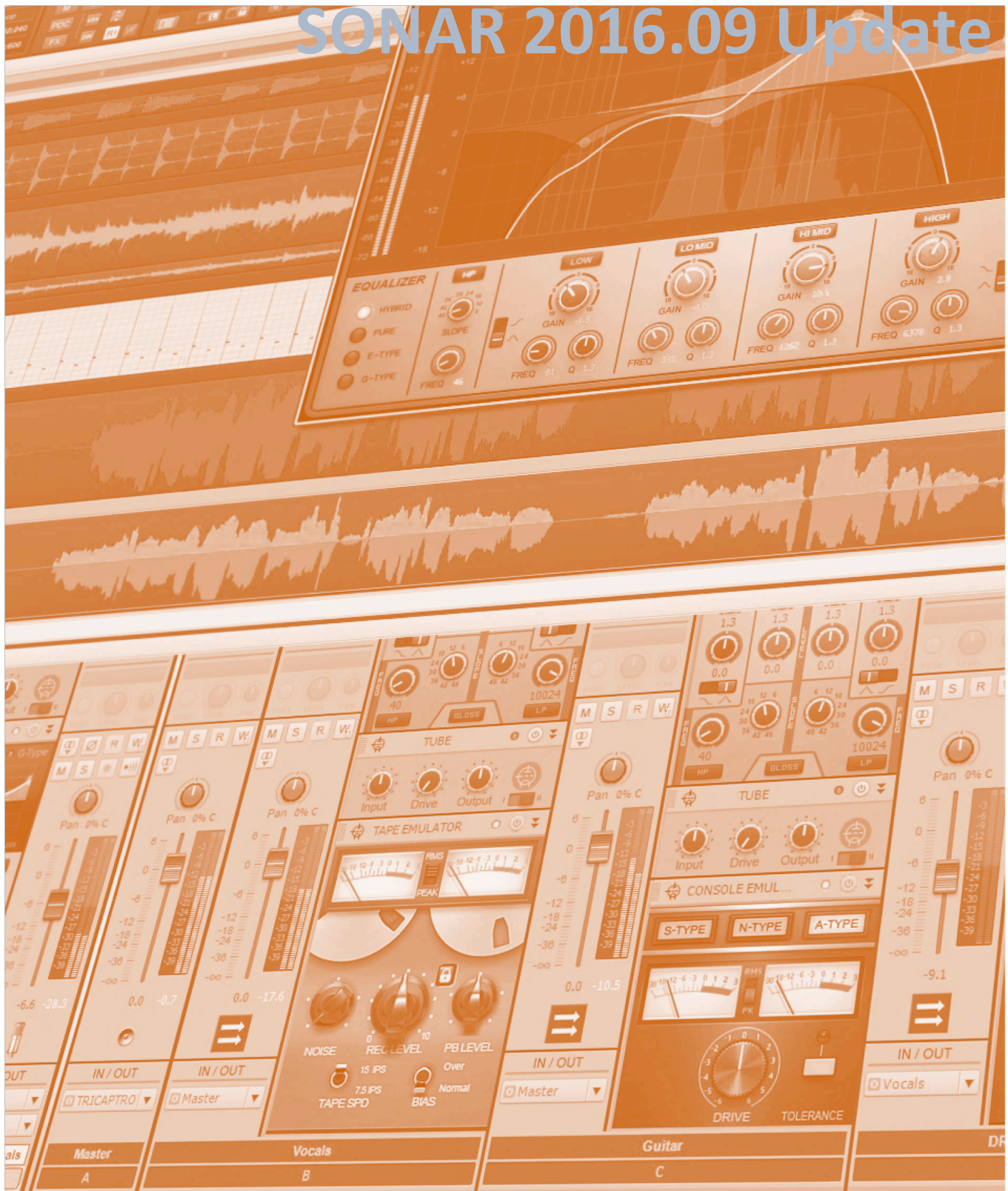
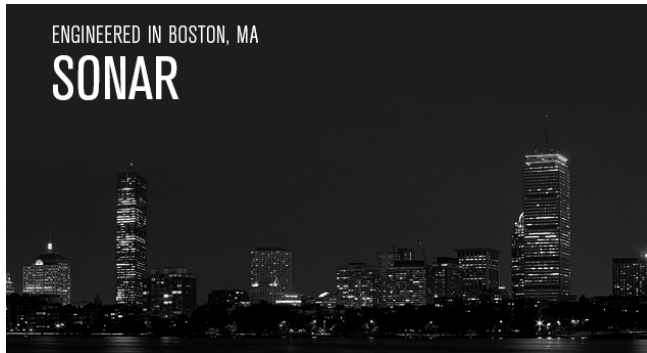


# SONAR 2016.09 Update



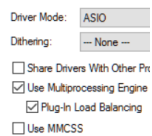
## SONAR 2016.09 Update



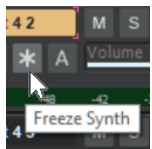
Your CPU works hard, so we'd like to do what we can to help it work more efficiently. This update includes Plug-In Load Balancing for Platinum, which allows running more plug-ins with fewer dropouts. For users of all versions, there are also new CPU meter modes to gauge performance, as well as Quick Group freezing—now it's easy to save lots of CPU power by freezing multiple tracks at once.

Finally, for your reading pleasure we review a MIDI Bluetooth keyboard controller, present another fascinating "Anatomy of a SONAR Project," fill you in on this month's SONAR Top 10 chart, alert you to a unique educational opportunity, and point you to some cool forum threads on how to get the most out of SONAR.

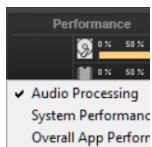
So what are you waiting for? Read the eZine, boot up SONAR, and enjoy the latest updates and enhancements. – *The Cakewalk Team*



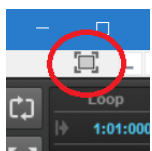
**Plug-In Load Balancing:** Now Platinum owners can run more plug-ins, with fewer dropouts, greater efficiency, and more even distribution of CPU loading to processing cores. Recommended for systems with four or more cores, this update can improve plug-in performance at buffer settings of 256 and above.



**CPU Meter Modes:** This update to the Control Bar's Performance module extends the ability to monitor what's happening with your CPU—including monitoring the global CPU consumption across all cores for all aspects of the OS, audio processing load, and a single meter for SONAR's total CPU utilization.



**Quick Group Freeze:** After taking care of everyone who wanted the Quick Group functionality for insert effects, now there's Quick Group Freeze so you can freeze or thaw multiple tracks at once. Not only that, but with the new metering options, you can see exactly how much difference it makes.



**Full Screen Toggle Button:** When you want the maximum amount of screen "real estate" to see as many elements as possible within SONAR, the new full screen toggle supplements the existing menu option and function key shortcuts with a button that's suitable for both touch and mouse clicks.



**Softube Saturation Knob Update:** This workhorse ProChannel module, based on Softube's FET compressor with added saturation, has been updated with stability and compatibility improvements.



**Fixes and Enhancements:** The bug-fixers at Cakewalk went on a bug-hunting frenzy this month, and nuked a bunch of those rude little critters—including the long-standing "Why does stretching an audio clip sometimes produce an extraneous snap point?" Well, it doesn't any more.



**Charting Now in SONAR | The Top 10 Operating Systems:** Amazingly, some people still use 32-bit Vista. But does the SONAR community march in step with the rest of the world, and continue holding on to Windows 7? Or has it done the "fast forward" to Windows 10? The answer might surprise you.



**Anatomy of a SONAR Project | A Shootout in the Wild West of the Industry:** Not only has the record business changed, so has doing commercial music. Jimmy Landry participates in a shootout to create the music for an upcoming commercial, and tells what's involved in this hyper-competitive new way to make a living.



**Scholarship Opportunity for the SONAR Community:** From time to time, composer/teacher Jerry Gerber—an expert SONAR user—offers a free scholarship to a deserving student who want to improve his or her skills. Want to up your game? Find out how to apply in this article.



**Review | CME Xkey Air, Where MIDI Meets Bluetooth:** You have a wireless keyboard and mouse, a wireless internet connection, and Apple wants to convince you to wear wireless earbuds and ditch the 1/8" phone jack. But can MIDI wireless deliver low-latency, reliable operation? Let's find out.



**SurfBoard:** Surfing the internet can be fun, but surfing the Cakewalk forums can be downright instructive because community members are constantly sharing tips and techniques. We've scoured the forums for the latest threads that can help you get the most out of SONAR, and compiled them here.

## How to Download the SONAR 2016.09 Update

Open the **Cakewalk Command Center**. If you don't have the latest version (CakewalkCommandCenterSetup\_1.1.7.1.exe), please download it from the Cakewalk Command Center [home page](#).

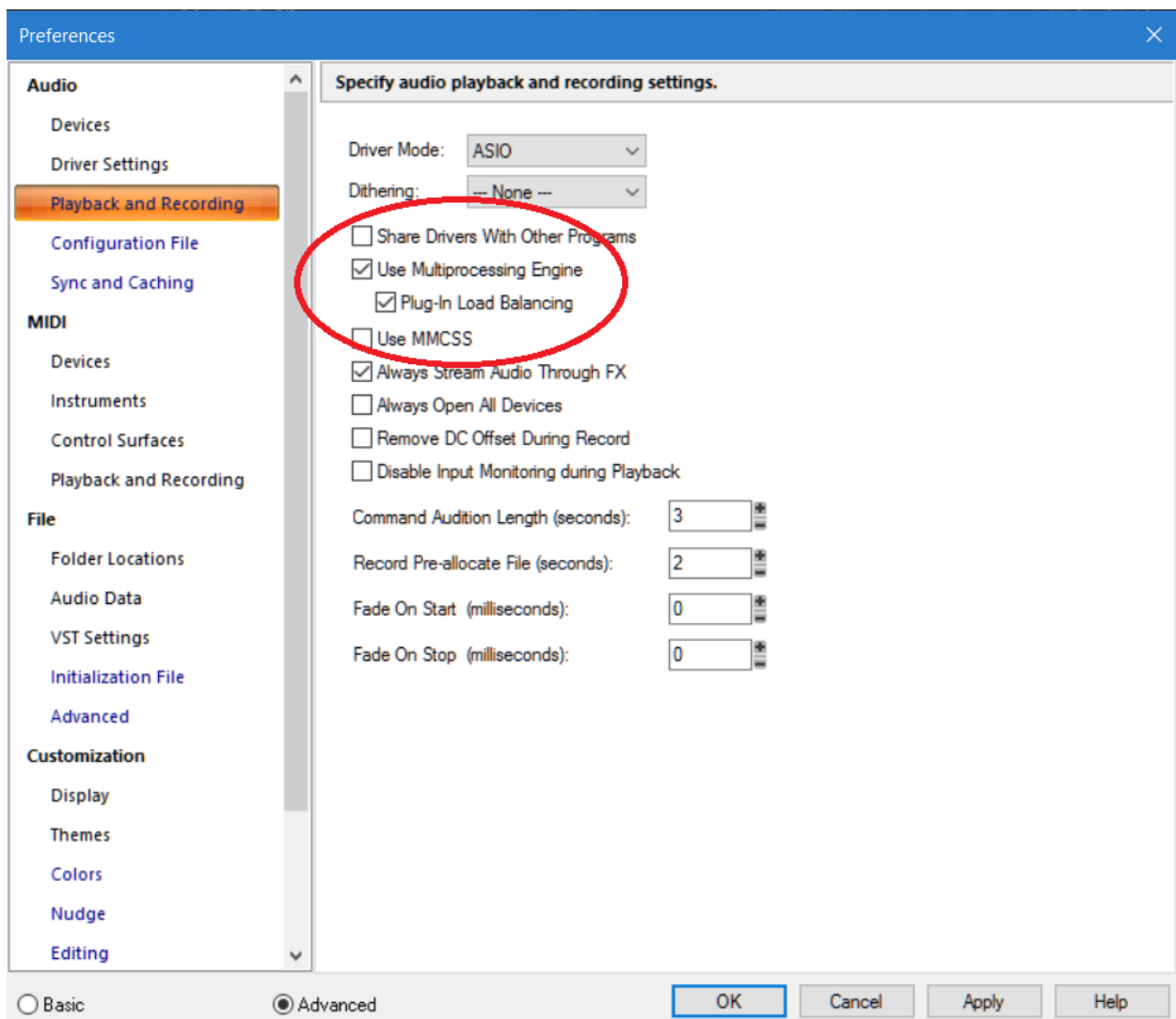
To download the **SONAR 2016.09** core update, download from the core SONAR Artist, Professional, or Platinum category. **Platinum** members should also download the latest version of the **Theme Editor**, which is a separate program and appears under Connected Products.

## Plug-in Load Balancing

### Platinum

SONAR's plug-in load balancing exploits the full power of multi-core CPUs to balance DSP workloads across multiple cores when possible. This can result in fewer spikes in the audio engine, as well as minimize audio dropouts that are caused by unbalanced processing loads.

To enable/disable plug-in load balancing, choose *Edit > Preferences > Audio - Playback and Recording*. Check *Use Multiprocessing Engine* (otherwise plug-in balancing is not available), then check *Plug-In Load Balancing*.



When enabled, SONAR will attempt to load balance track/bus/clip/ProChannel FX Racks, FX Rack FX Chains, and ProChannel FX Chains if any of these contain two or more unbypassed plug-

in effects. (However, please note that this technology does not benefit virtual instruments in the synth rack, FX Racks with active side chains, or External inserts.)

## **WHEN TO USE, OR NOT USE, PLUG-IN LOAD BALANCING**

Load balancing uses CPU power more efficiently, but it also requires some CPU power because it processes the plug-ins at smaller buffer sizes. If the loads aren't unbalanced in the first place, any benefits of balancing may be offset by the extra overhead. So, first check out the existing performance status with the new Performance Meter modes (described in the next eZine section). Right-click on the Performance module, choose *CPU Meter Display Options*, then select *Audio Processing Load*. The Performance Meter will show whether the load on the CPU cores is balanced or not.

Enable plug-in load balancing if:

- There is CPU spiking, or one core is significantly higher than the others
- The project uses a high audio latency setting
- One track performs most of the effects processing

Do not enable plug-in load balancing if:

- The CPU load is evenly distributed (i.e., there is no excessive core spiking, and no individual core works significantly more than the others)
- The project uses many lightweight plug-ins with a similar load
- All tracks use about the same number of effects, or have a similar load
- The project uses a Mixing Latency Buffer Size setting under 256 samples in *Edit > Preferences > Audio - Driver Settings*

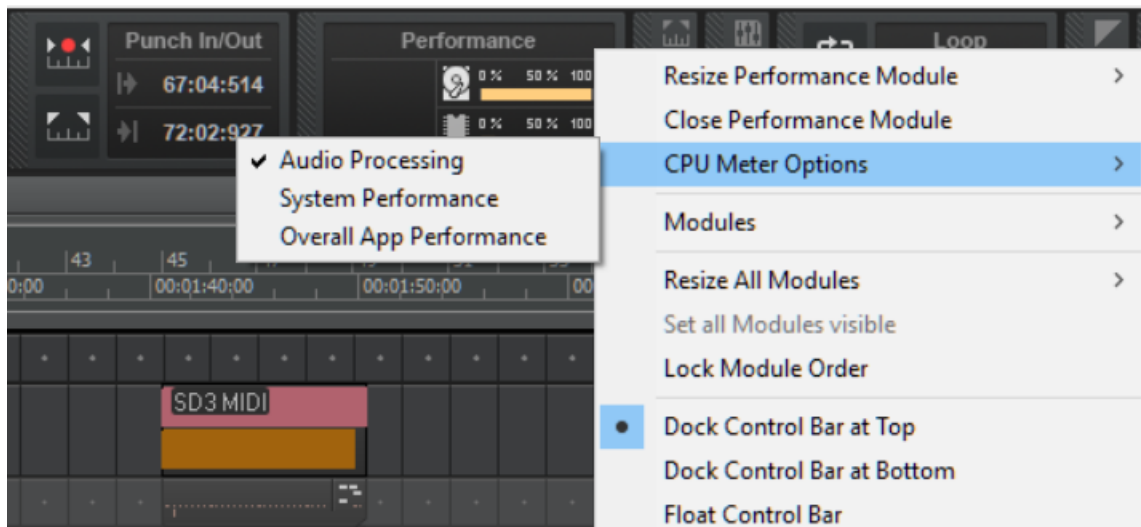
For information about how plug-in load balancing works, as well as “under the hood” tweaks you can do to alter the smallest internal buffer subdivision used for plug-in load balancing (which allows for more aggressive load balancing), please see the online help.



## Expanded CPU Performance Meter Modes

Artist, Professional, Platinum

The Control Bar's Performance meter gives information on your system's resource utilization, and has now been expanded to offer three different monitoring modes. Among other advantages, the Performance meter can differentiate between how much resources SONAR is drawing compared to the system as a whole. This can alert you if something else is going on that's taking resources.



The three Performance Meter modes are:

**Audio Processing.** This default mode measures SONAR's audio processing load, and represents the ratio of the actual time taken to process a buffer compared to the buffer duration. This helps you determine if you need to increase latency, or can speed operation up a bit.

**System Performance.** This shows the global system-wide load across all processor cores, as reported by the operating system itself (not just reporting from within SONAR).

**Overall App Performance.** The meter shows the entire SONAR process CPU utilization for all processor cores.

To choose a mode:

1. Resize the Control Bar Performance module to Large or Auto if needed (the CPU meter must be visible), then right-click anywhere in the module.
2. Point to *CPU Meter Display Options*.
3. Choose the desired mode.

The tooltip over the CPU Meter shows the selected mode's name.

## Quick Group Freeze

Artist, Professional, Platinum

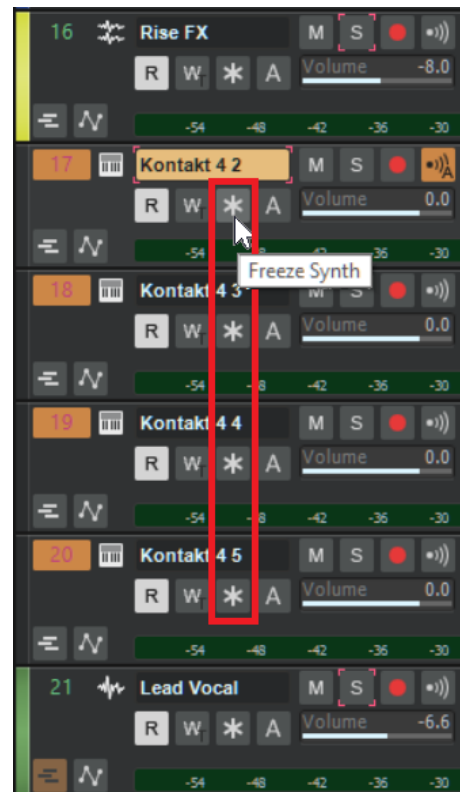
Hot on the heels of last month's **Quick Group FX Insert**, we've answered another popular feature request with **Quick Group Freeze**.

Freeze is an important feature when you're running out of CPU power because it temporarily bounces tracks that include power-hungry plug-ins (like virtual instruments and plug-ins) to audio, which requires much less CPU for playback. Freezing also "disconnects" the original track to save CPU power consumption, but you can also unfreeze/thaw at any time if you want to edit the plug-in parameters or make other changes.

Previously, tracks had to be frozen one at a time. With **Quick Group Freeze**, you can freeze multiple tracks with a single gesture.

1. Select the tracks you want to freeze. To select multiple tracks, Ctrl+click on the track number in the Track or Console view, or use the Smart Swipe feature to select multiple consecutive tracks.
2. Hold down the Ctrl key, then click the Freeze button in any of the selected tracks. All selected tracks will now be frozen.

Similarly, you can also "thaw" multiple selected tracks.





## Full Screen Toggle

Artist, Professional, Platinum

Full Screen mode hides SONAR's title bar and the Windows task bar so that SONAR's interface fills the entire screen. This gives more "screen real estate" for working within SONAR.

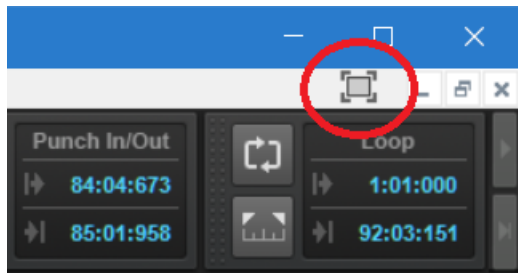
Another advantage of full-screen mode is that you can leave the task bar locked in place rather than set to auto-hide, which occasionally doesn't work properly. This is because some applications can trigger a notification that keeps the taskbar open, but doesn't provide an obvious way to close the notification.

However it's also important to be able to exit full-screen mode quickly if you want to use the task bar, so now there are three options.

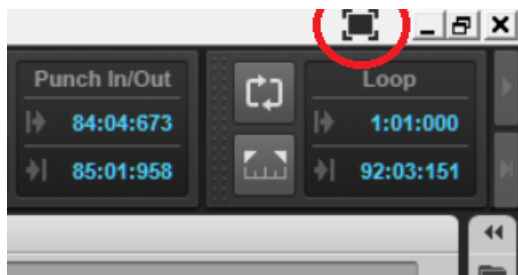
**Menu:** Choose *Window > Full Screen*

**Keyboard shortcut:** *F11*

**Touch control or mouse click:** The new *Full Screen* button in SONAR's top right corner



*Full Screen button in standard mode*



*Full Screen button in full screen mode*

## Softube Saturation Knob Update

Professional, Platinum



If you've overlooked how useful the ProChannel's Softube Saturation Knob can be, now would be a good time to revisit it—this update offers improved stability, compatibility fixes, and streamlined graphics. It also complements the ProChannel Tube distortion module well.

The key to getting the most out of the Saturation Knob is selecting the proper mode (Keep High, Neutral, and Keep Low). For example, Keep High doesn't distort the high frequencies, so for lo-fi drums the cymbals won't be as distorted as the rest of the drum kit, which gives more "body." However if you want to retain the kick drum's tone and level, then you would choose Keep Low, which avoids distorting low frequencies.

As to using the Saturation Knob and Tube module together, each has a different character, and driving one with the other can give sounds you can't get with either one by itself—and switching their order gives yet another set of timbres. You can also enhance saturation by the modules you put before and after saturation, like inserting the S-Type Channel compressor first, then Cakewalk's Tube

distortion, and finally the Saturation knob. Driving the Saturation Knob with Tube produces a wider variety of distortion effects than the reverse order. Finally, follow the Saturation knob with EQ to shape the saturated sound.

For an example with bass, start with all modules bypassed. Adjust the tone to taste, then enable the compressor and dial some dynamics processing for a "rounder" sound. Enable Tube in Type 1 mode and turn up the Input and Drive controls for an amp-type growl. Next, enable the Saturation Knob; select "Keep High" to give a fuzz bass sound, "Neutral" for a more aggressive version of the tube distortion, or "Keep Low" to change the tone and give a more sustained distortion. You can then use the QuadCurve EQ to emulate a cabinet effect—enable the Low Pass filter to trim the highs, bring the midrange down a bit around 1.5 kHz to emphasize the bass, and then add a broad, low bass bump for a rounder tone.

This combination of compression, distortion, and EQ will give the bass more authority and grit, and stand out in a bit more in mixes. The Saturation Knob is even useful as a Send effect when you want to add a little bit of dirt to multiple tracks.

## Fixes and Enhancements

This month's update fixes the following issues in multiple categories:

### TAKE MANAGEMENT/COMPING

- It was not possible to drag a clip to a different lane in another track if the target track was below the source track
- Speed Comping could create unexpected extra clips
- In some cases, Speed Comping would fail to mute/unmute clips
- Paste of clip always ended up on Take Lane original to source clip
- Dragging a comp clip to a Take Lane produced unexpected results
- In some cases, attempting to cross-crop two adjacent clips in different lanes would affect only a single clip

### PLUG-INS

- Various VST 3 Host Bypass fixes
- Plug-in upsampling did not operate properly in some cases
- Quick-Group insert FX could fail if the selected tracks contained different numbers of plug-ins
- Customizing FX Chains could cause SONAR to hang
- FX Chains could cause crash when used in a playlist
- Changing VST3 presets from the plug-in property page sometimes resulted in inconsistent behavior
- Assignable controls for Waves plug-ins could send to incorrect parameter

### REGION FX

- Pro Channel would disappear on all tracks/buses after Melodyne bounce-to-clips when followed by right-clicking another clip.
- Undo of a copied Melodyne clip did not update the Melodyne GUI
- Deleted tracks that contained Melodyne Region FX clips were still displayed in Melodyne's track header

### BROWSER

- Crash on startup related to SQLite
- The Plug-in Browser could display empty category folders
- The Plug-in Browser could display an empty "Uncategorized" folder in the Instruments tab

- SONAR could crash upon launch if the Plug-in Browser library database was corrupt
- In the Plug-in Browser, it was not possible to revert DirectX Plug-ins to their original name
- Renaming/categorizing plug-ins in the Plug-in Browser would close all expanded folders
- Renaming/categorizing plug-ins in the Plug-in Browser could result in temporary freeze if performed on Windows Basic/Classic theme
- Changing friendly plug-in name did not initially update existing instances in FX Racks
- The Plug-in Browser did not hide folders for VST2s with identical plug-in names
- Cakewalk TTS-1 did not display a friendly name in the Set Categories dialog box
- Plug-in Browser category was named "General Midi" instead of "General MIDI"
- When not showing plug-in categories, the Plug-in Browser would create a new folder for any loose VST3 plug-ins that were installed in the Common Files\VST3 root folder
- Closing a project with the Synth Rack open could result in a crash
- Insert Synth menu would fail to open if there were more than 255 VSTi plug-ins available

## **MATRIX**

- Matrix could skip first note in MIDI clips when playback started.
- It was not possible to scroll in the Matrix with the mouse wheel if the mouse was over track strips.
- Undoing a Matrix performance recording could result in a crash.

## **PROCHANNEL**

- Saturation Knob could cause SONAR to crash.

## **MISCELLANEOUS**

- Selecting the last Automation Lane could cause a crash
- It was not possible to rename bus Automation Lanes
- It was not possible to use the Crop tool on the right side of a crossfade unless you selected the clip
- Selecting the left clip in a crossfade would obscure the right clip's fade in
- Cropping multiple clips simultaneously would fail in some case when Snap to Grid was enabled
- Adjusting crossfade on multiple selected tracks did not produce correct results
- Auto Crossfades did not work properly with clip selection groups
- 'Select Track Envelopes with Clips' did not function properly when moving grouped clips
- Modified clip colors in the Inspector didn't show immediately
- Unexpected behavior when adjusting clip length from the Clip Properties inspector if the format was MBT
- Superfluous snap offset was created after stretching audio clip

- Scroll bar thumb was difficult to see while being dragged
- Clicking rapidly in the scroll bar did not always advance the timeline
- Under rare circumstances, a crash could occur when deleting buses
- “Follow Host Tempo” did not behave as expected
- The About screen showed mixed version information
- General Installer improvements

## HELP

- Help Module would not show text for the time ruler or Clips pane
- Help button for Preferences > File - Audio Data did not open help topic
- Help button for Preferences > Project - Surround did not open help topic

## LOCALIZATION

- Multiple Brazilian-Portuguese UI fixes (applies to Steam users of SONAR Brazilian Portuguese 2016.08)
- [Russian] Several list items in *Edit > Preferences > Customization - Colors* were cut off
- [Russian] Some values in the Groove Quantize dialog box were cut off



## Charting Now in SONAR: The Top 10 Operating Systems

In the wide, wide world of Windows, despite Microsoft hoping to get everyone on the Windows 10 bandwagon, there are still quite a few different operating systems in use. But which one is most popular among SONARians? We asked Analytics to tell us which operating systems get used for the greatest number of sessions, and what we found was that the heaviest SONAR users place a premium on 64-bit operation and high performance.



### **#1: Windows 10 – 64 Bit**

With an almost 3:1 lead over second place, SONAR users are voting with their wallets and going for Windows 10. Although actually, it's probably more accurate to say they're not voting with their wallets because they likely installed Windows 10 when it was a free upgrade...but you get the point. In any event, this may also help explain the general consensus about SONAR performing very well—it seems SONAR and Windows 10 were made for each other.

### **#2: Windows 7 – 64 Bit**

Then there are those who subscribe to “if it ain't broke, don't fix it” and have remained loyal to Windows 7, an operating system that's seven years old but is also a real workhorse. Looks like SONAR support for Windows 7 probably won't be going away any time soon.

### **#3: Windows 8.1 – 64 bit**

Well it's almost as good as Windows 10...and certainly an improvement over the ill-fated Windows 8, which even Microsoft urged people to avoid using not too long after it was introduced. Fortunately drivers that work with Windows 8.1 tend to work well with Windows 10, so upgrading is pretty painless.

### **#4: Windows 7 – 32 bit**

Given how long SONAR has been 64-bit friendly, it's probably not surprising that the overwhelming majority of SONAR users embrace 64-bit operating systems. But when it comes to 32-bit operating systems, “old faithful” Windows 7 holds the top slot. And why not? It still works.

### **#5: Windows 10 – 32 bit**

Unlike 64-bit operating systems, with 32-bit operating systems the results are flipped: more Windows 7 than Windows 10 users. If you're going to hold on to a frozen system because it works the way you want, might as well keep it at 32 bits.

#### **#6: Windows 8 – 64 bit**

Frankly, this result is somewhat puzzling. Microsoft ended official support for Windows 8 early this year—so there are no more security patches or crucial updates unless you update to Windows 8.1 (which is free) or Windows 10. Seriously folks, consider updating...

#### **#7: Windows 8.1 – 32 bit**

This is definitely a better choice than Windows 8, but there's still a lot to be said for going 64 bits when it's time for a new machine.

#### **#8: Windows 8 – 32 bit**

There's a rapid dropoff in session count from 32-bit Windows 8.1 to 32-bit Windows 8, but the same comment applies: you *really* need to update to 8.1. Everything should still work as expected, and you'll be able to receive ongoing mainstream support until January 9, 2018 (with extended support until January 10, 2023).

#### **#9: Windows Vista – 32 bit**

And now, the hardy holdouts: 32-bit Windows Vista represents a minuscule 0.0001% of the total session count. (Then again if I was running 32-bit Vista, I too would probably be discouraged from using it very much.)

#### **#10: Windows Vista – 64 bit**

Vista got a really bad rap for a variety of reasons, but the reality is that by the time you finished doing all the updates, it had essentially become Windows 7. However, as a 10-year-old operating system, it's far from cutting edge. Too bad the free update to Windows 10 wasn't available for Vista, whose mainstream support ended over four years ago.

### **Conclusions**

These stats make it clear that SONAR users are big-time fans of 64-bit computers. Also, 66% of all SONAR sessions are done with 64-bit Windows 10. For comparison, in the overall world of computers Windows 10 has about 23% overall OS market share, while Windows 7 still dominates at 47% (as of August Mac OS X 10.11 has 4.38%, Linux 2.1%, and Windows 8.1 8%).

Remember, though, that these stats aren't based on which OS is installed, but which OS is used for the greatest number of sessions. So while the total universe of SONAR users may not be on Windows 10 yet, the ones who are the most active, and do the most work with SONAR, clearly favor the most recent and highest-performance options.

# Anatomy of a SONAR Project: A Shootout in the Wild West of an Industry

By Jimmy Landry

Everyone knows the music industry has changed drastically in the last decade. From record companies taking a back seat, to 100k+-seat-venues being sold out at astronomical ticket prices for “electronic experiences,” just about every facet of the business is no longer “same as it ever was.” And the commercial side of music creation has changed as well. Not too long ago, I’d get lucky once in a while when my phone rang, and my manager said “Company X” wanted a piece of music for something by the end of the week. Depending on what they wanted, this “work for hire” could pull in a cool \$5k – \$10k plus residuals for way less than a week’s work.



As we fast forward to 2016 with the home-studio DAW revolution, we now have what the commercial music industry calls a “shootout.” From agents, to music supervisors, post houses, song pluggers and just about anyone else in between who has relationships to get their hands on a hot, time-sensitive “creative brief,” many composers/producers are now working on a “shootout” basis. Here’s what that means.

As in the past, companies who use video advertisements for their goods and services often do not have the capacity to put together a full sync production. These companies use creative companies such as The Music Playground or Butter Music to execute their message. The client works closely with a company’s team to put together a “creative brief.” This is the instrument that converts the advertisement’s overall message from the executives into musician’s terms. Once created, the creative team then moves forward to generate the music and sound for the advertisement using its pool of composers, producers, and musicians.

A common method (or flow if you will) nowadays is for a trusted composer or producer to be on a list of one of these creative companies. When the creative company has a job, it will then reach out to several suitable composers who work in a style that matches the goal of the creative brief to start the shootout process. Sometimes, there’s a small honorarium for each producer/composer selected for the shootout process, and then if/when their submission is chosen by the advertising company they will then win the “purse.” These purses range greatly in price these days; they can still be worth up to \$15k or \$20k, but a more common range is

\$2.5k – \$5k. There can also be residual income from intellectual property on these with AFM (American Federation of Musicians), SAG (Screen Actors Guild), and PRO (Performing Rights Organization) collection, depending on the contractual agreements.

So in this web of shootouts, not only can a composer/producer get a call from a creative agency, but work can also come in from other musicians as in the case of this Anatomy of a SONAR Project. Recently I received an email from my friend, industry colleague and neighbor [Jody Redhage](#) who currently is one of the most sought-after cellists in the industry. She has been in Esperanza Spalding's band, toured all over the world, and has played some very high-profile venues including The Tonight Show, Carnegie Hall, Lincoln Center, Radio City Music Hall and the Hollywood Bowl just to name a few. As a composer, she is plugged into some creative agencies similar to my network, and we sometimes work on projects together.



For this shootout, we got the creative brief from an agency that was working with a car company on a new internet-only video to air during the winter. Creative briefs vary, but in the case, the client had a very specific vibe in mind. They'd been hoping to use Talking Heads' "Road to Nowhere," but David Byrne doesn't license to commercials so they needed original music.

The creative brief had several requirements:

- Hitting a deadline (and of course, it's always sooner than you'd like)
- An organic, intimate, human quality with a single male vocal.
- Lyrics that conveyed a particular sense of traveling for the sake of same, without a particular destination.
- A "people making music in a room" vibe—no four-on-the-floor overdone clap-folk music, and if any orchestral elements were used, they had to feel modern.
- The track needed to have personality and make a creative statement, not sound like "math homework."

So within those parameters, it was time to start writing and recording.

## WRITING AND SKETCH

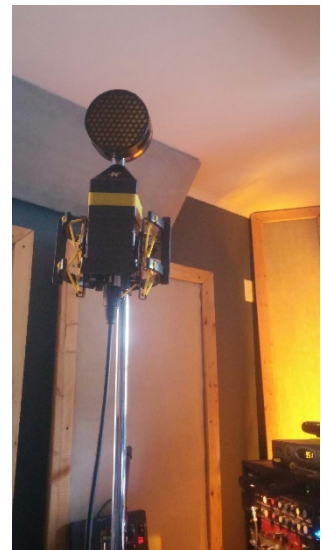
So away we went, and I knew the most important aspect for me was to keep it simple. Sometimes SONAR makes things so easy to produce, one can get a bit carried away.

The first and most important focus was on the piece's lyrical direction and melody. The imagery of the spot was amazing and really quite fun to write music to. I had a few simple chord progressions with melodies that I ran by Jody, and let her pick the one to develop...which is the beauty of working on a project with someone who has a great musical sense.

After a few hours we had the backbone of a decent track by just having one mic up in the room for demo purposes. I've been around the block a few times with this type of shootout, winning some and losing some, so I knew that the key to this type of project was going to be making it sound like a real "song" and not a commercial "spot." This meant I had to learn the vocal performance so well so that it would feel like a real song when recording. So, I called it a night so that I could actually practice what we came up with vocally, and also organize the SONAR project a bit. I also spent some time planning on how I would track this piece, which was a bit unorthodox in the instrumentational sequence...keep reading.

## TRACKING CELLO

The next night we started in on the tracking, and I decided to try something different than my normal track development routine. Because the agency was calling for a more organic type of song, I fought every tendency I had to use a click track and ended up tracking freely. Jody Redhage is a machine with timing and we actually ended up cutting the cello as the backbone track to the song—indeed unorthodox, but I had a plan working backwards. I'd tracked Jody in the past here in my room, so I knew the setup on how to get a great sound. For capturing the low end I used a Neat King Bee mic (which really does a great job getting full sounds below 300 Hz) through a Yamaha PM1000 preamp (a lucky find out of Nashville, racked up as a stereo pair). Up near where the bow strikes the strings, I used an AT4033a through a Neve 1073 knockoff made by Golden Age.



## ACOUSTIC GUITAR

Next up was the acoustic guitar tracking, which involved doubling the parts L/R using my [ADK Hamburg and Vienna mics](#) through a Rane Mb1 preamp on one side, and a TASCAM UH7000 preamp on the other. Since this track wasn't very complicated, I was able to think through

some techniques before getting to the mix. I had one mic super close during take 1 on the 12<sup>th</sup> fret, and then with take 2 moved the mic 12 inches away. This created some “depth” for the mixing process.



## BASS

The bass tracking came next, which took three minutes. I went direct into the PM1000’s instrument input with a Tobias bass, and kept the lines really simple. After tracking, Overloud’s TH3 amp sim was ideal for dialing in the bass sound with the rest of the very acoustic tracks.

## PERCUSSION WITH ADDICTIVE DRUMS 2

Now it was time to dive into SONAR’s Addictive Drums 2 kits to execute part of the master plan with this track...finger drums! Yes indeed; because the track was 30 seconds long, we didn’t track to a click track, and drum simplicity was to be a key component, using controller “freestyle” for drum parts worked out perfectly. After going through the track about five times I had all the minor

nuances in my head, and could conform the timing to the track. I ended up in SONAR’s Piano Roll View after the take to shift a few notes around by ear, but the final result sounded decent and had a good vibe.

## VOCALS

Now with the base of the song tracked, it was time to move on to vocals before laying down the final colorings. I often prefer this approach with my style of writing, because it allows room



for the vocal melody inflections before the track gets too busy. It also allows for final color to be added as an embellishment to the vocals, which are most important to a listener’s ear. The great thing about SONAR with these types of projects is that it’s so easy to organize workflow. At this point in the process, everything went neatly into track folders so that I wasn’t



overwhelmed with track counts. I even have track folders for the scratch tracks, which makes it easy to go back and find parts as originally written.

## COLOR

After I quickly tracked, comped, and edited my vocals using an Advantone through a Golden Age Pre73, I started working on some different ideas to add counterpart to the song. There was a lot going on between 80 Hz – 500 Hz, so I threw a capo on my Les Paul’s 5th fret, which really did the trick: using the guitar’s upper register with some open chords created a nifty vibe that had been lacking. Keeping true to the organic request, I kept the tone pretty clean except for some spring reverb and tape delay to sweeten the sounds. (By the way, upgrading to TH3 from TH3 SONAR is well worth the price. I’ve A/B’d a lot of guitar simulators, and TH3 is one of the few that stays big in the mix when surrounded by big tracks.)

## MIXING AND MASTERING

This mix was pretty easy since I’d kept the tracking to a minimum. As always, the percussion tracks came first. Thanks to SONAR’s Track Templates the drums were already routed to separate tracks, sent through buses, and ready for any final treatment. Using David Bendeth’s DB+10 plug-in on a parallel compression bus gave more depth to the kit as a whole. I also brightened up each track individually with the Quadcurve EQ, and alleviated some trouble frequencies with a few tom hits.

The bass didn’t really need much help besides some gentle compression and EQ’ing to mesh with the tom hits. Since the bass part itself was more or less of a wash just to add some low end, there was no concern about a “bass part” fitting in. The acoustic guitars needed some help as they usually do—particularly some low-mid frequencies that needed notching. I also added the Waves “Maserati Acoustic” plug-in to each acoustic guitar track, which gave a “woodier,” brighter tone. I’m not afraid of presets with the Waves plug-ins; they’ve done an amazing job of providing great “points of departure.”

The cello and acoustic guitar parts were next. The close mic for the acoustic guitar was panned about 65% on the left, and the far mic on the right at 100%. I implemented the same orientation for the cello, with the bow mic on the right at 65% and the Neat (low end, and EQ’d



to fit) mic on the left. This panning strategy gave an even, full range of acoustic instrumentation with great ambience on the outside of the spectrum. These tracks were then sent to a master acoustic bus for further minimal treatment with more EQ and light compression.



The FX Chains presets in SONAR are a life saver for projects like this because you're able to dial in effects so quickly. I have about 20 different chains for vocals that I've used when doing these shootouts. The chain for this one includes the waves Rvox, Cakewalk's CA-2A, the PSP McQ, and the Waves DeEsser.

Through this chain my vocals sat well in the mix almost immediately. On the final mix (as you'll read below), I used a track where Jody sang way in the back and right

in the middle, with a good amount of Breverb and a mono delay. This gave the track a whole new "campfire" vibe, but was also inconspicuous enough that it didn't get in the way.

Mastering isn't very important at this stage. I mix thinking that the master is just going to be louder, because at the end of the day if this track was selected, I would be delivering a mastered and non-mastered version. For this track I used Cakewalk's new Linear Phase plug-ins, and then upped the volume through the T-Racks "Classic" plug-in using the Softclipper.

## DELIVERY, REVISIONS, RESULTS

After uploading the files to the agent's folder (yes, we made the deadline), we received feedback in less than four hours. The agency had already been in contact with the marketing executives and as always, they were very blunt with their feedback:

1. Love the vibe of the track – nailed the overall feel.
2. Love the mix and production.

3. Love lyrics are dead-on.
4. Vocal part does not fit the desired message. It overtakes the piece and is too much for what they want. It also seems too “rock” oriented and needs more “campfire.” Can you revise the vocal melody and resubmit?
5. This track could be considered if the vocals had a different approach.
6. If revised, it would need to be submitted by noon (tomorrow PST).

So it was back to the drawing board with the vocals. Because the track was completed, the main task was to pick my acoustic back up and grind away at the melody. Jody came back at 10 PM, we worked out a few ideas, and began tracking. This is another strong SONAR asset, and why I think so many commercial composers use the program: revisions are a snap. I was able to track a few new vocal melodies, and Jody sang unison an octave higher on the track to give it that “campfire” vibe they referenced. I buttoned up the two versions and sent them off around 1 AM to the agency.

About 12 hours later we received an email acknowledging the tracks were received, and we’d be informed if instrumental and acapella versions needed to be cut. At this point of the journey, as usual it was just a waiting game...12 hours...24 hours...36 hours—is no news good news?

Finally, about 3+ days after starting the project we received an email with the verdict. It read similarly to those emails you get after a job interview when they select another candidate...

With all that said, getting shot down in a shootout is really not a bad thing and far from a waste of time. Here are some positive takeaways I learned from this specific shootout for anyone going down this road in the future:

- 300 bucks is 300 bucks 😊 (the honorarium paid for this submission; the agency does not own the master or underlying composition).
- Anytime you get to a second round with an agency, you know they’ll circle back to you in the future for more projects.
- Jody will certainly ring my cell again on projects like this.
- We now have a good 30-second spot that could fit into another campaign someday—or it can easily be turned into a full song to be released.

And now we’re ready for the next one! You can listen to the reference track [here](#).

## Scholarship Opportunity for the SONAR Community

Composer Jerry Gerber is a long-time SONAR user and community member; we covered his latest recording *Virtual Harmonics* in the “Anatomy of a SONAR Project” feature (February 2016/“Newburyport” Cakewalk eZine). However he’s also a well-known teacher who from time to time, offers scholarships to serious students whose potential could be further realized with more knowledge and training.

Jerry is offering three months of weekly instruction to a young (under 35) composer who is passionate about music composition and production. Although there is no charge, candidates must meet certain qualifications to be considered.

- Must play a traditional musical instrument (not, for example, an iPad)
- Can read music
- Has experience composing and producing music
- Musical interests must include classical music

Ideally, being local to the San Francisco Bay Area would allow for personal interaction. However Jerry has a lot of teaching experience using Google Hangouts, so candidates from anywhere in the world are eligible. Depending on the student’s needs, the focus can be on composition/MIDI orchestration, or production issues including sequencing, mixing, signal flow and software synthesis, as well as an introduction to tonal counterpoint or classical harmony. One reason he’s approaching this community is because SONAR users will be able to benefit from his many years of working with the program.

If you’d like to be considered for this unique opportunity, please email Jerry directly at [jerry@jerrygerber.com](mailto:jerry@jerrygerber.com). For more information about his teaching practice, background, and areas of expertise, please visit [www.jerrygerber.com/teaching.htm](http://www.jerrygerber.com/teaching.htm)



***Jerry Gerber*** has written orchestral and chamber music, songs, piano music, vocal music and music for electronic instruments. He received his Bachelor of Music in composition and classical music theory from San Francisco State University in 1982 and has composed for film, television, computer games, concerts, dance and interactive media. His latest recording, *Virtual Harmonics*, was recorded using SONAR and a variety of virtual instruments.

## Review: CME Xkey Air, Where MIDI Meets Bluetooth

By Craig Anderton

The [Everett release eZine](#) reviewed the CME Xkey 25, a thin-profile mobile keyboard with (among other features) polyphonic aftertouch. Now we have 25- and 37-key versions of the Xkey Air (\$199 and \$299 respectively), which transmit MIDI wirelessly via Bluetooth Low Energy (BLE) and also serve as traditional USB keyboards. Physically, the new keyboards are very similar to the original models, so please check out the original review for background.



*The 25-key Xkey Air*

The idea of wireless is appealing—I'd love wireless headphones when doing overdubs! I didn't really think about how much cables get in the way until I bought a wireless keyboard and mouse, and now I wouldn't mind more options. Although (at least for now) Bluetooth isn't really suitable for studio-quality audio, it can handle MIDI's relaxed bandwidth requirements easily.

**Meet Bluetooth Low Energy.** Reliance on BLE is both the good news, and the bad news. The good news is that it's faster and more efficient than standard Bluetooth. The bad news is that it's available on only the most modern hardware, and sometimes not even that. I tried the Xkey Air (37-note model) on a mid-2012 MacBook Pro running El Capitan, a circa 2013 HP laptop with Windows 10 Anniversary Edition, a pre-Lightning iPad, an Intel NUC (also running Windows 10

Anniversary Edition), as well as my venerable PC Audio Labs desktop computer. None of them recognized the Xkey Air as a Bluetooth device, nor was pairing possible.



The good news is that you can get the \$49 “WIDI BUD” USB dongle, which plugs into an available USB port and translates the MIDI messages from the Xkey Air. With this, I was able to get the Xkey Air working with all of the above devices. While Bluetooth has a reputation (deserved or not) for being unreliable and difficult to pair, the Xkey Air + WIDI BUD performed flawlessly with everything I tried. According to CME, Xkey will also work with Android and Linux.

**Xkey Air Differences.** Although superficially the Xkey Air looks like the standard Xkey, there are some under-the-hood differences. First, there’s an internal, rechargeable Lithium battery which CME says provides about 10 hours of operation on a single charge (charging occurs through the USB port). However, the battery does not appear to be user-replaceable, which I find problematic. At least when the battery loses its ability to hold a charge someday, you’ll be able to use the Xkey Air as a USB keyboard—but that defeats the purpose of buying a keyboard to be wireless.

Second, there are LEDs to indicate Bluetooth/connection/power status, and an on-off switch. This needs to be turned on when using USB.

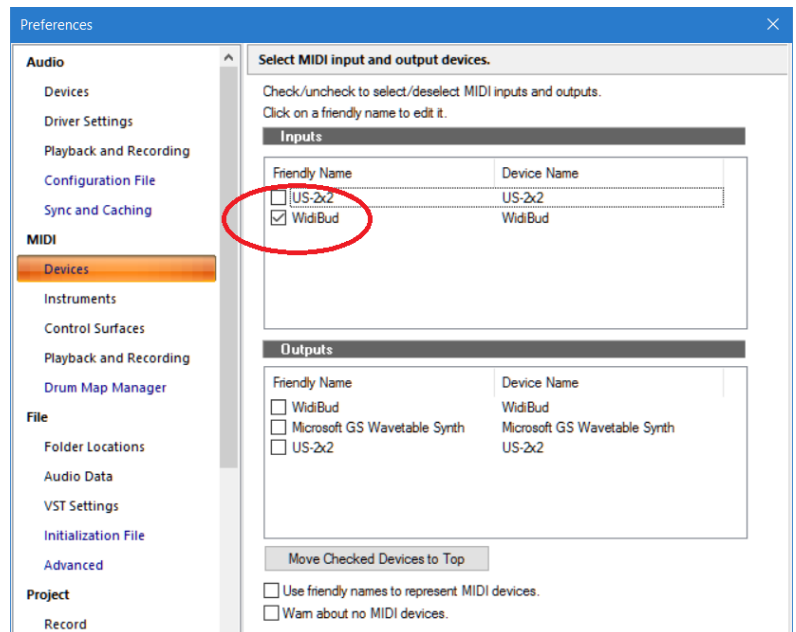
Third, the standard 37-note Xkey has a port for a breakout cable with MIDI out, and ¼” jacks for a pedal and sustain switch. The Xkey Air eliminates this port; I don’t know whether it’s for technical reasons, or because the assumption is that if you’re using the Xkey Air because you don’t want wires, well, you don’t want wires. The only other obvious difference is a sticker on the top key that indicates there’s Bluetooth functionality.

**What about Latency?** This surprised me: CME quotes a latency spec of around 7 ms (or only slightly more than a standard USB keyboard), and given the response, I believe it does indeed hit that “under 10 ms latency” sweet spot I need for something to feel responsive. Latency was not an issue for me at all, nor apparently was it an issue for the several big-time musicians who talk about it on a video on the [cme-pro.com](http://cme-pro.com) website.

**Don’t Lose the USB Cable.** All Xkey models ship with a 41”/104 cm USB cable that terminates in a micro-B USB connector for plugging into the Xkey’s USB port. The connection is standard, but the plug’s physical size is thinner than the USB cables you’ll find out in the real world, because the keyboard itself is so thin. So don’t lose the cable—and don’t lose the WIDI BUD dongle either, it’s pretty tiny.



**Installation Cautions.** CME doesn't provide much documentation about using the Xkey Air with Bluetooth. When I tried conventional pairing, as I would expect for any Bluetooth device, nothing worked. Only after trial-and-error did I figure out that I didn't *need* to—the Xkey Air automatically connected with the WIDI BUD, which dutifully showed up as MIDI I/O in SONAR's preferences and passed its data along. It seems that as long as WIDI BUD appears in Windows' *Control Panel > Settings > Connected Devices*, you're good to go and don't need the usual Bluetooth pairing procedure. Also note that the WIDI BUG has a red LED to indicate it's connected to USB, and that when you send it data, the LED blinks...a helpful confirmation that all is well.



**The Xkey Plus Software.** I mentioned this in the previous review, but there's been a major update that anyone using an Xkey should know about: it now allows saving and loading presets. This is a big deal, because you can do a lot more than trigger notes with the Xkey (e.g., it can be a Program Change generator) and there are many customizable elements. Being able to save all your setups is a great feature.



version and various accessories, like the USB cable and a USB cable extender.

**Accessories.** Stage-strutters will appreciate the \$49 Xclip, which clips on to the 37-note version and adds guitar strap-friendly buttons. You also have a choice of two carrying cases, the \$25 Supernova which holds the 37-note version (of course, it holds the 25-key version too if you don't mind it moving around inside), and the \$40 Solar case which is designed to hold both the 25- and 37-key versions. However the Solar carrying case is just as suitable for holding the 37-key

## Curiosity, or Wave of the Future?

As those who read the previous review know, I like the Xkey keyboards a lot. While intended for mobile use, I have the 37-key version within easy reach when sitting at my computer; the convenience factor is huge. I also love that it has polyphonic aftertouch, even though few soft

synths implement poly aftertouch reception properly (which unfortunately includes Cakewalk's instruments). Oh well, there's always hardware...

Furthermore, these keyboards don't feel cheap. The sturdy construction means they stand up to the rigors of the road. The foundation is brushed aluminum, and despite having limited travel, the keys respond well to velocity. It doesn't take much effort to get used to the low "action."

But there's also the matter of price. The standard 37-note Xkey costs \$199, and given that the Xkey Air will likely need the WIDI BUD unless you're a really cutting-edge kinda gearhead, the cost goes up to \$348. So the question is whether it's worth the extra bucks to you to cut the cable; I'm sure some people will say "Yes, absolutely!" while others will say "That's okay, I'll cope with a cable for now."

Regardless, I get the feeling this isn't a one-off novelty item, and that we'll see Bluetooth LE make further inroads into the studio for keyboards, control surfaces, and other devices that don't depend on audio fidelity. CME has done a really good job of making wireless BLE practical even if you don't have the latest hardware, so if you've been wanting to cut the keyboard cable, that day has arrived. And if you haven't, the standard Xkeys are better than ever, thanks to the more evolved XKey Plus application software.

## Surfboard



Surfing the boards in the SONAR forum can uncover a wealth of great tips, like these...

### [SONAR Platinum on Lowest-End Hardware](#)

Can you really run SONAR on a low-end tablet? Software developer Alexey Zhelezov (azslow3) put the combination through its paces, files a detailed report, and comes to some interesting conclusions—as well as elicits some interesting comments from the community.

### [How Do You Organize Your Projects?](#)

When you're creating a lot of projects with SONAR, you don't want it to turn into a giant, uncured mess where you can't find what you want, or don't know what it was done. This thread describes several useful organizational methods that have worked well for people in the community.

### [Dark Aqua Theme](#)

When it comes to new themes, the hits keep coming—and community member TranceCanada has come up with some beauties. "Dark Aqua" is a beautiful theme that's easy on the eyes, and judging from the response, the consensus is that it's well worth the download.

### [No Pentagon in Platinum](#)

This older thread surfaces from time to time because of Pentagon fans synth who are disappointed they can no longer open it in SONAR Platinum. But it is possible, and this thread mentions the various ways to load this "vintage digital synth" (with an actual vocoder!) into SONAR.

### [Kontakt 5 is Causing SONAR Platinum to Hang](#)

From time to time, perplexing problems crop up that seem to have no clear-cut answer. But often, the forum is able to find the solution. Ultimately, the solution was a registry change, but the process of trying to troubleshoot—even if some suggestions don't lead to the right solution—can reveal what to look for when encountering similar problems.

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