# SONAR 2016.05 Update

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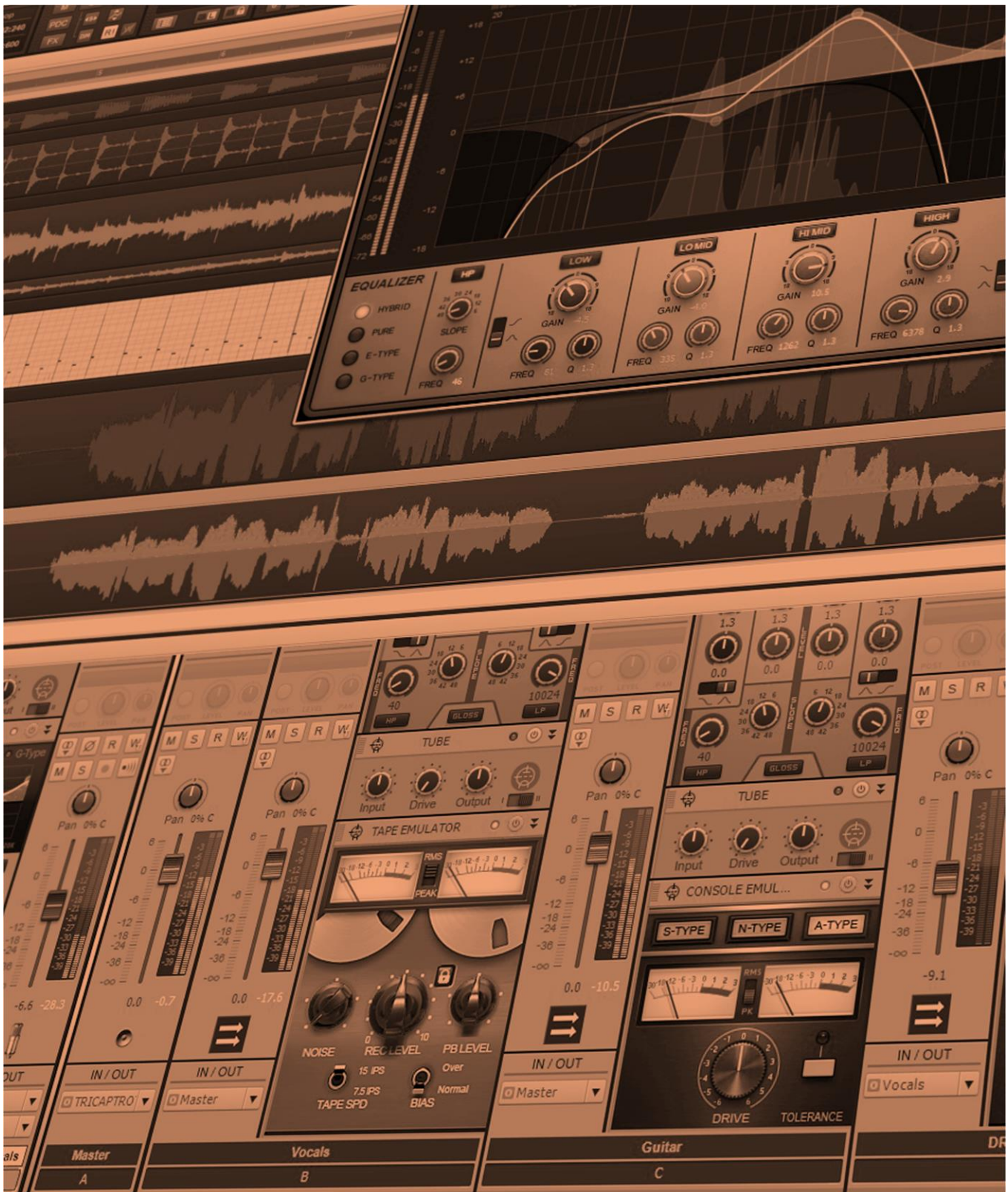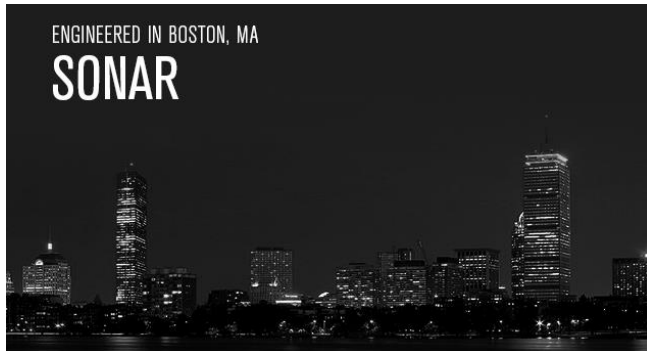**SONAR**

You've been asking for SONAR to accommodate different themes, and now you have a choice between the classic "Mercury" look and the new "Tungsten" theme. Tungsten's darker look provides more contrast with switched settings, and added control "rings" show knob positions at a glance. Tungsten's usefulness under low-light conditions is ideal for those who use SONAR in audio-for-video work. And while working on the new theme, we also updated the Color Picker to offer more color choices, as well as pin the track name, color strip, and WAI in the console view when scrolling vertically through the Console.

This issue also includes a fascinating "Anatomy of a SONAR Project" written by forum regular Tobias Tinker (user name Subtlearts) about a mind-bogglingly complex, 7.5 hour audio book project; a review of Arturia's Matrix-12 V synth; BlogBeat; and a new fun feature, "Charting Now in SONAR." Thanks to analytics, we can find out interesting stats like which are the most popular effects—so our first chart is a Top Ten list of the Sonitus effects that are used the most. But that's enough for now, it's time for us to go back to work on SONAR—and for you to enjoy the latest improvements.  *– Bill Jackson and the Cakewalk Team*

**SONAR Themes:** SONAR can now do themes, and those who want a darker, more muted view will want to try out the Tungsten theme. It's designed to be super-restful on the eyes over long sessions, provide greater contrast for showing whether effects are disabled/enable, and is ideal for low-light situations.

**Enhanced Color Picker:** You wanted more colors, and now you got 'em. The new color picker provides 24 different colors you can apply to Clip foregrounds, Clip backgrounds, and channel strips. You can color the entire channel strip in Mercury, and in Tungsten, color highlight bars for the channels.

**Console View Track Name, Color, and WAI Pinning:** Previously, when scrolling vertically in the Console view to see various sections of a channel's module the track name, color, and WAI could "disappear" under the lower part of the console. These now remain pinned and visible in Console View as you scroll.

**Fixes and Enhancements:** This release nails down some of the loose ends with the LP EQ and LP MB mastering plug-ins released last month, but also fixes Export Source Category settings persistence when exporting, an ACT Learn bug, and several other issues.

**Charting Now in SONAR | The Top 10 Most-Used Sonitus Effects:** SONAR analytics is all about finding out how people use the program, and one of those aspects is which effects get the most use. This "Top 10" list reveals which Sonitus effects are used the most—and the least.

**Anatomy of a SONAR Project | *The Cat's Maw* Audiobook:** Find out what's involved in doing an audiobook project—it's not simple, and this particular project involved 7.5 hours of extensive editing and automation of narration, original music, applying effects, and a whole lot more.

**Review | Arturia Matrix-12 V Synthesizer Plug-In:** Oberheim's Matrix-12 was one of the most comprehensive analog synthesizers ever released, with groundbreaking matrix modulation capabilities and a lot more. How successfully has it made the transition to the virtual world?

**BlogBeat:** SONAR has been in the news lately, thanks to The Sound Foundation project by Normal Matthew of Murder FM. Also, find out the scoop on what's new with TH3 Cakewalk, avoid nasty mixing mistakes that can sabotage your projects, and how SONAR solves problems in high-profile TV and movie projects.

## How to Download the SONAR 2016.05 Update

Open the **Cakewalk Command Center**. If you don't have the latest version (CakewalkCommandCenterSetup_1.1.5.0.exe), please download it from the Cakewalk Command Center [home page](#).

To download the **SONAR 2016.05** core update, download from the core SONAR Artist, Professional, or Platinum category. All new features, enhancements, and bug fixes for this release are contained within the core update.

## SONAR Themes
**Artist, Professional, Platinum**

"Tungsten" is a new SONAR theme that's characterized by a darker, ironclad finish, accented with golden highlights. This theme is easy on the eyes over extremely long sessions, and is also ideal for low-lit working environments such as post-production suites.
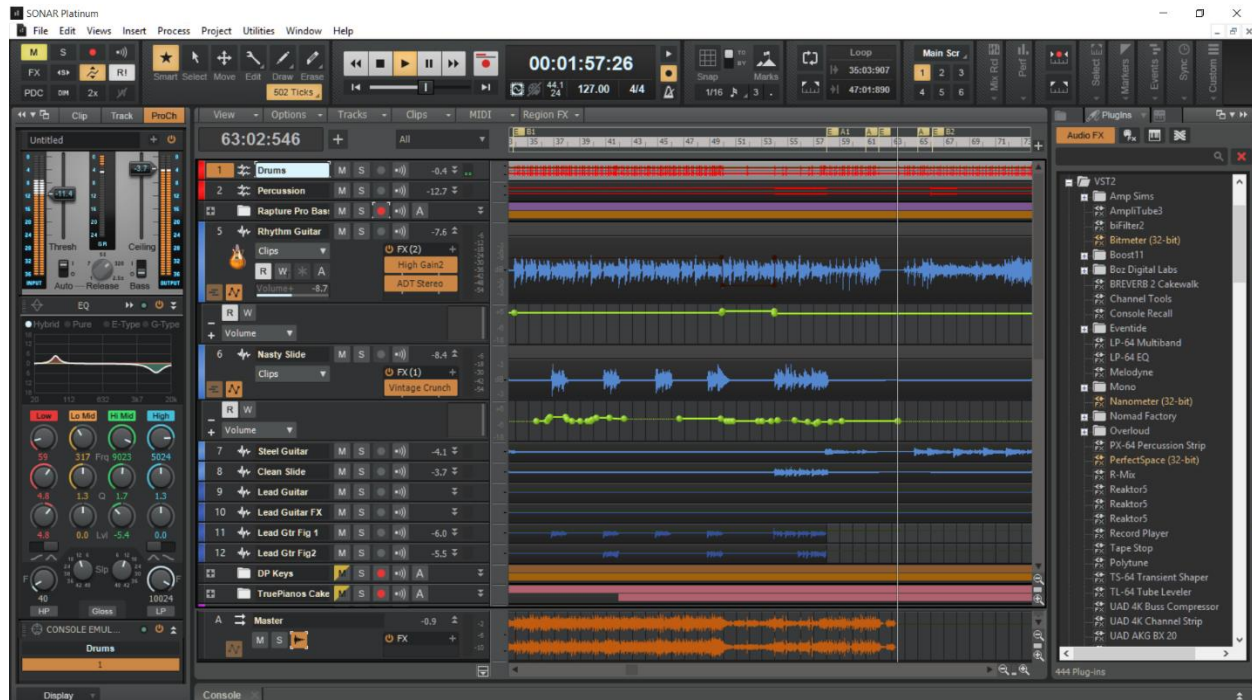


**TUNGSTEN FEATURES**

**Emphasized function status.** It's now much easier to see the status of effects (bypassed or enabled), as well as selected tabs, send pre/post, and the like. Selections are highlighted in gold to stand out more against the muted gray background.

**Knob "ring."** Knobs now have rings that make it easy to see the amount of rotation at a glance.

**Power buttons that are off will brighten on mouseovers.** When the mouse hovers over an off power switch, the symbol changes from gray to white, making it easier to see.

**Subtle strip bar handling.** Instead of coloring an entire mixer strip, the color you choose applies to a bar along the bottom of the channel. A centered highlight helps differentiate it from the WAI color.
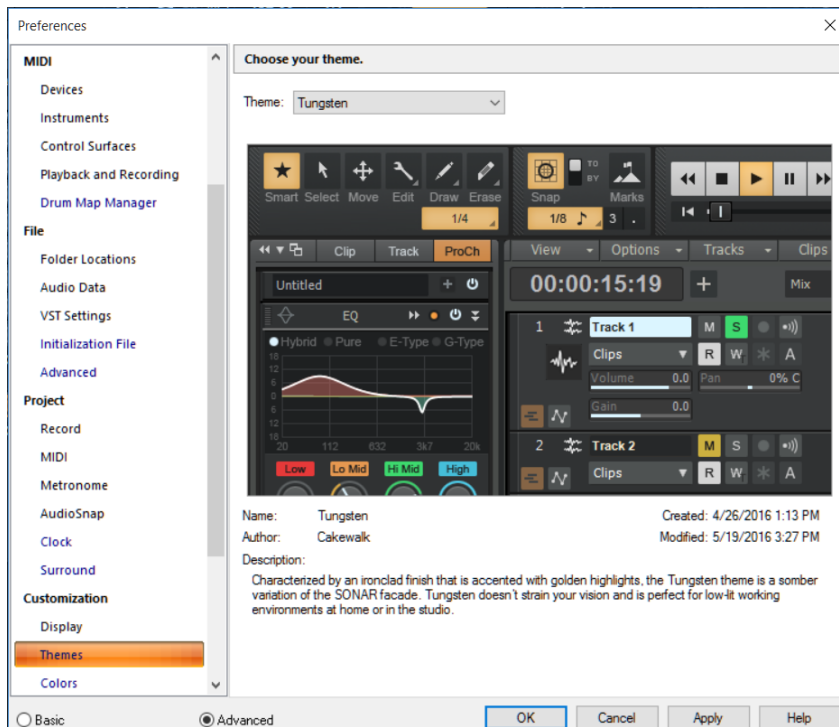




# HOW TO CHANGE THEMES

Choose *Edit > Preferences* then under *Customization,* choose *Themes.* Your current choices are the new Tungsten theme and the original Mercury theme.

Click Apply, then OK.

Note that you can still do some degree of color customization within Tungsten.

# Enhanced Color Picker
## Artist, Professional, Platinum



The Color Picker for clip foreground colors, background colors, and track colors has been augmented to provide a selection of 24 unique colors. Furthermore, you can choose "other" for additional color options. The new color picker works with both the Tungsten and Mercury themes.

## Console View Track Name, Color, and WAI Pinning
**Artist, Professional, Platinum**

Previously, when scrolling vertically in the Console view to see various sections of a channel's module the track name, color, and WAI pinning could "disappear" under the lower part of the console. The only exception to this was when scrolling the Inspector. However starting with SONAR 2016.05, these labels remain pinned in place and visible in Console View as you scroll.

Referring to the screen shot, note that the console view to the right has been scrolled downward to see the upper channel modules, but the track name and channel color strip remain pinned to the bottom.

## Fixes and Enhancements

Fixed SONAR issues where:

- Export dialog didn't persist Source Category settings correctly
- Opening the Piano Roll View would disable Landmarks Snap
- ACT Learning a parameter could fail in some situations, depending on the order in which multiple parameters were learned
- Splitting a clip could cause unusual cropping when there's a tempo map
- Inserting an Instrument Track Template would insert an extra MIDI Track
- Clicking a Start Screen notification opened in the Start Screen instead of the browser
- In some situations it was possible to open two instances of Preferences
- Musical Time Snap panel would blank out when docking/undocking the Control Bar after turning on, then off, any Snap-To option
- Console View dividers were not appearing in Hardware Outputs

Fixed LP Multiband issues where:

- Mono Meters didn't display correctly on both sides
- Band split redrawing needed correction.
- Frequency displays would go off the edge of the plot when dragging near the edge
- Range dragger (horizontal line on the curve) didn't display the dB range properly when dragging
- If three bands were connected, selecting and moving the middle band could create an overlap
- Selected states did not draw properly

Fixed LP EQ issues where:

- Mono Meters didn't display correctly on both sides
- The Hz Value shown above the node when dragging wasn't the same as the number on the dial
- Inactive band color could be the same as the active band color
- Switching a node to a pass filter didn't set the node's gain to 0 dB
- Selected states did not draw properly

# Charting Now in SONAR:
# The Top 10 Most-Used Sonitus Effects

Long after their introduction, the Sonitus effects remain extremely popular because…well, they *just work.* The user interface is super-easy to figure out, they often have cool features that other similar plug-ins don't have, none of them is greedy about CPU power, and yes, they sound pretty darn good too. But which ones get the most use from SONAR users? Let's ask Cakewalk Analytics.
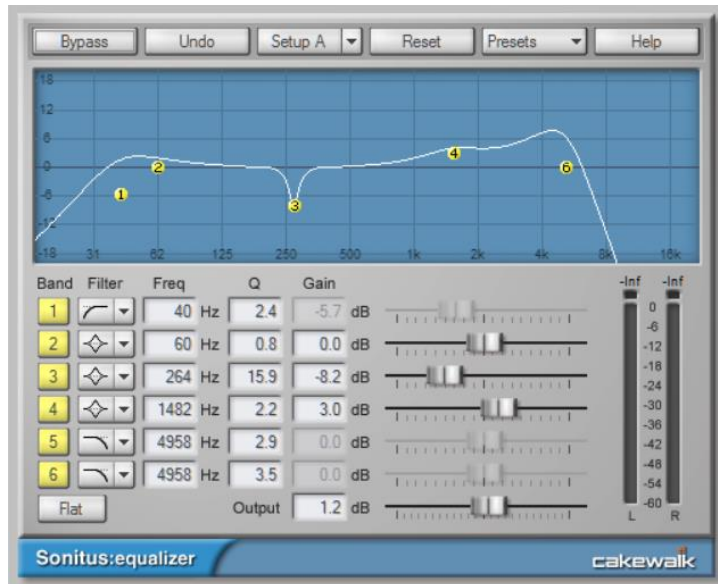


### #1 Sonitus:fx Equalizer

This "hardy perennial" holds down the top position as the most used Sonitus effect. And why not? It's simple, effective, and also, has several hidden talents—like being able to "stack" highpass or lowpass filters for steeper slopes, have two different Setups for easy comparison of two different curves, the ability to copy and paste bands, and four choices of graph resolution.

### #2 Sonitus:fx Reverb
Even with all the cool new reverbs available these days, the Sonitus reverb's unique "syrupy" character isn't something you find in other reverb plug-ins—so it's a very close second.

### #3 Sonitus:fx Compressor
This ever-popular compressor rounds out the top three. It doesn't necessarily try to emulate a specific compressor—it just does its own thing in an effective and versatile way.

### #4 Sonitus:fx Delay
Delay connoisseurs appreciate the diffusion option, the independent stereo channels, the two different types of feedback, and the ease of use.

### #5 Sonitus:fx Multiband

Coming in at Number 5, the multiband remains a solid, all-around performer. However, fans wonder if it will maintain its position now that the LP MB is available.

### #6 Sonitus:fx Modulator

There are plenty of great modulation plug-ins, but what this baby offers is *versatility*—flanging, phasing, chorusing, tremolo, symphonic…you got it.

### #7 Sonitus:fx Gate

Gates aren't needed as much in today's music given that tape hiss is a thing of the past, but thanks to sidechaining and ducking, they remain highly relevant for effects.

### #8 Sonitus:fx Phase

It's a stereo world, so the binaural and other effects the Phase plug-in delivers—while not something you use every day—can sure come in handy.

### #9 Sonitus:fx Surround

This plug-in's lack of popularity may result from sounding like it's relevant only to surround productions, but it can do very interesting automated stereo placement and panning.

### #10 Sonitus:fx Wahwah

The Rodney Dangerfield of Sonitus effects deserves better, because it can do fabulous vintage wah and auto-wah sounds. It's probably just biding its time until a disco revival hits, or guitarists discover the joy of putting wah *before* distortion.

## Anatomy of a SONAR Project: *The Cat's Maw* Audiobook

**by tobias tinker**

*The Cat's Maw* is a novel by writer, director, producer and transmedia cowboy Brooke Burgess. I've worked with Brooke on numerous projects over the last 16 years or so, most notably the Sundance-award-winning web-comic-turned-DVD epic *Broken Saints.* He's a brilliant, creative polymath... and also happens to be my cousin.

So when he asked me to work on the audiobook version of *The Cat's Maw,* I was simultaneously honored and daunted. I knew what he had put into the book—the first in his Shadowland Saga, a series for "brave young readers" that he's been developing for a few years. It continues the combination of real-world emotional and personal narratives with spiritual/supernatural elements, and a dash of horror that made *Broken Saints* so compelling. I knew how close and important it was to him, and how much the trust he was putting in me meant.

As to the daunting part, I also know from experience how demanding and uncompromising he can be, how much he expects of himself and the people he works with, how detailed and expansive his vision for the project would be and how scarily sharp his ears are—even though he's not a musician or particularly technical himself. His approach is that of a film director, with a very clear vision of what he wants each moment to sound and more importantly to "feel" like. He also had David Kaye, who is an A-list voice actor in Los Angeles and has done a ton of animation work including Pixar's *Up,* on board to do the reading. So the bar was going to be set pretty high.

But I also knew the project would be rewarding and interesting, and I'd learn a lot; luckily Brooke likes my music, so I had a head start. In fact, he had a number of pieces from my existing catalogue in mind, some from my electronic project *Sound Fascination* and some from a jazz trio album I did some years ago, *Stillness3*. The material seemed to be a good fit, so I would not be starting from zero.

On the other hand, I would be doing *everything*—cleaning and editing voice takes from the raw recordings done in about ten sittings, getting everything to sound even and clean, placing music, sound effects, and voice effects, mixing and mastering what would turn out to be an extremely dense and complex 7.5 hours of finished audio, in 18 chapters plus prologue, epilogue, titles and credits. I knew Brooke would want to deliver something special, beyond the usual standards. And the technical requirements for audiobook submissions are quite specific. In short, it was going to be *a lot* of work.

Oh yeah, and in addition to being kind of a perfectionist, Brooke is also a sort of digital nomad, who has spent the last few years on a small island in Thailand. I live in Berlin but frequently

work in other cities in Germany. Dave is in Hollywood. Remote collaboration by email, chat, Skype, and various file-transfer sites would make for a thoroughly modern production!

**GETTING STARTED**

After the initial voice sessions, directed by Brooke over Skype and recorded in Dave's home studio, I would receive raw unedited AIFF files from each session. These would be imported into SONAR and rough editing would begin—removing direction, re-takes, and double lines, finding the best takes for each segment, and cross-referencing against the text in eBook form. It was very handy to have two screens for this, so I could keep the book as well as the session in front of me. If I was uncertain about an edit, or heard something that needed further attention, I could easily drop a marker and flag it for later.

At the same time we wanted to start putting together some promotional material for the project, so I was jumping back and forth between those tasks. We decided to release a teaser trailer consisting of a particularly pithy dream sequence from a later section, and a full-length chapter from earlier in the book that would not give too much away. We knew these would not be final versions, but they were a good representation of the various "spaces" we would be exploring; we hoped they would pique some interest from potential listeners and/or reviewers.
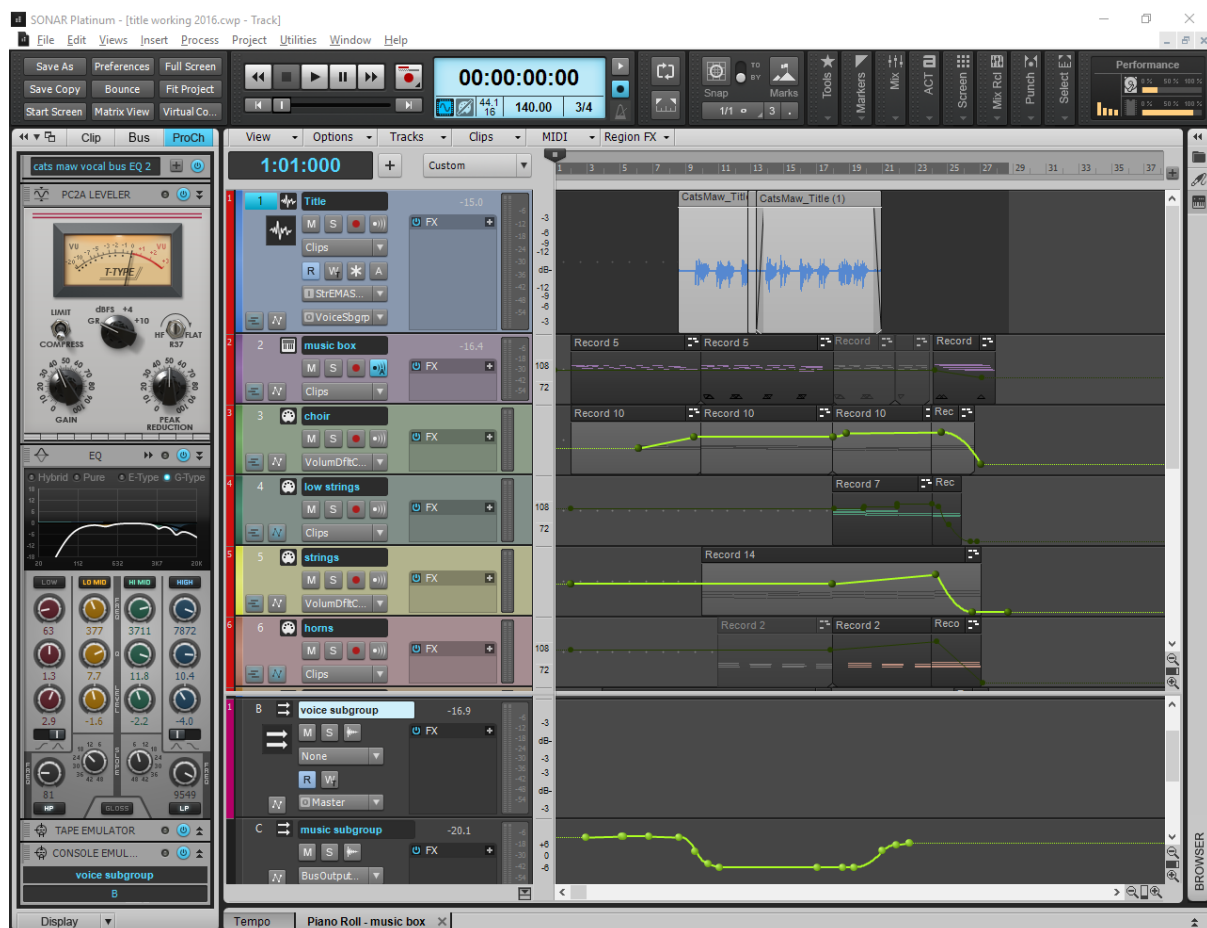
*The previous screenshot shows a short musical sting for the audiobook titles—note the manual ducking on the music subgroup bus.*

These would also provide a guideline for me of the kind of work the rest of the project would entail—bringing in suitable pieces from my existing works when appropriate, sometimes remixing or re-arranging them if needed (often in stems within the chapter project files, to allow dynamically adjusting it to the text and flow), and sometimes purpose-writing new music. We developed a basic "theme" that would give cohesion, but was harmonically flexible enough to allow lots of variations to suit different settings and moods; it forms the basis of everything from the orchestral titles and credits stings to emotional solo piano moments, to a big-band loop complete with simulated 78 vinyl record sound.

I use virtual instruments extensively and this project involved a lot of them—from simple ambient synth drones to create dramatic intensity, to solo piano sequences, to full-fledged orchestral bombast complete with massive percussion and choir. I did use Cakewalk's Rapture Pro for a few pieces, as it came out while I was working on the project, but a lot of times the main instrument was Native Instruments' Kontakt. I also used Absynth quite a bit. Sometimes it's quickest and easiest to just go with what you know.

**THE IMPORTANCE OF PROCESSING**

Since an audiobook is first and foremost about the spoken text, a lot of time and energy was spent getting the vocal tone right. The large fly-out display of the Quad-EQ was particularly helpful here, as I could really see where the initial vocal recordings needed help, as well as the results of my adjustments in real time. In this case, in addition to a low cut at 80 Hz, I found we needed surgical dips at around 380, 3700, and 7800 Hz. These were put on a vocal submix bus rather than on each individual channel, so I could save processing power and also save the track EQs for any specific changes that might be required. I also used Native Instruments' Solid EQ quite a bit for drop-ins, as I like its clean character and ease of use.

I also used a gate (Unfiltered Audio's G8), de-Esser (Toneboosters' excellent Sibalance), and a wonderful multi-purpose vocal processor from Waves, Manny Marroquin's Triple-D, which I tested while working on the project and bought immediately. It instantly allowed getting the combination of warmth without boxiness, and clarity without harshness, that the project (like, I imagine, most audiobooks) required.

Given the supernatural, spiritual, and horror aspects of the book, there were several places where vocal special effects came into play (in contrast to the dry narration track). Sometimes this was just a light reverb on an internal thought or in a dream sequence, sometimes it was more involved, with delay and various other effects creating otherworldly or nightmarish characters. I found it easy and quick to simply grab the bits of narration and shift-drop them onto another track, maintaining timing and allowing the effect to be set up as a send or insert on the new vocal FX track. Sometimes I would end up with three or four of these, for different characters that needed different processing.

The FX chain presets were very handy here, as when I was working quickly I could quickly drop in combinations of effects that were more interesting than single effects. The Metal Hydride preset formed the basis of one character's gritty snarl, though I ended up re-creating it for some cases, with more flexible components. A couple of the Style Dials found places, and the VX-64 vocal strip was also a handy one-stop-shopping cart of cool and useful possibilities.

The gate took care of some incidental vocal noises, but there were still a lot. I really had never thought about how distracting the breaths and tiny pops and smacks that accompany normal speech can be. Of course they are only amplified by close-miking and processing. *The Cat's Maw* is full of really beautiful and sensitive moments, and between the music and other underscoring we were really aiming to magnify them and make the most of them. But there's really nothing quite like being pulled out of one of those moments by a strange-sounding slurp between words.

So they had to go. And that meant micro-editing. Lots of it. Sometimes, when various elements needed to be fully chopped out, the already patchwork vocal tracks had to be sliced into ever-tinier slices, with carefully-placed fades; when I wanted to keep a breath (I did want to keep a bit of a natural vibe to the performance, not sanitize it entirely) it involved a whole lot of automation.

I tended to use clip gain envelopes for these edits, rather than track envelopes, because I also knew there might be changes in timing later on, and that way the edits would move with the clips if the audio had to be shuffled around. Which they did—rather a lot, in fact. I'd love to include my back-and-forth notes from Brooke on timing and mix adjustments, but I'm afraid that would make this article start to look like *War and Peace*…

**TWEAKING, TIMING, AND SERENDIPITY**

Not all of our collaboration on the project was remote. Since most of Brooke's work is locationless (he does a lot of writing for video games), about halfway through the project he came to Berlin for a visit. We spent a few weeks working together on some of the original project-specific pieces, and placement of pre-existing music—and this was where things started to feel a bit spooky.

I can't count the number of times we'd try dropping a piece onto a scene, getting the beginning right, and then say, OK, let's see how the rest of the piece lines up—and it would end at such a perfect, poetic, spine-tingling place in the text that we couldn't have planned it better. As often as not the entire emotional arc of the piece (which in some cases I'd written and produced years before the book was written) would fit the narrative like a glove. Sometimes, of course, it would take a bit more massaging to get it to sit right, but often remarkably little. I'm not much given to speculating on whether things were "meant to be" or not, but this definitely gave us much-needed momentum and the sense that serendipity, at least, was on our side helping things come together.

Once that happened, and the mixing process moved into the spit-and-polish zone, a few other elements came into play. I used automated volume-riding for the vocal tracks, courtesy the RMS envelope generation function on Blue Cat's Digital Peak Meter Pro. This saved a whole lot of manual fader automation, and maintained a very consistent perceived volume level across the text—but allowed me subsequent control over anything I actually wanted to jump out a bit, or seem like a whisper.
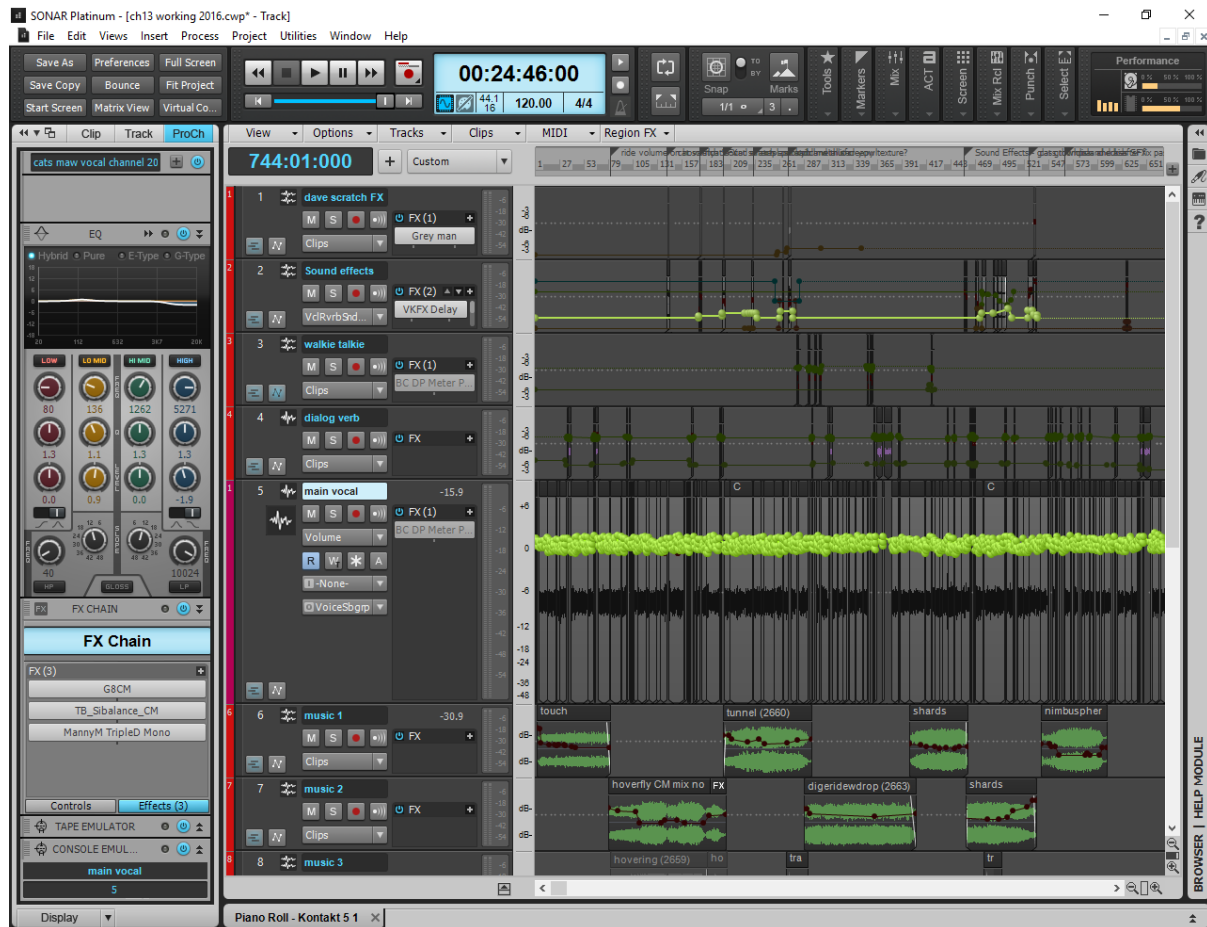


*Note how the main vocal has been cut into a huge number of tiny slices, with extensive automation. This, as well as using FX Chains and ProChannel presets, were essential to maintain vocal consistency through the project's seven and a half hours.*

Consistency was a prime directive, and this was where Sonar's FX Chain and ProChannel presets became invaluable. If I discovered a combination of plug-ins or settings that fixed a certain problem, I could quickly make a preset out of it and then import that easily to similar tracks or situations in other chapters, and know that the settings would be the same. And I could update fairly painlessly if I found new settings that worked better.

**THE IMPORTANCE OF MIX TRANSLATION**

I'm generally very big on cross-referencing mixes to different listening environments but this project brought an emphasis to one I hadn't given much priority up to now: earbuds! We assumed that a large percentage of the target audience would be listening on earbuds, likely even more so than with pure music production. So I really had to make sure the audio translated properly to more than just different speakers and headphones. I have a fairly high-quality pair of Sennheiser earbuds, and what I quickly realized is that they are absolutely indispensable for super-detailed voice editing. Due to the rubber seal I found I could hear tiny noises and artifacts through them that my studio monitors and headphones simply weren't revealing. And I found that the background music mix was very different: the earbuds brought it out more than anywhere else, so if I mixed it to sound good on the monitors or the cans, it would be much too loud in the buds. I never thought I'd make earbuds my primary reference point for a mix!

Of course it had to sound good everywhere, and since I don't have a car I would occasionally ask a friend if they could take me for a spin around a few blocks to check out the sound in that environment, which of course is even more challenging by nature, due to the loud and constantly changing rumble and noise of the car itself and the distractions of traffic. Because *The Cat's Maw* is such an intense book, and the soundscape we'd built for the audiobook so detailed, all I can say is I'd far rather people listened on earbuds than on a car stereo. Personally I hope people listen to it in a focused way, while relaxing, on decent quality speakers or headphones. I know, I'm an idealist...

**FINAL FIXES**

Monitoring on sealed earbuds also revealed that despite all the gates and edits, there was still a basic noise-floor problem, so drastic measures needed to be taken. I ran across-the board noise reduction on the source recordings, using Sony Sound Forge's still-quite-decent targeted noise reduction algorithm. This allowed me to a) use a specific noise profile sample per chapter, since the recordings were done on different days and settings might have changed slightly; and b) keep all existing edits intact, as I was altering the underlying audio file. Of course I kept backups of each file in case things went horribly wrong, but all in all it was fairly seamless and effective.

For further/final polish of the vocal tracks, I also used iZotope RX 5's excellent De-Click plug-in—but here the results of applying it across the board were not acceptable because settings aggressive enough to zap most clicks and noises left the audio muddy and added artifacts. So any fixes had to be tailored to individual cases, which took a lot of meticulous work but was well worthwhile; the results were, with some fiddling, satisfyingly clean. My process here was to route the vocal channel's output to an Aux Track right below it, so that the plug-in's output on individual phrases could be captured in real time, changed for different needs, and left off where not needed. I could have used automation here as well, I suppose, but this seemed safer and simpler. Finally both tracks were routed to the vocal submix bus.
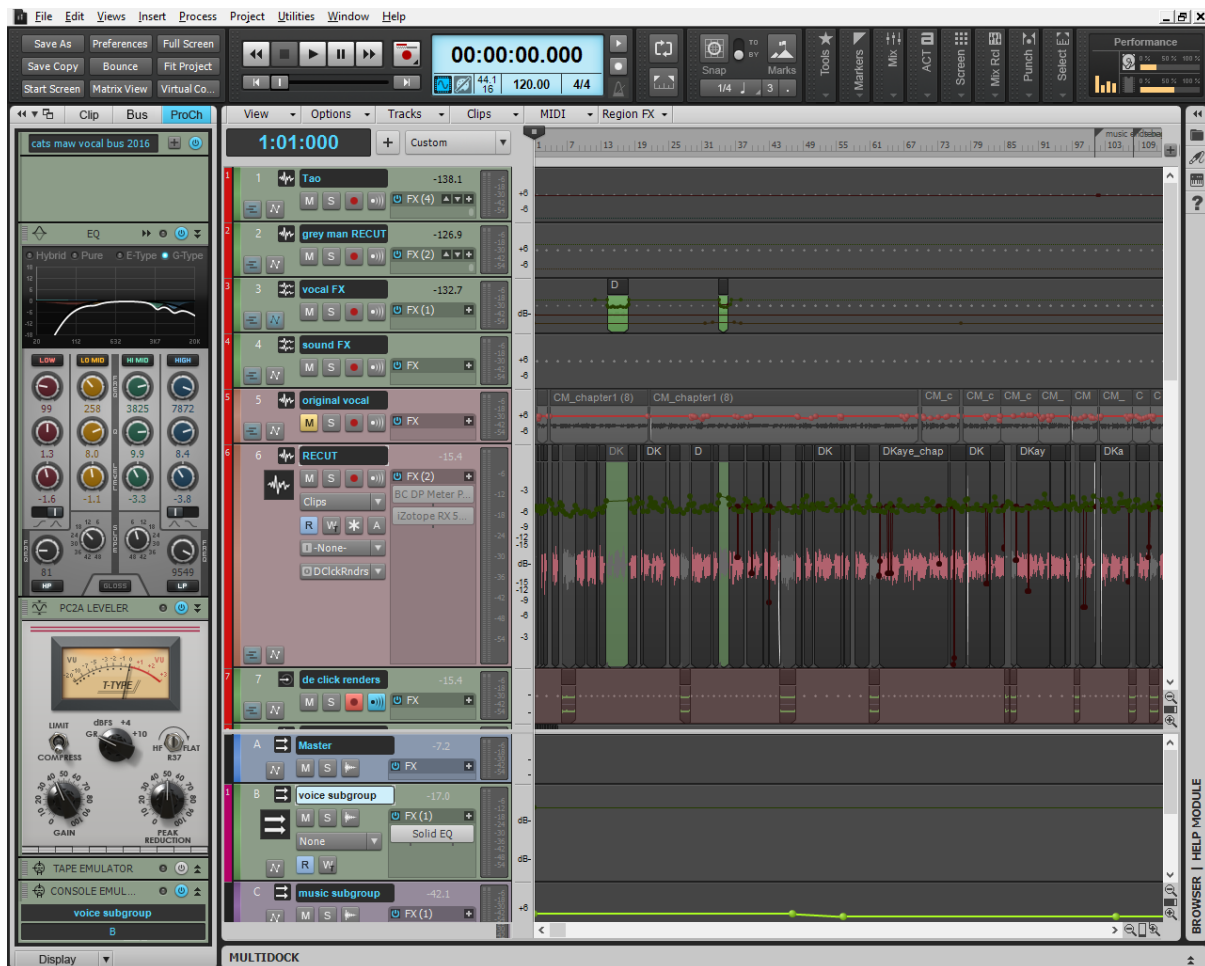
*Track #6, the "Recut" track, uses iZotope RX5 to clean up the vocal track along with Blue Cat's Digital Peak Meter Pro to add mix consistency.*

I've mentioned various other products that were used in production here, but the one that tied everything together was SONAR. I'm not sure if I count as a "power user"—there are lots of areas of the program I never touch at all. But the ones I use, I use intensively; in this case that particularly applied to automation, with multiple gain stages frequently in play. I also used a lot of the included features: the Tape and Console emulators, ReMatrix and Breverb for, umm, reverb...Melodyne Essential was used for a few detailed pitch and timing manipulations, and the new Linear Phase mastering plug-ins for final level and EQ tweaks.

I'd also like to say a final word about stability. I began this project in SONAR X3 (and the pre-existing music we used was done in various editions of the program going back to Producer 5, when I started with SONAR), and it has continued through the first year of Platinum updates. From my perspective, with very few exceptions, the program has become steadily more stable, and this is at least as valuable to me as any of the features added along the way (the new mastering EQ and multiband compressor were particularly timely). I've had essentially no problems moving a very large, complex and ever-changing project through multiple iterations

of a continuously updating program, and the performance and workflow has steadily improved along the way. That counts for a lot for me!

*[tobias tinker](#) is a Canadian-born, Berlin-based composer and musician. After studies in jazz performance and electroacoustic composition, he now divides his time between playing piano, accordion and trumpet in various circus-related shows around Germany, and producing original music in his home studio. Perhaps best known for his soundtrack to the groundbreaking, Sundance-award-winning animated graphic novel [Broken Saints](#), he has released a dozen or so albums combining acoustic and electronic sounds, and fusing elements of jazz, classical, ambient and world music into a melodic and emotional personal style.*

# Review: Arturia Matrix-12 V Synthesizer Plug-In

**By Craig Anderton**

One of the best aspects of virtual instruments is they've made it possible for today's musicians to own emulations of yesterday's hallowed gear. Anyone who has tried to maintain or restore a vintage analog synthesizer knows the obstacles of this kind of project—from finding ICs that haven't been made in decades, to locating proprietary parts made by the original manufacturer.

Arturia has specialized in re-creating analog synthesizers, and their latest undertaking is Oberheim's revered Matrix-12. Following up on Oberheim's success with the six-voice, keyboardless Xpander, the Matrix-12 essentially bonded two of them together to attain 12 voices and then attached a keyboard. It had several claims to fame: 15 different filter types, extensive modulation capabilities brought together with a digital modulation matrix, and the ability to create "multis" that combined individual single patches for huge, complex sounds.



*The main Matrix-12 V interface resembles the original hardware, but as noted later in the review, Arturia has added several enhancements that make programming much easier.*

With off-the-hook programming flexibility and the organic sound of analog, the Matrix-12 was a sound designer's dream—and amazingly, Arturia's software re-incarnation does justice to this

classic synthesizer. Supported formats include VST2, VST3, AU, and AAX; like many other companies, Arturia has online "software center" for updating and maintaining your licenses.

**BRINGING THE PAST INTO THE PRESENT**

While being respectful of the original synths, Arturia also adds enhancements to their emulations that may raise a purist's eyebrow, but make for a more useful instrument in today's world. The Matrix-12 V benefits from a somewhat cleaner (yet familiar) user interface, onboard effects, a preset chainer to switch rapidly from one preset to the next, double the number of modulation destinations, extensive MIDI continuous controller options, and various other enhancements. Typical price is <u>under</u> $200, but the Matrix-12 V is also part of Arturia's V Collection of 13 classic synths. This is a far more cost-effective choice if you want more than just the Matrix-12 V.

Because Arturia offers a free demo, there's no need to go into great detail—but I do want to cover what makes this an interesting instrument. If you're new to synthesis, the Matrix-12 V can be overwhelming; however experienced programmers can take this places other instruments can't go. Furthermore despite being deep, the layout is logical; Arturia has made programming the Matrix-12 V as straightforward as possible for an instrument this capable.

**MAXIMUM MODULATION**

Arturia improves on the original's matrix modulation scheme. The front panel modulation area (see the inset toward the right, below) shows the modulation sources that are directed to a specific destination. However, clicking the Mod button replaces the virtual keyboard with a modulation overview (behind the inset).

Another simplifying improvement is that when you click on Mod Source, Mod Destination, or Filter type, a pop-up screen gives a graphic representation of your options—click, done. It's easier than parsing a drop-down menu with additional "sideways" menu for module parameters.

Similarly, the FX button opens up the onboard effects—chorus, delay, analog delay, flanger, phaser, and reverb. These are not throwaways, and are well-implemented. The screen shot below shows the interfaces for the Analog Chorus and Reverb effects.

Also, the Multi page (see below) takes advantage of the computer screen to make it easy to program gigantic multi sounds. Like the original, the Matrix-12 V has 12 voices so you may not want to use all multi voices all the time, but it's tempting—the unison sounds obtainable with stacking various single patches can be breathtaking.

Also, the MIDI implementation is light-years ahead of the original: pretty much  everything can be MIDI-controlled, including zone keyboard assignment mode, zone low and high notes, controller clear, you name it—if there's a parameter, you can probably control it. In fact this is one of those virtual instruments that (like Rapture Pro) begs to be paired with a performance-oriented hardware controller so you can really bring these programs to life.

## LIMITATIONS

There are two main limitations. The single stereo output precludes directing different multi voices to different outputs; so while the Matrix-12 V is multi-timbral from a MIDI point of view because each zone can respond to different channels, it's not from an audio point of view. The other limitation is that unfortunately, a MIDI controller cannot control multiple parameters. When one parameter "learns" a controller, any other assignments for that controller are de-assigned. Fortunately, you can save and recall controller configurations so you don't need to make the same assignments over and over.

## CONCLUSIONS

If you were around during the 80s and call up the Brass patch from the collection of original Matrix-12 patches, you'll instantly recognize *that* distinctive Oberheim sound. Ditto many of the other patches. Although only about 1,000 Matrix-12s were manufactured, they usually ended up in the hands of prominent keyboardists and studio musicians, so their impact extended far beyond their original owners.

These days, we have an embarrassment of virtual instrument riches—there are more ways to make cool sounds than we could ever explore fully in *several* lifetimes. Nonetheless, Matrix-12 V occupies a unique place in the world of analog emulation. Its depth, comprehensiveness, lineage, and array of innovative additions make it a far cry from "just another synthesizer"—just like its venerated hardware ancestor.

## 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."

**[How the New "TH3 Cakewalk" Will Elevate Your Recordings in SONAR](#):** **Jimmy Landry** takes TH3 Cakewalk for a spin, and finds that not only does the sound quality raise the bar compared to TH2, but there are also several user interface improvements. But arguably, the main new features are several additional amps, so check out links to the sound demos.

**[CakeTV Live Episode 5 | TH3 Cakewalk Edition](#):** Want to know even more about getting the most out of TH3? In their own inimitable style, **Dan Gonzalez** and **Joey Adams** cut a new video for CakeTV that talks about TH3's new, uncluttered interface that emphasizes drag-and-drop, improved preset management, and easier gain-staging.
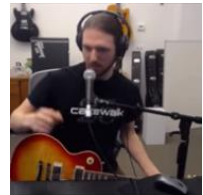
**[SONAR-Based Facility "The Sound Foundation" In Dallas Gets Global Recognition with Ford Motors](#):** SONAR user Norman Matthew from the band Murder FM is giving back to the Dallas music community by providing a facility for young musicians to get started. Yes, it uses SONAR—and now Ford Motors has recognized what Norman does in their "Good Works" series.

**[How The Duke Western Uses Sonar to Create Music for Duck Dynasty (and More)](#):** Working on high-profile projects with tight deadlines and massive amounts of pressure is definitely different from cutting some tunes in your home studio. **Jimmy Landry** finds out how The Duke Western uses SONAR to handle those kinds of tough projects.
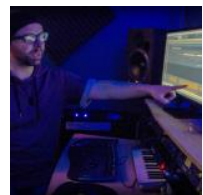
**[Mixing Tips | Ten Nasty Mixing Mistakes](#):** **Craig Anderton** covers ten nasty mixing mistakes that are out to sabotage your projects. Avoid the perils of falling in love with a part just because it's cool, mixing in lousy acoustical environments, adding too much or too little ambience, and seven other mistakes you don't want to make when mixing.

**SONAR 2016.05 Release eZine**

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