

# Celemony Melodyne V3

**It's hard to categorise a piece of software like Melodyne. Is it a plug-in? A sample editor? A DAW? A sequencer? Even after two solid days of putting Celemony's latest release through its paces, the best JON THORNTON can come up with is none of the above, but at the same time all of the above.**

**F**OR THOSE OF YOU who may not have encountered this little software gem, it's best initially described as a tool that enables pitch and formant shifting, time-stretching and editing of digital audio files. Available in a variety of guises (see Extras), the package on review is the all-singing all-dancing Melodyne Studio.

Before looking at what's new in V3, it's worth just revisiting the general concepts. Taken at face value, Melodyne doesn't do anything that a host of other plug-ins and/or outboard boxes can't do. Pitch shifting and correction, even formant corrected shifting is hardly a new thing, and time compression or expansion are pretty commonplace techniques today. What sets Melodyne apart is the user interface and the ease with which these techniques can be applied to audio material in a very intuitive and musical fashion.

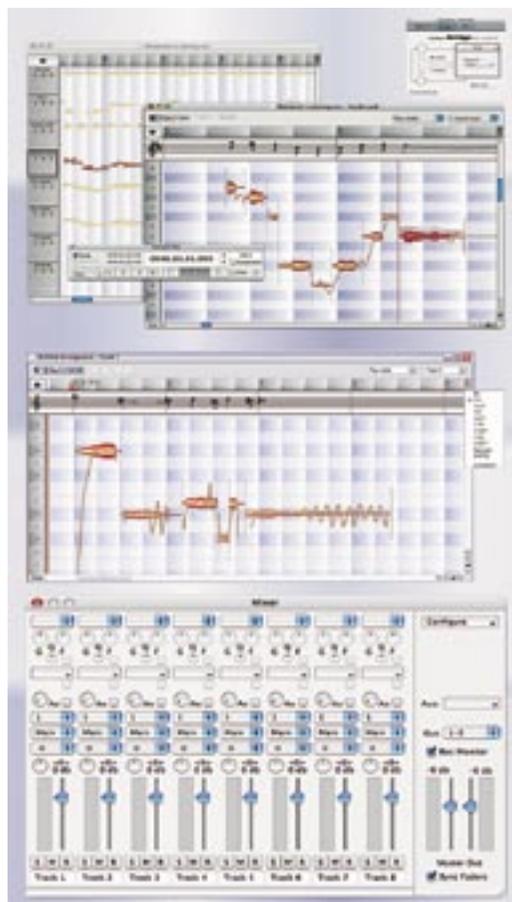
Audio can be imported into Melodyne as .WAV, .AIFF, or Sound Designer 2 formats. Alternatively, given a compatible I-O device, it can be recorded directly into the package. Once an audio file has been imported or recorded, Melodyne proceeds to analyse it, identifying information about both pitch and timing. With short audio files this is virtually unnoticeable, with longer files it takes a short while, but this latest version marks a considerable speed improvement in this regard. Once a file has been analysed, Melodyne stores the metadata in a separate definitions file, so that subsequent opening of the audio doesn't require a rescan.

The audio file is then displayed on the main edit screen, but segmented into 'blobs' (yes, that is the technical term used in the manual). These blobs look like familiar waveform views, except for the fact that they are not displayed in a straight horizontal line, but move up and down the screen according to their detected average pitch — very much like a sequencer's grid edit page. Given the presence of suitable clues in the source material, Melodyne will also make educated guesses about the tempo of the piece, and split the audio into meaningful chunks, whether they be individual notes, drum hits or individual spoken words. What you are presented with, then, is your audio material on a grid with bars and beats on the horizontal axis, and pitch on the vertical axis.

Perhaps the biggest change in V3 is the increased reliability of this detection process, and the ability to apply it to a variety of source material. Rather than being constrained to monophonic source material with melodic content, V3 is happy to analyse non-melodic content, such as percussion or speech, complete mixes and even polyphonic sources. It can also intelligently decide which of the available detection routines is most suitable for a particular piece of audio, although this can be overridden by the user if desired.

Before you get too excited, the polyphonic analysis isn't able to identify and separate individual notes within a guitar or piano chord, for example. But it is able to separate audio into musical events, each of which can be edited in terms of timing and pitch.

And this is really where Melodyne comes into its own. Blobs can quickly and easily be moved up and



down the screen to change their pitch, with or without formant correction. They can also be moved along the horizontal axis in terms of timing — and this is where Melodyne gets really clever. Particularly in the case of monophonic melodic material — for example, vocals or bass/string lines — individual blobs are still viewed as a continuous audio track. So moving the position of one blob will also automatically shorten or lengthen its length, while extending or shortening the length of its neighbour. Of course, you have a degree of control over this if you wish, and blobs can also be cut, copied and pasted at will, and as long as there is 'space' in the track, can be moved without altering other events. It is this transparency of operation at this most fundamental level that has won the hearts of so many users — it looks and behaves entirely musically. Sure, you could do the same job in any number of DAWs with a combination of editing, pitch shifting and time stretching, but Melodyne does in seconds what could take hours. And the quality of the time-stretch and pitch-shift is simply staggering when used in moderate amounts, and not too shabby when used to excess.

There are a raft of other features — for example, blobs can be automatically pitch corrected to a variety of scales, and automatically quantised with respect to the timing grid either to the tempo Melodyne has determined for the piece, or to another tempo defined

by the user or by another audio track. Formants can be shifted on individual blobs or groups of blobs independently of pitch, and there are tools to edit the detected pitch data on the very rare occasions when Melodyne gets it wrong.

V3 has rationalised the way the user accesses these functions, by separating the pitch detection window away from the main edit window, and by introducing context sensitive tools that perform different functions according to where the cursor is positioned with respect to the blob. The overall result is a package that looks more streamlined and handles more elegantly than previous versions.

Melodyne Studio also incorporates an arrange window that allows unlimited (dependent on CPU and disk speed) tracks of audio playback together with a basic audio mixer. This is useful for working on arrangements, or creating harmony structures within the package itself, and although it has its own basic effects and supports VST and Audio Unit plug-ins, it's probably not going to worry Digidesign, Steinberg or Merging Technologies that much. For many users, then, a key question is how they will integrate Melodyne's functionality into their DAW of choice.

Again, this is an area that has been improved in V3, with a revised 'Bridge' plug-in that squirts regions out of a DAW and into Melodyne and then back again, or by using Melodyne as a ReWire master or slave. Both of these approaches work, but it still feels a little clunky at times and the CPU and disk overhead in running two completely separate apps needs to be factored in here.

But despite this, the interface wins you over, and the quality of the results that can be obtained in a disgracefully short time will surprise you. Equally adept at vocals or fixing an errant bass guitar, flute or viola note — or at editing and re-timing drum parts — Melodyne seems to have come of age. In the past it might have been viewed as a slightly left-field software curio; now it more than deserves to be regarded as a fully-fledged professional audio tool. ■

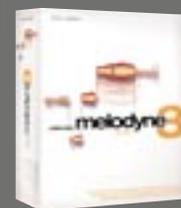
## PROS

Intuitive and productive user-interface; extremely high quality pitch-shift and time-stretch; pitch-detection is extremely quick and accurate; ability to work with non-monophonic sources.

## CONS

Integration with DAWs still feels a little clunky

## EXTRAS



Melodyne is available in three different flavours. The high end Melodyne Studio (Euro 699) offers playback of unlimited audio tracks in its

arrange page, and features detection and playback of polyphonic and complex material.

Melodyne cre-8 (Euro 319) offers only 8 tracks of audio playback, and doesn't feature the polyphonic/complex material capabilities of Studio.

Melodyne Uno (Euro 169) has no multitrack capability, and has more limited editing capabilities than its stablemates.

## Contact

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