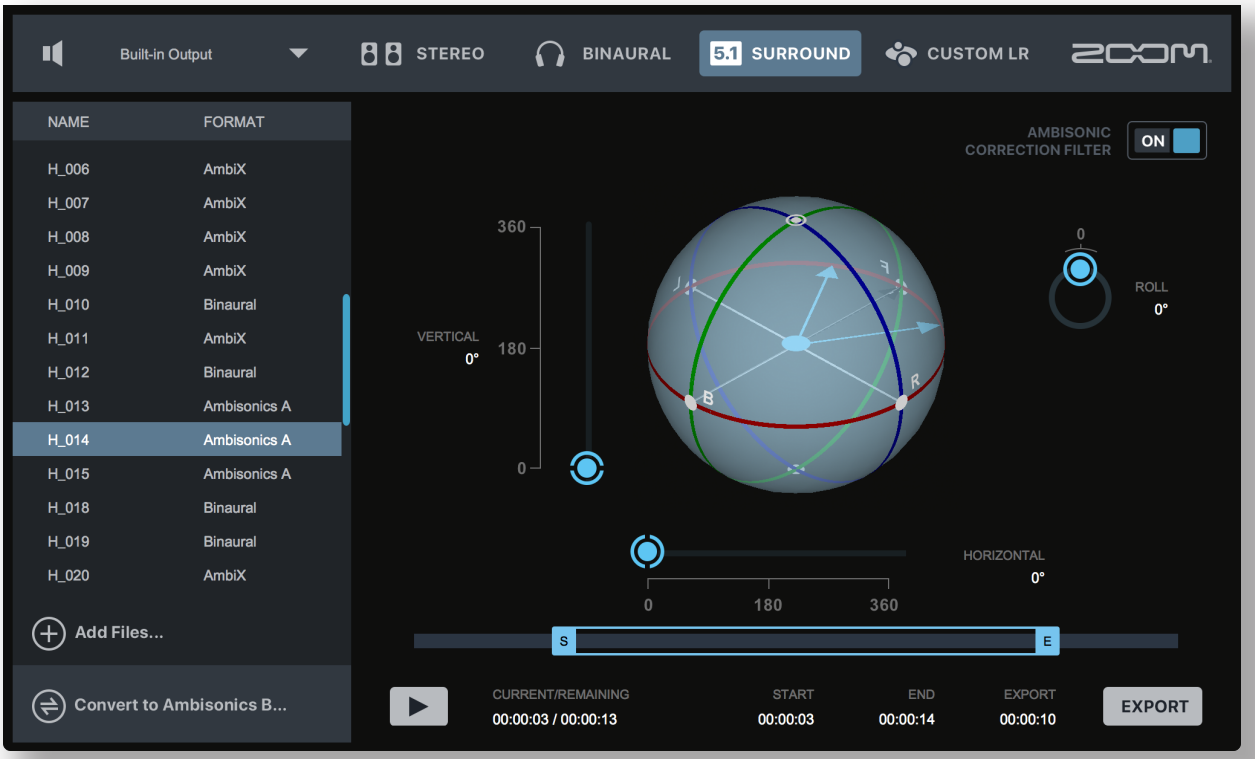
ZOOM Ambisonics Player

Version 1.0

Operation Manual



This document cannot be displayed properly on black-and-white displays.

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Introduction

The ZOOM Ambisonics Player software allows you to play Ambisonics audio files and convert them to normal stereo, binaural stereo, custom stereo (you can choose two specific points within the 360 degree spatial audio), and 5.1 ch surround audio files.

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Install/Launch the ZOOM Ambisonics Player

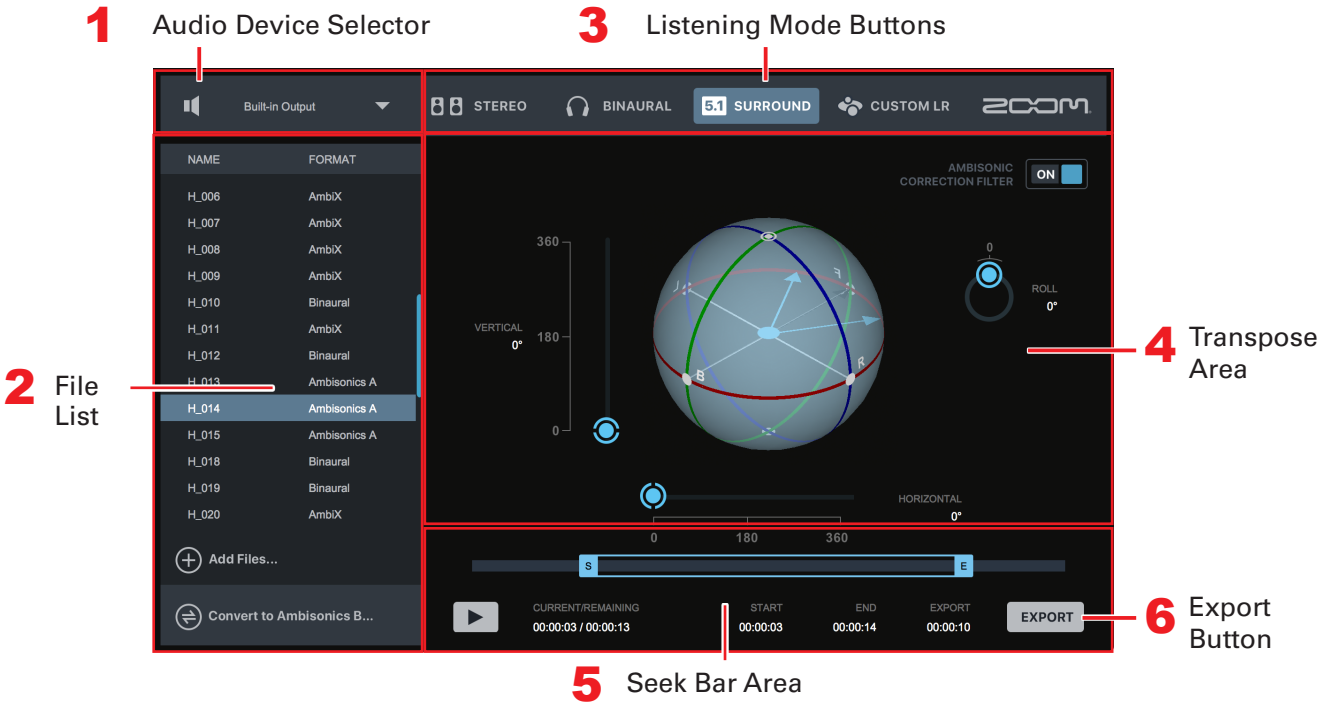
1. **Download the ZOOM Ambisonics Player from the ZOOM web site.**
   http://www.zoom.co.jp/downloads/

2. **Install the ZOOM Ambisonics Player.**
   Follow the instruction guide to install the application.

3. **Launch the ZOOM Ambisonics Player.**
   Click or double click the application icon to launch it.



Operation Screen Overview



1. **Audio Device Selector - Click to select which audio device to use.**

2. **File List - Displays the audio files that you have added to the application.**

3. **Listen Mode Buttons - Click to set the mode of the audio you want to listen and convert to.**

4. **Transpose Area - Move the sliders to adjust the listening position.**

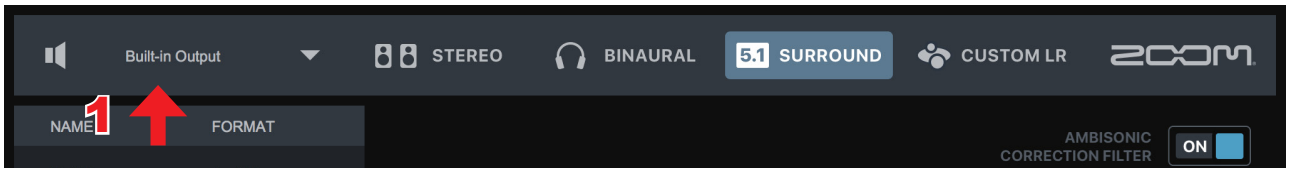
5. **Seek Bar Area - Control playback, adjust the start and end points to trim the audio file.**

6. **Export Button - Click to export the converted audio file.**

Select the Output Device

Audio Device Selector

The Audio Output Device List lets you quickly choose which device to playback your Ambisonics Audio. The current playback device is listed in the toolbar.

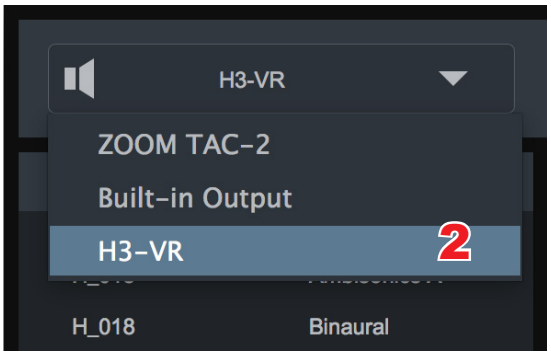


To set the audio output device:

1. **Click the Audio Device Selector.**

2. **Choose the audio device to be used by the application.**

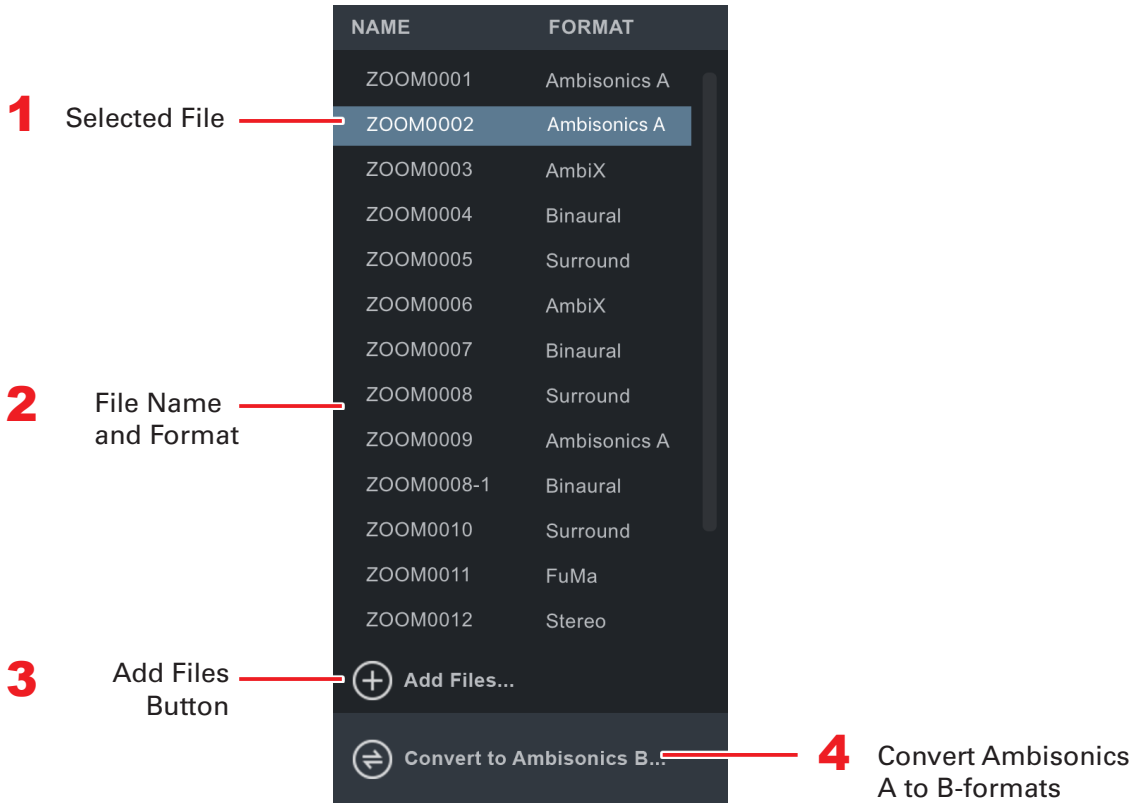
3. **The selected device is displayed in the toolbar.**





File List

The File List is where you can add files you want to listen to and or convert in the application. You can also re-order files, remove them, get info, and convert from Ambisonics A to B.



1. Selected File - When you select a file, it appears in the Transpose and Seek Bar Areas. Only one file can be selected at a time.

2. File name and format - Files that have been added to the ZOOM Ambisonics Player are displayed by File Name (no extenstion) and their format. Supported formats include: Normal or Binaural Stereo, 5.1 Ch surround, Ambisonics A, Ambisonics B (AmbiX or FuMa)

3. Add Files Button - Click this button to add compatible files you want to play/edit in the ZOOM Ambisonics Player.

4. Convert Ambisonics A to B - When an Ambisonics A file is selected, you can click this button to convert the file to the Ambisonics B-Format (FuMa, or AmbiX).

Adding Files

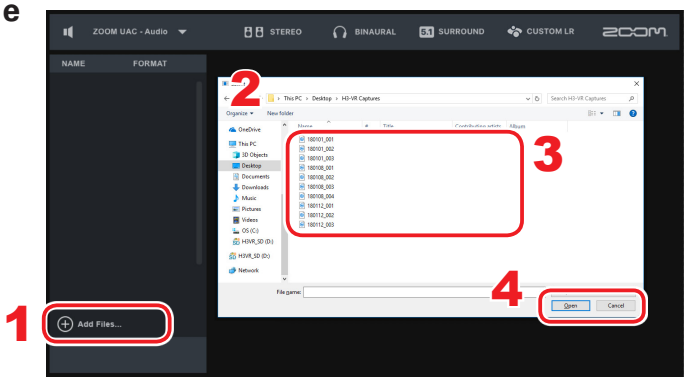
1. **Click** Add Files... **in the File List.**

2. **The Add Files dialog appears**

3. **Select the files to add**

4. **Click OPEN.**

   The files are added to the end of the file list





HINT

You may also drag and drop files from the operating system into the application and they will appear in the File List.

NOTE

When you “add” a file to the File List, the actual file remains in its original location on the computer’s hard drive and a reference to it is created inside the application. If you move or delete the file, the application won’t be able to find or open it.

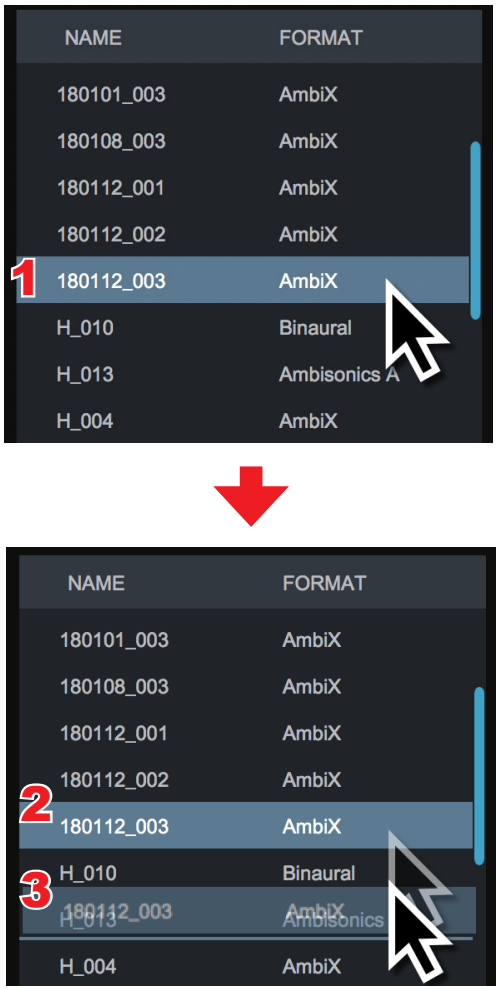
Reordering Files

You can reorder the files in the File List by dragging and dropping them in any order.

1. **Click any file in the list.**

2. **While holding the mouse button down, drag the file up or down.**

3. **When the insert line is in the desired location, release the mouse.**

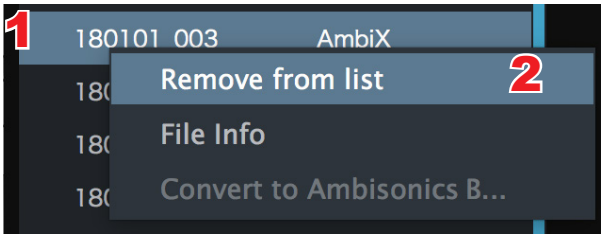


Removing a File

1. **Right-click the file you wish to remove.**

The File List Context menu appears

2. **Choose "Remove from List."**



NOTE

Removing a file does NOT delete it from the computer hard drive.

Converting an Ambisonics A File to Ambisonics B

You can convert an Ambisonics A File to Ambisonics B FuMa or Ambisonics B AmbiX formats.

1. **Select any Ambisonics A file in the File List.**

2. **Click** Convert to Ambisonics B... **or right click the file and choose "Convert to Ambisonics B" from the File List Context menu.**



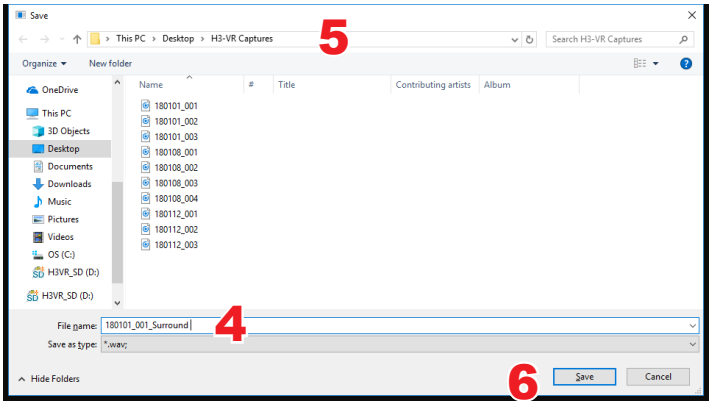
3. **Choose FuMa or AmbiX and Click OK.**

4. **Enter or edit the file name**



5. **Choose a location**

6. **Click Save.**



NOTE

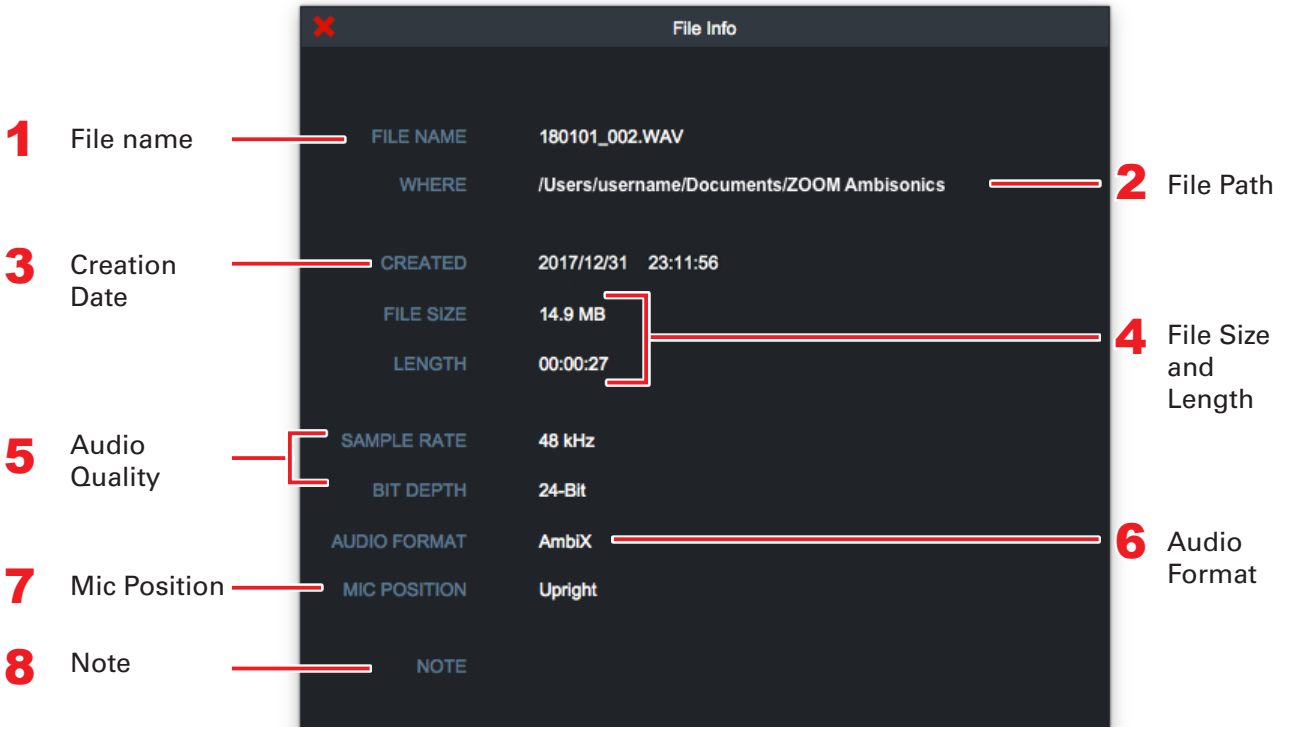
When the file is converted, it is not added to the File List automatically.

HINT

You can also convert it by right clicking and choosing "Convert to Ambisonics B..."

File Info

Detailed information about a file is avalable from the File List Context Menu:



1. **File Name - Displays the file name.**

2. **Where - Displays the file's location on the computer.**

3. **Creation Date - Displays the date and time the file was created.**

4. **File Size and Length - Displays the file's size in KB, MB or GB and the length of the file in hours, minutes and seconds.**

5. **Audio Quality - Displays the Sample Rate and Bit Depth.**

6. **Audio Format - Displays the Audio Format (Ambisonics A, AmbiX, FuMa, Stereo, Binaural, 5.1 ch).**

7. **Mic Position - Displays the orientation of the Micrphone during the recording (Auto, Upright, Upside Down, Endfire, Endfire Invert)**

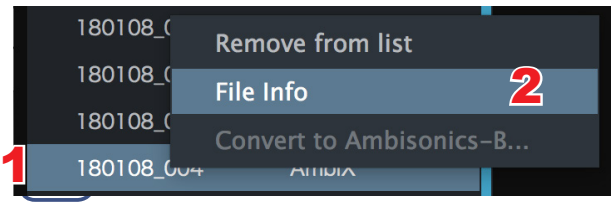
8. **Note - Displays any comments added from the device.**

Getting File Info

The application can provide detailed information about the files you have added to it. To view this information:

1. Right click any file.

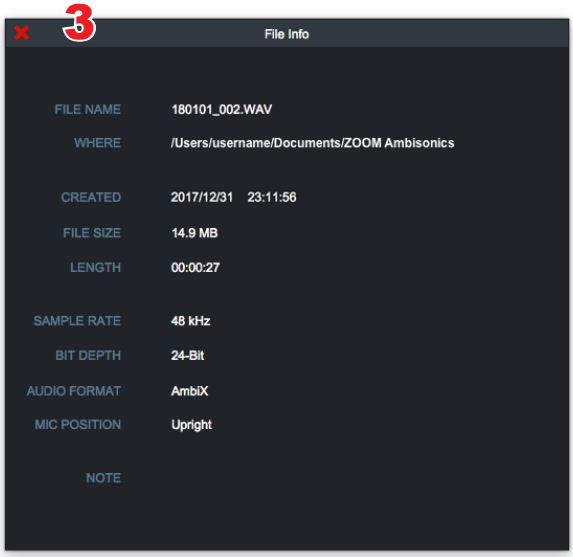
The File List Context menu appears.



2. Choose "File Info".

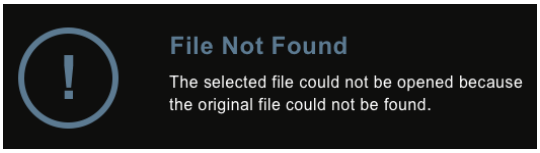
The File Info page is displayed. The info is read only.

3. Click the ✖ to close the File Info page.



Missing Files

If a file in the File List has been moved or deleted it from its original location, the application won't be able to open the file when it is selected and a message will be displayed.



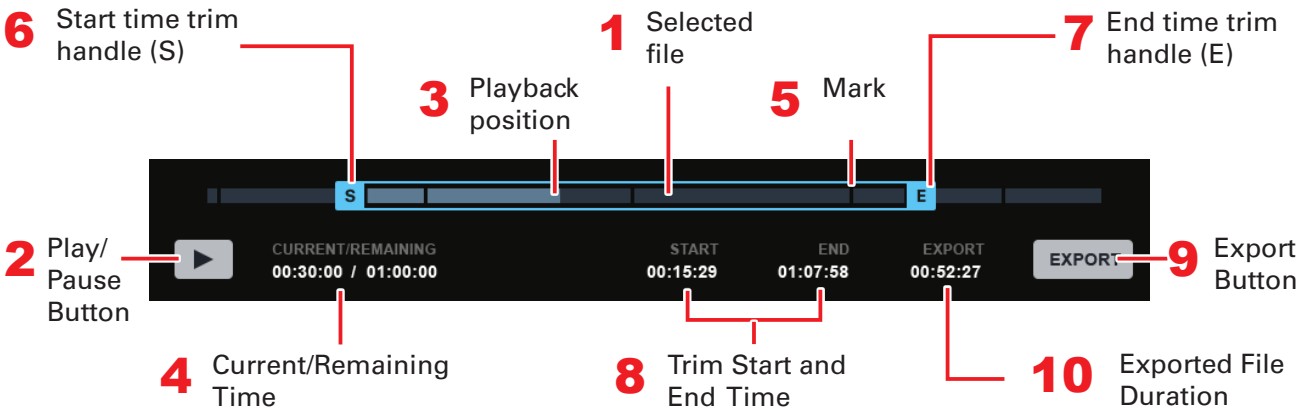
Suggestions:

1. If the file was located on an external drive, try reconnected it and selecting it again.

2. Remove the file from the File List and re-add it from its new location.

Playing, Triming and Exporting Files

Seek Bar Area Overview



1. **Selected File - The selected file is represented by a dark gray rectangle.**

2. **Play/Pause Button - Click to start playing the file. Click again to pause playback.**

3. **Playback Position - Indicates playback position. Click along the file or click and drag to control where playback will start from.**

4. **Current/Remaining time - Displays the playback time and time remaining before end of audio file.**

5. **Mark - Marks created during recording from the device are displayed to help you navigate.**

6. **Start Time Trim Handle - Slide left and right to trim the start time. Audio to the left of the start time (S) will not be included in playback or exported.**

7. **End Time Trim Handle - Slide left or right to trim the end time. Audio to the right of the end time (E) will not be included in playback or exported.**

8. **Trim Start and End Time - Displays trim start and end times in hh:mm:ss**

9. **Export Button - Click to export the edited file.**

10. **Exported File Duration - Displays the length of the edited file.**

Play/Pause File

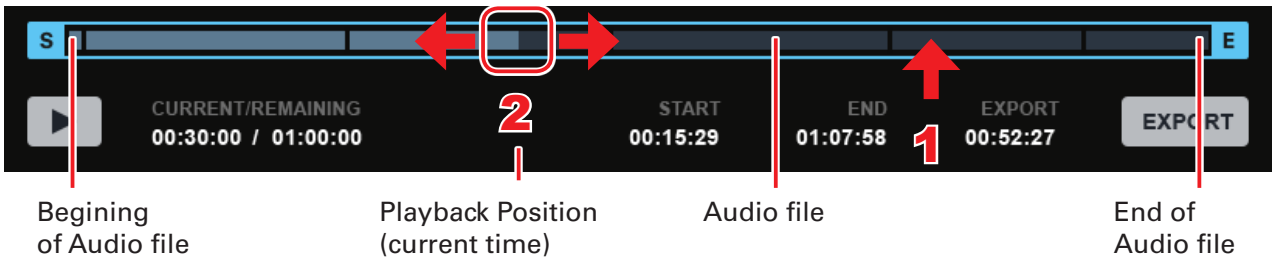


Play/Pause Button

To start and pause playback:

1. **Select any file in the File List.**
2. **Click one of the listening mode buttons.**
3. **Click ▶ to play the file.**
4. **Click ⏸ to pause playback.**

Adjust Playback Position



Begining of Audio file

Playback Position (current time)

Audio file

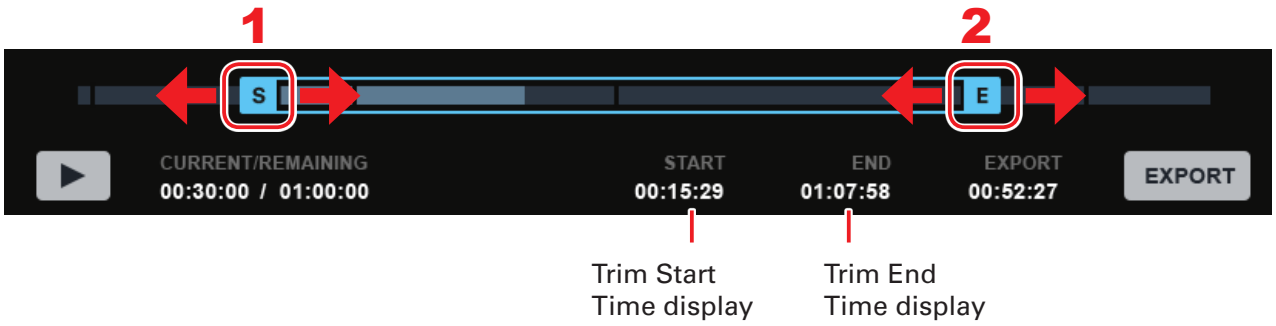
End of Audio file

The audio file is represented by a bar. The playback position indicator shows the current playback position within the audio file. It updates during playback. To change the playback position:

1. **Click along the audio file.**
2. **Click the right edge of the playback position indicator and drag left or right.**

   The current time updates to show you exactly where you are.

Trim the start and end time of the audio



You can remove unwanted audio using the trim tools:

1. **Click the**  **and drag it left or right to adjust the start time.**

2. **Click the**  **and drag it left or right to adjust the end time.**

   The audio between the start and end trim handles will be included during export.

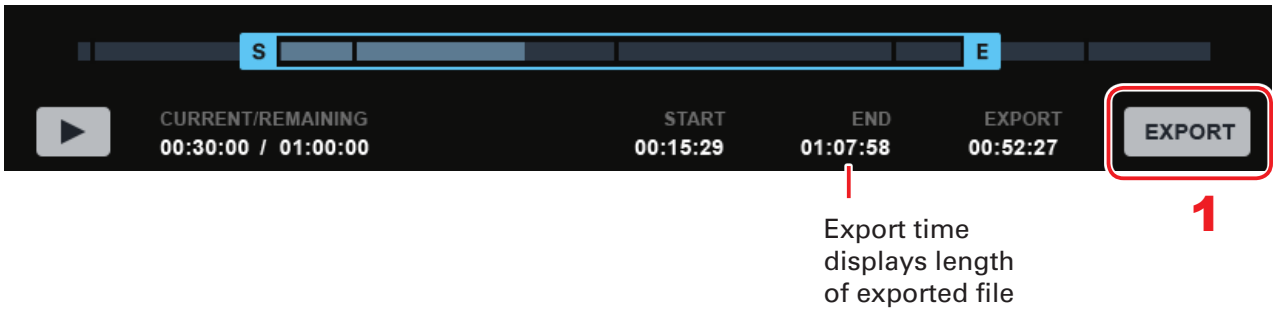
NOTE

Selecting a different file from the file list will discard any trim adjustments.

Exporting Audio

After you have adjusted the listening mode, listening position and the start and end time of the audio file, you can export the results:

1. Click the EXPORT button.

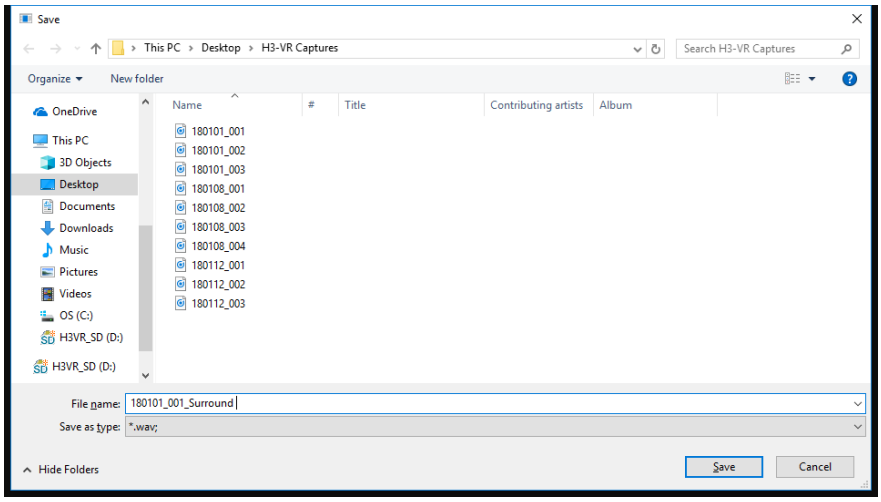


2. The Save Dialog appears. Choose where you would like to save the exported file.

The default location is set in Preferences.

3. Choose a file name.

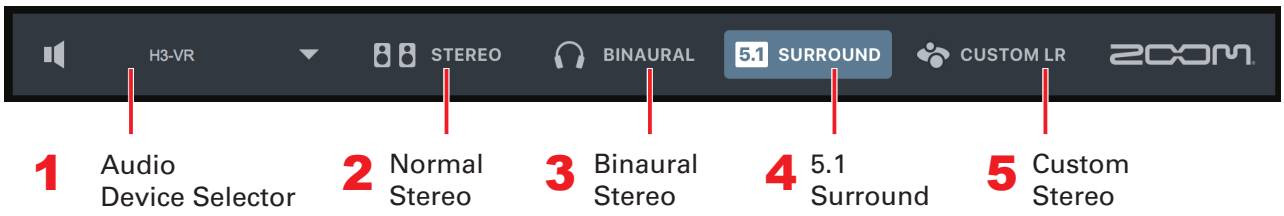
4. Click Save.



Play Convert and Edit Ambisonics Audio

Listening Mode

Select the audio format you want to listen to and convert to by clicking one of the Listen Mode buttons.



1. **Audio Device Selector - Click this menu to choose the playback device.**

2. **Normal Stereo - Converts and Ambisonics A or B to Normal Stereo.**

3. **Binaural Stereo - Converts Ambisonics A or B to Binaural Stereo.**

4. **5.1 Surround - Converts Ambisonics A or B to 5.1 Surround.**

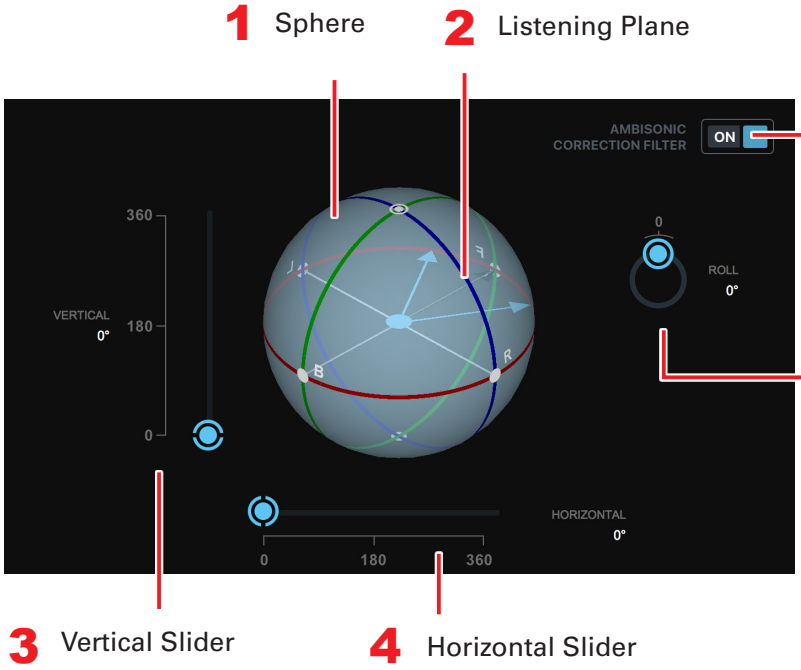
5. **Custom Stereo - Converts Ambisonics A or B to Stereo, but you can set the left and right listening positions to any location in the 360 degree sound field.**

NOTE

The ZOOM Ambisonics Player allows you to convert from Ambisonics A or B to any of the above formats. If you select any other format (Stereo, Binaural, 5.1 Surround), you cannot convert to another format.

Transpose Area

You can adjust the listening position of the selected file by adjusting the vertical, horizontal and roll sliders:



1. Sphere - Displays the sound field and the listening position.

2. Listening Plane - Displays the speaker locations (blue arrows) in relation to the sound field.

3. Vertical Slider - Adjusts the listening position up or down (Green line).

4. Horizontal Slider - Adjusts the listening position left or right (Red line).

5. Roll Slider - Adjusts the listening position from side to side (Blue line).

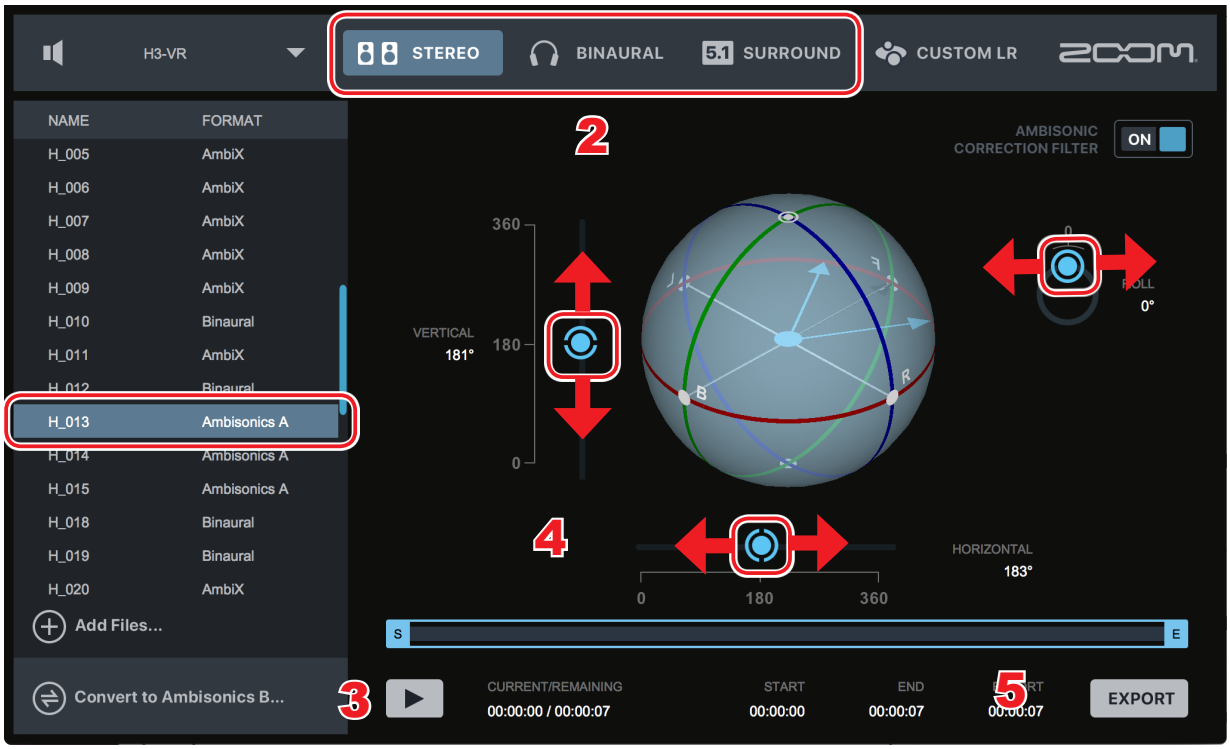
6. Ambisonic Correction Filter - Enable it to improve spatial accuracy.

NOTE

The Ambisonic Correction Filter is also used on Ambisonic format recording on the F8. It is recommended to turn it OFF for Ambisonic files recorded on the F8.

Convert Ambisonics to Stereo, Binaural, 5.1 Surround

The steps and tools to convert Ambisonics A/B to Stereo, Binaural and 5.1 Surround and nearly identical:



1. **Select an Ambisonics A/B file type from the File List.**
2. **Click one of the following listening mode buttons:**

   STEREO for Normal Stereo

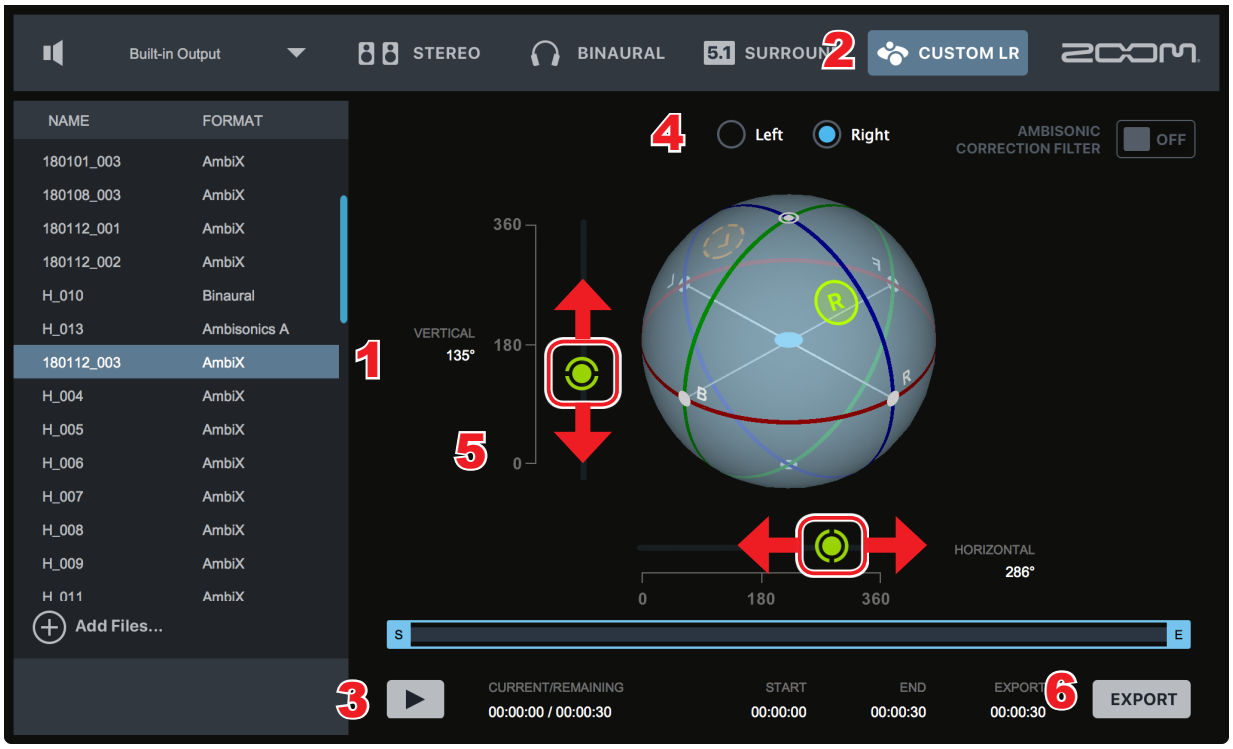
   BINAURAL for Binaural Stereo

   5.1 SURROUND for 5.1 Surround

3. **Click ▶ to preview the file.**
4. **Adjust the listener's position by clicking and dragging the Vertical, Horizontal and Roll sliders.**
5. **Click EXPORT to save the converted file.**

Convert Ambisonics to Custom LR

In the Custom LR mode, you can select any two points on the sphere as your listening positions. Select the left or right point and use the Vertical and Horizontal sliders to move the point along the sphere surface.



1. Select an Ambisonics A/B file type from the File List.

2. Click the CUSTOM LR listening mode button.

3. Click ▶ to preview the file.

4. Click the Left Right to select the Left or Right Listening Points.

The listening point changes from a dotted to a solid line when selected. The vertical, horizontal change color (= Left channel, = Right channel) to indicate which point they are controlling.

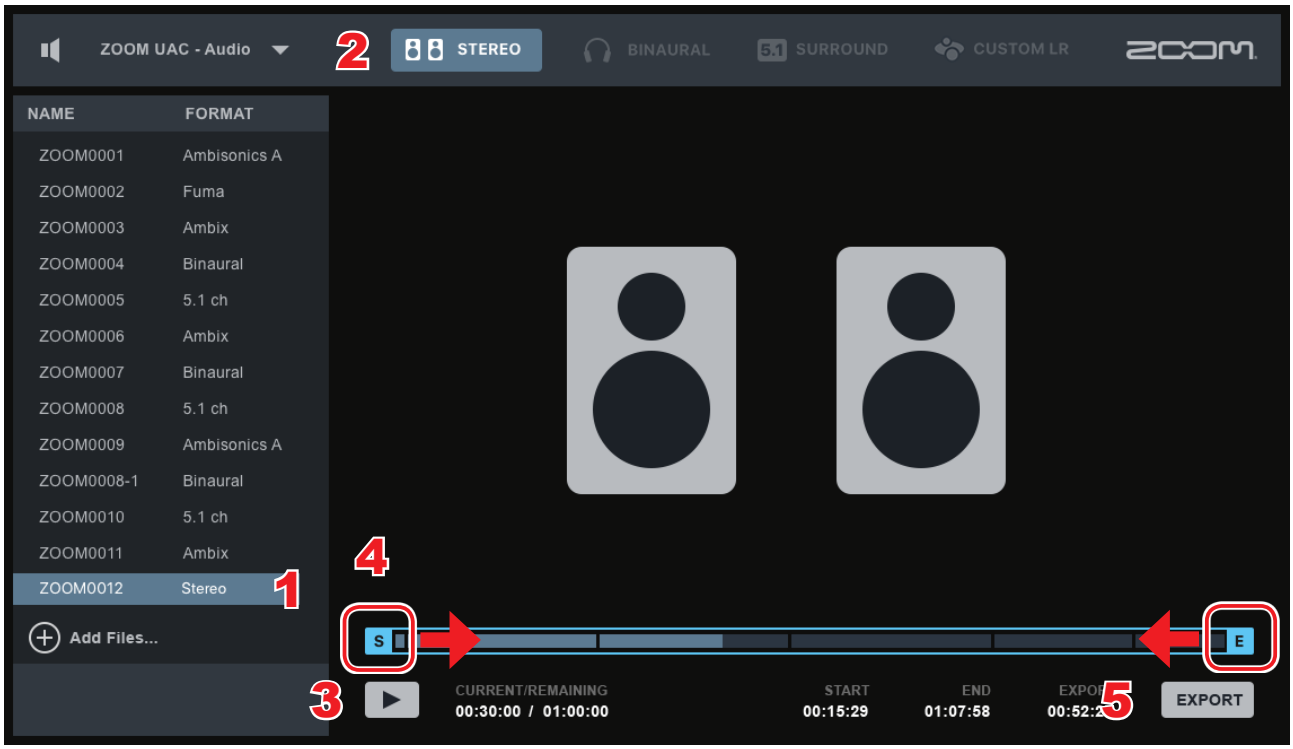
5. You can move the listening position by adjusting the Vertical and Horizontal Sliders:

6. Click EXPORT to save the converted file.

Play and Edit other Audio

When you select a Normal Stereo, Binaural Stereo or 5.1 Surround audio file, you can play, trim and export it, but you can't convert it to another file type.

Play and Edit Stereo Audio



1. **Select a Normal Stereo file from the File List.**

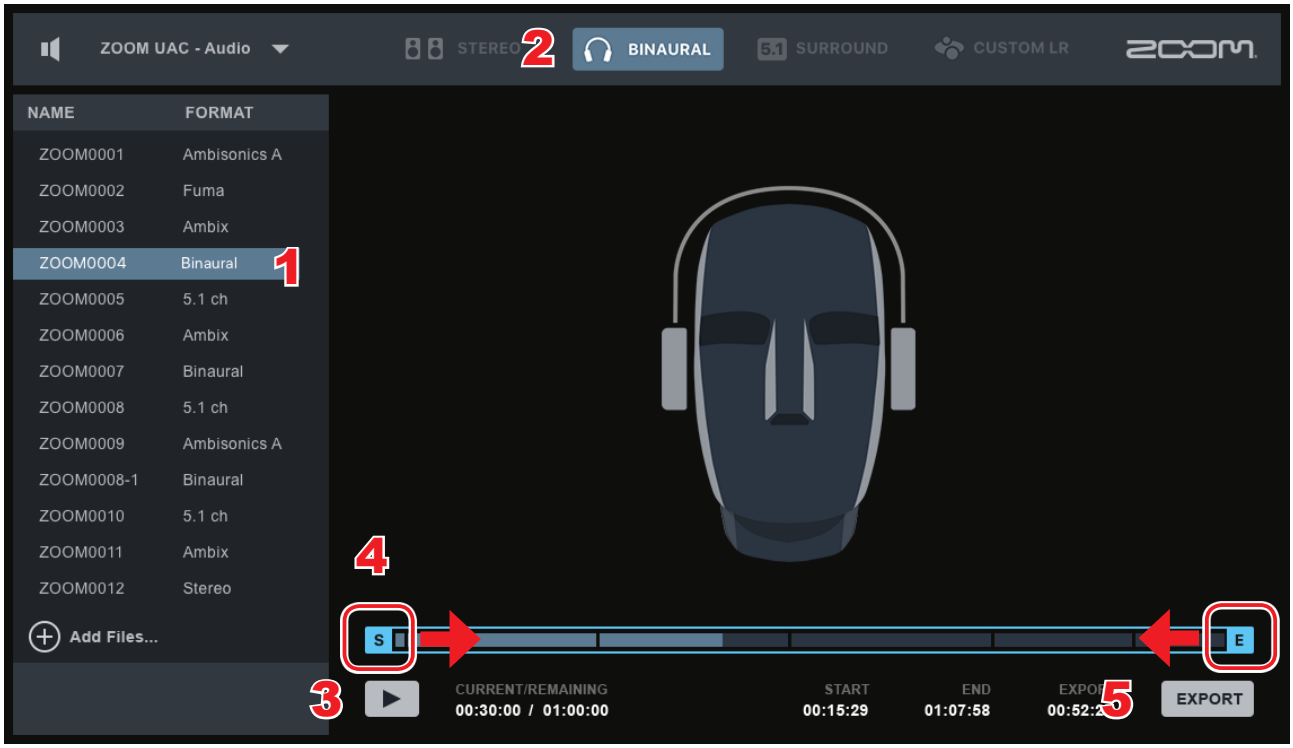
2. **The STEREO listening mode button is selected.**
   Other formats are disabled.

3. **Click ▶ to preview the file.**

4. **Trim the start and end times by dragging the S and the E trim handles.**

5. **Click EXPORT to save the converted file.**

Play and Edit Binaural Stereo Audio



1. **Select a Binaural Stereo file from the File List.**

2. **The BINAURAL listening mode button is selected.**

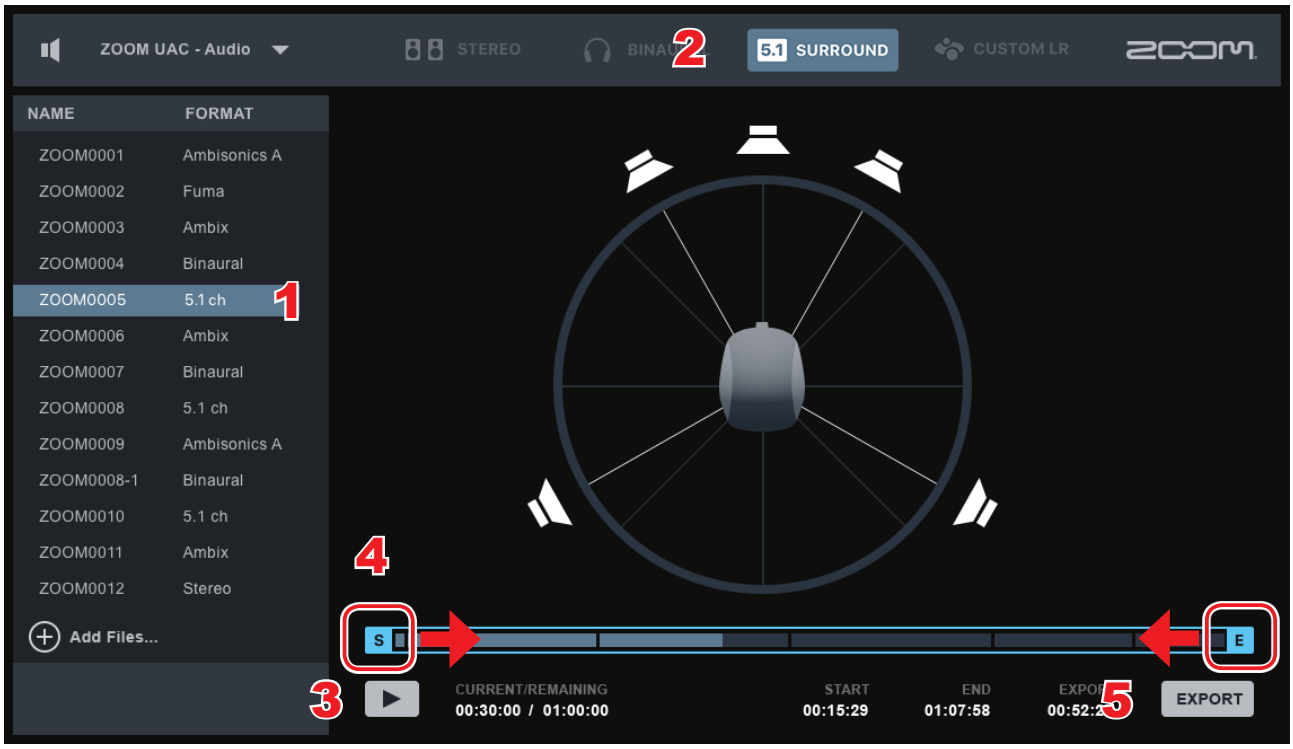
   Other formats are disabled.

3. **Click ▶ to preview the file.**

4. **Trim the start and end times by dragging the S and the E trim handles.**

5. **Click EXPORT to save the converted file.**

Play and Edit 5.1 Surround Audio



1. **Select a 5.1 Surround file from the File List.**

2. **The 5.1 SURROUND listening mode button is selected.**

   Other formats are disabled.

3. **Click ▶ to preview the file.**

4. **Trim the start and end times by dragging the S and the E trim handles.**

5. **Click EXPORT to save the converted file.**

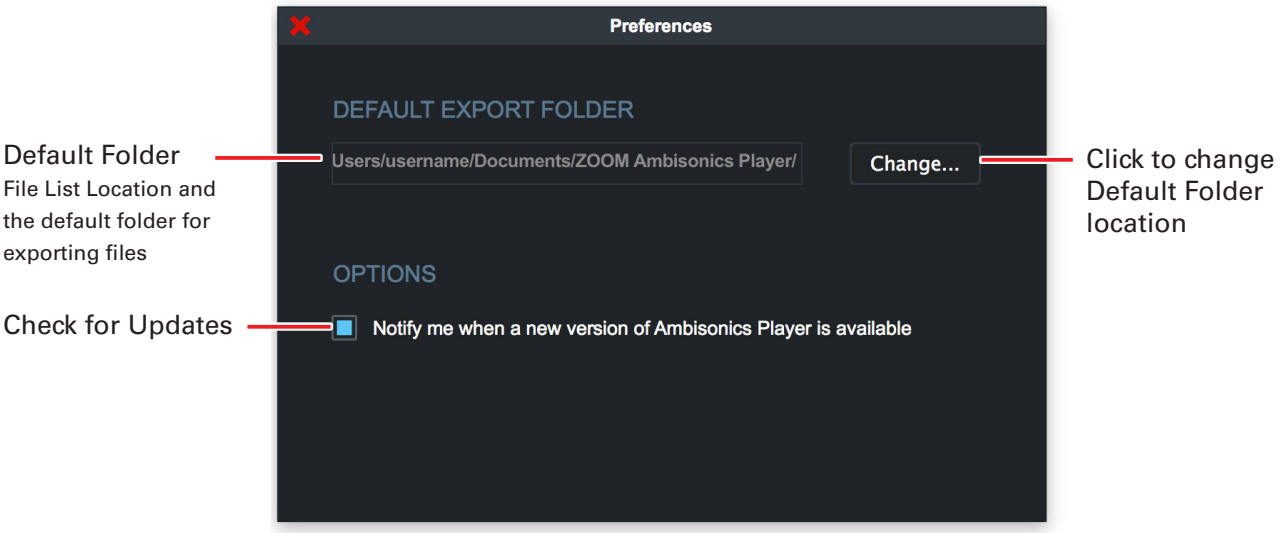
Application Menu

Preferences

You can access the Preferences from the application menu.

On Windows, select Edit | Preferences.

On Mac, select the ZOOM Ambisonics Player Menu | Preferences.



About

You can access the About Page from the application menu.

On Windows, select Help | About.

On Mac, select the ZOOM Ambisonics Player Menu | About.

HINT

You can check the application version from this page.

Help

You can access the Help from the application menu.

On Windows, select Help | ZOOM Ambisonics Player Help

On Mac, select Help | ZOOM Ambisonics Player Help.

The documentation page will be displayed in your web browser.

Appendix

Keyboard Shortcuts

Tasks		Windows	Mac
Menus	Close the Application	Ctrl + Q	Cmd + Q
	Open Preferences	Ctrl + ,	Cmd + ,
File List	File Info	Ctrl + I	Cmd + I
	Select previous file	↑	▲
	Select next file	↓	▼
	Remove file from list	Delete	Delete
Seek Bar	Start playback	Space	Space
	Pause playback	Space	Space
	Rewind to beginning	Enter	Enter

Set up Surround Sound Playback on Windows

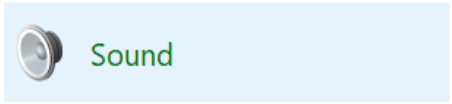
1. Connect the Audio Device to the Computer via HDMI

You can playback discrete 5.1 channel audio on an HDMI compatible AV pre-amp/ processor, Receiver or other device using HDMI. Please review the user guide for your AV device for more information.

NOTE

It's not possible to reproduce discrete 5.1 channel audio using the Optical or Coaxial connection.

2. Click Control panel |Sound to open it.



3. Click the audio output device in the list to select it.

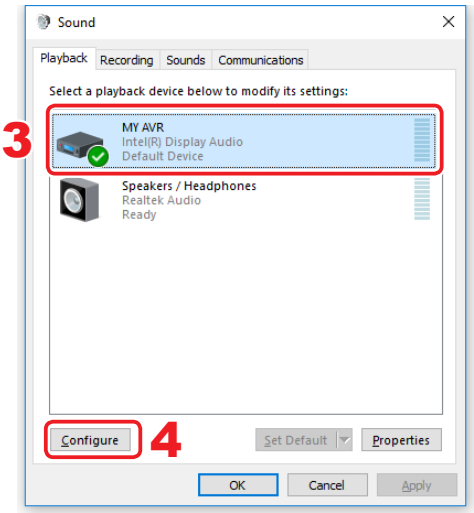
4. Click "Configure."

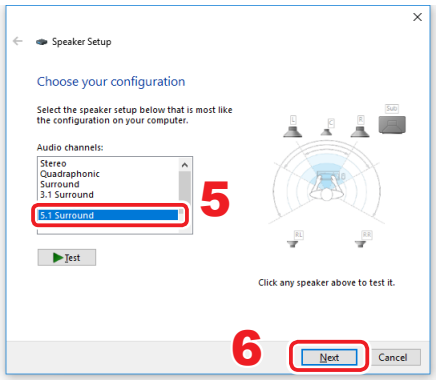
5. Select "5.1 Surround."

6. Click "Next,."

7. Continue clicking "Next," and then "Finish" when you reach the end of the Configurator.

Adjusting any settings to meet your listening environment.





Set up Surround Sound Playback on Mac

1. Connect the Audio Device to the Computer via HDMI

You can playback discrete 5.1 channel audio on an HDMI compatible AV pre-amp/ processor, Receiver or other device using HDMI. Please review the user guide for your AV device for more information.

NOTE

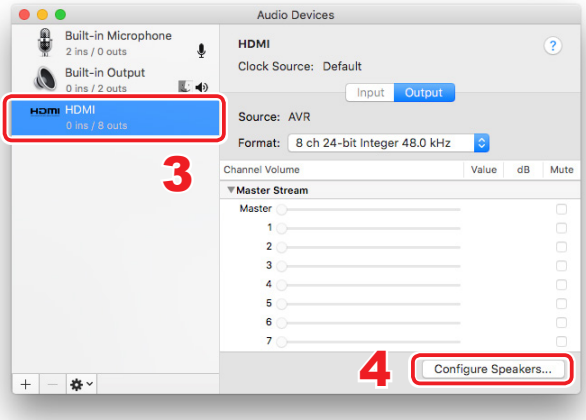
It's not possible to reproduce discrete 5.1 channel audio using the Optical or Coaxial connection.

2. Click Applications | Utililities | Audio MIDI Setup app.



3. Click the audio output device in the list.

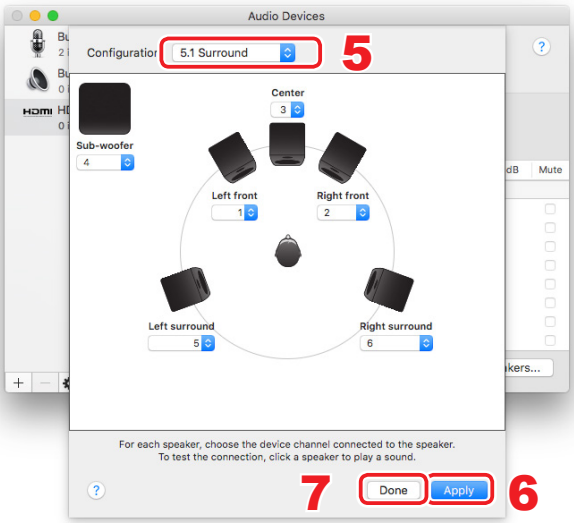
4. Click "Configure Speakers."



5. Choose "5.1 Surrond" from the popup menu.

6. Click "Apply."

7. Click "Done"



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