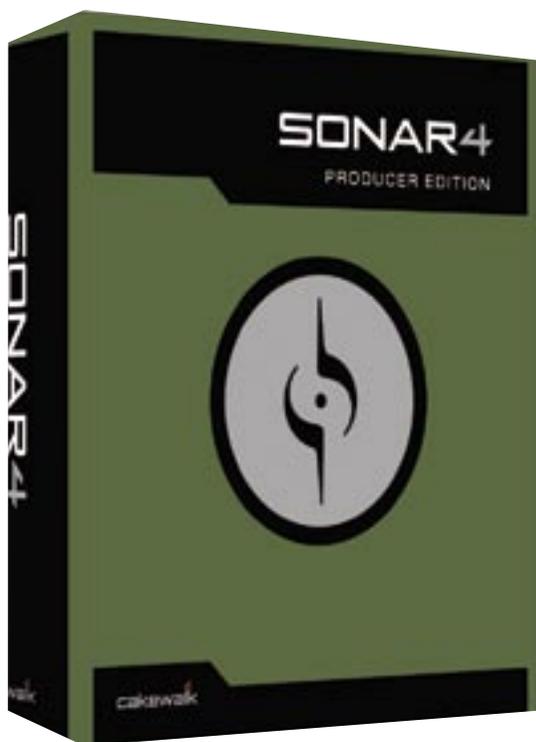


Cakewalk Sonar 4 Producer Edition

When he last looked a Sonar in V3 form, **ROB JAMES** was impressed by just how capable it had become but noted some omissions. All that has changed with the release of Sonar 4 and a great deal has been added or altered; he's now even more impressed.



PERHAPS THE MOST significant innovation in Sonar 4 is the introduction of surround mixing. Although Cakewalk is late into the surround game it has been more than worth the wait. One of the more irritating aspects of some other surround implementations is the lack of surround effects or at any rate the insistence on you having to spend a lot of money on new and application specific plug-ins.

Cakewalk has this well covered and in a rather elegant manner. The key is a very nifty bit of programming presented to the user as the SurroundBridge. This allows all your existing mono or stereo effects to be used as surround effects. Best of all it does this automatically. When you add a mono or stereo effect to a surround bus, SurroundBridge automatically loads sufficient instances of the plug-in to handle all the surround channels and all these are controlled from one window. If a stereo plug-in is added to a surround bus using, say, standard 5.1 SMPTE/ITU panning, SurroundBridge also assigns the Left and Right channels of the bus to the first instance of the plug-in. The Left and Right Surround bus channels to the second instance, the centre channel to the third instance and LFE to the fourth. Very clever!

If required, these assignments can be edited using the SurroundBridge tab that appears in the window containing the plug-in properties. Controls and automation are linked by default but can be unlinked individually or per instance of the plug-in. Once the linking is arranged as required it can be saved as a preset. This would be impressive enough if it only worked with Cakewalk's plug-ins. In fact it worked

with everything I threw at it, Waves, various VSTs and TC Powercore effects. Sophisticated stuff indeed.

Cakewalk has included a dedicated surround version of the Lexicon Pantheon reverb, a Sonitus Surround Panner with niceties such as Doppler shift and a Sonitus surround compressor. These don't use SurroundBridge because they don't have to. Pantheon, as with the stereo version is a highly competent reverb with the Lexicon signature sound. Like every other Lexicon reverb I've ever heard the presets sound somewhat harsh to my ears but it is simple enough to tweak them into something warmer and more natural sounding.

Surround format is set on a per project basis and the list of presets is extensive, far too long to list here, but it'll be enough to say it goes from LCRS all the way to 8.1 including exotica such as UHJ.

The only salient feature missing from this surround tour de force is true multichannel tracks. Sonar can import surround mixes from multichannel WAV files, Dolby AC3 encoded files and rip them from video files but it imports each channel to a separate mono track. Thus, surround effects cannot be instantiated in tracks, only buses. But Sonar has another new trick up its sleeve that mitigates the omission. You can group the individual tracks of a surround mix by adding them to a Track Folder. This allows the surround mix to be edited, muted, soloed, armed for recording, etc. as a single entity. It also saves screen space. Obviously, there are a myriad other uses for track folders and the folders can contain any type of track, MIDI, audio or instrument in the same folder.

Other areas of Sonar 4 have benefited from a nip and tuck. The house 'look' has changed a little. If you don't like its new appearance, no problem, pick another look from the vast range of presets (including Sonar 3) or design your own. The surgery extends beyond the cosmetic with notable improvements in several areas.

Loop recordings now have three options. Overwrite overwrites the previous take, Sound on Sound stacks takes on top of each other in the armed track and the last mode records to a different track leaving everything else untouched.

Sonar approaches comping the multiple takes that loop recording can produce in a logical and effective manner. Tracks can have as many 'lanes' as you like with alternative takes (or indeed any clips you wish) in them. Individual clips and sections of clips can be isolated (soloed) or muted. The new 'overlap cropping' tool offers a quick and easy method of editing overlapping clips.

A clever set of 'Freeze' functions enables the user to free up CPU and other resources by temporarily bouncing tracks and/or instruments to temporary audio tracks. Once frozen, 'Quick Unfreeze' hides and mutes the bounced track but retains it so if the Quick Freeze command is used the result is instant because the track does not have to be bounced again. A global option allows DXi synths to be unloaded once frozen to free up further resources.

POW-r Dither is now included. The Psycho-acoustically optimised Wordlength Reduction algorithm is widely regarded as one of the best in the

business. POW-r types 1,2 and 3 are provided, capable of dealing with a wide range of source material.

It's also nice to see the introduction of more subtle touches such as a configurable pan law. In this case, six choices cover sin/cos or square root taper with 0dB, -3dB and -6dB centre points, -6dB with linear taper and 0dB balance control. Metering has also been revamped with peak, RMS and peak and RMS options together with three metering point options, prefader, postfader, and prefader post effects. The ballistics are configurable.

Keyboard shortcuts have been enhanced with user-mapped presets and templates to aid migration from other applications.

Sonar is popular in the major market of games sound. Cakewalk obviously takes this seriously and Sonar now supports QuickTime, Windows Media Video, and AVI with up to 5.1 surround sound. Video thumbnail frames

can be shown in the top track in the timeline. There is a high degree of control over file export parameters with user-configurable presets for specific tasks. Windows Media Audio 9 (WMA), WMA9 Pro 5.1, and WMA9 lossless encoding and decoding are all included along with open support for external encoders for surround audio, LAME, Ogg Vorbis, Monkey's Audio, and so on.

Cakewalk has also addressed desirable features already present in other applications. A good example is the Navigator Pane. This provides an overview of the whole project together with fast access to any part of it in a highly flexible manner via the right-click context menu.

On the downside, the main outputs in Console View still cannot be renamed. This can result in some cryptic labels unless you can rename the soundcard outputs in its driver applet.

The price is UK£399 with an upgrade from Sonar 3 Producer Edition costing UK£119 and an upgrade for any Cakewalk user being UK£229.

Cakewalk has more than kept the faith with its existing users. Sonar 4 retains all the virtues that made Sonar 3 a serious contender. The Sonitus and DSP-FX effects are in a class of their own and I especially admire the Sonitus EQ with its plus and minus 40dB of boost and cut. I'm not qualified to provide serious comment on the sequencer and instrument side, but I will say this — when I do need to do something musical involving MIDI and score printing, I reach for Sonar.

With the new surround features I suspect I shall be using it a great deal more in future on other sound for picture projects. I haven't used it enough yet to discover all the snags — and be sure there will be some, just as with any other package — but so far it seems really solid and I'm sufficiently impressed to persist through any possible teething troubles because of the benefits. Sonar 4 is an essential upgrade for existing users and anyone considering a change from their existing heavyweight PC sequencer package should be examining it closely. ■

Future perfect? 64-bit computing has been waiting in the wings for years but until recently has really only been applied to server and corporate applications. However, the AMD v Intel battle has given birth to new series of processors with x64 extensions. These are set to bring the benefits of 64-bit computing, the ability to address more physical memory and more internal CPU registers to the rest of us. Cakewalk is well ahead of the field with a freely downloadable native 64-bit host DAW application. The Sonar x64 Technology Preview includes a 64-bit version of Sonar 4 Producer Edition plus 64-bit versions of the Sonitus:fx suite, as well as the TTS-1, PSYN, sfz+, nPulse, and Velocity instruments.

To run this an x64 equipped processor and compatible motherboard are required together with Windows XP x64 Edition. This has not yet been released but a public beta of the OS can be downloaded from the Microsoft website. The x64 operating system requires 64-bit audio and MIDI drivers. 64-bit drivers from Creative, Edirol and M-Audio are already available with more certain to arrive as the technology takes hold.

Performance gains of up to 30% can be expected — think an extra gigahertz on a 3GHz processor. But the really serious performance gains will come when applications are rewritten to take full advantage of the 64-bit environment with 64-bit floating point calculations and the advent of true, dual core, 64-bit processors. These are already on the Intel and AMD 'roadmaps'. When this comes to pass, the native processing versus DSP debate will become really interesting!

PROS Productive; excellent plug-ins; and in surround.

CONS No true surround tracks — yet; no reverse play.

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