

WAVES

IR-LIVE

CONVOLUTION REVERB

USER GUIDE



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Chapter 1 – Introduction

1.1 Welcome

Thank you for choosing Waves! In order to get the most out of your Waves processor, please take the time to read through this manual.

In conjunction, we also suggest you become familiar with www.wavesupport.net. There you will find an extensive **Answer Base**, the latest **Tech Specs**, detailed **Installation** guides, new **Software Updates**, and current information on **Authorization** and **Registration**.

By signing up at www.wavesupport.net, you will receive personalized information on your registered products, reminders when updates are available, and information on your authorization status.

1.2 Product Overview

Waves IR-Live is an impulse response-based convolution reverb designed with the live sound engineer in mind. IR-Live delivers quick results with easy access to mission critical controls, and includes presets by leading FOH engineers, providing the go-to reverb sounds they've developed over their years of professional experience.

SoundGrid® and MultiRack Native compatible, IR-Live can be used with leading live digital consoles, in conjunction with dedicated SoundGrid DSP Servers designed to handle the requirements of real-time low-latency performance.

1.3 Concepts and Terminology

A convolution reverb blends together (or “convolves”) an input signal with another type of audio signal called an “impulse response.” In the world of audio, these impulse responses (IRs) contain the sampled characteristics of a particular performance space or device. IRs are imported into the IR-Live, which uses them as filters consisting of thousands of reflections.

Important Notes

- As mathematical calculations are made whenever you change your pre-delay, reverb time or damping, a short transition fade will occur. Therefore, we recommend setting these parameters prior to showtime. Output and mix controls do not require these calculations, and may be safely adjusted during performances.

- If you import your own custom IRs, always remember to take them with you when moving between systems, as IRs are not saved within Waves preset files.

1.4 Components

WaveShell technology enables us to split Waves processors into smaller plugins, which we call **components**. Having a choice of components for a particular processor gives you the flexibility to choose the configuration best suited to your material.

Waves IR-Live includes 3 components each in two channel configurations:

- IR-Live Mono
- IR-Live Mono to Stereo
- IR-Live Stereo

Chapter 2 – Quick Start Guide

IR-Live's basic preset library contains five halls, three chambers, three rooms, three short plates, three long plates and two spring reverbs.

- Launch Waves IR-Live plugin on your reverb aux buss.
- Send a signal to the reverb aux and listen to it through the default preset, Live Basic Live Hall 1.
- Cycle through presets using the next/previous preset arrow control at the top of the toolbar.
- Once you find a suitable preset, adjust its Reverb Time and Pre-delay controls as needed.
- To avoid conflicting frequencies and/or to tune the overall reverb sound, use the damping controls to shorten or lengthen the high and/or low frequency reverb times.

Chapter 3 – Interface and Controls

3.1 Interface



3.2 Controls

PRE DELAY sets the amount of delay between the dry (direct) sound and the wet (reverb) sound.

Range: 0 – 500 ms

REV TIME allows you to shorten or lengthen the reverb time of the impulse response.

Range: .25 – 4.00 (multiple of the original impulse response time)

MIX sets the balance between the input signal and the reverb effect signal. As an aux send/return configuration, this control should be set to 100% wet; as an insert, set it to achieve the desired amount of reverb.

Range: 0 – 100%

LOWS – DAMPING RATIO sets the ratio of reverb time for low frequencies

Range: 0.1 – 2.00 (multiple of the original impulse response time)

LOWS – DAMPING FREQUENCY sets the cutoff frequency below which damping occurs.

Range: 16 – 1600 Hz

HIGHS – DAMPING RATIO sets the ratio of reverb time for high frequencies.

Range: 0.1 – 2.00 (multiple of the original impulse response time)

HIGHS – DAMPING FREQUENCY sets the cutoff frequency above which damping occurs.

Range: 1000 – 21000Hz

OUTPUT controls the output gain.

Range: -50 – 0 dBFS

Chapter 4 – The WaveSystem

4.1 The WaveSystem Toolbar

All Waves plugins feature the WaveSystem toolbar which takes care of most administrative functions you will encounter while working with your Waves software. The features of the WaveSystem toolbar are the same on practically all Waves plugins, so familiarity with its features will be helpful whichever plugin you are using.

Toolbar Functions

	Opens the plugin About box
Undo	Undoes the last 32 actions
Redo	Redoes the last 32 undone actions
Setup A/B	Toggles between two presets, useful for comparison of parameter settings
L/R Arrows	Move to the previous or next preset
Copy A→B	Copies the current settings to the second preset register
Load	Recalls presets from file
Save	Saves presets in the Waves file formats
?	Opens the PDF manual for the plugin you are using

4.2 Preset Handling

Preset Types

Factory Presets are permanent presets in the Load menu. Factory presets cannot be overwritten or deleted. When applicable, different component plugins may have different factory presets.

User Presets are your favorite settings of the plugin saved as a preset in the Load menu, under 'User Presets'. User Presets can be overwritten and deleted.

Setup Files may contain more than one preset. For example, a single file can contain all the presets for a session. When you open a Setup File, all its setups become part of your Load pop-up menu for fast access. This can be particularly useful with multiple instances of a plugin in a single session. By saving all the settings you create into a single Setup File, they can all be quickly available for every instance of that plugin.

Loading Presets and Setups



Click on the Load button to see the Load pop-up menu. The menu is divided into four sections. If a section is not currently available it will not appear in the Load pop-up menu.

Open Preset File... Select to open any setup or preset file, whether from the Library or your own creations.

'Filename.xps': Displays any currently loaded Setup File and its presets.

Factory Presets: Displays the default Factory Presets.

User Presets: Displays any loaded User Presets.

Loading Impulse Responses

The IR-1 load menu is the same load menu used in all WaveSystem plug-ins. Use "Open preset file..." to load a Waves setup file *.xps. Use "Import Impulse Response from WAV..." to import IRs either from standard .wav files or from Waves Impulse Response (.wir) files.

Under "Factory Presets," you can select "IR-Live Full Reset..." to load the default IR, "Live Hall – 1," by choosing "Impulse Response and Reset". This loads the IR and resets all plugin settings to the factory defaults. You can also choose to load just the default IR by choosing "Impulse Response." This leaves all other parameters unchanged.

Saving Presets and Setups



Click on the Save button to see the Save pop-up menu. Four options are available. If an option is not currently available it will be grayed out and inaccessible.

Save to New File...

Select this to start a new Setup file. There are two prompts - first for the setup filename, then for the preset name. You must provide a name for both the setup file and the preset. Click OK (ENTER) to complete the save. It is a good idea to create a folder in which to save several setup files for a project.

Save 'File Name' – "Preset Name"

Overwrites the settings of the loaded preset (whether a User Preset or a preset from a Setup File) with the current settings. If a Setup File is currently loaded, the name of the Setup File is displayed followed by the name of the preset itself. If a User Preset is loaded, its name is displayed.

Save to 'File Name' As...

Saves the current settings as a new preset into the Setup file that is open (if one is not open, the option is grayed out). You will be prompted to give the preset a name.

Put into Preset Menu As...

Save the current settings into a User Preset that will always be in your Load menu (until deleted). You will be prompted to give this preset a name. User Presets are stored in the plugin's preference file.

Deleting Presets

You may delete User Presets and presets within a Setup File. Factory Presets and Setup Library files cannot be deleted or overwritten.

1. Hold the Command (Mac)/Control (PC) key down.
2. Click-and-hold the Load button to see the pop-up menu.
3. While still holding the Command/Control key, select the preset or setup to delete.
4. A confirmation box will appear, allowing you to cancel or 'OK' the deletion.

A/B Comparison and Copying



The Setup A/Setup B button may be clicked to compare two settings. If you load a preset in the Setup B position, this will not affect the preset loaded into the Setup A position, and vice-versa.

If you want to slightly modify the settings in Setup A, you can copy them to Setup B by clicking on the Copy to B button, then alter Setup A and compare with the original Setup B.

The name of the current setup will be shown in the title bar (on platforms which support it), and will switch as you change from Setup A to Setup B.

Note: an asterisk will be added to the preset name when a change is made to the preset.

4.3 Interface Controls

Controls can be in one of three states:

1. **Not Selected** where the control is not the target of any user entry
2. **Selected** where the control is the target of mouse control entry only
3. **Selected and Active** where the control is the target for both mouse and keyboard entry

Toggle Buttons

Toggle buttons display the state of a control, and allow switching between two or more states. **Single-click** to change the control's state. Some toggle buttons have a text display which updates with the current setting, and others (bypass, solo, or monitoring toggles) illuminate when the control is active.

Some plugins have **link buttons** between a pair of toggle buttons, allowing click-and-drag adjustment while retaining the offset between the controls.

Value Window Buttons

Value windows display the value of a control and allow **click-and-drag** adjustment, or **direct control via the keyboard**.

- ❖ **Using the mouse**, click-and-drag on the value window to adjust. Some value windows support left/right, some up/down (as you hover over a button, arrows will appear to let you know which direction of movement that button supports). You may also use your mouse-wheel to adjust parameter values.
- ❖ **Using the arrow keys**, click once with mouse to select the button, and then use up/down – left/right (depending on the direction supported by that button) to move in the smallest incremental steps across the button's range (holding down the arrow keys will move faster through the range).
- ❖ **Using key entry**, double click on the button to open the value window, and directly enter the value from your keyboard. If you enter an out of range number, the button stays selected but remains at the current setting. (System beeps if system sounds are on.)

Some plugins have **link buttons** between a pair of value windows, allowing click-and-drag adjustment while retaining the offset between the controls.

Hover Box

Hovering boxes will appear and display the control value when hovering with the mouse over the control.

Multiple Control Selection

One of the most powerful features of the WaveSystem is the ability to select and adjust multiple controls simultaneously. Using the mouse, drag-select the desired group of buttons or graphic controls by clicking and holding at a point outside the controls, and forming a rectangle that includes the controls you wish to adjust. Alternatively, press and hold Shift while clicking the mouse on any control you wish to link. This method is useful when you want to select two or more controls that are not adjacent to one another.

TAB Functions

TAB moves the 'selected' status to the next control, with shift-TAB moving in the reverse direction.

Additionally, the Mac has an option-TAB function for 'down' movement and shift-option-TAB for 'up' movement where applicable.

If you have several Value Window Buttons selected, TAB functions will take you through the selected controls only.

Hitting Esc or Return will return the 'focus' to the DAW application.

4.4 Waves Preferences (Pro Tools only)

When launching Pro Tools, hold Shift to view the Waves plugin Preferences window.

The following options are available:

- Don't use AudioSuite plugins
- Don't use RTAS plugins
- Rescan all plugins
- HUI control surface support (low resolution)
- Enable single-click text entry