



IMMERSE WITH



SPATIAL AUDIO PRODUCTION SUITE

USER MANUAL

Draft Release v.1.0.0

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1. Introduction

Everything you need to create spatial audio is now integrated with Pro Tools. Immerse Spatial Audio Production Suite is a unified virtual workflow for Surround Sound and Atmos mixing for Film, Television, Music, and Gaming. Powered by the Immerse AI Engine and designed for an intuitive user experience, this production suite offers industry veterans and newcomers alike a better, faster, and easier way to mix their next immersive masterpiece.

Immerse Spatial Audio Production Suite includes three products: Immerse Panner, Immerse Visualizer, and Immerse Virtual Studio. Designed exclusively for the Avid Pro Tools user, the suite includes AAX plugins and a Standalone version of Immerse Virtual Studio, as well as the Immerse Audio Bridge for systemwide multichannel routing.

Immerse Panner

Immerse Panner allows you to mix mono or stereo sound sources to a variety of multichannel formats within an intuitive 3D interface. Create a more accurate spatial mix by placing sound objects inside a visual representation of your spatial sound field.

Immerse Visualizer

Immerse Visualizer allows you to see the placement, volume, and dispersion of all your sound objects together in one 3D space. Streamline your spatial mix with a comprehensive all-in-one view, and make quick adjustments without having to access multiple windows.

Immerse Virtual Studio

AI Personalization, Room Virtualization, and Headphone Equalization combine to make Immerse Virtual Studio the most accurate spatial monitoring solution for headphones. Gain access to a comprehensive library of virtualized world-class studios from industry legends in Film, Music, and Gaming. Turn your living room, bedroom, car, or wherever, into a professionally treated acoustic space. Mix Atmos on headphones from anywhere.

Immerse Virtual Studio Standalone + Immerse Audio Bridge

For ultimate flexibility, monitor your Dolby Atmos mix with the external Dolby Renderer, or any other external multi channel renderer.

This manual is all the information you will need to get started with Immerse Spatial Audio Production Suite.

2. Quick Start Guide

Click here to watch the [Quick Start video](#)

1. Download the installer from Avid.com member portal and install the Spatial Audio Production Suite.
2. Download the template or sample session and launch
3. Activate your iLok license for Spatial Audio Production Suite that is deposited with your Pro Tools subscription.
4. Open Immerse Virtual Studio Avid Plugin. Login with your email address, scan the QR code, submit your right ear image, and download your personalized hrtf profile.
5. Select your favorite studio from a list of world class studios. From the headphone menu, select your favorite headphones.
6. Open Immerse Panner on any mono/stereo track to adjust individual parameters like position of the object in the 3D space, and size of the object.
7. Open the Immerse Visualizer for a master view of the placements of all the objects, and sound dispersion.

3. Getting Started

3.1 System Requirements

1. Compatibility and Minimum System Requirements:

Software Format : Plug-in and Standalone

Plug-in Types : AAX

Max Sample Rate : 192 kHz

Compatibility :

Win OS : Windows 10 and 11

Mac OS L 10.9.x and above

Mac M1, Mac M1 Pro, M1 Max, M2

Minimum System Requirements :

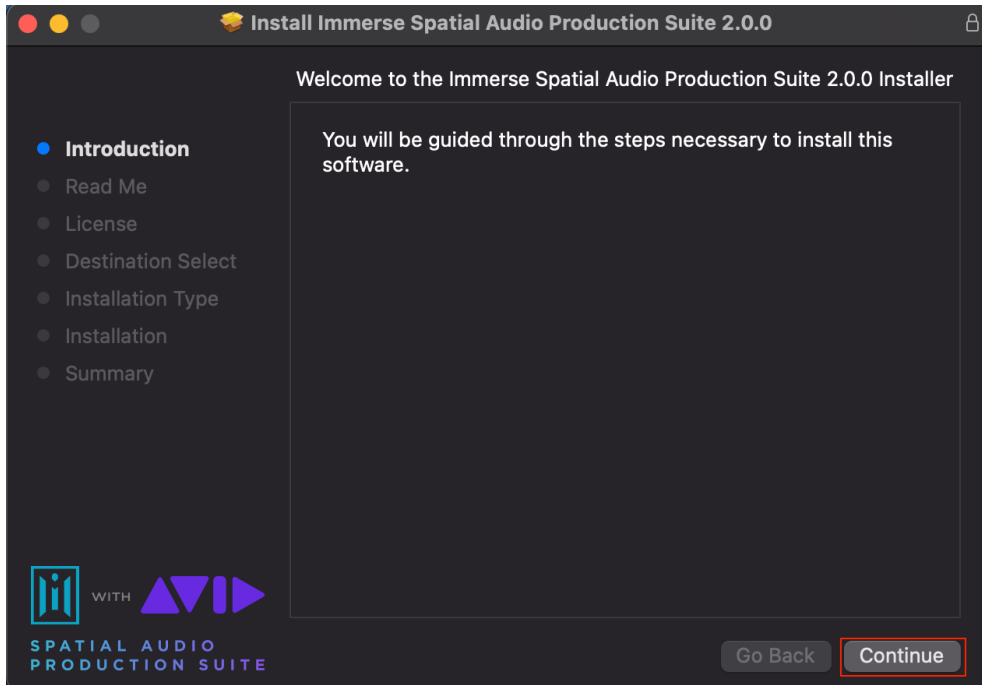
Processor : Intel Core 2 Duo

Memory : 4GB

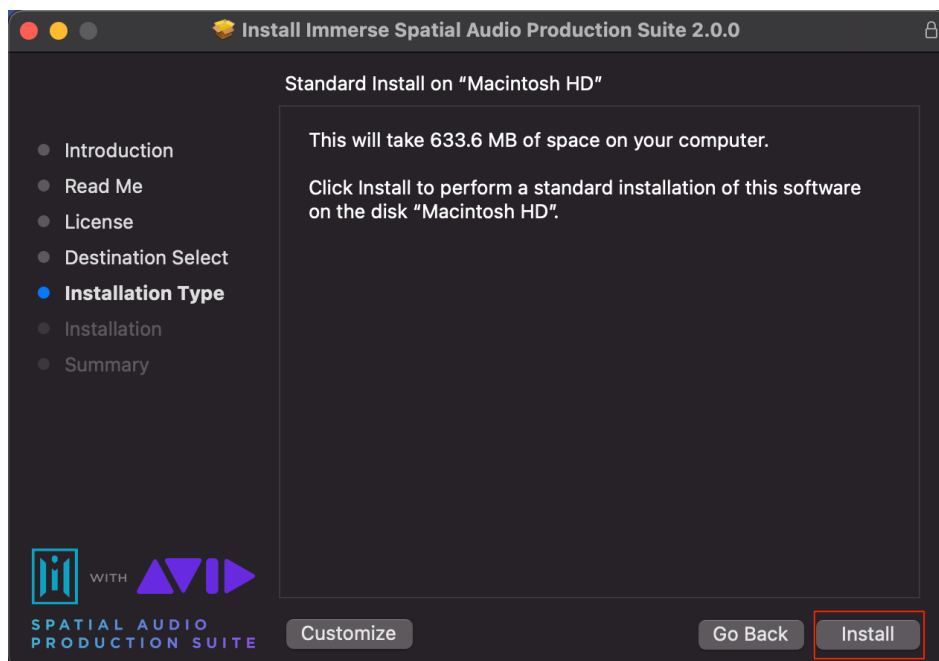
Disk Space : 650MB

3.2 Installation

1. Run the installer `ImmerseSpatialAudioProductionSuite-2.0.8.x.pkg`. The installer will install the Immerse Panner, Immerse Visualizer, and Immerse Virtual Studio AAX plugins that you can load up in Pro Tools, as well as the Immerse Audio Bridge and Immerse Virtual Studio application for standalone mode.

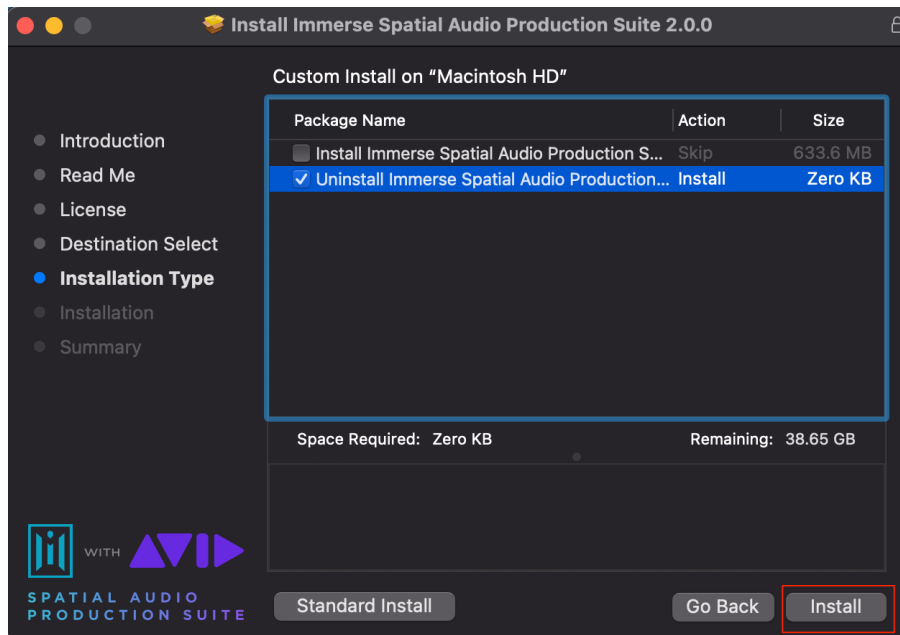
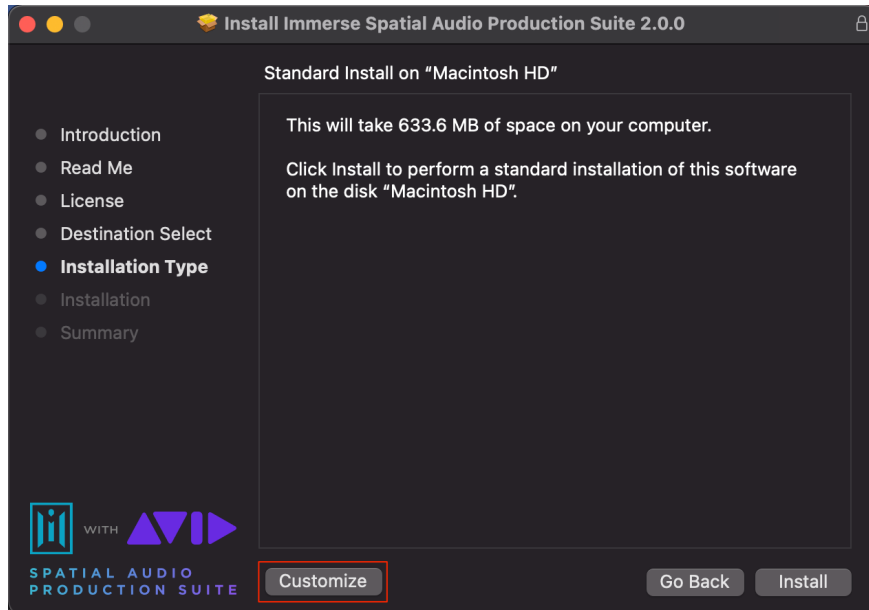


2. Click on Next to proceed to install the plugins.



3.3 Uninstallation

1. If you do have an earlier version of Immerse Spatial Audio Production Suite installed, we recommend you to **uninstall** that version first before installing. Click on “Customize, select “uninstall”, and click on “Install”. After uninstalling, please run the installer again.

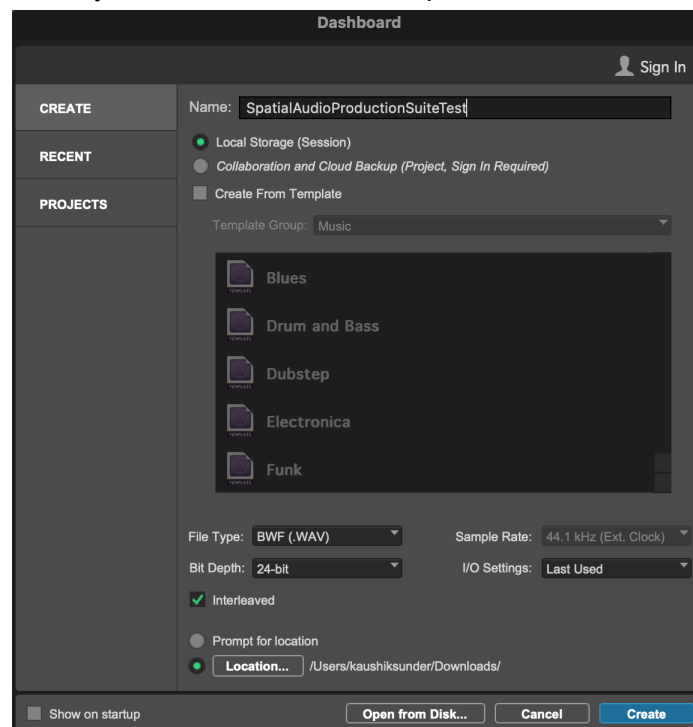


3.4 Creating a Pro Tools Session

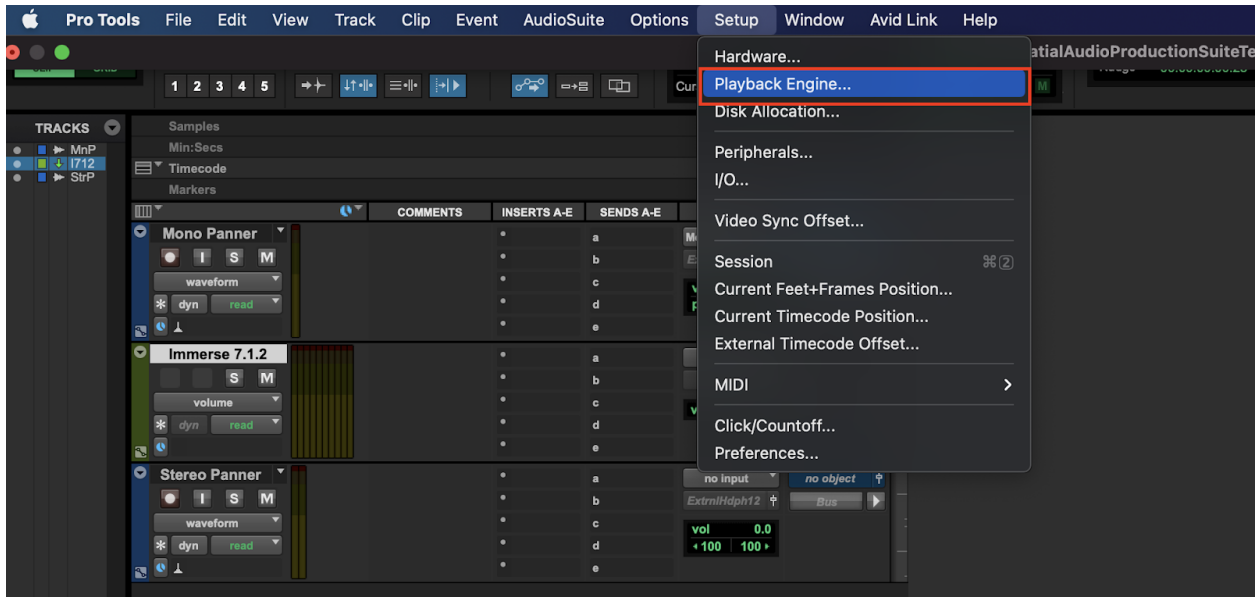
1. Open Pro Tools, Go to “File” -> Create New to open a new PT session



2. Enter the name of your session, set the sample rate, Bit rate etc. and hit “Create”.

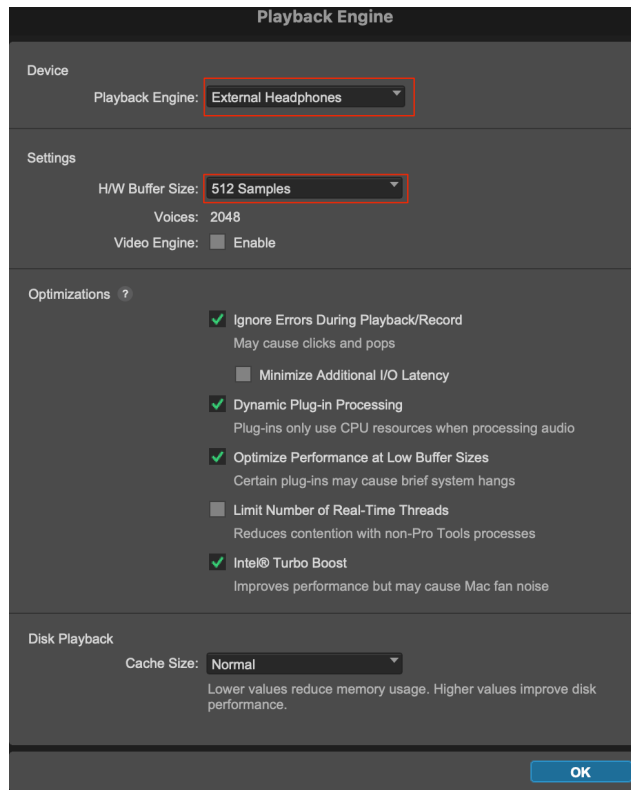


3. Make sure the hardware and Playback Engine is set correctly. Select your Playback Engine as your desired Sound Card for headphone output. For example, in the graphic below, the output is set to External Headphones.

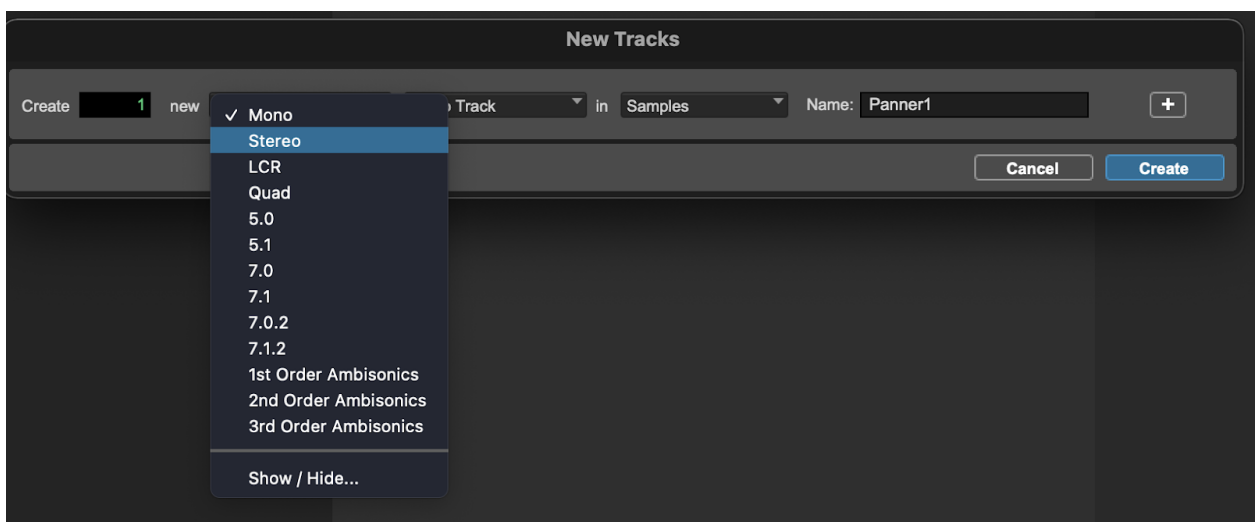
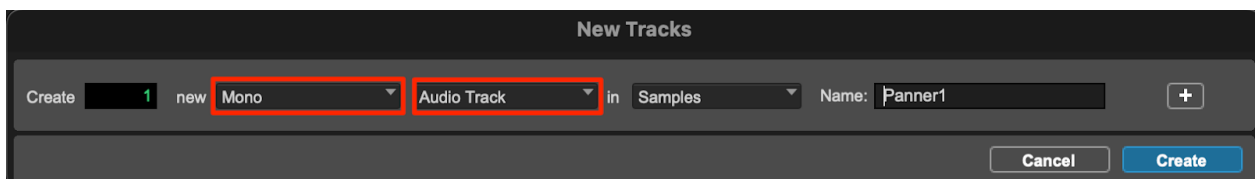


Please refer to the table below for supported sample rates. The filters used by the Immerse Virtual Studio plugin were designed for all commonly used sample rates (44.1 kHz - 192 kHz), so no resampling happens no matter what sample rate you use.

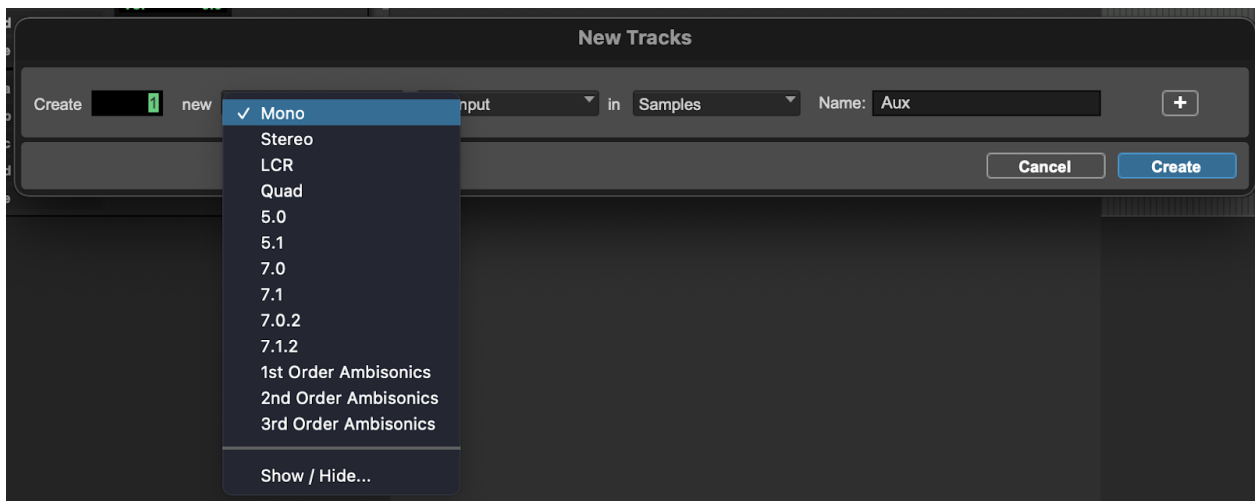
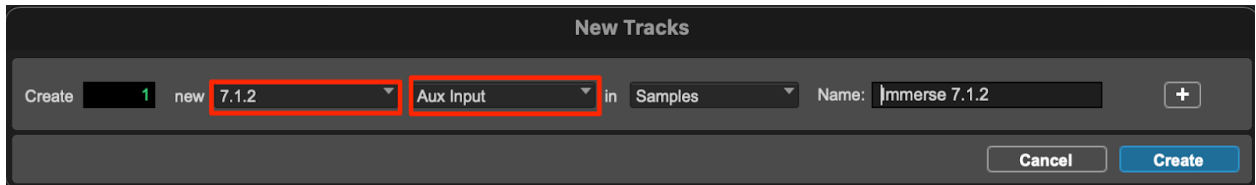
Sample Rate (Hz)	Minimum H/W Buffer Size
44100	32 samples or higher
48000	32 samples or higher
88200	64 samples or higher
96000	64 samples or higher
176400	128 samples or higher
192000	128 samples or higher



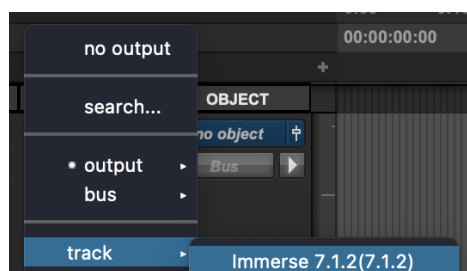
4. Create a New Track in Pro Tools. The Immerse Panner can be inserted either on a mono or a stereo track.



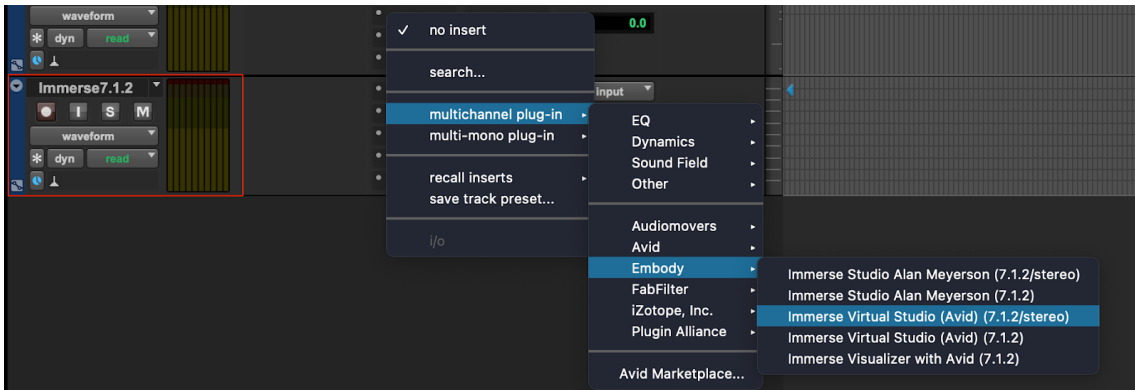
5. With the Immerse Panner, you can pan a mono or stereo track to a 5.1, 7.1, or 7.1.2 Output. Create a multichannel Aux track (Immerse 7.1.2) as shown below :



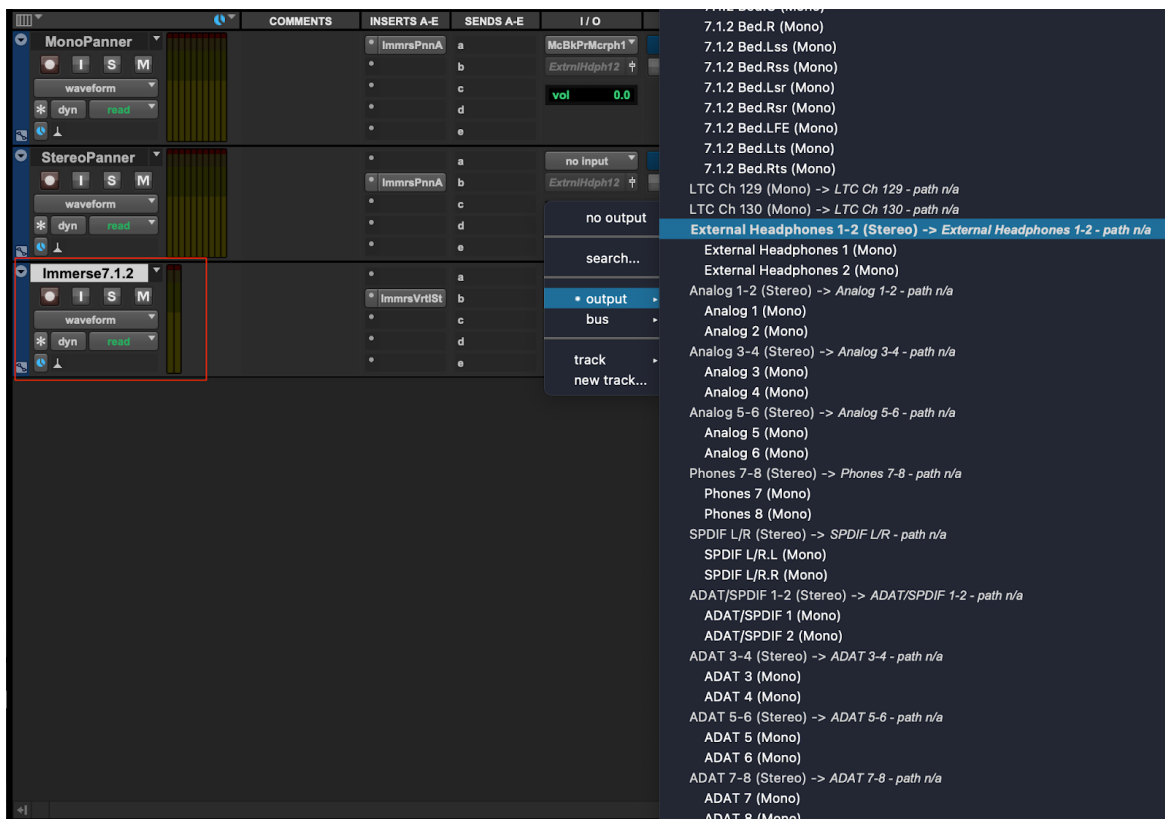
6. Ensure that the inputs and the outputs are set properly :
- Set the Mono and Stereo track output to your multichannel bus or Aux Input. In the following example, it is set to Immerse 7.1.2 Aux Input.



- b. Insert the Immerse Virtual Studio Avid plugin in the Immerse 7.1.2 Aux track. You will then be able to select any stereo headphone port as the output for this track.

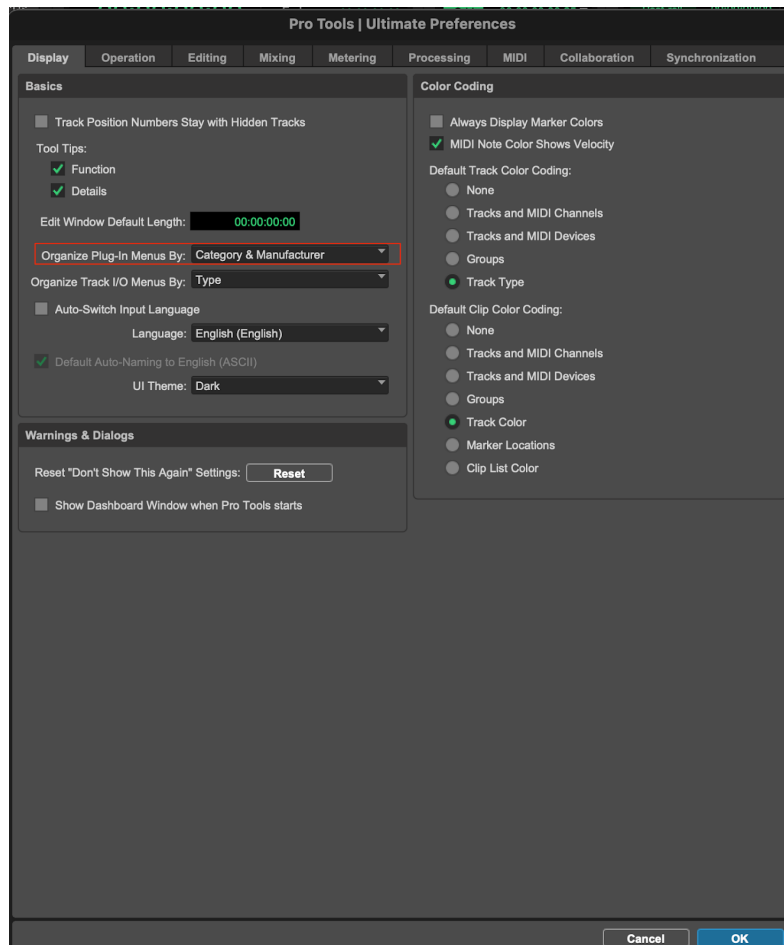


- c. Set output of Immerse 7.1.2 to the headphone output of the soundcard.



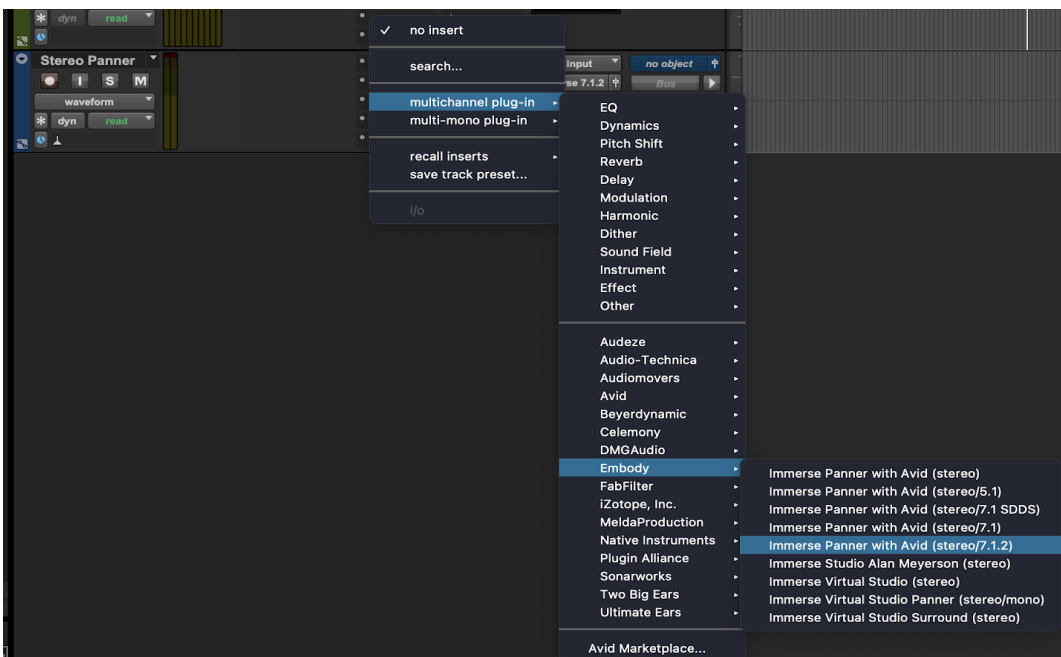
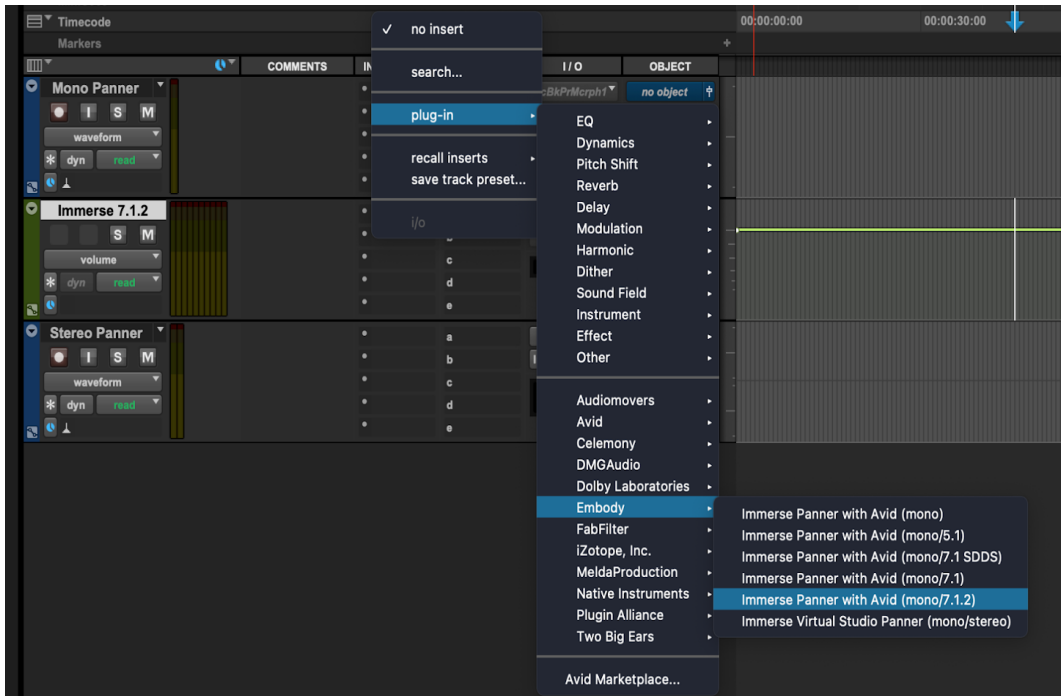
3.5 Plugin organization in Pro Tools

1. Searching for Plugins in Pro Tools can be customized. You can organize the Plug-in menus by Category & Manufacturer. Go to Pro Tools-> Setup -> Preferences Organize Plug-in Menus by : Category & Manufacturer



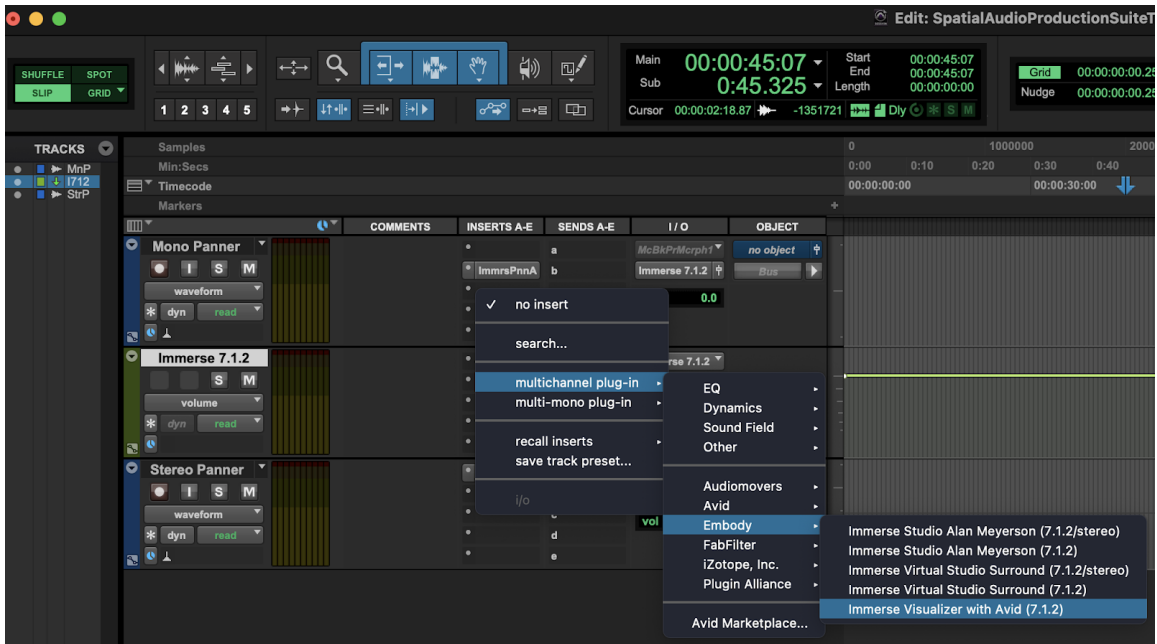
3.6 Loading Immerse Panner

1. You can insert the Immerse Panner on a mono/stereo track. Find the Immerse Panner plugin under plug-in -> Embody -> Immerse Panner with Avid. Alternatively, you can find the plugin under "Sound Field".



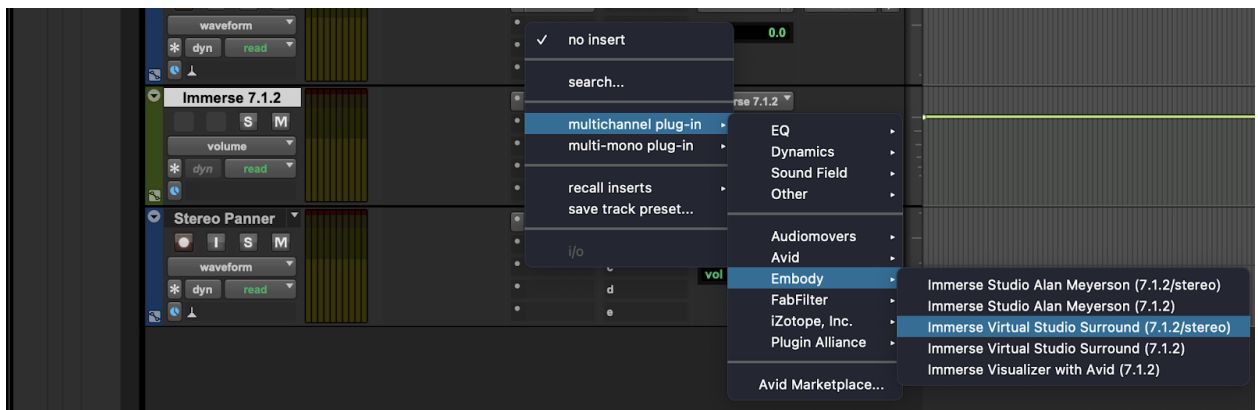
3.7 Loading Immerse Visualizer

1. You can insert the Immerse Visualizer on any multi-channel track, typically on a bus which receives inputs from all the panners. Find the Immerse Panner plugin under plug-in -> Embodiment -> Immerse Visualizer with Avid. Alternatively, you can find the plugin under "Sound Field".



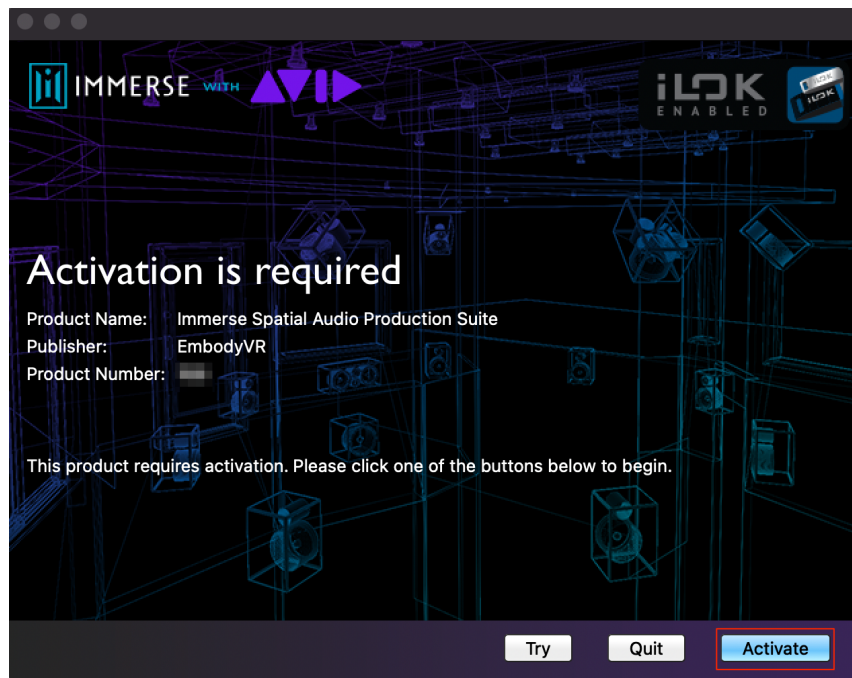
3.8 Loading Immerse Virtual Studio

1. You can insert the Immerse Virtual Studio on any multi-channel track, typically on a bus which receives inputs from all the panners. Find the Immerse Virtual Studio plugin under plug-in -> Embodiment -> Immerse Virtual Studio with Avid. Alternatively, you can find the plugin under "Sound Field".

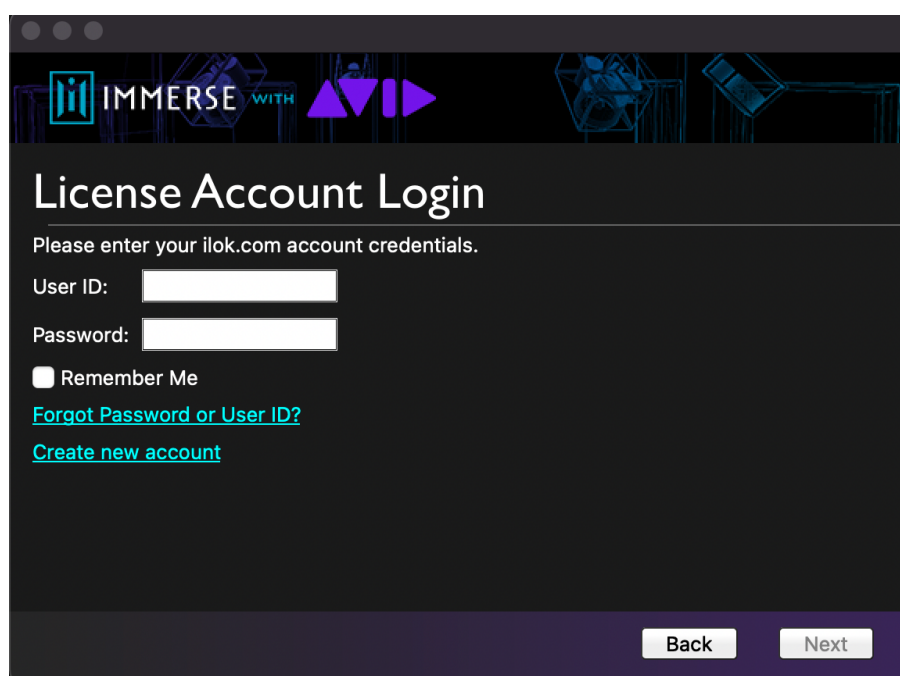


3.9 iLok Activation

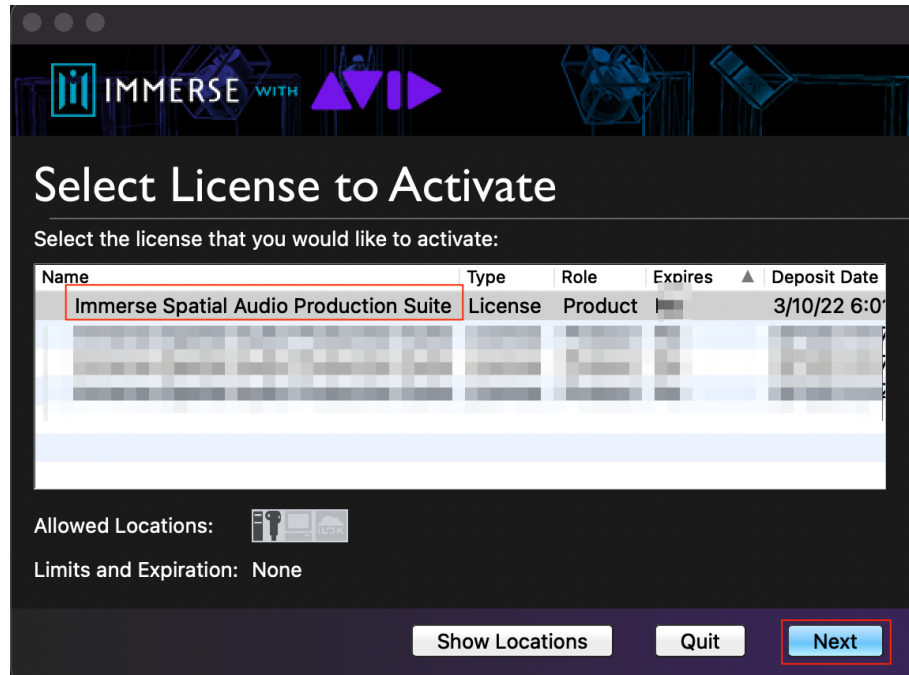
1. When you insert any of the Immerse Panner, Visualizer, or Immerse Virtual Studio, you will first need to activate your iLok license that is deposited with your iLok license.
2. Click on “Activate” when the following iLok activation window appears.



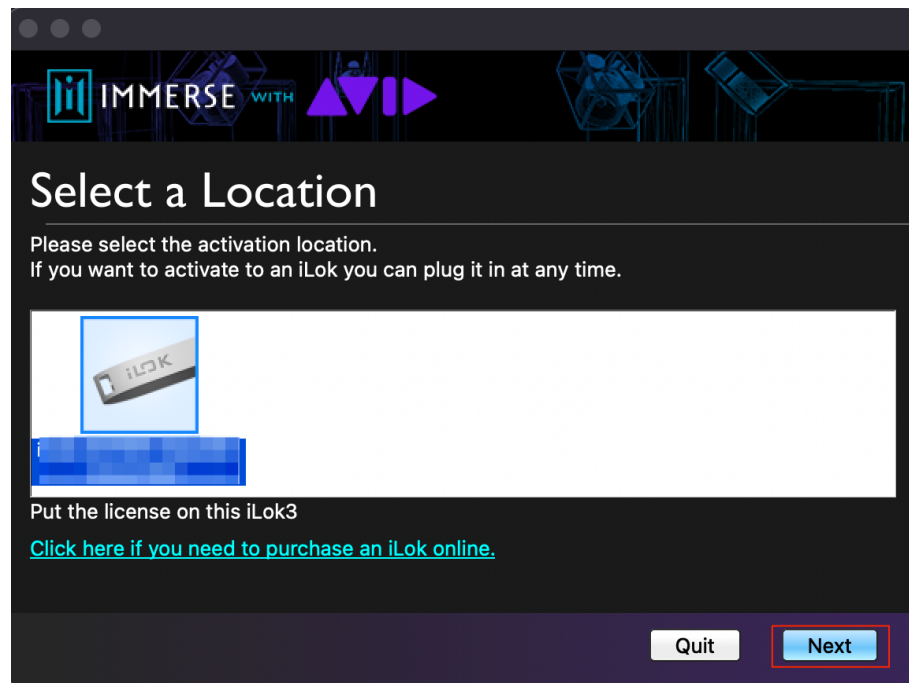
3. Enter your iLok.com user id and password and click on Next



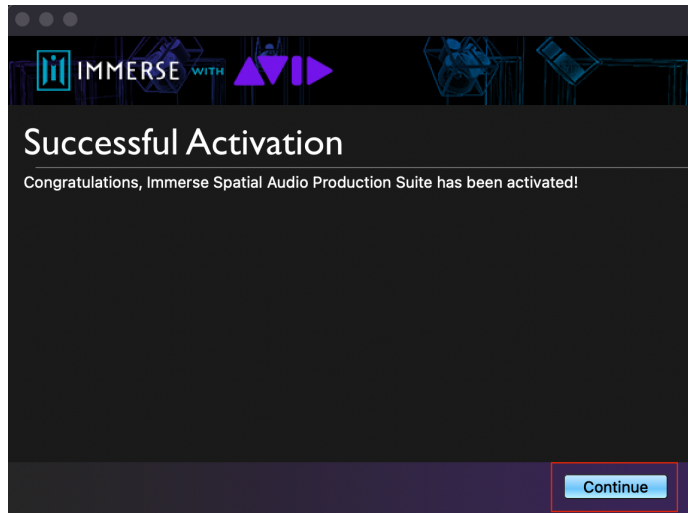
4. Select the “Immerse Spatial Audio Production Suite” license and click on “Next”



5. Select your iLok location where you want to put the license on.



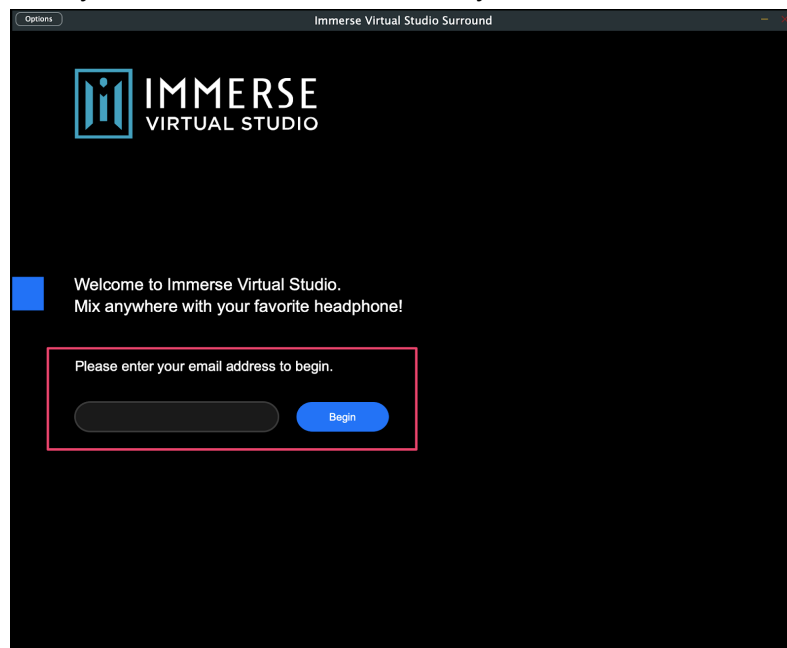
6. On successful activation, you will see the following screen. Click on “Continue” to start using the plugin.

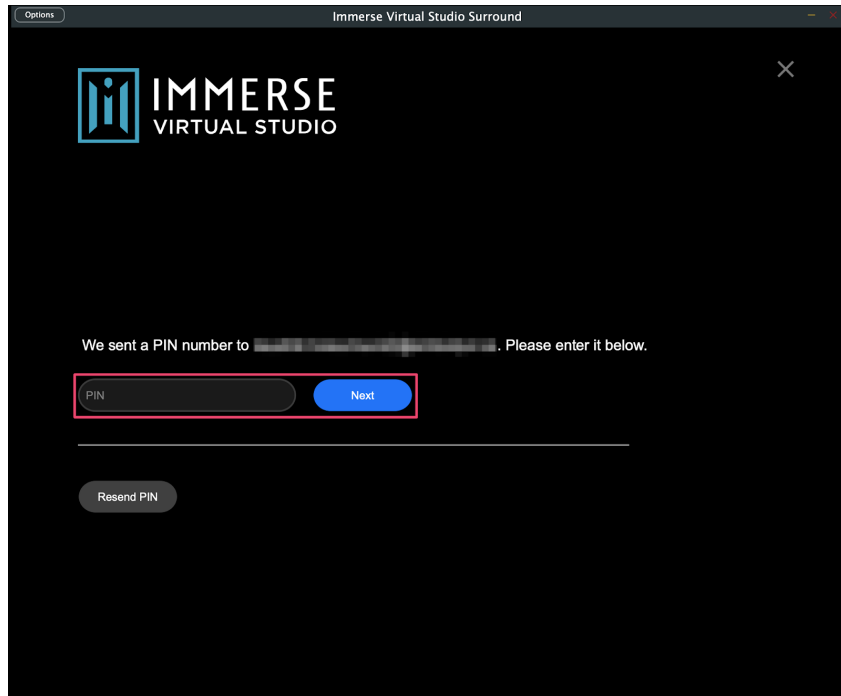


3.10 Login Process

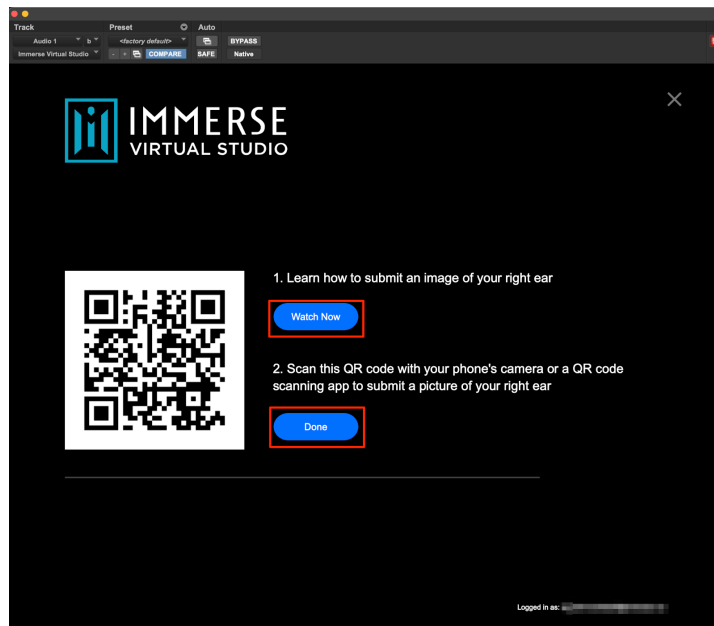
The login process for the Spatial Audio Production Suite is designed to be as seamless as possible to access your personalized profile across devices and studios. The entire login process is unified such that you can login first into any of the Panner, Visualizer, or Immerse Virtual Studio. We recommend you to login using the Immerse Virtual Studio first.

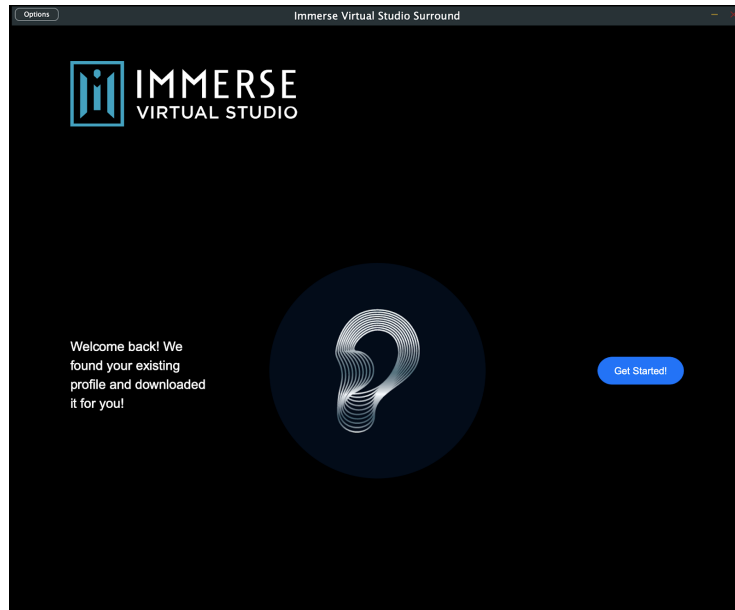
1. Open Immerse Virtual Studio Avid, you will first see the following onboarding page on launch. Enter your email address, followed by the PIN.



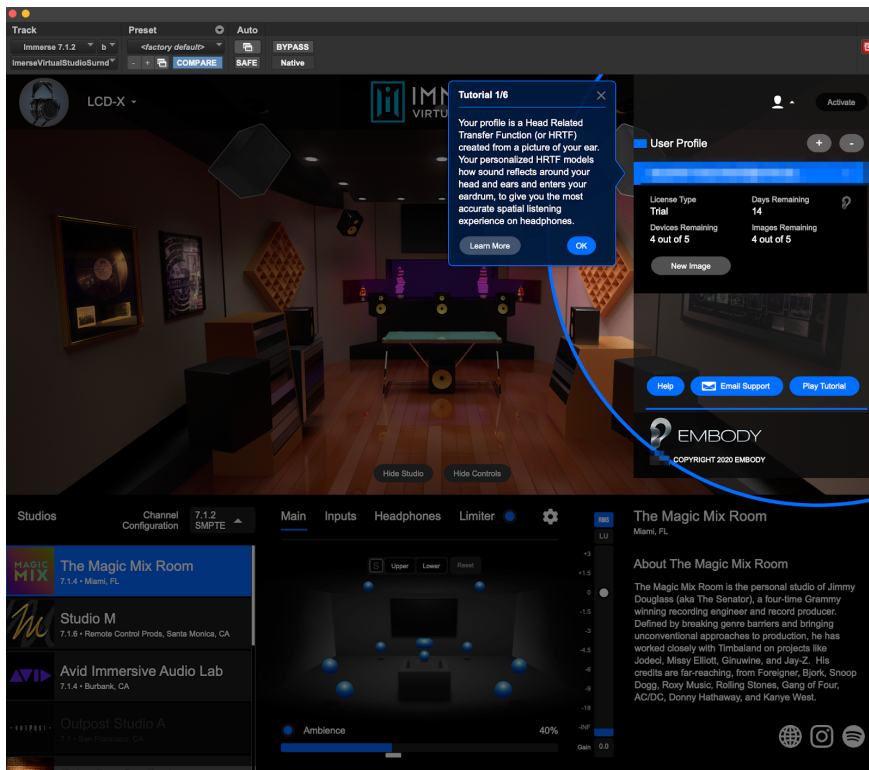


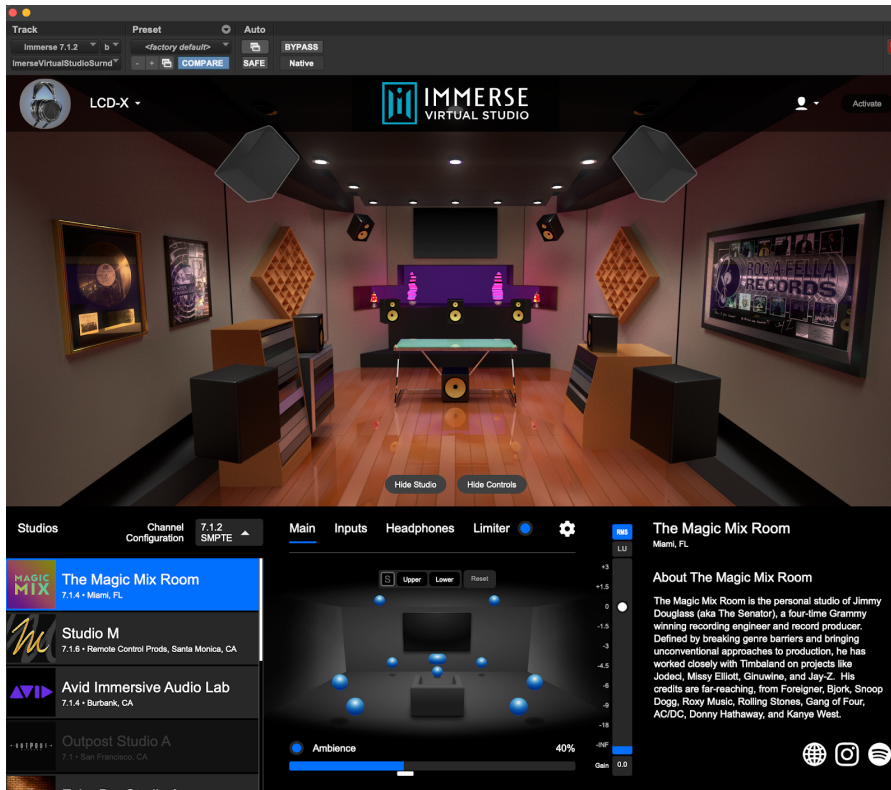
2. You will then see a QR code. If you logged in through the panner first, you will not need to login here in Immerse Virtual Studio. You will directly be redirected to the QR code page. Scan the QR code to open a webpage on your phone. You can submit the right ear image as per the guidelines given. Please click on “Watch Now” to learn how to submit the image of the ear. Once you see the “Success” page on your phone, click on “Done” in the plugin.



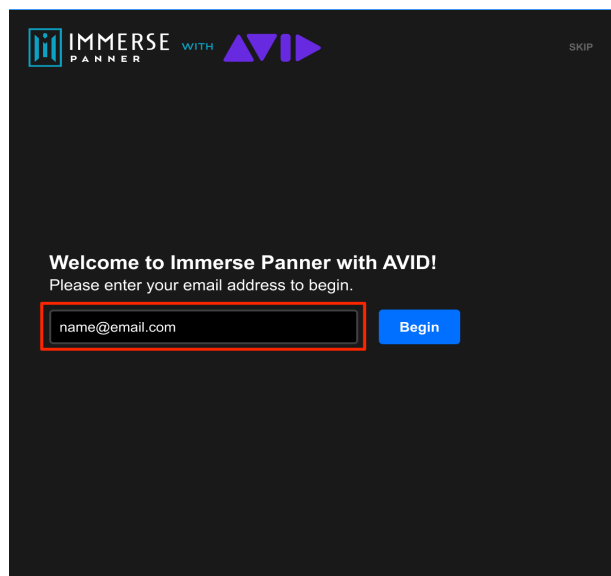


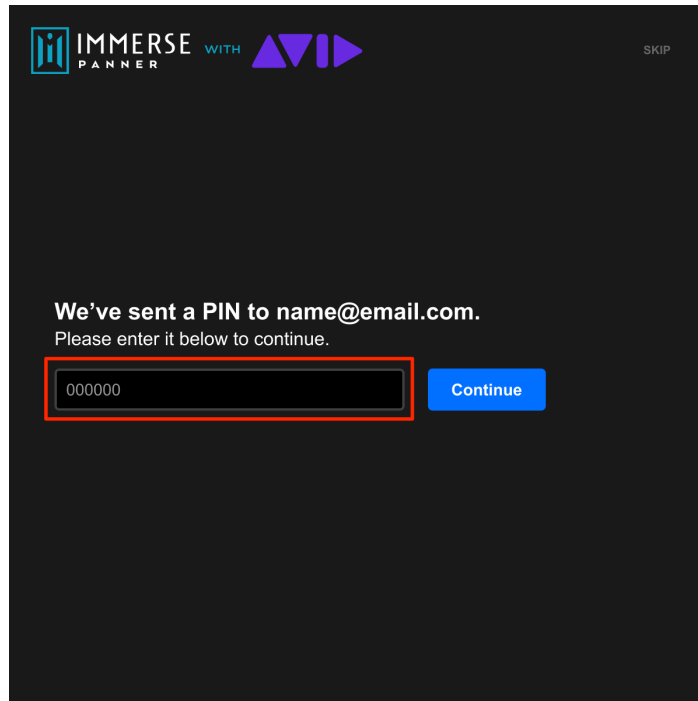
3. Click on “Get Started” to open the main UI of Immerse Virtual Studio. You will be first presented with a quick tutorial.



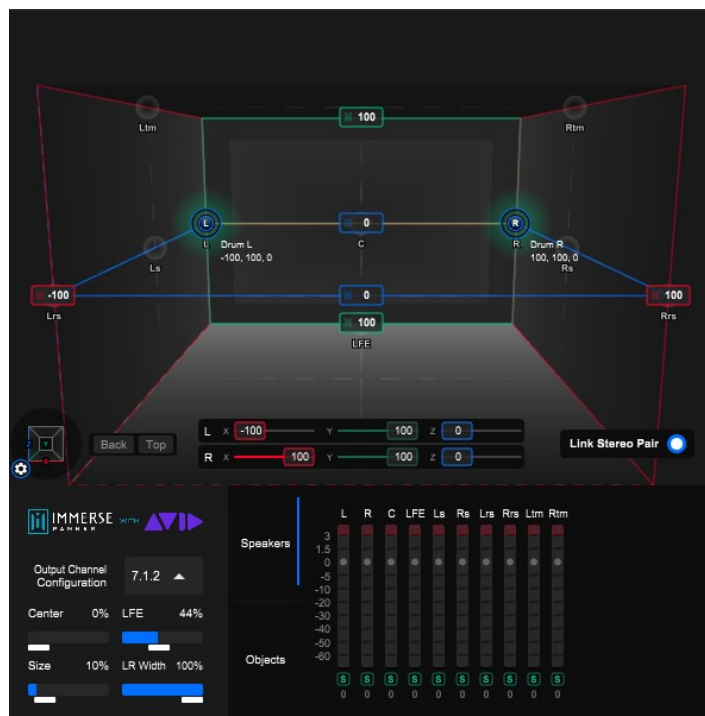


- Once you login with Immerse Virtual Studio Avid, you do not need to login in Immerse Panner and Visualizer again. Alternatively, you may decide to login with Immerse Panner or the Visualizer first. Enter your email address and click on Begin, and Enter the Pin to continue.



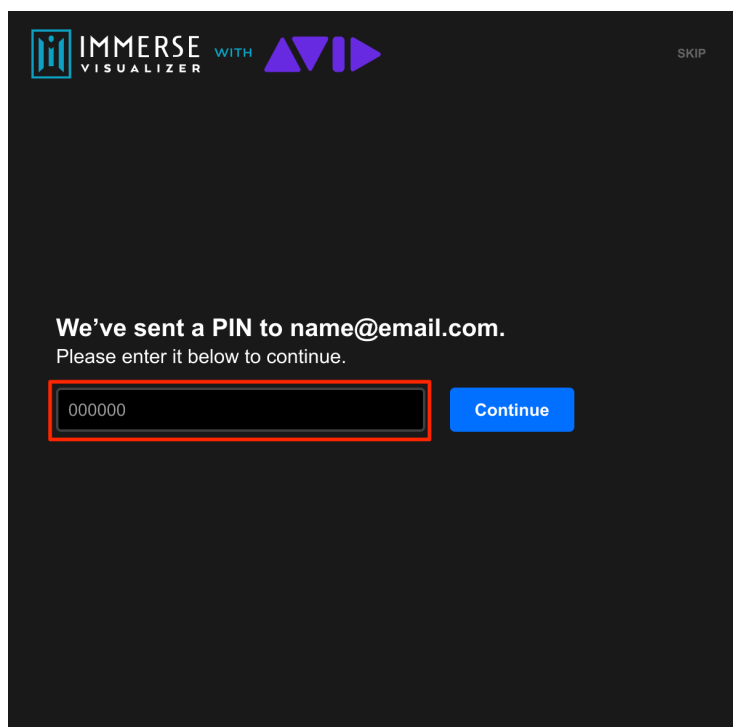
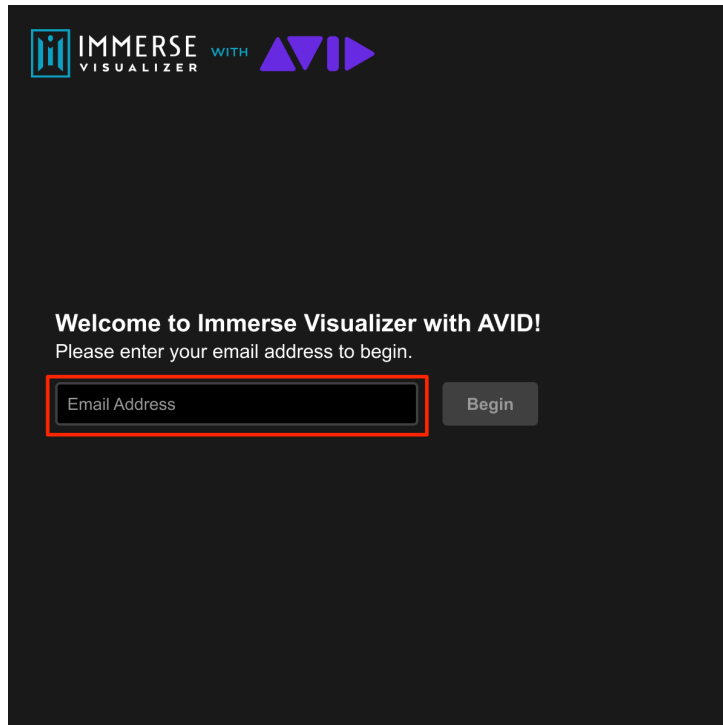


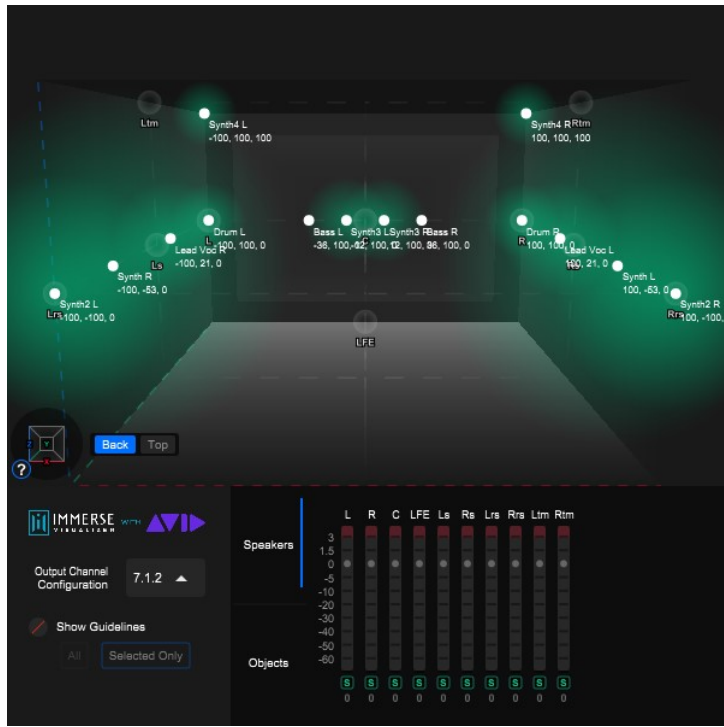
- Once you login, you will see the main UI of the Immerse Panner as shown below. You will be automatically logged into the Immerse Visualizer and Immerse Virtual Studio.



- You can also login first from the Immerse Visualizer. Similar to the Panner, enter your email address followed by the PIN code that you receive in your email. You will then

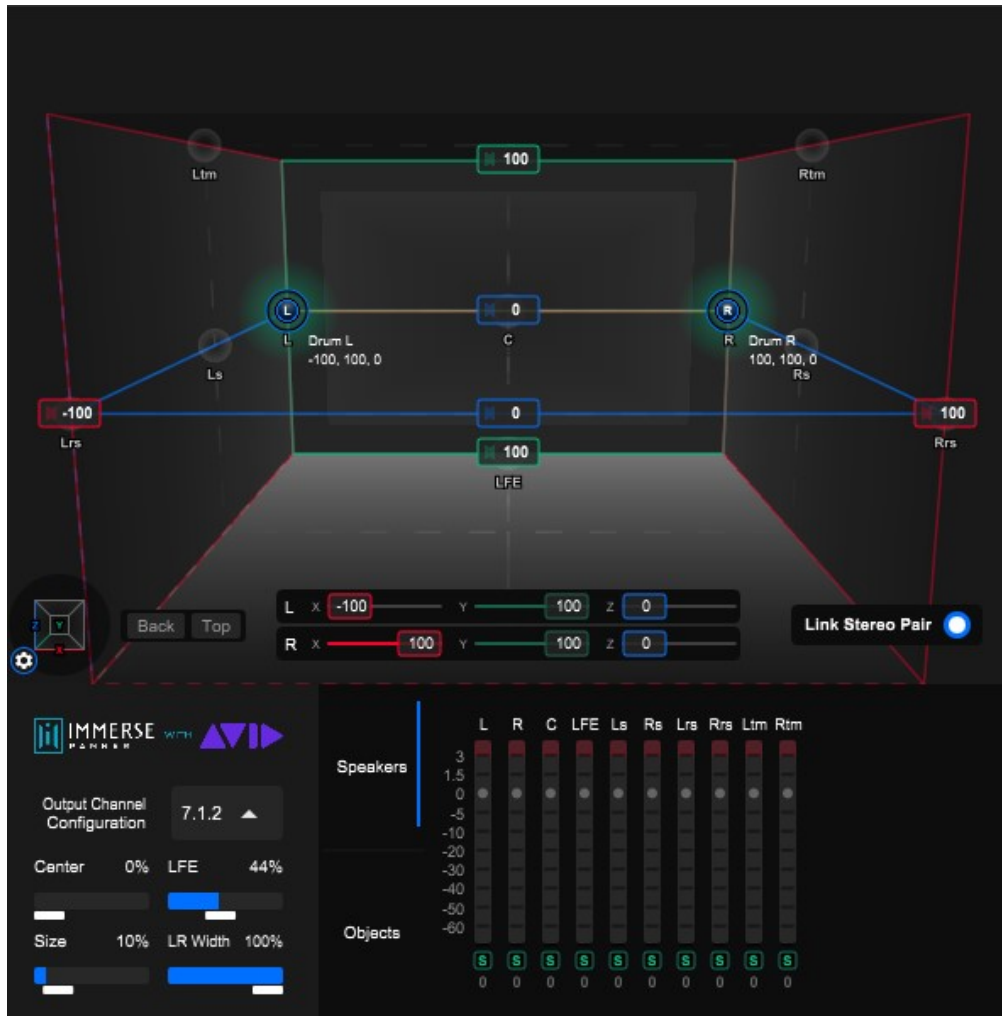
see the main UI of the Immerse Visualizer where you can visualize and pan all the objects from a single interface.





Enjoy the Spatial Audio Production Suite!
 All you need to create a truly immersive spatial audio
 content in one place!

4. Immerse Panner

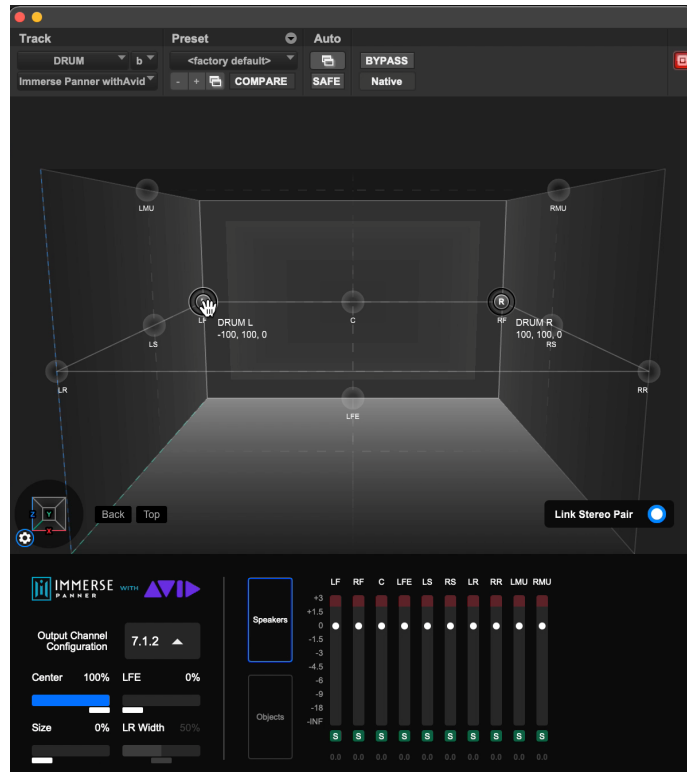


MIX IN 3D

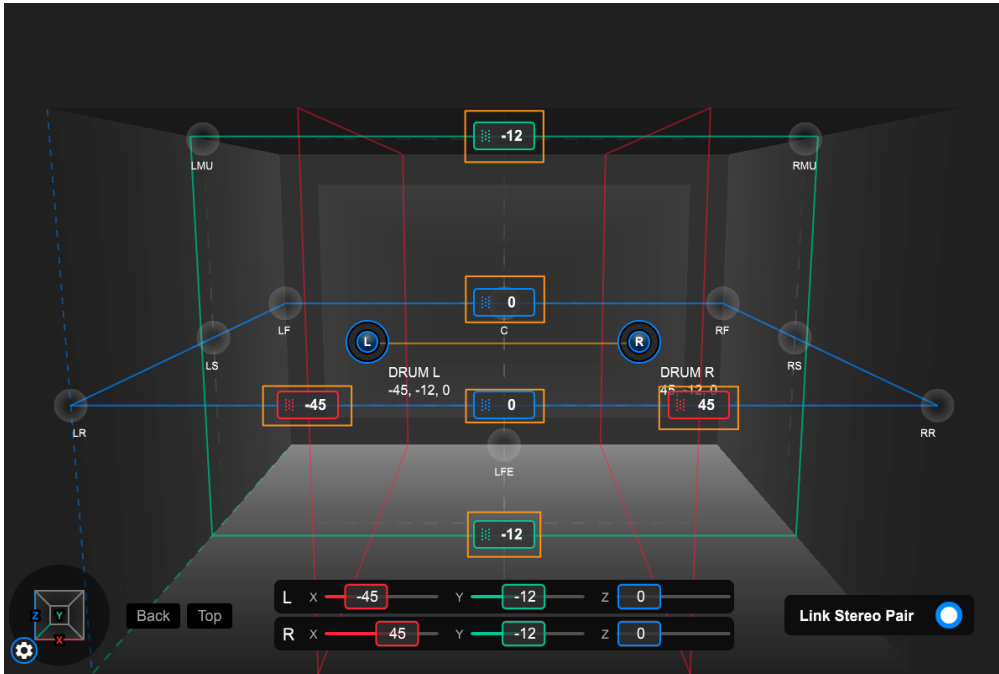
The days of trying to place 3D objects using a flat 2D interface are over. Now you can pan mono or stereo sound sources to a variety of multichannel output formats within an intuitive 3D UI. Speed up your workflow, and get a clearer picture of your spatial mix.

4.1 Moving the sound

1. You can pan by first clicking the puck to see the hand icon, and then moving it anywhere in the 3D space.



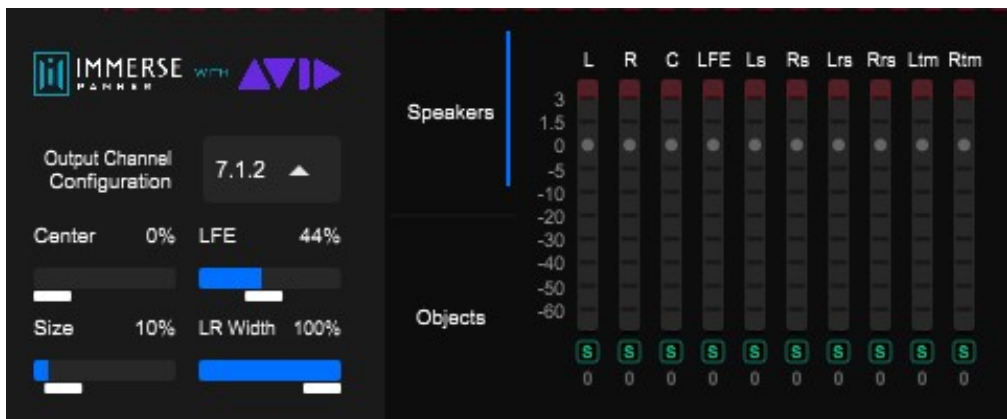
2. You can also move the puck, by clicking any of the guidelines of the selected puck.



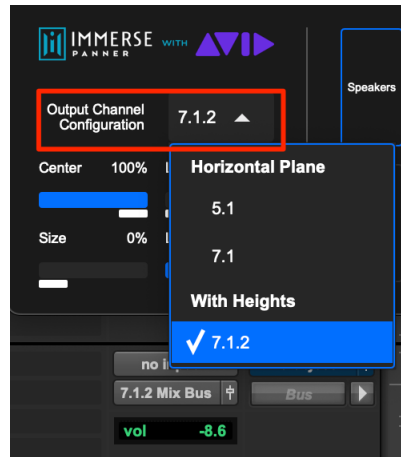
3. You can also adjust the X, Y, Z sliders to pan the pucks



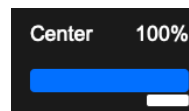
4.2 Immerse Panner Control Panel



1. **Output Channel Configuration** : You can select the Panner's output channels configuration from this drop-down menu. You can pan a mono/stereo track to either 5.1, 7.1, or 7.1.2.

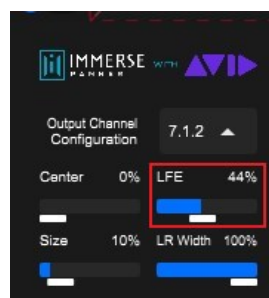


2. **Center** : With the Center Slider, you have the flexibility to control how much contribution goes to the Center channel. When Center is 0%, no signal will go to the Center channel.

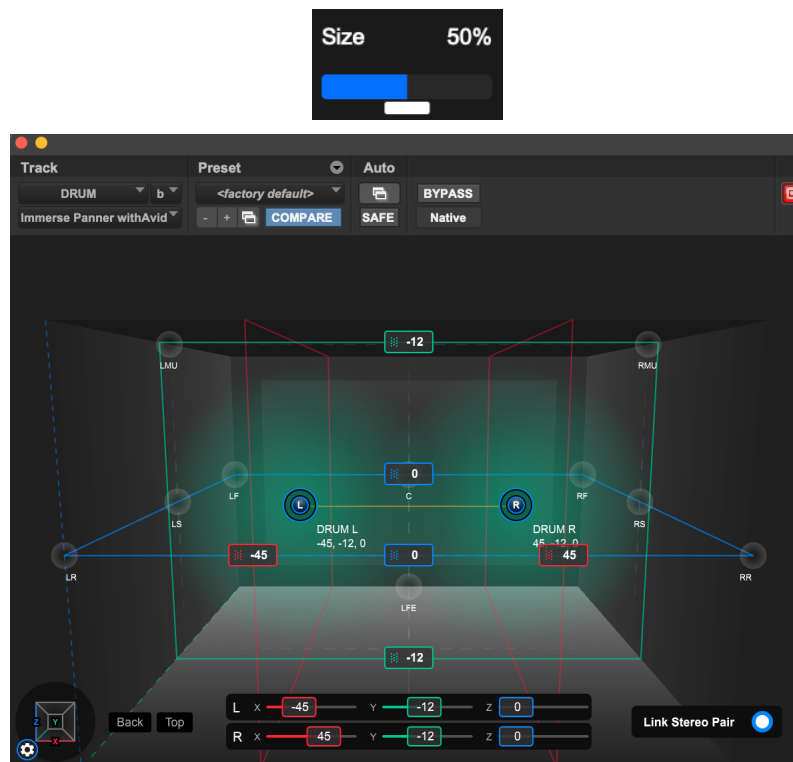


3. **LFE** : The LFE slider controls the amount of LFE content you want in the LFE channel. When LFE is 100% you will have the full volume of your signal being sent to the LFE channel.

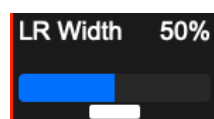
Immerse includes an LFE Lowpass Filter which is on by default at 120Hz for your convenience, to ensure you are not sending full frequency content to the LFE. You can set the cut-off frequency of the LFE low-pass filter from the settings panel, or completely bypass this feature.



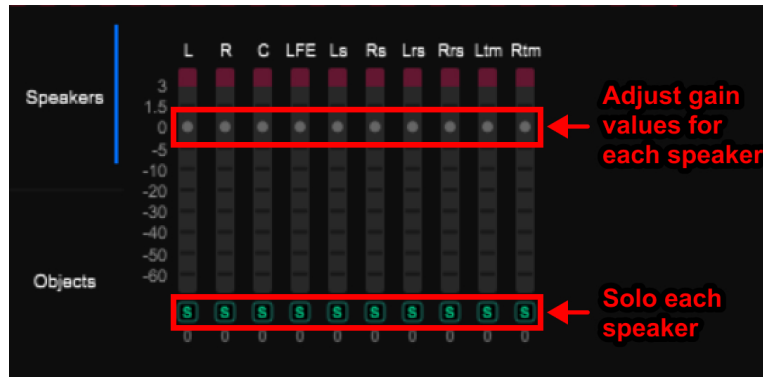
4. **Size** : Adjusting the “Size” modifies the diffusion of the object being panned. As you move this slider up, the perceived size of the object increases. For pinpoint sound location, move Size smaller, for larger sources or more diffuse localization, increase the Size. The amount of diffusion is shown as a glow in both the Panner and Visualizer.



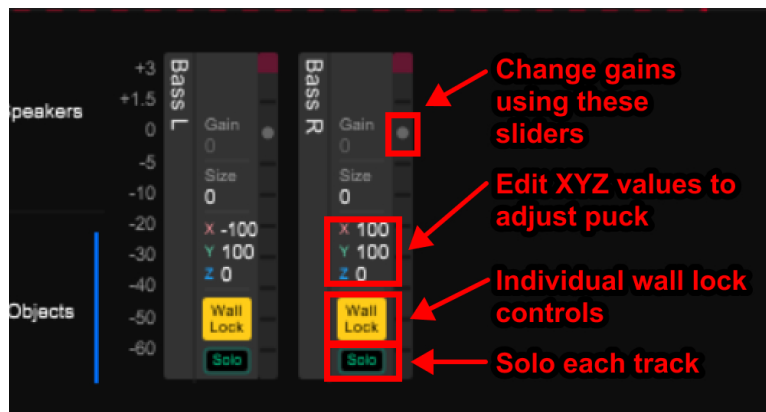
5. **LR Width** : In Stereo Link mode, the LR width changes the width between the L and R channels of a stereo track. As you increase LR Width, the distance between L and R pucks increases. Maximum LR width corresponds to both the pucks on the two opposite walls



6. **Speakers Tab** : When you click on Speakers, you will see the input meters for all the output channels in the layout you have selected. You can adjust gain values for each speaker by clicking and dragging the slider values. You can also solo each speaker by clicking “S”.

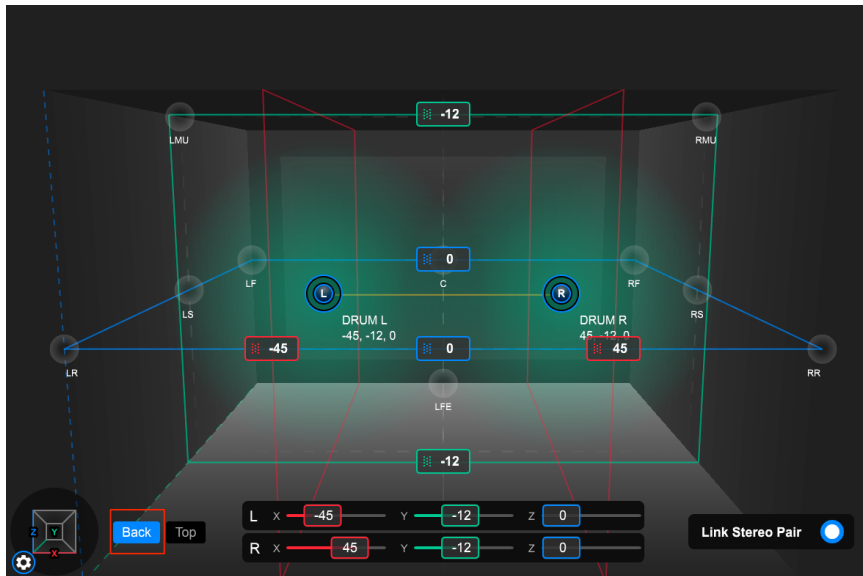


7. **Objects tab** : Clicking the Objects tab opens the Object view. At this time, we are not referring specifically to Dolby Atmos Objects, but you can consider each puck to be its own Object. Change the levels for each Object by adjusting the slider. You can edit the X, Y, Z values here to finely adjust the precise location. In addition you can Solo each Object independently, unless you are in Stereo Link Mode. Note that in Stereo link mode, Solo will engage on both the Left and Right pucks together.

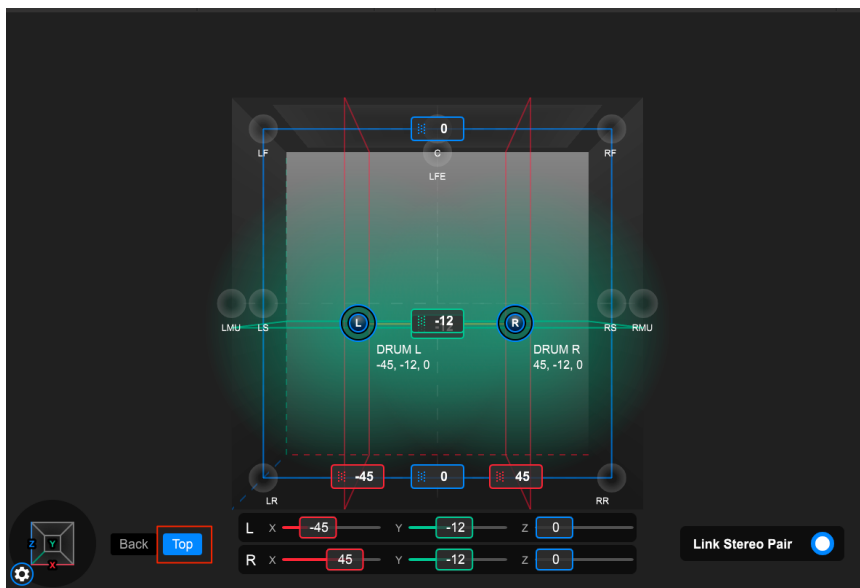


4.3 Adjusting the Views

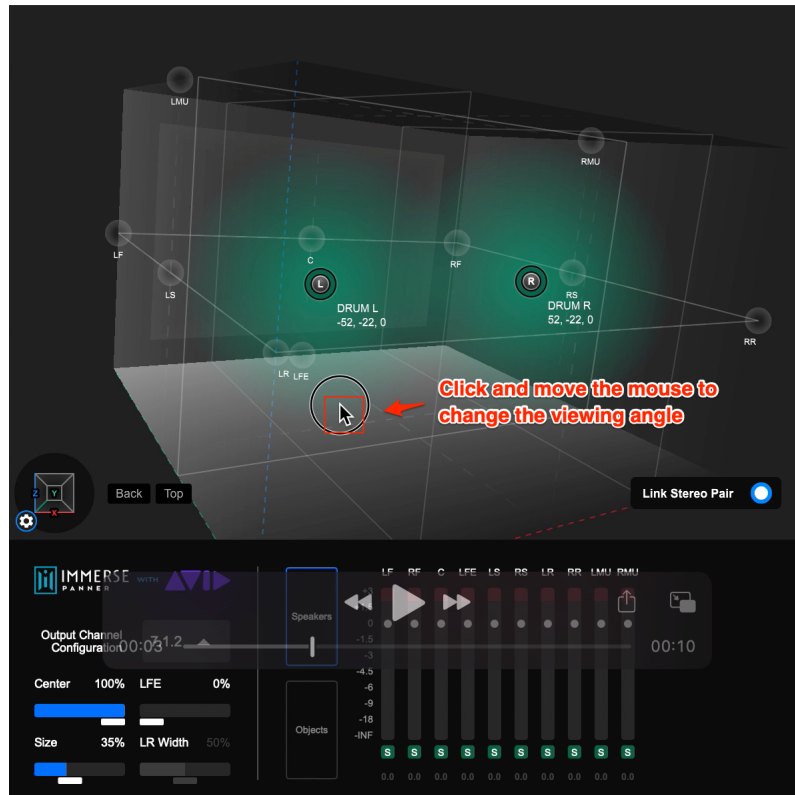
1. **Back** : Clicking on Back, will present the 3D space from the perspective of standing in the back of the room looking towards the front. The left front, center, and right front speakers are in the farthest wall in the front.



2. **Top View** : Clicking on “Top” will present the 3D space as if you are in the ceiling looking down on the room. This view can be useful when you are primarily panning front to back, without needing to visualize height in much detail.



3. Click and drag your mouse outside the puck or slider areas to change your 3D view angle. When your mouse is outside the puck or slider area, you will notice it turns into an arrow.



4. You can use CMD as a modifier to slow down the movement as you tilt the room. And the Scroll wheel will allow you to zoom in closer.

4.4 Link Stereo Pair

1. **Link Stereo Pair** : When the Immerse Panner is instantiated on a stereo track, you can either have the stereo pucks linked or unlinked while panning. In the linked mode, as you pan, both the Left and the Right puck move together. In the unlinked mode, you can pan both the left and right pucks independently as if they were two completely different objects.
2. Click on the toggle button to link/unlink stereo pair.
3. In unlinked mode, each puck can be selected individually, and only one puck can be selected at a time. To select the other puck, simply click on it.
4. In linked mode, you will see the sliders for both left and right pucks as you click on any puck. In unlinked mode, only the slider for the selected puck is shown.

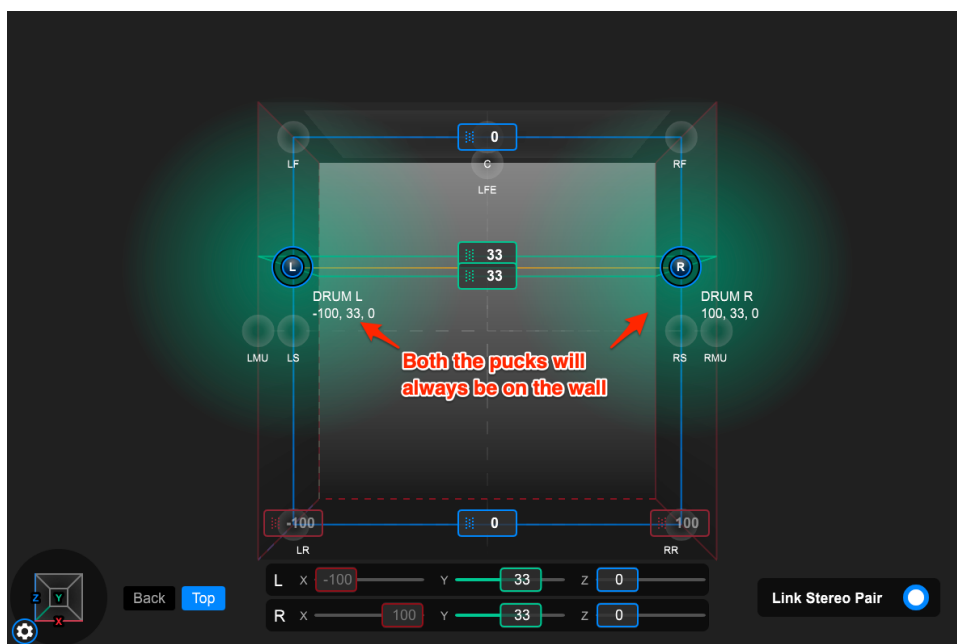
Unlinked Mode

The screenshot displays a 3D audio environment with various speaker positions labeled: LMU, RMU, LF, C, RF, LS, L, DRUM L (-52, -22, 0), R, DRUM R (52, -22, 0), RS, LR, and RR. A selected mono puck (L) is highlighted with a red box and a value of -52. A slider for the selected puck is shown at the bottom with X: -52, Y: -22, and Z: 0. A 'Link Stereo Pair' toggle button is also visible, currently in the 'unlinked' state. A red arrow points to this button with the text 'Click on the toggle button to link/unlink stereo pair'. Other UI elements include a 'Back' button, a 'Top' button, and a 3D coordinate system icon.

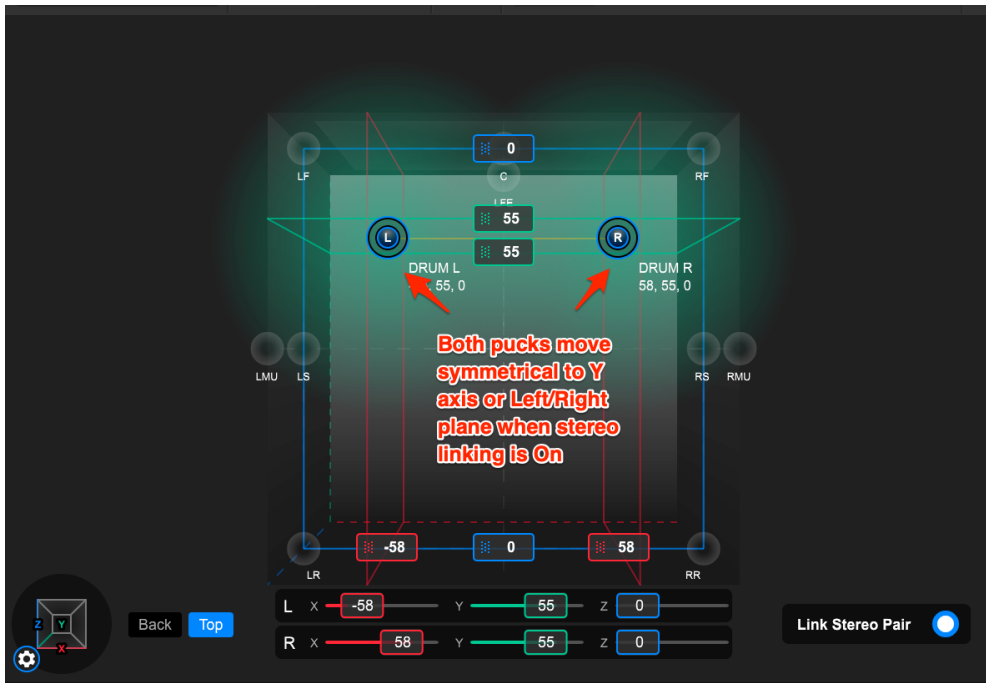
4.5 Settings Tab



1. **Lock Objects to Walls** : The movement of pucks are restricted to the walls only when “Lock Objects to Walls” is On. This can be useful if you only want to pan between the speakers discreetly, without the sensation of the sound diffusing as it travels through the middle of the room. By default, the Panner has “Lock Objects to Walls” turned off.



2. **Mirror L/R When Stereo Linked** : When Mirroring is On, the left and right pucks will move symmetrically to the Y axis, or the horizontal Left/Right plane. This mode requires the stereo link to be On.

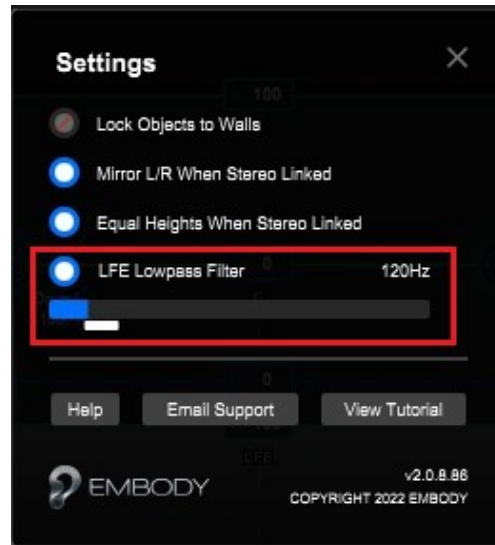


3. **Equal heights with stereo linked** : As you pan along the Z plane, or height, both the left/right pucks maintain the same height when equal height. If you wish to pan Left and Right independently including height turn this off and turn off Stereo Link. This mode requires the stereo link to be On.

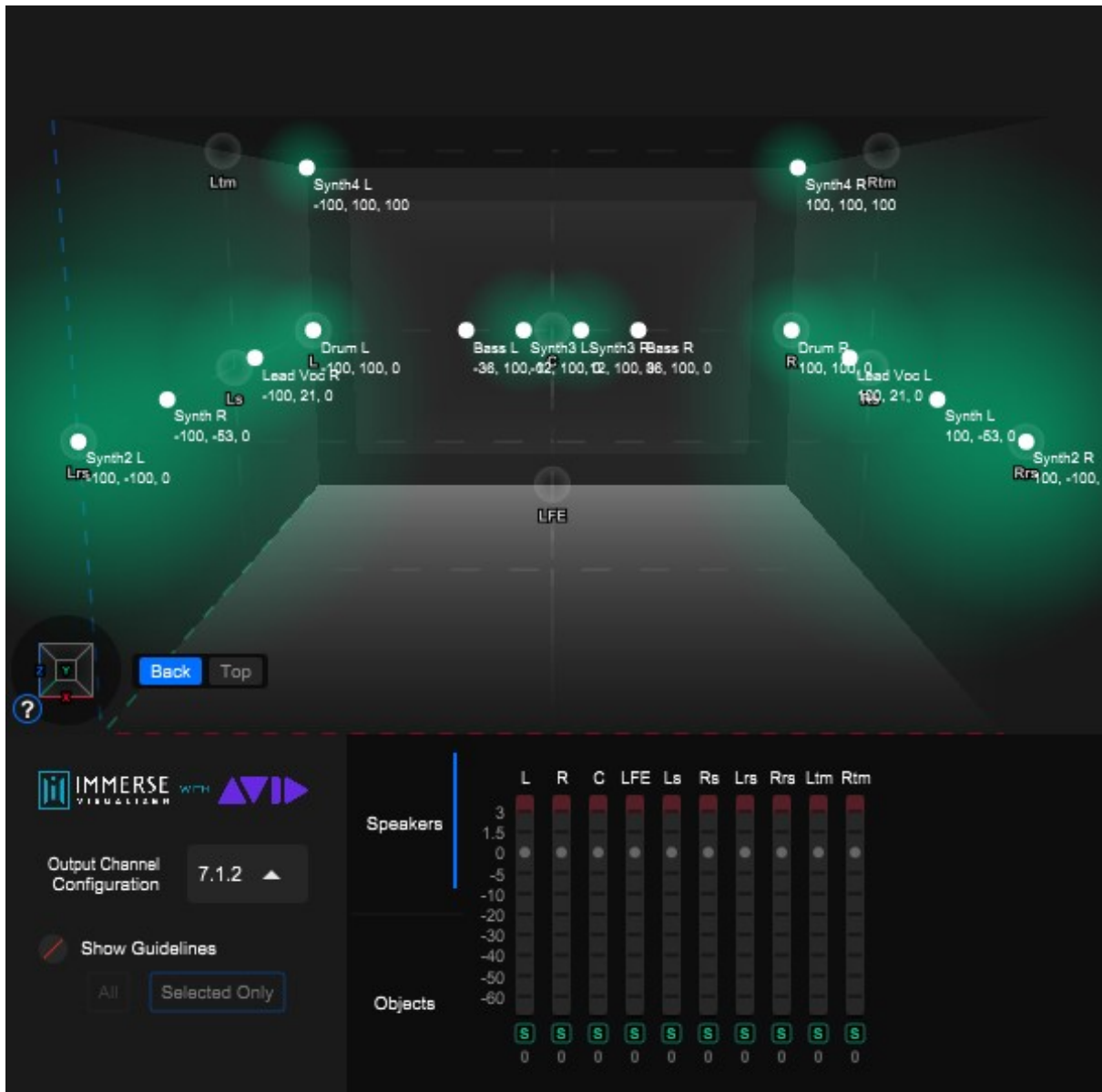


4. **LFE Low Pass Filter** : The LFE low-pass filter is a courtesy to ensure you are not sending a full frequency band to the LFE channel. The slider can be adjusted to change the low-pass cutoff frequency of the LFE send. The cutoff frequency can be

changed from 20 Hz to 1000 Hz. Alternatively, the LFE lowpass filter can be turned Off, in which case there is no low-pass filter being applied.



5. Immerse Visualizer



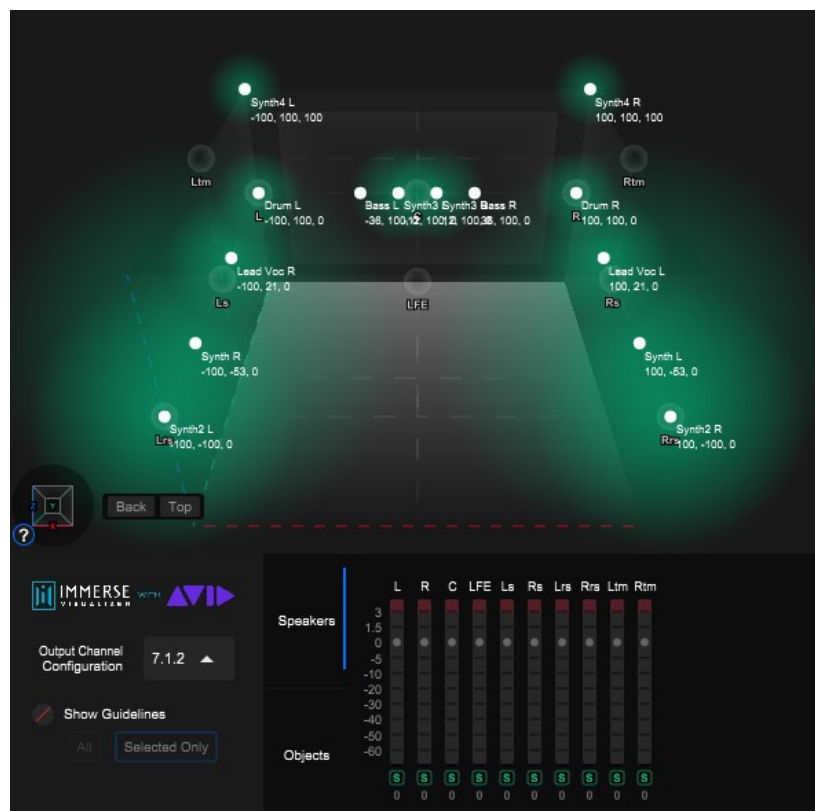
WHAT YOU SEE IS WHAT YOU HEAR

Nothing interrupts the creative process like overly complicated or convoluted workflows. Immerse Visualizer acts like a master panner, allowing you to adjust the placement, volume, and dispersion of all your sound objects together in one 3D space. Understand your soundscape at a glance and streamline your workflow with this comprehensive all-in-one view.

5.1 Selecting a sound

1. All Immerse Panner Objects with the same Output Channel Configuration will appear here and can be moved and adjusted directly from this master Visualizer interface. Don't see any panner objects? Please create a stereo or mono track, insert the Immerse Panner, send it to the selected configuration, and return here!
2. When you hover over a certain object, the hand icon is displayed. You can click on the object to select the object for panning. Note that for a stereo puck, both the left and right pucks will be selected when stereo linking is On.

As you move the puck, the movement is restricted by the setting the corresponding panner is set to. For example, if the object is set to "mirror" or "Lock objects to walls", that behavior will be reflected on this interface.

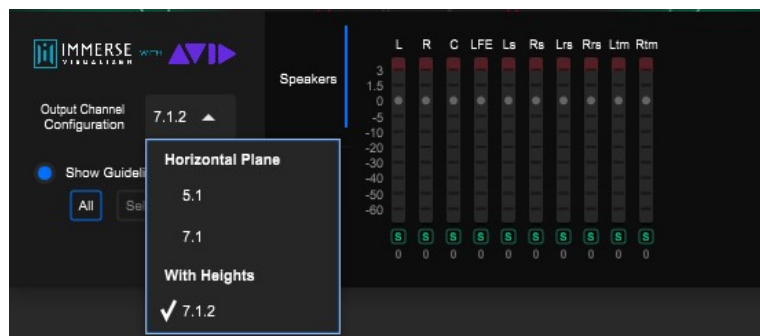




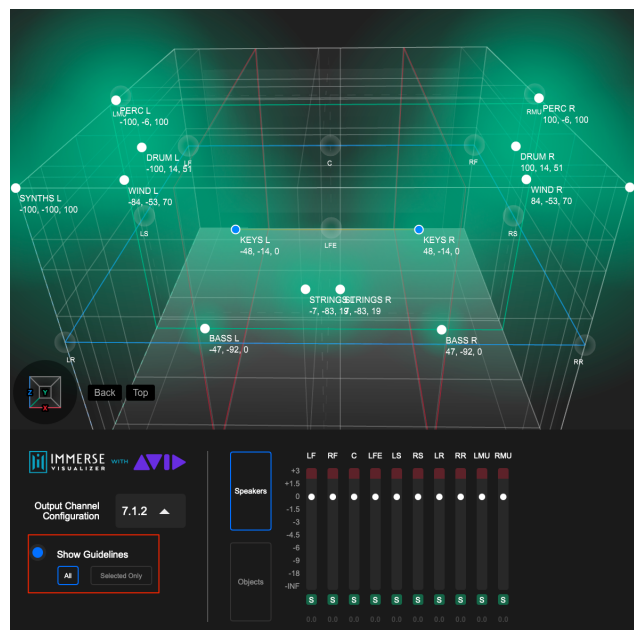
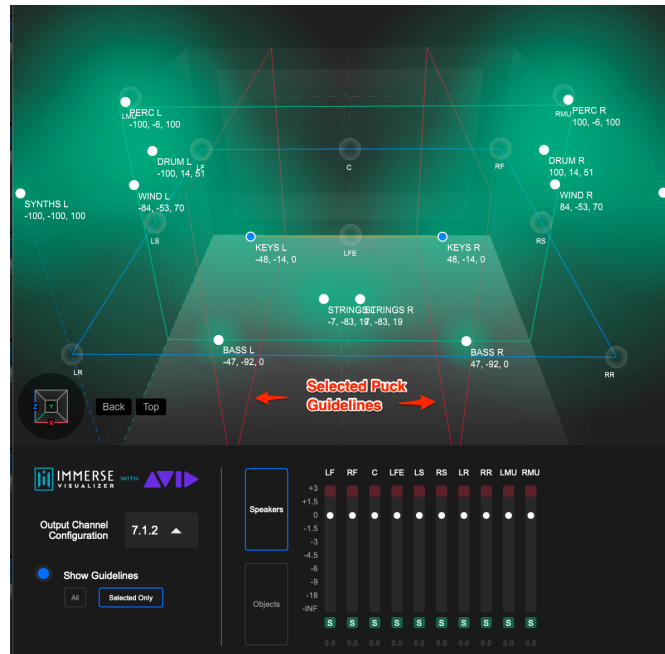
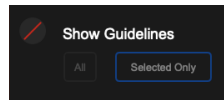
5.2 Immerse Visualizer Controls

1. **Output Channel Configuration** : The output channel configuration can be set to 5.1, 7.1, and 7.1.2.

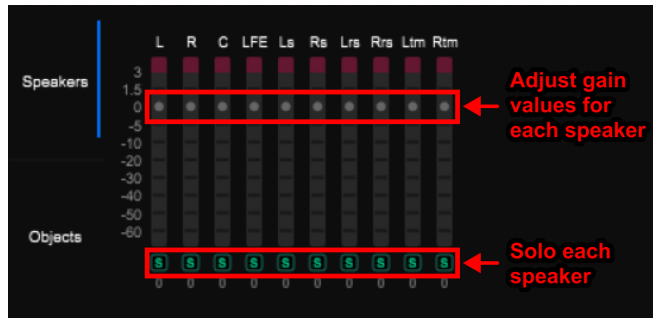
Please ensure your Immerse Panner has the same Output Channel Configuration as your Visualizer. When the visualizer is set to a certain configuration, only the Immerse Panner objects with the same output channel configuration are displayed in the Visualizer.



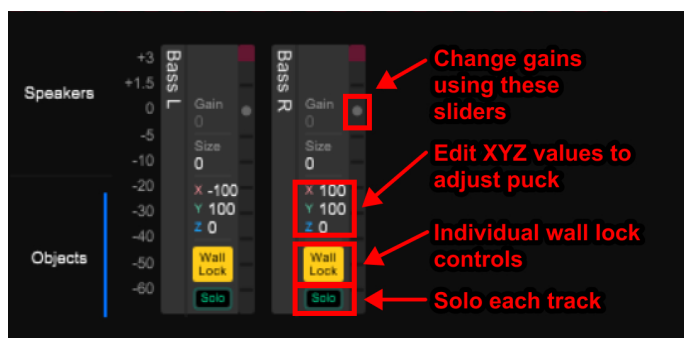
- Show Guidelines** : Turn On “Show Guidelines” to see the guidelines associated with the pucks. Click on “Selected Only” to display only the guidelines associated with the selected pucks. Clicking on “All” will display all the guidelines of all the objects.



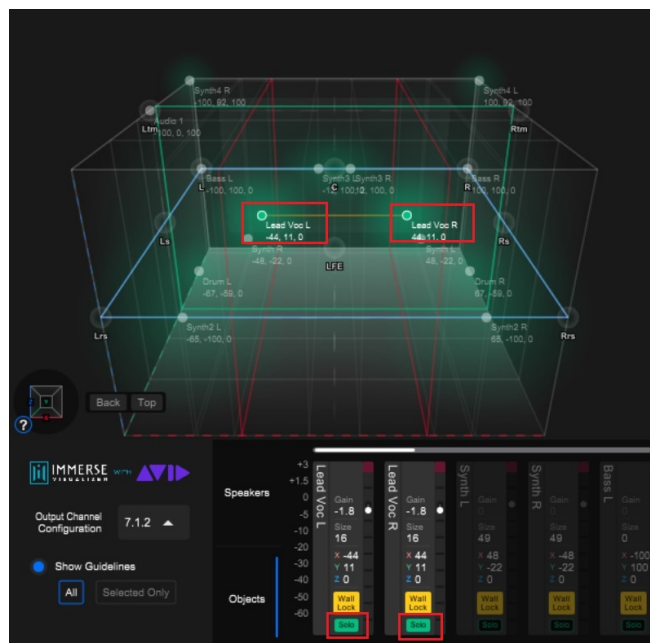
- Speakers** : In the speakers tab, you can adjust the gain values for each speaker output channel by dragging the sliders. You can also Solo each speaker by clicking on the Solo button.



- Objects** : In the Objects tab, you can finely tune the gains and X,Y, Z positions for each of the objects that are panned to a certain output configuration.



- Solo** : You can also click the Solo button to solo each of the objects. Note that if a stereo object is linked, soloing that object would solo both the left and the right objects. The Soloed objects are highlighted in the visualizer.



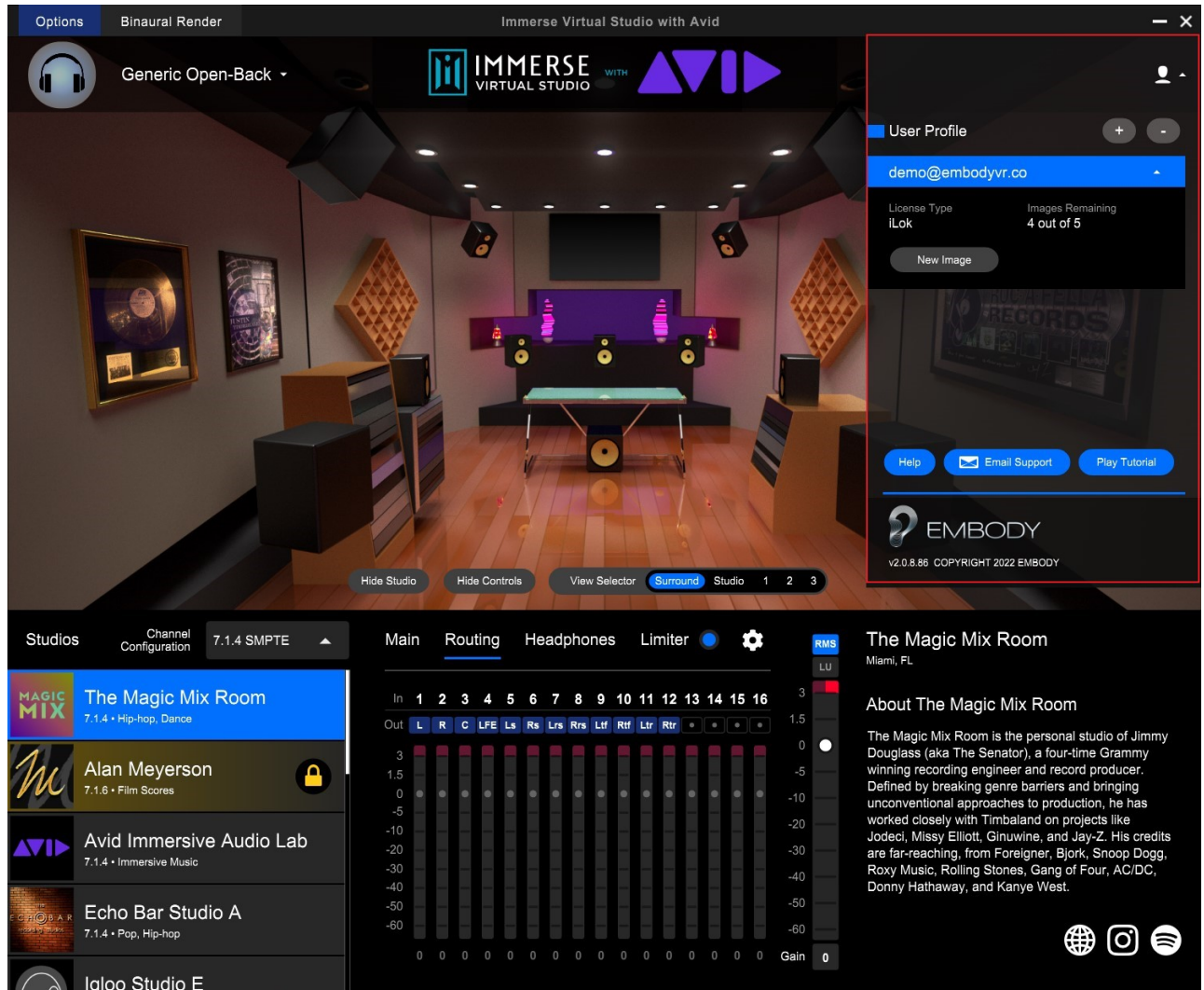
6. Immerse Virtual Studio





TRUSTED VIRTUAL MONITORING


AI Personalization, Room Virtualization, and Headphone Equalization combine to make Immerse Virtual Studio the most accurate spatial monitoring solution ever created for headphones. Gain access to a comprehensive library of virtualized world-class studios from industry legends in Film, Music, and Gaming. Turn your living room, bedroom, car, or wherever, into a professionally treated acoustic space. Mix Atmos on headphones from anywhere.

6.1 User Profile




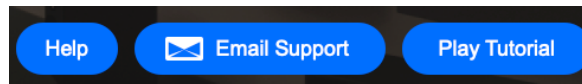
1. Click on the user icon  to display the user information for all the users logged into the plugin.

2. **User Profile** : Click on “+” to add a new user. Clicking on “-” will delete the selected user. Note that this will delete all the user information including the HRTF.

3. Your username (email id) used for login will also be displayed in this menu. Click on the  next to the email to see all the other information related to license, images etc.
4. **License Type** : there is only one license type:” iLok license”
Images Remaining : A single user is allowed a total of 5 different images. Number of images remaining is displayed here.



5. **New Image**  : Click here to submit a new image. You will then scan the QR code displayed to take a picture of your right ear. In future versions, you will be able to audition and select the image that sounds good.
6. **Help** : Click on Help to open a detailed FAQ for this product
Email Support : If you have any questions, click on “Email Support” to email our support channels and we will get back to you very soon. All the information regarding your license will automatically be populated.
Play Tutorial : Click on “Play Tutorial” to play a walkthrough tutorial. At any point of time, if you want to skip, you can do so by clicking the “Skip” button.



7. Click on the logo to open the product webpage. The product version is also displayed here.



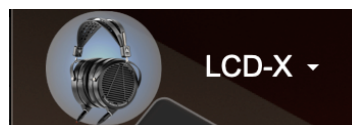
6.2 Studio View



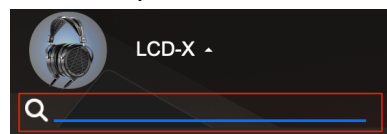
You can click on the speakers to Solo or Mute each of the speakers. Single click on each of the speakers to Solo, Right click to Mute. You can also set the Exclusive or Latch behavior in the Advanced Settings option.

6.3 Headphone EQ

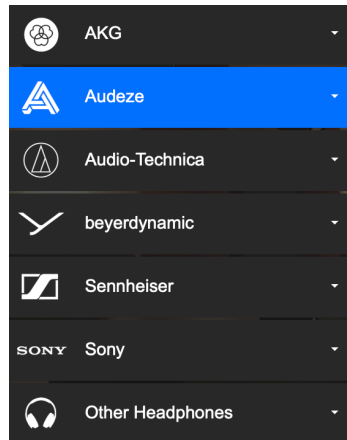
1. Click on headphones to open the headphone tab. You have a total of 36 headphones to select from. Headphone EQ is necessary to maintain the true sound quality of the original source. Select your favorite headphone preset from the headphone list.



2. You can search for your favorite headphones with its name or any other key words.



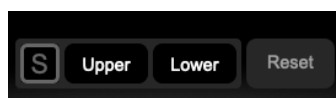
3. Click on the headphone brand to see the list of headphones available for that particular brand.



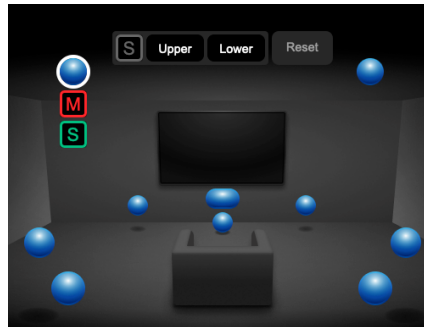
6.4 Studio Controls



1. **Channel Configuration** : Select the channel configuration from a list of different formats. As you select a particular format, only the studios compatible with the format will be enabled, and others will be disabled. You can select from a wide variety of surround options (5.1, 7.1, 7.1.2, 7.1.4, 7.1.6) and different configurations (SMPTE, Film, ProTools). Please note that you can also modify any of these preset configurations by modifying the speaker output configuration, in which case the Channel Configuration will turn into “Custom”. When this happens, any studio can be selected.
2. **Studio Menu** : Select from a list of world class studios to virtually audition and mix your favorite piece of multichannel/atmos music. With personalized HRTF, you will be virtually transported to the sweet spot of the selected studio.
3. Clicking on “S” will solo the Lower speakers by default. Click on “Upper” or “Lower” to solo the Upper or lower set of speakers.



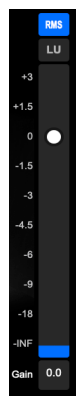
4. Double clicking the speaker globes will Solo the corresponding speaker. Single click will give the option of muting or soloing the respective speaker. Right click will Mute the speaker. Select the Exclusive or Latch behavior from the advanced settings.



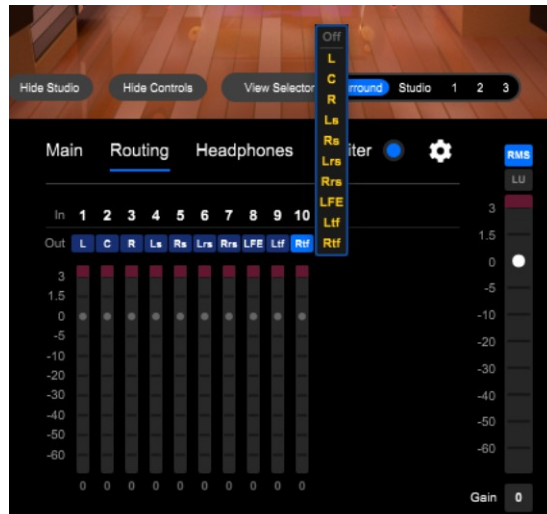
5. **Ambience** : Toggle on/off the Ambience to turn on the reverb for the studio. Adjust the ambience value to control the amount of reflections in the studio as per your taste.



6. **Master gain** : Adjust the slider to control the output master gain value.

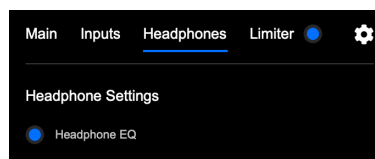


7. **Inputs** : You can adjust the levels of each of the speaker outputs from the Inputs tab. Additionally, you can manually enter the gain values by editing the values under each slider.

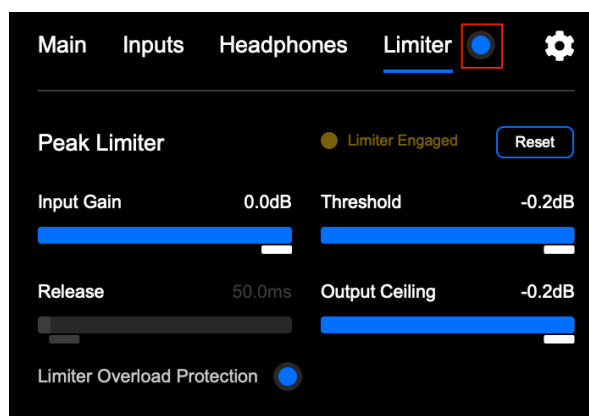


By clicking on any of the output speakers (i.e. L, R, C), a dropdown menu will appear, allowing you to select a different output speaker for that particular channel. Once an output speaker is changed, the channel configuration is shown as “Custom” and is saved.

8. **Headphones Tab** : You can turn on or off the Headphone EQ in the headphones tab. In addition, you can adjust the amount of headphone EQ to be added by adjusting the slider. We recommend the user to set it around 60%.



6.5 Limiter

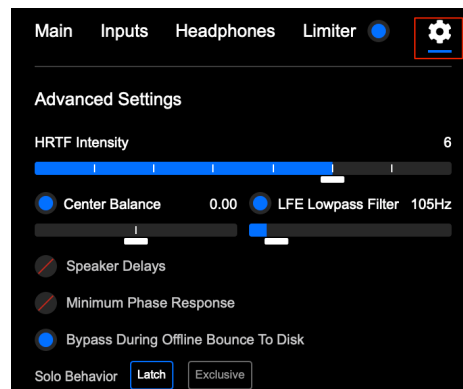


1. You can turn on/off the Limiter by toggling the button next to “Limiter”



2. **Input Gain** : You can set the input gain to the limiter by adjusting this slider.
3. **Threshold** : Threshold determines when limiting begins, while output ceiling specifies how much limiting is applied. When the threshold is low, even relatively low-level signals will undergo gain reduction, while a high threshold will yield a more measured response.
4. **Release** : The release control determines how quickly the limiter stops working after the signal drops below the threshold. If it is overly long, you will hear audible pumping, while if it is too short, distortion artifacts may result.
5. **Output Ceiling** : The output ceiling is **the limit that your audio signal doesn't cross**. In practice, you want this level to be below 0 dBFS to prevent any digital clipping. Before you start tweaking any settings, I recommend that you set the output gain limit to somewhere between -0.2 dBFS and -0.02 dBFS.
6. **Limiter Overload Protection** : You can turn on/off the overload protection by toggling this button
7. In addition, you can see in this tab when the limiter is engaged or not. If you see "Limiter Engaged", it means that the limiter is engaged.

6.6 Advanced Settings



1. **HRTF Intensity** : Controlling the HRTF intensity adjusts the clarity and accuracy of localization levels. Higher levels of HRTF intensity indicates higher accuracy of localization but medium levels of sonical clarity. Lower levels of HRTF intensity improves the clarity while reducing the localization accuracy a bit.
2. **Center Balance** : If your L/R balance seems off, adjust this slider to make sure the Center is perceived right at the middle.

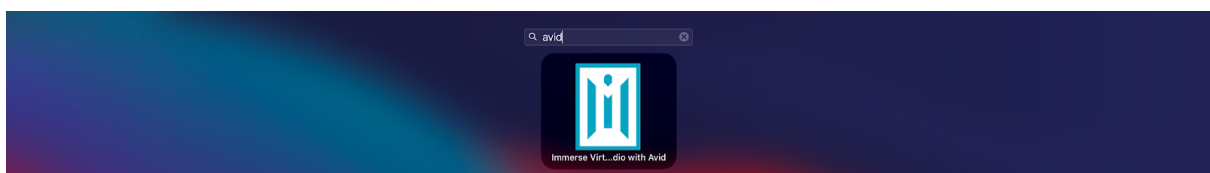
3. **LFE lowpass Filter** : This determines the LFE low-pass cutoff frequency that is applied to the LFE channel. Note that this value is different for different studios as it is set to match the exact LFE characteristics of that particular studio.
4. **Speaker Delays** : Some studios manually add speaker delays to each of the speakers to match the acoustics of a cinema theater. You can turn on the Speaker Delays by toggling the button next to Speaker Delays. We recommend Speaker Delays to be turned off especially when you are panning.
5. **Minimum Phase Response** : Turning this On means the HRIRs being applied are minimum phase response in its nature. The perceptual difference between turning On and Off is often very subtle.
6. **Bypass During Offline Bounce to Disk** : Turning this On will bypass the plugin when you are bouncing the audio in Pro Tools.
7. **Solo Behavior** : In Latch mode, soloing multiple speakers one after the other will not unsolo the previous speaker. In Exclusive mode, only one speaker can be soloed at a time.

7. Standalone Application

7.1 Mac OS :

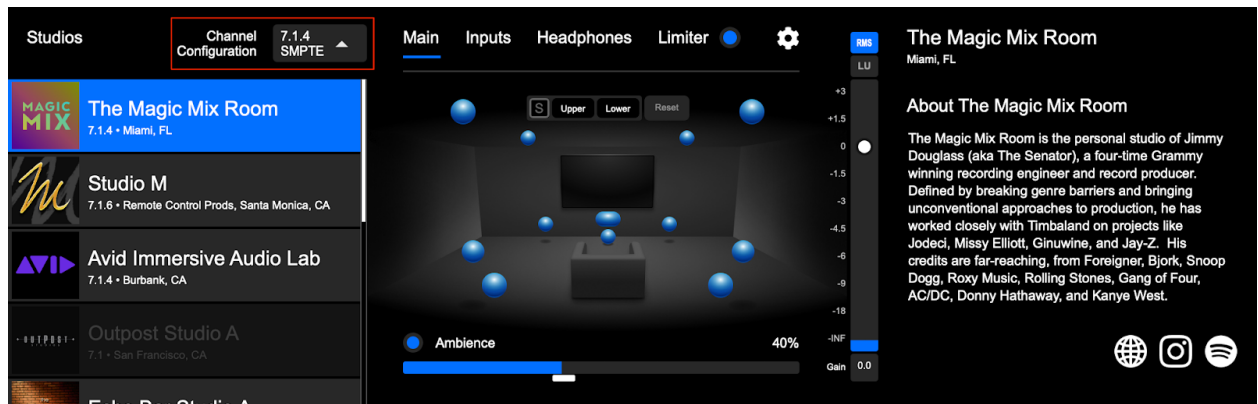
7.1.1 Setup Immerse Virtual Studio Standalone

1. Go to Launchpad on MacOS, or Applications, and search for Immerse Virtual Studio Avid. Alternatively, you can find Immerse Virtual Studio Avid in your Applications folder. Click on the application to launch the Immerse Virtual Studio Standalone application. This desktop application is a powerful tool where you can audition the output of the dolby atmos renderer over headphones in some of the world's finest studios with Immerse Virtual Studio.



- When you set Channel Configuration to a desired value, a list of studios which are compatible with that specific channel configuration will be enabled and the rest of the studios will be disabled (grayed-out). For example :

Channel Configuration 7.1.6 is supported by the following studios - Alan Meyerson Studio M, Diamond Live Room, and The Anechoic Chamber.



- Setting up the Input/Output in the Immerse Virtual Studio Surround Standalone App
Click on “Options” on the top-left corner of the app -> Audio/MIDI Settings.



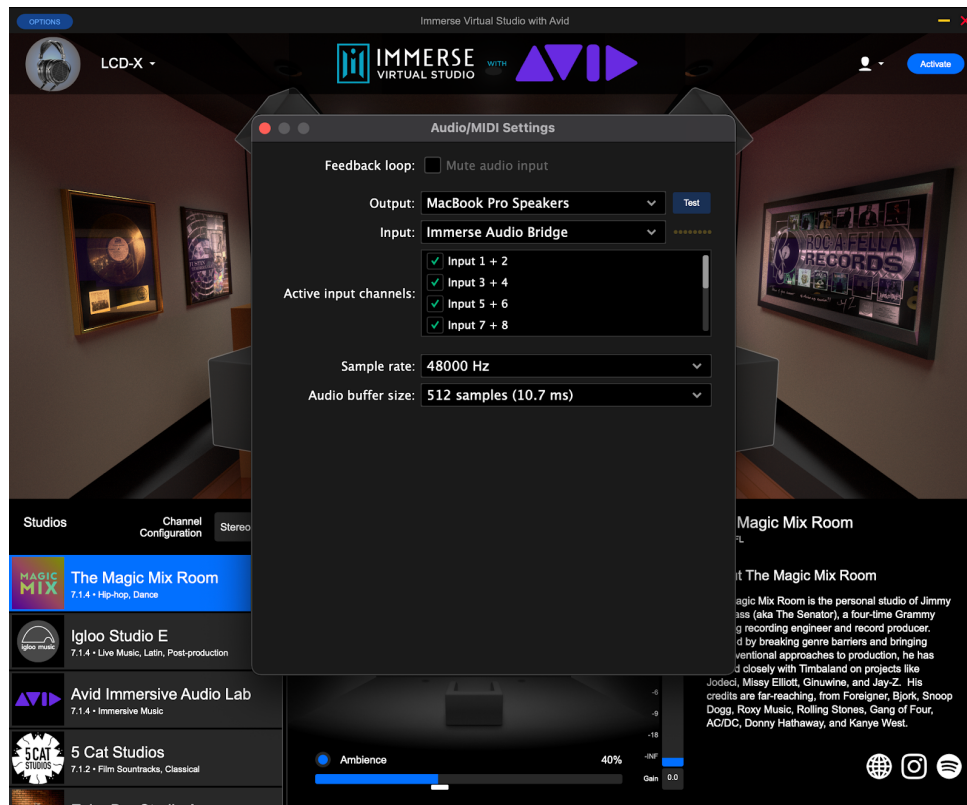
- Select the Input of the standalone app as “Immerse Audio Bridge”. Immerse Audio Bridge is a virtual audio bridge designed by Embody to route audio to Immerse Virtual Studio from various other applications such as the Dolby Atmos Renderer. Immerse Audio Bridge is installed when you install the application (Step 1).

Immerse Virtual Studio is compatible with sample rates from 44.1kHz up to 192kHz. In case you are using Dolby Renderer, you should select 48kHz since this is the sample rate at which Dolby Renderer works.

Let’s select a Sample Rate of 48000 Hz, and Audio buffer size as 512 samples.

Make sure you select the correct Output device that routes to your headphones.

In order to avoid any feedback, the audio input is muted by default. Make sure you unmute it when you playback.

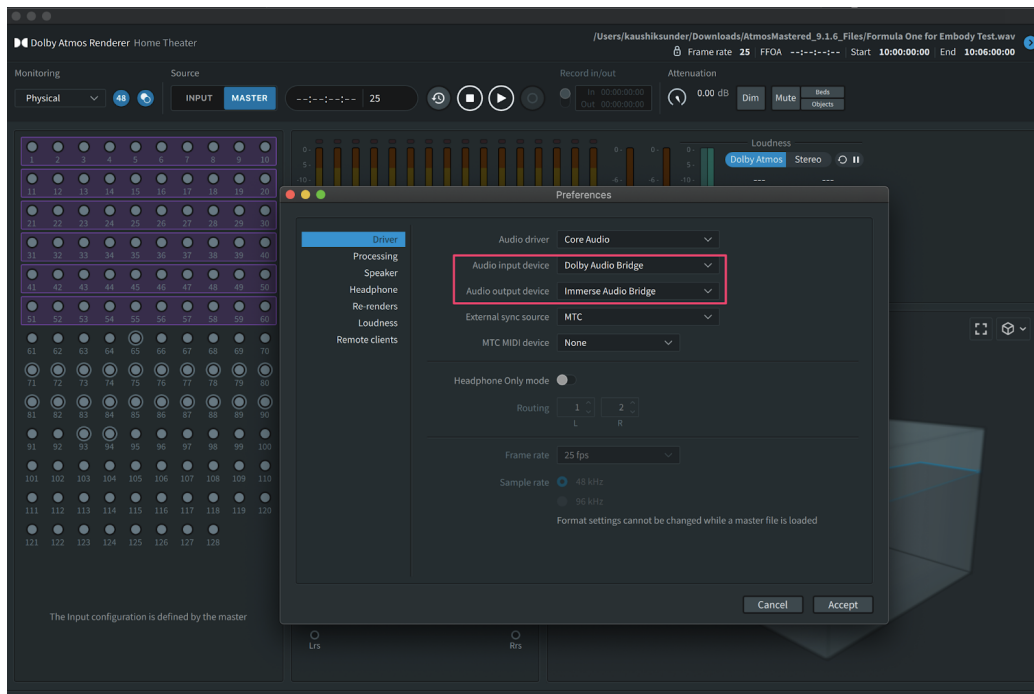


7.1.2 Setup Standalone Dolby Atmos Renderer

1. Open the Standalone Dolby Atmos Renderer. Go to Preferences -> Driver. Set the Audio Driver to Core Audio. Then set the Audio output device in the renderer to “Immerse Audio Bridge”. Click on Accept.

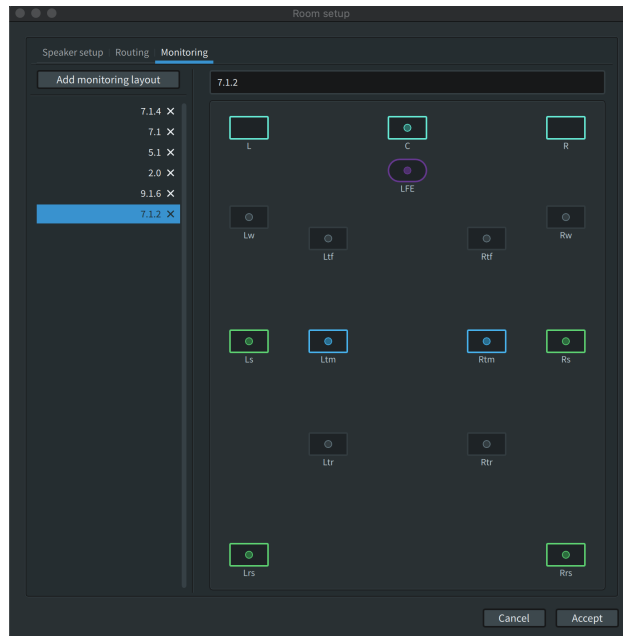
The Audio input device may be set to “Dolby Audio Bridge” if you are routing audio from Pro Tools through the Dolby Audio Bridge.

Alternatively, if you decide to play the Atmos mastered files directly in the Dolby Atmos Renderer, Audio Input Device does not need to be set to anything.

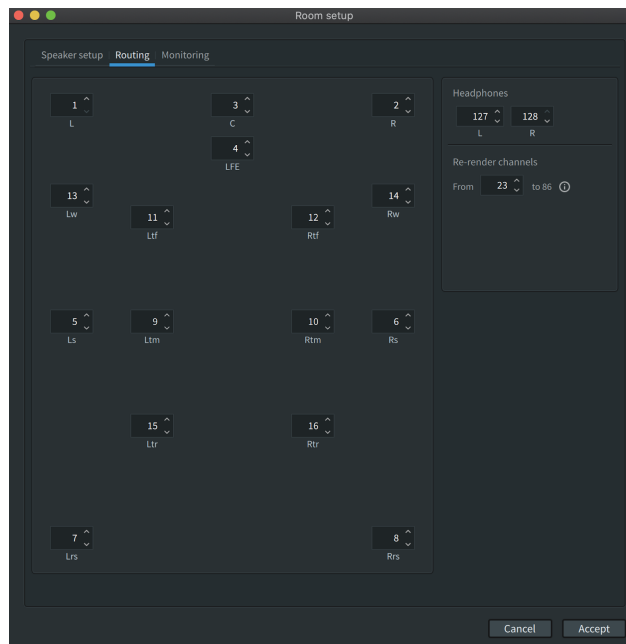


2. Setting up Dolby Atmos Renderer to your desired Speaker Layout output. For example, for 7.1.2 setup

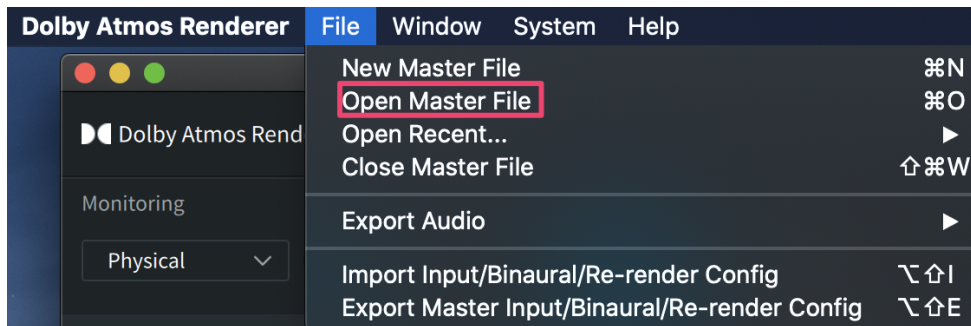
Go to Window -> Room Setup -> Monitoring. Add Monitoring layout, and Name it 7.1.2. Select setup. In this layout, the following channels are selected : L, C, R, LFE, Ls, Ltm, Rtm, Rs, Lrs, Rrs.



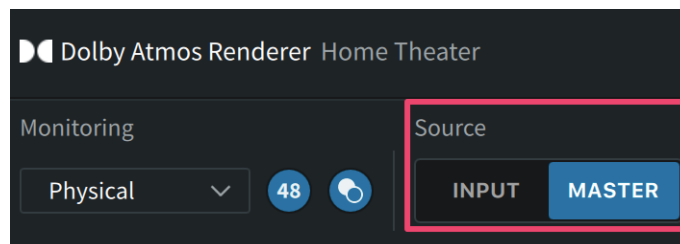
In Routing -> assign the following routing (compatible upto 9.1.6) as shown below. I.e L = 1, R = 2, C = 3, LFE = 4, Ls = 5, Rs = 6, Lrs = 7, Rrs = 8, Ltm = 9, Rtm = 10, Ltf = 11, Rtf = 12, Lw = 13, Rw = 14, Ltr = 15, Rtr = 16.



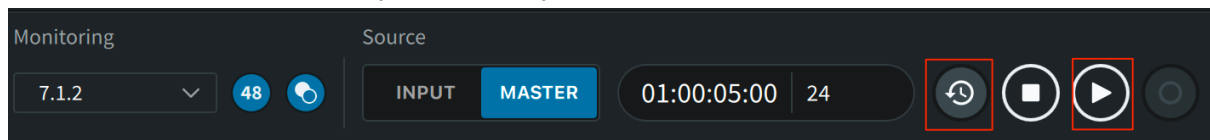
3. Open an Atmos Master file. Click on File -> Open Master File



- To play Atmos mastered files from the Dolby Atmos Renderer, Select Source as “Master”



- You are now ready to experience 7.1.2 spatial audio in your favorite studio with your personalized HRTF -- all on a pair of headphones! Click on the button to the left of Stop and then Hit Play in the Dolby Atmos Renderer.



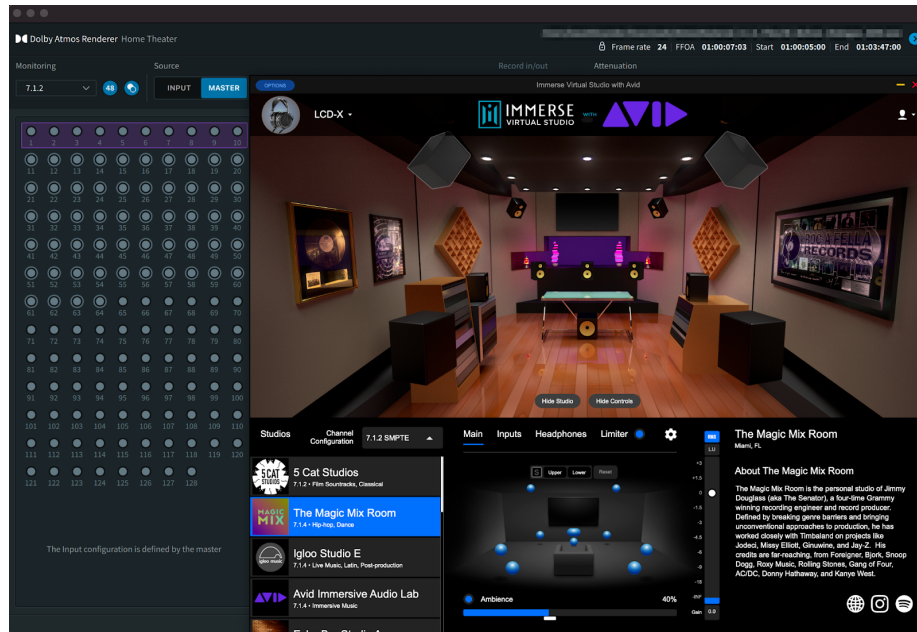
- Go to the Immerse Virtual Studio Avid Standalone application window. In the “Inputs” tab, you can also control each of the 10 speaker input levels coming into the Immerse Virtual Studio Avid Standalone application.

7.2 Windows :

Unlike Mac Immerse Virtual Studio with Avid Standalone, the standalone version in windows is an ASIO driver that takes in multichannel input from Pro Tools and binauralizes the output.

7.2.1 Setup Immerse Virtual Studio Standalone with Protools

1. On ProTools, go to Setup -> Playback Engine, and select “Immerse Virtual Studio (Avid)”
2. Then, go to Setup -> Hardware, verify that Immerse Virtual Studio is the selected Peripheral. You can then click on Launch Setup App, which shall open the Immerse Virtual Studio with Avid Standalone User Interface.
3. In Immerse Virtual Studio with Avid Standalone, open Options -> Audio/MIDI Settings.
 - a. Select Monitoring Source “Immerse Audio Bridge (ProTools.exe)
 - b. Select Audio device type according to where you will be listening the mix on.
As an example:
 - i. Audio device type: Windows Audio
 - ii. Output: Headphones (Realtek ® Audio)
 - iii. Input: None
 - c. Select your sample Rate (default 48kHz should work fine)
 - d. Audio buffer size : 512 is recommended for 44.1 and 48 kHz. For higher sample rates, please select a buffer size of either 1024 or 2048 samples.
4. In Protools, please ensure that the number of channels in the output is correctly set.
 - a. Create a 7.1.2 bus named “Immerse 7.1.2”. Make sure that the output track to be sent to the standalone is set to this 7.1.2 bus.
 - b. Go to Protools-> Setup -> I/O, Output Tab, and create a new Path (i.e. Immerse 7.1.2), which should have the number of channels needed (i.e. 5.1 will require 6 channels)
 - c. In the I/O window, go now to Bus Tab. Scroll down until you see the Bus Name “Immerse 7.1.2”. You should then enable the bus by ticking the empty box, and then map it to the output path that you’ve created (in this example, IAB7.1.2)
 - d. Press OK, and now you should have routed the output track to the Immerse 7.1.2 bus which is mapped to your newly created IAB7.1.2 path
5. You can now play your Pro Tools audio in the Immerse Standalone application!



Now you can hear Atmos or Surround mixes on your favorite pair of headphones as if you were physically present in the Studio!