PANTHEUS | USER'S GUIDE



WAVEMACHINE LABS | MoReVoX®

Version 1.0.0

Pantheus User's Guide

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Pantheus is a collaboration between MoReVoX and WaveMachine Labs. The two companies have worked together for more than 20 years on products such as Drumagog and Auria. MoReVoX designed all 10,000 spaces in the library.

Notices for the third-party software and typefaces in Pantheus are in the file "Third-party notices.txt" on the installer's disk image.

Visit us on the web at pantheusplugin.com.

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CHAPTER 1

WELCOME TO PANTHEUS

Pantheus is a reverb with 10,000 spaces built in. You find the one you need by saying what you want to hear.

With a library of that size, a quick way to the right space matters. Pantheus has three ways to find it. All three work on the same list.

Ask	Type what you want to hear, such as "warm vocal plate" or "tight drum room." Pantheus lists the matching spaces, best match first.
Listen	Press **LISTEN** and play a few seconds of an instrument. Pantheus names what it heard and lists the spaces for that instrument.
The star map	Every space is a star on the map at the left of the window. Drag the magnifier across the stars to hear them one after another.

Once a space plays, you can shape it to fit the song. The dials under its picture change how long it rings and how large it sounds. A separate EQ tones the reverb without touching the dry sound.

On a surround track, Pantheus plays the reverb all around the listener. Its Immersive Audio page sets how much of the reverb each group of speakers plays.

Pantheus is a collaboration between MoReVoX and WaveMachine Labs. The two companies have worked together for more than 20 years on products such as Drumagog and Auria. MoReVoX designed all 10,000 spaces in the library.

Space Synthesis

Pantheus is the world's first Space Synthesis Reverb.

MoReVoX and WaveMachine Labs joined forces to build a reverb unlike any other. Pantheus contains 10,000 unique spaces, each one measured and mapped by tone and by use. But the true power behind Pantheus is its advanced search engine, built right into the plug-in. Just type what you want to hear. Pantheus brings up a curated list of spaces, ready to use. Finding the right space for your mix has never been easier.

The road to Space Synthesis began in the early 2000s, when multi-platinum sound engineer and designer Sabino Cannone of MoReVoX first worked with impulse responses. He saw at once that they could do more than copy a room. From the start, he used them to create spaces that had never existed. By 2004 he was one of the people building the library for TL Space, the first reverb of its kind to run on Pro Tools' DSP.

His sessions broke the usual rules. He spread boundary mics wide across church naves, captured spaces through binaural recording, and explored unconventional microphone configurations, custom-built hardware and carefully crafted signal paths to extract entirely new sonic dimensions.

Over 25 years, he learned to build a space the way a producer builds a mix. Many of the spaces in Pantheus are several sources blended into one. He shapes their width in mid and side and colors many of them with harmonic distortion. Every one of the 10,000 was then edited by hand and tuned by ear, the way a sound designer sculpts a sound on a synthesizer.

That work taught him that a space is a stack of layers. You hear how big it is in its first reflections, and what its walls are made of in the tone of its tail. Movement is what keeps it alive.

In Pantheus, each of those layers has powerful controls of its own. **Pre-delay**, **Attack** and **Early / late** shape the first reflections. **Damping** and **Bass decay** set the tone of the tail. **Modulation** and **Drive** add motion and grain, live, as the music plays. **Width**, **Front-rear** and the Immersive Audio page place the space around the listener, from stereo to 5.1, 7.1 and Atmos 7.1.2.

On all 10,000 spaces, every tail and every stereo balance was checked. The tone of each one was calibrated by ear in blind listening tests. Each space is also matched to the instruments it serves best, from vocals and drums to strings, synths and dialog.

It is all a few words away. Type “warm vocal plate” or “something warm for my acoustic guitar” to see the matching spaces. Or press **LISTEN** and play a few seconds of your track to have Pantheus suggest rooms that work well with what it heard.

“From the start, I never wanted to just capture a space. I wanted to create one,” says Sabino Cannone. “Pantheus is the synthesis of 25 years spent pushing past what a reverb can do.”

Pantheus is a collaboration between WaveMachine Labs (makers of Drumagog, ReStem and ReSpace) and MoReVoX. The two companies have worked together for more than 20 years on products such as Drumagog and Auria.

No AI behind the search box

People see a search box and expect an AI behind it. Pantheus does not use AI for its search. MoReVoX built the search by hand. The people who designed the 10,000 spaces also wrote the search that finds them. Since every result is one of those spaces, the search never makes up an answer.

The search runs inside the plug-in on your computer. Nothing you type or play is sent anywhere. For the search, no internet connection is needed. Chapter 3 lists what Pantheus itself sends over the internet.

What comes with Pantheus

The installer puts two things on your computer.

- The Pantheus plug-in. On a Mac it is an Audio Unit, a VST3 and an AAX plug-in. On Windows it is a VST3 and an AAX plug-in.
- The library of 10,000 spaces

How this guide is organized

Chapter 2 covers the installation and Chapter 3 the activation. To hear Pantheus right away after that, follow the steps in **Chapter 4, A Quick Tour**. The other chapters follow the order you will usually work in.

Chapters	What they cover
5 to 9	Finding a space: asking for it, the list, the star map, Listen, Similar and Nearby
10 to 12	The sound: shaping the space, the mix and the output, the Reverb EQ
13	Your presets, undo and redo, the **A** and **B** keys, and what a session keeps
14	Immersive Audio, for 5.1, 7.1 and Atmos 7.1.2 tracks
15 and 16	The Settings page, and Pantheus in your DAW
17 and 18	Help when something is not as you expect, and reference tables for every control

Throughout the guide, names you see on the screen are printed in **bold**, as they appear in Pantheus. Words that the window shows as a message or as a value are in quotation marks.

Keys are called by the names they have on a Mac. On Windows, **Option** is **Alt**, **Command** is **Ctrl** and **Return** is **Enter**.

CHAPTER 2

INSTALLING PANTHEUS

What you need

Item	Requirement
Computer	A Mac with Apple silicon or an Intel processor, or a PC with a 64-bit processor
Operating system	macOS 11 or later, or Windows 10 or later
Disk space	About 4.5 GB free. The library takes 4.2 GB of it. On Windows, the installer needs about 9 GB free while it runs.
Plug-in formats	Audio Unit, VST3 and AAX on a Mac. VST3 and AAX on Windows.
Sample rates	44.1 kHz to 192 kHz
Tracks	Mono, stereo, 5.1, 7.1 and Atmos 7.1.2
Internet	Needed once, to start the free trial or to activate Pantheus (Chapter 3)

The installer

Pantheus comes as one installer, **Install Pantheus**. It holds the plug-ins and the library, about 4.2 GB in all. Use it the first time you install Pantheus on a computer, and again for every newer version. **Updating Pantheus**, later in this chapter, has the steps.

Installing on a Mac

1. Open the **Install Pantheus** disk image, then double-click the installer inside it.
2. Follow the installer. It installs everything at once and asks nothing about its parts.
3. Wait for the installer to finish, then close it. Copying the library takes a minute or two.

On a Mac, the installer has four parts. Each one goes to a fixed place.

Part	Where it goes
VST3 plug-in	`/Library/Audio/Plug-Ins/VST3/Pantheus.vst3`
Audio Unit plug-in	`/Library/Audio/Plug-Ins/Components/Pantheus.component`
AAX plug-in	`/Library/Application Support/Avid/Audio/Plug-Ins/Pantheus.aaxplugin`
Library	`/Library/Application Support/WaveMachine Labs/Pantheus/Library`

Installing on Windows

1. Quit your DAW.
2. Double-click **Install Pantheus**. The installer is one large file. Windows can take up to a minute to start it.
3. A small window reads "Getting the Pantheus installer ready." Wait while its bar fills.
4. When Windows asks whether the installer may make changes to your computer, click **Yes**.
5. Follow the installer. It installs everything at once and asks nothing about its parts.
6. Wait for the installer to finish, then close it.

On Windows, the installer has three parts. Each one goes to a fixed place.

Part	Where it goes
VST3 plug-in	`C:\Program Files\Common Files\VST3\Pantheus.vst3`
AAX plug-in	`C:\Program Files\Common Files\Avid\Audio\Plug-Ins\Pantheus.aaxplugin`
Library	`C:\ProgramData\WaveMachine Labs\Pantheus\Library`

While the small window unpacks the installer, it needs about 9 GB of free disk space. About half of that is free again when the installation has finished.

After the installation

An installation replaces the Pantheus that was there before, the library included.

> **TIP**
> Most DAWs look for new plug-ins when they start. If yours was open during the installation, quit it and open it again.

Updating Pantheus

When its window opens, Pantheus looks for a newer version. While your DAW stays open, it asks at most once every six hours. When a newer version is out, a notice such as "Update available: 1.1.0" appears at the right end of the row of tabs. On the Settings page, the **VERSION** section reads the same and has a **Download** key.



Figure 1. A newer version is out. The notice stands at the right of the tabs.

1. Click the notice, or click **Download** on the Settings page. The download starts in your web browser.
2. Quit your DAW.
3. Run the installer you downloaded, as described earlier in this chapter.

The download is the installer for your computer, Mac or Windows. It is the whole installer each time, with the library.

An update leaves your activation, your settings, your favorites and your presets as they are. Looking for a newer version needs an internet connection. Without one, Pantheus has no notice and works as usual.

Where your own files are kept

Your favorites, your presets and your settings live in a folder of your own user account. Every Pantheus you open reads the same files, in every session and in every DAW.

System	The folder
Mac	`~/Library/Application Support/WaveMachine Labs/Pantheus/`
Windows	`%APPDATA%\WaveMachine Labs\Pantheus\`

What	File or folder
Settings, favorites, recent spaces, the window's size	`Pantheus.settings`
Your presets (Chapter 13)	`Presets`
Your EQ presets (Chapter 12)	`EQ Presets`
Your Immersive Audio presets (Chapter 14)	`Immersive Presets`

The installers never touch these files.

Removing Pantheus

On a Mac, Pantheus has no uninstaller. To remove it, delete the four items the installer put in place.

On Windows, open the list of installed apps in Windows Settings and uninstall **Pantheus** there. The library goes with it.

Either way, your own files stay in their folder until you delete that folder as well. The folder also holds the activation. After you delete it, Pantheus asks you to sign in again.

Putting Pantheus on a track

Pantheus is an effect. Add it to a track the way you add any effect in your DAW, or put it on an aux track and send to it.

On a track Use **Mix** to set how much reverb you hear with the dry sound. A new Pantheus opens with **Mix** at 20%.

On a send Click in the Pantheus window and press **Shift-W** for full wet. Pantheus then plays only the reverb. The level of the send in your DAW sets how much of it you hear.

A new Pantheus opens with a plate named Vintage Studio already chosen. You hear a reverb as soon as sound passes through it.

Pantheus delays its output by less than 2 ms, whatever its settings. Your DAW is told the delay and makes up for it.

It works on mono and stereo tracks, and on 5.1, 7.1 and Atmos 7.1.2 tracks. On a mono track, the reverb is mono too. On a surround track, the reverb plays in every speaker. Chapter 14 covers that.

CHAPTER 3

ACTIVATING PANTHEUS

Pantheus plays its reverb while its free trial runs, and after that once it is activated. You need an internet connection to start either one.

The activation window

Until Pantheus is activated, an activation window lies over the Pantheus window each time you open it. On a computer that has never run Pantheus, the activation window reads "Activate Pantheus." It has two ways in.

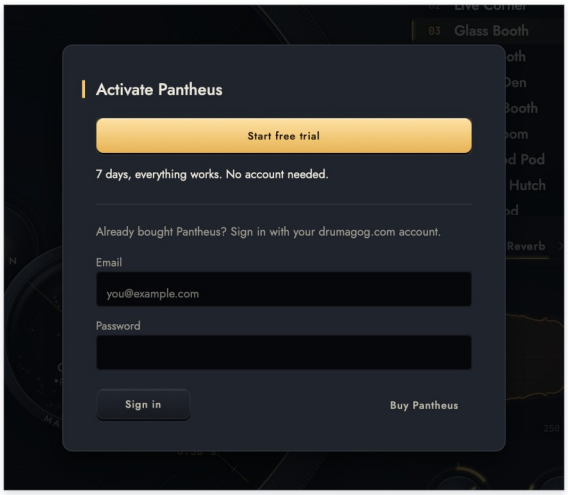


Figure 2. **The activation window as it first opens.**

While the activation window reads "Activate Pantheus," only the dry sound passes through Pantheus. It stays until you start the trial or sign in.

Starting a free trial

The trial lasts 7 days. During that time, everything in Pantheus works. Your name and an email address are all it takes, with no account to make.

1. Click **Start free trial**. The signup page opens in your web browser.
2. On that page, type your name and your email address.
3. Open the email you receive and click the link in it. Pantheus starts by itself.

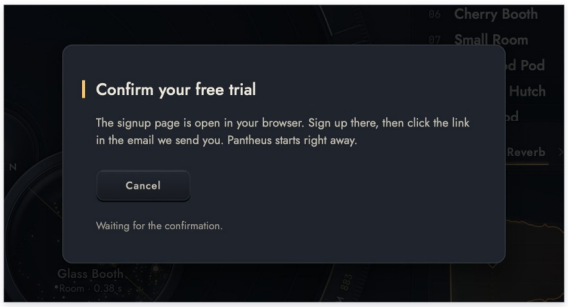


Figure 3. **Pantheus waits for the link in the email to be clicked.**

While Pantheus waits, the activation window reads "Confirm your free trial." To stop the wait, click **Cancel**. If the link has not been clicked after half an hour, it reads "The trial signup wasn't confirmed yet." Click the link in the email, then click **Start free trial** once more.

Each computer has one trial. Once it is over, **Start free trial** answers "Your free trial has ended."

During the trial, the activation window comes back with the first Pantheus window you open after starting your DAW. Its title gives the days left, such as "Free trial: 5 days left." Click **Continue trial** to go on working. It then stays away until you start the DAW again.

Signing in after you buy

Pantheus is licensed to your drumagog.com account. To buy it, click **Buy Pantheus** in the activation window. The store then opens in your web browser.

1. Open the Pantheus window. The activation window is over it.
2. Under **Email**, type the email address of your drumagog.com account. Under **Password**, type its password.
3. Click **Sign in**, or press **Return** in the **Password** field.

When the activation succeeds, the activation window closes and Pantheus plays. You sign in once on each computer, and once more for each other user account on it. One license activates Pantheus on up to three computers in a calendar month.

When something goes wrong, a red line in the activation window says what.

The red line says	What to do
"Enter the email and password you bought Pantheus with."	Fill in both fields.
"Your username or password is incorrect."	Type both again. They are the ones you sign in with at drumagog.com.
"Couldn't reach the activation server. Check your internet connection and try again."	Check that your computer is online, then click **Sign in** again.

The red line says	What to do
That the account has no license for Pantheus	Sign in with the account you bought Pantheus with. To try Pantheus first, click **Start free trial**.
"Authorization limit reached. Please contact support."	This license has activated three computers this month. Write to support.
"This Pantheus license has been revoked."	Write to support.

When the trial ends

After 7 days, the activation window reads "Your free trial has ended." From then on, only the dry sound passes through Pantheus until you sign in. A line at the foot of the finder says the same.

The settings in your sessions are kept. Once Pantheus is activated, each session plays as you left it.

Checking your license

The **LICENSE** section of the Settings page (Chapter 15) says how this computer stands.

The section reads	Its key
"Activated on this computer."	**Sign in again** opens the sign-in fields once more.
"Free trial, 5 days left."	**Activate** opens the activation window.
"The free trial has ended. Pantheus plays the dry sound until it is activated."	**Activate**
"Not activated. Pantheus plays the dry sound until it is."	**Activate**

Pantheus and the internet

Starting the trial and signing in need an internet connection. Once that is done, Pantheus plays without one. Whenever your computer is online, Pantheus sends the following.

What	When	What it holds
Your sign-in	When you click **Sign in**	The email address and the password you typed, with an identifier of the computer. They go to drumagog.com.
The free trial	While Pantheus waits for the link in the email, and once each time it loads during the trial and after it	The identifier of the computer. It goes to drumagog.com.

What	When	What it holds
A check of the license	Every 5 minutes while Pantheus is loaded, on an activated computer	A question to drumagog.com whether the activation still stands. It holds the identifier of the computer and the activation.
A look for a newer version	When the window opens, at most once every six hours	A request to pantheusplugin.com for the number of the newest version. It holds nothing about you or your computer.
A usage note	20 seconds after Pantheus loads, then every 5 minutes while it is loaded, activated or not	The version of Pantheus and its plug-in format. Your operating system, your DAW and its version. The processor and the memory of the computer. Whether Pantheus is activated or on trial. The day a trial ends. How it ran, such as the number of instances, the sample rate, the size of the blocks and the load on the processor. Two identifiers of the computer, by which a trial or an activation is matched to it. It goes to drumagog.com.
An error report	When Pantheus shows an error message, or the next time it loads after your DAW crashed or quit abruptly with Pantheus in it	The number of the message, or a shortened crash record of the DAW with the name of your user folder taken out. The version of Pantheus, its plug-in format, your DAW and your operating system. A log of what Pantheus did, written in numbers only. A random number stands in for the computer. Error reports go to Sentry, a service for crash reports.

Pantheus never puts what you type in the search field, what you play, or what Listen hears in any of these. The names of your files, projects, tracks and presets stay on your computer too. Apart from the sign-in and the trial's signup page, nothing holds your name or your email address.

A crash record is written by your computer or your DAW, not by Pantheus. On Windows it can hold a small part of the DAW's memory from the moment of the crash.

CHAPTER 4

A QUICK TOUR

This chapter names the parts of the window. It ends with a first reverb in six steps.

The parts of the window

The window has two sides. On the left is the star map. On the right, the finder is at the top. The deck is under it.



Figure 4. The Pantheus window as it opens.

	Part	What it is
1	The star map	Every space in the library as a star (Chapter 7)
2	The type names	The seven types of space, each with its count. A click keeps the list to one type.
3	**LISTEN**	Names the instrument it hears and lists the spaces for it (Chapter 8)
4	The magnifier	Drag it across the stars to hear them
5	Four round keys	Undo and redo (Chapter 13), the whole map, and the Settings page

	Part	What it is
6	The search field	Type what you want to hear (Chapter 5)
7	The bar	The space that plays, with previous and next, the favorite star, **Similar** and Nearby (Chapter 9)
8	The labels	Where to look, and labels that narrow the list
9	The list	The spaces that answer your question (Chapter 6)
10	**Input Filter**, **Reverb** and **EQ**	The three pages of the deck, in the order the sound takes
11	The picture	The reverb as it is shaped now, with handles to drag (Chapter 10)
12	The keys on the picture	**Hold**, **Reverse**, **Reset**, **Save** and **Save as**
13	The dials	The reverb's own controls
14	The output column	**Mix**, **Output** and **Balance** (Chapter 11)
15	**LIMIT** and the meters	The output limiter's lamp, and the level Pantheus puts out
16	**A**, **B** and **Immersive**	Two setups to compare (Chapter 13), and the Immersive Audio page (Chapter 14)

The finder and the star map always give the same answer. When you narrow the list, the map keeps only the stars of the spaces in it.

Your first reverb

1. Put Pantheus on a drum track and start playback.
2. Click in the search field and type "tight drum room." The list changes as you type.
3. Press **Return**. The first space in the list starts to play.
4. Press the **Down** arrow key to hear the next space, and **Up** to go back.
5. Turn **Decay** to make the reverb ring longer or shorter.
6. Set how much reverb you hear with **Mix**.

The size of the window

Drag the lower right corner of the window to make it larger or smaller, from 60 to 160 percent of its original size. Everything in it grows or shrinks together. Pantheus remembers the size for every window it opens on this computer.

Notes under the pointer

Rest the pointer on a control for a moment to read a short note about it. The keys with no name on them, such as the round keys under the map, say what they are this way.

CHAPTER 5

ASKING FOR A SPACE

The quickest way to a space is to say what you want to hear. This chapter covers the search field and the row of labels under it.

Typing what you want to hear

Click in the field at the top of the finder. While it is empty, it reads “Type what you want to hear.” Type a few plain words in any order, such as “warm vocal plate” or “huge bright hall for strings.”

The list follows as you type, with no key to press first. Typing only changes the list and the map. The space that plays stays until you choose another one.



Figure 5. The finder after warm vocal plate was typed.

Key	What it does in the field
Return	Asks at once and passes the keyboard to the list. If the space that plays is not in the new list, the first result starts to play.
Escape	Clears the field. In an empty field, it passes the keyboard to the list.
Up and **Down**	Play the row before or after the space that plays
The **x**	Appears beside the field while anything is asked, typed or not. A click starts a new search from nothing, in **All spaces**. The words go with every label, with what Listen heard and with Similar. The space that plays stays. Its row is at the top of the new list. The **x** of a label takes that label alone.

After **Return**, the field stops taking what you type. A click anywhere outside the field does the same.

How your words were read

After a search, small labels appear in the row under the bar. Each one says how Pantheus read one of your words. For "warm vocal plate," they read **USE** Vocals, **SOUND** warm and **TYPE** Plate.

Label	What it means
USE	An instrument or a job the space is for, such as Vocals, Snare or Drum Room
SOUND	A word for the sound, such as warm, tight or bright
SIZE	A size, such as small, large or huge
TYPE	One of the types of space, such as Plate or Hall
WORD	A word that was looked for in the names and descriptions of the spaces
CORRECTED	A typing mistake or a studio abbreviation put right, such as bd for kick
PAIRED	A word matched with the nearest thing the library has
INSPIRED BY	The label reads "a classic unit" when you ask for the sound of a classic hardware reverb
NOT FOUND	A word that no space in the library has

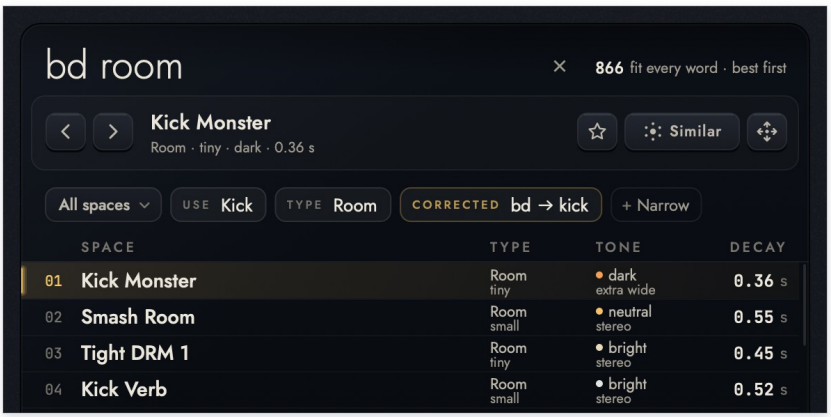


Figure 6. **The abbreviation bd is read as a kick drum.**

These labels only report. A click on one of them does nothing.

What you can ask for

Pantheus understands the words engineers use for a reverb. Mix them freely.

Kind of word	Examples
Instruments and parts	vocals, backing vocals, snare, kick, toms, drums, percussion, guitar, piano, strings, brass, synth pad
Types of space	room, hall, plate, spring, early reflections
Sizes	tiny, small, medium, large, huge, vast
The sound	dark, warm, bright, airy, tight, short, long, wide, gated, reverse, vintage, lo-fi
Places	church, cathedral, bathroom, canyon, forest, stadium, arena
Styles of music	reggae, disco, techno, gospel, blues
Studio shorthand	bd, sd, snr, hh, oh, bgv, vln, orch
Names	Any word from the name of a space, or its whole name

Small words such as “a,” “the,” “for” and “reverb” are skipped. A small typing mistake in a longer word is put right. In that case, the **CORRECTED** label says how. Pantheus also reads many of these words in Italian, Spanish, French and Japanese. It reads “voce,” “voz” and “voix” as “vocal.”

The count beside the field

At the right of the field, Pantheus says how many spaces it found and in which order they are listed.

The count reads	What it means
"559 fit every word · best first"	That many spaces match everything you asked for. The best matches come first.
"none fits every word · nearest first"	No space matches all of your words together. The list holds the nearest ones.
"nothing found"	The words found nothing at all. The text in the field turns orange.

A search first lists its 40 best results. Scroll to the end of the list to load 40 more, up to 200.

Narrowing with labels

Four keys in the row under the bar narrow the list to one kind of space. Each key opens a menu. Beside every row of a menu is the number of spaces it holds.

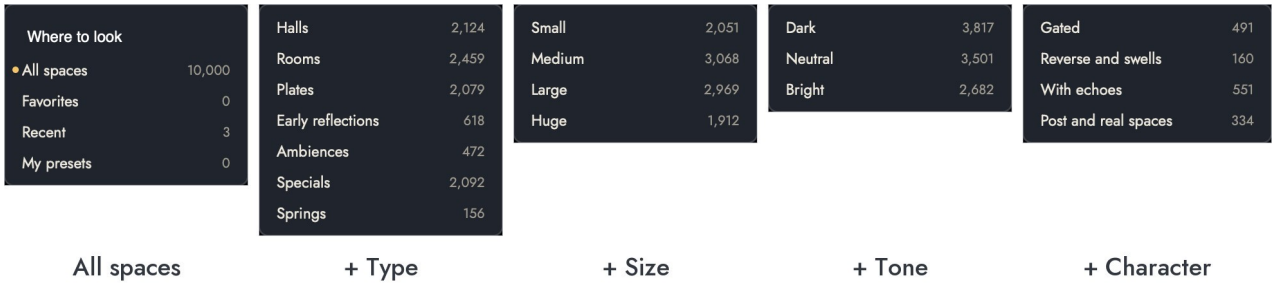


Figure 7. The menus of the row of labels.

Key	Its choices
+ Type	Halls, Rooms, Plates, Early reflections, Ambiences, Specials, Springs
+ Size	Small, Medium, Large, Huge
+ Tone	Dark, Neutral, Bright
+ Character	Gated, Reverse and swells, With echoes, Post and real spaces

Choose a row to set the label. The key turns into a gold label, such as **TYPE** Plate. To change its choice, click the label. To take it away, click its **x**.

Labels and words work together. The labels decide which spaces may show. Your words are then searched among those.

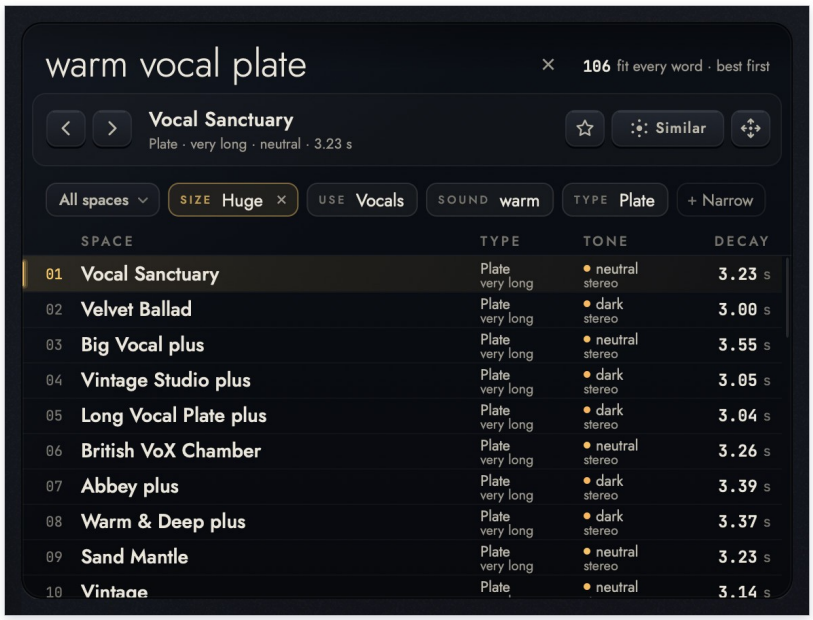


Figure 8. Warm vocal plate among the huge spaces only.

When the row runs out of room, the four keys fold into one key, **+ Narrow**. Its menu holds the same choices. The type names on the ring of the star map set the **TYPE** label as well.



Figure 9. Three labels and no words. The list and the map hold the large, dark plates.

Where to look

The first key in the row reads **All spaces**. Click it to look somewhere else.

Choice	The list then holds
All spaces	The whole library
Favorites	The spaces you have starred
Recent	The last 30 spaces you played, newest first
My presets	Your own presets, with their folders and tags (Chapter 13)

Words and labels still narrow **Favorites** and **Recent**. In **My presets**, the words you type are looked for in the names, the tags, the notes and the folders of your presets. In the row of labels, **+ Tag** then stands in place of the other labels.

CHAPTER 6

THE LIST

The list is never empty. Every way of finding a space works by changing what it holds.

The list as it opens

With nothing asked, the list is the whole library, type by type. Inside a type, the shortest spaces come first. A heading in capitals stands where each type begins, with the number of spaces under it.

What a row shows

Column	What it shows
The number	The row's place in the list
SPACE	The name of the space
TYPE	Its type. Under it is its size, such as small, long or grand.
TONE	A colored dot with dark, neutral or bright. Under it is the stereo width, from mono to extra wide.
DECAY	How long the space rings, in seconds

A gold bar at the left of a row marks the space that plays.

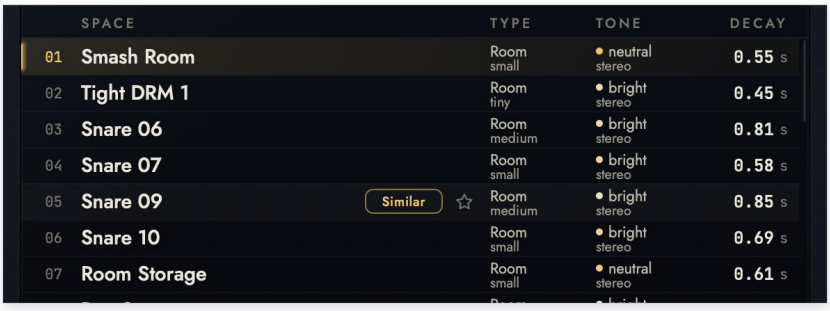


Figure 10. The pointer on a row brings up its Similar key and its star.

Choosing a space

Click a row. The space loads at once. You hear it on whatever sound passes through Pantheus.

With the keyboard, press **Down** for the next row and **Up** for the one before. The arrow keys stop at the ends of the list.

The two arrows at the left of the bar step through the list as well. After the last row, they go on with the first.

> **NOTE**
> A space you choose starts from its own sound. The reverb's own controls, the Reverb EQ and the input filter go back to where they rest. **Drive** and **Modulation** take the settings the space was made with. **Mix** and **Output** stay as they are. To keep your control settings from one space to the next, see **When you change reverbs** in Chapter 15.

To load the space that plays once more as it started, double-click its row.

Sorting the list

Click the heading of a column to sort by it. A second click turns the order round. With a third click, the list goes back to its own order.

Heading	First click	Second click
SPACE	By name, A to Z	By name, Z to A
TYPE	Type by type	The types in reverse
TONE	Darkest first	Brightest first
DECAY	Shortest first	Longest first

A small triangle marks the heading the list is sorted by. The count beside the field names the order, such as "longest first."

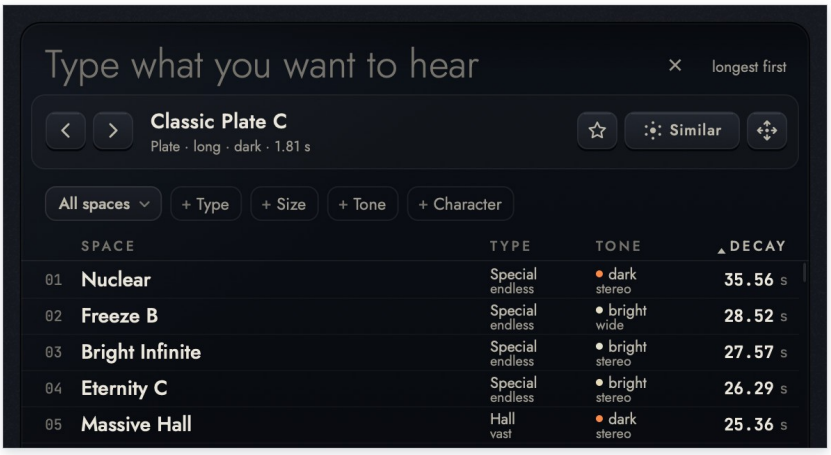


Figure 11. The whole library with the longest spaces first.

Favorites

Point at a row to see a star beside its name. Click the star to make the space a favorite. From then on, the row keeps a gold star in every list.

The star in the bar does the same for the space that plays.

To see your favorites, click **All spaces** and choose **Favorites**. They are listed type by type.

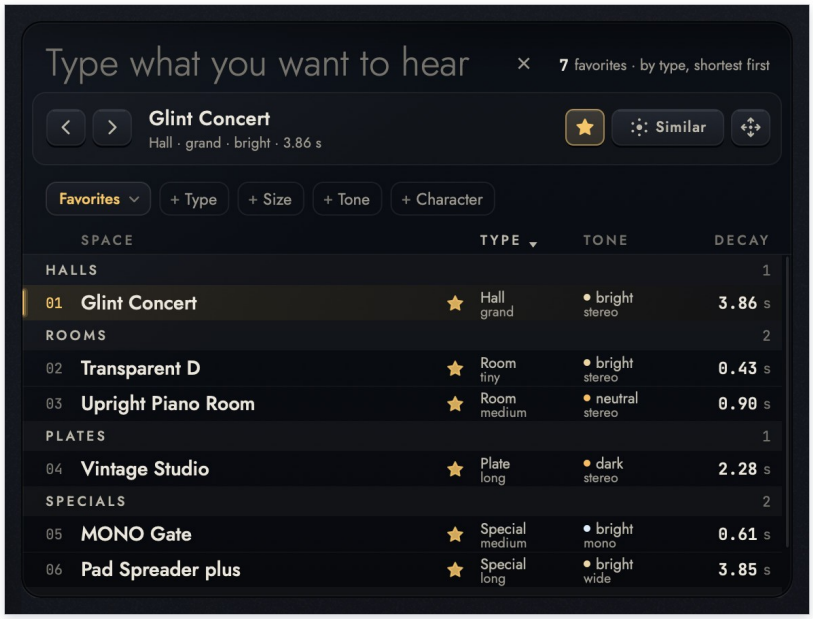


Figure 12. Seven favorites, listed type by type.

Click a gold star to take a space out of your favorites. Your favorites are the same in every Pantheus you open on this computer.

Recent spaces

Recent holds the last 30 spaces you played, with the newest first. Every space you load goes there, whether you chose it in the list, on the map or with Nearby.

> **NOTE**
> A sweep of the magnifier across the star map plays every star it passes. Each of those spaces goes into **Recent**.

CHAPTER 7

THE STAR MAP

The star map is the whole library in one picture. Each of the 10,000 spaces is a star, placed by how it sounds.

Reading the map



Figure 13. The star map as it opens, with every star lit.

	Part	What it is
1	The type names	The seven types of space on the ring, each with the number of spaces it holds
2	The rings	Decay time, at 0.25, 0.5, 1, 2, 4, 8 and 16 seconds from the center outward
3	The stars	One for each space
4	**LISTEN**	The Listen key (Chapter 8)
5	The magnifier	A round glass you drag across the stars
6	The gold line	Runs from the center through the star of the space that plays
7	The undo and redo keys	Take back your last change, and bring it back (Chapter 13)
8	The whole map key	Zooms the map all the way out
9	The Settings key	Opens the Settings page (Chapter 15)

Where a star lies and how it looks say four things about its space.

On the map	What it says
The sector	The type of the space
The distance from the center	The decay time. Short spaces lie near the center and long ones near the rim.
The color	The tone, from orange for a dark space through gold to pale blue-white for a bright one
The place across the sector	The tone as well. Inside a sector, the spaces run clockwise from dark to bright.
The size of the star	The stereo width. A wider space has a larger star.

The decay time of the space that plays is written along the gold line.

Dragging the magnifier

Everything under the magnifier is drawn larger. Its ring reads **MAGNIFIER** and how much it enlarges. Under its crosshair, the magnifier names the star it rests on, with the type and the decay time of that space.

Drag the magnifier by its glass or by its ring. As the crosshair passes over a star, that space loads and plays. Each star it passes plays in turn.



Figure 14. The magnifier on Glass Booth.

Over empty sky, the last space keeps playing. Let go over a star to rest the magnifier on it.

After a click on the map, the arrow keys nudge the magnifier in small steps. Hold **Shift** for larger ones.

When you choose a space somewhere else, such as in the list, the magnifier glides to its star.

> **NOTE**
> A space you pick on the map starts from its own sound, as a space you choose in the list does.

Showing one type

The type names on the ring are keys. Click **PLATE** to keep the list and the map to the plates. Click it again to see every type.

This sets the same **TYPE** label as the **+ Type** key in the finder. One type can be chosen at a time.



Figure 15. After a click on PLATE, the map and the list hold only the plates.

How the map follows the list

The map always shows the answer to the question in the finder. When words or labels narrow the list, only the stars of the matching spaces stay. The counts on the ring turn gold and give the number of stars left in each type.

While something is asked, the first results of the list are marked on the map with a small ring. A thin line joins the first ten, with their numbers beside them. Click one of these marks to play that space.

On a narrowed map, the magnifier picks only among the stars that show.

Zooming

Turn the mouse wheel over the map to zoom in, up to 16 times. The map zooms around the pointer. To move a zoomed map, drag the empty sky.



Figure 16. The map zoomed in on the plates.

On a zoomed map, the names of the types in view appear inside the rim. The zoom is written at the bottom of the glass.

To see the whole map again, double-click the empty sky. The whole map key, the third of the round keys under the map, does the same.

The seven types

Every space belongs to one of seven types. The shortest space in the library rings for 0.02 seconds and the longest for almost 37.

On the ring	Type	Spaces	A typical decay
HALL	Hall	2,124	2.6 s
ROOM	Room	2,459	1.0 s
PLATE	Plate	2,079	2.0 s
EARLY	Early reflections	618	0.4 s
AMBIENCE	Ambience	472	0.7 s
SPECIAL	Special	2,092	1.9 s
SPRING	Spring	156	2.3 s

What each type sounds like:

Hall	Expansive acoustic environments, from concert halls to churches and cathedrals. Rich, immersive reflections with long, smooth and enveloping decay tails.
Room	From intimate studios and recording chambers to clubs and live stages. Natural reflections and controlled decay create depth, presence and a realistic sense of space.
Plate	The timeless sound of classic plate reverbs. Dense, bright and silky diffusion with a fast, smooth build-up and no discrete early reflections.
Early reflections	The defining first reflections of an acoustic space. Add depth, width and precise spatial positioning with little or no reverberant tail.
Ambience	Intimate spaces with short decay times, typically under a second. A natural combination of early reflections and subtle reverberation that adds depth and presence.
Special	Creative reverberation effects beyond conventional spaces. Echoes, delays, gated and non-linear decays, reverse and swell envelopes, modulated textures and multi-effects.
Spring	The unmistakable character of classic spring reverbs. Metallic, dispersive reflections with distinctive chirps, bouncing resonances and a vintage tone.

CHAPTER 8

LISTEN

Listen hears the instrument on your track and lists the spaces for it. The reverb that plays stays until you choose one of them.

Listening to a track

1. Click **LISTEN** at the center of the star map. A round window opens over the map and starts to listen. Its ring reads **AUTO RECOGNITION**.
2. Play a few seconds of the track. One instrument on its own works best.
3. Stop your DAW, or click **STOP** in the middle of the window.

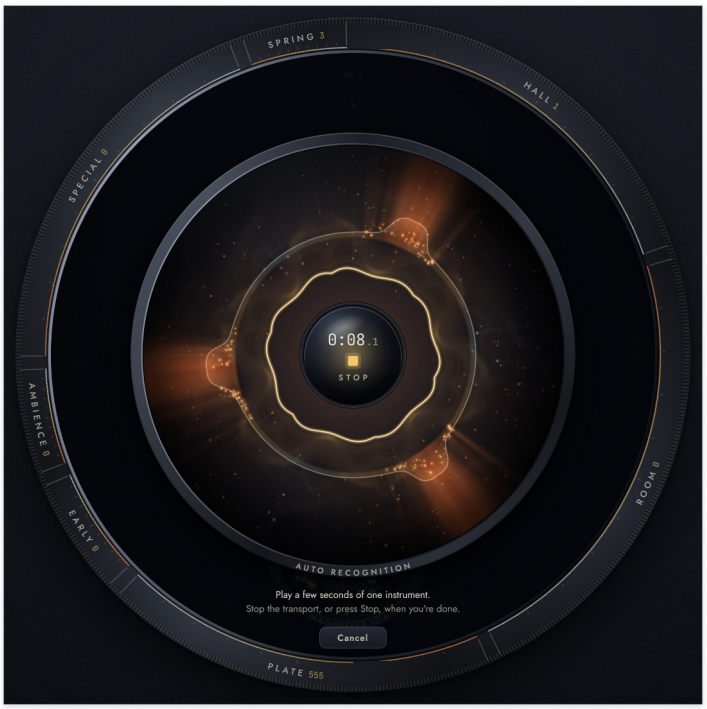


Figure 17. The listening window, eight seconds into a kick drum.

Pantheus then takes a moment to work out what it heard. After that, the window closes and the answer is in the finder and on the map.

Listen hears the sound that comes into Pantheus, before the reverb. For a clear answer, put Pantheus on the track of the instrument, or send that instrument to it alone.

In the listening window	What it does
STOP, **Return** or the **Space bar**	Ends the listening and names what was heard
Stopping your DAW	The same, if the DAW was playing while Pantheus listened
Cancel or **Escape**	Closes the window and forgets what came in. Nothing changes.

The picture in the window moves with the sound for as long as sound arrives. If you leave it running, the listening ends by itself after two minutes.

After the listening

Under the bar, a gold label reads **HEARD** and the name of the instrument. The list now holds the spaces for that instrument, best first. On the map, only their stars remain.



Figure 18. After Listen heard a kick drum at 120 BPM.

> **IMPORTANT**
> Listen never loads a space and never moves a control. The reverb you were hearing keeps playing until you choose one of the results yourself.

When Listen hears more than one instrument, it names up to three, such as “Vocals and Piano.” The list then holds spaces for each of them.

Changing what was heard

The **HEARD** label is a menu. Click it when Listen named the wrong instrument, or when you want a more exact one.



Figure 19. The menu of the HEARD label.

The top of the menu holds what Listen heard this time. If it heard several instruments, the menu has them together and one by one. Under them are all the instruments Listen can name, in groups. Choose one to change the list and the map to the spaces for it.

A choice from this menu changes the list and the map only. The reverb that plays stays.

Adding a word

After Listen, the empty field reads “Add a word: bright, short, plate.” Type a word or two to search among the spaces Listen found. The **HEARD** label stays.

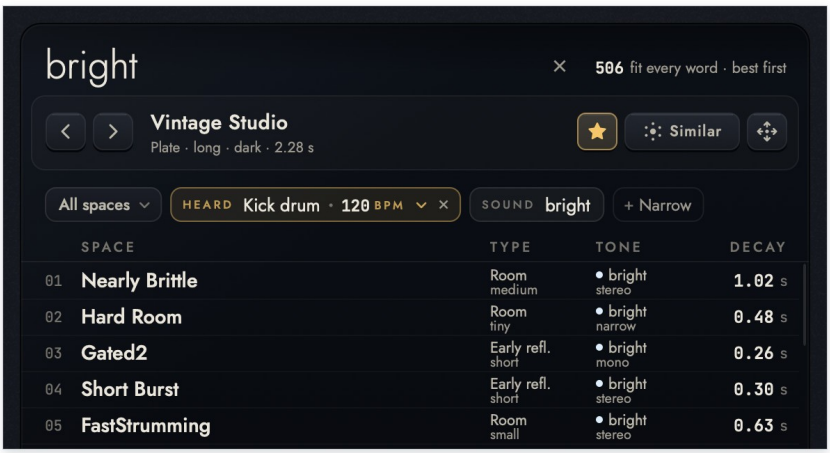


Figure 20. The word bright, typed after Listen heard a kick drum.

The **+ Narrow** key works here too. Use it to keep what Listen found to one type, size, tone or character.

The tempo

When the part has a steady beat, Listen finds its tempo too. The label then ends with the tempo, such as "120 BPM." The count beside the field ends with "by fit to 120 BPM."

With a tempo, the list is put in order for it. The best spaces for the instrument stay at the top. Among them, the spaces that ring for one beat or a little longer come first.

To switch this order off, open the label's menu and choose **Order by tempo**. The tempo on the label dims. Choose it again to switch the order back on.

Listen gives a tempo only when it is sure of it. A part without a clear beat gets none.

Taking the result away

Click the **x** on the **HEARD** label. The question you had before Listen comes back, with its words and labels. If you added words or labels after Listen, those stay and only the **HEARD** label goes.

A new listening replaces what was heard.

What Listen can name

Listen can name 37 instruments and voices. The menu of the **HEARD** label lists them all, and so does Chapter 18.

CHAPTER 9

SIMILAR AND NEARBY

Once a space is close to what you want, two keys in the bar look for others like it. **Similar** lists the spaces that sound most like it. Nearby steps to the closest space that differs in one way.

The bar of the space that plays

In the bar	What it is
The two arrows	Play the row before or after this space in the list
The name	The space that plays, or the name of your preset. Under it are its type, size, tone and decay.
The star	Makes the space a favorite, or takes it out of your favorites
Similar	Lists the spaces that sound most like this one
The key with four arrows	Opens Nearby

Finding similar spaces

Click **Similar** in the bar. The key lights up. A gold label in the finder reads **LIKE** and the name of the space.

The list now holds that space and the 199 that sound most like it, most alike first. In place of its number, each row starts with a percentage. A higher percentage means a closer sound.



Figure 21. **The spaces most like Glass Booth, in the list and on the map.**

On the map, every star stays in view. The stars of the list are lit by how alike they sound. All the others turn faint and gray.

Rest the pointer on a row to read how it differs from the first space, such as “Same type · 0.12 s longer · a little brighter.”

Each row of a list has a **Similar** key of its own, beside its star. Point at the row and click the key to build a list around that space without loading it.

Words and labels still narrow a Similar list. A click on a heading sorts it by that column, as in any list. With the third click, it is back to most alike first.

To go back, click **Similar** again or the **x** on the **LIKE** label. The question you had before returns.

While the list is built around another space, such as one you reached with Nearby, the **Similar** key is dark. Click it to build the list around the space that plays. Click it once more to go back to the question you had before the first **Similar**.

Similar goes by sound alone. A room and a plate can turn out to be close.

Stepping to a nearby space

Click the key with four arrows at the right of the bar. A box with eight keys opens under the bar.

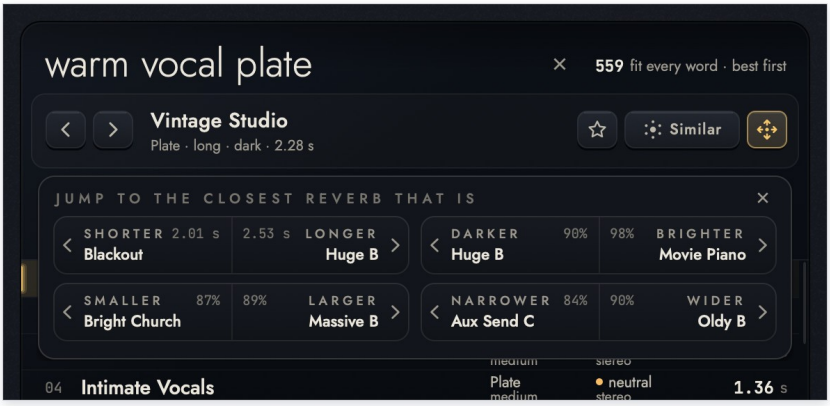


Figure 22. Nearby, open for Vintage Studio.

Keys	Each jumps to the closest space that is
SHORTER and **LONGER**	Shorter or longer in decay
DARKER and **BRIGHTER**	Darker or brighter in tone
SMALLER and **LARGER**	One size smaller or larger
NARROWER and **WIDER**	Narrower or wider in stereo

Each key names the space it leads to. Beside the name is that space's decay time, or a percentage for how alike the two spaces sound.

Click a key to play its space. The box stays open. Its eight keys now lead on from the new space.

> **NOTE**
> Nearby keeps your settings. Every one of the reverb's own controls stays where it is. Only **Drive** and **Modulation** change, because each space brings its own.

A key reads "none in the library" when there is no such space.

To close the box, click its **x** or press **Escape**. A click anywhere else in the window closes it as well.

CHAPTER 10

SHAPING THE SPACE

Every space can be reshaped to fit the song. The **Reverb** page of the deck draws the reverb as a picture and sets its controls out as dials underneath.



Figure 23. The Reverb page, with the output column at its right.

Above the deck stand three tabs in the order the sound takes. They read **Input Filter**, **Reverb** and **EQ**. When Pantheus opens, **Reverb** is the one on show. For the input filter, turn to the end of this chapter. The Reverb EQ is in Chapter 12.

The picture

The picture draws the reverb as it is shaped now. Time runs from left to right. The height of the band is the level of the reverb at each moment.

The color of the band follows the tone of the reverb along its length. Dark parts lean toward orange and bright parts toward pale blue, as the stars do on the map.

A gold line marks where the reverb starts, after the pre-delay. Further right, a dashed line divides the early part from the late tail. The tail ends at a pale line.

Shaping on the picture

Five handles on the picture move five of the controls. Drag a handle to move its control. The dial underneath follows.



Figure 24. The five handles of the picture.

	Handle	Where it is	Drag it
1	**Pre-delay**	A tab at the foot of the gold line	Sideways
2	**Attack**	A ring at the top of the reverb's start	Sideways
3	**Early / late**	A diamond on the dashed line	Up for early, down for late
4	**Decay**	A ring on the upper edge of the band	Sideways, to the right for longer
5	**Length**	A tab at the foot of the pale line	Sideways

While the pointer is on a handle, a small note beside it gives the value. Hold **Shift** for fine moves. The mouse wheel, turned anywhere over the picture, changes **Decay**.



Figure 25. The pointer on the Decay handle.

Working a dial

Action	What it does
Drag up or down	Turns the dial. A drag to the right or the left works too.
Shift and drag	Turns it finely

Action	What it does
The mouse wheel	Turns it in small steps
Option-click, or double-click	Puts the dial back where it rests
Click the number	Opens it for typing. **Return** applies the value. **Escape** leaves it as it was.

A value can be typed with or without its unit. The time dials take seconds or milliseconds, such as "2 s" or "850 ms." For a pre-delay set as a note value, type the note, such as "1/8T."

A dial you have not touched stays dark. Once you move it, a gold arc runs from where it rests to where it stands. In the output column, the dials light in white.

If you would rather turn a dial by dragging around it, set **Knobs** to **Circular** on the Settings page.

Decay, Size and Length

Decay How long the reverb rings. The dial reads the decay time in seconds. It can be set from a quarter of the space's own decay to four times as long.

Size Makes the space smaller or larger, from 50% to 200%. A larger space has later reflections and a deeper tone.

Length How much of the tail is kept, from all of it down to 5%. The rest fades out. The dial reads the time at which the tail ends.

Pre-delay, Attack and Ducking

Pre-delay A gap before the reverb starts. It is a note value that follows the tempo of your song, or a time in milliseconds.

Attack Softens the start of the reverb. The reverb swells in over up to 300 ms.

Ducking Turns the reverb down while the dry sound plays and brings it back in the gaps. It goes from 0% to 100%.

The **Pre-delay** dial steps through note values from "1/128" to "1/4." A triplet ends in T and a dotted note in D, as in "1/8T" and "1/16D." At "Off," the reverb starts at once.

A note value follows the tempo of your DAW as it changes. When Pantheus gets no tempo, it counts at 120 BPM. The pre-delay is never longer than 2 seconds. Its handle on the picture stops on the same note values.

The **SYNC** key after the number chooses between the two kinds. While it is lit, the dial is a note value. Click it to set the pre-delay in milliseconds, from 0 to 500 ms. Click it again for a note value. The pre-delay you hear stays as close as the other kind can say it.



Figure 26. The Pre-delay dial as a note value and in milliseconds.

The Settings page sets which kind every new Pantheus starts with.

A lamp beside the name **Ducking** lights while the ducking works. Its color says how far the reverb is held down. Green means up to 6 dB, orange up to 18 dB, and red more than that.

Damping, Bass decay and Early / late

Damping Makes the top end die away faster than the rest. It goes from 0% to 100%.

Bass decay Makes the low end ring shorter or longer than the rest, from 50% to 200%.

Early / late The balance between the early reflections and the late tail. It reads "Even" in the middle. Toward "Early 100," the late tail fades out. Toward "Late 100," the early reflections do.

Width, Drive and Modulation

Width The stereo width of the reverb, from mono at 0% to extra wide at 200%. It rests at 100%, the space as it is.

Drive Saturation on the reverb, from 0 to 100

Modulation A slow movement in the reverb, from 0 to 100

Drive and **Modulation** each have a small key after their number. It reads **ON**, lit, or **OFF**. Click the key to switch.

Both are off in a new Pantheus, with their dials at 0. Many spaces in the library were made with one or both of them. Choosing such a space switches the key on and sets the dial to the space's own number. With a space made without them, the key goes off and the dial goes back to 0.

A space made with **Modulation** also keeps its own speed and depth. Its dial sets how strong the movement is. With any other space, the dial sets all three together.

Clicking a key leaves its dial where it is. Turning a dial whose key reads **OFF** switches it on.



Figure 27. The dials of a hall that was made with Drive and Modulation.

Hold

Hold keeps the reverb ringing. Click the key while the reverb sounds. The sound of that moment rings on for as long as the key is lit.

While **Hold** is on, new sound stays out of the reverb. The dry sound plays on over the held reverb. Click **Hold** again to let go. The held sound then fades at the reverb's own decay.



Figure 28. Hold is on. A steady band runs to the right edge of the picture.

Hold can be automated from your DAW. Because it is never saved, a session always opens with it off.

> **TIP**
> Click **Hold** while the reverb is sounding. Clicked in a silence, it holds that silence until you let go.

Reverse

Reverse plays the reverb backward. The reverb then swells up to its loudest point and stops. On the picture, the band turns round.



Figure 29. Reverse is on.

Reset

Reset, at the top right of the picture, puts the reverb's own controls back where they rest. The key is dim while there is nothing to put back.

Reset puts back	Reset leaves alone
The ten dials from **Decay** to **Width** and **Reverse**	The space, **Drive** and **Modulation**, **Hold**, the input filter, the output column and the Reverb EQ

On the **EQ** page, the same key clears the Reverb EQ. On the **Input Filter** page, it puts the input filter back.

Beside **Reset** stand **Save** and **Save as**, the two keys for your presets. Chapter 13 covers them.

The input filter

The **Input Filter** tab, the first above the deck, opens the input filter's page. The filter works on the sound that goes into the reverb, and never on the dry sound.



Figure 30. The Input Filter page, with HP at 120 Hz and LP at 8.0 kHz.

HP Takes away the lows below its frequency. It reads "Off" at the start of its travel, then goes from 20 Hz to 1 kHz.

LP Takes away the highs above its frequency. It goes from 1 kHz to 20 kHz, then reads "Off" at the end of its travel.

Trim The level of the sound that goes into the reverb, after **HP** and **LP**. It goes from –12 dB to +12 dB and rests at 0 dB.

HP and **LP** cut at 12 dB per octave. The graph draws the band they leave. With both at 1 kHz, a narrow band is left, like a radio.

After a deep cut the reverb gets quieter. Turn **Trim** up to bring it back. The dry sound is never trimmed.

You can set both on the graph as well. Drag left of 1 kHz to set **HP**. Drag right of 1 kHz to set **LP**. At the edge of the graph, a handle reads "Off." Double-click or **Option**-click one side of the graph to put that side back to "Off."

Click the power key under the graph to switch the filter on or off. The dials keep their settings while it is off. The curve is then drawn in gray. **Trim** works only while the filter is on. Setting **HP** or **LP** away from "Off," or **Trim** away from 0 dB, switches the filter on.

The filter works before the reverb and before **Drive**. Lows it takes away never reach the saturation. With **Drive** on, a higher **Trim** means more saturation. **Listen** hears your track as it is, unfiltered.

Reset on this page puts the input filter back, with **HP** and **LP** at "Off," **Trim** at 0 dB and the filter switched off. Another space does the same. To keep the filter from one space to the next, light **Keep Input filter** on the Settings page (Chapter 15). A preset does not hold the input filter, and loading one leaves it as it is. Like every other setting, it is saved with the session.

HP and **LP** are separate from **Low cut** and **High cut** on the Reverb EQ page.

CHAPTER 11

MIX AND OUTPUT

The column at the right of the deck sets how much reverb you hear and how loud Pantheus is. It stays in view on every page.

The keys at the foot of the column have chapters of their own. Chapter 13 covers **A** and **B**. Chapter 14 covers **Immersive**.



A stereo track | Full wet on, the limiter at work | An Atmos 7.1.2 track

Figure 31. The output column in three states.

Mix

Mix goes from the dry sound alone at 0% to the reverb alone at 100%. Up to 50%, the dry sound stays at full level while the reverb comes up. Above 50%, the reverb stays at full level and the dry sound goes down.

A new Pantheus has **Mix** at 20%. On this dial, 30% stands at twelve o'clock.

The spaces of the library are matched in loudness.

Full wet

Full wet is for a send. Pantheus then plays only the reverb. It has no control of its own in the window. Click in the Pantheus window and press **Shift-W** to switch it on.

Mix keeps its setting underneath. While full wet is on, the **Mix** dial is drawn faint and reads "Full wet" in gold. Press **Shift-W** again, or turn **Mix**, to go back to your **Mix** setting.

The shortcut works while the Pantheus window has the keyboard, and not while you type in a field. Some DAWs keep the key for themselves. In such a DAW, switch the parameter **Full wet** from the DAW.

Output

Output sets the level of everything Pantheus puts out, the dry sound and the reverb together. It goes from −24 dB to +12 dB and rests at 0 dB.

Balance

Balance moves the reverb toward the left or the right. It reads "Center" in the middle, and "L 30" or "R 30" to either side. Only the reverb moves. The dry sound stays where it is.

Turning toward one side lowers the other side of the reverb. Nothing is made louder.

> **NOTE**
> On a mono track the reverb has one channel. **Balance** and **Width** have nothing to work on there.

The limiter

The output limiter keeps the output from clipping. In a new Pantheus it is on. To switch it off or on, click **LIMIT**.

The LIMIT lamp	What it means
Dark	The limiter is off
Dim gold	The limiter is on and has nothing to do
Lit gold	The limiter is holding the output back
Lit orange	The limiter is working hard

Rest the pointer on **LIMIT** while it works to read by how many decibels it holds the output back.

The limiter is the last stage, after **Output**. When it works, it turns every channel down together. It adds no delay of its own.

On the Settings page, the same switch is named **Output limiter**.

The meters

The bars beside **Mix** are the output meters, one for each channel of the track. They show what Pantheus puts out, after **Output** and the limiter.

A fine line across the bars marks 0 dB. Anything above it is drawn in red. For a moment, a thin line above each bar holds the highest peak.

On a surround track there are six, eight or ten bars. The front speakers come first. After them come the LFE, the surrounds and the top speakers. Rest the pointer on a bar to read the name of its speaker.

CHAPTER 12

THE REVERB EQ

The Reverb EQ shapes the tone of the reverb and leaves the dry sound alone. Click **EQ** above the deck to open it.

What the Reverb EQ does

The EQ works on the reverb only. Your dry sound never passes through it. On a surround track, it tones the reverb in every speaker.

It has two views of the same EQ. **Simple** has four tone controls. In **Advanced**, you work with up to eight bands of any kind.

Behind the curve, a pale shape moves with the reverb as it plays. Use it to see where the reverb has its energy. The numbers at the left of the graph belong to the curve.

The Simple view



Figure 32. The Simple view with all four controls at work.

Knob	What it does	Its range
Low cut	Takes out the lows under a frequency	"Off," then up to 1 kHz
Low	Turns the lows up or down, around 300 Hz	–12 to +12 dB
High	Turns the highs up or down, around 4 kHz	–12 to +12 dB
High cut	Takes out the highs over a frequency	"Off," then down to 1 kHz

Drag a knob up or down to turn it. To put it back, **Option**-click it or double-click its ring. To type a value, double-click the number in its middle.

The same four controls are handles on the curve. A click anywhere on the graph brings the nearest control to that spot.

The Advanced view

Click **Advanced** to work with bands. Each band is a numbered dot on the curve and a row in the list under the graph.



Figure 33. The Advanced view with four bands. Band 3 is chosen.

There are three ways to add a band.

- Click the graph where you want the band, and keep dragging to place it.
- Click **Add band** for a bell at 0 dB in a free part of the range.
- Right-click the empty graph to choose the type of the band first.

A click on the graph makes a bell. At the far left it makes a low cut, and at the far right a high cut. The EQ holds eight bands at most.

Type	What it does	Its settings
Bell	A peak or a dip around a frequency	Frequency, gain, Q
Low shelf	Turns everything under a frequency up or down	Frequency, gain, knee
High shelf	Turns everything over a frequency up or down	Frequency, gain, knee
Low cut	Takes out what is under a frequency	Frequency, and a slope of 12, 24 or 48 dB per octave
High cut	Takes out what is over a frequency	Frequency, and the same three slopes
Band cut	Takes a range out, with steep sides	Center frequency, depth, Q

Working on a band

Action	What it does
Click a dot or its row	Chooses the band
Drag a dot	Sideways for its frequency, up and down for its gain
The mouse wheel over a dot	Changes its Q, or the slope of a cut
Option-click a dot	Puts its gain back to 0 dB
Double-click a dot	Removes the band
Right-click a dot	Opens the type picker
Delete	Removes the chosen band



Figure 34. The type picker for a low cut, with its three slopes.

The picker lists the six types. For a low cut or a high cut, it adds the three slopes. Its **Bypass** key switches the band off without removing it. **Delete** removes it.

Each row of the list has the same band in numbers.

In a row	What it does
The trash can	Removes the band
The number	The band's number, as on its dot
The power sign	Switches the band off and on. An idle band stays in the list, in gray.
The type	Opens the type picker
The frequency	Drag it up or down to change it, or click it to type
Gain, or **Depth** for a band cut	The same. **Option**-click puts it back.
Q, **Knee** for a shelf, **Slope** for a cut	The same. A click on a slope steps to the next one.

Switching the EQ off

The power key at the right, under the graph, switches the whole EQ off and on. While the EQ is off, its curve is gray. The bands are kept.

A change you make on the EQ page switches the EQ back on. **Reset** and the **Flat** preset leave it off.

EQ presets

Click **Presets** to open the list. It starts with **Flat**. Twenty presets follow, in four groups. Your own presets come last.



Figure 35. The list of EQ presets, open on Vocals.

Group	Presets
CLEAN UP	Light low cut · Clean low end · Keep kick and bass clear · Clear the mud · Classic 600 Hz–10 kHz · Classic, darker
SPACE AND TONE	Out of the vocal's way · Soften the esses · Darker, further back · Bright and airy
PER PART	Vocals · Drums · Drums, dark · Bass · Guitar · Piano
CHARACTER	Warm plate · Old digital · Vintage dark · Telephone

Click a preset to load it. The list stays open. Try the next one while the music plays. A double-click loads a preset and closes the list.

A preset replaces every band of the EQ. While the EQ matches a preset, the **Presets** key reads that preset's name.

> **NOTE**
> A preset from this list is made of bands. In the **Simple** view, the four knobs stay at rest and a line beside the power key reads, for example, "3 more bands." Click those words to see the bands in the **Advanced** view.

Saving your own EQ presets

1. Click **Presets**.
2. Click the field at the bottom of the list and type a name. While it is empty, the field reads “Name this EQ to save it.”
3. Click **Save**, or press **Return**.

Your presets appear under **YOUR PRESETS**. When the name you type is already one of yours, the key reads **Replace**.

To delete one of your presets, point at its row and click the trash can. The preset goes to the Trash at once, or on Windows to the Recycle Bin.

Your EQ presets are the same in every Pantheus you open on this computer. The key with a folder, beside **Save**, opens the folder where they are kept.

CHAPTER 13

PRESETS, UNDO, A AND B

This chapter covers your own presets and the undo keys. It ends with the **A** and **B** keys and with what a session of your DAW keeps.

What a preset keeps

A preset is a space with the settings you gave it. Besides its name, it can have a folder, tags and notes.

A preset keeps	A preset leaves out
The space, the ten dials from **Decay** to **Width**, **Reverse**, **Drive** and **Modulation** with their keys, the kind of pre-delay, and the Reverb EQ with its power key	**Mix**, full wet, **Output**, **Balance**, the input filter, the limiter, **Hold** and the Immersive Audio page

The keys for presets are **Save** and **Save as**, beside **Reset** at the top right of the picture. They are there on the **Reverb** page and on the **EQ** page.

Saving a preset

1. Click **Save as**. A box opens over the list of the finder.
2. Under **NAME**, type a name. The box starts with the name of the space, such as "Vintage Studio (User)."
3. Under **FOLDER**, type the name of a folder or pick one with the key beside the field. An empty field reads "Top level."
4. Under **TAGS**, click the tags that fit. For a new tag, type it in the field that reads "Add a tag" and press **Return**.
5. Under **NOTES**, write what you want to remember about the preset.
6. Click **Save**.

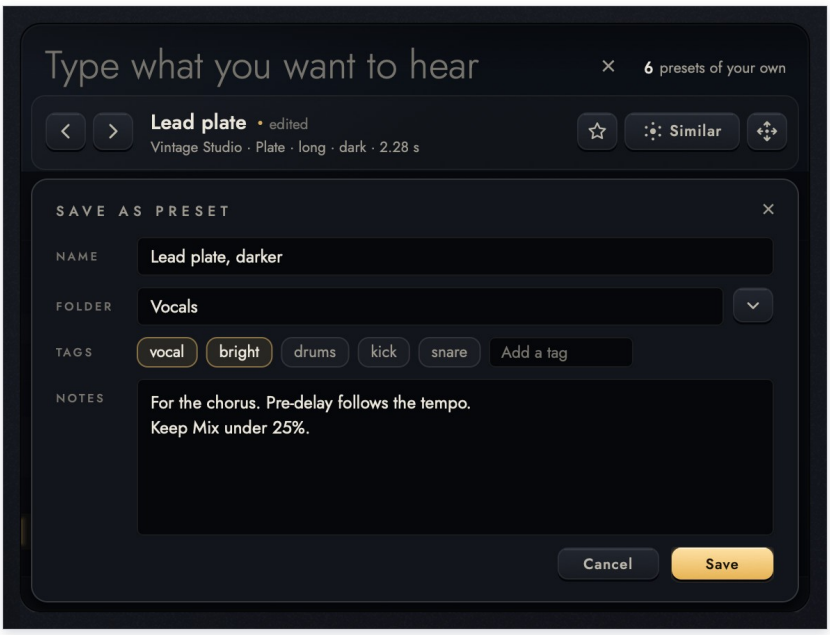


Figure 36. The Save as box, with two tags chosen.

Only a name is needed. Once the preset is saved, the bar confirms with "Saved as" and its name. The new preset is the one that plays from then on.

When the folder already holds a preset of that name, the box asks "Replace it?" and its key reads **Replace**. Click it to write over the old preset, or type another name.

Save as is ready whenever a space plays. While one of your presets plays, the box starts from what that preset has. Its name, folder, tags and notes are filled in.

Saving over a preset

Load one of your presets and change one of the settings it keeps. In the bar, the word "edited" then follows the name of the preset. **Save** lights up in gold.

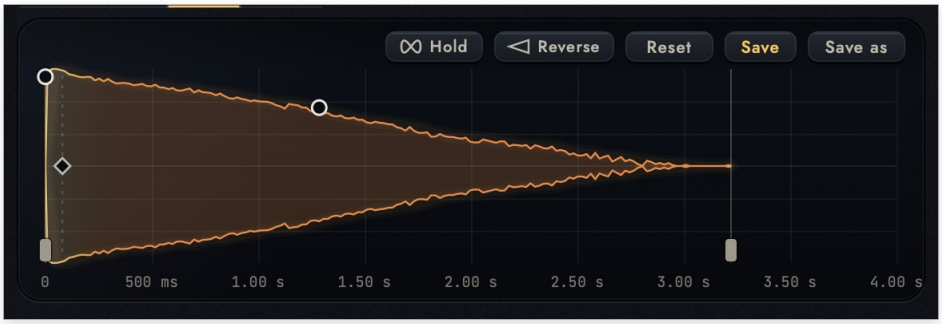


Figure 37. Save is lit after a change to the preset that plays.

Click **Save** to write the new sound over the preset. Pantheus asks no question. The name, the folder, the tags and the notes of the preset stay.

Save is dim while none of your presets plays. It is dim as well while the settings a preset keeps are as the preset has them. A change to **Mix**, or to anything else a preset leaves out, does not light it.

My presets

Click **All spaces** in the finder and choose **My presets**. The list then holds your presets.

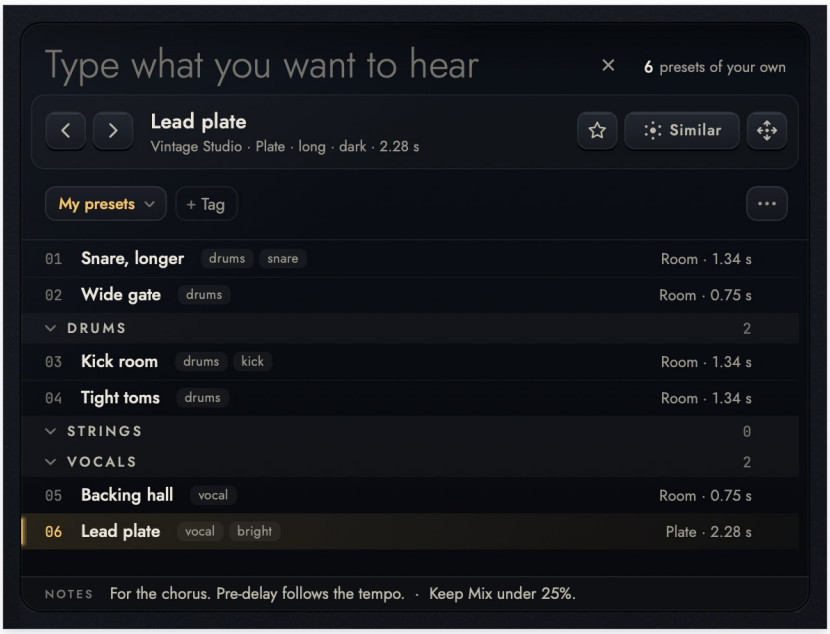


Figure 38. My presets, with three folders. Lead plate plays.

Presets outside any folder come first. After them, each folder has a heading in capitals, with the number of its presets at the right. Click a heading to shut its folder, and click it again to open it.

A row has the name of the preset and its tags. It ends with the type and the decay of the space. Click a row to load the preset. While a preset plays, the bar reads its name, with the name of its space underneath.

A preset brings its own settings. Everything it leaves out stays as it is.

When the preset that plays has notes, they stand in a line marked **NOTES** at the foot of the finder, in every list. Click the line to open the same box on that preset and change them.

Words you type in the search field are looked for in the names, the tags, the notes and the folders of your presets. To keep the list to one tag, click **+ Tag** and choose the tag. A gold **TAG** label then stands in the row of labels. Click its **x** to take it away.

Your presets are the same in every Pantheus you open on this computer.

Working on a preset

Point at the row of a preset and click the key with three dots at its end. A right-click on the row opens the same menu.

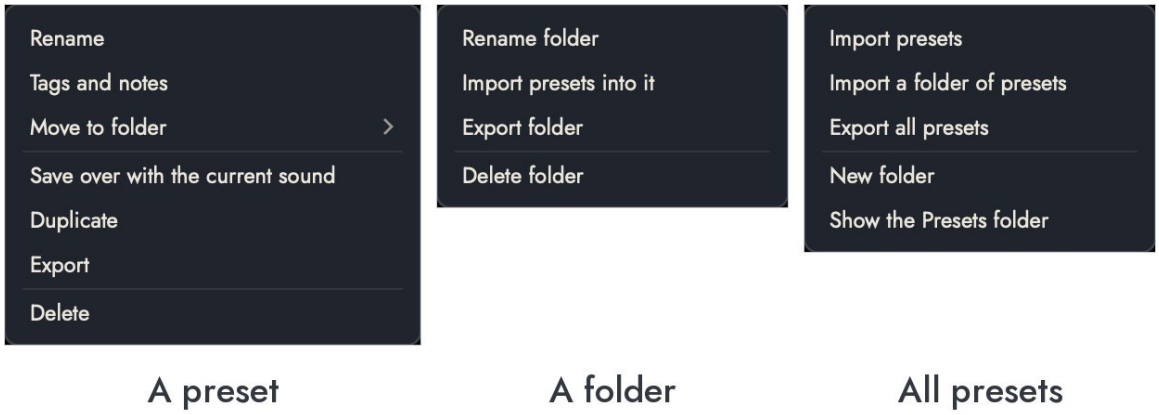


Figure 39. The menus of a preset, of a folder and of the key at the end of the row of labels.

In the menu	What it does
Rename	Opens the name for typing, in the row. **Return** keeps the new name. **Escape** leaves the old one.
Tags and notes	Opens the Save as box on this preset. The sound of the preset is not touched.
Move to folder	Moves the preset to the top level, to one of your folders or to a new folder
Save over with the current sound	Gives this preset the sound that plays now. For any preset except the one that plays, Pantheus asks first.
Duplicate	Makes a copy beside the preset, with a 2 after its name
Export	Writes the preset to a file of its own
Delete	Asks first. The preset then goes to the Trash, or on Windows to the Recycle Bin.

The heading of a folder has a key with three dots too. Its menu has **Rename folder**, **Import presets into it**, **Export folder** and **Delete folder**. Deleting a folder never deletes a preset. When the folder holds presets, Pantheus asks first. They then move up one level.

At the right end of the row of labels stands one more key with three dots. Its menu is for all of your presets.

- **Import presets** and **Import a folder of presets**
- **Export all presets**
- **New folder**
- **Show the Presets folder**, for the folder on your disk where the presets are kept

Importing and exporting presets

Export writes one preset to a file that ends in `.pantheuspreset`. **Export folder** and **Export all presets** write one zip file, with the folders inside it.

Import presets takes preset files and zip files. You can also drop such files, or a folder of them, on the finder. When a preset of the same name is already there, both are kept. The new one gets a 2 after its name.

A preset file holds settings and names its space. It does not hold the space itself. For that reason, a preset is imported only when its space is in the library on your computer. After an import, Pantheus says how many presets it left out.

Undo and redo

Two round keys under the star map, left of the whole map key, undo your last change and redo it. On the keyboard, press **Command-Z** to undo and **Shift-Command-Z** to redo. On Windows, press **Ctrl-Z** to undo, and **Ctrl-Y** or **Shift-Ctrl-Z** to redo.

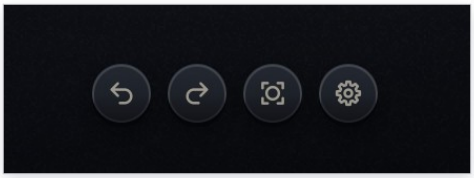


Figure 40. The four round keys under the star map. The first two are undo and redo.

One action in the window is one step, whatever it moved.

- A whole drag of a dial, of a handle or of a speaker
- A run of the mouse wheel
- A new space, with the settings it starts from
- A preset you load
- A **Reset**
- A change to the Reverb EQ
- A switch between **A** and **B**, or a copy from one to the other

When you undo the choice of a space, the finder goes back with it. The words, the labels and the list are the ones that space was chosen from. The magnifier returns to its star. Redo brings the later space back with its own list. A change to a control leaves the finder as it is.

Rest the pointer on one of the two keys to read what it would do, such as “Undo Decay.” A key is dim while it has nothing to do.

Pantheus keeps the last 100 steps. Since they are not saved with the session, a session opens with nothing to undo.

Some things are never a step.

- Automation, and a control you move in the window of your DAW instead of in Pantheus
- **Hold**
- What you ask in the finder, with its words and labels, until you choose a space from it
- Saving, renaming or deleting a preset
- Your favorites

The shortcuts work while the Pantheus window has the keyboard. They do nothing while you type in a field, or while the Settings page or the activation window is open. While the Pantheus window has the keyboard, these keys undo in Pantheus and not in your DAW. Some DAWs keep the keys for their own undo. In such a DAW, use the two round keys.

Comparing with A and B

A and **B**, at the foot of the output column, hold two complete setups. Each one has its own space, its own controls, its own Reverb EQ and its own Immersive Audio page.

A new Pantheus plays **A**. The first click on **B** makes it a copy of **A**, with no change in the sound. Change what you like from there. Then click **A** and **B** in turn to compare the two.

To make both the same again, right-click **A** and choose **Copy to B**. A right-click on **B** has **Copy to A**.

Hold belongs to neither. It stays as it is when you switch.

What a session keeps

Your DAW saves Pantheus with its session. Some things are kept for every session on this computer instead.

Kept	What
In the session	The space that plays and the name of its preset. Every control except **Hold**. The Reverb EQ. **A** and **B**. The Immersive Audio page. The question in the finder, with its words, its labels and the order of the list.
On this computer	Your favorites and recent spaces. Your presets of all three kinds. The choices **When you change reverbs** and **Knobs** on the Settings page. The size of the window. The activation of Pantheus.
Nowhere	**Hold**. What Listen heard and its tempo. A Similar list. The steps of undo and redo.

CHAPTER 14

IMMERSIVE AUDIO

On a 5.1, 7.1 or Atmos 7.1.2 track, Pantheus plays the reverb all around the listener. The Immersive Audio page sets how much of it each group of speakers plays.

Opening the page

Click **Immersive** at the foot of the output column. A room of speakers appears over the star map. In the place of the deck stands the Immersive Audio Mixer.



Figure 41. **The Immersive Audio page on an Atmos 7.1.2 track.**

The finder and the output column stay in view. You can go on choosing spaces while the page is open.

To go back, click **Immersive** again or press **Escape**. A click on the **Reverb** or **EQ** tab leaves the page too.

The page opens on a mono or stereo track as well, dimmed. It then says that Immersive Audio works on 5.1, 7.1 and Atmos 7.1.2 tracks.

The lines and their speakers

The mixer has a row for each line. A line is a speaker, or a pair of speakers, with one set of controls. Under the name of each line, the row names its speakers.

Line	Its speakers	On a track of
Stereo	L and R	5.1, 7.1 or Atmos 7.1.2
Center	C	5.1, 7.1 or Atmos 7.1.2
Side	Lss and Rss. On a 5.1 track they are named Ls and Rs.	5.1, 7.1 or Atmos 7.1.2
Rear	Lrs and Rrs	7.1 or Atmos 7.1.2
Top	Lts and Rts	Atmos 7.1.2
LFE	LFE	5.1, 7.1 or Atmos 7.1.2



A 5.1 track A 7.1 track An Atmos 7.1.2 track

Figure 42. The room on a 5.1, a 7.1 and an Atmos 7.1.2 track.

The format

The page follows the format of the track. Under **FORMAT**, a switch reads **5.1**, **7.1** and **Atmos 7.1.2**. The format in use is lit.

On a larger track, you can choose a smaller format. The speakers that are left out then stay silent. A format larger than the track cannot be chosen.



Figure 43. 5.1 chosen on an Atmos 7.1.2 track. Rear and Top are dimmed.

A line that the format lacks is dimmed and reads, for example, “not in 5.1.” It keeps its settings for later.

The mixer, column by column



Figure 44. The Immersive Audio Mixer.

Column	What it holds
LINE	The name of the line and the speakers it plays in
HI DAMP	A small dial that takes away some of the line's top end, from 0 dB down to –12 dB. Every line but the LFE has one.
GROUP	A key that puts the line in group A, B or C
VOLUME	The level of the line, from silence up to +6 dB. It rests at 0 dB. The thin bar under the slider is the line's meter.
MUTE · SOLO	**M** silences the line. **S** solos it.

While any line is soloed, only the soloed lines play. A soloed line plays even when it is muted.

The LFE line is off in a new Pantheus. Its **M** key is lit. After its name stands the word "OFF." Click **M** to switch the LFE on.

The room



Figure 45. **The room, with three lines in group A and two in group B.**

The room draws the same lines as speakers around a listener, seen from above. While a line plays, its speakers glow. The louder the line, the brighter the fan of light from each speaker to the listener.

In the room	What it does
Click a speaker	Mutes its line, or brings it back
Option-click a speaker	Solos its line, or takes the solo off
Drag a speaker up or down	Sets the volume of its line
The mouse wheel over a speaker	Sets the volume of its line in small steps

Point at a speaker to read the name and the level of its line under the listener. Its row in the mixer lights up at the same time.



Figure 46. **Center and Rear are soloed. The pointer is on a rear speaker.**

Groups

Lines in the same group move together. Click the **GROUP** key of a line to step it through no group, **A**, **B** and **C**.

In a group, **VOLUME** and **HI DAMP** change by the same number of decibels on every line. **M** and **S** switch for the whole group. All of this holds in the mixer and in the room alike.

A colored bar at the left of a row marks its group. Around its speakers in the room is a ring of the same color.

Group off sets the groups aside for a while. While the key is lit red, a move changes only the line you touch. The letters stay, drawn faint. Click the key again to let the groups move together, from where the lines now stand.



Figure 47. Group off is lit. The Rear line was moved by itself.

Depth, Magnify and Link

The two sliders under **SPACE** work on the side, rear and top speakers.

Depth	Moves the reverb of those speakers back, away from the front. It goes from 0% to 400%.
Magnify	Widens what those speakers play. It goes from 0% to 200%.
Link	While **Link** is lit, moving one of the two sliders moves the other by the same share of its range.

In the room, an arc stands behind each of those speakers. The arcs move back with **Depth** and grow wider with **Magnify**.

Front-rear

The **Front-rear** fader, under its own heading at the right of **SPACE**, leans the whole reverb toward the front speakers or toward the rear ones. Drag it left for the front and right for the rear, as the small triangles under it show. It reads “0” in the middle, “F 30” toward the front and “R 30” toward the rear.

Because this fader only ever turns lines down, nothing gets louder. The LFE is left as it is.



Figure 48. Front-rear at R 60.

The **VOLUME** sliders stay where they are. The meters under them show the result.

The presets of the page

The key beside the title names the preset the page is set to. It reads “Default” for the page as it opens, and “Edited” once you change something.

Five presets by MoReVoX come with Pantheus. They stand in the menu under **Default**.

Front Stage	The reverb leans toward the front speakers. The Top line plays a little lower.
Wraparound	The reverb leans toward the rear, with some Depth and Magnify.
Tall Space	The Top line plays louder, with some Depth and Magnify.
Clean Center	The Center line plays lower than the others.
Cinematic	The most Depth and Magnify of the five. The LFE plays, low.

To save a preset of your own:

1. Click **Save**. The key turns into a field with a name in it, such as “My setup.”
2. Type the name you want.
3. Press **Return**.

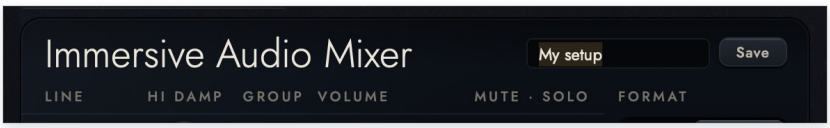


Figure 49. **The name of a new preset, ready to be typed over.**

Only **Return** saves the preset. A click elsewhere closes the field without saving.

To load a preset, click the key and choose it from the menu. To delete one of yours, load it first. Then open the menu again and choose **Delete**. The five presets by MoReVoX cannot be deleted, and no preset of yours can take one of their names.

A preset holds everything on the page except the format and **Group off**. **Reset**, under the format switch, puts the whole page back to "Default."

These presets are separate from the presets of Chapter 13. They are the same in every Pantheus you open on this computer.

Sliders and dials on this page

Action	What it does
Drag	Moves the control. Hold **Shift** for fine moves.
The mouse wheel	Moves it in small steps
Option-click, or double-click	Puts it back where it rests
Click the value	Opens it for typing

Where the dry sound goes

With a mono or stereo source on a surround track, the dry sound plays in the front left and right speakers. When the source has the format of the track, each of its channels passes to its own speaker.

CHAPTER 15

SETTINGS

The Settings page holds four choices, the version of Pantheus and its license. Click the round key with a gear, under the star map, to open it.

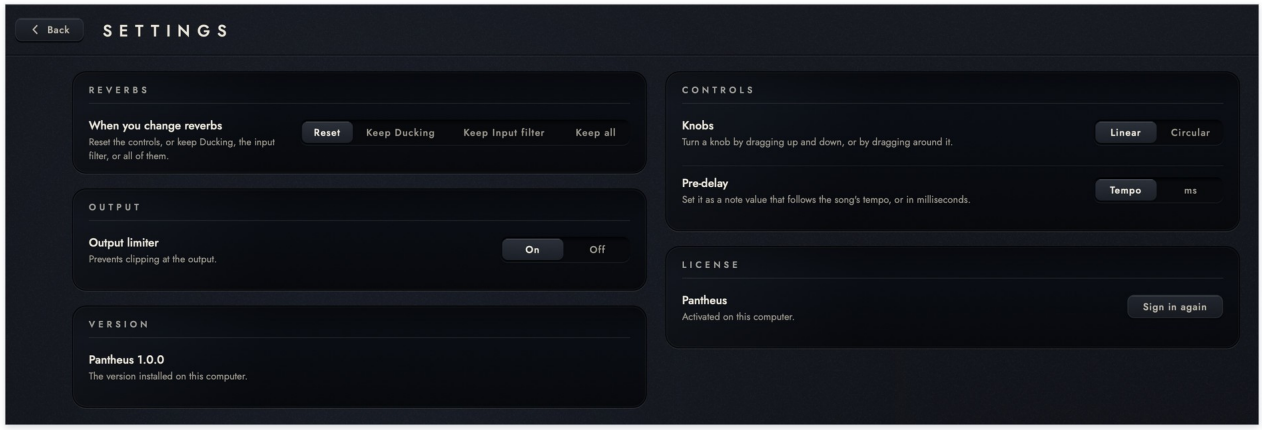


Figure 50. The Settings page.

The choices stand in three sections, **REVERBS**, **OUTPUT** and **CONTROLS**. Each choice takes effect as soon as you click it. In two more sections, **VERSION** and **LICENSE**, Pantheus reports on itself. To leave the page, click **Back** or press **Escape**.

When you change reverbs

This row says what happens to your settings when you choose another space. It has four keys.

Reset Each space starts from its own sound. For that, the ten dials from **Decay** to **Width**, **Reverse** and the Reverb EQ go back to where they rest. The input filter goes back to "Off." Pantheus opens with this choice.

Keep Ducking **Ducking** stays where you set it. It follows your track and your mix more than the space.

Keep Input filter The input filter stays as you set it.

Keep all The controls, the Reverb EQ and the input filter all stay where you set them from one space to the next.

Keep Ducking and **Keep Input filter** each switch on and off with a click. You can light both at once. While neither is lit, **Reset** is lit. To put both out, click **Reset**.

Drive and **Modulation** come with each space under every choice. The output column is never changed by a new space.

This row applies to every Pantheus you open on this computer.

Output limiter

On keeps the output from clipping. This is the same switch as **LIMIT** in the output column. It belongs to this Pantheus alone and is saved with its session.

Knobs

Linear Drag up or down to turn a dial. Pantheus opens with this choice.

Circular Drag around a dial to turn it.

The choice applies to every Pantheus you open on this computer. The four knobs of the Reverb EQ's **Simple** view always turn with an up and down drag.

Pre-delay

Tempo The **Pre-delay** dial is a note value that follows the tempo of your song. Pantheus opens with this choice.

ms The **Pre-delay** dial is in milliseconds.

A click changes this Pantheus. It also sets what every new Pantheus starts with. Through the change, the pre-delay you hear stays as close as the other kind can say it. At 120 BPM, 125 ms becomes "1/16."

The **SYNC** key beside the **Pre-delay** dial switches this Pantheus alone.

The kind of pre-delay is saved with the sound. A session or a preset opens with the kind it was saved with.

The version of Pantheus

The **VERSION** section gives the version of Pantheus that is installed on this computer. The line at the foot of the page gives it as well.

When a newer version is out, the section reads "Update available" and its number, in gold. A **Download** key then stands at its right. **Updating Pantheus** in Chapter 2 has the steps.

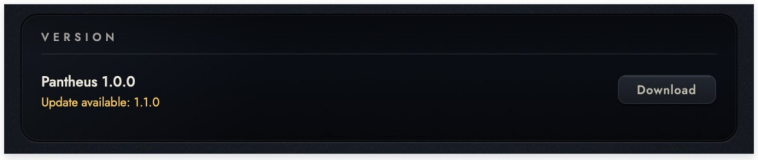


Figure 51. The Version section when a newer version is out.

The license

The **LICENSE** section says whether Pantheus is activated on this computer, or how many days of the trial are left. Its key opens the activation window. Chapter 3 covers both.

CHAPTER 16

PANTHEUS IN YOUR DAW

This chapter covers what Pantheus needs from a DAW and what it gives back. For the steps in your own DAW, such as adding an effect or drawing automation, see the manual of that DAW.

Tracks Pantheus works on

The source is	The track is	What you get
Mono	Mono	A mono reverb
Mono or stereo	Stereo	A stereo reverb
Mono or stereo	5.1, 7.1 or Atmos 7.1.2	The dry sound at the front left and right. The reverb in every speaker, the LFE once you switch it on.
5.1, 7.1 or Atmos 7.1.2	The same format	Each channel of the dry sound in its own speaker. The reverb in every speaker, the LFE once you switch it on.

Pantheus does not work on other formats, such as quad or 7.1.4.

On a stereo track, the two sides stay apart. What comes in on the left plays through the left side of the space, and what comes in on the right through the right side. With **Width** at 100%, a sound that is only on the left has its reverb only on the left. Other settings of **Width** mix the two sides.

Pantheus works at every sample rate from 44.1 kHz to 192 kHz.

Finding Pantheus in the list of your DAW

As a VST3 and an AAX plug-in, Pantheus is listed as a reverb. As an Audio Unit, it is listed with the effects. A DAW that sorts its plug-ins by maker has it under WaveMachine Labs - MoReVoX, in every format.

In Pro Tools, Pantheus is an insert. It is not in the AudioSuite menu.

Latency and the tail

Whatever its settings, Pantheus delays its output by a small, fixed number of samples. Your DAW is told the delay and makes up for it. The length of the reverb's ring goes to your DAW as well.

Sample rate	Delay in samples	In milliseconds
44.1 kHz	77	1.7 ms
48 kHz	43	0.9 ms
88.2 kHz	14	0.16 ms
96 kHz	13	0.14 ms
176.4 kHz	10	0.06 ms
192 kHz	9	0.05 ms

The tempo of the song

A **Pre-delay** set to a note value follows the tempo of your DAW. When the tempo of the song changes, the pre-delay changes with it.

In a DAW that gives no tempo, the note values are counted at 120 BPM.

Bypass

The Pantheus window has no bypass key. Use the bypass of your DAW. While Pantheus is bypassed, only the dry sound plays. The picture of the reverb then reads "The reverb is off."

Automation

Your DAW lists the controls of Pantheus under these names.

Name in the DAW	Values	In the window
Mix	0% to 100%	**Mix**
Output	–24 to +12 dB	**Output**
Pre-delay	0 to 500 ms	**Pre-delay**, in milliseconds
Size	50% to 200%	**Size**
Decay	25% to 400%	**Decay**
Length	5% to 100%	**Length**
Attack	0 to 300 ms	**Attack**
Early / late	Early 100 to Late 100	**Early / late**

Name in the DAW	Values	In the window
Damping	0% to 100%	**Damping**
Bass decay	50% to 200%	**Bass decay**
Width	0% to 200%	**Width**
Ducking	0% to 100%	**Ducking**
Reverse	On or off	**Reverse**
Drive, Modulation	0 to 100	The two dials
Drive on, Modulation on	On or off	Their **ON** and **OFF** keys
Reverb EQ	On or off	The power key of the EQ page
Output limiter	On or off	**LIMIT**
Hold	On or off	**Hold**
Full wet	On or off	**Shift-W** in the Pantheus window
Balance	L 100 to R 100	**Balance**
Pre-delay note	Off, then 1/128 to 1/4	**Pre-delay**, as a note value
Input filter	On or off	The power key of the **Input Filter** page
HP	Off, then 20 Hz to 1 kHz	**HP** on the **Input Filter** page
LP	1 kHz to 20 kHz, then Off	**LP** on the **Input Filter** page
Trim	–12 to +12 dB	**Trim** on the **Input Filter** page
Depth, Magnify	0% to 400%, 0% to 200%	The two sliders of the Immersive Audio page
Front-rear	F 100 to R 100	**Front-rear**
Stereo volume to LFE volume	Silence to +6 dB	The **VOLUME** slider of each line
Stereo mute to LFE mute	On or off	The **M** key of each line
Stereo solo to LFE solo	On or off	The **S** key of each line
Stereo hi damp to Top hi damp	–12 to 0 dB	The **HI DAMP** dial of each line
Bypass	On or off	The bypass of your DAW

Decay and **Length** read as percentages in your DAW. In the window, the same two dials read in seconds.

Some things cannot be automated.

- The space that plays, and your presets
- The bands and the tone controls of the Reverb EQ
- **A** and **B**
- The format, the groups, **Link** and **Group off** of the Immersive Audio page
- The kind of pre-delay, a note value or milliseconds

Automation moves only the control it was written for. On the Immersive Audio page, an automated line does not take the other lines of its group with it.

Typing in the window

While you type in the search field or in the number of a control, the keys go to Pantheus. To end the typing, press **Return** or click anywhere outside the field.

The listening window takes the keyboard for as long as it is open. Its **Space bar** stops the listening.

A session with a space you do not have

A session can ask for a space that the library on your computer does not hold. In that case, Pantheus plays the dry sound only. A line at the foot of the finder says that the space is not in the library.

CHAPTER 17

TROUBLESHOOTING

Pantheus says what is wrong in the window itself. This chapter lists what it can say and what to do about it.

Messages in the finder

The finder says	When	What to do
“Reading the library”	Pantheus has just opened	Wait a moment.
“nothing found”	No space has the words you typed	Check the spelling, or say it another way. The **NOT FOUND** label names the word.
“none fits every word · nearest first”	No space matches all of your words together	Use the nearest spaces in the list, or take a word away.
“Nothing matches”	Your labels leave no space	Take a label away.
“No favorites yet”	**Favorites** is chosen and no space has a star	Star a space, in a row or in the bar.
“Nothing played yet”	**Recent** is chosen before any space was loaded	Choose a space.
“No presets yet”	**My presets** is chosen and none is saved	Shape a space and click **Save as**.
“No preset of yours matches”	Your words or the **TAG** label leave no preset	Clear the field, or take the label away.
“Pantheus is not activated. It plays the dry sound until it is.”	No trial runs and nobody has signed in on this computer	Start the trial or sign in (Chapter 3).
“Your free trial has ended. Pantheus plays the dry sound until it is activated.”	The 7 days of the trial are over	Sign in with the account you bought Pantheus with.

When the library is missing

Without the library on your disk, the list, the search and the star map still work. Only the sound of the spaces is missing.

In that case, an orange line at the foot of the finder reads "The library isn't installed. Run the Pantheus installer." The picture of the reverb says the same.

1. Run the installer again and make sure **Library** is among the parts it installs.
2. Back in Pantheus, choose a space. The message clears with the first space that loads.

A second line can appear in the same place, "This space isn't in the library on this computer." Run the installer again in that case as well.

Before Pantheus is activated, or after its trial has ended, the line reads "The library is waiting for Pantheus to be activated on this computer." Chapter 3 covers the activation.

Messages while listening

The listening window says	When	What to do
"Nothing is coming in yet. Start playback, or play something."	No sound has arrived for a moment	Start your DAW, or check that the track reaches Pantheus.
"Too quiet to tell. Play something and listen again."	The sound was too quiet to name	Listen again to a louder part.
"Couldn't tell what that was. Try a few seconds of one instrument on its own."	Listen could not name the sound	Solo one instrument and listen again.

After the last two, the window closes by itself. The list and the map stay as they were.

Messages in the picture

The picture says	When
"Move the magnifier over a star, or search."	No space is chosen yet
"Shaping the reverb…"	A space is being prepared. This takes a moment at most.
"The reverb is off"	Your DAW has bypassed Pantheus

I hear no reverb

- Check that Pantheus is activated or that its trial still runs. A line at the foot of the finder says when it is not.
- Check that **Mix** is above 0%. On a send, press **Shift-W** for full wet.
- Check that your DAW has not bypassed Pantheus. The picture then reads "The reverb is off."
- Look for an orange line at the foot of the finder. It appears when the library is missing.
- Check that **Hold** is not lit. While it is on, no new sound goes into the reverb.

My settings changed when I chose another space

A new space starts from its own sound. To keep your settings from one space to the next, open the Settings page and set **When you change reverbs** to **Keep all**. **Keep Ducking** keeps only **Ducking**, and **Keep Input filter** keeps only the input filter. Nearby keeps every setting in any case.

Drive or Modulation switched on by itself

Many spaces were made with **Drive**, with **Modulation** or with both. Such a space switches its key on and sets its dial. Click the key to switch it off for the space that plays.

The same words listed a few different spaces

The same words give the same list for as long as Pantheus stays open. Saved with the project, that list comes back when you open the project again. On another track or in a new project, a few places in the list can hold other spaces. The first five results and the count stay the same.

My typing goes to the search field

Press **Return**, or click anywhere outside the field. The field then stops taking what you type.

The Pre-delay dial reads note values

Pantheus opens with a pre-delay that follows the tempo. For milliseconds, click the **SYNC** key after its number. To start every new Pantheus in milliseconds, open the Settings page and set **Pre-delay** to **ms**.

Save is dim

Save writes over one of your presets. It is dim while none of them plays, and while the one that plays has not changed. To make a new preset, click **Save as**.

The activation window keeps coming back

During the trial, the activation window opens with the first Pantheus window after you start your DAW. Click **Continue trial**. It stays away until you start the DAW again.

If it still reads “Activate Pantheus” after you signed in, the activation did not go through. Read the red line in it, and sign in once more while your computer is online. Each user account of a computer is activated by itself.

A preset was not imported

The space of that preset is not in the library on your computer. Run the newest installer, then import the preset again.

Pantheus is not in the AudioSuite menu

In Pro Tools, Pantheus works as an insert, on a track or on an aux track. It does not process clips from the AudioSuite menu.

Sending a log to support

When support asks for a log, Pantheus can write one.

1. Make a folder named **Pantheus** on your Desktop.
2. Open Pantheus and do again what went wrong.
3. Send the file `pantheus.log` from that folder to support.
4. Delete the folder to stop the log.

The log holds numbers only, such as times, counts and the sample rate. It has no names, no file paths and no sound in it.

The Immersive key is faint

The track is mono or stereo. The Immersive Audio page works on 5.1, 7.1 and Atmos 7.1.2 tracks.

Listen named the wrong instrument

Click the **HEARD** label and choose the right one from its menu. For the next listening, play one instrument on its own.

CHAPTER 18

REFERENCE

The controls of the Reverb page

Control	Range	Rests at
Decay	25% to 400% of the space's own decay, shown in seconds	100%
Size	50% to 200%	100%
Length	5% to 100% of the tail, shown in seconds	100%
Pre-delay, as a note value	"Off," then "1/128" to "1/4"	"Off"
Pre-delay, in milliseconds	0 to 500 ms	0 ms
Attack	0 to 300 ms	0 ms
Ducking	0% to 100%	0%
Damping	0% to 100%	0%
Bass decay	50% to 200%	100%
Early / late	"Early 100" to "Late 100"	"Even"
Width	0% to 200%	100%
Drive	0 to 100, with an **ON** / **OFF** key	0, **OFF**
Modulation	0 to 100, with an **ON** / **OFF** key	0, **OFF**
Reverse	On or off	Off
Hold	On or off	Off

The controls of the Input Filter page

Control	Range	Rests at
HP	"Off," then 20 Hz to 1 kHz	"Off"
LP	1 kHz to 20 kHz, then "Off"	"Off"
Trim	–12 to +12 dB	0 dB
The power key	On or off	Off

The controls of the output column

Control	Range	Rests at
Mix	0% to 100%	20%
Full wet (**Shift-W**)	On or off	Off
Output	–24 to +12 dB	0 dB
Balance	"L 100" to "R 100"	"Center"
LIMIT	On or off	On

The controls of the Reverb EQ

Control	Range	Rests at
Low cut	"Off," or 20 Hz to 1 kHz	"Off"
Low	–12 to +12 dB, around 300 Hz	0 dB
High	–12 to +12 dB, around 4 kHz	0 dB
High cut	"Off," or 1 kHz to 20 kHz	"Off"
A band's frequency	20 Hz to 20 kHz	
A band's gain	–24 to +24 dB	0 dB
A band cut's depth	0 to –60 dB	–36 dB
A cut's slope	12, 24 or 48 dB per octave	24 dB per octave
The number of bands	Up to 8	
The power key	On or off	On

The controls of the Immersive Audio page

Control	Range	Rests at
VOLUME, on each line	Silence to +6 dB	0 dB
HI DAMP, on each line but the LFE	0 to –12 dB	0 dB
M and **S**, on each line	On or off	Off. The **M** of the LFE is on.
GROUP, on each line	None, **A**, **B** or **C**	None
Depth	0% to 400%	0%
Magnify	0% to 200%	0%

Control	Range	Rests at
Link	On or off	Off
Front-rear	“F 100” to “R 100”	“0”
Group off	On or off	Off
FORMAT	**5.1**, **7.1** or **Atmos 7.1.2**	The format of the track

The note values of Pre-delay

After “Off,” the **Pre-delay** dial runs through fifteen note values in order of length.

Kind	Note values
Plain notes	1/128, 1/64, 1/32, 1/16, 1/8, 1/4
Triplets, marked T	1/64T, 1/32T, 1/16T, 1/8T, 1/4T
Dotted notes, marked D	1/64D, 1/32D, 1/16D, 1/8D

Mouse and keyboard

Where	Action	What it does
The search field	**Return**	Asks at once and passes the keyboard to the list
	Escape	Clears the field
	Up, **Down**	Play the row before or after the space that plays
The list	Click a row	Loads the space
	Double-click the row that plays	Loads the space again as it started
	Click a heading	Sorts by that column
	Right-click a preset’s row	Opens the menu of the preset
The star map	Drag the magnifier	Plays the stars it passes
	Arrow keys, after a click on the map	Nudge the magnifier. **Shift** for larger steps.
	The mouse wheel	Zooms the map
	Drag the empty sky	Moves a zoomed map
	Double-click the empty sky	Shows the whole map
	Click a type name on the ring	Keeps the list to that type

Where	Action	What it does
	Escape, after a click on the map	Takes away what Listen heard
The listening window	**Return** or the **Space bar**	Stops the listening
	Escape	Cancels it
A dial	Drag, or the mouse wheel	Turns it. **Shift** for fine moves.
	Option-click, or double-click	Puts it back where it rests
	Click its number	Opens it for typing
The picture	Drag a handle	Moves its control. **Shift** for fine moves.
	The mouse wheel	Changes **Decay**
A and **B**	Right-click	**Copy to B**, or **Copy to A**
A speaker in the room	Click	Mutes its line
	Option-click	Solos its line
	Drag up or down	Sets the volume of its line
Anywhere	**Escape**	Closes Nearby, or leaves the Immersive Audio page or the Settings page
	Command-Z, on Windows **Ctrl-Z**	Undoes your last change
	Shift-Command-Z, on Windows **Ctrl-Y**	Redoes it
	Shift-W	Full wet on or off: only the reverb plays, for a send

The instruments Listen can name

Group	Names
Voices	Vocals, Choir, Rap vocal, Spoken voice
Drums and percussion	Snare drum, Kick drum, Toms, Cymbals, Drums, Percussion, Hand drums, Tambourine, Cowbell, Claps, Timpani, Mallets
Bass	Bass, Double bass
Guitars	Electric guitar, Acoustic guitar, Guitar
Keys	Piano, Electric piano, Organ, Harpsichord, Keys
Synths	Synth, Synth pad
Strings	Harp, Strings, Violin, Cello
Brass and winds	Brass, Trumpet, Saxophone, Flute, Woodwinds

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