iZotope RX 4 and RX 4 Advanced

AUDIO REPAIR AND ENHANCEMENT TOOL KIT

Less than a year since the release of RX 3, iZotope has announced version 4. So what's new? **Simon Allen** finds out.

Zotope left quite a significant gap between the release of RX 2 and RX 3. In fact three years of R&D went into redesigning the algorithms and user interface of RX 3. Since its release only last year, it has quickly become the industry standard for audio restoration and has set a new precedent of what is possible. Professionals across all sectors of the audio industry, including myself, are now blown away by the options available when working with all types of audio.

Audio restoration was typically used in the post-production world for dialogue cleaning and enhancing. However, while RX 3 pushed the boundaries and quality compared to existing restoration tools, it was the platform that opened up these possibilities across all branches of the audio world.

Creative results were also possible in music and sound design in ways we haven't had before. I spend most of my time recording and mixing music, and yet find myself 'secretly' calling upon RX every week and it is now one of my most important tools. If you haven't experienced what RX can do for you as an audio professional, then you need to take a serious look.

Surprisingly, less than a year since the release of RX 3, iZotope has now released

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version 4. So, what can we expect and can there really be further breakthroughs in audio restoration so soon?

Overview

For those that haven't used RX 3 before, it comes as a standalone application and a series of plug-ins for using within DAWs, providing a suite of high-quality audio restoration tools. The tools, which can either be used as different modules within the standalone application or as separate plug-ins, include: Dialogue Denoiser, Spectral Repair, Denoise, Dereverb, Declick, and Hum Removal.

When discussing my findings of RX 4 with iZotope product specialist, Matt Hines, he confirmed that there aren't any particular further developments to RX 3's modules and algorithms, but that RX 4 is an update that brings many more additions to this powerful tool kit. The only module/plug-in that has seen some improvements in terms of ability and sound

quality is Declick. I discovered this myself when trying to repair a badly edited flute solo, which effortlessly became very smooth.

The new features include subtle improvements in the GUI, which looks great and is very intuitive to use, especially if you are *au fait* with other iZotope products. The Dialogue Denoiser module is now available in the standard RX 4 package as well as the Advanced, which is a hugely powerful yet simple tool for post-production and vocal tracks.

There is a new feature which most of us have seen in Pro Tools for a while now called Clip Gain, but it is really useful

instances of RX into a more powerful and simpler workflow. I can see that for a lot of users, this could be the main reason for upgrading to 4 from 3. However, I also have my reservations about this new method. The result of this workflow change is that we've lost the spectral repair module as a separate plug-in which I was using as a Pro Tools audiosuite plug-in. I think this is a shame, as there are some occasions when I want to just 'nip' out a small sound using spectral repair on one clip, which now takes slightly longer as you have to set up the 'connect' and 'monitor' paths as well as the standalone app.

having this available inside RX 4 while you are processing other artefacts about your audio clip. Another small and simple tool included in this update is Reverse. Just like the Pro Tools reverse, this reverses your audio selection, but RX 4 adds a new ability. With any rectangular selection tool in the spectral display, you can reverse only certain frequencies, which offers an interesting new sound design tool.

The Hum Removal module now has an 'Adaptive' mode which tracks the frequency the hum is sitting on with its harmonics, adjusting the frequencies accordingly over time. This is helpful when working on multiple clips from different locations, or perhaps a tape recording where the hum frequency will change as tape stretches slightly. There are many other smaller improvements under RX 4's skin, such as further file exporting options, and general behaviour such as movable tabs, metadata display, time code rulers, etc. These all add up to a clearly more refined and developed product.

Advanced Highlights
Above I've mentioned most of the new features found in RX 4, but it's the Advanced package which sees the most notable additions:

EQ Match
This is an incredibly useful tool, which again the likes of post-production engineers and creative personnel in music and media will hail as a eureka moment. This module will analyse the EQ of clip and then process a different take, which might have been on a different mic for example, to sound the same. There has been attempts from other manufacturers but, believe me, this is incredible. It's so easy and fast to use, while also considering nuances and differences such as distance from the mic.

Ambience Match
As the name suggests, this new module effectively turns the Denoiser in reverse, to take the environment noise from one audio clip and apply it to another. It will also allow you to create long sections of constant ambient noise to connect between edited dialogue from where you might not have enough free ambience to utilise and edit.

Leveler
Drawing on the power of the new Clip Gain feature, RX 4 Advanced will automatically process the dynamics of a vocal or dialogue clip. Lifting the quiet parts as well as softening the louder parts

around a chosen loudness gives a far more natural result than simple compression or limiting. The resulting audio file can then have less master limiting applied and feel less 'squashed'. A very fast way to balance out vocals.

Loudness Compliance
Taking the loudness measurements from your audio, this will process your audio to fall in line with industry-standard loudness specifications. In RX 3, we were only able to see what our loudness measurements were with iZotope's Insight plug-in, but RX 4 will process whole final mixes to be compliant with your network's specifications.

Complete Integration
For me, this is one of the biggest updates with this release. The way we work with RX has changed. The standalone application is still there, and so are most of the plug-ins that RX 4 and RX 4 Advanced offer. What's new are the additions of the 'Connect' and 'Monitor' plug-ins to create a complete round-trip workflow with any host DAW or video editing software.

Launching the Connect plug-in from your host application allows you to

send any clip of audio to the RX 4 standalone application where it's so much easier to work with RX utilising all the different modules within one window. Once you've made your adjustments you can then send the audio back to your host application and render it in place. The Monitor plug-in is there to facilitate a simple auditioning path while working in the standalone app as an alternative sound output option. This is particularly beneficial for Pro Tools HD and HDX users when running Pro Tools software – typically you want to monitor the audio from RX out of the same hardware.

This is a massive improvement that simplifies clunky windows and multiple

Conclusion
What I love about RX 4 is the way that iZotope has utilised its very powerful and impressive sounding DSP in further useful and creative ways. iZotope fully understands the success that was RX 3, and have further exploited the possibilities of their algorithms that are helpful and inspiring. The new tools have further enhanced what can be achieved with troublesome audio. RX 3 cut production time by sometimes avoiding the need to re-record, or time consuming and expensive ADR sessions. RX 4 has now saved the time we spend in RX through its improved efficiency. These are a great set of new features and the whole package is more refined and sophisticated. ■

INFORMATION

Feature Set
- Dialogue Denoiser enables the restoration of audio recordings in real time
- Spectral Repair can be used to visually isolate and remove unwanted sounds
- Adjust and level the volume with Leveler (Advanced) and Clip Gain

www.izotope.com

The Reviewer

Simon Allen
Is a freelance internationally recognised sound engineer and pro-audio professional with over a decade of experience. Working mostly in music, his reputation as a mix engineer continues to grow.