



SONAR 2015 "Kingston" Update

After the feature-laden Jamaica Plain release, this month we've turned our attention to optimizations, increased stability, and fixes. But of course, there are goodies as well—like the new Rapture

Session virtual instrument that sells for \$29.95 but is free to SONAR members, the "Monitorizer" FX Chain that makes listening on headphones more like listening to monitor speakers, an eye-opening article about the effort required to make a high-quality loop library, the monthly product review (this time around, it's for fans of things that are *loud*), and the latest BlogBeat with useful articles from the Cakewalk blog. And what do we have in store for next month? You'll find out soon enough! – *Bill Jackson and the Cakewalk Team*

26x faster
7.5x faster
23x faster
33x faster
3.6x faster

Performance and Speed Optimizations: Whether you're inserting or cloning tracks, using instruments with multiple outputs, or dealing with large track counts and projects, these optimizations result in significant speed increases. There are also multiple VST3 enhancements, as well as support for VST 3.6.5.



Rapture Session: This new virtual instrument is a cross-platform, "greatest hits" version of Rapture Pro, with a 4 GB library consisting of 450 hand-picked sounds— all easily accessible from the Rapture Session browser. Although it doesn't have Rapture Pro's deep editing options, it retains the popular real-time control page.



Start Screen List View: You wanted to be able to see more projects at once in the Start Screen, so now you can choose between either the icon view or list view. Even better, you can still expand individual projects in List View for checking out the project details.



Monitorizer FX Chain: This send FX Chain is specifically for those who use headphones and want a more "monitor-like" experience. It emulates the crosstalk that occurs naturally with left and right channels, as well as some room characteristics, to tame the unnatural, "super-wide" headphone sound.



Workflow Enhancements and Fixes: In addition to all the optimizations, Kingston includes 58 bug fixes and enhancements. From improving selecting and bouncing, to eliminating MIDI crosstalk once and for all, to ending graphic refresh problems and more, SONAR continues to become ever more stable.

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Anatomy of a SONAR Project—Creating the "Rock Guitar Anthems" Loop Library: It's easy to create a loop library—it's just hard to create one that meets truly professional standards for sound quality and stretching. This article gives insights into the Loop Library creation process, along with useful tips and techniques.



Review | IK Multimedia iLoud Bluetooth Monitor Speaker: Apparently IK Multimedia didn't get the memo that Bluetooth speakers have to sound bad, because the iLoud sounds very good indeed—it's voiced more like a studio monitor than the usual consumer speakers.



BlogBeat: A roundup of a few of the Cakewalk Blog's "greatest hits." Speed up your workflow, unravel some microphone mysteries, find out the answers to five questions on effects placement, hear what LA producer Luigi Gonzalez says about Patch Points, and get more out of Mix Recall.

How to Download the Kingston Update

Open the **Cakewalk Command Center**. If you don't have the latest installer (CakewalkCommandCenterSetup1.1.2.2.exe), please download it from the Cakewalk Command Center <u>home page</u>.

To download the **Kingston** core update itself, download from the core SONAR Artist, Professional, or Platinum category.

Rapture Session is a separate download. Please download it as well as the various sound packages located under Rapture Session (Atmospheric, Guitars, Keys, Orchestral, and Synths).

To download the **Monitorizer** FX Chain, download the Anderton Collection after unfolding the SONAR option in the Cakewalk Command Center. The Monitorizer will download to the Anderton Collection's Processors folder.

Performance and Speed Optimizations

Artist, Professional, Platinum

Several core areas of the program have been streamlined that resolve various longstanding issues. Power users in particular will find working with SONAR faster and more efficient, however these improvements make a difference even with simpler projects.

RECORDING

Dynamic arming of tracks is now much more efficient when a project contains multiple instances of multi-output synths (like Native Instruments' Kontakt)—CPU loading from having even thousands of synth outputs present is minimal. In the Jamaica Plain update we added the "Exclude Synth Inputs" flag in record options to filter synths from dynamic arming, but depending on your system, with the Kingston update it may not be necessary to exclude them anymore.

STREAMING

SONAR now detects silent buffers for VST2 and VST3 plug-ins as well as instruments. This has the benefit of reducing the CPU load for tracks that contain VST plug-ins when the tracks have no audio or are silent due to muted data, since the mixer optimizes itself for silent streams. For large projects, the amount of CPU power this saves usually allows for lower latency settings.

Furthermore, there is now improved multiprocessor thread synchronization for soft synths. This also helps reduce demands on the CPU.

VST SCANNING AND STARTUP

Some users encountered slow SONAR startups if the VST scan path had many non-VST .dll (Dynamic Link Library) files present. The scanner now skips unknown .dlls on subsequent scans, which streamlines VST scanning and application startup.

Additionally, registry access to the VST cache (which was a CPU-intensive task) is now minimal. This provides a dramatic increase in speed for many operations like cloning tracks, inserting tracks, file loading, and various other commands. Registry access has also been reduced when starting SONAR, again speeding up load time.

PROJECT/TEMPLATE LOAD

Track template load performance is now greatly improved, including faster remapping of hardware outputs when loading track templates as well as loading project files and project templates with large numbers of tracks. Also, solo states are computed more efficiently, which speeds up operation significantly with larger project files containing many tracks and clips.

EDITING AND USER INTERFACE

Cloning and insertion of multiple tracks, and insertion of virtual instruments with multiple outputs, is now much faster. UI updating time has been minimized for multitrack edit operations such as insert, delete, clone, etc. by showing a progress bar while updating all tracks instead of updating tracks incrementally. What's more, redundant UI update messages are now sent only once at the end of all insert operations, which speeds up operation. You'll also find improved support for dynamically enabling input monitoring from Track View and Console View.

IMPROVED VST SUPPORT

Along with various VST compatibility improvements, SONAR officially supports VST 3.6.5 and the Channel Context Info Interface, as well as VST3 support for mono-capable plug-ins (such as those from EIOSIS and FabFilter). These will now switch to mono automatically upon selecting Mono with their respective track interleave buttons.

BENCHMARKS

To put this all in perspective, here are some comparative editing benchmarks between SONAR X3 and the latest Kingston release. Benchmarks were performed on a Haswell Core I7 5960X with 16 GB RAM running 64-bit Windows 8.1.

Operation	SONAR X3	SONAR Kingston	Improvement
Insert 100 tracks	13 secs (96 tracks)	0.5 seconds	26x faster
Undo insert 100 tracks	6 seconds	0.8 seconds	7.5x faster
Clone 100 tracks	44 seconds	2 seconds	23x faster
Insert 100 track templates	66 seconds	2 seconds	33x faster
Insert Kontakt (64 mono tracks)	11 seconds	3 seconds	3.6x faster

Rapture Session Virtual Instrument

Artist, Professional, Platinum Windows 7/8/10, 32/64-bit, VST3, VST2, AAX Mac OS X 10.7.5 or higher, 32/64-bit, AAX, AU, VST3

BANK	ТҮРЕ	PROGRAM	INFO
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RAPTURE SESSION	Bass Guitars	Bouncer	
	Bass Synth	Bulky Octave Funk	
Factory Library	Electric Guitars	Chemtrail Bass	
	Electric Pianos	Deep Pows 1	
	Lead Synth	Deep Pows 2	
cakewalk	Orchestral Stacks	Electro Punch FS	
SOUND CENTER	Organs	Grilling Machine	333.35 BEEEE
SOUND CENTER II	Pattern Synth	Juno Pluck 1	
	Pianos	Kick Bass	
	Strings	Oberheim Bass	
		Satisfaction	Oberheim Bass
		Simple Staccy	Bass Synth
		Snooty Tooty	Times loaded: 1

Rapture Session (\$29.95 for new users, free to members) is a "greatest hits" version of Rapture Pro, with a 4 GB library consisting of 450 hand-picked sounds—all easily accessible from the Rapture Session browser. Although it doesn't include Rapture Pro's advanced editing and mixing, it offers the live performance controls that make Rapture Session equally at home on stage as in the Studio.

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MAIN FEATURES

- Windows 7/8/10 and OS X El Capitan support
- Easy install and automatic authorization using Cakewalk Command Center
- Quick, intuitive real-time sound manipulation with macro knobs custom-designed for each program
- Add a program to your Favorites bank with one click
- Hand-picked content from Rapture Pro's comprehensive library
- Expandable with expansion packs from Rapture Pro, Dimension Pro, Rapture, and Cakewalk Sound Center

SOUND LIBRARY CATEGORIES

- Atmospheric
- Bass Guitars
- Bass Synth
- Electric Guitars
- Electric Pianos
- Lead Synth
- Orchestral Stacks
- Organs
- Pattern Synth
- Pianos
- Strings

Start Screen List View Artist, Professional, Platinum

You asked for it, and here it is: A list view for the Start Screen so you can see more projects at once. However, note that you can still expand individual projects in List View if you want to see the project details.

To choose List View, click on the button to the right of the standard Icon View button just below the notifications bell symbol.

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🇁 Existing Project	💮 📝 🛛 Neo Album Project.cwp	06/26/2015 23:26
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reveal a glorious amount of space for taking notes on	··· Mix Nashville.cwp	11/17/2015 15:11
your project.	··· Boy George Remix.cwp	02/02/2015 17:53
	Bumblebee Soundtrack.cwp	11/17/2015 15:08
	Gourmet Gated Reverb.cwp	11/17/2015 15:08
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Monitorizer FX Chain Professional, Platinum



There's a difference between listening on headphones and listening on monitor speakers. Although mixing on headphones is great for catching details and immersing yourself in the music, the sometimes artificially wide stereo and unnatural perspective with effects can lead to mixes that don't translate as well over speakers.

With so many people using headphones for mixing because that's ultimately how the music will be heard (as well as to avoid angry neighbors!), it helps to do a quick "reality check" on what music will sound like when played over speakers.

The Monitorizer FX Chain, part of the Anderton Collection and located in the Processors folder, is a send effect that helps eliminate the "super-wide" stereo sound of headphones to approximate an experience that's more like listening on monitors. Furthermore, some people simply like the stereo imaging better with the Monitorizer engaged when listening on headphones, as it can also introduce subtle room damping and room reflections, and you can adjust the effect amount.

While not as sophisticated as some products that try to emulate a complete room environment down to the last detail, the Monitorizer is based on the same principles:

- Feed a little left channel into the right channel, and feed a little right channel into the left channel.
- Delay the additional feeds by 1-2 ms to emulate that the right speaker signal hitting your left ear is delayed slightly compared to when it hits your right ear, and the left speaker signal hitting your right ear is delayed slightly compared to when it hits your left ear.
- Add in some very subtle reflections to be more like a "room."

• Reduce the highs of the additional feeds just a tiny bit because your head is in the way and attenuates the highs.

USING THE MONITORIZER IN SONAR

This is a send effect, and is suitable for use with SONAR's new Aux Track feature.



- 1. Create a Monitorizer bus or Aux Track that terminates wherever the master bus terminates. Set the fader to 0.
- 2. Insert the Monitorizer into this bus.
- 3. Create a post-fader send in the master that goes to the Monitorizer bus. Set the Send Level to around -3.
- 4. The Monitorizer FX chain defaults to a reasonably realistic effect, but you can use the controls to customize the effect further.

Head Delay: Sets the delay of a speaker to reach the opposite ear. Settings between 70% and 80% are typical (unless you have a really, *really* big head).

Room: Turn up to add some subtle room reflections.

Dampen: Turn up to emulate the high-frequency loss in the signals arriving in your ears from the opposite speakers.

Amount: Turn up to increase the Monitorizer effect

A/B: Enables the Monitorizer when lit, and allows for easy comparisons without having to adjust knobs.

Paradoxically, sometimes it sounds like the stereo imaging is actually wider with the Monitorizer, especially with high Room and Head Delay settings. However, it's often just a more satisfying stereo image because it doesn't sound as exaggerated.

Fixes and Workflow Enhancements

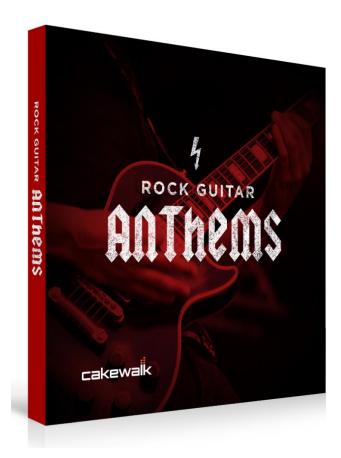
Artist, Professional, Platinum

Fixed issues where:

- Drag copy (CTRL+drag) would not include controllers in the PRV when Select Controllers Along with Notes was enabled
- Waveforms were not displaying with Playback Timing Master set to None
- Scrolling didn't always work as expected when editing events in Event List view
- Shift lasso was not extending selection in track view
- PRV Draw tool could behave unexpectedly with snap set to measure
- Bouncing MIDI clips would cause Controller data not to display in PRV
- Accessing properties dialog (right click) on notes would not work correctly in Staff View
- Audition of MIDI FX did not always work
- Painting problems could occur when scrolling in Console View
- Sample entry in the Snap to Grid module would not work initially
- Edit select functions were not actually selecting clips under common conditions
- Cropped clips would not draw correctly when dragged in the Track view
- ProChannel EQ interface had inconsistencies
- PRV Lasso select could unexpectedly select both Piano roll notes and drum pane notes
- MIDI cross talk could occur on an un-armed and focused MIDI track during loop recording
- Clip waveform was not drawing correctly with tempo changes
- Drag select would fail if hidden tracks were present in the project
- MIDI input ports could unexpectedly re-route when devices are added.
- "Dock in multidock" keyboard shortcut didn't always work
- ProChannel modules would not load correctly from a cloned track.
- Under some conditions drag selecting a clip could crash SONAR
- Selecting tracks could fail in Track View if the view was scrolled
- VST Time info was reporting incorrect values for the nanoseconds field
- Drag ordering in the ProChannel FX chain could have unpredictable results
- Media Browser would stop previewing after 60 seconds
- Long project name display issue with Start Screen
- Audio engine dropouts could occur under certain conditions
- Normalize and Gain would not work when applied to audio clip under certain conditions
- The draw tool would not draw over CC lines in the Piano Roll View.
- Redo of Style Dial insert would draw the wrong GUI.
- Sends were not feeding side chain plugins when first launching projects

- Loop recording with Patch Points could cause sync issues with delay-compensated plugins
- Playing through a tempo change in a project could cause DXi input echo to become delayed
- German translation needed fixes
- VST3 plugins were not processing mono interleave correctly
- Some step sequencer clips could cause Sonar to stop or hang during playback
- Insert problems could occur with Track and Template insert; inserting multiple tracks should now be much faster
- Some VST3s (example: AIR Loom) had a significant input echo delay
- Multi-out synths combined with allow arm changes led to performance problems
- Playing projects in Playlists had delays
- Synth input recording was not working properly with allow arm changes enabled
- Allow arm changes was not functioning for audio
- Some VST3 plug-ins when panned could cause silent audio output
- Recording MIDI data could crash with automation write enabled
- Nudging clips could cause clips to disappear
- Multi-channel audio output was not working correctly with Vienna Pro VST3
- Projects at idle were consuming CPU threads
- SONAR could hang when bouncing or exporting using real-time rendering.
- Delay compensated plug-ins could cause timing issues with MIDI playback
- Inserting Metric Halo plug-ins in FX bin could cause problems
- MIDI plug-in presets were not displaying in MIDI FX
- Audio export could cause crash when some hardware outs were muted
- Controller lanes would not update in PRV when switching between MIDI clips
- In some cases deleting synths from a synth rack could cause a crash
- Arpeggiator presets buttons would stop working after selecting other tracks
- SSL Nuendo VST3 plug-ins were not processing audio
- Drum Replacer would have inconsistent volumes during playback under certain scenarios
- Recurring scanning of certain plug-ins (i.e., iZotope RX and Ozone VSTs)

Anatomy of a SONAR Project: Creating the "Rock Guitar Anthems" Loop Library



By Craig Anderton

Doing high-quality loops that stretch over a wide range of tempos is not easy, but SONAR is the best program I've found for the task by far. Let's look at what was involved in making the "Rock Guitar Anthems" (RGA for short) library.

GET IT RIGHT AT THE SOURCE

Before you can even *think* about creating loops, there's much prep work. Because loops tend to maintain fidelity better when speeding up instead of slowing down, you want source material recorded at a relatively slow tempo—e.g. for rock, around 100 BPM. It wasn't always easy for guitarist Bart Walsh to play the faster riffs at 100 BPM, but apparently if you can cope playing guitar for David Lee Roth, you can cope with someone asking you to play slowly.

Transposing pitch is harder to accommodate because you can't go more than a few semitones without the sound becoming unnatural. For my "AdrenaLinn Guitars" loop library, I recorded the same figure in the key of E and Bb (not always easy) so nothing had to stretch more than a few semitones. For RGA, because the riffs were very specific to certain voicings, Bart played the various riffs in one key, usually A or E.

The sounds were recorded using the Kemper Profiling amp and a spot-on Marshall profile. Bart also provided a direct feed, but ultimately, doing both the dry and amped versions would essentially mean creating two different loop libraries. Since the object of RGA was to make "plug-and-play"-ready loops, I worked on the amp sounds. With both Bart's library and Brian Hardgroove's Bass Loops library, the artists provided me with long audio files. I always ask for recordings to begin several seconds in to the file so I can apply noise reduction. This requires using a tool like iZotope's RX4 or the noise reduction algorithm in Sony Sound Forge.

In either case you take a "noiseprint" of just the hiss and hum, then subtract it from the entire file. You have to be careful because too much reduction adds artifacts, but I was able to improve the signal-to-noise ratio by about 10-15 dB.



iZotope's RX software provides several repair functions, including de-noising.

After applying noise reduction to the file, it was time to cut the file into potential looping candidates on measure boundaries. Both Bart and Brian have excellent timing but for loops, *perfect* timing is necessary. So, all cuts had to happen with Snap to Grid off, and occur exactly on the note's attack. SONAR's ability to toggle rapidly between a super-close zoom to identify precise note beginnings, and wide zoomed to navigate around the file, is extremely useful.

PITCHES AND GLITCHES

Fortunately Bart is a fanatic about tuning, and used guitars with the Gibson G FORCE automatic tuning system to keep everything right on pitch. As a result there were only one or two notes that were a little off, and Melodyne fixed those easily.

However, playing guitar with a high-gain amp sound means that finger squeaks, releases from strings, and the like are very prominent. With normal playing, this isn't a problem and gives the guitar a characteristic sound. But when looping, stretching these artifacts can sound very awkward, especially when slowing down. Also, guitar notes don't just start—there's always some characteristic noise as the pick hits the string. Stretching to where these either become excessively long or disappear makes the notes or chords sound much less natural. Deciding what to keep and what to trim requires a lot of judgment calls during the next phase.

SLICING THE NOTES

When creating a loop library, the loops have to be perfectly in tune and perfectly in time, because they're often used in conjunction with other loops that are perfectly in tune and in time. With today's ability to apply grooves to files, it's even more important to have loops with perfect time because it's easier to apply a groove to something perfect than try to wrestle something with a groove into perfect timing.

As a result, after isolating the audio file into individual loops, the next step is to isolate each note, chord, or phrase by splitting at the beginning/end.

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The top image shows the original loop, and the bottom after isolating each "block of sound."

I then create a second Take Lane, place every other note in a different take lane, and snap each clip to the correct rhythmic value. The reason for using different lanes is that some clips might overlap, or there might be gaps. Both issues need to be addressed.

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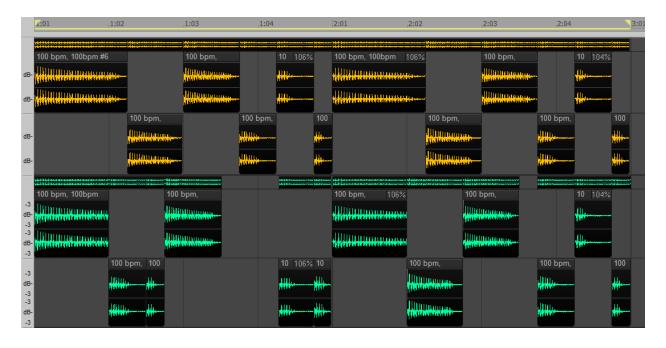
The upper clips have been snapped to the grid. The lower clips have been shortened or lengthened as appropriate to avoid overlap, and very short fades have been added to prevent clicks.

The solution is to use DSP to extend notes that don't last long enough (by ctrl+click+drag on the right edge), and slip-edit notes to the left that last too long.

Now is also a good time to "clean up" each clip, like removing noise at the end of notes and deciding how much pick attack to leave in. This a very subjective process because you need to leave in enough artifacts to sound "real," but not enough to cause problems when stretching. For those of you with RGA, when you play the loops remember that *every single chord and note* (yes, every single one) was individually isolated and optimized.

Once that's done, it's time to select all the clips and do a *very* short fade in and fade out to eliminate any chance of clicks. Usually a few milliseconds is enough. However, this also helps when creating REX format files (more on this later).

Now that there's a collection of individual notes or phrases, the next step is bouncing them to a track to create a loop. The reason for bouncing these to a track instead of bouncing the clips to themselves is so that if needed, the various blocks of notes can be rearranged, then bounced to a new track to create another loop.



The original clips (yellow) above have been re-arranged to create a different variation (green) on the original.

It never hurts to have too many copies of these "raw materials," because creating a new loop might involve much more than just re-arrangement, like repeating, shortening, or lengthening some notes to create very different loops. Also, there may be loops where a note sounds a little "off" for some reason. You may be able to find a replacement in a different loop. (For those familiar with REX files, this is really no different from moving MIDI notes around to change where the slices in a REX file fall—except that by working with the "Loop Legos" in SONAR, you have far more options on how to process the various blocks.)

After creating the loop, it's then time to normalize the audio. I usually normalize to around -1.0 dB, as that leaves enough headroom if the crossfading that occurs during looping causes peaks that exceed the expected headroom.

Incidentally, after editing Brian's and Bart's loop libraries, I sent them the results to make sure they were happy with the sounds. They generally couldn't tell which were the "real" loops and which were the "fabricated" ones. This is because all the components in the loops were notes they actually played in specific musical styles, so re-arranging the notes didn't destroy the integrity of what they did.

LOOP LENGTH

Most loops I do are two measures, but they're designed so splitting at the measure boundary means the first measure can loop multiple times (e.g., three times), followed by the second

measure to finish off the phrase. I also try to create loops where the measures can be split further to allow for additional variations within the loop, like deleting the fourth beat and repeating the third beat twice.

THE ACID TEST

To recap, at this point we have a bunch of loops with perfect timing, pitch, and any needed trimming. Next comes the difficult and time-consuming task of "acidizing" the files to turn them into stretchable Groove Clips.

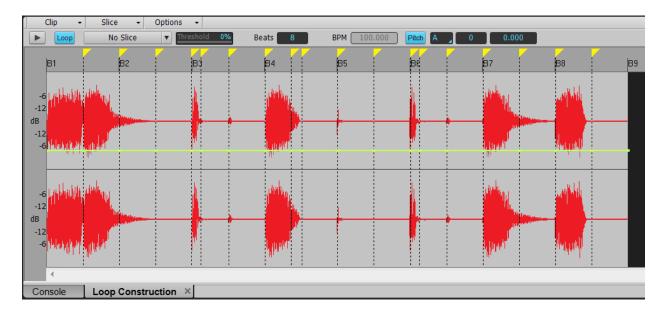
Acidizing is an art and a science that works best with percussive material. The basic concept is you place a marker at the beginning of each note or "block" of sound (e.g., with drums, where the kick and snare hit together). When stretching, these individual blocks become longer when slowing down, and shorter when speeding up. Typically, there's also some crossfading involved to prevent abrupt discontinuities when one block transitions to another.

Speeding up works much better than slowing down, because when slowing down, it's necessary to create audio that didn't exist. With speeding up, you can just shorten the blocks. Typically, you can easily speed up a loop by 150% or more, but only slow down 10% before the sound quality becomes unusable. But these aren't hard and fast rules because it depends on the material. The kind of riffs in RGA don't lend themselves that easily to acidization compared to something like a simple drum loop.

Even though you can embed metadata identifying the loop's key to allow for automatic transposition with SONAR's pitch markers, don't expect flawless transposition. Acidization doesn't do formant changes, so sounds become pretty unrealistic if you stretch more than a semitone or two with a harmonically rich sound like distorted guitar. However, transposition can give useful special effects—power chords transposed down a couple semitones acquire an incredibly "heavy" sound.

In addition to placing markers that indicate a note's beginning, sometimes you also want to place markers that define the end, or "wall off" the sound of a string being released so that when stretched downward in tempo, it remains relatively short.

The "art" of acidizing comes into play because optimum marker placement varies depending on how much you intend to stretch, and whether you prioritize pitch transposition over tempo stretching. I go for the best compromise setting, but if you're a fanatic, you can go into the Loop Construction View and experiment with moving the transient markers around for better results in a particular use case.



The transient markers (colored yellow to make them easier to see) are not just defining the beginning of notes, but "walling off" other parts of the sounds to control how they're stretched. Note that the native pitch has been set to A.

I adjust the transient markers to give the best results when slowing down by 10%. After getting the loop to sound as good as possible, I then speed up the tempo to 150% and compare. If it sounds good, I'm done. If there are issues, I have to identify them and figure out a good compromise. By going back and forth several times between tempo extremes, then checking halfway in-between, it's possible to obtain a good compromise setting.

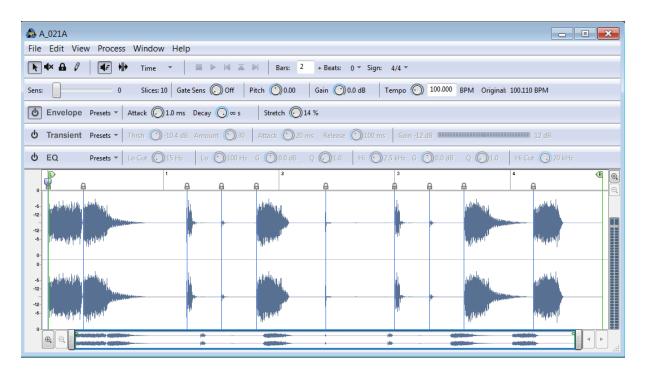
The final acidization steps are entering the loop's native pitch, as this provides the needed metadata for SONAR to be able to transpose on the fly, and if needed, tweaking the pitch using the Loop Construction View's two pitch fields.

ON TO REX

REX format files are also stretchable for tempo. They work on a similar principle to acidization as they require creating slices from individual notes or blocks of notes. However, unlike acidization's stretching and crossfading, REX files take a more brute force approach of creating individual clips, which are then triggered by an internal MIDI file. With slower tempos the MIDI triggers occur further apart, which slows down the rate of the clip playback. Speeding up triggers the notes closer together.

Sometimes acidization produces the best results when stretching, and sometimes REX files are best. It's hard to predict unless you actually try both, which is why I like to include both acid and REX format files in loop libraries.

The only way to create REX files is with the program ReCycle, made by Propellerheads software. You bring a WAV or AIFF file into ReCycle, then place transient markers.



This is the same file as shown above, but being converted into a REX file. As the stretching options are less sophisticated, all you really need to do is set a marker at the beginning of each "sound block."

Here is where the short fades done previously on individual notes come in handy, because if you place the markers in that millisecond or two of silence, there won't be any clicks when playing back the REX file because all the transient markers will fall on zero crossings. This is a good thing. The best way to test the transient markers is to slow ReCycle's playback tempo way down to make sure each note is its own slice.

THE FINAL TOUCHES

At this point you're done, right? Wrong. The files need to be named and categorized, and whittled down to the very best ones. I do not subscribe to "more is better" when it comes to loop libraries, because I think no one wants to spend the time to audition hundreds of loops to find the ones that are musically useful (or in the case of libraries where there's not a lot of care spent on editing, the ones that stretch well). I felt that RGA had about 100 high-quality, musical loops that stretched well, so those are the ones that made the final cut.

Then comes the quality control process. This involves creating a project, dragging in all the acidized loops, and setting SONAR for Exclusive Solo. I slow the tempo down and play each loop to verify it sounds okay at -10% tempo.

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The two-measure acidized WAV files have been dragged into a project for final testing and quality control.

Next is doing the same thing with the tempo sped up by 150%, then restoring the original tempo and transposing to make sure all loops include their native key information.

During all these tests, it's important there be no clicks when the loop jumps back to the beginning. Sometimes clicks will not occur at the native tempo, but will occur when sped up or slowed down. In that case, it's necessary to start over with new fades or other edits. As starting over resets the acidization markers, my solution is to take a screen shot of where the loop markers fall so that I can duplicate the settings with the reconstructed file...it's easier than re-acidizing.

The process for REX files quality control is similar. Here you don't have a lot of options, so the main test is to make sure there aren't any clicks. Also, you can build a little bit of stretching into REX files, but this may or may not work when speeding up or slowing down...the only way to know is to test and listen.

But we're still not done! It's necessary to include specs, create documentation, write copy for the web site, produce an audio demo, and of course, generate a press release.



And then the work is done...which of course means it's time to start on the next project.

Review: IK Multimedia iLoud Portable/Bluetooth Speaker

By Craig Anderton

As you've probably noticed, the eZine reviews cover products that complement SONAR; iLoud seems particularly appropriate for musicians on the go who use SONAR with a laptop, especially if you're a guitar player. Essentially, it's like consumeroriented Bluetooth speakers so you can stream audio from your iPhone, iPad, or other iThingey. However, iLoud has three important differences that make it very SONAR-friendly.

• The speakers are voiced



like studio monitors instead of having the "scooped" response (i.e., boosts the highs and lows) found in many consumer speakers.

- You can avoid Bluetooth latency by using a wired stereo connection.
- It interfaces with guitar amp apps on smart phones and tablets (e.g., IK's AmpliTube, Positive Grid, Line 6 Mobile POD, etc.), so it's also a guitar amp.

BASICS

iLoud isn't cheap (typical price, \$250) for a reason: it actually sounds good, and not only is it loud (iLoud is a fair description, to say the least!) but the sound quality is clean—it doesn't fuzz when you turn it up. You won't get insane bass extension, but it's much better than expected from a unit this size (about the same width and depth as an iPad, and 2.4" high) and weight (just under 3 pounds). Nor will you get exceptional stereo imaging given that it's a single unit, although as with the bass, it's better than expected. There are two sets of two speakers (3" neodymium woofer and 3/4" neodymium tweeter) powered by four Class-D Amplifiers. IK claims the four amps add up to 40 watts, but I could not determine whether that spec was RMS or peak power...regardless, it's loud. Although iLoud includes an AC adapter for power, it also has an internal Lithium-Ion rechargeable battery that lasts about 10 hours with normal listening volumes and up to three hours if you crank it. Unfortunately, the battery is not user-replaceable, which is neither good for the environment nor for your wallet if at some point the battery loses its ability to stay charged.

CONNECTIONS

There's a stereo line input mini-jack (with included cable) for a direct connection to a laptop out or mobile device, a Bluetooth pairing button, and a ¼" jack but it's not a guitar input in the conventional sense—it interfaces with your mobile device when wired to iLoud through the stereo mini-jack cable, so you can run your guitar through an app. Of course IK would prefer that you use their mobile version of AmpliTube, but other guitar apps work too.

Registering iLoud unlocks some useful accessories for iPhone and iPad: four AmpliTube models (two amps, two stompboxes) and two mic models for the Mic Room app. Of course you can also use the free version of AmpliTube, which has the option for in-app purchases if you want to expand on it.

CONCLUSIONS

IK's <u>web site</u> goes into a lot of detail on the iLoud, so there's no need to cover specifics. In terms of subjective impressions, although the entire case is plastic, it has a substantial feel. I wouldn't drop it onto a concrete surface, but if it's sitting on a table and someone knocks it over, you'll be okay. However given that it has a cute little retractable kickstand to keep it upright, it's hard to knock it over anyway.

The front panel knob with its red halo looks very cool, but is difficult to adjust unless you have fairly skinny fingers. Aside from that, the key features are sound quality and clean volume, and iLoud scores big-time with both. I suspect that not just musicians, but a lot of on-the-road salespeople are going to be snapping these up so they can have quality sound with the presentations they do on their laptops. As for me, my laptop never sounded so good...and neither did my iPhone.

BlogBeat

The Cakewalk blog is loaded with useful and interesting information, so don't miss out! Here are some of the blog's "greatest hits."

<u>Speed Up Your Workflow with 5 (Rather Hidden) SONAR Features</u>. And who doesn't want faster workflow? **Joey Adams** covers five features that tend to fly "under the radar" and are easy to overlook, including creative uses of clip coloring, opening the Navigator to zip around the Track View, and using the ProChannel as a control center for FX parameters.

<u>Mix Recall Remembers Your Instrument Settings</u>. Of course, Mix Recall is great for recalling mixes, and offers a lot of flexibility in doing so. However, scratch beneath the surface, and you'll find Mix Recall offers other talents as well. **Dan Gonzalez** takes you step-by-step through the process of auditioning different drum kits using Addictive Drums 2 with Mix Recall.

<u>Five Questions About Effects Placement</u>. There are several ways to insert effects within SONAR, and this basics-oriented article by **Craig Anderton** covers the differences between insert effects, send effects, master effects, series effects, parallel effects, and why you'd want to use certain effects placements for particular applications.

<u>How LA Producer Luigie Gonzalez Is Using Patch Points</u>. Grammy-nominated producer/composer <u>Luigie Gonzalez</u> has worked with artists ranging from Barbra Streisand to Janet Jackson to Jimmy Jam and Terry Lewis, and scored for feature films and trailers. In this article, **Jimmy Landry** digs into what Luigi finds particularly compelling about patch points and upsampling.

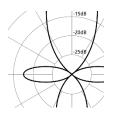
Microphone Tips: What Is a Polar Pattern? Polar patterns have nothing to do with the weather anomalies that dump heaps of snow on Boston, but instead relate to how mics pick up sounds. Are you using the right mic for the right job? **Dan Gonzalez** takes you through the basics, and explains what polar patterns are all about as well as why they matter.











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