CELESTION
D I G I T A L

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. 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 Celesion'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
CPU	Intel Core i5 / i7 / i9	Intel Core i5 / i7 / i9
Memory	8GB RAM	8GB RAM
Disc Storage (Size at release)	Software + Celestion Directory (300mb Approximate)	Software + Celestion Directory (300mb Approximate)
Operating System	macOSX 9 – 10.15.9 (Catalina)	Windows 32 and 64 Bit
Screen Resolution (Minimum)	1440x900	1440x900
Screen Resolution (Recommended)	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 in two essential parts, the software itself and a folder named "Celestion" that functions as a directory for your new DSRs and any user IRs or room responses.

After checkout, the user will have a number of options to download SpeakerMix Pro for the operating system and DAW of their choice (Windows or MacOS). Each download contains the specific OS/DAW version (VST, AU, or AAX) and a copy of the "Celestion" folder inside a zip file. The software is installed by dragging and dropping the VST (.dll), AU (.component) or AAX (.aaxplugin) file from the download zip file into the users plugin folder.

To install the essential "Celestion" folder, the user must drag and drop it from inside the downloaded zip file into the relevant directory location below for MacOS or Windows. Inside the "Celestion" folder, the user will find a number of sub-folders that provide convenient storage of DSRs, presets, .wav format IRs or room responses to be used in SpeakerMix Pro.

On Windows, drop "Celestion" into "C:\Users\username\"
The complete directory will then become "C:\Users\username\Celestion"

On MacOS, drop "Celestion" into "Macintosh HD\Users\Shared"
The complete directory will then become "Macintosh HD\Users\Shared\Celestion"

Note: The Windows "username" refers to the username on the machine. For example, C:\Users\Brianm\Celestion.

Note: The Celestion directory folder must be installed for SpeakerMix Pro to function correctly.

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

Dynamic Speaker Responses are easily installed by dragging and dropping the .dsr files downloaded from https://www.celestionplus.com/my-account/downloads/ into the "Dynamic_Responses" subfolder in the previously installed \Celestion directory. Once the .dsr files are copied to the correct subfolder, simply load a new instance of the plugin and find the new DSRs active in the speaker selection interface.

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

SpeakerMix Pro Pre-Set Saving and Installation

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

Note: A pre-set is comprised of pointers to .dsr (or potentially Impulse Response or a combination of the two) files and mix parameters. Sharing a pre-set does not automatically give a user access to a .dsr or .wav IR file 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

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.

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.
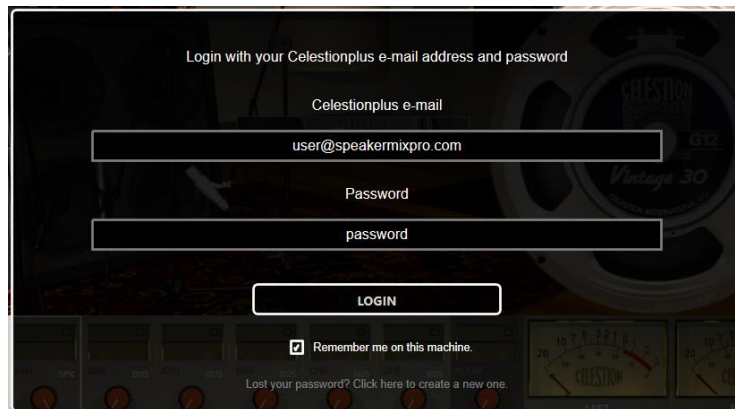
The SpeakerMix Pro Interface and Features

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.
  - o The PRESETS field gives a quick access to any available pre-sets stored in the "C:\Users\username\Celestion\Pre Sets" directory.

- ➢ 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 "Load IR" button in the top right hand corner of the speaker selection interface.
  - o 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 provided with a purchase of SpeakerMix Pro, the user must login using this splash screen with their email address and password for their www.celestionplus.com user account. A new login is required when an active seat is reassigned or a lack of internet connection stops the system from authorising automatically for more than six (6) hours. Normal automatic authorisation occurs every 48 hours.

Note: After logging in on three (3) separate machines, a 4th machine cannot be accessed for 12 hours.

The Mixer Window

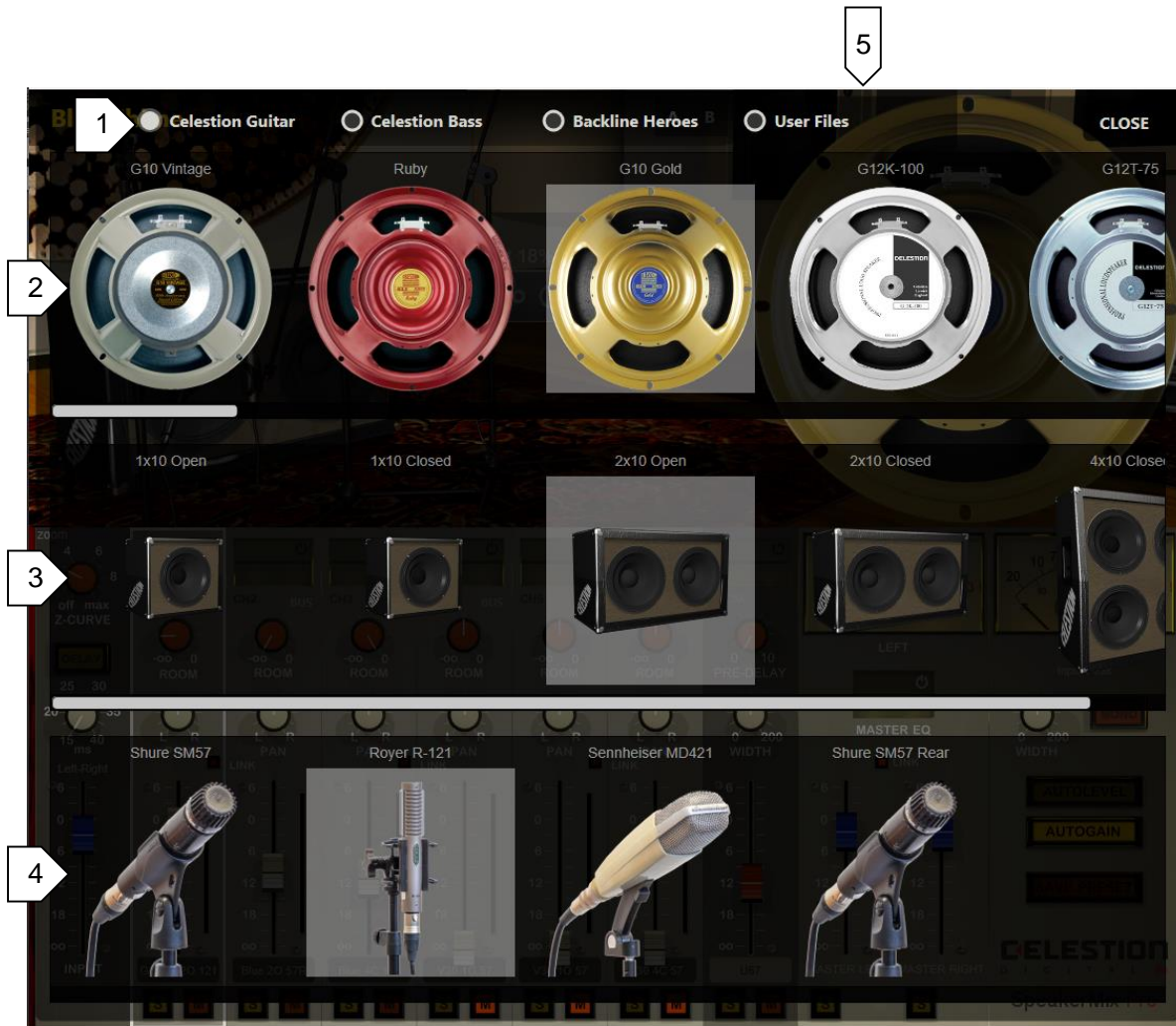|	
1	The Z-Curve dial controls the dynamic, complex electrical coupling between the component level amp output model and the input of the mixer channels, where a larger value is equal to a higher gain amplifiers output impedance. Z-Curve is IR and DSR compatible.
2	The Delay button duplicates L onto 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.

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 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 makes the users Impulse Responses 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.