



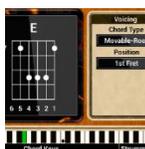
SONAR 2015 “Foxboro” Release

The SONAR "Foxboro" update continues to make improvements in core SONAR functionality, as well as add enhancements to the critically acclaimed Cakewalk Drum Replacer. Foxboro also includes Cakewalk's

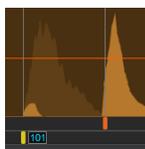
breakthrough *Plug-In Upsampling* feature to provide the benefits of processing at higher sample rates within 44.1 and 48 kHz projects, along with A|A|S Strum Session 2 SONAR Edition, a new EDM Percussion Library from Craig Anderton (it's useful for *much* more than just EDM), and a review of Esi's MIDIMATE II interface cable. And of course, we couldn't release Foxboro without poking a little fun at the recent New England Patriots controversy with our very own version of Deflate Gate. Now go have fun, and make some music! – *Bill Jackson and the Cakewalk Team*



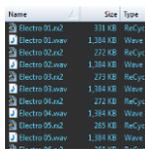
Plug-In Upsampling for Better Audio: Processing or generating audio from virtual instruments at high sample rates can make an audible improvement by eliminating foldover distortion—but the higher sampling rate taxes your CPU. This exclusive Cakewalk feature gives the benefits of processing at higher sample rates in a standard 44.1 or 48 kHz project.



A|A|S Strum Session 2 SONAR Edition: This substantial upgrade from Strum Acoustic Session 1.0 features a collection of acoustic and electric guitars, and offers many of the enhancements in the full version of Strum GS-2. Additional features include a new electric guitar strumming engine, streamlined interface, revised string module, new loop mode, new compressor and EQ modules, and much more.



Cakewalk Drum Replacer Enhancements: Multiple new features include FLAC file support, extended MIDI note range options, user markers with adjustable position and velocity, sample playback offset, “filter off” mode so all frequencies are eligible for hit detection, and persistent data caching to speed up load times (also, re-analysis is no longer required after slip-edits), and additional optimizations.



EDM Percussion Loop Library: Introducing Craig Anderton's EDM Percussion Library, with 66 unique loops (tambourines, electronic-sounding percussion, and “electro” percussion—132 loops total, 102 MB) in both REX (.rx2) and Groove Clip/Acidized WAV format. Dress up your rhythm tracks for almost any type of music, not just EDM, with these stereo, 24-bit, expertly crafted loops.



Deflate Gate FX Chain: No need for controversy here, because the new Deflate Gate FX Chain is perfectly legal to use in any production. We wondered what it would sound like if you were letting the air out of a track or loop—and Craig Anderton tried to recreate it. It's not your normal processor, so make sure you read the documentation. #FreeTomBrady.



Workflow enhancements and fixes: This update includes fixes to the Cakewalk Drum Replacer (in addition to the enhancements mentioned above) along with improvements in VST third-party compatibility, ARA-based operations, Piano Roll View, and more—as well as additional support for the new Command Center 1.1 update coming in July.



Esi MIDIMATE II review: When you need an extra MIDI port, this ingenious (and relatively inexpensive) USB 2.0 MIDI cable has two connectors that can be dual MIDI ins, dual MIDI outs, or MIDI in and out.

How to Download Foxboro

Open the **Cakewalk Command Center**, then download from the following locations.

EDM Percussion Loop Library and **Deflate Gate**: Anderton Collection. Deflate Gate will be installed in the Anderton Collection **Drums** folder. EDM Percussion Loop Library will be in the **Audio Library** section under **Loops**.

Strum Session 2 (Platinum only): Platinum Instrument Collection category

Everything else: The core SONAR Artist, Professional, or Platinum category

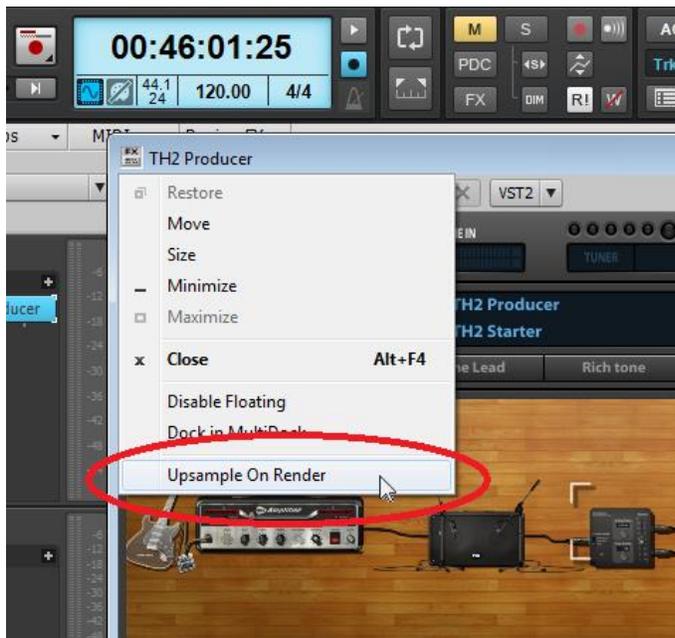
Plug-In Upsampling for Better Audio

Artist, Professional, Platinum

Some plug-ins, both processors and virtual instruments, can produce unwanted artifacts when running at lower sample rates (e.g., 44.1 and 48 kHz) if they don't oversample internally and lots of high frequencies are present. Most modern plug-ins give the option to oversample at the expense of drawing more CPU power, but many older ones still in common use do not. Amp sims and synths are affected the most, but so are dynamics processors and some reverbs. The artifacts result from "foldover distortion," which produces a sort of "wooly" noise when higher frequencies from the digital signal processing "fold back" to create noise in the audio range.

The typical workaround is running projects at higher sample rates, such as 88.2 or 96 kHz. However this uses more CPU power, which can limit the number of tracks and plug-ins you can run in real time.

UPSAMPLING ON FREEZE/BOUNCE/EXPORT



This breakthrough feature provides the benefits of processing or generating audio at a higher sample rate in projects using lower sample rates (e.g., 44.1 or 48 kHz). When selected, SONAR begins the bounce process by upsampling the incoming audio to the specified higher sample rate, processes the plug-in at the new rate, then downsamples the resulting output to the current project sample rate. This process happens automatically, behind the scenes; it works with VST, DX and/or virtual instruments.

LIMITATIONS OF UPSAMPLING

Please note that only some plug-ins, generally older ones, benefit from upsampling and only if significant high frequencies are present. If no harmonics exist that reach into the range of the clock, there will be no foldover distortion, hence no need for upsampling.

There can be a significant improvement in sound quality with some plug-ins, no improvement with others, and a few may actually sound worse. So, upsampling is enabled on a per-plug-in basis—in other words, enabling upsampling for one plug-in enables it for all instances of that one plug-in, in any project. Because this rendering process is CPU-intensive, do not enable upsampling for a particular plug-in unless you can hear an actual difference.

Note that SONAR's high-end sample rate conversion requires considerable CPU power, so this process is available only when doing a fast (non-real-time) bounce. Also, the maximum upsample rate is 384 kHz, so upsampling is not available for projects that run above 192 kHz; and at present upsampling cannot be applied to plug-ins in surround buses, or to bit-bridged plug-ins or region effects. Finally, note that some plug-ins may not support operating at a higher sample rate. In this case, SONAR displays an error message toast notification, and performs the plug-in bounce at the original project sample rate.

It's also important to remember that the sound designer probably built a sound based on what was heard. If you now process at high sample rates, the sound may be brighter because the high frequencies are no longer being folded back, and there could be less perceived low end because the foldover distortion is no longer there. Whether that sounds "better" or not is subjective.

WHY UPSAMPLING CAN IMPROVE AUDIO QUALITY

It may seem counter-intuitive that after upsampling to a higher sample rate and rendering, returning to a lower sample rate preserves the benefits of working at the higher sample rate. However, these benefits occur in the audio range, and as low a sample rate as 44.1 kHz has no problem reproducing sound in the audio range. Because upsampling processes at higher frequencies, when sample rate-converted back to a lower sample rate, the frequencies that could cause foldover distortion are no longer present.

HOW TO ENABLE UPSAMPLING

A new option in the plug-in window's System Menu (click on the button in the plug-in window's upper left) specifies whether a plug-in should be upsampled to a higher sample rate when

bouncing, rendering, freezing, exporting, etc. This option persists globally for all instances of the plug-in in all projects, so it needs to be set only once per plug-in. It can also be disabled at any time.

Applied Acoustics Strum Session 2 SONAR Edition Platinum



This update to Strum Acoustic Strum Session has major, important improvements that increase this plug-in's versatility while offering a better solution than ever for adding convincing, stylish MIDI-based guitar parts. With a collection of both acoustic and electric guitar sounds, automatic chord recognition, sophisticated chord voicing, integrated strumming and picking action, MIDI riff library, amp emulation, and effects, playing guitar on a keyboard has never been so easy. Compared to Strum Acoustic Session, Strum Session 2 offers the following additions and improvements:

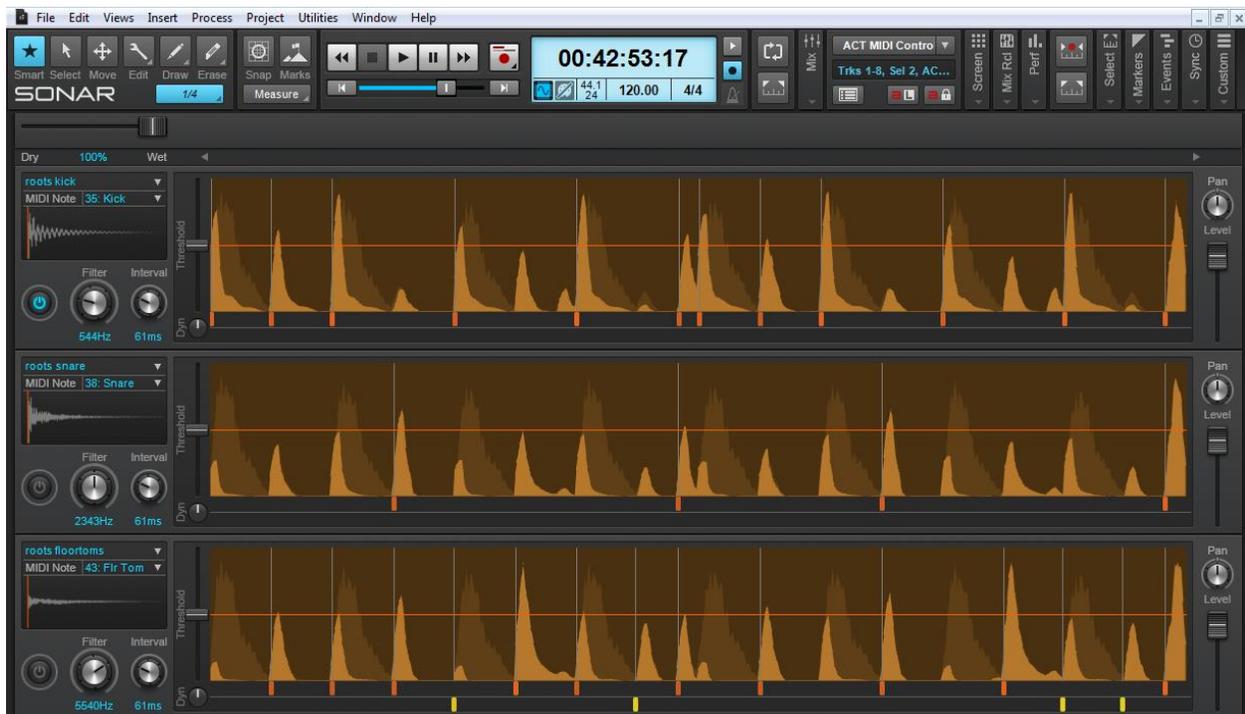
- New electric guitar engine
- Amplifier with spring reverb
- A completely revised string module, finer pick/finger interaction, integrated coupling at the bridge, and precise acoustic guitar body response
- Revised strumming engine for expressive and natural strumming
- Re-designed, streamlined interface
- New bank and program manager
- New Loop mode with a MIDI riff library comprising 518 loops arranged in 74 packs for acoustic and electric guitar
- New Keyboard mode

- New preset library with 12 acoustic guitars (nylon and steel-string) and 12 electric guitars
- New Compressor and EQ modules
- Aftertouch Threshold in MIDI panel
- Parameter value entry via computer keyboard

Cakewalk Drum Replacer Enhancements

Platinum

The Cakewalk Drum Replacer has already proven its worth, and these enhancements make it even more flexible.



USER MARKERS

To add user markers (shown in yellow) to the performance, left-click in the row below the detected markers. While holding the left mouse button, the marker line appears so you can place the marker more precisely in relation to the audio. To remove a marker, right-click or right-click swipe.

SPECIFY VELOCITY

To specify a velocity for the user marker, click an inserted user marker and drag up or down. The cursor will be replaced by a value shown next to the user marker, which will remain until releasing the mouse button.

SAMPLE PLAYBACK OFFSET

The vertical line that appears over the loaded sample's graphical display can be moved horizontally to represent where the sample will play back in relation to the hit marker. Earlier positions result in later playback, whereas later positions result in earlier playback. The bottom of the line will display an offset value (in milliseconds) while the operation is in progress.

FLAC SUPPORT

Drum Replacer supports FLAC files directly, as well as via .sfz files that reference FLAC audio. This lets you use all the cool samples you've acquired over the years for Session Drummer.

EXTENDED MIDI NOTES

Drum Replacer now offers the following notes from the MIDI Note combo box:

- **35:** Kick 2
- **36:** Kick 1
- **37:** Side Stick
- **38:** Snare 1
- **39:** Clap
- **40:** Snare 2
- **41:** Low Tom 2
- **42:** Closed Hat
- **43:** Low Tom 1
- **44:** Pedal Hat
- **45:** Mid Tom 2
- **46:** Open Hat
- **47:** Mid Tom 1
- **48:** High Tom 2
- **49:** Crash 1
- **50:** High Tom 1
- **51:** Ride 1
- **52:** China
- **53:** Ride Bell

FILTER OFF MODE

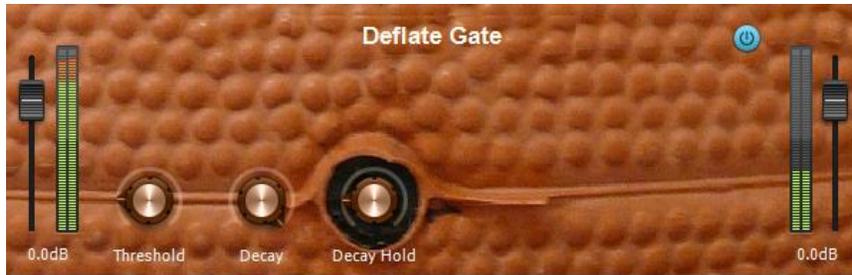
Setting Drum Replacer's lowest filter value to "Off" applies no filter, so all frequencies are eligible for hit detection.

PERSISTENCE DATA CACHING

Unlike Everett, where opening Drum Replacer analyzes the audio data, persistence data is now being cached so that upon reopening a project, Drum Replacer foregoes the analysis and uses predetermined information. Re-analysis will also not be required for slip edits; slip-edited data will be darkened in the Drum Replacer waveform UI.

Deflate Gate FX Chain

Artist, Professional, Platinum



It started as a joke... “Hey, it’s the Foxboro release, the Patriots play there...we need a *Deflate Gate!*” But then it turned into a challenge: What would be the sound of squeezing the air out of something? Regardless of whether Deflate Gate produces that sound or not, it can produce some interesting effects that are particularly useful when you want to “pump” sustained sounds in the context of EDM.

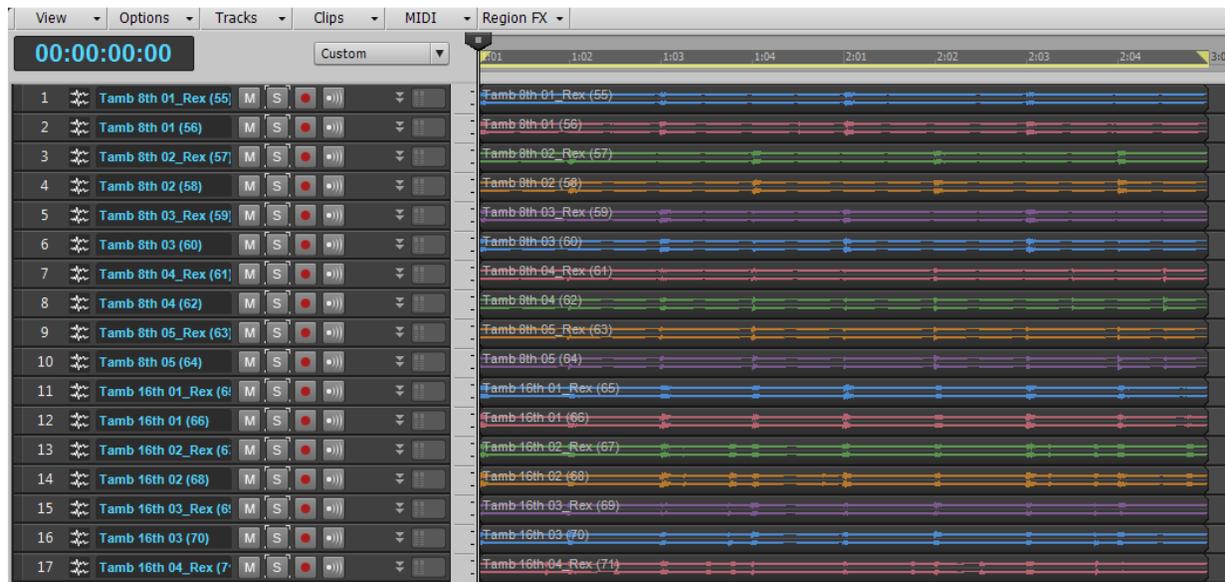
Note that although Deflate Gate is in the Drums folder of the Anderton Collection FX Chains, it is also excellent with sustained sounds like pads and power chords.

How the controls work is *not* intuitively obvious, so here’s how to make it do cool things. Deflate Gate is related somewhat to having a compressor smashed by a sidechain (in fact, sidechaining this effect can do provide some very interesting effects as well).

- 1 Start with the Decay and Decay Hold controls up halfway.
- 2 Adjust Threshold for reliable triggering. This will be between 10-25% or so with signals that are close to maximum level. Turn clockwise for softer signals. Note that the input signal has to go below the Threshold to “reset” the gate.
- 3 Edit Decay as desired. Counterclockwise give a more percussive effect, clockwise more like a compressor being squashed by a sidechain.
- 4 Decay Hold sets how long the signal stays “deflated.”

EDM Percussion Loop Library

Artist, Professional, Platinum



This unique percussion loop library features three folders:

- Tambourine loops
- Electronic-sounding percussion
- Electro percussion loops

However, note that the Electro loops are good for a lot more styles of EDM than just electro—and we bet you haven’t heard these sounds before. Also, the tambourine samples work extremely well in pop and rock productions, as do the “electronic-sounding percussion” samples. Taken as a group, you can find suitable percussion accents for a wide variety of musical styles with loops that stretch well over a wide range of tempos.

TEMPO STRETCHING

Each loop has a “native” tempo (see Specifications, below). Note that the REX and Groove Clip (WAV) formats have different strengths and limitations that apply to loops in general, not just this particular loop library.

- REX files stretch well over a wide range of tempos. REX files stretch more elegantly to slower tempos than WAV files.
- Groove Clip files stretch over a wide range, but sound better when sped up compared to being slowed down.

- Because of the different stretching processes, the two types of loops will usually sound close to identical at their native tempos. However when stretched, they can sound somewhat different from each other—audition both, or layer to add variations.

SPECIFICATIONS

- 66 unique loops in both REX (.rx2) and Groove Clip/Acidized WAV format (132 loops total)
- 102 MB of loop content
- 44.1kHz sample rate
- 24-bit resolution
- Stereo format
- Native tempos: 90 BPM (Electro folder), 100 BPM (Tambourine and Percussion folders)

Fixes and Workflow Enhancements

Artist, Professional, Platinum

ARA

Resolved a potential crash when inserting more than one measure of time before a Melodyne clip

Console View

Fixed an issue where double-clicking icons in the Console View would not open icon folders

Drum Replacer

- Added tooltips
- Enabled scrolling while parameters are being adjusted
- Improved click detection for enabling and disabling markers
- Mouse pointer hides while adjusting parameters
- Corrected an issue where filter settings may not persist in certain conditions
- Resolved an issue where deleted markers would persist after re-opening a saved project
- Decreased CPU usage when drawing waveforms for large clips
- Resolved a crash when opening projects with Drum Replacer on multiple tracks
- Resolved an issue where Drum Replacer would not render the final hits in some cases
- Corrected a case where lanes displayed as *disabled* would still output audio
- Increased visibility of waveform preview colors
- Corrected improperly displayed enable parameter on first lane when applied to a clip
- Resolved an issue where cropped clips dragged to MIDI tracks created incorrect MIDI data
- Resolved an issue where Drum Replacer's Now Time marker could get out of sync with the host during playback when delay-compensated plug-ins are used
- Resolved a case where the timing would drift while looping

Help/Documentation

- Corrected "Create One File Per Clip" and "Clip Name" documentation
- Updated to distinguish between copy/paste abilities in track/bus automation vs. clip automation
- Added "Save Copy As" to documentation
- Removed duplicate REmatrix Solo option

Installer

All SONAR and content installers have been updated for Cakewalk Command Center 1.1 (coming soon) compatibility. This improves Command Center's ability to recognize all installed content more accurately.

Lanes/Comping

Resolved an issue where unarchiving a track caused lanes to appear inverted

Miscellaneous

Resolved an issue where switching to MME caused Preferences to draw blank Event List

Event List

Resolved an issue where Event List failed to display note events

ProChannel

Resolved multiple issues where the FX Chain flyout panel header and FX did not update properly

PRV

- Resolved an issue where PRV would display superfluous CC data for unselected tracks
- Resolved an issue where controllers could not be edited after switching tracks in PRV

Staff View

Resolved an issue where extra notes were added to MIDI data when lyrics were entered in Staff View

VST/3rd Party Compatibility

- Resolved audio dropout issues with Music Lab Real LPC
- Resolved a crash when plug-ins were moved between FX Racks during playback
- Resolved an issue where SONAR (64bit) would hang when saving with Autotune 7
- Resolved an issue where BitBridge and SONAR processes would hang when closing SONAR
- Resolved an issue where BitBridge would hang when 32-bit plug-ins with iLok were scanned or inserted

Review: ESI MIDIMATE II USB 2.0 MIDI Interface Cable

By Craig Anderton

There are lots of MIDI interface cables, from companies such as M-Audio, Roland, Yamaha, Alesis, iConnectivity, AGPtek, Sanoxy, etc., that connect 5-pin DIN connectors to your computer via USB. Prices range from about \$10 to \$50, with most around \$30 street. Online reviews for these are generally mixed, although the reason may relate to the frequent comment “it works great if you reverse the in and out plugs.”

These days, lots of audio interfaces forego 5-pin DIN connectors; although I use TASCAM’s US-4x4 audio interface (which does have MIDI in and out), every now and then I need another port or two—hence my quest to find a suitable cable for review.



I found out about the ESE MIDIMATE II USB 2.0 at the 2015 Frankfurt Messe, and was loaned a sample for evaluation. I gotta say, it’s great for several reasons. It doesn’t require a driver, handles 32- and 64-bit systems, is bus-powered, works with Windows XP to 8.1 and Mac OS X, and is easy to forget about because...well, it just works. It’s so simple the user’s guide is reduced to saying “To install MIDIMATE II, you need to find the USB port on your computer. Make sure your computer is switched on and simply connect the cable to the USB port.” Bottom line: If you know what a USB port looks like and realize your computer has an on-off switch, you’re good to go.

But what puts this in the overachiever category is that the two DIN plugs are labelled 1 and 2 instead of in and out. They can be MIDI in and out, two MIDI outs, or two MIDI ins (yes, a MIDI merger) depending on what you choose in SONAR’s MIDI setup menu.

The final test was connecting it to my venerable Ensoniq TS-10 to see if I could choke the cable by sending it ginormous amounts of polyphonic aftertouch data, thruing it through SONAR, then with Local Off, returning it back into the TS-10 so I could hear it. The cable just kept shoveling data into the computer and shoveling it back out again.

I’m sure there are plenty of other USB cables that work just fine. But for [about \\$30](#), the MIDIMATE II does everything I need—and then some.

SONAR 2015
"Foxboro" Release eZine

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