



UAD-1 PLUG-INS

Universal Audio plug-ins

Three new plug-ins add even more versatility to UA's powered plug-in platform. **Jonathan Wilson** plugs and plays the latest on the UAD-1...

DETAILS

PLATE 140

PRICE \$149 (Audio Unit, VST, DX, MAS, RTAS); also included in Ultra-PAK bundle, \$999

PRECISION EQUALIZER

PRICE \$199 (Audio Unit, VST, DX, MAS, RTAS); also included in Ultra-PAK bundle, \$999

PRECISION LIMITER

PRICE \$199 (Audio Unit, VST, DX, MAS, RTAS); also included in Ultra-PAK bundle, \$999

CONTACT

Distributor: Universal Audio
Web: www.uaudio.com

TECH SPEC

Mac: G4 800MHz, OS X 10.2, 512MB RAM, AU, VST, MAS, RTAS, HTDM or AudioSuite-compatible host
PC: Windows 98SE/ME, 2000/XP or server 2003, 512MB RAM, VST host

ALTERNATIVES

TCE VSS3 STEREO SOURCE REVERB

495 euros
Available for TC Electronic's PowerCore, this reverb comes straight from the company's ultra-high-quality System 6000.
www.tcelectronic.com

P-100 CLASSIC PLATE REVERB

\$99
Running on Pulsar and SCOPE systems, it's billed as a hardware-quality plate reverb.
www.sonictimeworks.com

ALTIVERB 5

\$595
Arguably the greatest native reverb plug-in currently available, covering every kind of space from toilets to cathedrals.
www.audioease.com

UNIVERSAL AUDIO ARE at the forefront of the PCI-based powered plug-in revolution. Instead of draining the host computer's power, products like Universal Audio's UAD-1 card run under their own DSP steam, so we musicians can enjoy highly complex, highly desirable plug-ins in our mixes without having a supercomputer cluster under the desk.

The company is run by the sons of Bill Puttnam – legendary designer of such industry-standard gear as the LA-2A compressor/limiter – so it's no surprise that Universal Audio's mantra is 'analogue excellence for a digital world'. The latest plug-ins for the company's UAD-1 PCI card reflect this focus: a mastering EQ and limiter, based on classic tried-and-true algorithms, plus what's possibly the world's finest software plate reverb emulation.

UAD-1 PLATE 140

THE LEGENDARY (AND enormous) EMT 140 plate reverb was originally introduced by German company EMT in the late 1950s. Its lush, distinctive tone was an instant success, the haunting echo of its resonating metal plate suiting just about every kind of music, from drum tracks to vocals. However, as with most vintage gear, genuine plate reverbs are expensive both to acquire and to maintain – and their sheer size means they are impractical for many home studios.

Luckily, for UAD-1 users at least, Universal Audio have come up with a faithful software homage to the look and sound of those original reverb beasts. They took three different EMT 140s from the Plant Studios in Sausalito, California, and analysed and modelled their behaviour in painstaking detail. And the end result is a near-perfect plate reverb sound.



The UAD-1 Plate 140 is faithful to the look of the good old original EMT 140, as well as to the sound of this studio classic...

First impressions

The three virtual plates are controlled through the A, B and C windows on the left-hand side of the interface. To the right is the EQ section (Lo and Hi frequency shelving controls with separate gain knobs), the reverb shaping controls (Pre-Delay, Width and Mix) and finally the VU meter, representing output level.

And that's pretty much it, except to say that the two sides of the plug-in operate completely independently of one another.

Details

The reverb time meters are marked in seconds, from 0.5-5.5, in intervals of 0.1 seconds. Controlling the dial is as simple as dragging it up and down, or using the green +/- buttons, and the window of the active plate glows a suitably vintage "yellowed-with-age" colour to indicate which one you're using.

Having settled on a plate and reverb time, the Pre-Delay, Width and Mix controls help define its character. Pre-Delay affects the time

between the dry signal and the onset of reverb, ranging from 0-250ms, while the Width knob controls the stereo image, from mono at 0 to super-wide stereo at 100%.

Finally, the Mix dial covers everything from 0% (dry signal) to 100% (wet processed signal only), with the Wet button above putting the plug-in into 100% wet mode regardless of the dial's position.

In use

Listening carefully to each plate, having first balanced the wet/dry mix, the original sound and the effect seem to meld together beautifully.

The algorithms do a superb job of replicating the rapid-response reverberations of a real plate and all three variations on the theme presented here sound terrific. Even better, they place no burden on your computer's native processors.

Each plate also uses a unique algorithm and thus sounds markedly different from its neighbours. This means auditioning a few presets (they've got cracking names such as

Plate Of Beef and Deaf In The Left) is a useful exercise in getting a handle on their respective characters. In a nutshell, the sound gets darker and deeper as you move from A to C.

Conclusion

If I have any criticism, it's that there's very little in the way of visual feedback in numerical terms, on the Pre-Delay and Width dials for instance. Also, these dials are a tad small and awkward to control.

These are minor quibbles, though, and barely detract from the quality of the sound. Plate reverb doesn't suit everything, all the time, but it's definitely an indispensable effect for any musician's toolbox. That's why every reverb unit, whether software or hardware, includes a plate simulation – and the Plate 140 is one of the best I've ever heard.

VERDICT UAD-1 PLATE 140

STABILITY



VALUE FOR MONEY



EASE OF USE



VERSATILITY



QUALITY OF RESULTS



Fantastic. If you've got a UAD-1 in your system, try the demo – and keep a credit card handy!

PRECISION LIMITER

THERE ARE A number of classic compressors and limiters already available for the UAD-1 – the LA-2A, 1176LN and Fairchild 670, for instance. But there has been no dedicated mastering limiter – until now. Described as a single-band, look-ahead brickwall limiter, Universal Audio's Precision Limiter is designed primarily for mastering full mix material. It presents a relatively straightforward face to the world at a time when other limiters/maximisers are becoming increasingly complex.

First impressions

There's just one Input knob and two smaller Output and Release knobs. In fact, most of the interface is dedicated to the excellent metering system (more of which later).

OK, actually there is a little more to it than that. Winding the Input knob past 0dB increases the limiting



The Limiter's interface is straightforward, and whether you want Deaf in the Left or Plate of Beef, the presets can do it for you...

effect, with a total available range of –6dB to 24dB. The Release can either be user-adjustable (from one second to 0.01ms) or two program-dependent Auto modes are provided, whereby occasional peaks have a faster release time than the rest of the material.

Details

Performance-wise, the Precision Limiter nails 100 per cent attack courtesy of its look-ahead capabilities (1.5ms), which ward off any threat of digital clipping.

Attack and release curves have been designed with mastering in mind to minimise aliasing. Also, notably, no upsampling is used in its operation and no filters are involved at any stage.

Totally accurate metering is crucial in a limiter, so Universal Audio have deployed mastering guru Bob Katz's K-System specification. The high-resolution meters display RMS and peak metering simultaneously, plus adjustable peak hold, with a separate meter for gain reduction.

The vividly coloured bars make it easy to tell at a glance what is happening with your audio, be it too much or too little. Plus, you can bypass the plug-in's effect and still use the meters – a nice touch.

In use

Personally, what I want from a limiter is for it to do an invisibly professional job with the minimum of effort. So I'm pleased to report that mastering tracks with the Precision Limiter is virtually an idiot-proof process.

You set your track up, press Play, check the meters and listen closely to see if you like what's happening. If the amount of gain reduction isn't to

your liking, dial in a little more or less. Tweak the Release and Contour controls to finetune the results and it's almost impossible to make it sound bad. Even at extremes, sonic integrity is maintained.

The results are as transparent as you'd like them to be: songs simply come out 'one louder'.

Conclusion

One of the principle strengths – and thus attractions – of the Precision Limiter is that it preserves a wide frequency spectrum superbly across an entire mix. Some limiters appear to attenuate the bass to allow for greater loudness, but at the expense of the overall dynamic range. Ultimately, which is more important to you – volume or dynamics?

The Precision Limiter is an excellent tool. It's not necessarily the ultimate weapon in the ongoing loudness wars, but for \$199 you get an absolutely excellent plug-in for the end of your mastering chain. You're guaranteed stellar results, and at a price that simply blows the competition away.

VERDICT PRECISION LIMITER

BUILD QUALITY



VALUE FOR MONEY



EASE OF USE



VERSATILITY



QUALITY OF RESULTS



If a software limiter can be this good at this price, just what are its competitors thinking?

ALTERNATIVES

ELEPHANT

\$70

Like most Voxengo products, a popular choice with PC users. Designed as a brickwall limiter, amongst the feature list is a comprehensive set of level metering tools, seven limiter algorithms.

www.voxengo.com

WAVES L3

\$699

The latest incarnation of Waves' industry-standard L2, the multiband peak-limiting L3 brings its patent-pending Peak Limiting Mixer engine to the party, along with a four-band linear phase EQ section and the ability to emulate vintage limiter effects. Check out that price, though!

www.waves.com

MASTERING COMPRESSOR

\$149

Another Sonic Timeworks plug-in, this brickwall limiter lets you try either transparent maximization or analogue-sounding enhancement. Soft-clip compression, 64-bit internal precision, 192kHz sample rate support – apparently, you can have clarity and warmth.

www.sonictimeworks.com

TCE MD3

995 euros

Another enviable port from the System 6000 for PowerCore users, the MD3 stereo mastering package isn't cheap but it is pretty tasty. Two "pristine" algorithms, MD3 multiband dynamics (three frequencies) and a brickwall limiter, all rolled into one knockout punch.

www.tcelectronic.com



The EQ's interface looks similar to that of the Limiter – chunky knobs and sober colouring – and a standard parametric display, although if you like pretty graphs – and who doesn't – then you might be disappointed that there's no visual feedback.

ALTERNATIVES ▶ PRECISION EQ

PSP MASTERQ \$149

Offers 64 double-precision floating-point computations, support for up to 192kHz sample rates, seven different filters, a multi-faceted EQ graph. www.pspaudioware.com

WAVES LINEAR PHASE EQ \$900

With filters that don't introduce phase distortions for a very transparent sound, this plug-in also has a broadband parabolic component with five general bands and one low-frequency band. www.waves.com

TCE DYNAMIC EQ 430 euros

Up to four bands working in static mode, dynamic mode or a mixture of both. Each band can be separately configured, while sidechain bands can also be unlinked from processing bands. www.tcelectronic.com

ANGELTONE \$TBC

Not yet released, but shows a lot of promise. Uses band-by-band convolution to capture the tone of dozens of world-famous mastering EQs, allowing us mortals the chance to use them. www.tritonedigital.com

FOLLOWING ON FROM

the Precision Limiter, a mastering EQ was always the next logical step. And so it came to pass: earlier this year Universal Audio launched the Precision Equalizer. It's enticingly billed as the latest in "an expanding line of mastering plug-ins from Universal Audio".

First impressions

As you'd expect of something that is now officially part of a series, the Precision Equalizer shares interface cues with its Limiter buddy. Knobs are big and chunky, the colour scheme is sober and muted and superfluous information is kept to the bare minimum.

The plug-in operates either as a stereo or dual-mono four-band EQ with high-pass filter. It's primarily intended for mastering full mixes, but you can, of course, also use it on individual instruments. In either case, incoming audio is upsampled to 192kHz (as with the Pultec Pro EQ, also made by Universal Audio) for precision and to minimise artifacts.

The controls are arranged in a standard parametric display, with two low and two high separate EQ and Gain dials per channel.

Low frequency controls range from 19-572Hz; the high from 617Hz-27kHz. Gain values are +/-8dB. All controls are stepped (in 41 stages), a feature common to mastering devices that guarantees settings can be repeated with total accuracy.

Details

A shelving or peak/notch filter is provided for each band, with five peak/notch (Q) responses per band. There's also the global high-pass filter, ranging from 0-100Hz, the Stereo or Dual mode buttons and the A/B comparison buttons.

Mostly, this type of EQ would be used in Stereo mode, whereby both channels are linked and controlled simultaneously.

The A/B comparison section is a familiar feature with software mastering EQs, allowing you to set up slightly different EQ curves and instantly compare the two. It's flawlessly implemented here, although I was disappointed to find that I could only load presets into slot A – slot B is reserved for a tweaked version of A.

Parameter copy buttons are also provided, allowing you to copy settings from A to B when you're in Stereo mode or from left to right channels in Dual mode.

In use

Sonically, the Precision Equalizer lives up to its name, imparting a smooth, subtle shaping to the sound. Testing it on both acoustic and electronic music, it exhibits a clear, transparent sound – all I can hear is the cutting or boosting of my chosen

frequencies. There's no phase shifting or corruption of any kind of the source as far as I can hear, even at quite extreme (for which read 'ridiculous') settings.

The only criticism that some users might level at the Precision EQ is that there's no visual feedback, such as a graphical interpretation of the EQ curve – what can I say, some people really like graphs!

Conclusion

Compared to PSP Audioware's decent-sounding MasterQ and the high-end EQ offerings from Logic Pro 7, SX3 and Waves, Universal Audio's flagship EQ outclasses them all. It virtually guarantees a professional finish to your mix.

It also runs very efficiently: using two Precision EQs, plus a Precision Limiter, the Plate 140 and several LA-2As and Fairchild 670s, my UAD-1 meter only registered a little more than 50 per cent. With this level of audio fidelity and control for such little financial and CPU outlay, deciding to buy it is a no-brainer.

VERDICT PRECISION EQ

BUILD QUALITY



VALUE FOR MONEY



EASE OF USE



VERSATILITY



QUALITY OF RESULTS



A really lovely EQ. Incorporates the sound and features that mastering engineers demand.

So then...

With the Equalizer and Limiter, Universal Audio's Precision mastering series is off to a flyer and speculation about what the next Precision product will be is already a hot topic on the UAD-1 forums.

Given the superb sound quality of the first two, whatever comes next will have to be something special – but with Universal Audio's track record so far, that's almost a given.

As for the Plate 140 – well, it's further proof that if you crave the finest vintage emulations, the UAD-1 is a safe bet. A fantastic-sounding reverb that livens up any mix, it's a class act all the way. On its own, it might not be enough to tempt new users, but given the illustrious plug-in company it keeps on the UAD-1 card, the overall package is more attractive than ever. **FM**

Which EQ? The difference between mastering and mixing

Mixing and mastering digital EQs – why isn't there just one plug-in to rule them all? Well, there's a good reason. Mastering plug-ins are required to achieve very high fidelity in all respects across the entire frequency range and feature EQ curves designed to work on full-program material. These curves will be smoother and more gentle than those in a mix EQ, where everything is generally more dramatic; the same is true of Q values. Mix EQs are usually required to offer more extremes for greater surgical precision, as the mix EQ is often used to tackle frequency-specific problems and create special effects. To this end, more choices for cut filters are useful in mix EQs. Mastering EQs often feature stepped controls for easy recall of settings, whereas mix EQ controls usually have continuous transport. Finally, the ability to handle automation and parameter changes smoothly during playback is less important in the mastering EQ.