use the following recording methods:

- In the **Audio Editor**, you can record files with multiple options via the **Recording** dialog.
- In the **Audio Montage** window, you can record multiple audio montage tracks simultaneously.
- You can record while hearing the effects when monitoring the input signal.

RELATED LINKS
Recording in the Audio Editor on page 188
Recording in the Audio Montage Window on page 191
Recording Dialog on page 188
Input Monitoring on page 195

Recording in the Audio Editor

PROCEDURE

1. In the **Audio Editor**, click the **Record** ● button, or press ***** on the numeric key pad.

   The **Recording** dialog opens.
2. Choose from the options in the **Recording** dialog.
3. Click **Record** ● to start recording.

   The background of the **Recording** dialog changes color (turns red) to indicate that you are recording.
4. Optional: To pause recording, click the **Pause** ⏸ button.
5. Click **Stop** ■ to finish recording.
6. Optional: To record another take, click **Record** ● again.

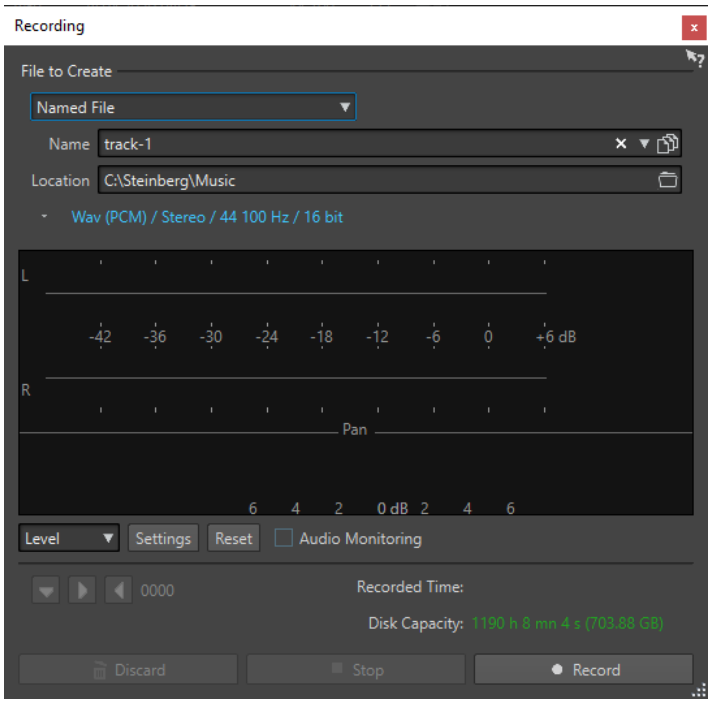
RELATED LINKS
Recording Dialog on page 188
Recording in the Audio Montage Window on page 191

Recording Dialog

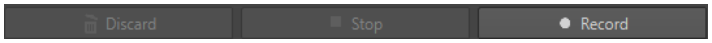
In the **Recording** dialog, you can set parameters for recording and start recording an audio file.

To open the **Recording** dialog, do one of the following:

- Open the **Audio Editor**, and click **Record** on the transport bar.
- In other workspaces, **Alt/Opt**-click **Record** on the transport bar.
- In the **Audio Montage** window, press **Alt/Opt**-**R**.



Main Buttons



Discard

Stops recording and deletes anything recorded so far.

Stop

Stops recording.

Record

Starts recording. Depending on the recording options, **Pause** mode is activated.

Settings

File to Create

Specify whether you want to record a **Temporary File** to be saved later, or record a **Named File** with a specific name and location.

Name

The name of the file to be written, without the path. When typing, all files in the selected folder that start with the same letters are displayed. To display all files in the selected folder, click the list icon.

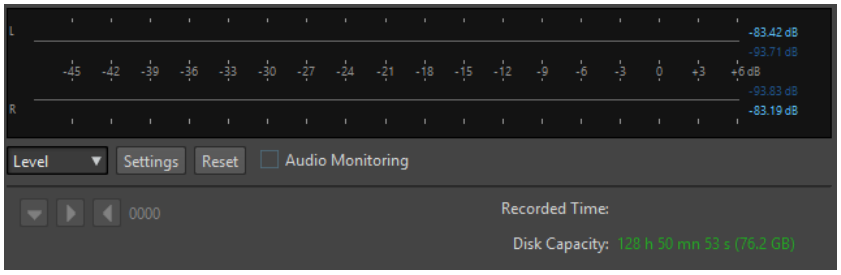
Location

Specifies the folder where you want to save the recording.

Audio File Format

Opens the **Audio File Format** dialog, where you can specify the file format.

Meter Display



Level/Spectrum

Specifies whether to display the **Level Meter** or the **Spectrometer**.

Settings

If the **Level** display is selected, this button opens the **Level Meter Settings** dialog, where you can customize the meter settings.

If the **Spectrum** display is selected, a pop-up menu opens, where you can select the audio levels that the meter should display. The following settings are available for the **Spectrum** display:

- **Restrict to High Audio Levels**
- **Include Medium Audio Levels**
- **Include Low Audio Levels**

Reset

Resets the peak values.

Audio Monitoring

If this option is activated, the audio input is also sent to the output ports.

Marker buttons

Allow you to set markers during the recording.

RELATED LINKS
Audio File Format Dialog on page 91
Level Meter and Spectrometer for Recordings on page 190
Level/Pan Meter Settings Dialog on page 228

Level Meter and Spectrometer for Recordings

In the lower part of the **Recording** dialog, you find a meter display. This is useful for checking the input level and the frequency spectrum of the input signal.

You can activate the meters by activating the **Audio Monitoring** checkbox.

To reset the meters, click the **Reset** button.

Level Meter

In the **Level Meter**, horizontal bars show the peak level (outer bars) and average loudness (VU, inner bars) of each channel. Values are also shown numerically. When you click the **Settings** button, the **Level/Pan Meter Settings** dialog opens.

Spectrometer

The **Spectrometer** shows a bar diagram, providing a continuous graphical representation of the frequency spectrum. From the **Settings** pop-up menu, you can choose whether to restrict to high audio levels, or to include medium or low audio levels.

RELATED LINKS
Recording Dialog on page 188

Disk Capacity Indicator

This indicator at the bottom of the **Recording** dialog indicates the approximate amount of available disk space on the hard disk specified in the **File to Create** section, or the hard disk that you have selected for temporary files.

NOTE

When there is less than 30 seconds of available hard disk space left, the disk capacity indication is displayed in red.

RELATED LINKS
Recording Dialog on page 188

Recording in the Audio Montage Window

You can record single or multiple tracks directly in the audio montage. For example, this allows you to record each speaker of a Podcast to a specific track.

Depending on your connected ASIO device, WaveLab Cast automatically detects the available input buses and creates the stereo and mono input buses in the **Audio Connections**.

RELATED LINKS
Audio Connections Tab on page 19
Automatically Assigning Input Buses for Recording (only for ASIO Devices) on page 191
Assigning Input Buses for Recording Manually on page 192
Recording with Automatic File Properties on page 193
Recording with Custom File Properties on page 193
Recording on Multiple Tracks on page 194

Automatically Assigning Input Buses for Recording (only for ASIO Devices)

Before you can start recording, you must assign input buses. If you are using an ASIO device, for example, a Steinberg UR interface, the input ports are automatically created.

NOTE

If you are not using an ASIO device, you must assign input buses manually.

PROCEDURE

1. Connect your device to your computer and start WaveLab Cast.
2. Select **File** > **Preferences** > **Audio Connections**.
3. Click **Recording**.

4. Make sure that your ASIO device is selected on the **Audio Device** menu.
   The input buses are assigned automatically.
5. Create an audio montage.
6. Create a mono or stereo track.
7. In the track control area, click **IN** and select the input bus for each track.

RESULT

WaveLab Cast is ready for recording.

RELATED LINKS

Assigning Input Buses for Recording Manually on page 192
Recording with Automatic File Properties on page 193
Recording with Custom File Properties on page 193
Recording on Multiple Tracks on page 194
Audio Connections Tab on page 19
Track Control Area on page 133

Assigning Input Buses for Recording Manually

Before you can start recording, you must assign input buses.

NOTE

If you are using an ASIO device, for example, a Steinberg UR interface, the input buses are created automatically.

PROCEDURE

1. Connect your device to your computer and start WaveLab Cast.
2. Select **File** > **Preferences** > **Audio Connections**.
3. Click **Recording**.
4. In the **Buses** list, select the bus that you want to use for recording.
5. Optional: To add more buses, click **Add Bus** and assign more input buses.
6. On the **Channel Configuration** menu, select whether you want to record in **Mono** or **Stereo**.
7. In the **Device Port** column, assign the input ports.

RESULT

WaveLab Cast is ready for recording.

RELATED LINKS

Automatically Assigning Input Buses for Recording (only for ASIO Devices) on page 191
Audio Connections Tab on page 19
Recording with Automatic File Properties on page 193
Recording with Custom File Properties on page 193
Recording on Multiple Tracks on page 194

Recording with Automatic File Properties

Recording with automatic file properties is the quickest way to start recording in the **Audio Montage** window.

The file name of the file that you want to record is generated automatically. The recorded file is saved in the data folder of the active audio montage. The bit resolution of the recorded file is the same as the bit resolution that is defined for temporary files.

PROCEDURE

1. In the montage window, select a track and click at the position where you want the recording to start.
2. On the transport bar, click **Record**.
3. To start recording, select an input bus in the **Audio Input** menu.
4. Do one of the following:
   - To stop recording, click **Stop** on the transport bar.
   - To stop and discard the recording, **Ctrl/Cmd**-click **Stop** on the transport bar. This deletes the recorded file.

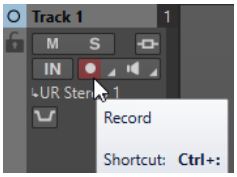
RELATED LINKS
Assigning Input Buses for Recording Manually on page 192
Automatically Assigning Input Buses for Recording (only for ASIO Devices) on page 191
Track Control Area on page 133
File Properties for Recording Dialog on page 195

Recording with Custom File Properties

When recording in the **Audio Montage** window, you can specify the name, location, and bit resolution of the file that you want to record.

PROCEDURE

1. In the montage window, select a track and click at the position where you want the recording to start.
2. In the track control area, click **Audio Input** and select an input bus.
3. Right-click **Record** and click **File Properties for Recording**.



4. In the **File Properties for Recording** dialog, make your settings and click **Record Enable Track**.

   The track is now ready for recording.
5. On the transport bar, click **Record**.
6. Do one of the following:
   - To stop recording, click **Stop** on the transport bar.

- To stop and discard the recording, **Ctrl/Cmd**-click **Stop** on the transport bar. This deletes the recorded file.

RELATED LINKS
Assigning Input Buses for Recording Manually on page 192
Automatically Assigning Input Buses for Recording (only for ASIO Devices) on page 191
Track Control Area on page 133
File Properties for Recording Dialog on page 195

Recording on Multiple Tracks

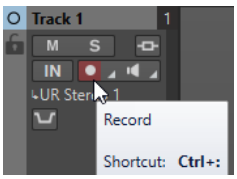
You can record on multiple audio montage tracks simultaneously.

PREREQUISITE

You have assigned input buses for recording.

PROCEDURE

1. In the montage window, click at the position where you want the recording to start.
2. Optional: Click **Monitor** to monitor your input signal and adjust its level.
3. Do one of the following:
   - If you want to record audio files with automatic file properties, click **Record** in the track control area and select an input bus.

   - If you want to specify the file name, location, and bit resolution of the audio files that you want to record, right-click **Record** and click **File Properties for Recording**. In the **File Properties for Recording** dialog, make your settings and click **Record Enable Track**.

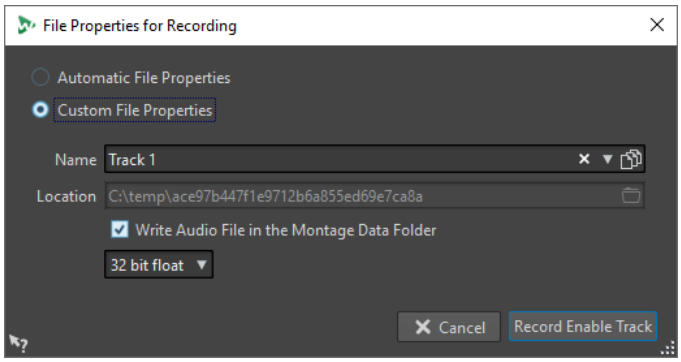
   The track is now ready for recording.
4. Optional: Repeat step 3 for all tracks that you want to record on.
5. On the transport bar, click **Record** to start recording.
6. Do one of the following:
   - To stop recording, click **Stop** on the transport bar.
   - To stop recording of a single track while recording several tracks at the same time, click **Record** in the track control area of the track.
   - To stop and discard the recording, **Ctrl/Cmd**-click **Stop** on the transport bar. This deletes the recorded file.

RELATED LINKS
Assigning Input Buses for Recording Manually on page 192
Automatically Assigning Input Buses for Recording (only for ASIO Devices) on page 191
Track Control Area on page 133
File Properties for Recording Dialog on page 195

File Properties for Recording Dialog

This dialog allows you to specify the file name, location, and bit resolution of the track that you want to record.

- To open the **File Properties for Recording** dialog, in the track control area, right-click **Record** and click **File Properties for Recording**.



Automatic File Properties

If this option is activated, the file name of the file that you want to record is generated automatically. The recorded file is saved in the data folder of the active audio montage. The bit resolution of the recorded file is the same as the bit resolution that is defined for temporary files.

Custom File Properties

If this option is activated, you can specify the file name and location for the audio file that you want to record.

Write Audio File in the Montage Data Folder

If this option is activated, the recorded audio file is saved in the data folder of the audio montage. To specify a custom folder, deactivate this option.

Bit Resolution

Allows you to specify the bit resolution of the audio file that you want to record.

RELATED LINKS
Recording in the Audio Montage Window on page 191

Input Monitoring

Input monitoring means listening to the input signal after it travels through the effects while preparing to record or while recording. This allows you to listen to the effects that your WaveLab Cast setup has on your input signal.

Depending on your effect chain, audio hardware, and drivers, the monitored signal can have latency.

You can choose to monitor the signal going through the audio montage and its effects, or you can use **Direct Monitoring**, which means listening directly to the input signal before it is sent through WaveLab Cast and its effects. **Direct Monitoring** has a lower latency than monitoring the input signal. **Direct Monitoring** is activated by default.

RELATED LINKS
Monitoring the Input Signal on page 196
Direct Monitoring on page 196

Monitoring the Input Signal

Monitoring the input signal allows you to monitor the signal going through the audio montage and its effects.

PREREQUISITE

You have set up your audio input buses.

PROCEDURE

1. Open an audio montage and set up your effects.
2. In the track control area for the track that you want to monitor, click **Select Audio Input** and select an audio input.
3. Click **Monitor**.

RESULT

You can monitor the input signal.

NOTE

The monitored signal is delayed according to the latency value which depends on your effect chain, audio hardware, and drivers.

RELATED LINKS

Track Control Area on page 133
Recording in the Audio Montage Window on page 191

Direct Monitoring

If **Direct Monitoring** is activated, the input signal is monitored directly without going through the audio montage and its effects. Direct monitoring allows you to monitor the input signal with lower latency. The latency depends on the buffer size of your audio device.

PREREQUISITE

You have set up your audio input buses.

PROCEDURE

1. Open an audio montage.
2. In the track control area for the track that you want to monitor, click **Select Audio Input** and select an audio input.
3. Right-click **Monitor** and activate **Direct Monitoring**.

RESULT

You can monitor the input levels of audio tracks.

RELATED LINKS

Recording in the Audio Montage Window on page 191

Dropping Markers While Recording

When you are recording, you can click the marker buttons to add markers to the recorded file.

PROCEDURE

1. Open the **Recording** dialog.
2. Make your settings and start recording.
3. Select the type of marker that you want to drop.
   - To drop a numbered generic marker, click the yellow marker button, or press **Ctrl/Cmd**-**M**.
   - To drop numbered generic region start and end markers, click the white buttons, or press **Ctrl/Cmd**-**L** / **Ctrl/Cmd**-**R**.

RESULT

A marker is dropped each time that you click the marker button.

NOTE

If you insert two or more region start markers in a row with no region end markers in between, only the last of these start markers is kept. The same applies for region end markers.

RELATED LINKS

Recording Dialog on page 188

Master Section

The **Master Section** is the final block in the signal path before the audio is sent to the audio hardware, to an audio file, or to the audio meters. This is where you adjust the master levels and add effects.

The settings and effects in the **Master Section** are taken into account in the following cases:

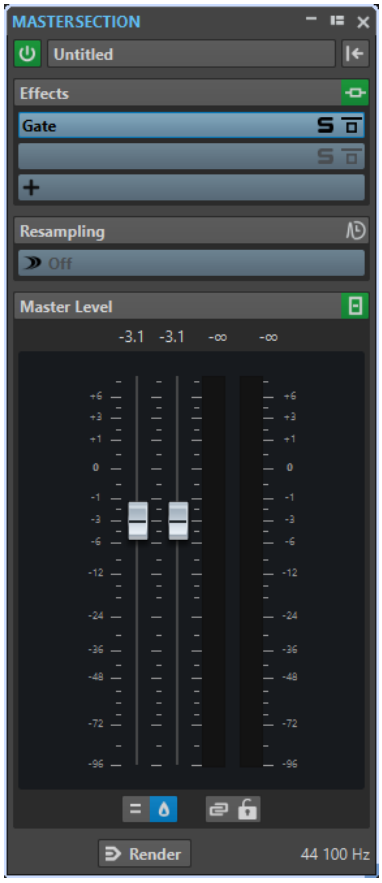
- When playing back an audio file in the wave window.
- When playing back an audio montage.
- When using the **Render** function.

RELATED LINKS
Master Section Window on page 198
Rendering in the Master Section on page 207

Master Section Window

In this window, you can apply effect plug-ins, adjust the master level, and render the audio file or audio montage.

- To open the **Master Section** window, select **Tool Windows** > **Master Section**.



The **Master Section** consists of the following panes:

- **Effects**
- **Resampling**
- **Master Level**

RELATED LINKS
Effects Pane on page 200
Resampling Pane on page 204
Master Level Pane on page 205

Signal Path

The panes in the **Master Section** window correspond to the processing blocks of the **Master Section**.

The signal passes through these blocks from top to bottom:

1. Audio from WaveLab Cast
2. Effects

   Reordering the effect slots affects the signal path.
3. Resampling
4. Master Level

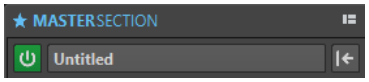
   The **Master Section** meters monitor the signal between the **Master Level** pane and the audio hardware or file on disk.
5. Audio hardware or file on disk

In the **Master Section**, the signal passes all plug-ins, even if some plug-ins are soloed. However, the sound is not affected by this because the muted plug-ins are bypassed from the playback process stream.

RELATED LINKS
Master Section Window on page 198

Master Section Tools

The options at the top of the **Master Section** window allow you to bypass the **Master Section** during playback, reset the **Master Section**, and save and recall presets.



Bypass Master Section

If this option is activated, the **Master Section** is ignored during playback. However, rendering to file still takes into account all plug-ins.

Presets

Lets you save and recall **Master Section** presets. The **Presets** pop-up menu offers additional options to save and load default banks and effects.

Reset Master Section

Removes all active effects from the slots and sets the master output to 0 dB.

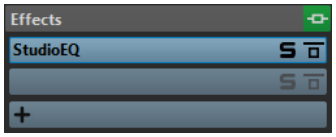
RELATED LINKS
Master Section Window on page 198
Saving Master Section Presets on page 210

Effects Pane

This pane in the **Master Section** allows you to add up to 5 effect plug-ins in series, and manage them.

You can fold/unfold or completely show/hide the **Effects** pane.

- To fold/unfold the **Effects** pane, click it.
- To show/hide the **Effects** pane, right-click a pane header, and activate/deactivate **Show Effects**.



Fold/Unfold Pane

Expands or collapses the pane.

Bypass All Effects

Bypasses any effect processing during playback and when rendering.

Add Effect

Allows you to add an effect to an empty effect slot.

Effect plug-in name

Once you have added a plug-in to a slot, you can click the plug-in name to open and close the corresponding plug-in window.

Presets pop-up menu

Lets you save and recall preset settings. The **Presets** pop-up menu offers additional options to save and load default banks and effects.

Effect Options pop-up menu

Allows you to load another effect to the effect slot. Furthermore, the following options are available:

- **Remove Plug-in** removes the effect from the slot.
- **Shift All Plug-ins Down**/**Shift All Plug-ins Up** allows you to move the effects to another position.
- If **Active** is activated, the effect is active. If **Active** is deactivated, the effect is excluded from playback and rendering.

Solo (Bypass)

Soloes the plug-in.

Bypass Effect

Bypasses the plug-in during playback and optionally during rendering. The signal is still processed by the plug-in, but is not injected in the audible stream.

RELATED LINKS
Master Section Window on page 198

Supported Effect Plug-in Formats

WaveLab Cast supports WaveLab Cast-specific plug-ins, VST 2 plug-ins, and VST 3 plug-ins.

WaveLab Cast-specific Plug-ins

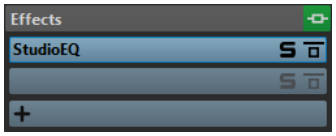
Some specific plug-ins are included in WaveLab Cast, for example, the **Resampler** plug-in.

VST Plug-ins

Steinberg's VST plug-in format is supported by a lot of programs and plug-in manufacturers. You find a number of VST plug-ins included with WaveLab Cast. Other plug-ins can be purchased separately from Steinberg or other manufacturers.

Setting Up Effects

The number of available effects in the **Effects** pane depends on the number and format of the plug-ins that you have installed.



- To select an effect plug-in for a slot in the **Effects** pane, click the slot, and select an effect from the pop-up menu. When you have selected an effect, it is automatically activated, and its control panel opens.
- To turn off an effect, right-click the slot, and deactivate **Active**. To activate the effect, activate **Active** again.
- To remove an effect plug-in, right-click the slot and select **Remove Plug-in** from the pop-up menu.
- To show/hide a plug-in window, click the effect slot.
- To solo an effect, click its **Solo (Bypass)** button. This allows you to check the sound of that effect only. You can also bypass effects via their control panels.
- To change the order of the slots, that is, the order in which the signal passes through the effects, click a slot, and drag it to a new position.

RELATED LINKS
Effects Pane on page 200
Master Section Window on page 198

Plug-in Windows for the Master Section

In the plug-in windows of the **Master Section**, you can make settings for the effect plug-ins in the **Master Section**.

- To show a plug-in window, click the effect slot in the **Effects** pane of the **Master Section** window.



Plug-in Chain

If **Use Plug-in Chain Window** is activated on the **Settings** pop-up menu of the **Master Section**, the effects of the active audio file are displayed in a plug-in chain at the top of the plug-in window.

You can right-click a plug-in tab or an empty tab to select a new plug-in for the slot.

Bypass Effect

If this option is activated, the plug-in is bypassed during playback and rendering. However, bypassing effects still consumes CPU power during playback. See also: Bypassing Effects vs. Switching Off Effects

Solo (Bypass)

Soloes the plug-in.

Switch Effect On/Off

If you deactivate a plug-in, it is excluded from both playback and rendering. See also: Bypassing Effects vs. Switching Off Effects

Presets

Opens a menu to save/load presets for this plug-in.

RELATED LINKS

Master Section Window on page 198
Effects Pane on page 200
Effect Plug-in Presets on page 203
Bypassing Effects vs. Switching Off Effects on page 203

Bypassing Effects vs. Switching Off Effects

In order to deactivate effects, you can bypass them or switch them off. However, there is a difference between bypassing effects and switching effects off when it comes to real-time processing, rendering, and playback behavior.

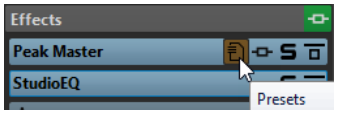
	Bypassing Effects	**Switching Effects Off**
What happens to real-time processing when you bypass an effect vs. when you switch an effect off?	You cannot hear the effect, but processing continues in the background and consumes CPU power.	The effect is not loaded and does not consume CPU power.
What happens to the rendering process when you bypass an effect vs. when you switch an effect off?	The effect is not loaded and does not consume CPU power.	The effect is not loaded and does not consume CPU power.
What happens when you switch bypass on/off vs. when you switch effects on/off during playback?	Playback continues without glitches or interruptions.	Small interruptions can occur.

RELATED LINKS
Plug-in Windows for the Master Section on page 201

Effect Plug-in Presets

WaveLab Cast comes with a number of factory presets for the included effect plug-ins. You can use them as they are or as a starting point for your own settings.

Third-party plug-ins can provide their own factory presets. To access the presets for an effect, click the **Presets** button in its control panel window or the **Presets** button for its effect slot. The available functions depend on the type of plug-in.



RELATED LINKS
Presets on page 65
Presets for VST 2 Plug-ins on page 203

Presets for VST 2 Plug-ins

VST 2 plug-ins have their own preset handling.

When you click the **Presets** button for this type of effect, a pop-up menu with the following options opens:

Load Bank/Save Bank

Loads and saves complete sets of presets. The file format is compatible with Cubase.

Load Default Bank/Save Default Bank

Loads the default set of presets or saves the current set of presets as the default bank.

Load Effect/Save Effect

Loads or saves a preset. This is also compatible with Cubase.

Edit Name of Current Program

Allows you to define a name for the preset.

Preset List

Allows you to select one of the loaded presets.

RELATED LINKS
Effect Plug-in Presets on page 203

Resampling Pane

This pane in the **Master Section** allows you to resample the signal. With the **Resampling** plug-in, you can check the peaks before the master gain and meters, and before limiting and dithering.

You can fold/unfold or completely show/hide the **Resampling** pane.

- To fold/unfold the **Resampling** pane, click it.
- To show/hide the **Resampling** pane, right-click a pane header, and activate/deactivate **Show Resampling**.



Fold/Unfold Pane

Expands or collapses the pane.

On/Off

Activates/Deactivates the resampling effect.

Use Preferred Sample Rate

If this option is activated, resampling matches the sample rate that is specified as the preferred sample rate on the **Audio Connections** tab.

NOTE

The sample rate is used for playback only. This allows you to play back sample rates that your audio device does not support.

Sample Rate menu

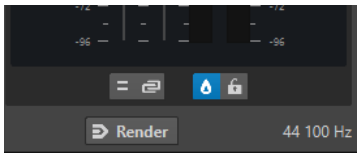
Allows you to select a sample rate.

RELATED LINKS
Audio Connections Tab on page 19
Master Section Window on page 198

Audio Driver Sample Rate

The sample rate of the audio driver is displayed at the bottom right of the **Master Section** window. The sample rate is displayed once you start playback or recording.

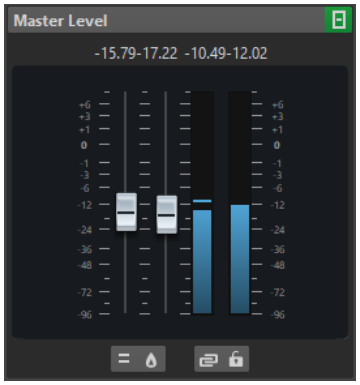
The value is either the sample rate of the audio file or audio montage that is played back or the sample rate that is set in the **Resampling** pane in the **Master Section**.



RELATED LINKS
Resampling Pane on page 204
Master Section Window on page 198

Master Level Pane

This pane in the **Master Section** allows you to control the master level of the active audio file.



Faders

The faders in the **Master Level** pane govern the final output level. Use the faders to optimize the level of the signal that is sent to the audio hardware.

NOTE

It is important to avoid clipping, especially when mastering. Clipping is indicated by the clip indicators of the **Master Section**.

Meters

Use these meters to get an overview of the signal levels. The numeric fields above the faders show the peak levels for each channel. The peak indicators turn red whenever the signal clips. If this happens, you should do the following:

- Lower the faders.
- Right-click the clip indicators and select **Reset Peaks** to reset the clip indicators.
- Play back the section again until no clipping occurs.

Settings

Audio Channel Processing

Allows you to mix or filter audio channels. The following options are available:

- If **Default Channels** is selected, the audio stream is not modified.
- **Mix to Mono** mixes the stereo channels into mono channels.

True Peak Analyzer

If **True Peak Analyzer** is activated, the analog reconstructed peaks (true peaks) are displayed in the **Master Level** meter. If this button is deactivated, the sample values (digital peaks) are displayed.

Unlink Faders

Determines whether you can adjust the faders individually or together.

If **Unlink Faders** is deactivated, moving one fader also moves the other by the same amount. Activating **Unlink Faders** allows you to correct improper stereo balancing by adjusting the level of the channels individually.

If you offset the faders with **Unlink Faders** activated and then deactivate **Unlink Faders**, you can adjust the overall level without changing the level offset between the channels.

Fader offsets are not preserved at the end of the range of movement or once the mouse button is released.

Lock Faders

Locks the faders. Locked faders cannot be changed with the mouse. Other editing methods, for example via remote control or shortcut, are still possible.

RELATED LINKS
Master Section Window on page 198

Mixing Stereo Channels into Mono Channels

In the **Master Section**, you mix the left and right channels of a stereo track into two mono channels. The **Mix to Mono** option is useful for checking the mono compatibility of stereo mixes, etc. In this case, the output level is automatically reduced by -6 dB to avoid clipping.

PROCEDURE

1. In the **Master Level** pane of the **Master Section**, click **Audio Channel Processing**.
2. Select **Mix to Mono**.

   NOTE

   If **Mix to Mono** is activated, the indicator for the **Master Level** pane is lit, even if the master level is not adjusted. This helps you avoid accidentally leaving **Mix to Mono** activated.

3. To apply the setting, render the file.

RELATED LINKS
Master Level Pane on page 205

Mixing Multichannel into Stereo or Mono

In the **Master Section**, you mix surround channels to stereo channels or mono channels. This is useful for checking the mono or stereo compatibility of surround mixes. In this case, the output level is automatically reduced by -6 dB to avoid clipping.

PROCEDURE

1. In the **Master Level** pane of the **Master Section**, click **Audio Channel Processing**.
2. Select **Mix to Stereo** or **Mix to Mono**.

NOTE

If **Mix to Stereo** or **Mix to Mono** is activated, the indicator for the **Master Level** pane is lit, even if the master level is not adjusted. This helps you avoid accidentally leaving **Mix to Mono** activated.

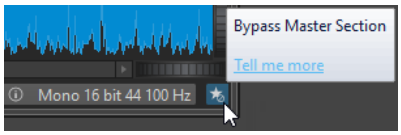
3. To apply the setting, render the file.

RELATED LINKS
Master Level Pane on page 205

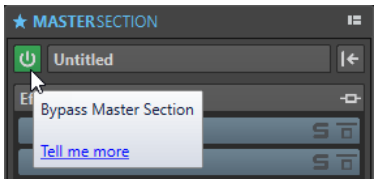
Bypassing the Master Section

By default, the **Master Section** is active. You can bypass it for each file individually or globally.

- To bypass the **Master Section** for individual audio files or audio montages, activate the **Bypass Master Section** button at the bottom of the wave/montage window.



- To bypass the **Master Section** globally, activate the **Bypass Master Section** button at the top left of the **Master Section**.



RELATED LINKS
Master Section Window on page 198

Rendering in the Master Section

By rendering the effects using the **Render** function in the **Master Section**, they become a permanent part of a file. So instead of performing all processing in real time during playback, you can save the audio output to a file on disk.

Writing the output of the **Master Section** to a file on disk allows you to apply **Master Section** processing to an audio file, or mix down an audio montage to an audio file.

RELATED LINKS
Master Section Window on page 198

Rendering Files

PREREQUISITE

You have set up your audio file or audio montage.

PROCEDURE

1. In the **Master Section**, make your settings.

2. On the bottom of the **Master Section**, click **Render**.
3. Make your rendering settings.
4. In the **Result** section, activate **Named File**.
5. Click the **Format** field and select **Edit Format**.
6. Make your settings in the **Audio File Format** dialog and click **OK**.
7. When you have set up the rendering process, click **Start**.

RESULT

The file is rendered.

NOTE

Several rendering operations can be performed at the same time when using different files.

RELATED LINKS

Audio File Format Dialog on page 91
Creating Audio File Format Presets on page 94

In-Place Rendering

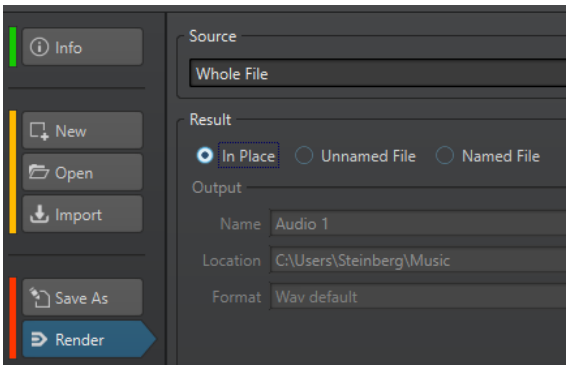
In the **Audio Editor**, you can process a section of an audio file or the whole audio file. This is a quick way to process several audio sections in an audio file, or test the effect of different plug-ins on an audio file.

You can select the **Render in Place** function in the following place:

- On the **Render** tab of the **Audio Editor**.

  To start in-place rendering, click **Render**, select the **Source**, activate **In Place**, and click **Start**.

  You can make additional render settings on the **Options** section.



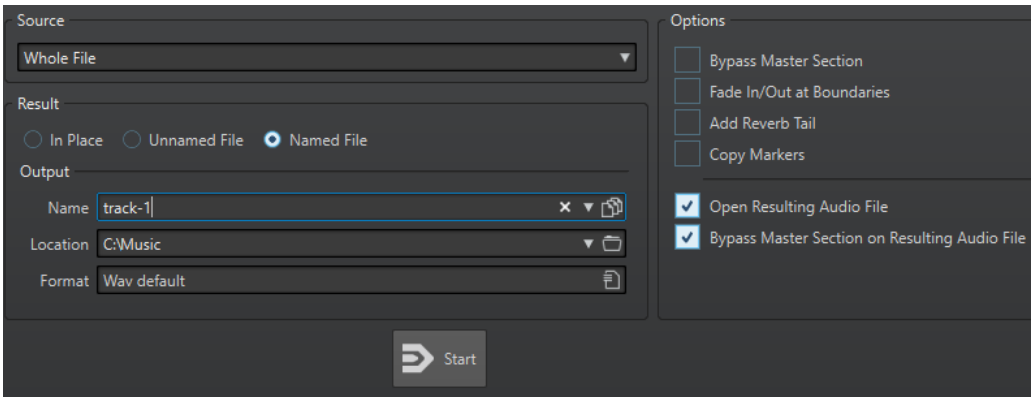
RELATED LINKS

Render Tab for the Master Section on page 208

Render Tab for the Master Section

This tab allows you to select which parts of an audio file to render, and into which format.

- To open the **Render** tab, click **Render** at the bottom of the **Master Section**.



The following options are available for rendering audio files and audio montages:

Source

- **Selected Audio Range** processes and renders the selected audio range.
- **Specific Region** processes and renders an audio range that is specified using region markers. In the pop-up menu next to this option, select the region that you want to render.

In Place

If this option is activated, the rendered audio range replaces the source audio range. This option is only available for audio files.

Unnamed File

If this option is activated, the file is named `untitled`.

Named File

If this option is activated, you can specify a name for the rendered file.

Name

Enter a name for the rendered file. Clicking the arrow icon opens a menu that offers you several automatic naming options.

Location

Select a folder for the rendered file.

Format

Opens a menu, where you can select the file format.

Bypass Master Section

If this option is activated, the plug-ins and gain of the **Master Section** are bypassed when rendering.

Add Reverb Tail

If this option is activated, the audio tail that is produced by effects such as reverb is included in the rendered file.

Some plug-ins do not provide a tail duration to WaveLab Cast. In this case, this option has no effect. For such plug-ins, you could add the **Silence** plug-in to add extra samples at the end of the file.

Copy Markers

If this option is activated, markers that are included in the range to process are copied to the rendered file.

Skip Exclusion Regions

If this option is activated, audio ranges that are marked as muted are skipped and not included in the result.

Open Resulting Audio File

If this option is activated, each rendered file is opened in a new window.

Bypass Master Section on Resulting Audio File

If this option is activated, playback of the resulting audio file bypasses the entire **Master Section** after rendering. This setting can be toggled by clicking on the button at the bottom right of the wave window or montage window.

NOTE

It is recommended to activate this option, because you do not need to monitor this new file through the effects again when the effects have been applied to a file.

Render Tab for Audio Files

The following options on the **Render** tab are exclusive to rendering audio files.

Source

Whole File processes and renders the whole file.

In Place

If this option is activated, the rendered audio range replaces the source audio range.

Render Tab for Audio Montages

The following option on the **Render** tab is exclusive to rendering audio montages.

Source

Master Section Presets

You can save all settings that are made in the **Master Section** as a preset and load the presets later.

RELATED LINKS
Saving Master Section Presets on page 210
Loading Master Section Presets on page 212

Saving Master Section Presets

You can save all settings that are made in the **Master Section** as a preset. This includes which processors are used, which settings are made for each one of them, and the dithering options.

PROCEDURE

1. Set up the **Master Section**.
2. Click **Presets** at the top of the **Master Section**, and select **Save As**.
3. Optional: In the **Save Master Section Preset** dialog, click the path name, enter a name, and click **OK** to create a new subfolder in the **Master Section** preset folder.
4. Enter a name for the preset in the **Name** field.
5. Select the options that you want to save in the preset.

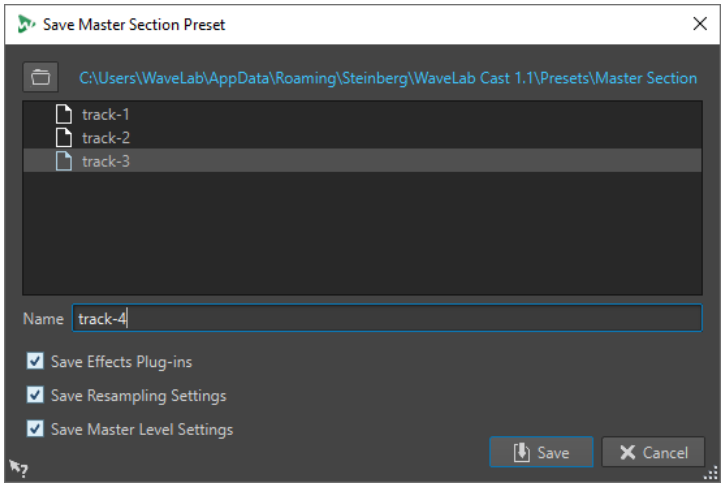
6. Click **Save**.

RELATED LINKS
Save Master Section Preset Dialog on page 211
Loading Master Section Presets on page 212

Save Master Section Preset Dialog

In this dialog, you can save a **Master Section** setup as preset and define which parts of the current **Master Section** you want to include in the preset.

- To open the **Save Master Section Preset** dialog, click **Presets** at the top of the **Master Section**, and select **Save As**.



Location

Opens the root folder of the preset in the File Explorer/macOS Finder. Here, you can create subfolders in which presets can be saved.

Presets list

Lists all existing presets.

Name

Allows you to specify the name of the preset to save.

Save Effects Plug-ins

If this option is activated, the effect plug-ins are saved with the preset.

Save Resampling Settings

If this option is activated, the resampling settings are saved with the preset.

Save Master Level Settings

If this option is activated, the master level settings are saved with the preset.

RELATED LINKS
Saving Master Section Presets on page 210

Loading Master Section Presets

You can load a previously saved **Master Section** preset and a temporarily saved **Master Section** preset.

Open the **Presets** pop-up menu at the top of the **Master Section** window.

- To load a preset that has been previously saved in the `Presets\Master Section` folder, select a preset from the **Presets** pop-up menu.
- To load a preset from any location, select **Load Preset**, select a preset, and click **Open**.
- To load a temporarily saved preset, open the **Restore** submenu, and select a preset.

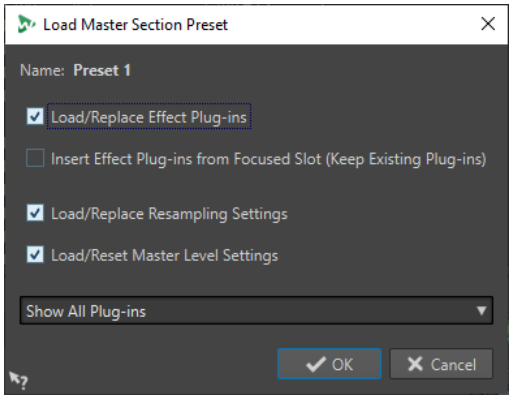
RELATED LINKS
Load Master Section Preset Dialog on page 212

Load Master Section Preset Dialog

In this dialog, you can specify which parts of a saved **Master Section** preset to load when opening it.

- To open the **Load Master Section Preset** dialog, click **Presets** at the top of the **Master Section**, and select **Load Preset**.

This dialog only opens if it is activated on the **Presets** pop-up menu of the **Master Section**. Open the **Presets** pop-up menu at the top of the **Master Section**, and activate **Open Options Dialog when Selecting Preset**.



Now, when restoring a temporarily saved preset or opening a saved preset a dialog with the following options opens:

Name

Displays the name of the preset.

Load/Replace Effect Plug-ins

If this option is activated, the active effect plug-ins are removed, and any new plug-ins are inserted from the top slot.

Insert Effect Plug-ins from Focused Slot (Keep Existing Plug-ins)

If this option is activated, the current effect plug-ins are kept, and any new plug-ins are inserted from the top slot.

Load/Replace Resampling Settings

If this option is activated, the current resampling settings are reset, and any new settings are loaded.

Load/Reset Master Level Settings

If this option is activated, the current **Master Level** settings are reset, and any new settings are loaded.

RELATED LINKS
Loading Master Section Presets on page 212

Master Section Presets Pop-up Menu

This pop-up menu offers several options for saving, managing, and restoring **Master Section** presets.

- To open the **Presets** pop-up menu, click the presets pane at the top of the **Master Section**.



Save

Saves the changes you have made to an existing preset.

Save As

Opens a dialog where you can specify a name and a location for the preset.

Organize Presets

Opens the **Master Section** folder in the File Explorer/macOS Finder, where you can rename or delete presets.

Load Preset

Allows you to load a **Master Section** preset via the File Explorer/macOS Finder. For example, this is useful if you want to load a preset that is provided by another source and not located in your default root folder.

Open Options Dialog when Selecting Preset

If this option is activated, when you select a preset, a dialog opens that allows you to choose how to load the preset you select.

Store Temporarily

Lets you select one of the slots to temporarily save a preset.

Restore

Lets you restore a previously saved preset.

List of saved presets

Lists the presets that are saved in the **Presets** folder of the **Master Section**.

RELATED LINKS
Master Section Presets on page 210

Monitoring Background Tasks

When rendering, you can monitor the process, and pause or cancel tasks.

A status bar below the wave window and the montage window shows the progress of the current rendering process. You can cancel or pause the rendering with the corresponding buttons.



RELATED LINKS
Global Preferences on page 255

Canceling Background Tasks

You can cancel rendering processes that run in the background.

PROCEDURE

- Do one of the following:
  - In the status bar, click **Cancel**.

  - Press **Alt/Opt** - **.** on your keyboard.

RELATED LINKS
Monitoring Background Tasks on page 213

Dropouts

A dropout most likely occurs when your computer does not have the processing power to handle all used effect processors.

To avoid dropouts, try the following:

- Use fewer effects.
- Consider rendering the processing rather than running it in real time. Then master from the processed file without applying effects. Dropouts never occur when rendering to a file.
- Do not process any files in the background.

If neither of the above helps, check the audio card preference settings. You might need to adjust the audio buffer settings. If a dropout occurs during a real-time mastering process we recommend that you re-master. Stop playback, click the dropout indicator to reset it, and try again.

Markers

Markers allow you to save and name specific positions in a file. Markers are useful for editing and playback.

For example, markers can be used for the following:

- Indicate cue points or absolute time locations.
- Highlight problem sections.
- Visually separate tracks.
- Set the wave cursor to a specific position.
- Select all audio between two positions.

NOTE

The functions in the **Markers** window are the same for audio files and audio montages. However, the **Markers** window for audio montages offers additional options regarding clips.

RELATED LINKS
Marker Types on page 215
Markers Window on page 215
Creating Markers on page 218

Marker Types

You can use different marker types to locate certain positions quickly.

The following marker types are available:

Generic markers

Allow you to locate positions and select all the audio between two points, for example. Generic markers can be created during recording.

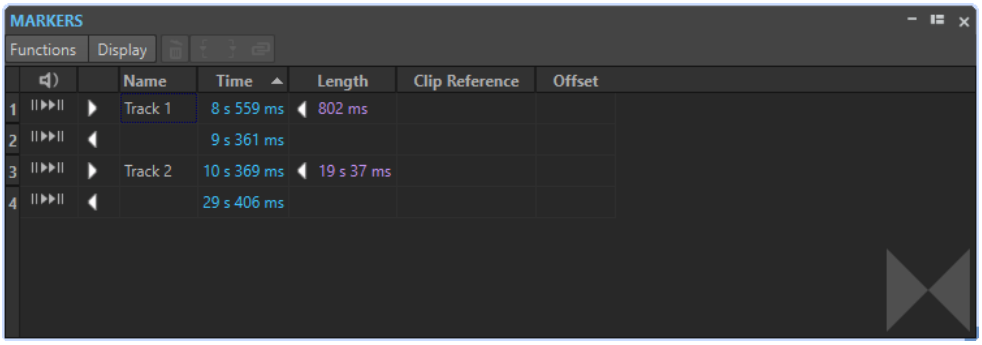
Region start and end markers

Define start and end points for generic regions. Region start and end markers can be created during recording and are used in pairs.

Markers Window

In the **Markers** window, you can create, edit, and use markers while working on an audio file or an audio montage.

- To open the **Markers** window, open an audio file or an audio montage. Select **Tool Windows** > **Markers**.



Markers window for audio files

Markers List

The **Markers** window contains a list of all markers of the active file, along with their details and controls. You can create and edit indicators in the markers list.

Marker numbers

Clicking the number of a marker scrolls the waveform to reveal the corresponding marker.

Perform Pre-Roll

Plays back the audio from the marker position with a pre-roll.

You can also press **Alt** and click **Play Pre-Roll** to play back from the marker position with a short pre-roll.

Play

Plays back the audio from the marker position.

Marker type

Shows the marker type. To change the marker type, click the marker icon, and select another marker type from the pop-up list.

Name

Shows the marker name. To change the name, double-click in the corresponding cell, and enter a new name.

Time

Shows the marker position on the time ruler. To change the position, double-click in the corresponding cell, and enter a new value.

Channels

Shows the channels on which the markers are located. You can click the channel to specify another channel for the marker or select **Set for All Channels** to set the marker for all channels.

Length

Shows the time between the marker start position and the corresponding end marker.

- To zoom in on the region between a start and an end marker, click the corresponding cell in the **Length** column.
- To select the region between a start and end marker, double-click the corresponding cell in the **Length** column. This function is only available for markers in the **Audio Editor**.

Clip Reference (only available for markers in the Audio Montage window)

A marker can be attached to the left or right edge of a clip, and to its waveform. When you move a clip, the corresponding marker moves along. The clip reference column shows the name of the clip.

Offset (only available for markers in the Audio Montage window)

Shows the distance between the marker and the reference point.

Functions Menu

Depending on whether the **Audio Editor** or the **Audio Montage** window is open, different options are available. The following options are available both for audio files and audio montages:

Select All

Selects all markers in the markers list.

Invert Selection States

Inverts the selection status of all markers.

Deselect All

Deselects all markers.

Delete Selected Markers

Deletes all markers that are selected.

Default Marker Names

Opens the **Default Marker Names** dialog, where you can select default marker names for each marker type.

Generate Chapters

Allows you to generate a text file that lists the chapters in your audio material, based on the markers you set, for use on YouTube or Spotify.

The following options of the **Functions** menu are only available for audio files:

Select in Time Range

Selects the markers located in the selection range in the wave window.

The following options of the **Functions** menu are only available for audio montages:

Bind Selected Markers to Start of Active Clip

Makes the marker position relative to the start of the active clip. When the start of this clip moves, the marker moves, too.

Bind Selected Markers to End of Active Clip

Makes the marker position relative to the end of the active clip. When the end of this clip moves, the marker moves, too.

Detach Selected Markers from Their Associated Clip

Makes the marker position relative to the start of the audio montage.

Follow Playback

If this option is activated and you play back audio, a green bar next to the marker name indicates the marker that was last played back.

Full Clip Attachment

Attaches markers to a clip so that they are copied or deleted when the clip is copied or deleted.

Customize Command Bar

Opens the **Customize Commands** dialog, which contains options for hiding or showing specific command bar buttons.

Display Menu

The **Display** menu allows you to specify which types of markers to display in the markers list and on the timeline.

Creating Markers

You can create markers in the wave window and montage window in stop mode or during playback. You can create specific markers if you already know what you want to mark, or create generic markers.

PROCEDURE

1. Do one of the following:
   - Start playback.
   - In the wave window or the montage window, set the cursor to the position where you want to insert the marker.
2. Do one of the following:
   - In the **Audio Editor** or **Audio Montage** window, select the **Edit** tab, and click a marker icon in the **Markers** section.
   - Right-click the upper part of the time ruler, and select a marker from the context menu.
   - Press **Insert**. This creates a generic marker.

     To see the key commands for other marker types, right-click above the timeline of the wave window or montage window.
3. Optional: To set a marker for an individual channel, click the channel name in the **Channel** column of the **Markers** window, and select the channel for which you want to set the marker.

RELATED LINKS
Audio Editor Window on page 83
Audio Montage Window on page 132
Markers Window on page 215
Edit Tab (Audio Editor) on page 84
Deleting Markers on page 219

Creating Markers at Selection Start and End

You can mark a selection for looping or review, for example.

PROCEDURE

1. In the wave window or the montage window, create a selection range.
2. Do one of the following:
   - In the **Audio Editor** or the **Audio Montage** window, select the **Edit** tab and click **Create Generic Region from Selection** in the **Markers** section.
   - In the wave window, create a selection range, right-click it, and select the marker pair.

- In the wave window or the montage window, create a selection range, right-click above the time ruler, and select the marker pair.

RELATED LINKS
Audio Editor Window on page 83
Audio Montage Window on page 132
Edit Tab (Audio Editor) on page 84

Duplicating Markers

Duplicating markers is a quick way to create a marker from an existing marker.

PROCEDURE

- In the wave window or the montage window, hold down **Shift**, click a marker, and drag.

RELATED LINKS
Audio Editor Window on page 83
Audio Montage Window on page 132

Deleting Markers

Markers can be deleted in the wave window or the montage window, and in the **Markers** window.

RELATED LINKS
Deleting Markers in the Audio Editor or in the Audio Montage Window on page 219
Deleting Markers in the Markers Window on page 220

Deleting Markers in the Audio Editor or in the Audio Montage Window

PROCEDURE

- To delete markers in the **Audio Editor** or in the **Audio Montage** window, do one of the following:
  - In the **Audio Editor** or in the **Audio Montage** window, right-click a marker, and select **Delete**.
  - Drag and drop a marker icon upwards, outside the time ruler.

RELATED LINKS
Deleting Markers on page 219
Audio Editor Window on page 83
Audio Montage Window on page 132

Deleting Markers in the Markers Window

This is useful if your project has many markers or if the marker that you want to delete is not visible in the **Audio Editor** or in the **Audio Montage** window.

PROCEDURE

1. In the **Markers** window, select one or several markers.

   You can also select **Functions** > **Select All**.
2. Click **Delete Selected Markers** or select **Functions** > **Delete Selected Markers**.

RELATED LINKS
Markers Window on page 215
Deleting Markers on page 219

Moving Markers

You can adjust marker positions in the **Audio Editor** or in the **Audio Montage** window.

PROCEDURE

- In the **Audio Editor** or in the **Audio Montage**window, drag a marker to a new position on the time ruler.

  If **Snap to Magnets** is activated, the marker snaps to the cursor position or the beginning/end of a selection or waveform.

RELATED LINKS
Audio Editor Window on page 83
Audio Montage Window on page 132
Time Ruler and Level Ruler on page 40

Hiding Markers of a Specific Type

For a better overview, you can hide marker types.

PROCEDURE

1. In the **Markers** window, select **Display**.
2. Deactivate the marker types that you want to hide.

   You can make the markers visible again by activating the corresponding marker type.

RELATED LINKS
Markers Window on page 215

Converting the Type of a Single Marker

You can convert markers of a specific type to another type.

PROCEDURE

1. In the **Markers** window, click the marker icon that you want to convert.

2. Select a new marker type from the list.

RELATED LINKS
Markers Window on page 215

Renaming Markers

You can change the names of markers.

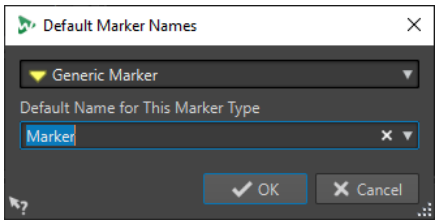
- To rename a marker in the wave window or the montage window, right-click a marker, select **Rename**, and enter a new name.
- To rename a marker in the **Markers** window, double-click a marker name in the **Name** column, and enter a new name.
- To edit the default names, in the **Markers** window, select **Functions** > **Default Marker Names**.

RELATED LINKS
Markers Window on page 215
Default Marker Names Dialog on page 221

Default Marker Names Dialog

In this dialog, you can specify the default marker names.

- To open the **Default Marker Names** dialog, open the **Markers** window, and select **Functions** > **Default Marker Names**.



Marker type
Lets you select the type of marker for which you want to specify a default name.

Default Name for This Marker Type
Lets you specify the default name for the selected marker type.

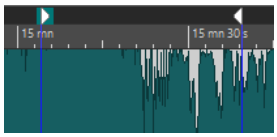
RELATED LINKS
Markers Window on page 215
Renaming Markers on page 221

Selecting Markers

There are several ways to select markers.

- In the wave window or the montage window, click a marker.
- In the **Markers** window, click in a cell. The corresponding marker is selected.
- Use **Ctrl/Cmd** or **Shift** to select multiple markers.

The marker icon changes its background to indicate the selection.



RELATED LINKS
Audio Editor Window on page 83
Audio Montage Window on page 132
Markers Window on page 215

Selecting the Audio Between Markers

You can select the audio between two adjacent markers or between any two markers. This allows you to select a section that has been marked.

- To select the audio between two adjacent markers, double-click between two adjacent markers in the **Audio Editor** or in the **Audio Montage** window.
- To select several regions between two adjacent markers, double-click between two adjacent markers, and after the second click, drag to select the adjacent regions.
- To select the audio between a region marker pair, hold down **Shift**, and double-click a region marker.
- To extend the selection until the end of a marker region, in the **Audio Editor** or in the **Audio Montage** window, hold down **Shift**, and double-click in the marker region that you want to select.
- To open the **Markers** window and display further information about a specific marker, hold down **Alt**, and double-click a marker.

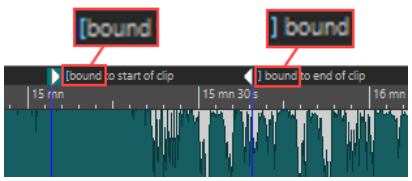
RELATED LINKS
Audio Editor Window on page 83
Audio Montage Window on page 132
Markers Window on page 215

Binding Markers to Clips in the Audio Montage

In the **Audio Montage** window, you can bind markers to clips. By doing this, the marker remains in the same position, relative to the clip start/end, even if the clip is moved or resized in the audio montage.

You can find the options regarding binding clips and markers on the **Functions** menu of the **Markers** window, and when right-clicking a marker in the **Audio Montage** window.

When a marker is bound to a clip element, its name is preceded by a blue character.



RELATED LINKS
Markers Window on page 215

Generating Chapters for YouTube and Spotify via Markers

If you intend to upload your audio material to YouTube or Spotify, you can divide it into chapters so that your audience can select and play particular parts of the content.

Based on marker pairs, WaveLab can generate a text file that is compatible with YouTube and Spotify and that indicates the chapters in your audio material.

PROCEDURE

1. To define the chapters, set and name a minimum of three marker pairs in your active audio file or audio montage.

   NOTE

   - The minimum length for a chapter is ten seconds.
   - A marker is required at the very beginning of your audio material. If no marker is available, WaveLab automatically creates a chapter called “Introduction”.

2. Do one of the following:
   - Select the **Edit** tab. On the **Marker** panel, choose **Generate Chapters**.
   - Open the **Markers** window by selecting **Tool Windows** > **Markers**. From the **Functions** menu, choose **Generate Chapters**.

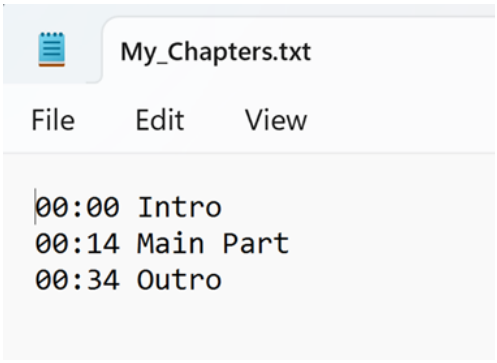
   The **Chapter Generator** dialog opens.
3. Make your settings in the **Chapter Generator** dialog, and click **OK**.

RESULT

A text file is created, which lists the chapters of your audio material.

EXAMPLE

Text file listing the chapters:



IMPORTANT

- If the text file does not list your chapters as intended, verify the following:
  - You have assigned a name to each marker pair that defines a chapter.

    WaveLab ignores unnamed marker pairs and does not include them in the text file.
  - The name of every marker pair starts with a letter.

    WaveLab ignores marker pairs whose names start with a digit and does not include them in the text file.
  - You have not used any region end markers to define the chapters.

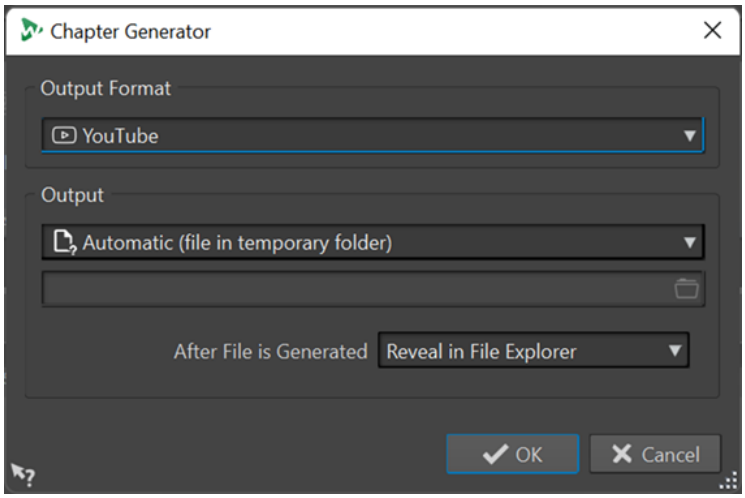
WaveLab does not recognize region end markers as chapter identifiers and does not include them in the text file.

RELATED LINKS
Chapter Generator Dialog on page 224
Markers Window on page 215

Chapter Generator Dialog

The **Chapter Generator** dialog allows you to make settings for the chapters in your audio material, for use on YouTube or Spotify.

- To open the **Chapter Generator** dialog, open the **Markers** window, and select **Functions** > **Generate Chapters** .



Output Format

Allows you to select **YouTube** or **Spotify** as the output format.

Output

Allows you to specify the destination of the text file. You can choose from the following options:

- **Automatic (file in temporary folder)**: Saves the text file in a temporary folder.
- **Specific file**: Allows you to navigate to and select a particular file by clicking the folder symbol in the line below.
- **Printer**: Allows you to send the text file to a printer.
- **Clipboard**: Sends the text file to the clipboard.

After File is generated

Allows you to specify what you want WaveLab to do after creating the text file listing the chapters. You can choose from the following options:

- **Reveal in File Explorer**: Displays the text file in the File Explorer/macOS Finder. Opening it from there allows you to verify that the chapters are listed correctly.
- **Do Nothing**: Creates the text file without opening it.
- **Launch Associated Application**: Launches the application you have specified for opening `.txt` files, if any. This allows you to verify that the chapters are listed correctly.

RELATED LINKS
Generating Chapters for YouTube and Spotify via Markers on page 223
Markers Window on page 215

Metering

WaveLab Cast contains a variety of audio meters that you can use for monitoring and analyzing audio. Meters can be used to monitor audio during playback, rendering, and recording. Furthermore, you can use them to analyze audio sections when playback is stopped.

RELATED LINKS
Meter Windows on page 226
Meter Settings on page 226

Meter Windows

WaveLab Cast contains a variety of audio meters that you can use for monitoring and analyzing audio. Meters can be used to monitor audio during playback, rendering, and recording. Furthermore, you can use them to analyze audio sections when playback is stopped.

The meter windows can be accessed via the **Meters** menu. There can only be one instance of each audio meter.

The axis of most audio meters can be rotated, to view the graphics horizontally or vertically. For some meters, you can also style and customize parameters via a settings dialog.

RELATED LINKS
Metering on page 226
Docking and Undocking Tool Windows and Meter Windows on page 33

Opening and Closing Meter Windows

You can close all meter windows you do not need for your project.

- To open a meter window, select **Meters** and select a meter window.
- To close a docked meter window, right-click the meter window tab and select **Hide**.
- To close an undocked meter window, click its **X** button.

RELATED LINKS
Meter Windows on page 226

Meter Settings

You can set up most meters in the corresponding settings dialogs. For example, you can adjust the behavior, scale, and color of the meters.

- To open the settings dialog for a meter, select **Functions** > **Settings**.
- To check the results after changing the settings without closing the settings dialog, click **Apply**.
- To close the settings dialog and discard any changes that you have made, even if you have clicked the **Apply** button before, click **Cancel**.

RELATED LINKS
Meter Windows on page 226

Resetting the Meters

You can reset the display of some meters, for example, the **Level Meter**.

PROCEDURE

- In the meter window, click **Reset**, or select **Functions** > **Reset**.

RESULT

All values and numerical indicators of the meter are reset.

RELATED LINKS
Meter Windows on page 226

Using Presets in the Meter Windows

You can save the settings that you have made for a meter window as a preset. By assigning presets to preset buttons, you can quickly switch between different level scales and display modes, for example.

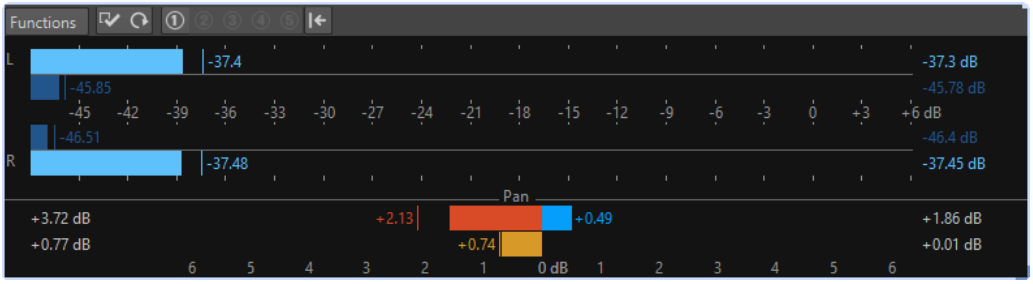
- To save your settings as a preset, select **Functions** > **Settings**, click **Presets**, and select **Save As**.
- To assign a preset to one of the preset buttons, select **Functions** > **Settings**, click **Presets**, and from the **Assign to Preset Button** submenu, select a preset button.
- To apply a preset, select it from the **Functions** menu, or click the corresponding preset button.

RELATED LINKS
Level Meter on page 227
Meter Windows on page 226

Level Meter

The **Level Meter** displays the peak and average loudness/decibel levels of your audio file.

- To open the **Level Meter**, select **Meters** > **Level Meter**.



Level Meters

The upper part of the window shows the peak level and the average loudness in the following way:

The **Level Meter** shows the peak level and the average loudness in the following way:

- The peak level meters display the peak levels of each channel, graphically and numerically.
- The VU meters measure the average loudness (RMS) of each channel. These meters have a built-in inertia, evening out loudness variations over a user-defined time span. If you are monitoring playback or the audio input, you can see two vertical lines following each VU meter bar. These lines indicate the average of the most recent minimum RMS values (left line) and the average of the most recent maximum RMS values (right line). To the left, the difference between the minimum and maximum average values is displayed. This gives you an overview of the dynamic range of the audio material.
- The maximum peak and loudness values are displayed to the right of the meter bars. The numbers in brackets to the right of the maximum peak values indicate the number of times that clipping occurs (0 dB signal peaks). Values between 1 and 2 are acceptable, but if you get a larger number, you should lower the master level to avoid digital distortion.
- Recording levels should be set so that they only rarely clip. If the master level is set too high, the sound quality and frequency response are compromised at high recording levels, with unwanted clipping effects. If the level is set too low, noise levels can be high relative to the main sound being recorded.

Pan Meters

The lower part of the window shows the difference in level between the left and right channel of a stereo audio file.

- The upper pan meters show the peak level difference between the channels. The level bars can go to the left or right, indicating which channel is loudest.
- The lower pan meters show the average difference in loudness between the channels. This gives you a visual indication of whether a stereo recording is properly centered, for example.
- If you are monitoring real-time audio (playback or input), the maximum balance difference values (peak and loudness) for each channel are displayed numerically to the left and right of the meter bars.

RELATED LINKS
Level/Pan Meter Settings Dialog on page 228

Level/Pan Meter Settings Dialog

In the **Level/Pan Meter Settings** dialog, you can adjust the behavior, scale, and color of the meters.

- To open the **Level/Pan Meter Settings** dialog, open the **Level Meter** window, and select **Functions** > **Settings**.

Peak Meter Section

Peaks pop-up menu

On this pop-up menu, select **Digital Peaks** if you want WaveLab Cast to use sample values and **True Peaks** if you want WaveLab Cast to use analog reconstructed values.

Ballistics – Release Rate

Determines how fast the peak level meter falls after a peak.

Ballistics – Peak Hold Time

Determines how long a peak value is displayed. The peak can be displayed as a line or a number. If the meter is too short, only the line is displayed.

Top Zone/Middle Zone/Low Zone

The color buttons allow you to select colors for the low, middle, and top zones of the level meter. You can define the range for the top and middle zones by changing the corresponding values.

VU Meter (Loudness) Section

VU Meter (Loudness)

Activates/Deactivates the VU meter.

Ballistics – Resolution

Sets the time that is used to determine the loudness. The smaller this value, the more the VU meter behaves like the peak meter.

Ballistics – Range Inertia

Sets the time that is used to determine the recent minimum and maximum value lines, and therefore determines how quickly these respond to changes in loudness.

Panning Meter Section

Panning Meter

Shows/Hides the panning meter in the **Level Meter** window.

Range

Determines the dB range of the panning meter.

Peak and Loudness Left/Right

Lets you specify the colors for the different elements.

Global Colors Section

In this section, you select colors for the meter background, marks (scale units), and grid lines.

Global Range (Peak and VU Meter) Section

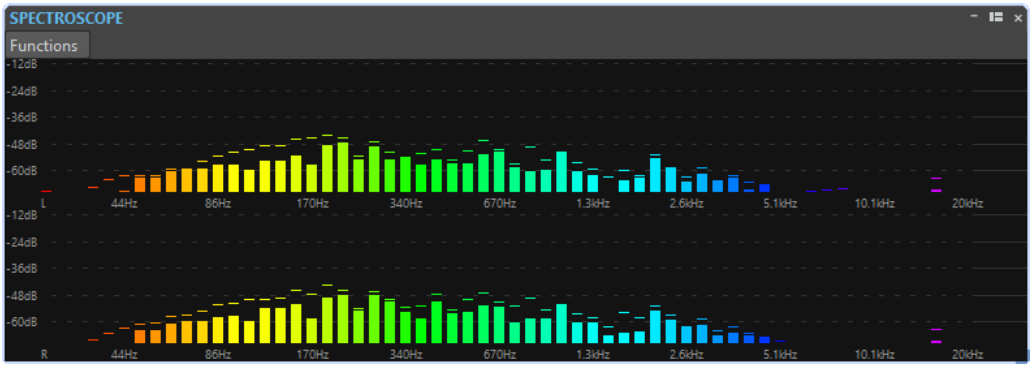
In this section, you specify the minimum and maximum values of the displayed level range.

RELATED LINKS
Level Meter on page 227

Spectroscope

The **Spectroscope** shows a graphical representation of the frequency spectrum, analyzed into 60 separate frequency bands, represented as vertical bars.

- To open the **Spectroscope**, select **Meters** > **Spectroscope**.



Peak levels are shown as horizontal lines above the corresponding bands, indicating recent peak/maximum values. The **Spectroscope** offers a quick spectrum overview. For a more detailed analysis of the audio spectrum, use the **Spectrometer**.

On the **Functions** menu, you can specify whether only high audio levels are displayed, or whether medium and low levels are also shown.

The following settings are available:

- **Restrict to High Audio Levels**
- **Include Medium Audio Levels**
- **Include Low Audio Levels**

Loops

Looping a sound allows you to repeat a section of the sample indefinitely in order to create a sustain of unlimited length. Instrumental sounds in samplers rely on looping organ sounds, for example.

In WaveLab Cast, loops are defined by the audio selection.

To ensure that you find a good loop point, note the following:

- A long loop usually sounds the most natural. However, if the sound does not have a stable section in the middle (an even sustain part), it might be hard to find a good long loop.

  For example, a piano note which decays continuously is hard to loop because the start point of the loop is louder than the end point. A flute is much simpler, because the sound in the sustain section is very stable.
- A loop should start shortly after the attack, that is, when the sound has stabilized to a sustaining note.
- If you set up a long loop, it should end as late as possible but before the sound starts decaying to silence.
- Short loops are difficult to position within the sound. Try to position them near the end.

NOTE

More information about looping in general, and the exact capabilities of your sampler in particular can be found in the manual of the sampler.

RELATED LINKS

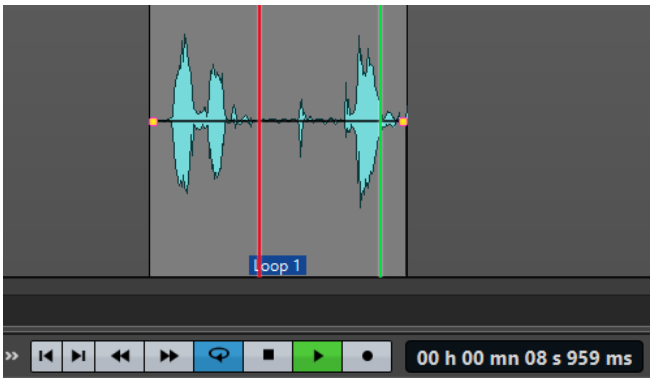
Creating Loops on page 231

Creating Loops

You can loop the audio selection and tweak the loop during playback.

PROCEDURE

1. In the **Audio Editor**, select the audio section that you want to loop.
2. On the transport bar, activate **Loop**.
3. Right-click **Play Audio Range** and activate **Region Between Marker Pairs**.
4. Right-click **Loop** and select how often you want the audio to loop in the **Loop Mode** menu. The following options are available:
   - **Play Continuously**
   - **Play Twice**
   - **Play 3 Times**
   - **Play 4 Times**
   - **Play 5 Times**
5. Play back the loop.



The audio selection is looped.

6. Optional: Adjust the left and right selection edges to tweak the loop.

Audio CD Import

You can read titles from regular CDs and save them as a digital copy in any audio format on your hard disk.

Although WaveLab Cast supports a large number of CD drives, there are some restrictions you need to be aware of:

- Observe and respect any copyright notices on the CDs from which you are importing audio.

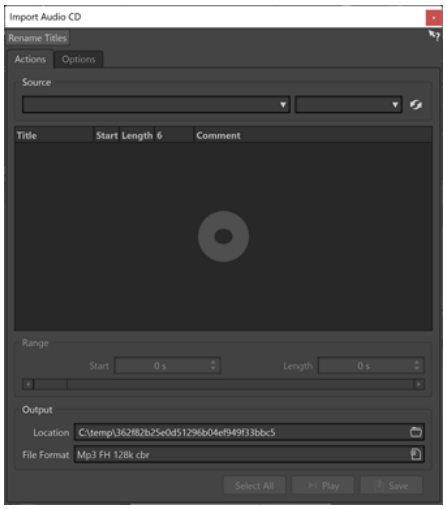
When importing titles, they are named “Title XX” by default, where XX is a number starting at 01. The numbering scheme can be changed.

RELATED LINKS
Importing Audio from an Audio CD on page 234

Import Audio CD Dialog

In this dialog, you can import one or multiple titles from an audio CD.

- To open the **Import Audio CD** dialog, select **File** > **Import**, and click **Audio CD**.



Rename Titles Menu

Name

Renames the titles according to the selected renaming scheme.

Actions Tab

Source

On Windows systems, select the CD drive from which you want to import audio. On macOS systems, select a file path.

Speed

Allows you to set the writing speed. The highest speed depends on your writing device and on the disc present in the device.

Refresh

If you insert a CD while the **Import Audio CD** dialog is open, you need to click this button to show the contents of that CD in the list.

Eject Optical Medium

Ejects the medium from the selected drive.

Title List

Shows the titles on the CD.

Range – Start/Length

If you want to import only a section of a title, use the **Start** and **Length** fields to define a start point and length.

Output – Location

Allows you to set the output location.

Output – File Format

Allows you to set the output file format.

Select All

Selects all titles in the list of titles.

Play

Plays back the selected title.

Options Tab

Trim Silence

If this option is activated, silence between imported titles is removed. Only digital silence is removed, that is, samples with a zero level.

Automatically Refresh on CD Change

If this option is activated, WaveLab Cast checks for the presence of a new CD in the drive several times a second. If a new CD is found, the title list display is refreshed.

RELATED LINKS
Audio CD Import on page 233

Importing Audio from an Audio CD

You can import audio from audio CDs into WaveLab Cast projects.

PROCEDURE

1. Insert a CD into the CD-ROM/CD-R device.
2. Select **File** > **Import**.
3. Click **Audio CD**.
4. In the **Import Audio CD** dialog, in the **Source** section, select the drive from which you want to read, and specify the read speed.
5. In the title list, select the titles that you want to import.
6. Optional: If you have only selected one file, in the **Range** section, you can define a **Start** and **Length**, to import just a part of the title.
7. In the **Output** section, click the folder icon, and select an output location.

You can also drag one or more titles onto an audio montage track.

8. In the **Output** section, click the file format field, and select a file format for the imported audio files.
9. Click **Save**.

RESULT

The titles are imported to the specified location.

RELATED LINKS

Import Audio CD Dialog on page 233

Video

WaveLab Cast allows you to add video files to your audio montage. You can play back video files in various formats from within WaveLab Cast, extract the audio from a video file, and edit your audio alongside the video.

RELATED LINKS
Video File Compatibility on page 240
Video Track on page 236
Video Window on page 240

Video Track

The video track in the audio montage allows you to add video files to your audio montage.

The imported video file is displayed as a clip on the video track. Thumbnails represent the frames in the film. The audio file that contains the audio for the video is positioned on a new audio montage track below the video track.

You can import multiple video files of different formats on the same video track. There can only be one video track per audio montage.



RELATED LINKS
Edit Audio Extracted from Video on page 237
Adding Video Tracks on page 236
Inserting Video Files into Existing Audio Montages on page 237
Importing Video Files into a New Audio Montage on page 237
Tracks on page 148

Adding Video Tracks

You can add one video track per audio montage.

PROCEDURE

- In the **Audio Montage** window, do one of the following:
  - Click **+** at the top of the track control area and select **Video Track**.

- Right-click the track control area to open the **Track** pop-up menu and select **Add Track** > **Video Track**.

RESULT

By default, the new track is added below the active track. If you want to place it above the active track, press **Ctrl/Cmd** when adding the new track.

RELATED LINKS

Track Control Area on page 133

Inserting Video Files into Existing Audio Montages

You can insert video files to your audio montage.

CHOICES

- In the **Audio Montage** window, select the **Insert** tab and click **Video File** in the **Import** section. Select the video file that you want to insert and click **Open**.

  The video track is automatically created.
- Drag the video file that you want to insert from the **File** window onto the video track.
- Drag the video file that you want to insert from the File Explorer/macOS Finder onto the video track.

RESULT

The video file is inserted into the audio montage.

RELATED LINKS

Adding Video Tracks on page 236
Importing Video Files into a New Audio Montage on page 237

Importing Video Files into a New Audio Montage

You can import video files as video clips into a new audio montage.

PROCEDURE

1. Select **File** > **Import** > **Video**.
2. Select the video file that you want to import and click **Import**.

RESULT

The imported video file is displayed as a clip on the video track. Thumbnails represent the frames in the film. The audio file that contains the audio for the video is placed on a new audio montage track below the video track.

Edit Audio Extracted from Video

You can edit the audio track of a video track. When you import a video file, its audio is extracted and placed on a new audio montage track below the video track.

After editing the audio from the video, you can render the audio montage to replace the original audio with the edited audio.

To find out which embedded audio formats are supported, refer to the Steinberg Support on the Steinberg web site.

RELATED LINKS
Replacing Audio in Video on page 238

Replacing Audio in Video

You can replace the audio track of a video with another audio file or an edited version of the original audio. You can replace the whole audio track or parts of it.

PREREQUISITE

You have added the video file that contains the audio to be replaced to your audio montage.

PROCEDURE

1. Do one of the following:
   - If you want to replace the audio of the video with an edited version of the original audio, edit the original audio file.
   - If you want to replace the original audio of the video with other audio, delete the audio on the original audio track and add the new audio.

   When you have finished editing the audio, you can render the audio montage to create a video with the new audio.
2. Select the video track.
3. On the **Edit** tab, click **Render**.
4. On the **Source** menu, select **Range of Active Video Clip**.
5. In the **Output** section, specify a **Name** and a **Location** for the rendered video file.

   NOTE

   The rendered video file keeps the file format of the original video. The video is not re-rendered, which means that there is no quality loss in this process.
6. In the **Options** section, do one of the following:
   - To create a copy of the original video with the edited audio, activate **Create Video with the Resulting Audio**.
   - To open the rendered video in a new audio montage, activate **Reimport Video in New Audio Montage**.
   - To open the rendered audio file of the video file in the **Audio Editor**, activate **Open Rendered Audio File**.
7. Click **Start**.

RELATED LINKS
Inserting Video Files into Existing Audio Montages on page 237
Importing Video Files into a New Audio Montage on page 237

Video Clip Editing

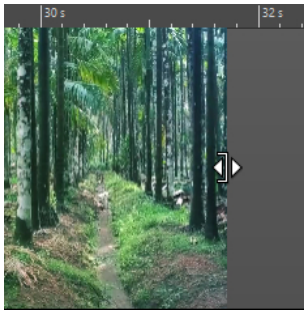
A video clip is created automatically when you import a video file to an audio montage.

NOTE

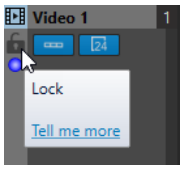
Before starting to edit and refine the audio of your video file, you should have finished editing your video with a dedicated video editor.

When working with video clips, you can make the following edits:

- To copy a video clip, click the upper area of a video clip and drag it to the new location.
- To trim the end of your video clip, click the end and drag to the left.



- To disable all editing for video clips, click **Lock** in the track control area for the video track.



- To edit the audio clip of your video clip, use the audio editing tools of WaveLab Cast.

RELATED LINKS
Video Track on page 236
Track Control Area for Video Tracks on page 135
Inserting Video Files into Existing Audio Montages on page 237
Importing Video Files into a New Audio Montage on page 237

Video Follows Edit Mode

The **Video Follows Edit Mode** allows you to edit audio while getting continuous visual feedback in the **Video** window.

- To activate **Video Follows Edit Mode**, select the **Edit** tab, and activate **Video Follows Edit Mode** in the **Clip** section.

If you activate **Video Follows Edit Mode**, the video in the **Video** window automatically follows each edit that you make. This allows you to instantly see where in the video your edit is taking place.

In **Video Follows Edit Mode**, the **Video** window gives you visual feedback. That is, the picture matches the edit cursor position. You get visual feedback during the following actions:

- Selecting ranges and adjusting range borders
- Moving audio clips
- Nudging audio clips

- Resizing audio clips or range selections
- Adjusting audio clip fade handles

RELATED LINKS
Video Window on page 240
Edit Tab (Audio Montage) on page 137

Video Window

If you import a video to your audio montage and start playback, the video plays back in the **Video** window. You can resize the **Video** window and undock it to place it on another screen, for example.

- To open the **Video** window, select **Tool Windows** > **Video**.

NOTE

For the best performance, undock the **Video** window and use it in an independent window.



RELATED LINKS
Video Track on page 236

Video File Compatibility

When working with video files in WaveLab Cast, you must make sure that the video file type is supported.

NOTE

If you are not able to play back a specific video file, use an external application to convert the file into a compatible format.

To find out what video files are supported, refer to the Help Center on the Steinberg web site.

RELATED LINKS
Video Container Formats on page 241

Video Codecs on page 241
Video Frame Rates on page 241

Video Container Formats

Video and other multimedia files come in a container format.

This container holds various streams of information including video and audio, but also metadata such as synchronization information required to play back audio and video together. Data regarding creation dates, authors, chapter markings, and more can also be held within the container format.

The following container formats are supported by WaveLab Cast:

MOV

This is a QuickTime movie.

MPEG-4

This format can contain various metadata for streaming, editing, local playback, and interchange of content. Its file extension is .mp4.

AVI

This is a multimedia container format introduced by Microsoft.

RELATED LINKS
Video File Compatibility on page 240
Video Codecs on page 241

Video Codecs

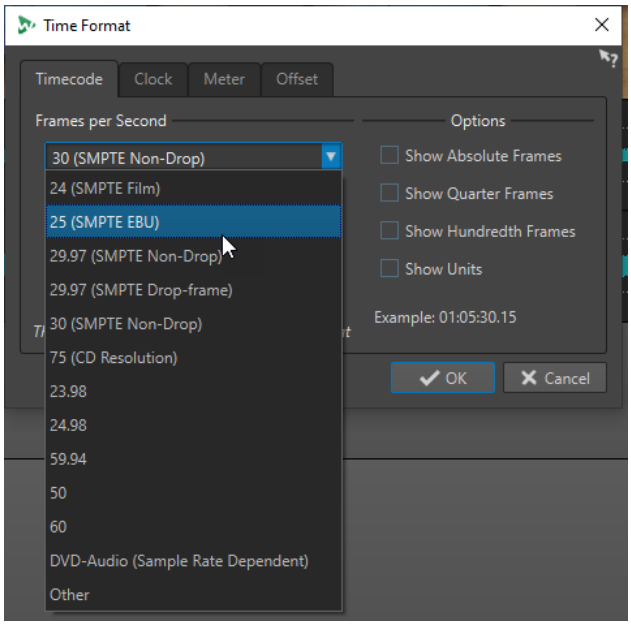
Codecs are methods of data compression used to make video and audio files smaller and more manageable for computers. For further details, refer to the Help Center on the Steinberg web site.

RELATED LINKS
Video File Compatibility on page 240
Video Container Formats on page 241

Video Frame Rates

WaveLab Cast supports different video and film frame rates. The video frame rate must match the audio montage frame rate.

WaveLab Cast automatically adopts to the frame rate of the imported video. You can also manually adjust the frame rate via the **Time Format** dialog.



The following frame rates are supported:

Frames Per Second

Regardless of the frame counting system, the actual speed at which frames of video go by in real time is the true frame rate.

WaveLab Cast supports the following frame rates:

23.98 fps

This frame rate is used for film that is being transferred to NTSC video and must be slowed down for a 2-3 pull-down telecine transfer. It is also used for the type of HD video referred to as 24 p.

24 fps

This is the true speed of standard film cameras.

24.98 fps

This frame rate is commonly used to facilitate transfers between PAL and NTSC video and film sources. It is mostly used to compensate for errors.

25 fps

This is the frame rate of PAL video.

29.97 fps/29.97 dfps

This is the frame rate of NTSC video. The count can be either non-drop or drop-frame.

30 fps/30 dfps

This frame rate is not a video standard anymore but has been commonly used in music recording. It used to be the black and white NTSC broadcast standard. It is equal to NTSC video being pulled up to film speed after a 2-3 telecine transfer. The count can be either non-drop or drop-frame.

50 fps

This rate is also referred to as 50 p.

59.94 fps

This video frame rate is supported by high definition cameras and is compatible with NTSC.

60 fps

This video frame rate is supported by many high-definition cameras. However, the NTSC compatible 59.94 fps frame rate is much more common.

IMPORTANT

Video formats with a variable frame rate (VFR) are not supported.

RELATED LINKS

Time Format Dialog on page 44

Podcast Creation

A Podcast is an episodic series that consists of audio files. Users can stream or download Podcasts to their device and listen to it. WaveLab Cast with its audio editing tools and effects allows you to create Podcast episodes and upload these episodes to various host services.

You can use the **Audio Editor** and the **Audio Montage** window to create a Podcast episode. Each audio file or audio montage in WaveLab Cast can be uploaded as a Podcast episode.

RELATED LINKS
Podcast Host Services on page 244
Uploading a Podcast Episode on page 245

Podcast Host Services

Podcast host services allow you to host and distribute Podcasts. WaveLab Cast allows you to directly upload your Podcast to various host services.

Supported Host Services

WaveLab Cast supports direct upload to the following host services:

- Spreaker
- Podbean
- SoundCloud
- Buzzsprout
- Castos
- Blubrry
- Captivate

Host Service Authorization

To connect WaveLab Cast with a host service, you must authorize the connection between WaveLab Cast and the host service.

The authorization process depends on the selected host service.

RELATED LINKS
Uploading a Podcast Episode on page 245

File Encoding before Uploading to Host Services

If the audio file or audio montage that you want to upload to a host service is a non-encoded audio file, you can encode the audio file. Some host services only accept encoded audio files. Encoded audio file formats are MP3, MP4, M4A, or MP2, for example.

The **Master Section** plug-ins and settings are taken into account when you render an audio file or audio montage.

Depending on the selected audio file or audio montage, the following applies:

- If the active audio file that you want to upload uses an encoded format, the **Encode Audio File** option is deactivated. Encoding already encoded audio files can lead to quality loss.
- If the active audio files uses a non-encoded format, the **Encode Audio File** option is available but not mandatory. However, depending on the host service it can be necessary to encode the audio file.
- Audio montages must be rendered before you can upload them to a host service. If the active file is an audio montage, you must use the **Encode Audio File** option to render the audio montage.

If the active audio file or audio montage has been saved, the encoded file is saved in the same directory, with the same name, and its proper file extension.

If the active audio file or audio montage has not been saved, a dialog opens and allows you to select a directory and a file name for the rendered file.

RELATED LINKS
Uploading a Podcast Episode on page 245

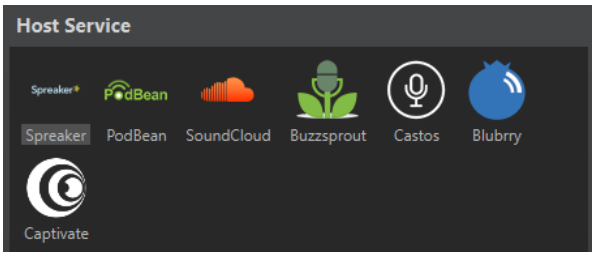
Uploading a Podcast Episode

You can upload the audio that you have created in the **Audio Editor** or in the **Audio Montage** window as a Podcast episode.

PREREQUISITE

You have created an audio file or an audio montage.

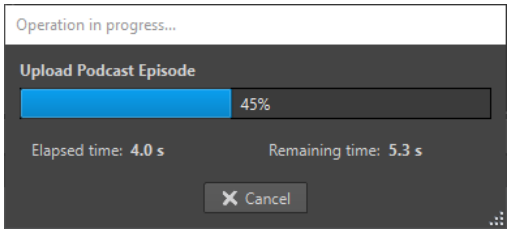
PROCEDURE

1. In the **Audio Editor** or **Audio Montage** window, select the **Edit** tab.
2. In the **Podcast** section, click **Upload Episode**.
   The **Publish** tab opens.
3. In the **Host Service** section, select the host service to which you want to upload the episode.
   

4. Click **Authorize** to allow WaveLab Cast to access the selected host service.
   Your default Internet browser opens the authorization website of the selected host service.
5. Follow the instructions in your browser to complete the authorization.
6. In WaveLab Cast, select the **Podcast** to which you want to add the Podcast episode.
7. Specify a **Title** for the Podcast episode.
8. Depending on the selected host service, it can be necessary to encode the audio file or audio montage. If you want to encode the audio file, activate **Encode Audio File** and select a new encoder.
9. Click **Upload**.

RESULT

The audio file or audio montage is rendered and uploaded to the selected host service.



RELATED LINKS

Publish Tab on page 246
File Encoding before Uploading to Host Services on page 244

Publish Tab

The **Publish** tab allows you to select the host service to which you want to upload your Podcast episode. You can select different host services and select the encoder for the audio file that you want to upload.

- To open the **Publish** tab, select the **File** tab and select **Podcast** > **Publish**.

Host Service

Allows you to select the host service to which you want to upload your Podcast episode.

Authorize

Allows you to allow WaveLab Cast to access the selected host service.

If you click **Authorize**, your default Internet browser opens the authorization website of the selected host service.

Episode

- **Encode Audio File** allows you to encode the audio file to another audio file format.

  NOTE

  If you have selected an MP3 file for upload, the **Encode Audio File** option is deactivated. However, if you add effects to the MP3 file via the **Master Section**, the **Encode Audio File** option is available.

- **Podcast** allows you to select the Podcast to which you want to add the Podcast episode.
- **Refresh Available Podcasts** allows you to refresh the Podcast list that is retrieved from your Spreaker account.
- **Title** allows you to enter a title for the Podcast episode.

Upload

Allows you to upload the audio file to the selected host service.

RELATED LINKS

Podcast Creation on page 244
Uploading a Podcast Episode on page 245

Customizing

Customizing means making settings so that the program behaves and looks the way that you want it to.

RELATED LINKS
Customizing Shortcuts on page 247
Plug-in Organization on page 251
Touch Bar (macOS only) on page 254

Customizing Shortcuts

In WaveLab Cast, you can control many functions via shortcuts to speed up your workflow. You can edit existing shortcuts and create new shortcuts.

Most shortcuts are restricted to a specific editor, which means that you can reuse the same shortcut combination in different editors. The exception is the **Master Section** where all shortcuts are global to the application.

The shortcuts in the **Navigation (Numeric Pad)** and **View and Navigation** sections on the **Shortcuts** tab are dedicated to navigating through WaveLab Cast.

Shortcuts that cannot be edited are grayed out. The shortcuts that you created are displayed in blue in the editor.

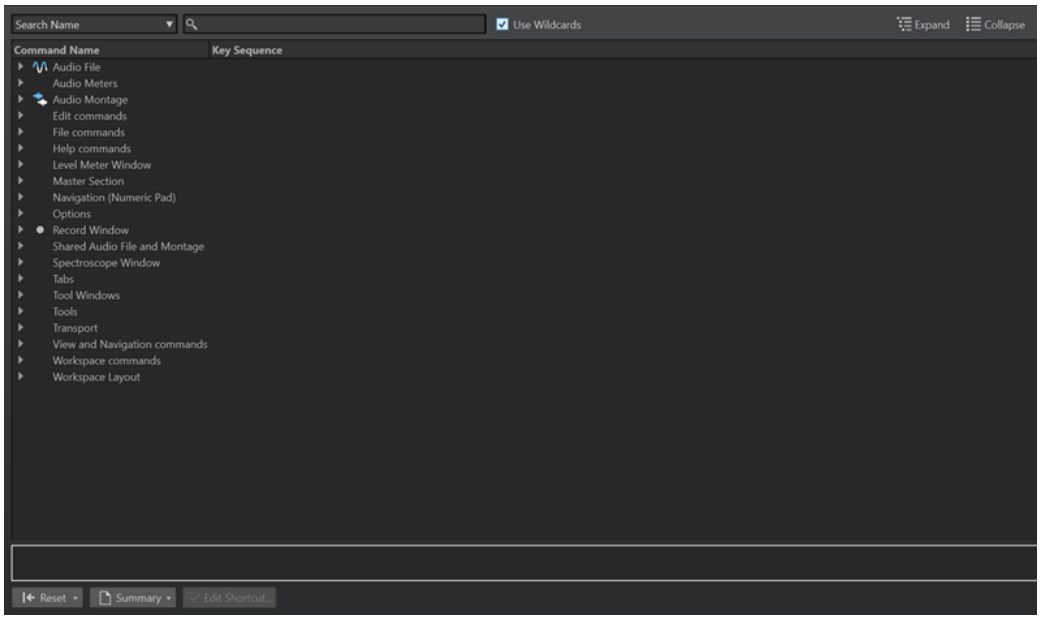
You can create a new shortcut by specifying a key sequence of up to four keys that must be pressed in a specific order to invoke the operation.

RELATED LINKS
Shortcuts Tab (Preferences) on page 247

Shortcuts Tab (Preferences)

This tab allows you to customize your own shortcuts for WaveLab Cast. It shows a list of the assigned shortcuts for WaveLab Cast commands and menu options.

- To open the **Shortcuts** tab, select **File** > **Preferences** > **Shortcuts**.



Search pop-up menu

Allows you to select the part of the commands list in which the search is performed.

Search field

Allows you to search for a command.

Use Wildcards

If this option is activated, the wildcard characters "*" and "?" can be used.

"*" substitutes zero or more characters, and "?" substitutes a single character.

For example, if **Search Keyboard Shortcut** is selected, type "*" to display all commands that are already associated with a shortcut.

Expand/Collapse

Expands/Collapses the folder tree.

Commands list

Shows all commands and their shortcuts. The section below the commands list shows additional information for the selected command.

Reset

Resets the commands to the factory settings.

Summary

Opens a menu from which you can generate a list of all commands and their shortcuts, either in HTML or as a printout.

Edit Shortcut

Opens the **Shortcut Definitions** dialog where you can edit the shortcuts for the selected command.

RELATED LINKS
Customizing Shortcuts on page 247
Editing Shortcuts on page 249

Editing Shortcuts

You can see the list of all shortcuts in the **Shortcuts** tab, and edit and define shortcuts on the **Shortcut Definitions** dialog.

The **Shortcuts** tab provides a different command set for each menu or dialog.

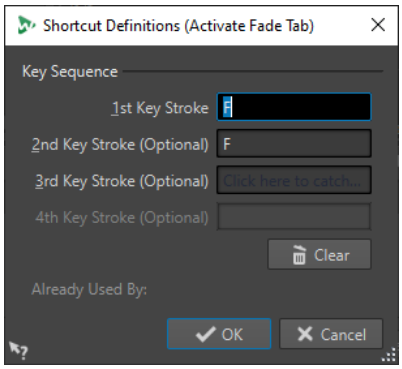
- To open the **Shortcut Definitions** dialog, select **File** > **Preferences** > **Shortcuts**, select a command, and click **Edit Shortcut**. This opens the **Shortcut Definitions** dialog.
- You can define one key shortcut per command. Each shortcut can be a sequence of up to four keystrokes.
- To reset some or all types of shortcuts to their factory default use the **Reset** button.

RELATED LINKS
Shortcuts Tab (Preferences) on page 247
Shortcut Definitions Dialog on page 249

Shortcut Definitions Dialog

This dialog allows you to define your own customized shortcuts for a particular function.

- To open the **Shortcut Definitions** dialog, select **File** > **Preferences** > **Shortcuts**, select a command, and click **Edit Shortcut**.



Key Sequence

1st Key Stroke

Lets you select the first key of a sequence that can consist of up to four keys. Set the focus to the key stroke field, then press the key combination. If nothing is displayed, a key is not allowed in this context.

2nd/3rd/4th Key Stroke (optional)

Lets you select additional keys that must be used to execute the command. The command is only executed if this key event happens after the first/second/third one.

Clear

Erases all key event fields.

RELATED LINKS
Editing Shortcuts on page 249
Shortcuts Tab (Preferences) on page 247

Defining Key Sequences

You can define key sequences for a keyboard.

On a Mac, commands for the main menus must consist of a single key command.

When using multiple key stroke commands, make sure that the key commands do not interfere with each other. For example, when you have one shortcut **Shift** - **L**, **M** and define another to be **Shift** - **L**, this second shortcut has no effect.

PROCEDURE

1. Select **File** > **Preferences** > **Shortcuts**.
2. In the commands list, select the command for which you want to define a key sequence, and click **Edit Shortcut**, or double-click the **Key Sequence** column of the corresponding command.
3. In the **Shortcut Definitions** dialog, click in the **Key Stroke** fields and press the buttons that you want to use as the key sequence.
4. Click **OK**.

RESULT

When you now press the keys/buttons specified in the dialog, the corresponding operation is performed. The key strokes must be executed one after the other.

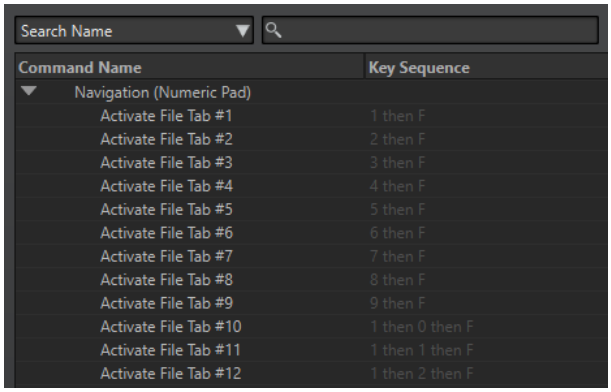
RELATED LINKS

Shortcuts Tab (Preferences) on page 247
Shortcut Definitions Dialog on page 249

Indexed Key Commands

Indexed key commands allow you to quickly jump to specific locations in your project, for example, to a specific marker or **Master Section** slot.

The available indexed key commands are listed on the **Shortcuts** tab, in the **Navigation (Numeric Pad)** section.



- To trigger an index key command, type the number of the item that you want to jump to and press the corresponding key on your keyboard.

EXAMPLE

If you want to jump to the 5th marker in your file window, press **5** on the numeric pad of your keyboard and then press **M**.

If you want to jump to the 10th file tab, press **1** then **0** on the numeric pad of your keyboard and then press **F**.

RELATED LINKS
Shortcuts Tab (Preferences) on page 247

Generating a List of All Shortcuts

You can generate an HTML file or print a list that contains all shortcuts.

PROCEDURE

1. Select **File** > **Preferences** > **Shortcuts**.
2. Click **Summary**, and select one of the following options:
   - To open the **Print Preview** dialog, from which you can print out the list of all shortcuts, select **Print Preview**. For **Print Preview** to be available, a printer must be connected.
   - To open the list of all shortcuts in the HTML file format in the standard browser, select **HTML Report**.

RELATED LINKS
Shortcuts Tab (Preferences) on page 247

Plug-in Organization

WaveLab Cast comes with various plug-ins. You can exclude plug-ins from opening in WaveLab Cast and add additional plug-ins.

RELATED LINKS
Plug-ins Tab (Preferences) on page 252
Adding Additional VST Plug-ins on page 251
Excluding Plug-ins on page 252

Adding Additional VST Plug-ins

You can specify folders where additional VST plug-ins can be found. This is useful if you are using third-party VST plug-ins that you do not want to save in the standard VST folder.

PROCEDURE

1. Select **File** > **Preferences** > **Plug-ins**.
2. In the **Additional VST Plug-in Folder (**WaveLab Cast **Specific)** section, click the folder icon, and navigate to the folder that contains the VST plug-ins that you want to add.

RELATED LINKS
Plug-ins Tab (Preferences) on page 252

Excluding Plug-ins

You can specify a list of plug-ins that WaveLab Cast does not open.

PROCEDURE

1. Select **File** > **Preferences** > **Plug-ins**.
2. In the **Do Not Load the Following Plug-ins** section, type in the name of the plug-in that you do not want to open:
   - Enter the exact file name, without path and without file extension.
   - Enter one name per line.
   - If you put "*" in front of the name, any plug-in that contains the name is ignored.

RELATED LINKS
Plug-ins Tab (Preferences) on page 252

Plug-ins Tab (Preferences)

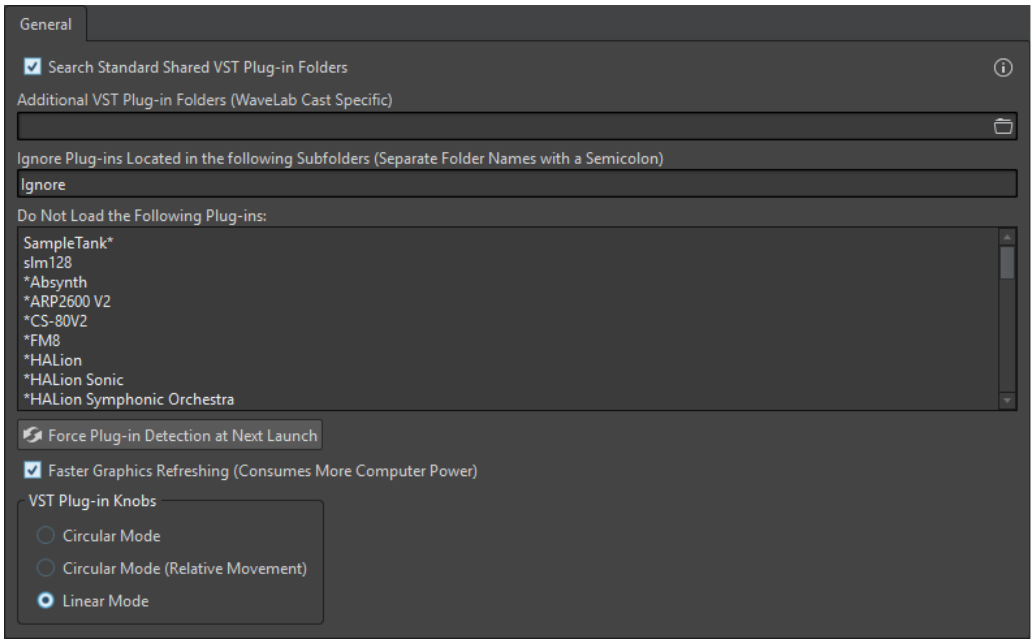
On this tab, you can access a number of options for managing your VST plug-ins.

You can specify where WaveLab Cast should search for your VST plug-ins and which ones it should ignore. It also allows you to choose how your VST plug-in controls respond to mouse actions and how frequently graphics are updated.

If you use your own file structure to organize and save VST plug-ins, this dialog allows you to gain full control over which plug-ins are loaded and which are ignored. This is useful if you want to deactivate a particular plug-in or if you want to ignore plug-ins that you never want to use with WaveLab Cast.

- To open the **Plug-ins Preferences**, select **File** > **Preferences** > **Plug-ins**.

General Tab

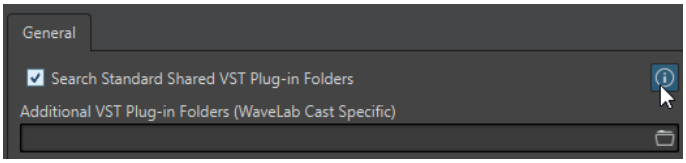


Search Standard Shared VST Plug-in Folders

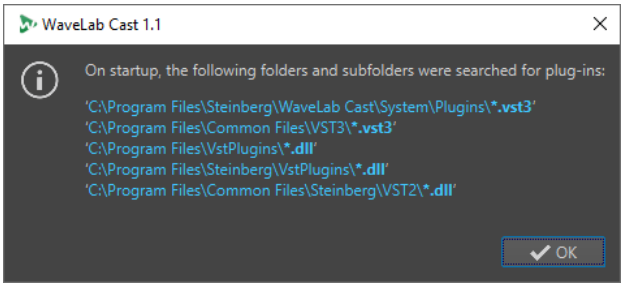
If this option is activated, WaveLab Cast searches for VST plug-ins in the default VST plug-in folders.

Information About the Searched Folders

Click on the info icon to see in which folders WaveLab Cast searched for plug-ins when it was launched.



If you cannot find a plug-in in WaveLab Cast, this helps you to determine whether you have specified the correct folder, for example.



Additional VST Plug-in Folders (WaveLab Cast Specific)

Lets you specify additional folders where VST plug-ins can be found.

Ignore Plug-ins Located in the following Subfolders (Separate Folder Names with a Semicolon)

Lets you specify folder names that WaveLab Cast skips when searching for VST plug-ins.

Do Not Load the Following Plug-ins

Lets you specify plug-ins that WaveLab Cast does not open. Enter the file names, without path and without file extension. Write each plug-in on a new line.

If you put the character * in front of the name, any plug-in that contains the name is ignored.

Force Plug-in Detection at Next Launch

Analyzes the plug-ins when launching WaveLab Cast the next time. To reduce the start time of WaveLab Cast, the plug-ins are not analyzed every time WaveLab Cast is started. However, WaveLab Cast keeps a list of plug-ins and updates this automatically when a date or size change is detected.

Ignore Updated Plug-ins When Performing Plug-in Detection

If this option is activated, WaveLab Cast does not check if the properties of updated plug-ins have changed. If you have plug-ins that are updated often, this option speeds up the WaveLab Cast startup.

However, some manufacturers combine multiple plug-ins within a single file. If you know that some plug-ins were added by the manufacturer but do not appear in WaveLab Cast, deactivate this option and restart WaveLab Cast. Afterwards, you can activate this option again.

Faster Graphics Refreshing (Consumes More Computer Power)

Refreshes the graphics of VST plug-ins more quickly.

VST Plug-in Knobs

Lets you set the mode for using knobs in plug-ins. The available options are **Circular Mode**, **Circular Mode (Relative Movement)**, and **Linear Mode**.

Touch Bar (macOS only)

The Touch Bar at the top of your keyboard gives you shortcuts to the WaveLab Cast functions. The Touch Bar changes automatically based on where you are in WaveLab Cast and offers a subset of the available options. You can customize the Touch Bar according to your needs.

NOTE

The Touch Bar is only available on certain Apple products.

RELATED LINKS

Customizing the Touch Bar (macOS only) on page 254

Customizing the Touch Bar (macOS only)

You can customize the Touch Bar in the Touch Bar customization window.

CHOICES

- To open the Touch Bar customization window, select **WaveLab Cast** > **Customize Touch Bar**.
- To add an option to the Touch Bar, use your cursor to drag your favorite options from the customization window down into the Touch Bar.

  When you are done, tap **Done** in the Touch Bar or click **Done** on the screen.
- To rearrange options within the Touch Bar, drag them to the left or right.
- To remove options from the Touch Bar, drag them up and out of the Touch Bar.

RELATED LINKS

Touch Bar (macOS only) on page 254

Configuring WaveLab Cast

You can configure WaveLab Cast according to your needs.

NOTE

The settings that you make in the preferences are applied when you switch to another WaveLab Cast window.

Global Preferences

Global Preferences are preferences that apply throughout WaveLab Cast. Before you start working with WaveLab Cast, it is recommended to edit these preferences according to your needs.

- To open the **Global Preferences**, select **File** > **Preferences** > **Global**.

RELATED LINKS
General Tab (Global Preferences) on page 255
Display Tab (Global Preferences) on page 255
Audio Tab (Global Preferences) on page 256
Formats Tab (Global Preferences) on page 257
Options Tab (Global Preferences) on page 258

General Tab (Global Preferences)

This tab allows you to change the user interface language. You must restart the application for changes to take effect.

- To open the **General** tab of the **Global Preferences**, select **File** > **Preferences** > **Global** and click **General**.

RELATED LINKS
Global Preferences on page 255

Display Tab (Global Preferences)

This tab allows you to change many aspects of the user interface that apply across the whole application. These options provide information and usability functions but can be deactivated to streamline the interface.

- To open the **Display** tab of the **Global Preferences**, select **File** > **Preferences** > **Global** and click **Display**.

Style

Theme

Allows you to switch between the WaveLab Cast color schemes.

Miscellaneous Options

Show Application in High DPI (Windows only)

If this option is activated and your display supports high resolution, WaveLab Cast is displayed in high resolution. If your display does not support high resolution, this option will be ignored.

NOTE

Plug-in windows are not displayed in high-resolution. If plug-in windows appear too small, deactivate **Show Application in High DPI**.

Restrict Scaling to Multiples of 100

If this option is activated, only scaling factors that are multiples of 100 are supported. For example, if you use a scaling factor of 150 %, in WaveLab Cast, the scaling used is 200 %.

If this option is deactivated, intermediate ratios such as 150 % are possible.

Use the System File Selector to Open Files

If this option is activated, the standard file selector opens when you select **Save As**.

Open Quick File Selector When Saving Files

If this option is activated and you save a file via the save shortcut, a dialog opens instead of the **File** tab.

Hide Unused Ribbon Tabs

If this option is activated, unused ribbon tabs are hidden.

Show WaveLab Cast Logo on Startup

Determines whether the WaveLab Cast logo is displayed during initialization.

Show Tooltips

If this option is activated, tooltips are displayed when you move the mouse cursor over markers or command bar buttons.

Hide Top Level Windows When the Application Is Not Active (Windows only)

If this option is activated, all floating windows are automatically hidden when another application becomes active. If this option is deactivated, floating windows remain on top of other application windows.

History

Maximum Number of Items in Recent File Menus

Sets the maximum number of files that are listed in recent file menus.

RELATED LINKS
Global Preferences on page 255

Audio Tab (Global Preferences)

This tab allows you to change audio preferences like the processing precision.

- To open the **Audio** tab of the **Global Preferences**, select **File** > **Preferences** > **Global** and click **Audio**.

Processing Precision

Plug-in Processing allows you to select the processing precision for plug-ins.

- If you select **64 bit float** and a plug-in is capable of processing 64-bit samples, processing takes place in lossless 64 bit.

  If a plug-in is only capable of handling 32-bit samples, WaveLab Cast converts all 64-bit float samples to 32-bit float before sending them to the plug-in. After the plug-in processing is completed, WaveLab Cast converts the 32-bit float samples back to 64-bit float without loss.
- If you select **32 bit float**, WaveLab Cast converts all 64-bit float samples to 32-bit float before sending them to the plug-in. After the plug-in processing is completed, WaveLab Cast converts the 32-bit float samples back to 64-bit float without loss.

In the plug-in menus, the “32F” and “64F” indicators next to the plug-in name show whether a plug-in is capable of 32-bit float or 64-bit float.

NOTE

Processing in 64-bit float means double precision but slightly longer process time than 32-bit float.

Temporary Files allows you to select the precision of temporary files that WaveLab Cast creates when processing audio.

By default, WaveLab Cast creates temporary files in 32-bit float. Use **64 bit float** if you want to create 64-bit float audio files or 32-bit PCM files.

NOTE

Temporary files in 64-bit float have double precision but take longer to read and write than 32-bit float and their file size is twice as big.

RELATED LINKS
Temporary Files on page 54
Global Preferences on page 255

Formats Tab (Global Preferences)

This tab allows you to adjust settings for some of the audio formats and units that WaveLab Cast uses.

- To open the **Formats** tab of the **Global Preferences**, select **File** > **Preferences** > **Global** and click **Formats**.

Formats

Use AES17 Standard for RMS Values

Determines how RMS values are reported.

- If this option is activated, the displayed level for a full scale sine audio file is 0 dB. This follows the AES17 standard.
- If this option is deactivated, the displayed level for a full scale sine audio file is -3 dB.

Pitch of A3 (Used in Frequency To Note Conversions)

Sets the reference pitch in WaveLab Cast. The frequency-to-note conversions take this pitch into account.

Create Windows-Compatible File Names (macOS only)

Some characters in file names, for example, | and \, are not supported by Windows. If this option is activated and you save a file, WaveLab Cast converts unsupported characters to characters that are supported by Windows.

RELATED LINKS
Global Preferences on page 255

Options Tab (Global Preferences)

This tab allows you to reset the default message boxes.

- To open the **Options** tab of the **Global Preferences**, select **File** > **Preferences** > **Global** and click **Options**.

Reset Default Answers

Resets all message box options to their default settings. For example, all **Do not show again** options are deactivated.

RELATED LINKS
Global Preferences on page 255

Audio Files Preferences

This dialog allows you to define settings for editing in the **Audio Editor**. However, these settings also affect other parts of WaveLab Cast. You can choose defaults for editing and playback, adjust the visual appearance of the waveform displays, and determine how WaveLab Cast works with audio and peak files.

- To open the **Audio Files Preferences** tab, select **File** > **Preferences** > **Audio Files**.

Support RF64 File Format

If this option is activated, WaveLab Cast creates WAV files that can be larger than 2 GB.

NOTE

This file format is not supported by all applications.

Write Markers in WAV File Header (RIFF Format/BWF Format)

If this option is activated, markers are written in WAV file headers. Thus, the markers are always available even if you open the files in another application.

If **Write Markers in WAV File Header (RIFF Format)** is activated, markers are written in WAV file headers in the RIFF standard. However, WaveLab Cast has more marker options than the RIFF standard.

If **Write Markers in WAV File Header (BWF Format)** is activated, markers are written in WAV file headers in the BWF standard. This standard replaces the older RIFF standard. However, not all applications support the BWF standard.

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