

Sonnox Restore

Demand dictated that Sonnox set out to develop the highest quality broadband restoration package possible with its aptly named Restore suite. NEIL WILKES restores his faith in specialised software.

The roots of Sonnox date back to five ex-SSL engineers in 1988 who formed Oxford Digital, becoming Sony Oxford in 1993. The result was the OXF-R3 Digital Mixing Console, or, as it became better known, 'The Oxford'. Building on the success of the original hardware, a separate group was formed in partnership with Digidesign, and work began on recreating the Oxford EQ for the Pro Tools platform with the OXF-R3 EQ appearing in late 2002. This was also ported to TC's PowerCore DSP platform, along with the Oxford R3 Dynamics section. By 2006, the plug-in side was virtually self-contained within Sony and this was formalised in 2007 when Sonnox was created as a fully independent company.

A restoration suite might seem to be something of a departure from the company's core market of high-end studio plugins. The only two algorithms that were taken directly from the Sony OXF-R3 console were the Oxford EQ and Dynamics; the following plugins were all new developments. Sonnox developed Restore purely in response to demand from the market for good high-end software restoration plugins with the goal, according to the company, 'to develop the highest quality broadband restoration package possible'.

Available as a bundle for Pro Tools (RTAS) systems, as well as Native (AU and VST) on Mac and PC with iLok, installation is simple: download your license, run the installer, and you're done. My Nuendo system picked up the license off the iLok and initialised the new plug-ins with no trouble at all.

Included in the bundle are three tools: Oxford DeBuzzer, Oxford DeNoiser, and Oxford DeClicker. Each module also comes with various factory preset starting points, and existing Sonnox users will immediately feel right at home with the GUI. New users will have no trouble getting up to speed using the 'dive right in' method as everything is clearly laid out in a logical manner and very intuitive to use with plenty of helpful visual feedback available. The manual provides a wealth of detailed information on fine-tuning each module — well worth perusing, and there is also an excellent introductory video on the Sonnox support site that

gives you a brief run-through of each module, highlighting some of the arguably less obvious features, such as the Exclude Box, and the unique Dialogue mode in DeClicker; I highly recommend it.

Oxford DeBuzzer is definitely one of those rare tools that once used will quickly become indispensable; it's that good! During these tests I had various materials lined up for processing, including a particularly noisy Q8 Quadraphonic tape transfer digitised at 24-bit/96kHz resolution. Particularly problematic was the motor noise from the old 8-track playback system that is left behind by most broadband noise removal tools. Loading up an instance of DeBuzzer, I was very quickly able to zero in on the problem frequency and eliminate it almost entirely in seconds, leaving me with just the tape hiss to remove in DeNoiser — although, for specific frequency removal like this, it may be a good idea to use the Freeze option when you have isolated the noise, otherwise, as in Auto mode, the tracker follows the detected frequency and may inadvertently remove wanted material.

Other, perhaps more obvious, uses would be dealing with mains hum — worked a treat — and I also had very good results attempting to remove hum induced by fluorescent lighting from video soundtracks. There are also different filters for use on particularly awkward noise. Most of the time, the default Comb Filter setting will work well on LF and MF bands, but the parametric EQ option may be better with its very tight Q on HF material; there is even a handy red light to remind you there is a potentially better filter open to you.

Oxford DeNoiser is a broadband noise reducer with added extras — again, the interface is extremely intuitive in the main, with Auto mode working very well in most cases. There are three available methods of getting the all-important noise print: Auto, Freeze, and Manual.

In Auto mode the frequency spectrum of the original audio is examined to look for levels in the spectrum that are consistently there, with the threshold control working as a value relative to the general signal level — the idea being that the noise removal will always be a fixed number of dBs below the level of the actual

signal, so as the level of the original material gets closer to the noise floor it does not get removed along with the noise. This is very quick and simple to use, but watch your top-end carefully, and make frequent use of the Difference button to check what's being removed is actually noise. Freeze mode does exactly that — giving a fixed profile that can be used from then on, while Manual mode allows you to create your own profile from the Colour (LF) and Air (HF) dials. In Manual mode, both the profile and the level it is applied at are fixed.

Additionally, there is a 17-step threshold and reduction bias adjustment (+/- 18dB) that functions in all three modes — very useful for fine-tuning a profile — and, naturally, there is a Difference button for making sure that only unwanted noise is being removed. There is even a Mid/Side function, where you can remove noise from just the S channel before the audio gets recombined back to L/R again.

Oxford DeClicker consists of three modules in one plug-in with separate control over DePop, DeClick, and DeCrackle; combined with a well-thought-out GUI that provides plenty of visual information. This is a superb tool. The threshold and sensitivity faders in conjunction with the visual feedback get you into the ballpark very quickly; the graphical information — you can label detected events with sample number, SMPTE timecode, or bars/beats — and the Difference button gets you to your row and seat with relative ease. Additionally, the innovative Exclude Box allows a selectable frequency range to be excluded from the detection and repair process — perfect for very percussive or high-frequency material, and especially useful for needle-drops. It produced excellent results on some old vinyl transfers I had to do with none of the usual HF loss experienced with most declickers.

Post users will love Dialogue mode: simply set the voice threshold first, then you have fully independent sets of DePop/DeClick/DeCrackle, both above and below this threshold. There is even a sidechain on this that allows you to determine a specific frequency range for processing.

Sonnox says that this bundle was developed in '... an exhaustive 18-month R&D programme'. It shows. All in all, it's a very high-quality package, worthy of the Sonnox brand, and a definite contender that should be high on the list of anybody working with anything less than pristine audio. ■



PROS Superb results very quickly; very intuitive interface; excellent support.

CONS Reasonably priced but not a budget package.

EXTRAS The Restore suite of plug-ins is not related to the old Sony Restoration Tools and there is no backwards compatibility but registered owners of Sony Restoration Tools licences PTLRESTG2 iLok Oxford Restoration – RTAS; PTLRESTG3 iLok Oxford Restoration Native; PTLRESTG4 iLok NATRESTG4; and NATRESTG4 iLok NATRESTG4 can surrender their Sony Restoration Tools licence in exchange for a Sonnox Restore licence at a discounted price. The full retail price of Restore is UK£1,195 while the discounted price when accompanied by the surrender of a Sony Restoration Tools licence is £895. Offer expires end of February 2010.

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