

Logic Audio 3.0

Midi/Audio *sequencing* software

Paul White tests the latest version of Emagic's Logic Audio and finds some significant changes.

Emagic's Logic Audio v3.0 breaks Steinberg's VST monopoly for Midi/Audio sequencing with on-board native effects, but even without the included host processor powered reverb, delay, chorus, flanging and equalisation, v3.0 represents a significant upgrade. The original system of optional software extensions to allow the use of third party hardware has been modified to offer simultaneous use of AV tracks, DAE and AudioWerk8 without the need for any extra extensions. CBX and TDM Extensions remain for the Mac, and now also include Korg 1212 for the Mac, and Soundscape for Windows.

The included native effects run on a Power Mac's AV hardware (and Windows MME), Emagic's Audiowerk8 card or Korg's 1212 I/O card. The PC version offers similar facilities to Pentium users who have a suitable soundcard. It's also possible now to use two Audiowerk8 cards to provide 16 outputs.

Originally, I received version 3.0.6 for test, but updated this to the current v3.0.8 before proceeding. [Editor's Note: As of printing, the current version is now 3.0.14. This update is available free on the Emagic web site or via your dealer.]

There's no longer a limit of 16 ProTools tracks - you can have as many as your hardware supports when running ProTools, and Logic's own audio engine can handle up to 32 additional AV tracks, though this will be limited in practice by the performance of your hard drive. Hardware support is also included for Akai's DR8/16 hard disk recorders on the Macintosh (though this is limited to the Arrange page functions), and for non-TDM Digidesign cards and systems.

Lightning tour

Because this is a concise overview of v3.0, I'll have to assume some prior knowledge of earlier versions. Visual differences in v3.0 include coloured instrument icons in the Arrange page track, and each track now has a visible mute button. Better still, the audio tracks now have record ready buttons on the Arrange page, so you don't have to keep visiting the mixer section in the

Environment page. All the virtual mixer channel strips feature a smart new 3D look, and in addition to inputs and outputs, there are also Bus objects so that you can add native effects using aux sends, just like a real mixer.

Alternatively, individual native effects can be used via insert points, and in both cases, effect parameters may be automated. Most of the other Environment objects look much the same as before, though there's a wonderfully slick new GM/GS/XG mixer object that replaces the DIY bundle of virtual faders and wiring that went before. The arpeggiator has grown a couple of new functions, including one that lets you produce chopped chord effects. Bank change support for the Roland JV2080 and one or two other instruments has been added to the already comprehensive list.

A new Arrange page function called Skip Cycle enables a section of a song to be skipped during playback, so you can test the effect of halving the length of the chorus without doing anything permanent. Capture Recording is another great feature that lets you turn something you just played into a recorded track, even if you weren't in record when you played it. This is achieved by recording in the background all the time you're in play, so now there's no excuse for losing that inspirational solo.

Hyperdraw has been extended to work directly in the audio sequence windows as well as in the Matrix and Score windows, and if you need to make one good track out of regions from various other tracks, there's now a Move Selected Objects to Track facility. There's a new Linear Quantise option to tighten up timing without losing the basic feel or groove, and automation has now been extended to all faders in the environment, providing a similar style of operation to a conventional mixer automation system, including Merge, Replace and Update modes.

Synchronicity

V3.0 ensures continuous audio sync when used with hardware that supports variable sample rates, even if the incoming timecode source drifts a little. Sync options include MTC Continuous sync, MTC Trigger, where the audio runs free after triggering, MTC Trigger/Speed Detection (the sequencer adapts to the exact incoming MTC rate), External/Free where Logic doesn't vary the sample rate, Digital for syncing to external digital signals, and SMPTE Slave Driver for MOTU users

It's possible to create up to nine different tempo lists for each song and the sync options have been made even

more flexible with clearer dialogue boxes. Sync can be internal, via MTC or Midi Clock, or manual (tap tempo), and all SMPTE/EBU frame rates are supported, even 29.97 and 29.97 drop frame. If MTC is used, enabling the Auto Detect mode automatically sets the system to the correct MTC format (it can't distinguish between 30fps and 29.97fps), and VITC/LTC support is now available via the optional Unitor8 interface.

Audio and effects

Having real-time audio effects takes some of the sting out of having only two audio outputs, though if you need more, you can use Audiowerk8 or Korg's 1212 I/O card. Mac users can also run Digidesign's ProTools hardware and add TDM effects by buying the optional TDM Extension. Even simple cards like Audiowerk8 can make the system very flexible, as the new Audio Objects allow some outputs to be used as regular outputs, and others as effects sends, so you can patch in external effects without using an external mixer, or you can use both internal mixing and an external mixer.

Logic Audio v3.0 has an on-the-fly punch-in/out mode and the edit points are seamless and gapless. If you know your way around the system, you could map this to a sustain footswitch on a Midi keyboard, but a direct function to enable you to do this would have been better. Auto Input Monitoring has also been added to v3.0, which works much as it would on a tape recorder.

There are 11 real-time native effects that can be connected either via insert points or used via aux sends. These are reverb, delay, flanger, chorus, and seven different single band EQs that can be used in combination. The reverb has three different quality settings to allow you to choose how much processor power to dedicate to it, and although it's obviously a compromise making any reverb run on a desktop computer, the subjective quality is surprisingly good, especially on vocals. Each channel has four EQs, eight auxiliary sends, and eight inserts (an insert may also be an EQ). Each of the eight auxiliary busses can have up to eight inserts. Of course, the number of these that can be used simultaneously depends on the available computing power.

Each effect has its own window with a handful of parameter sliders and a bypass button, the most complex being the reverb, which has adjustments for room size, decay, density, HF damping, pre-delay and dry/effect mix. All the effect sliders can be automated in the same way as volume or pan were automated previously, and an Auto Define mode allows incoming Midi controllers to be identified and mapped to the currently selected parameter. You can also use Link mode so the effect window changes to follow the effect you want to edit - you don't have to open multiple windows.

The on-board real time effects come as part of Logic 3.0, and at the moment there's no way to add new ones, though third-party support is envisaged in the near future. However, Adobe Premier or Digidesign AudioSuite plug-ins may be used alongside the regular Digital Factory treatments to destructively process audio data in the Sample Edit window.



User impressions

There are numerous other small improvements and enhancements that I don't have time to mention, including some in the score department. On the whole I applaud the new additions, but audio file handling could be better. For example, a preferences option to store all files for a song in a folder bearing the song title would be sensible. As it is, you have to set this manually before starting the session or all audio files end up in the same folder as your last song.

Having audio effects and powerful EQ running on the computer's own processor is an enormous benefit, especially to users who only have stereo outs and therefore no way to use an external mixer to add effects to individual tracks, and I'm pleased to say the effect quality is actually pretty good. What's more, everything in the mix, from level and pan to EQ and effects, can be automated, so next time you come back to a mix, it really will be exactly the way you left it. I'm not sure I would have designed the audio objects in the same way as Emagic - I'd have given the effect blocks their own inputs and outputs so they could be allocated to any of the eight sends and routed back into any of the available outputs without involving other modules, but the system works and it's not difficult to understand.

The new look objects are very clear and easy to work with, the GM/GS/XG mixer is infinitely better than its predecessor and best of all, the program is rock solid. Since I put the extra memory in my Mac, I've run Logic Audio for several days without even a hint of a crash, and even using the computer's own AV audio ins and outs, the sound quality is much better than I expected. Of course, this is the Mac version - I haven't seen the PC version yet, but if it's anything like as good, prepare to be seriously impressed.

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(Emagic have hinted at some interesting new announcements to be made the Winter '98 NAMM show. Stay tuned...)

Price

• RRP: Logic Audio 3.0: \$1099, RRP: Windows: \$999

Computer Requirements

The PC version of Logic Audio 3.0 needs a minimum of a Pentium 133 machine (running Win95), fitted with 32Mbytes of RAM, a full-duplex soundcard and a suitably fast hard drive, though a faster machine with more memory will allow more effects to be run at the same time. Mac users need at least PowerPC 601 machine with 32Mbytes of memory and running OS 7.6.1 or higher, but again a 200MHz PC604e machine would be a lot better.