Convology XT

User Manual

Contents

1. Quick Start

1.1 Installation and Registration

On Mac OS-X, Convology XT supports AU, VST2, VST3, and AAX plug-in formats. On Windows, Convology XT supports VST2, VST3, and AAX formats. On Mac, the installer is a ".dmg" file which reveals a ".pkg" file when opened, and on Win the installer is a ".exe" file. After running the installer, open your DAW, then open an instance of Convology XT on any track or instrument insert.

When the plug-in is first opened in your DAW, it will ask to be registered. While the plugin is totally free, it still needs to be registered.
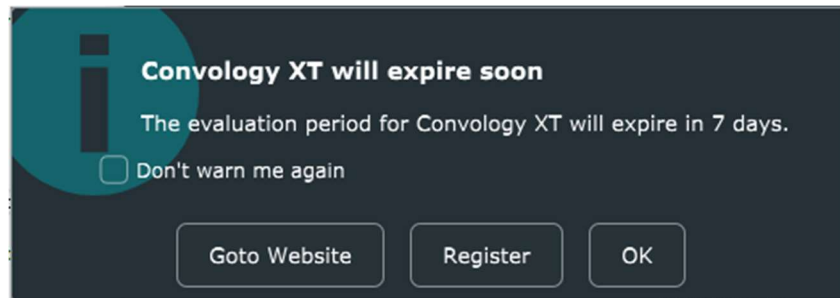
Clicking Register will bring up the registration dialog:

Enter your serial number, name, and email address. You should have received a serial number when you first received the installer. Serials look like IR-CVXT-XXXXX-XXXXX, where X is a hex digit. You may also register Convology XT using any Convology XT Library serial number, these look like IR-PROD-XXXXX-XXXXX, where PROD is a three to five letter code identifying the library.

1.2 Overview

The Convology XT plug-in and the Convology Complete library was years in the making and currently includes 126 different pieces of sampled vintage gear. Think about that – that's a huge number of vintage outboard studio gear at your fingertips. In fact, Complete includes 17 different physical plates, 39 of the 80s and 90s most treasured pieces of DSP gear, 36 different spring reverb units from bright, boingy to rich and warm sounding, 17 vintage amps, 10 different pieces of tape delays, oil can delays and other unique gear, along with the early vintage German DSPs, that include the highly regarded 245, 246, 248 and the 250. While that's a dizzying number of pieces of gear to list, the sound and flexibility of Complete is both unparalleled from the ease of auditioning 3,200+ presets and setting them on the fly, to the actual sound of the plugin.

With broad studio partnerships across the globe, many of these sampled units, have actually been used on countless hit records within our studio partnerships.

1.3 True Stereo

With Convology XT v1.22, we introduced True Stereo libraries. True stereo processing is an exciting new feature for Convology XT. The Convology Complete library is a set of **stereo** impulse responses, consisting of L->L and R->R responses. This means that a sound panned hard left will produce reverb in the left channel only, which sounds unnatural. One can work around this by panning the send bus to mono (or near mono) prior to reverb processing, at the cost of losing some spatial information. In practice, stereo effects units produce output in both channels even when the input is panned to one side. To capture this, it is necessary to sample not only the L->L and R->R responses, but also the cross-channel responses L->R and R->L. The resulting "True Stereo" response is a 4-channel response file which reproduces both the direct and cross-channel responses. Convology XT supports user provided True Stereo responses, with channel layout L->L, L->R, R->L, and R->R. When a true stereo response is loaded, Convology XT runs four separate convolution processors. Hence, processing true stereo responses takes roughly twice the processing power of stereo responses.

1.4 Exploring the Library

The Convology XT plug-in ships with a Factory library containing 70 impulse responses spanning the range of gear available in the broader set of Convology XT libraries. The Convology XT Library is divided into 10 major sections: 80s and 90s DSP gear, divided into Basic, Classic and Pro. Echo Space is where you will find tape delays, oil can and miscellaneous type gear.

Plates includes 17 different physical plates. Springs are divided into Boingy, Bright and Warm categories. Vintage Amps include tone, reverb and various amp settings. Finally, Vintage German DSPs include the highly regarded 245, 246, 248 and the 250 vintage DSP units.

The plug-in allows you to rapidly select impulse responses while you are listening to your tracks. You may click on any preset, from any piece of gear, and repeat that until you have zeroed in on the specific vibe that you are looking for. It's really that simple and convenient.

There are a number of ways to get around and browse the library. First, if you click "All Presets," then (assuming you've purchased all libraries) all 3,200+ presets will show up on the right side of the browser.

Second, you can click on any library from the left tree view (shown in the image above) and you will notice that every preset and unit from that library is listed on the right-hand side. But let's say you want to browse through specific pieces of gear inside a section of the library. In this case, if we click the arrow next to the library section we want to explore further, then all of the units from that library will now show directly underneath. At this point, you just click a piece of gear and all of the presets from that specific gear will appear in the right-hand list.

By clicking the disclosure triangle next to any library, the triangle now points down, showing all of the available gear in that section.

After clicking the exact piece of gear, go to the right side and click on any preset from that unit. You may also use the up/down arrow keys to step

through the list of presets. To audition another piece of gear, simply click the chosen unit from the left-hand side and then again click on any preset from that new unit, on the right-hand side. You may wish to collapse the libraries to see all of the available library content. To do that, simply click on the arrow of the section you want to collapse and it's done. All of the library is this effortless to use. The easiest way to audition effects is to place your DAW in a loop mode soloing your drums, vocal, guitar, etc., and then just click through the different presets from any of the 126 units of the library.

2. Controls

2.1 Time

The Time display shows the time response of the impulse response and provides envelope controls to modify the contour of the response.


The envelope is a simple Attack/Hold/Release envelope with the following controls:

- Start. Crops the start of the response, useful to skip over early echoes.
- Attack. Controls the attack time of the response.
- Hold. Determines the time after attack for the release segment to start.
- Release. Controls the release time of the response.

The default settings of the envelope do not modify the impulse response.

2.2 Freq

The Freq display shows a dynamic spectrum of the wet reverb output and provides controls to affect the equalization of the response and the frequency dependent decay time of the response.
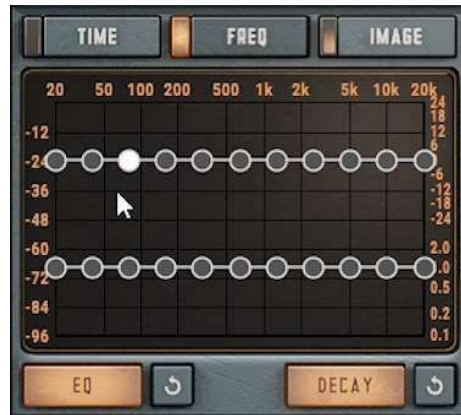
Clicking the EQ button enables EQ editing and a set of 11 control handles appear at the top of the graph. The handles let you draw an EQ curve, with a large range of -24 dB to +24 dB. Clicking the reset (circular arrow) button resets the EQ to no modification, i.e., 0 dB at all frequencies.

Clicking the Decay button enables decay editing and a set of 11 control handles appear at the bottom of the graph. The handles let you draw an EQ curve which affects the decay time on a frequency basis. At each frequency the decay time can be scaled up by a factor of 2 or scaled down by a factor of 10. Clicking the reset (circular arrow) button resets the Decay curve to no modification, i.e., scaling by 1 all frequencies.

2.3 Image
The Image section shows an image of the current piece of gear.

2.4 Status Display

The Status display shows the currently selected preset in large orange text. Below this to the left is the name of the actual impulse response file. To the right is information about the IR: the file sampling rate and the current sampling rate of the plug-in, the total time of the IR file, the number of

channels in the IR file and the number of channels of convolution being processed, the gain applied by normalization if normalization is selected, and the True Stereo indicator (lights green when a True Stereo response is loaded). Clicking on TS gives a popup control that lets you disable True Stereo processing on a preset basis if for some reason you don't want to use the CPU.

2.5 IR Settings

The IR settings controls provide some controls over the IR response.

Normalize will automatically apply gain so that the wet reverb sounds equally loud as the dry sound. If Normalize is off, you can dial in the gain yourself using the IR Gain control. The IR Gain control has no effect if Normalize is enabled. The Reverse control time-reverses the IR.

The Mono Input control, when enabled, mixes the stereo input to dual mono (i.e. pans everything to center) prior to reverb processing. This avoids the problem of hard panned inputs producing reverb in only one channel with stereo IRs.

2.6 Modulation

Convology XT comes with a stereo modulator that can either stay very relaxed to emulate early DSP reverb, or can be applied to a guitar, electric piano or any other sound source for a gorgeous sounding stereo chorus.

The 90 degree option modulates the stereo channels in quadrature (sin/cos) phase. The Depth sets the amount of modulation, and the Rate sets the rate of modulation.

2.7 Scale and Predelay

The Decay control allows you to scale the decay time of the response by applying an exponential envelope to the IR. The Stretch control lets you stretch or dilate the IR. Because the stretch control works by resampling the IR, it also affects the perceived pitch of the response.

Predelay is a standard reverb control that simply delays the wet response.

2.8 Master

The Master section contains the output meters and controls to affect the output. The Mix parameter sets the wet/dry mix, 100% means all wet, 0% means all dry. The Output control sets the output gain of the plug-in. The Width parameter lets you control the stereo imaging. At the minimum setting, Mono, the stereo output signal is mixed to mono. At the default midpoint setting, Stereo, the normal stereo signal is output. Increasing the Width control beyond stereo applies a shuffler circuit to increase the apparent width.

The Master Lock control is enabled by clicking the lock icon. When master lock is enabled, the settings of all master parameters are locked and will not change when changing presets. When inserting Convology XT on a master effects bus, you will probably want to set the wet/dry Mix to 100% and also enable the lock control. This prevents the Mix control from returning to its default setting when changing presets.

2.9 Preferences

The Preferences control is accessed through the Settings->Preferences menu. The Settings menu is the gear icon to the left of the Save button.
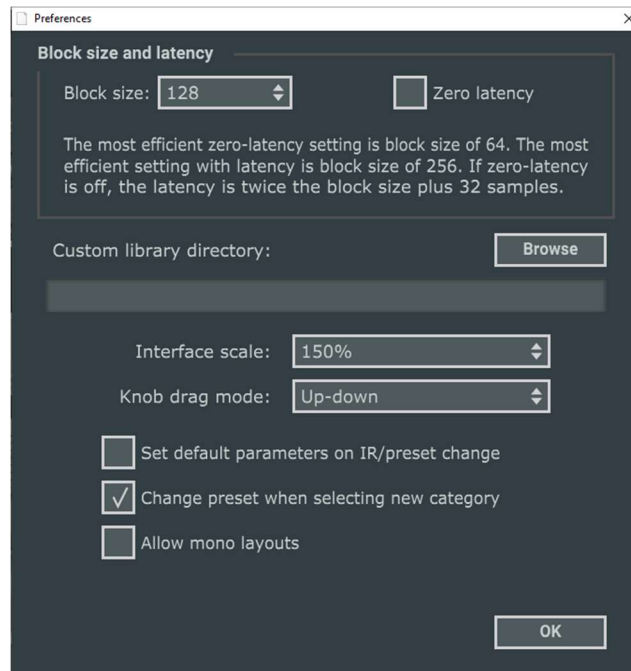
The top section sets the internal block size and latency of the convolution engine. The default setting is a compromise between fast performance (low CPU usage) and low latency. Clicking the "Zero latency" button enables zero latency mode, which means the plug-in does not delay the output at all. Zero latency consumes more CPU.

The custom library directory option allows the user to specify an additional directory to scan for libraries. Convology XT already supports installing libraries to external drives, but the installation path is standardized: "\ProgramData\Impulse Record\Convology XT Libraries" on Windows and "/Library/Application Support/Impulse Record/Convology XT Libraries/" on MacOS. If you want to use a directory of your choosing you can move the library folders from the install directory to your custom directory and specify this custom directory in the preferences (you then need to close and re-open the plug). Most users will not need to use this option.

Interface scale lets you increase the size of the user interface. The knob drag mode lets you tailor how knobs react to mouse drags. The default is to move the knob as you drag the mouse up and down. Some users may prefer left-right or circular motions.

The "Set default parameters on IR/preset change" preference controls whether parameters are reset to their default values when you select a new factory preset. By default this parameter is off, meaning controls are sticky

and will persist through preset changes. For example, you can set an EQ shape, say to roll off the low frequencies, and this EQ will persist through factory preset changes. Enabling this parameter means that all controls will reset to their default values when selecting a new factory preset.

Note that user presets always set all parameters, regardless of how this preference is set. The exception is the Master Lock control, which locks the master section during factory or user preset changes.

The "Change preset when selecting new category" preference causes the preset to change when you select a new category in the left-hand tree view. Disabling this lets you browse to new categories without changing the current preset.

"Allow mono layouts" allows the plug-in to be created in mono->mono configuration. This option is enabled by default, however Convology XT advertises to the host that it prefers a stereo->stereo configuration. Disable this if your DAW is creating Convology XT as a mono plug-in and you really want stereo. You'll have to delete and recreate the insert for the change to take effect.

3. Exploring Further

3.1 User Presets

You can save your tweaks to any of Convology XT's library content by making your adjustments and then clicking Save As. This will open a dialog to name the preset. Give your preset a name, click OK, and it's now stored in User Presets.

Should you want to make further changes to the same preset, create the changes and then click Save and that will update your preset. If you decide you no longer need a specific user preset, simply find it in User Presets and then click the Delete button. A dialog box will ask you to confirm that you want to delete the file, press OK to confirm.

To rename a user preset, double-click the preset in the right-hand pane and the naming window will appear.

3.2 Preset Export and Import

The Preset Export and Import options are found in the Tools menu. They allow you to migrate your users presets from one machine to another. Preset Export lets you select a file and then writes the presets to the file. Preset Import lets you select a file and then reads the presets. If naming conflicts are detected, you have the option to keep your existing presets or replace them.

3.3 File Browser

With Convology XT you have the ability to load any WAV or AIF file. If you have a favorite IR, simply locate it by clicking on the File Browser tab located near the top of the left tree view. This causes a file browser to appear in the right-hand pane.

Clicking on any IR file will load the IR and you will see the filename appear in the status display.

At the top of the file browser is a popup menu showing the currently selected folder. Clicking on the menu lets you navigate to your home directory and also lets you navigate to different hard drives on your system. The up arrow button moves up a directory. Double clicking on a folder moves into that folder.

When loading an impulse response from a WAV file, Convology XT will look in the same directory for a PNG or JPG file with same name and will use that for

the image. More specifically, an image name which matches the start of the IR name will be used, so for example "Room.png" would be used as the image for "Room.wav" but would also be used for "Room Front.wav" and "Room Rear.wav". You can also put images in a subdirectory named "images".

3.4 Purchasing Additional Library Content

To purchase additional library content, go to www.ImpulseRecord.com and under products click Convology XT.

Impulse Record.com
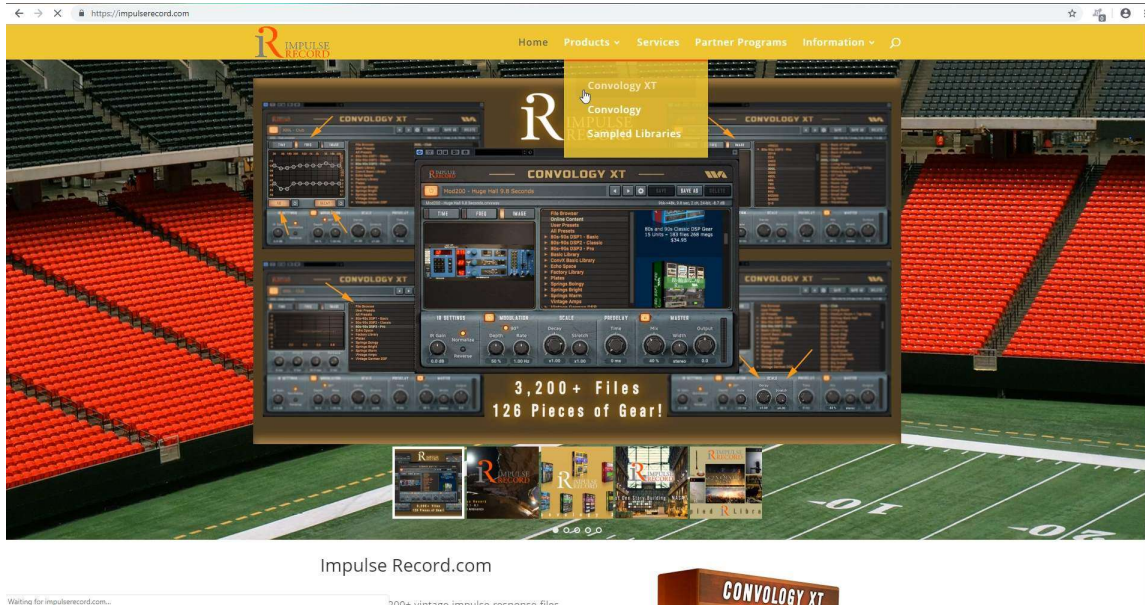
You can also navigate to the store from inside the plugin. In the left-hand tree view, click Online Content. That will bring up products on the right-hand side and you can click on any product, which will take you to the Convology XT online store.
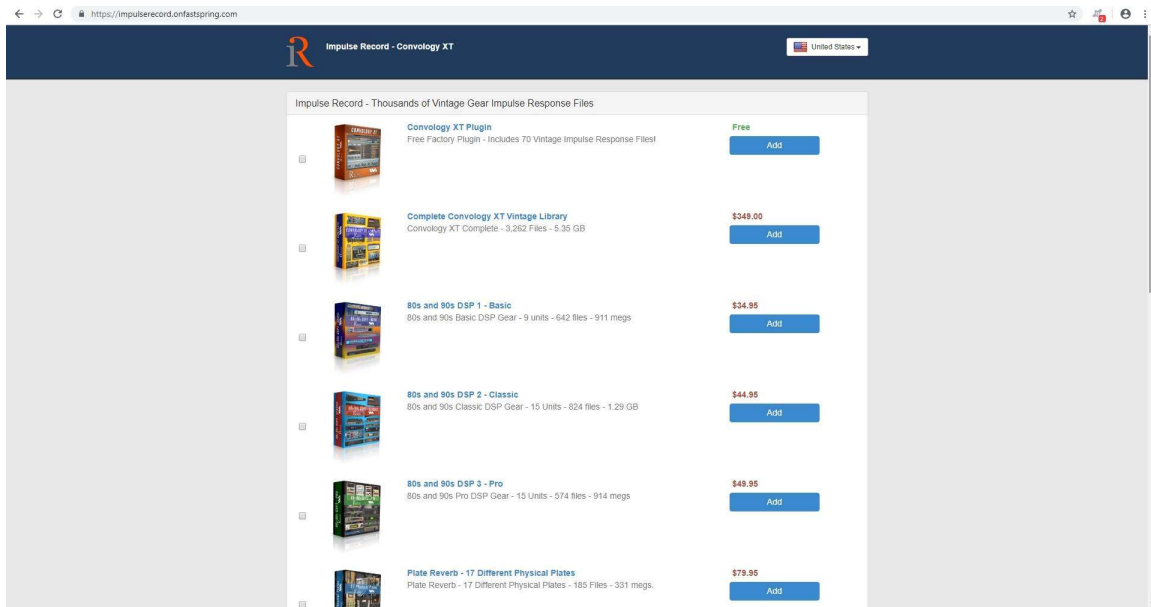
Our online store is used by many companies and is highly regarded with great secure hosting and user purchasing experience.

4. Copyright Notices

VST is a trademark of Steinberg Media Technologies GmbH