CEDAR Cambridge V1.1

The next generation development in the definitive restoration suite has been eagerly awaited. Skye Mastering's DENIS BLACKHAM finds that it's now multichannel, it's been substantially rethought and it's even more powerful.

IN THE EARLY 1990S I used the original CEDAR Declick and Decrackle boxes, a few years later I upgraded to the CEDAR for Windows computer-based package, and now I am the proud owner of the latest CEDAR Cambridge system. CEDAR has gradually expanded its arsenal of hardware and software packages to remove almost any unwanted noises that spoil old and new recordings and the new Cambridge attacks and defeats these gremlins with remarkable ease.

CEDAR Cambridge is a PC-based system housed in a smart 4U case along with a dedicated time code unit in a separate 1U strip. You can load it with as many of the CEDAR Audio restoration packages as you can afford, and it is powerful enough to continuously run as many processes at the same time coping with virtually anything that is thrown at it. No need to do several time consuming individual passes because you can use as many modules, in any order, and as many of each type to complete the task. Play your material through the system once and your unwanted noises have all gone leaving the restored sound in better shape than before.

An 8-channel 96kHz system, the Cambridge is able to handle the present day world of multichannel surround and high resolution digital recording problems, as well as those fragile 78s, acetates, and poor quality tape and film transfers CEDAR Audio originally developed its system for.

The Cambridge is extremely user friendly and easy to set up; all the modules are well designed and look good on the screen. Several modules are available: Spectrum Analyser; DNS; Dehiss-3; NR-4; Linear phase EQ; Precision EQ; Declickle; Debuzz; Declip; Phase Correction; Dither/Noise Shaping; 2-Channel Tools; Gain and Metering. If you have more functions open than can be seen at once then you can lock the most important ones to remain visible and there is also a dual monitor format.

A versatile process manager handles all the modules you want, order of use and general management. Choose what you require from the drop down list, drag them into the order you need, play the music, adjust the individual controls to suit, and that's it. No routing to worry about and each set-up or scene can be saved and recalled if needed. Cambridge also has time code automation, so complicated adjustments can be plotted and performed with ease.

Gain adjustment, metering and spectrum analysis are handled by separate modules, and channel balance, stereo, mono, MS encode and decode and phase reversal choices are all easily adjusted with the new tools package. This also has an oscilloscope display showing the signal passing through it and this makes it very easy to see any discrepancies that you may not hear. The Cambridge lets you do everything together and have as many versions of any module running at the same time so you can take out all clicks (large, medium and small), crackles, hiss, hum, correct phase, channel levels and apply EQ in one pass of the audio you're restoring. The process manager constantly shows how much
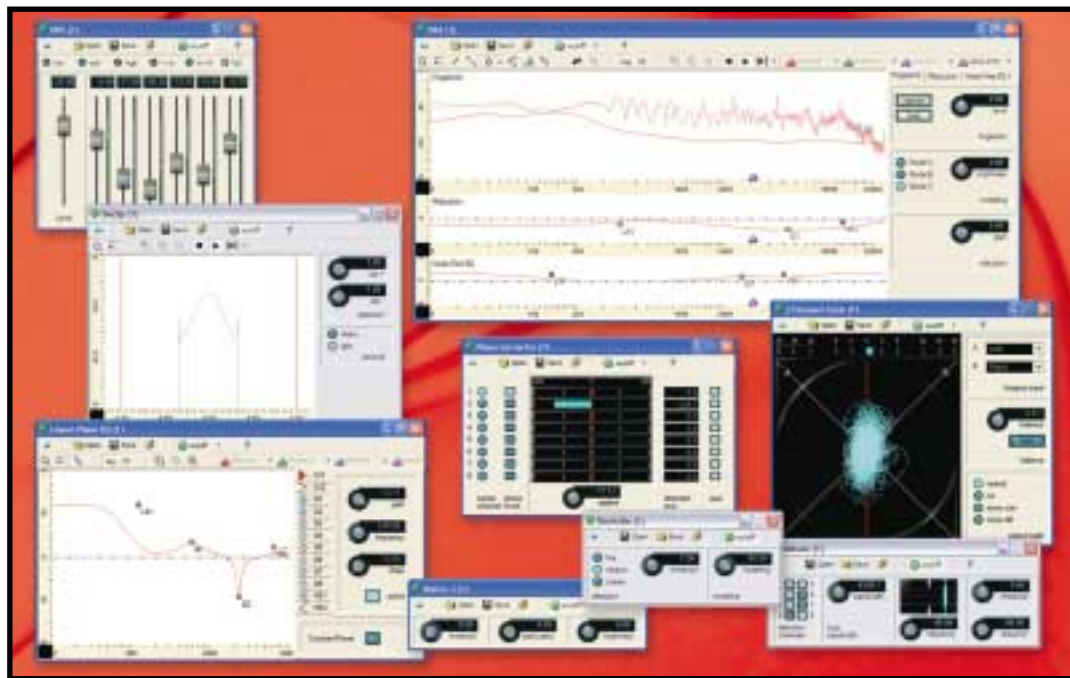
processing you are using, so it's easy to see if the system is coping with what you're asking it to do.

Declick and Decrackle have now been replaced with a combined module called Declickle. The older algorithms sometimes had problems if the audio to be treated contained brass instruments, synthesiser and male vocals and you had to be very careful in the amount of 'CEDARing' you applied. Because those sounds are made up of 'clicky' waveforms, and that's what CEDAR likes to get rid of, you could end up with no clicks but a dreadful raspy, distorted sounding piece of music. Declickle handles these areas with a new-found ease, leaving the 'clicky' makeup of the instrument intact but removing the click or crackle that was causing a problem. The high frequencies are also retained much better than before and it's a huge improvement for probably the most used bit of software ever developed for audio restoration.

I've never been happy with the basic CEDAR Dehiss programs, often preferring to filter out problems with EQ, but I'm now a fan and user of the latest version of Dehiss 3 which is excellent, and also contains its own high frequency bias adjustment. DNS performs a similar function but with more flexibility. A multi-band module designed to easily clean up several areas of noise within the offending material, six different frequency ranges and gain controls enable you to swiftly locate and reduce a multitude of sins, tape hiss, excessive reverberation, and other unwanted recording artefacts.

Declip is specifically designed for recorded digital overloads while the phase correction module is much improved, keeping the results of a wandering analogue tape path rock solid and correcting poorly aligned tape head azimuth. The extensive EQ module

is really useful for correcting the sound of the audio before and after any restoration processing, leaving any outboard equipment free for other work.

Those of you out there who already have older CEDAR systems may think there is no need to upgrade – it takes out the click so it's fine – but that is not the case. The Cambridge gives you a far superior sounding end result, dynamics and high frequencies are less affected, and it is streets ahead in versatility and processing power.

You don't have to wait for Cambridge to do the work as with software plug-ins; you run it in real time along with any other outboard processing you need, keeping restoration time to a minimum. It's easy to interface with other studio equipment and running on Windows XP Cambridge is a powerful workhorse for anyone needing a versatile sound restoration package.

A new user can get good results immediately, with on-screen help if needed, but an experienced restoration engineer can achieve remarkable results with this worthy new release. ∎

PROS A sophisticated package derived from years of development; very straightforward in presentation and use.

CONS One unit would make Cambridge neater; not cheap but this is as good as it gets.

Contact

CEDAR AUDIO, UK:
Tel: +44 1223 881771
Website: www.cedaraudio.com