



# SpeakerMix Pro

User Guide and Install Instructions



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## Introduction

SpeakerMix Pro is a six channel guitar and bass speaker mixing plugin with ground breaking processing versatility for Impulse Response mixing and access to Celestion's next generation Dynamic Speaker Responses (DSRs). SpeakerMix Pro allows players, producers or engineers to mix up to six different speaker responses from their library of .wav IRs and/or DSRs.

SpeakerMix Pro is not a simple convolution plugin. The plugin pre-conditions any .wav IRs to work seamlessly with the DSR technology in SpeakerMix Pro. The tuning process converts the IR into a dynamic speaker response model similar to a DSR but informed by the user response and generalised guitar speaker dynamics. Novel features such as the Z-Curve electrical amp coupling are fully compatible with DSRs and IRs alike.

However, SpeakerMix Pro is built to work best with Celestion's proprietary Dynamic Speaker Responses (DSRs), the next generation speaker response that incorporates all of the non-linear, harmonic behaviour of real guitar speakers on a floating input-power scale for truly immersive and unprecedented tonal nuance. DSRs are entirely convolution-free, allowing players to find zero-interpolation mic positions between our tried-and-tested line-up: Thin, Bright, Balanced, Fat, Dark and Dark2.

## SpeakerMix Pro Software Installation



### System Requirements



	macOS	Windows
<i>CPU</i>	Intel Core i5 / i7 / i9 Apple M1 now supported in >1.1.4	Intel Core i5 / i7 / i9
<i>Memory</i>	8GB RAM	8GB RAM
<i>Disc Storage (Size at release)</i>	Software + Celestion Directory (300mb Approximate)	Software + Celestion Directory (300mb Approximate)
<i>Operating System</i>	macOSX 10.9 – 11.6 (Big Sur)	Windows 10 64 Bit
<i>Screen Resolution (Minimum)</i>	1440x900	1440x900
<i>Screen Resolution (Recommended)</i>	1920x1080 (1680x1050 on MacBook Pro and Air)	1920x1080

**Note:** The disc storage requirement is subject to change as Celestion develop and release more DSR versions of our Guitar and Bass loudspeaker portfolio.

### SpeakerMix Pro Versions List

	 macOS	 Windows
VST	✓	✓
Pro Tools AAX	✓	✓
Apple Audio Units (AU)	✓	-

### SpeakerMix Pro Installation

SpeakerMix Pro is delivered for MacOS and Windows operating systems as automatic installers. Navigate to <https://www.celestionplus.com/my-account/downloads/> to download the **zipped** installer for your particular operating system. Once downloaded, first **unzip** the file to reveal the installer executable (.exe for Windows and .pkg for MacOS). Double click to run the installer and install SpeakerMix Pro.

Both installers carry AAX, VST and AU (Mac only) formats of SpeakerMix Pro. The user may choose to install any combination of formats required.

**Note:** The installers create a “Celestion” folder, which is required for the proper functioning of SpeakerMix Pro and DSR installation. On Mac the “Celestion” folder can be found at “Macintosh HD → Users → Shared → Celestion”. On Windows machines the directory is “C:\Users\USERNAME\Celestion”. Where “USERNAME” is the system specific username, for example “sarah” or “jamesg”.

**Note:** It is not essential to store .wav IR files in the \Celestion directory. The IR browser provides system drive level navigation for browsing and selecting .wav IRs.

### Dynamic Speaker Response Installation

To install your newly purchased Dynamic Speaker Responses, first download the **zipped** files from <https://www.celestionplus.com/my-account/downloads/>. Locate and **unzip** the downloaded DSR files on your machine. The extension for properly unzipped DSR files is “.dsr”. For example, “Celestion\_Vintage 30\_2x12 Open.dsr”. Next, drag and drop (or copy) the unzipped .dsr files to the directories below for your specific operating systems.

MacOS: “Macintosh HD → Users → Shared → Celestion → Dynamic\_Responses”

Windows: “C:\Users\USERNAME\Celestion\Dynamic\_Responses”

**Note:** A newly purchased .dsr file is directly associated with the purchaser’s account on checkout. A user will only have access to the DSR if they have purchased it via celestionplus.com.

### SpeakerMix Pro Preset Saving and Installation

Celestion has developed a capability to create custom preset files for SpeakerMix Pro. These are denoted by the extension .smp and automatically located in the “C:\Users\username\Celestion\Presets” directory. A preset is created using the “save preset” button in the Mixer window. Users may copy and share these presets simply by transferring the .smp file to another machine. Preset browsing uses a similar structure to the User IR browser. Subfolders may be created freely inside the \Presets folder to store and organise your pre-sets.

Inside the preset browser window the user can save the current mixer state on the active bank (A or B) as the default SpeakerMix Pro mixer state for new instances using the “Save As Default” button. The users saved default can be recalled at any time to the mixer using the “Load Default” button. Loading the default to the mixer will overwrite any unsaved mixer settings in the current mixer bank. New instances of SpeakerMix Pro will always open with the users default mixer settings OR where applicable the last used mixer setting in active instances in a session.

**Note:** A preset is comprised of pointers to .dsr, .wav IR files and mix parameters. Sharing a preset does not give a user access to a DSR that they have not already purchased on celestionplus.com.

### Registration

After purchasing and installing SpeakerMix Pro, the plugin is activated by adding an instance of SpeakerMix Pro on a mono or stereo channel in your DAW of choice and logging in via the splash screen. No physical licence dongles or licence codes are required.

- Log in using the same email address and password used for your account on [www.celestionplus.com](http://www.celestionplus.com)
- Logout using the “Logout” button to remove your locally stored and securely encrypted credentials and return the plugin to the login splash screen.

**Note:** SpeakerMix Pro is designed to work best in stereo (mono->stereo or stereo). Mono use may affect some functionality.

### Licences

SpeakerMix Pro provides access to three (3) floating user “seats”. A seat can be used on any number of different workstations, with the constraint that a maximum of three seats may be active *simultaneously*. After entering the email and password credentials, the plugin connects to the Celestion licensing server and activates a licence seat on the user’s celestionplus.com account. The user may simultaneously activate three (3) seats on any three machines. Once all three (3) seats are active, a fourth log-in attempt removes the oldest active seat from the user’s account and re-allocates it to the new machine.

A single Celestion Plus user account may purchase and use in parallel a maximum of 10 licenses (supported in v1.1.4 and above).

**Note:** During the log-in procedure, SpeakerMix Pro connects via the internet to the Celestion licensing server to activate a floating seat and provide the user with updates and upgrades to SpeakerMix Pro.

### SpeakerMix Pro Demo

A **free** 14-day trial version of SpeakerMix Pro is available for new users. Simply follow the links from <https://www.celestionplus.com/product/celestion-speakermix-pro/> and checkout with your free Demo licence. The Demo version of SpeakerMix Pro is fully featured and valid for 14 days from checkout. A valid Celestion Plus user account is required to login to SpeakerMix Pro and access the Demo. The Demo license is associated with the Celestion Plus account used to checkout with the demo product. Once expired, SpeakerMix Pro will automatically log the user out and return to the login splash screen. To upgrade to a fully licensed version of SpeakerMix Pro with 10 Free DSRs of your choice, simply purchase a license at <https://www.celestionplus.com> and login to SpeakerMix Pro in your DAW. You do not need to update the installed version of SpeakerMix Pro when moving from Demo to paid licenses.

The Demo version of SpeakerMix Pro provides unrestricted access to the DSRs below as well as IR browser with automatic Dynamic Response tuning for users IRs, and room channel.

- Vintage 30 4x12 Closed
- Celestion Blue 2x12 Open
- Celestion Ruby 1x12 Open
- Celestion G10 Gold 2x10 Closed
- G10 Vintage 4x10 Closed
- G12M Creamback 1x12 Closed
- G12H Creamback 2x12 Closed
- G12K-100 4x12 Closed
- Pulse 10 4x10 Closed
- Pulse 15 1x15 Closed

The Demo provides access to three (3) floating license seats for simultaneous use, in the same manner as the paid license seats.

**Note:** Demo DSRs do not require installation. They are installed automatically by the executable installers. However, when upgrading to a paid license, the users DSRs must be installed correctly, as per the instructions above.

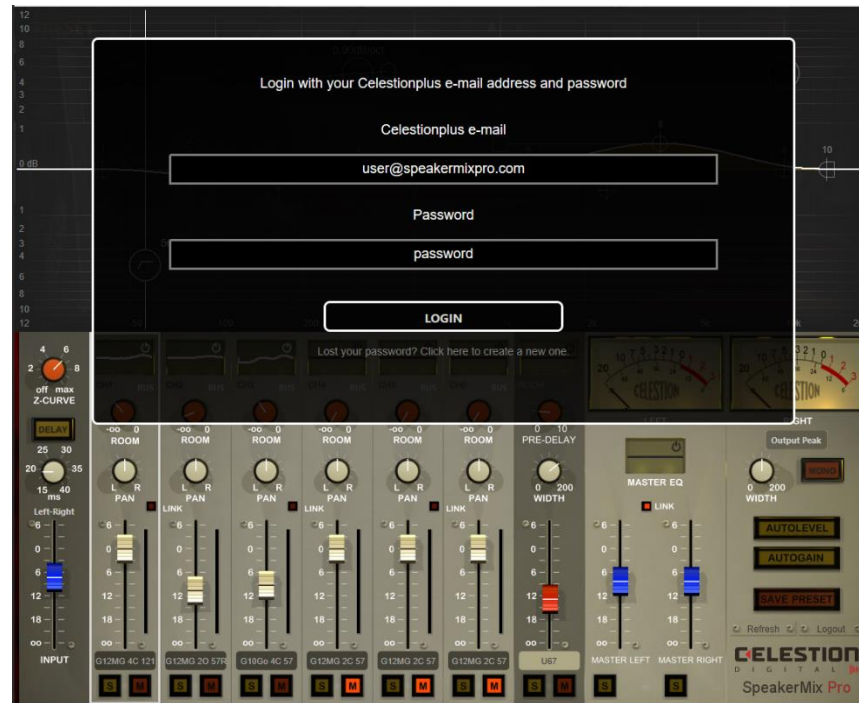
## The SpeakerMix Pro Interface and Features

### *Overview*

SpeakerMix Pro is comprised of three main interface sections. The “Mixer”, “Studio View” and a “Speaker Selection Interface” used to select Dynamic Speaker Responses or load a user’s .wav IRs. An overview of each section is given below.

- The Mixer view provides routing and mixing features including: input level (controlling the driving power into the DSRs), Z-Curve amp output impedance coupling, mix levels, room sends, parametric equalization, metering and more. It is used to mix up to six (6) DSRs or IRs in parallel.
- The Studio view is specific to the highlighted channel only (a white frame around the channel strip identifies the highlighted channel). The studio view changes when a different channel is selected. The studio view provides a visual context for the tracking setup for the channel (speaker(s), cabinet and microphone) and a detailed list of the active options, when the user hovers the mouse pointer over the cabinet. The mic position is changed by dragging the position indicator along the mic position slider.
  - The PRESET menu gives a quick access to any available pre-sets stored in the “C:\Users\username\Celestion\Preset” directory.
  - Use the “Save as Default” button in the PRESET menu to save the current mixer state as the default settings loaded when creating a new instance of SpeakerMix Pro in any DAW.
  - Use the “Load Default” button in the PRESET menu to recall the users saved default mix settings to the mixer in the active instance. Loading default settings will replace current settings. The default mix settings can be saved from or loaded to mixer banks A or B independently.
- The Speaker Selection interface is accessed by clicking on the speaker image in the studio view or on the channel text in the mixer view. It includes a tab selector on top and three rows of images for speakers, cabinets and microphones to select the players ideal DSR setup. User IRs can be loaded by clicking the “User IR” tab in the top right hand corner of the speaker selection interface.
  - Dynamic Speaker Responses that are not owned by the user account will appear transparent in the sliding selection window.

## The Login Splash Screen



The login splash screen is displayed the first time the user creates an instance of the plugin in their DAW, where they have not previously logged in to the plugin. To activate one of the three floating seats, the user must login using this splash screen with the email address and password for their [www.celestionplus.com](http://www.celestionplus.com) user account. The login credentials are always remembered and will work seamlessly without an internet connection for a maximum of seven (7) days. After seven days – if SpeakerMix Pro has not found an internet connection - the user is logged out automatically. Providing an internet connection is always available, the user should never be required to login again via the splash screen.

**Note:** After logging in on three (3) separate machines, a 4th machine cannot be accessed for 12 hours. This timer can be avoided by manually logging out an active machine using the “Logout” button.

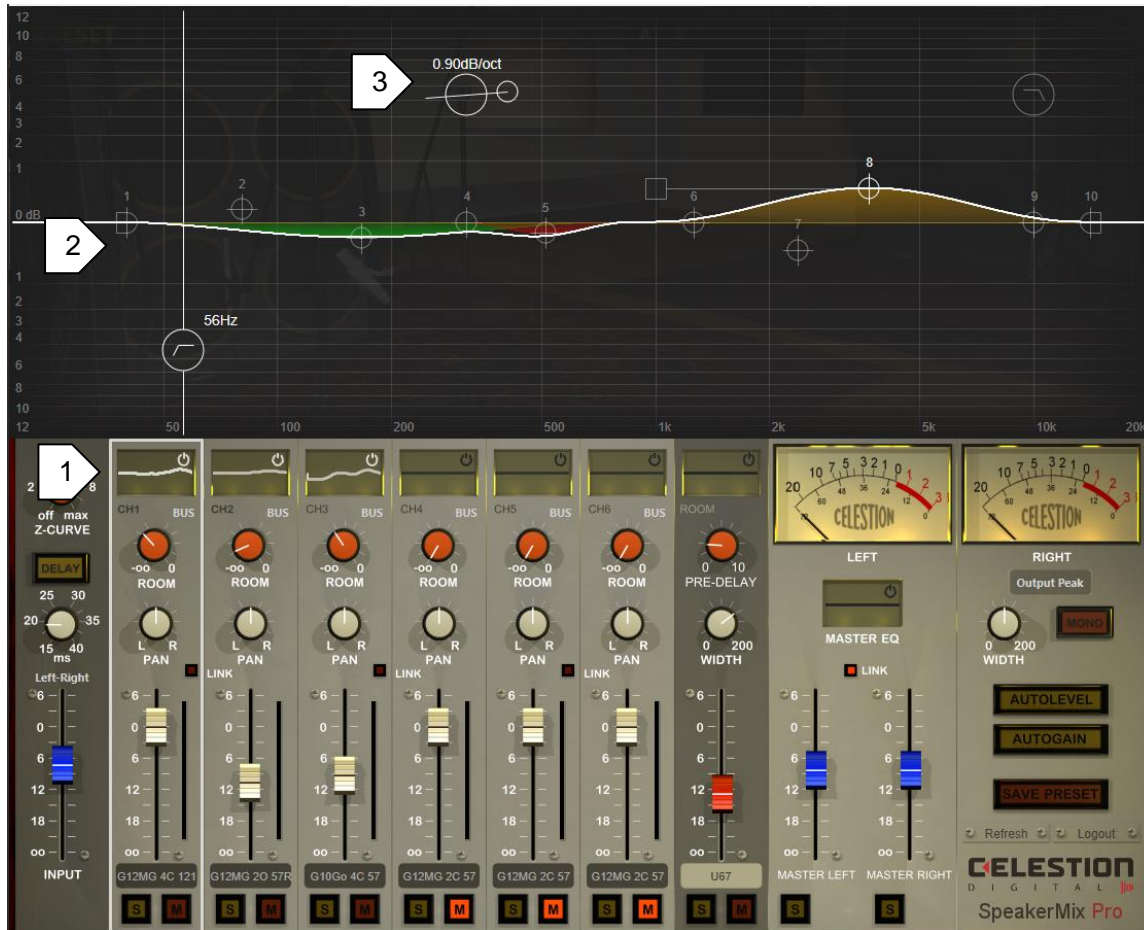


## The Mixer Window



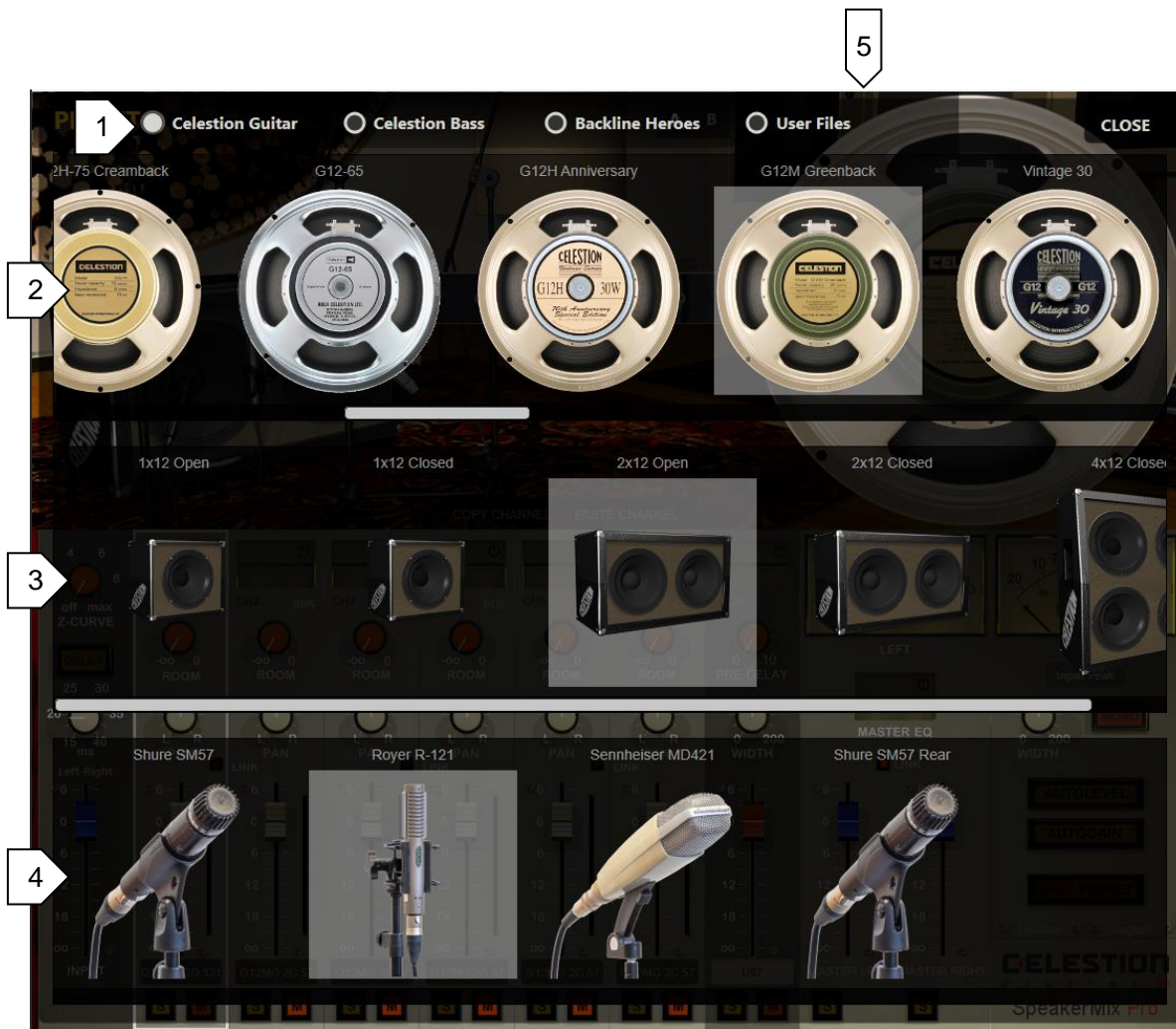
- 1 The Z-Curve dial controls the dynamic, complex electrical coupling between the component level amp output model and the input of the mixer channels, where a larger value is equal to a higher gain amplifiers output impedance. Z-Curve is IR and DSR compatible.
- 2 The Delay button duplicates L onto the R channel (in mono operation) and delays it by the value set by the dial. The "Left-Right" text is clickable to select dial functionality. Stereo operation delays the R, or L channel input without duplication.
- 3 The input gain fader controls the input to the mixer channels. This determines how much power is driving the Dynamic Speaker Responses. Setting the input at it's maximum is equivalent to driving the DSR at it's maximum physical input power. This is relative to each Celestion speaker.
- 4 The active DSRs speaker is displayed. Clicking on the speaker opens the Speaker Selection Interface, where users may choose the speaker, cabinet and mic for the current mixer channel.
- 5 The mic position slider. The scroll-wheel snapping positions correspond to Celestion's Thin, Bright, Balanced, Fat, Dark, Dark2 positions. The slider user zero-interpolation dynamic morphing to provide floating mic positions.
- 6 The mixer channels that DSRs or IRs are loaded onto. The channel, from top to bottom provides parametric EQ, pre-fader room send and room type selection (white text), panning functionality, channel linking (1:2, 3:4, 5:6 can be linked) and the fader to control the mix level. Mute and solo are provided at the bottom of the channels.
- 7 The room channel, with parametric EQ, pre-delay and width. Select from four stereo room mics, or load a custom response by clicking the text at the base of the channel.
- 8 The master channel, with parametric EQ, master width control, mix-to-mono check button and linked fader operation. Click the white text below the VU's to select input/output monitoring and ballistics mode.
- 9 Auto-functions and pre-set saving. Autolevel is a single-tap button that adjusts fader levels to the centre of the scale to provide more mixing headroom, while preserving balance and level at the output. Autogain tracks the input to output RMS gain and ensures 0dB net gain through the plugin. This preserves the players mix balanced regardless of how hard you drive the DSR input power.
- 10 Pre-set selection menu, allowing the user to select any imported (shared) or personally saved pre-set to recall your mixes.
- 11 Logout and Refresh buttons allow the local login credentials to be securely cleared and return the plugin to the splash screen, or refresh the local DSR licenses respectively. Click the Celestion logo to see the current version of SpeakerMix Pro.
- 12 The channel copy and paste functions allow the DSR selection and channel setting to be copied to and from any mixer channel.

## The Parametric EQ Window



- 1 Parametric EQ is available on all mixer channels plus the room and master. It is opened with a single click on the mini EQ window and activated by clicking the power button (white outline when active). EQ shape is displayed in the mini EQ window after the main EQ window is closed.
- 2 The EQ offers low-shelf, high-shelf and eight floating EQ nodes with boost, cut and Q controls. Nodes are activated by double clicking.
- 3 Three major EQ functions, low-pass, high-pass and tilt are provided at the top of the EQ window and activated by double clicking. These provide broadband EQ control.

## The Speaker Selection Interface



- 1 The DSR Selection window provides three tabs which are used to select from the Celestion digital range. Note, at the time of release the Backline Heroes range is not currently available in DSR format.
- 2 Select the speaker you wish to use from the speaker sliding menu. Active (owned) DSRs will appear in full colour on the left hand side of the list.
- 3 Select the cabinet to use in combination with the speaker selection in the previous sliding menu.
- 4 Select the microphone to use with the previously selected cabinet and speaker combination. Open back cabinets make the additional SM57 Rear mic available, while Bass DSRs have a modified mic line-up including the FET47, D112, MD421 and KM84 (HF).
- 5 Click "User Files" to open the integrated IR browser. **The DSR algorithm pre-conditions any user-loaded IRs to ensure phase coherence with Celestions DSR format and functionality with the Z-Curve amp output impedance coupling module. User IRs are tuned and converted into dynamic models by the DSR algorithm to introduce real dynamic harmonics relative to the IR response.**

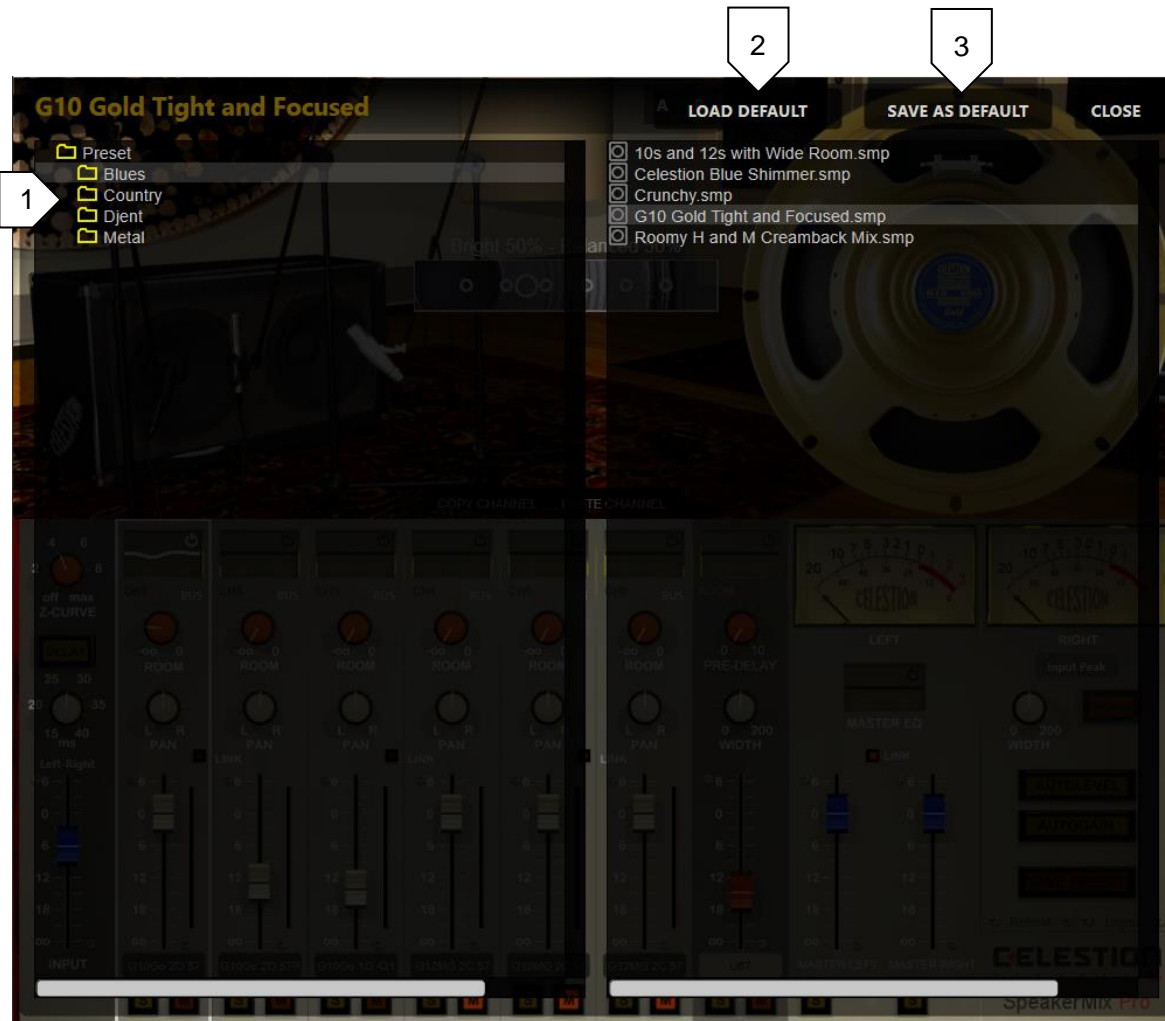
## User Impulse Response Browser



- 1 The “User Files” tab is selected to display the Impulse Response browser window.
- 2 The folder directory tree beings at the route drives active on the Windows PC or Mac. Clicking a folder reveals the contents, allowing players to navigate to their Impulse Response library on any drive.
- 3 .wav Impulse Response files are displayed on the right hand side of the browser window. Click and wav file for it to become active on the currently selected mixer channel. Click the close button to close the interface and commit to your tone.

**Note:** The DSR algorithm pre-conditions the .wav Impulse Response when it is selected. This takes a fraction of a second and tunes the Impulse Responses into dynamic models compatible with the Z-Curve impedance coupling module, controlled by the dial on the input channel of the mixer. The pre-conditioning does not affect the raw audio file.

## The Preset Menu



- 1 The "Preset" folder inside the \Celestion directory. The user can create any number of sub folders to organise their presets. Clicking a folder shows the preset contents at that level on the right hand side of the window.
- 2 Load Default load the users default mixer settings to the mixer band (A or B) in the active instance. Note the load default button will overwrite any unsaved mix settings.
- 3 Save As Default is used to save the current mixer settings as the default settings loaded in new instances of SpeakerMix Pro. To save a custom preset as the default, select a preset to load it to the mixer and then click Save As Default. New instances of SpeakerMix Pro in any DAW on the machine will load the users default mixer settings.