

Beat

#178 / 11-2020

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NORDIC NATURE*
2 GB NORD WAVE 2 PATCHES

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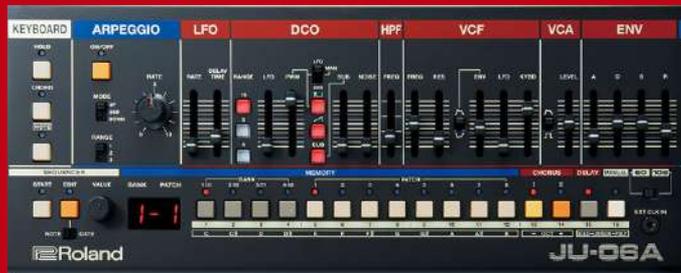
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MASTERING
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_PolyBrute

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existing in two states
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seamlessly morphing
between them with
instant performance
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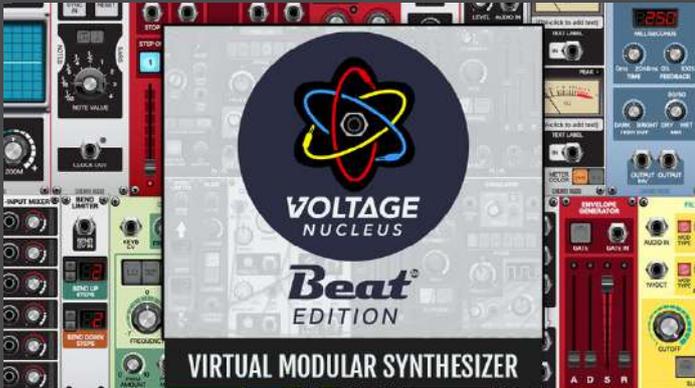
ARTURIA

_The sound explorers



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Build your dream synth!

Cherry Audio Voltage Modular Beat

Voltage Modular is one of the most exciting modular software systems. With the Beat Edition Cherry Audio presents a special version of the creative powerhouse which - in addition to all 22 modules and over 130 presets from the Nucleus version of the software - offers additional building blocks from Andrew Macaulay, including useful utilities and an LFO with delay option. This gives you all the tools you need to create great-sounding synths, complex effects processors and drum machines.

Download: www.bit.ly/BeatDL178 | Info: www.cherryaudio.com win | mac



SOFTWARE DOWNLOAD:

www.bit.ly/BeatDL178

LICENSES & PASSWORDS:

www.serialcenter.de



Mastering autopilot

iZotope Ozone Elements 9

The little brother of the Ozone 9 Mastering Suite is a powerful tool to give your tracks that final polish. Ozone 9 Elements can also show off its strengths in mixing: On board are a flexible equalizer, a stereo effect, and a maximizer. The main highlight is the Master Assistant, which offers the appropriate settings for the EQ and Maximizer after analyzing the audio material.

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71 exciting patches from the Nord Wave 2

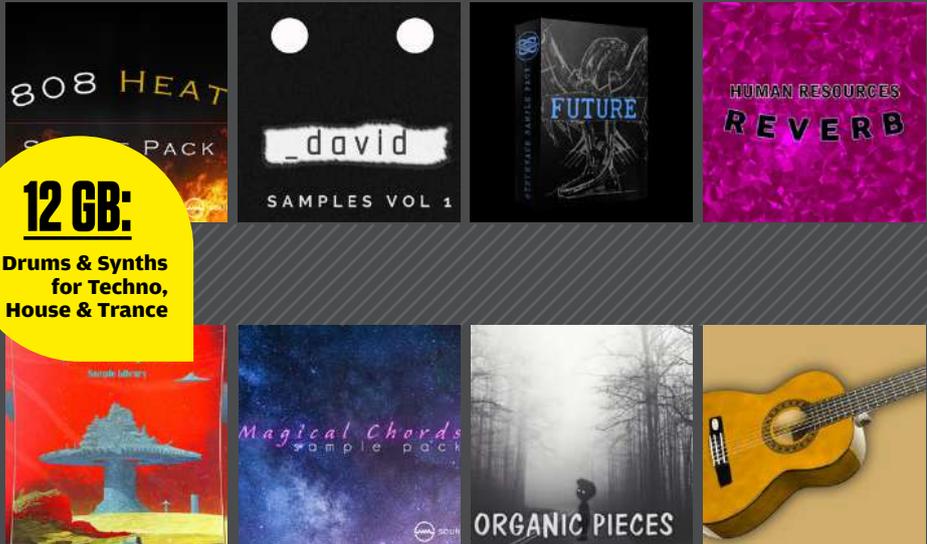
Nordic Nature for Zampler & MPCs

Clavia's Nord series continues to enjoy uninterrupted popularity. Like no other synthesizer, the Wave 2 is uncompromisingly designed as a performer and there is almost no sound that it cannot master to perfection. You can look forward to 71 basses, spherical pads, and hybrids of real and synthetic instruments that we have designed especially for you with the Nord Wave 2!

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Beat #178: Exclusive Software 12 GB of Valuable Plug-ins and Samples for Download



12 GB:
Drums & Synths
for Techno,
House & Trance

With our highlight Cherry Audio Voltage Modular Beat, you will receive a powerful virtual modular system that you can use to create your own dream synthesizer or creative effects. The flexible mastering suite iZotope Ozone 9 Elements, on the other hand, helps you give your mixes a professional final touch. Long-term inspiration is also guaranteed with our brand new Nordic Nature soundbank for Zampler and Akai's MPC series. For these, we've created 71 exciting hybrid sounds with the Nord Wave 2. The 12 GB sample collection also contains a wide range of sounds for Synthwave, Techno, House & Trance and other popular musical styles. All sounds are available in different formats and are royalty-free for use in your own productions.

Please pay attention to the license agreement enclosed with the packages. Contents compiled by the Beat editorial team.



MUSICAL COMPRESSOR/LIMITER

Analog Obsession VariMoon

This plug-in recreates the sound of the legendary Fairchild 660 tube compressor/limiter in detail. With its musical sound, VariMoon shows its strengths when processing drums, vocals, instruments like bass or guitar, or even complete mixes.

Download: www.bit.ly/BeatDL178 | Info: www.analogobsession.com win | mac



SYNTH FOR CORE ANALOG SOUNDS

SampleScience Analog Waveforms

Fans of analog sounds will love this sample instrument at our expense. For Analog Waveforms, the sounds of the Dave Smith Instruments Mopho were captured. That charming sound can be further processed with filters, envelopes, LFO and reverb.

Download: www.bit.ly/BeatDL178, Info: www.samplescience.ca win | mac

Exclusive to Download: The Beat Studio

2 GB:
Zampler
Nordic
Nature



Xils-Lab Xils 3 V2 LE
Modular powerhouse with fat analog sound



AudioRealism 606
Emulation of the cult Roland TR-606 drum machine



Thorn Solo
One of the best monosynths out there!



Zampler//RX
REX- and SFZ-Player with mod-matrix & onboard sequencer



DDMF The Strip
Musical channel strip for mixing & mastering



MPC-FEELING IN YOUR DAW!

One Small Clue Poise

Poise is a small but fine percussion sampler inspired by AKAI's MPC series. This easy-to-use plug-in features 16 drum pads with eight sample layers, plus volume and pitch envelopes.

Download: www.bit.ly/BeatDL178, Info: www.onesmallclue.com

Win



EXCLUSIVE FOR READERS

3 GB Industrial Strength Megapack

Lenny Dee's label stands for uncompromising Techno, Hip Hop, D&B and Industrial and equally brutal sample packs. With the code **BEAT2OISR**, Beat readers save 20% when buying ISR samples from Loopmasters!

Download: www.bit.ly/BeatDL178 | Info: www.bit.ly/BeatISR



FINE CONCERT GRAND FOR KONTAKT

BigCat Salamander Grand

This Kontakt instrument called BigCat Salamander Grand captures the brilliant and full sound of the elegant Yamaha C5 concert grand piano. Thanks to 16 dynamic levels, this sample instrument is very expressive to play.

Download: www.bit.ly/BeatDL178

win | mac



VERSATILE CHORUS AND FLANGE EFFECT

Imaginando DLYM

The DLYM plug-in, with which classic flanger and chorus effects can be created, is presented in an attractive, modern look. It offers two operating modes, flexible modulation options and a stereo effect.

Download: www.bit.ly/BeatDL178 | Info: www.imaginando.pt

win | mac



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- Fantastic vocal clarity
- Integrated Noisefilter
- Pattern: super-cardoid
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sontronics.de



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STREAMS & PODCASTS

YouTube, TikTok, Facebook... Streaming is more popular than ever, but classic media such as podcasts are also gaining in relevance. It's no wonder when parties are only transmitted over the net and DJs play their sets in front of a virtual audience. In our big special, we take a holistic approach to the topics and show you the best techniques and equipment for streaming and simultaneously show you how you can not only collect Likes but also generate revenue. **Page 16**

Review: Twisted MEGAfm

MEGAfm is a 12-voice FM synthesizer whose sound synthesis is based on the YM2612 chips from the legendary Sega Megadrive/Genesis game console. **Page 79**



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Benzodiazepines and synthetic opioids are the drugs of the hour - and Trap is their official channel. In Germany, too, drugs like Tilidin are becoming increasingly popular. Until now, music has never been blamed for this, which, unfortunately, is not good news.
- 050 Studio Insights: BT**
Brian Transeau is a Grammy-nominated soundtrack composer and a Trance legend. Now he's back with his first dance album in 7 years. D. Turner explored the artist's stunning studio and learned more about his obsession with technology.
- 092 DJ Interview: San Proper**
He achieved his breakthrough with the percussion storm of „Keep it Raw“ and an intensely exciting production aesthetic. Just as exciting as his tracks are his DJ and live sets. T. Fischer talked to him about DJing as medicine and about playing tape decks with screwdrivers...among other things.

Top Workshops



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Portrait: Woodkid

7 years after his sensational debut album „The Golden Age“ he returns with his 2nd LP „S16“ and presents an elaborate opus between soundtrack, avant-garde and pop music. We talked to the artist about production, orchestra recordings and the Sulphur concept, among other things. **Page 30**

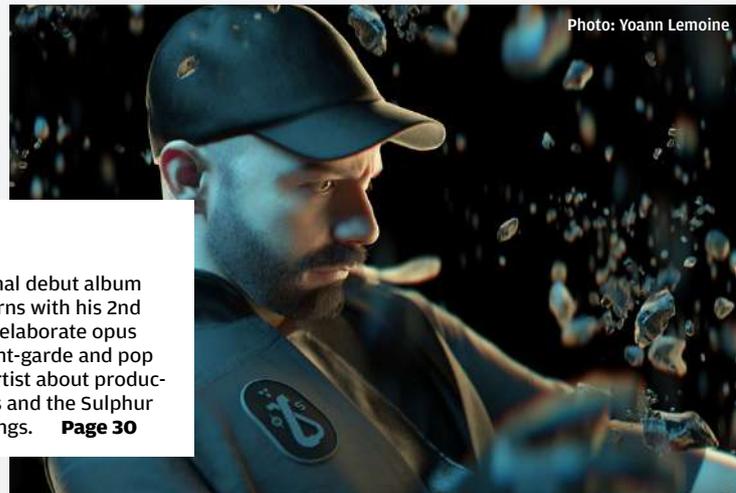


Photo: Yoann Lemoine



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Finally, more Samples, Sounds and Plug-ins with every Beat-issue.

by Beat Editor-in-Chief Marco Scherer



Dear Beat Reader,

In the past few months, it has become increasingly difficult for us to squeeze the concentrated load of Software Highlights onto the 8.5 GB magazine DVD. That's why you can now get the monthly plug-ins and samples as unlimited downloads. By saving the unnecessary plastic, we are also doing something for the environment.

And we're starting right away! With the current issue, you won't get the usual 8.5 GB of data, but an incredible 12 GB! Packed with the best plug-in highlights and inspiring loops & samples for the hottest music styles and much more! Access is easy: Just click the link: bit.ly/BeatDL178, enter the requested word from the booklet and download it all.

Alternatively, you can register as a subscriber for free at www.plugins-samples.com, where all the issues since Beat #87 are available for download. Registration is done at Serialcenter and is then void.

Have fun with the Software Highlights and this issue of Beat!

Download Software: bit.ly/BeatDL178

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Navigator: Best of Beat # 178



The Common Thread: Beat Issue 11/2020

For many years Beat has been inspiring its readers not only with practical and musical topics, but above all with the tight integration of editorial content. From the very beginning, Beat has been about creating, about the structured building of ideas and the common thread - in the magazine as well as in the tracks. This navigator shows you the highlights of this issue and allows you to see the big picture.



Studio Insights: BT

BT, Brian Transeau, is a Grammy-nominated soundtrack composer and a Trance legend. Now he's back with his first dance album in 7 years. Danny Turner explored his stunning studio and learned more about the artist's obsession with technology. **Page 50**

Review: Roland JU-06A

The successor to the limited JU-06 has been improved in every aspect: In addition to the Juno-106 emulation, the JU-06a can also convincingly emulate a Juno-60 and, therefore, covers a lot of classic analog sounds. In addition, the arpeggiator, which was still painfully missing from its predecessor, has been added and the sequencer has been reworked. **Page 76**

Free: Voltage Modular Beat Edition

Voltage Modular is one of the most exciting modular software systems. With the Voltage Modular Beat Edition, Cherry Audio gives Beat readers a special version of the creative powerhouse. In addition to all 22 modules and over 130 presets in the Nucleus version of the software, it offers additional building blocks from Andrew Macaulay, including useful utility modules and an LFO with delay option. All the essential tools are on board for creating sonically powerful synthesizers, complex effects processors, and drum or drone machines. **Page 38**

Interview: San Proper

With the percussion storm of „Keep it Raw“ and an intensely exciting production aesthetic, San Proper achieved his breakthrough in 2009. At least as exciting as his tracks are Proper's DJ and live sets, which sparks, swings and grooves furiously. Tobias Fischer talked to the man, whom everyone in Amsterdam supposedly knows, about youthful arrogance, DJing as medicine and about playing tape decks with screwdrivers. **Page 92**

Digital Culture: Bitter Pill

Benzodiazepines and synthetic opioids are the drugs of the hour - and Trap is their official channel. The scene sings of excesses and issues warnings about them. In Germany, too, drugs like Tilidin are gaining popularity. So far, no one has held the music responsible. This is unfortunately not good news at all. **Page 36**

NEW

BEAT SOFTWARE FOR DOWNLOAD

bit.ly/BeatDL178

VIEW AND DOWNLOAD IN YOUR BROWSER. WITHOUT REGISTRATION!

Magazine

by J. Duchêne, M. Scherer, M. Schumacher

PodTrak P4 – Are physical distances a problem for Podcasts?

The PodTrak P4 offers four microphone inputs with newly developed microphone preamps that operate at up to 70 dB gain. The four headphone outputs with individual volume controls also allow for larger conversations and, if a guest is physically not able to be on site, it can easily be switched on via a connected smartphone. Four sound pads can be used to play jingles, sound effects or music, which can be recorded on 2 of the 8 available tracks to SD card. You can also connect the P4 to your computer via USB and use it with conferencing software. According to the manufacturer, the P4's integrated mix-minus function automatically eliminates annoying echoes and feedback. The P4 is also an audio interface with 2 inputs/outputs, so you can either record directly with your PC, MAC and iPad or stream your podcast directly. An Apple Lightning to USB camera adapter is required for this process. You can start music, commercials, jingles and recorded interviews via the assignable sound pads on the P4.

www.zoomcorp.com



More Info

Arturia PolyBrute Analog Dream-Synth

With the PolyBrute, Arturia has added a polyphonic brother to its synthetic battleship MatrixBrute. It is six voice polyphonic and comes with a lot of innovative new features. PolyBrute's synthesis is based on two flexible analog oscillators and the proven dual filter section. For modulation, there are three ADSR envelopes with loop function, three LFOs and a 12x32 modulation matrix onboard.

A real highlight is the ability to morph between two sound variations. With the three-dimensional Morphée pad and the wooden ribbon controller as well as the high-quality 61-key keyboard, this synthesizer presents itself as a very expressive instrument. The polyphonic 64-step sequencer and the Motion Recorder, with which you can record controller movements, ensure that the sound is always moving. For sound refinement, high-quality digital effects are available, which can be arranged in three effect slots. The accompanying software, including a plug-in version, allows convenient editing and preset management. PolyBrute is expected to be available at the end of November for 2499 Euro.

www.arturia.com



More Info

PSI Audio A14-M: Studio Monitors with New Drivers

PSI Audio updates the A14-M Studio Monitor. The new model replaces the previously externally manufactured tweeter with a specially developed driver, which is manufactured entirely in PSI Audio's own factory. The tweeter is said to deliver more sound pressure with less distortion and even finer reproduction. The A14-M is developed and manufactured in the company's factory in Switzerland and features the usual PSI Audio technologies such as AOI, CPR and ALG.

With its new tweeter, the A14-M reportedly delivers a finer treble response. This extends the general accuracy of the monitor - but the speaker provides an even more accurate view of the material. A higher maximum sound pressure level and lower distortion values would underline that this update has produced the best A14-M ever.

With its improved performance and even greater fidelity, the new A14-M expands the PSI Audio product range of high-precision active monitor speakers. They are designed so that all components work together as a perfectly integrated system.

www.psiaudio.swiss



More Info





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ANOTHER MILESTONE IN SOUND DESIGN

WWW.AUDIOTENT.COM



A Vocoder for all MicroFreaks and as a Limited Edition

It could have gone like this with the Arturia development team: „Don't we want to integrate a vocoder into the MicroFreak? And everyone just said: „Sure!“. Okay, admittedly, it could have gone differently, but the result remains the same: The Synth is now not only available as a new Edition in chic white, but the older versions also get a vocoder as an additional sound source with the latest firmware update. Respect!

The new edition comes with a handy gooseneck microphone connected to the headphone output. The vocoder offers 16 bands and is ready for use at any time without routing thanks to the MicroFreak keyboard. Sound tweakers can enjoy the direct integration into the Modmatrix, so that the results can sound even livelier compared to other vocoders. If you prefer not to tweak, the firmware update also provides fresh presets for the vocoder. Owners of older MicroFreaks can also enjoy the vocoder and only need a TRRS adapter (Tip, Ring Ring, Sleeve), which divides the headphone output into two inputs.

www.arturia.com



More Info



Free of Charge: Newfangled Audios Pendulate Synthesizer

Bored by the same old synthesizer sounds? Pendulate is a chaotic monosynth that uses a brand new double pendulum oscillator to create previously unheard sounds - biting basses, burning leads and dark textures. It can smoothly transition from a sine wave to total chaos, with a wide range in between to be explored.

Pendulate's Chaotic Oscillator is based on the physics of a double pendulum. What at first seems to be random, contains underlying patterns, correlations, constant feedback loops, repetition, self-similarity, fractals and spontaneous organization. When designing the pendulum oscillator, the developers took great care to work out these underlying patterns to create something both chaotic and musical. The Chaotic Oscillator is equipped with a wavefolder and a low-pass gate inspired by the ideas of legendary synthesizer designer Don Buchla. These three modules, Oscillator, Wavefolder and Gate, together create everything from warm bass to searing leads.

www.newfangledaudio.com



More Info



CDJ-3000: Playing with Touchscreen, Shortcuts and Key Sync

It started with the CDJ-500: It was the world's first „Toploader“ that made CD spinning marketable. Numerous milestones followed after that. The CDJ-3000 is the logical evolution of established technology. Is DJing with touchscreen, shortcuts and key-sync already the new fashion for 2021?

On the 9-inch touchscreen, you can see all information with adjustable sharpness. Thanks to new shortcuts, you can jump faster between categories in your music collection. Functions like Touch Preview are designed to make track selection effortless and fast. In addition, features like Touch-Cue, Stacked Waveform and the 3-band waveform are available.

Eight hot cue buttons are located directly below the waveform display and offer even more trigger options. The new hardware buttons give direct access to beat jump, and key sync helps with harmonic mixing. The new 8-Beat-Loop buttons, which are available in addition to the regular 4-Beat control, allow you to create a much wider range of loops.

The CDJ-3000 is available now for 2,399 Euro.
www.pioneerdj.com



More Info

Maschine+ as a Standalone Groovebox

After there were rumors last year, followed by denials on Native Instruments' part, more than likely nobody believed them for a while. From a purely visual point of view, Maschine+ is a copy of the MK3 with a few more ports and, most importantly, it can be used with or without a computer. Internally, there's a quad-core processor with 4 GB RAM, that should be able to handle a decent number of plug-ins. Maschine+ offers the same sequencing, sampling and synthesis functions that are already familiar in previous models. On stage, Maschine+ gives you full control over every element of performance, with macro knobs and deep sound processing controls. In addition to the classic groovebox workflow, Maschine+ offers a collection of instruments, effects and sounds including synths like Massive, Monark, Prism and FM8 - plus the Factory Library, Room, Phasis and five expansions. The included voucher can be used to purchase two additional expansions.

Maschine+ will be available from October 1 for 1,299 Euro. They are taking Pre-orders now on the NI website.

www.nativeinstruments.com



More Info



Fresh on YouTube:

Producer Tips with the Beat Podcast

Welcome to our
YouTube-Community!

Finally: We're back on our YouTube channel with full power! There, our colleagues Kai aka Klartexter and Rüdiger Keller will be inviting artists to interview with their podcasts Aethermonolog and 3Tracks and will be offering answers to the most popular topics around music production. So switch it on right away!

Be creative, learn, get better: The Aethermonolog



About GEMA: An Interview with Matthias Tode

The Aethermonolog is a weekly podcast about songwriting and making music. Being creative, learning, sharing, getting better - that's what it's all about. In the following we talk about a topic that is often and gladly hotly discussed.

The GEMA is a topic a musician has to deal with before pressing his first CD or vinyl. Apart from that, the keyword „YouTube License“ is more topical than ever. In this podcast, I talk to the music supervisor and publisher Matthias Tode from Ohrfilm.

We'll discuss the questions: What is the GEMA? How does it work? And for whom is a membership a good idea? On our way to the answers we touch on various other topics like film music and composition. Tune in!

Talking with musicians eye-to-eye: The 3Tracks Interviews



From Keller Kinder to Live Act: Frank von Welt

More than likely, many musicians feel the same way: Which plug-ins do others like to use; what do they pay attention to when producing their music? In contrast to our Aethermonolog, 3Tracks is about GEMA-free artists and musicians like you and me. We start with the basement child Frank von Welt.

Frank started in 2007 as „Keller-Kinder“ with his friend Jassin Dahmani, playing the first live shows in famous clubs like the Rakete- or Zoom-Club in Nürnberg. He released his first track on Beatwax Records and took part in the annual Soundbar Center sampler CDs. Today he is known as a live act in the House genre in Nürnberg. In our Podcast, we speak about his soulful Melodic House sound and how it is created.

About Kai: I am Kai Birkenfeld aka Klartexter, MC and producer from Hamburg. As a former graffiti writer, longtime hobby guitarist, passionate home studio owner and 90s hip-hop fan, my musical work moves in the melting pot of these influences.



Listen Now

www.youtube.com/beatmagazin



The electronic scene offers many topics that we want to address in this podcast. All producers are invited to join us, and the interview will be accompanied by their tracks. All this in a relaxed chat. So, treat yourself to a coffee and listen to what other musicians have to say.

MUSIC TRUMP(ET)'S WAR

Once upon a time, there was a man with a trumpet. And when he was a soldier in the US Army landing on the beaches of Normandy, he kept it by his side. Once, when he was standing guard at night, his captain told him: "Don't play tonight, there's a sharpshooter out there." But our

man thought: "That guy out there is just as scared and lonely as me. I'll play a piece for him." The next day, a POW was brought into the camp, and he asked: "Who is the trumpeter that played 'Lili Marleen' last night? When I heard that song, the war was over for me - I just

couldn't use my gun any more." The man with the trumpet was called Jack Leroy Tueller. And though it may sound like a fairy tale, this is a true story. A story only music can write.

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YouTube, TikTok, Facebook... Streaming is more popular than ever, but classic media forms like podcasts are also gaining in popularity. It's no surprise when parties are transmitted over the net and DJs play their sets in front of a virtual audience. In our big special, we take a holistic approach to the topics and show you the best techniques and equipment for streaming and simultaneously explain how you can not only collect likes but also generate revenue.

by Kai Chonisvili, Marco Scherer and Stefan Hofmann

Streaming and Podcasting are currently on everyone's lips. Gamers in particular have been broadcasting their gameplays live on the Internet for several years - and with great success. Well-known streamers reach tens of thousands of users and can even make their living from the gamers' room. Meanwhile, successful podcasters are also being provided with highly remunerated exclusive contracts by various streaming providers - and in times of curfews and concert cancellations, streaming services and live broadcasts are also becoming more and more interesting for musicians. Concerts, musician podcasts, lessons or studio insights - all this can be done in the home office nowadays.

The quality of the transmissions has also improved in recent years. Viewers expect good transmission quality, in which the picture and sound are as good as those from a TV station. And you should plan your streaming or podcast appearance in exactly the same way - just like a TV show.

On the following pages, you will learn how the most important streaming and podcast platforms work and which technology you should be equipped with in order to realize a professional real-time transmission. In the following paragraphs, we will introduce you to the most popular platforms. We wish you a lot of fun and hope to be able to give you one or two tips to successfully master podcasting and streaming.

Twitch

Probably the best



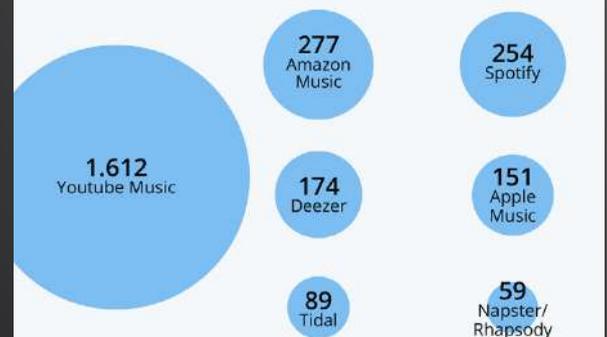
known streaming platform at present is Twitch. The gaming sector, in particular, enjoys great popularity here. Meanwhile, however, many musicians also frequent the popular website. As early as 2013, the platform recorded more than 45 million viewers per month on over six million channels. At the end of August 2014, Twitch was purchased by Amazon for a substantial sum.

Every user who has an account can also create his own channel. Streaming software is required for transmission. One free option is OBS Studio. Twitch also provides its own software for beginners. The Twitch partner program is particularly interesting. Users who stream regularly and whose viewer numbers are constantly growing are eligible for this program. As soon as users have reached this status, there is an option to show ads in streams.

For this purpose, the respective partner receives a share of the advertising revenue. Furthermore, viewers can support channels of the program with paid subscriptions or purchase

Hard earned Streaming Euros

Number of streams that musicians need on streaming platforms to earn one Euro (as of 02/2020)



Source: Beat



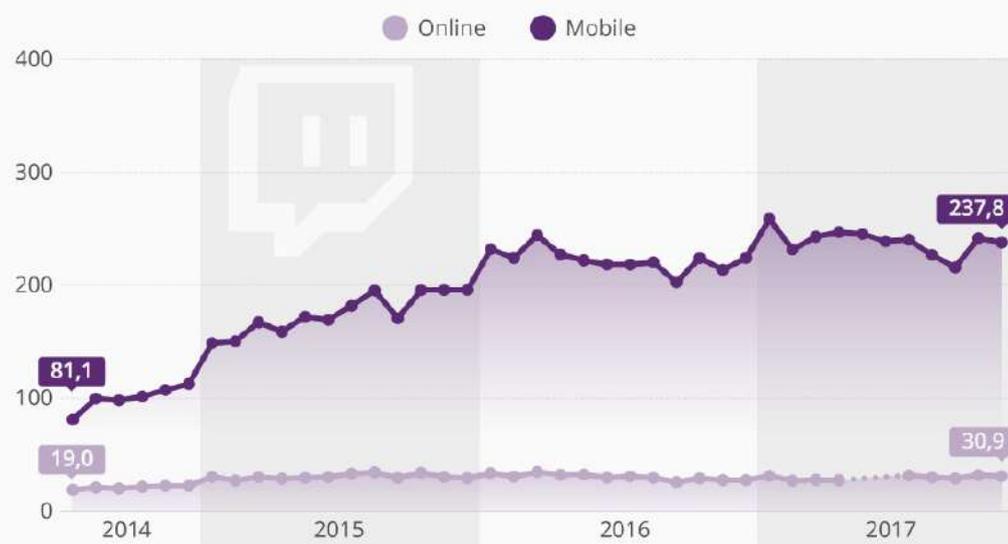
statista

To make a living from music isn't easy these days. Income from physical media is getting less day by day and streaming platforms don't create the same revenue. Source: Statista

so-called Bits and forward them to their favorite streamers. For smaller streamers, there is an affiliate program. But here, too, certain requirements must be met such as having seven transmissions in the last thirty days. If users are eligible for this program, monetization options are activated and advertising is reserved for those partners.

Twitch is growing mainly in the mobile area

Visit count of twitch.tv in Germany (in millions)



No values for May and June 2017
Source: IVW



The live streaming portal Twitch is especially famous in the gaming genre, but also for learning and tutorial sessions about music production. Source: Statista

TikTok



The Chinese video portal TikTok is arguably the best known social media platform at present. It focuses specifically on short clips with lip-sync music videos. Users can edit these after recording with special effects and filters.

The platform has already helped several artists enter the music charts. Rap songs dominate the music charts. Meanwhile, some musicians even adapt their music structure to become one of the viral hits on the platform. Record labels even use TikTok as a marketing instrument for new releases of their musicians.

The musician Loredana, for example, made it to number one on the German charts with a well thought-out hashtag challenge to her track „Du bist mein“. Users were able to follow the development of the song in several live streams. In the course of the campaign, the chorus was made

available as sound files on TikTok and the „#dubist-mein-Challenge“ was launched. Fans of the singer were given the opportunity to upload dance videos of the song, with the twenty best performances being published in the music video. Nearly 60,000 clips were released within a very short time period, so the track was a hit even before its release and would later reach the top of the German charts.

An operation on Dua Lipa’s new song worked according to the same principle towards the end of August. Those who added the hashtag #DuaVideo to a creative video about makeup, animation or dance had the chance to participate in the official music video.

YouTube



Users can also realize real-time transmissions on YouTube - probably the best-known video platform on the Internet. But not every channel offers the opportunity to watch a video in real-time. However, not every channel offers the possibility to go live on YouTube. Your channel must have at least one hundred subscribers to activate the live function; if you want to start broadcasting with a mobile device, you even need 1,000 subscribers. In addition, there should be no abnormalities like violations of the terms of use in the last 90 days. By the way, no special software is required for a YouTube stream. Everything works browser-based - even the microphone selection. After the stream, you can save the video on your channel permanently.

If you’ve found a sponsor for your stream, you can easily integrate advertising; however, you have to mark them or point them out. Furthermore, the advertising must not violate the Google Ads guidelines. We recommend that you read the Google terms of use before going live with ads.

Facebook/Instagram



Live streaming on Facebook and Instagram is very easy. While Facebook enables a browser-based stream, Instagram provides this feature exclusively on mobile devices via the respective user account or the band page (Facebook), and a live broadcast can now be started. Afterwards, the video can then be posted and saved on Facebook. Instagram provides users with the clip for 24 hours. The video can also be saved.



Instagram TV & Reels



To get around the 60 second time limit that Instagram has set for video content, Instagram TV was launched nearly two years ago. This allows content of up to 60 minutes to be uploaded. The videos are displayed as Instagram Posts. Users are, therefore, able to watch longer tutorials, music videos and podcasts.

Instagram Reels is the social media platform’s response to the features that TikTok provides to users. For example, the „Reels“ function was integrated into the Instagram camera. Users can now record fifteen-second videos and edit them in the app. The clips can consist of a single or multiple recordings. Users can also include their own audio files, as well as music from the Instagram Music Library.

Amazon & Audible



Spotify is at present possibly the largest platform for Podcasts world-wide. The company is now trying to provide well-known podcasters with highly remunerated contracts to exclusively bind them. This practice is now crowned as the model for success. For instance, the world’s best-known podcaster, „Joe Rogan“, was recently signed to a contract worth millions.

Amazon also wants to use Amazon Music and Audible to increase its use of podcasts in the future. With more than 55 million users, this platform is very interesting to Podcasters. By the way, Amazon Music is now also connected to Twitch. Users can now interact with musicians via live stream. And so the circle is complete.

DJ Set & Synth Performance

Set Up a Live Stream

Product presentations, tutorials or complete DJ sets; the trend of live streaming has been unstoppable for months. No surprise, as Youtube, Facebook and others offer seamless integration. That's why Beat and Zoom are dedicated to this topic and present comprehensive tutorials in five episodes: Get started with live streaming of a DJ set!

Project Info:

Material: DJ-Set, OBS Studio, Audio Interface & Webcam

Time Required: about 30 minutes

Content: Integrate a DJ set into OBS Studio via audio interface and webcam, set up OBS Studio as streaming center for YouTube

Difficulty: Advanced



1 Live Stream: Here's How

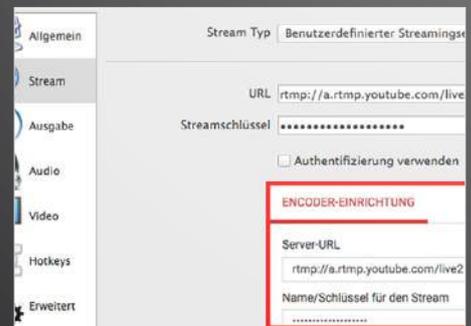
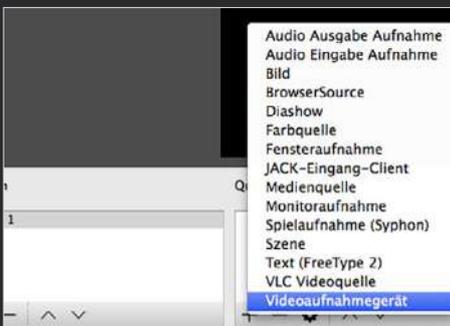
To set up a DJ set as a live stream on Youtube, you need three things besides the DJ equipment: audio interface, webcam and streaming software. While the audio interface takes the sound from the DJ set professionally and the webcam creates a video, the streaming software is used to manage the media streams. In addition, it forwards the stream to Youtube. ✨

2 All-in-One Solution

In this context, the Zoom Q8 is an all-rounder, as this cell phone video recorder can act as a webcam and audio interface. Furthermore, the wide-angle lens also captures larger DJ sets with more equipment. First, we install the webcam driver [1]. Then, we connect the main output of the DJ mixer to the combined XLR/Link inputs of the Q8. ✨

3 Modular Alternative

A modular solution would consist of any audio interface with at least two(!) inputs for connection to the main output of the DJ mixer. A video camera is also required that can be recognized as a webcam(!) by the computer. This point is important because the simple connection between camera and computer via USB is not sufficient and is only used for data exchange. ✨



4 OBS Studio

After the external connection is established, audio and video information must be set up in the OBS Studio [2] streaming center. First, we add a new video recording device in the Sources tab, give it a name and select the webcam; in our case the Q8 Web Cam device. You can scale the video source by dragging the red video borders to size. ✨

5 Audio Setup

OBS Studio offers clever options for creating the audio connection that unfortunately are not error-free. That's why we use a more stable route via the system settings of the operating system where we define the audio input connected to the DJ mixer as the default input (in our setup: Q8 Web Cam Audio). In OBS Studio the following applies: Preferences > Audio > Microphone = Standard. ✨

6 Youtube Live Stream

Now we switch to our Youtube channel and open LIVESTREAMING. By clicking on Stream Now, we scroll down to Encoder Setup and copy the URL and stream key into the stream settings of OBS Studio (Preferences > Stream > Custom Streaming Server). Finally, we activate Start streaming in OBS Studio and the YouTube stream begins. ✨

Master of the Niche: In Talks with Hainbach

Earn with Streams?

Computers become faster, plug-ins more sophisticated and DAWs more extensive. This makes it all the more astonishing that Hainbach produces his music almost exclusively with test equipment, reports on it in live streams and even generates income. „Niche“ is the magic word. We talked to him about his concept, setups and monetizing streams... and got some tips.

Beat / How did you get the idea to make music with such fancy instruments and broadcast it live?

Hainbach / To be honest - I have always been interested in strange instruments. I used YouTube for documentation in the beginning and quickly noticed that, when pictures happen to music, people tend to stay tuned. There was more and more positive feedback and so one thing led to another.

Beat / What should a streaming beginner be prepared for?

Hainbach / The setup should be tested and stable before the first stream starts. Latency is also important, because if a stream is recorded, the computer needs some power. Additionally, with the audio routing (i.e. once into the video setup and back again), there can be noticeable delays and picture and sound can drift apart.

Even more important, however, is the video quality, because this is where the tolerance of the audience is lowest. That's why the first thing I got in the lockdown was an Elgato CamLink 4K, which allows you to connect a good camera with HDMI out, like a Panasonic GH5. Problem: HDMI is causing latency again, so the GH5 was running asynchronous to my Logitech C920 webcams. So I switched to a complete solution from Blackmagic, the ATEM mini. This is a small switch that allows you to switch and crossfade four HDMI cameras and displays as one webcam on your computer.

A checklist is also important because you have to do so many things at once. And switch off WLAN! For live broadcasts, a cable connection via LAN is mandatory.

Beat / Does it make a difference on which platform you stream?

Hainbach / Definitely! On YouTube, for example, streams are no longer promoted after the live session. It can be helpful to cut the stream and set it as a new video. My personal main platform is YouTube, because that's where my actual audience is at home. I also have a channel on Twitch, but would only use it for suitable content, such as gaming. And then of

course, Facebook, where interaction is at its lowest; but the most active feedback you get on Twitch. You can also stream parallel everywhere. Colin Benders, for example, does this with Restream: he uses a sub-service for this, which then distributes everything to the various channels.

Picking people up from where they are makes perfect sense. On the other hand, a maximum focus on one point is then rather difficult, like in analysis and chat. The interaction with the chat is very important for streaming. I don't use this broadband service, but prefer to stream where I have everything together - at one point. I am a very big fan of playing every medium as it is.

Beat / What would you say is the biggest difference between YouTube and Twitch?

Hainbach / Twitch is made for live streams, on YouTube it's an add-on. If I did streams where I include the audience, I would go to Twitch immediately. You can even make donations there during the live stream. On YouTube, there is also monetization via superchat, but it is somewhat hidden behind a small dollar icon. With Twitch, this is a matter of course, but with YouTube it's rather not. At Twitch, you can even buy extra emoticons for interaction and your own currency. On both platforms, a part of the donations goes to the platforms themselves or the operators (Amazon in the case of Twitch). YouTube takes 30%.

Beat / Can one earn serious money on YouTube at all?

Hainbach / So, not just with YouTube, because you have to have 1,000 clicks in the music area for two US-Dollars. With 60,000 views, that would be around 120 US-Dollars revenue. Compared to the work that goes into it, that's nothing. Patreon is the most important thing for me, and I currently earn my main income with it. But that's why I can also allow myself to cover the most outlandish topics. There's an enthusiastic „core audience“ - that's about 600 people who subscribe to me monthly or even yearly and in return help decide on content, ask questions and get music and exclusive sample packs.



About Hainbach

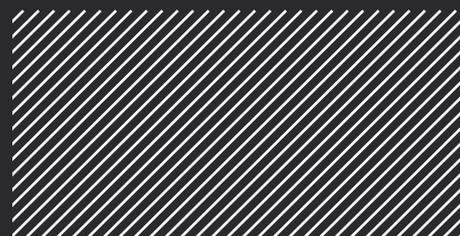
Berlin-based electroacoustic music composer and performer Hainbach (Opal Tapes, Seil Records) creates moving audio landscapes that THE WIRE calls „A Journey to Hell“. Using esoteric synthesizers, testing devices, magnetic tapes and idiophones, his music is both abstract and a very physical experience. He has become known for his immersive live performances and through his YouTube channel, where he introduces experimental music techniques to a wider audience.

www.hainbachmusik.com

Another way to earn money on YouTube is through sponsorship and related product placements. An operator like Distrokid is mentioned and I get a link with a code - if someone clicks it and buys the product, I get a commission. The third option is endorsements: companies send me synthesizers or pedals and pay for a video with or for it. Below that there is paid advertising and I will say it clearly if that is the case.

Beat / You also sell music and sounds at Bandcamp, right?

Hainbach / Yes, Bandcamp is going very well for me, too. It's a nice platform for my slightly more offbeat music. I think my last record was number 3 in top sales. That's about 500 units in a few days, distributed on tape, vinyl and digital. For physical formats, Bandcamp is the best platform right now.



Six Microphones for Podcasters and Streamers

Elgato Wave:1

Recordings are possible at sample rates of 48 kHz at 24 bit. The frequency response is 70 Hz to 20 kHz and a cardioid polar pattern was chosen. The **Clipguard** function should be emphasized. If the input level is too high, the signal is redirected to the **second signal path** with lower volume. All computer audio sources can be managed via **Mixing Software**.

Web: www.elgato.com

Sales: Elgato

Price: 139 Euro

Røde NT-USB

The Røde NT-USB condenser microphone has a stereo headphone jack and a mix control for **latency-free monitoring**. A table stand is included in the delivery. With a frequency range of 20 Hz to 20 kHz, most users should be satisfied. Recordings are possible at 48 kHz with 16 bit resolution. The converter is suitable for recording instruments, podcasting and streaming applications.

Web: www.rote.com

Sales: Hyperactive

Price: 189 Euro

Apogee Mic Plus

The Apogee Mic Plus is a USB condenser microphone that allows recording at up to 24 bits at 96 kHz. The directional characteristic is cardioid and this microphone also features a headphone output with blend function. In addition, the Apogee Mic Plus features an **excellent preamplifier** by the manufacturer and is, therefore, also interesting for studio applications.

Web: www.apogeedigital.com

Sales: Sound Service

Price: 215 Euro



Sennheiser MK4 Digital

To achieve the best possible sound, an **Apogee preamplifier** was installed. The frequency response covers everything from 20 Hz to 20 kHz. Recordings are possible at up to **96 kHz at 24 bit** resolution. There is no headphone jack and preamplifier installed. Presumably the manufacturer assumed that the monitoring was done separately. In terms of sound, the microphone is impressive all along the line.

Web: www.sennheiser.com

Sales: Sennheiser

Price: 388 Euro

Sontronics Podcast Pro

The Sontronics Podcast Pro is the only microphone in our overview that does not have a USB connection. That's not a bad thing, because the microphone was designed especially for podcasters. A supercardioid polar pattern was chosen and the frequency response ranges from **50 Hz - 15 kHz**. An **integrated pop shield** and **shock mount**, as well as an excellent price, make this microphone attractive for beginners and professional users alike.

Web: www.sontronics.com

Sales: Audiowerk

Price: 112 Euro

beyerdynamic Fox USB

With a sampling rate of 96 kHz at 24 bit resolution, the beyerdynamic Fox USB can be used to create professional recordings. The capsule of the large diaphragm condenser microphone has a cardioid polar pattern. By the way, the microphone can easily be muted with the **Mute Button**. This is especially interesting for streaming applications. This allows each user to decide for himself which things are shared with the public.

Web: www.beyerdynamic.de

Sales: beyerdynamic

Price: 146 Euro

Six Ideal Headphones for Live Streams

ESI Extra 10

The ESI Extra 10 is a dynamic, studio-quality, circumaural **Monitoring Headphone**. The frequency range is 15Hz to 29 kHz. It is equipped with 50 mm neodymium drivers. These headphones are **very comfortable to wear**, have a well-balanced sound image and a good price-performance ratio. Users with a low budget are particularly satisfied.

Web: www.esi-audio.de
Sales: Hyperactive
Price: 57 Euro

beyerdynamic DT 979 PV

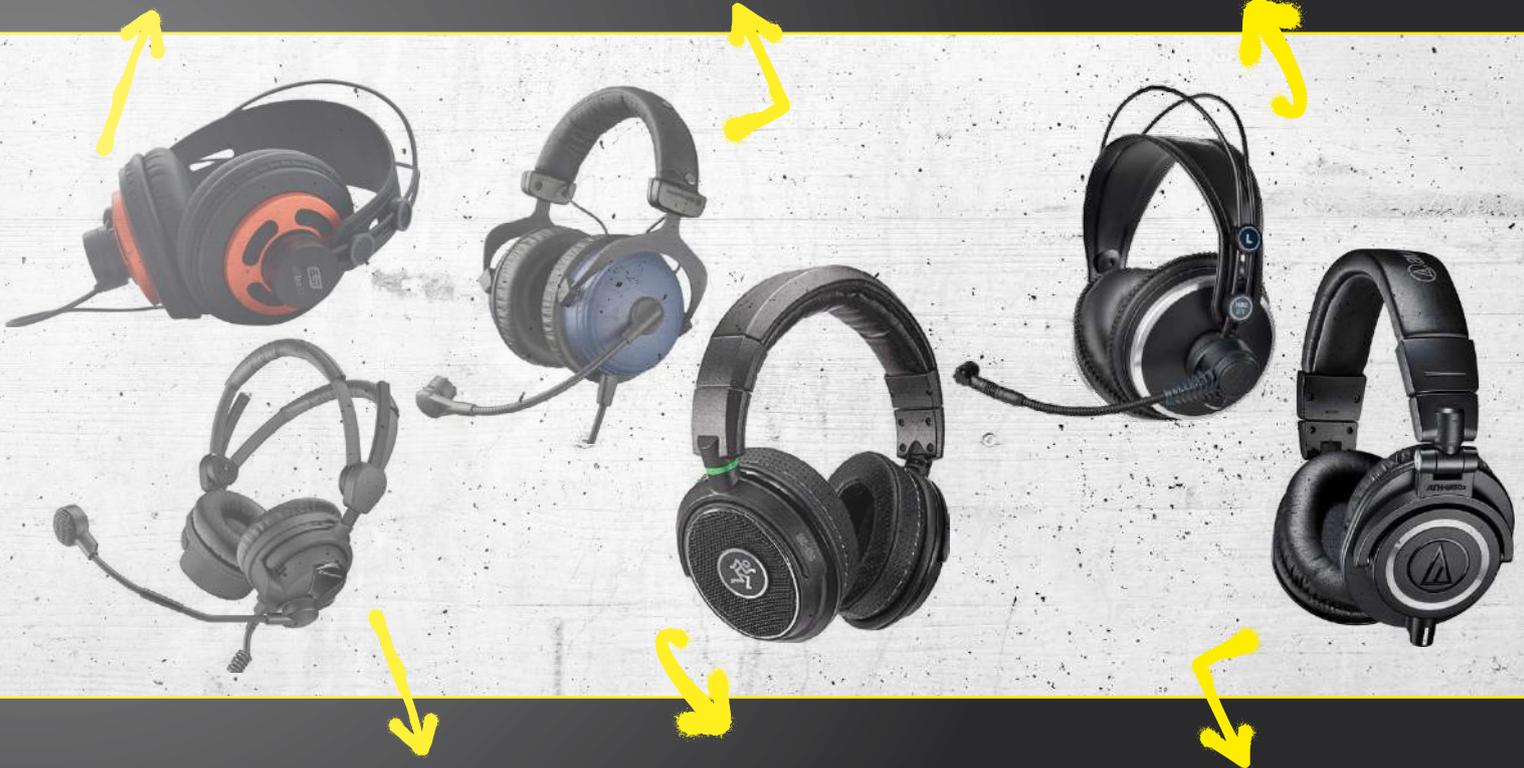
The beyerdynamic DT 979 PV is impressive with its closed design and an **integrated condenser microphone**. The **rotatable gooseneck microphone arm** can be adjusted to almost any position. The frequency range is 5-30,000 Hz and the noise-insulating housing combined with the circumaural ear cushions provide excellent isolation from external noise.

Web: www.beyerdynamic.de
Sales: beyerdynamic
Price: 290 Euro

AKG HSC271

The AKG HSC271 is a closed, circumaural headphone with a frequency range of 16-28,000 Hz. The built-in condenser microphone has a cardioid polar pattern and has a superior frequency range of 20-20,000 Hz. **When the microphone swivel arm is folded upwards, the microphone is switched off**. When users take off the headphones, they switch to mute.

Web: www.akg.com
Sales: AKG
Preis: 262 Euro



Sennheiser HMD26-II-600

These dynamic, closed, supra-aural headphones have a frequency range of 20-18,000 Hz and are equipped with a dynamic microphone with a **hypercardioid polar pattern**. The headphones are designed for particularly **high sound pressure levels**, with good passive external noise attenuation. The swivel microphone can be worn on the right or left side.

Web: www.sennheiser.com
Sales: Sennheiser
Price: 429 Euro

Mackie MC-450

The Mackie MC-450 has a high-quality, adjustable leather headband and ear pads **made of memory foam**. The great comfort makes the headphones also suitable for longer sessions. Exchangeable cables with lockable bayonet plug, a 42 mm driver and a frequency response of 20-20,000 Hz make the headphones a perfect companion for podcasting and streaming.

Web: www.mackie.com
Sales: Mackie
Price: 291 Euro

Audio-Technica ATH-M50 X

The Audio-Technica ATH-M50 X is equipped with a 45mm driver with a **Neodymium Magnet** system. The dynamic, closed and circumaural headphones have a frequency response of 15-28,000 Hz. The ear cups can be **swivelled by 90 degrees**, ensuring a small packing size and making the headphones also suitable for mobile applications. These headphones impress with an excellent price-performance ratio.

Web: www.audio-technica.com
Sales: Audio-Technica
Price: 125 Euro

Six Must-Have Interfaces, Controllers and Mixer

Elgato Stream Deck

The Elgato Stream Deck turns your home studio into an easy-to-use broadcast station. **15 LCD buttons** for executing any number of shortcuts form the heart of the controller. At the touch of a button, you can switch scenes, start media and adjust audio settings. By the way, the Elgato Stream Deck can also easily act as a DAW controller. The **Key Generator** allows you to create your own icons for each shortcut.

Web: www.elgato.com

Sales: Elgato

Price: 149 Euro

Steinberg UR24C

The Steinberg UR24C is a 2x4 **USB 3.0 audio interface** with iPad connectivity. Recordings can be made at **32 bit and 192 kHz**. Two Class-A D-Pre microphone preamplifiers with 48 Volt phantom power were installed. With two separate switchable monitor modes, latency-free monitoring with DSP effects, and a **loopback function** for streaming applications, this interface is the perfect companion for streamers and podcasters.

Web: www.steinberg.net

Sales: Steinberg

Price: 249 Euro

Zoom Podtrak P4

The Zoom Podtrak P4 is a recorder specially designed for podcasting applications. **Four microphone inputs** have been integrated with up to 70 dB gain. Four headphone outputs with individual volume controls allow for larger podcasting sessions. **Four sound pads** allow jingles, sound effects or music to be played in. Of course, the recorder can also be used as an audio interface.

Web: www.zoomcorp.com

Sales: Sound Service

Price: 254 Euro



Rode Caster Pro

Rode Caster Pro is a full-fledged podcast studio. Four microphone channels support both condenser mics and dynamic mics. With **automatic level adjustment** and recording to a microSD card, you can concentrate fully on the creative aspect. Eight available and programmable effect pads, the option to connect a **smartphone via Bluetooth** and eight faders provide a perfect podcast experience.

Web: www.rodem.com

Sales: Hyperactive

Price: 517 Euro

Focusrite Scarlett 2i2

The Focusrite Scarlett 2i2 is a 2-channel USB 2.0 audio interface with **USB-C connection**. Recordings can be made at 24 bit and 192 kHz. The integrated **Air circuit** makes recordings sound brighter and roomier. The price-performance ratio is particularly noteworthy. For less than 150 Euro, users get the perfect companion for streaming and studio applications.

Web: www.focusrite.com

Sales: Focusrite

Price: 142 Euro

Tascam Model 12

The Tascam Model 12 consists of a mixer with ten inputs, a **12-track** audio recorder, a USB audio interface, a MIDI interface, DAW control functions and podcasting functions such as Mix-Minus and a smartphone input. With the Tascam Model 12, **large podcast conversations are no problem**. The device combines all necessary functions for professional results.

Web: www.tascam.eu

Sales: TEAC

Price: 578 Euro

The Best Cams and Tools for Streaming Sessions

Logitech HD Pro C920

The Logitech HD Pro C920 is widely used among streamers. This is mainly due to its compact design and Full HD video quality (1080p at 30 frames per second). The built-in **glass lens** with continuously adjustable **autofocus** ensures sufficient sharpness for live streams. By the way, the webcam has an automatic exposure correction and two built-in microphones.

Web: www.logitech.com

Sales: Logitech

Price: 109 Euro

Logitech Stream Cam

Designed specifically for streamers, the Logitech Stream Cam has **two built-in microphones** and works with both Mac and Windows systems. The webcam is connected via **USB-C cable**. In conjunction with Logitech Capture, it is possible to automate exposure, cropping and stabilization, among other things. With a recording quality of 1080p at 60 frames per second, a crystal-clear image is guaranteed.

Web: www.logitech.com

Sales: Logitech

Price: 159 Euro

Microsoft LifeCam Cinema

Microsoft's Life Cam Cinema features 720p widescreen recording and a directional microphone with **digital noise reduction**. The universal clip can be easily attached and the **solid aluminium housing** protects the integrated technology from falling. Of course an autofocus is also integrated in this webcam. Due to the low price the Microsoft LifeCam Cinema is especially interesting for beginners.

Web: www.microsoft.com

Sales: Microsoft

Price: 70 Euro



Creative Live! Cam Sync 1080p

The Full-HD wide-angle webcam Creative Live! Cam Sync 1080p features an integrated **omnidirectional dual microphone**. Recordings take place at 1080p and 30 frames per second. A **lens cover** integrated in the housing allows the Creative Live! Cam Sync 1080p to be switched off in analog mode. The webcam is currently available for just under 50 Euro.

Web: www.creative.com

Sales: Creative

Price: 49 Euro

Elgato Cam Link 4K

With the Elgato Cam Link 4K you can easily connect a **DSLR, camcorder, or action cam to your PC or Mac**. To find out if your camera works with the Cam Link, simply visit the manufacturer's website so you can use the quality of a professional camera for live streams to achieve impressive end results.

Web: www.elgato.com

Sales: Elgato

Price: 129 Euro

Elgato Keylight

The Elgato Keylight delivers **studio lighting at the touch of a button**. The profile is made of solid metal and keeps the workplace tidy. It does not touch the floor and can be mounted flush to the wall. 160 high-quality LEDs provide bright light that can be dimmed. A color temperature range of 2,900 to 7,000 K allows **shades from sunny amber to arctic blue**.

Web: www.elgato.com

Sales: Elgato

Price: 199 Euro

Hands-on: The First Stream

The Easy Way to Ad-Free Podcasts

Podcasts are on everyone's lips, and not just in the music business. Even TV stations now offer their programs on-demand, so that broadcasts no longer have to be watched at a certain time of day. But how is a podcast created, how does it land online and how does the potential audience find out about it? We'll explain the necessary steps to publish a Dj Mix.



1 Like Radio

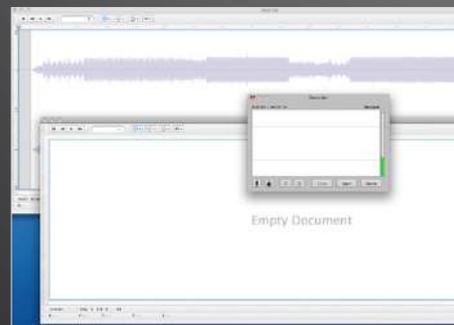
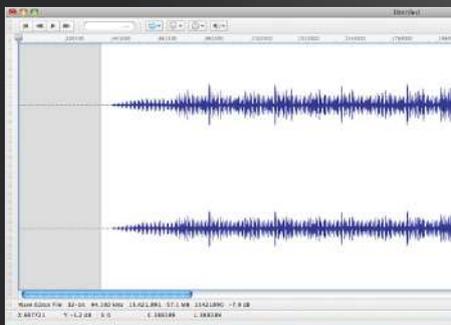
Right at the beginning, the question arises: Why upload a podcast as MP3? SoundCloud, Hearthis, Mixcloud and other providers allow the upload of long files. Right, but if you want your podcast to be ad-free for all listeners, the traditional solution is currently the only one available, but it does have its advantages... such as a permanent listenership. ✨

2 Preparations

To create the podcast, we need the following things: a microphone, an audio editor and webspace. Any low-noise model is suitable as a microphone, but a table tripod is a great advantage because you probably don't want to speak standing up. If the device is only used for podcasts, a model with a USB connection is completely sufficient. ✨

3 Equipment

Recommended are the mPod [1], C01U [2] or DRK [3]; some of these even come with a tripod. There are many audio editors, such as SoundForge [4], Wavelab [5] or Acoustica [6]. Freeware such as Audacity [7] or AVS Audio Editor [8] are recommended, but DAWs like Cubase [5], Live [9], Logic [10] or Reaper [11] are also very suitable. ✨



4 Webspace

Your own webspace is mandatory, because the MP3 files must be accessible via a direct link. Links to SoundCloud or a filesharing service are of no use. For the time being, we will settle for a package from HostEurope [12] or Domainfactory [13]. Both have favorable offers and can be easily extended if necessary. ✨

5 Get on the Cast

For our first show, we will use the recording of a DJ set which we will present as podcasts. After opening the set, cut away the superfluous silence at the beginning and end. Then, normalize the mix to a maximum of -0.4db. If necessary, you can compress the material, but only slightly. ✨

6 Recording Running

Connect the microphone and prepare a second track for recording. If your editor allows it, start playing the mix and record the moderation at the same time. If, on the other hand, you only want to record an introduction and an outro, no playback of the mix is necessary. The following tips are similar to those for cleaning up. ✨



7 Equalizing

Sibilants can be removed quite easily by lowering the volume a bit and applying a fade-in. Frequencies below 150 Hz should be cut off using EQ and the ranges around 300 to 500 Hz; and 3 to 6 KHz should be raised a little, depending on your taste, to increase warmth and speech intelligibility. ✨



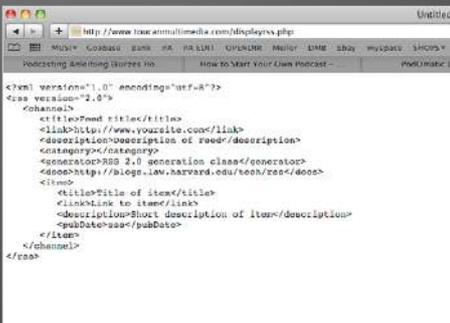
8 Export

If possible, use a sidechain compressor on the mix that reacts to the track with your moderation. This will make the music fade into the background while you speak. You can find a tutorial about sidechain here [14]. Export the mix as an MP3 file at 320 kbps, which is a good compromise between quality and size. ✨



9 Tags

Add useful tags to the MP3 file with iTunes [10] or Winamp [15] for example. You can edit tags and add a cover using the Information or Properties options. Then, upload the file via FTP program [17] to your web space and create a custom RSS feed. A simple text editor is sufficient for this. ✨



11 Feeds

To make the podcast iTunes-ready, the information has to be extended. You can find detailed instructions on the Apple website [19]. You can also have the XML file checked immediately there. You can download the XML file of our author's podcast as a template [20]. Then, upload the file to your webpage. ✨



10 RSS Feed

You can find a great tutorial on the Google website [18]. Don't be put off because the first time you do this, the process is quite tedious, but you only have to do this step once. For each new delivery after that, you only have to create a new "item"; the rest of the XML file remains conveniently the same. ✨



12 Publish

Write down the link there, you need it to log in at Podcaster.de [21] and iTunes [22]. The podcast will then be checked and activated within a few hours. You will be informed by mail accordingly. Afterwards, you can place the link on your website and promote the podcast in your email signature or on social media. ✨

Klang, Qualität und Service, die begeistern!



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MEHR KLANGFASZINATION

[14] bit.ly/abb0xu; [15] winamp.com; [16] pagecolumn.com/xml/rss_generator.htm; [17] filezilla.de; [18] developers.google.com/search/reference/podcast/rss-feed; [19] help.apple.com/itc/podcasts_connect; [20] bit.ly/BeatPodcastXML; [21] podcast.de/podcasts/anmelden; [22] bit.ly/9qu0cs; [23] izotope.com

Endless Amount of Videos

How to TikTok: What can the Platform do for Producers?

TikTok is currently booming like no other social media platform: it was the most downloaded app in January 2020 with 800 million active users per month and an average in-app usage time of 52 minutes. But what is TikTok, which content performs best there and how can music be optimally staged? We answer these questions together with Julia Szymik.

TikTok is an Instagram-like video platform where users can record short clips, add different tracks and sounds to them and edit them in different ways. The platform's video clips and creative tools are more popular than ever. Instagram recently launched „Instagram Reels“, a similar feature: this adaptation further underscores the app's relevance.

Among younger users, TikTok has long since replaced all other media (mainly „Instagram“ and Facebook), but the relevance of this trendy app should not be underestimated in other age groups. The advantage in a nutshell? This app offers various creative ways to produce entertaining content in a simple and clear way.

TikTok for Producers?

As a musician: you can have your tracks delivered to TikTok via (digital) music distribution, just like other stores. That way, all users at TikTok can access your music. The distribution and label can decide for themselves if and which of the tracks are delivered on the platform. Alternatively, you can equip your videos with your own sound and upload them. For musicians, TikTok can also fulfill other functions: In addition to the creative factor, celebrities, influencers, brands, other musicians, publishers, and other potentially useful contacts can also be found on the platform.

The Monetization

If you, as a musician, deliver music to TikTok (or have it delivered) so that fans and everyone else can use the tracks for their own clips, you don't get any money yet (as of June 2020). The pressure on developers is growing steadily, however, and according to Social Media Week [1], TikTok has now announced that so-called „Creator Funds“ have been established from which content creators can be paid in the future. But there are still no justifiable details about the amount or frequency of the payments. All that we know is that the members must be 18 years or older and must meet other requirements that comply with the community's guidelines. We hope to learn more about this in the near future.

Nevertheless, TikTok can already be financially worthwhile if you can think ahead. If there's one platform that is currently trending, it's this one. That means that, in addition to „normal“ users, there are also brands, companies and creative people. Getting attention for yourself and your work is, therefore, not only attractive to individuals, but also to companies. The rule here is: See and be seen! A viral hit can be useful in many different ways. A profile on the platform can be linked to the music played so that the soundtrack of a video hit can attract a lot of attention.

Statistics, Algorithms, Numbers

Yes, good old statistics. It's actually a bit boring, but still important to know how the algorithm works if you want to get the best out of the app. First of all: It is not (only) about the followers. Videos can get views in the millions, even if there are not many users following them. That's because TikTok evaluates interactions with a specific video, not all of the videos in an account. A video is only shown to a small group of users. If the response in this group is good, the chances of being played to a larger target group increase.

There are, however, other indicators that influence how large the target group they are aimed at will be. Likes, comments and rewatches play an important role - just like with Instagram. Just like #hashtags, the more popular the keyword, the more people watch the videos; and trending hashtags are more often displayed on „Discover“ pages.

The TikTok-Bible

The online punks have put together an almost 200-page TikTok bible for influencers and content creators, which can be downloaded for free from their website [2]. You can get a foretaste of it in the brochure „The Rankings of TikTok Creator“ in this issue's downloads. There you will find the currently most successful users, posts and hashtags to help you get into the world of TikTok.



Go Viral!

Want to use TikTok not only to create and market your own videos, but also to promote your music? That's also a great idea on this trendy platform. Take advantage of the attention you already have (such as your Instagram or Facebook followers). Let your fans know that the tracks are now available on TikTok. Make fun or creative videos of your songs to be an inspiration for others to join you, or start a TikTok challenge to one of your songs. These kinds of activities often spread faster than expected and who knows, maybe you'll be the next TikTok hype soundtrack?

About Julia Szymik

As a marketing/ social-media pioneer, Julia has been jointly responsible for the in-house blog and social media presence of German digital music distributor recordJet since early 2020. Before that, she was head of the editorial department of the online magazine ,im gegenteil! She also founded the online magazine Digital Konfetti and is responsible for various projects in the area of text and photography for the Filter Music Group. Julia studied organization and mediation of art, music and media at Philipps University in Marburg. www.recordjet.com



NEW!

SYNTORUS²

TRIPLE PATH ANALOG CHORUS



THREE
IS THE MAGIC NUMBER

In Talk with Claus Riethmüller, CEO of ESI Audiotechnik GmbH

Ask The Pro



DESI Audiotechnik GmbH, based in Stuttgart, Germany, has been supplying hardware for songwriters, DHs and producers for 22 years - both for beginners and seasoned professionals. We met with CEO Claus Riethmüller for an interview and got helpful tips on hardware setups, streaming and music production in general.

Beat / Hello Claus, it's nice that you've found time for us, so let's get started right away. Generally, what questions should a beginner ask when choosing their setup?

Claus / Streaming is a very large field and it's exciting what people are doing. You can stream a band's entire performance on the internet. You can also stream tutorials or a webinar. You can even stream a karaoke performance. Depending on the application, you have to clarify how many signal sources are necessary. Is one microphone enough? Do we need several? Do I want to connect one instrument directly? On top of that, not everyone has the same budget available. With ESI hardware, you are particularly well off if you don't have a lot of money at your disposal, but want to get a lot out of your setup.

Beat / With your UX22 XT cosMik Set, you have a complete package with audio interface, microphone and headphones available that is aimed primarily at songwriters and podcasters. What do you see as the advantages of such an all-in-one solution from one source?

Claus / The great thing about this bundle is that everyone can start using it right away. On the hardware side, you get all the components you need for a successful recording: As you already mentioned, a cardioid condenser microphone is included, as well as half-closed headphones and a high-quality 2-channel interface. On top of that, you also get software like the Bitwig Studio 8-Track DAW. Together with the DirectWIRE function of U22 XT you can stream these songs directly from the DAW.

Beat / The topic of streaming is not only more popular than ever due to the current circumstances, it is the present and future of our industry. Music

consumption and the media used are changing dramatically as a result. Are there also shifts in the focus and techniques used in production?

Claus / This is an interesting question. We have been seeing for years that setups are becoming leaner. More software is used than ever before and devices are getting smaller. The quality of entry-level products is getting better and better and even professionals are using them more and more. What we notice most in the current situation is that this process has again accelerated enormously. Interestingly, we have seen this not only in Germany, but worldwide. Obviously, users are realizing that you don't need a mountain of equipment to get really good professional results.

Beat / Typically, audio interfaces are blocked by the DAW, making them inaccessible to other applications on the operating system. This is a no-go, especially for live streaming. How do you solve this with your interfaces?

Claus / This isn't problem at all with our audio interfaces; on the contrary. With our DirectWIRE feature on all our interfaces, you can use your DAW in parallel with other audio applications like streaming tools or even online conferencing tools. It is also possible to distribute the signals between the applications within the computer with virtual audio connections. This makes it super easy to stream a DJ mix in real-time and play it live on location at the same time. You can also stream the output from your DAW directly. Or you can play music from sources like YouTube or a media player and stream it with your voice at the same time.

www.esi-audio.com

Get a U22 XT cosMik Set now in the Beat Giveaway!

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TURN ON INSPIRATION



u-he.com



Portrait: Woodkid

The Sound of Sulphur

Seven years after his sensational debut album “The Golden Age”, the French artist Woodkid is back with the second long player “S16” and presents an elaborate opus between soundtrack elements, avant-garde and pop music. We spoke to the artist, whose bourgeois name is Yoann Lemoine and who is also a successful video artist, about orchestral recordings, the sulphur concept of the record and the fast pace of life in the music industry.

Interview: Sascha Blach; Picture: Yoann Lemoine

Beat / It's been about seven years since your debut album. The obvious question is, why did it take so long to produce a successor?

Yoann / It felt like time flew. When I finished my first album, I had the feeling that I needed to take some more time to make my second record. I felt a bit burned out and there was a lot to learn. Accordingly, in the last few years I have mainly been concerned with getting better, made a few collaborations and met other people. Then one morning I woke up, the album was done, and it was seven years. But I've always taken a lot of time for my projects, whether it's videos or music. I think that time has a lot of value. The more time you take for something, the more value it has in my view. It's also a political issue - especially in these days when everything is so fast moving. I feel a bit of exhaustion due to the speed of the music industry and the world in general. So it was my rebellion to some extent. When the Spotify boss says that artists have to release music less than every three years if they want to make money, then I give myself all the more time.

Beat / It sounds like a cliché, but the album was definitely worth the waiting. The title “S16” has been a secret for a while. What's behind it?

Yoann / S16 is the chemical periodic number for sulphur. In a way, I built the album around the element sulphur. I was very interested in it from the very beginning because it is so ambiguous. It has a lot to do with life, as it is used as fertilizer, for example, and is also one of the components of life on earth. But it can also be a very toxic element and is the symbol of the devil in alchemy. So I found the idea of building the whole album

campaign around sulphur very interesting. There is a complete ARG (Alternate Reality Game) online that deals with a fictional company that I built for this purpose. There is also a website and a fake Facebook profile.

Beat / Does it also run through the lyrics?

Yoann / Yes, some of them. In general there are a lot of chemical and medical terms. And I think the concept of toxicity is a link of the whole record.

Beat / That is interesting, because the album sounds very emotional and soulful.

Yoann / Yes, it's also a lot about emotions, but I use metaphors that have a bigger scale. It is important to me that everyone can find their story in it and that it is not reduced to my personal experiences. But in the end it's all somehow chemistry. For example “Pale Yellow” - the colour of sulphur. It's about a very intimate personal relationship, about addiction. It is an often industrial, chemical, almost scientific-sounding language as in “release the drain and let the fluid go”. It's about the idea that the body is, in a sense, a machine.

Beat / Did you work on these songs for seven years?

Yoann / I started early 2015 when I had the feeling that I had something to say again and was emotionally in a state that was triggering making music. Back then I did sessions with Son Lux and other French artists. At the time, I was also part of the People collective started by The National, Bon Iver, and a few others. We were in Berlin together and organized a festival at Funkhaus. That inspired me to continue to produce my songs that were created in this context. So I didn't

work on new songs all the time. It was more like I planted the song seeds and then I let them grow, for example in collaborations. And if after five years they still felt good, they came on the album. But it's not that I made 200 songs and chose ten. There were a total of 12 to 15 tracks, some of which were also combined into one piece.

Beat / The album sounds more experimental and diverse than the debut. Were there any concrete musical influences?

Yoann / Yes, a lot, but not necessarily in concrete terms. So I can't name any specific songs or artists. I am fascinated by minimalist, repetitive music from the 70s and appreciate composers like Glass and Stockhausen very much, even if I don't necessarily like his music in the traditional sense. But I really appreciate the concept behind it. I tried to bring more adversity and independence into the music, especially when working with the orchestra. The instruments take on a life of their own, so to speak, and don't just play permanently in an ensemble. But industrial music was also a big influence, although I wanted to present my own interpretation of it. Likewise, Japanese music is a central influence that I wanted to include in my sound for a long time. In the end there is a very bizarre mashup of different worlds.

Beat / Did you consciously want to approach things differently compared to “The Golden Age”?

Yoann / Yes, the music should be more perverted. When I started working with the orchestra on the first album, I initially only had a vague idea and didn't know how to write for symphonic instruments. I think we made a very straightforward approach to the album, which makes it sound like a Hollywood blockbuster. But in the past seven years, both my influences and my knowledge have increased. I not only learned what you can traditionally do with these instruments, but also unusual techniques. Right from the start, I wanted the topic of toxicity to be the focus. There's something viral about the album, it's kind of infective. This is reflected in the orchestral work, where instruments are sometimes out of tune and many bends are played. In the mix, on the other hand, a great dynamic was important, so that the listener literally is surprised by some loud passages. If you look at the waveforms, you can see the dynamics very clearly, because they are not flat sausages. Silence or suddenly cut reverbs also

My music has always this ambiguity. You never know if something is real or not. «

play into this concept, as there are some radical changes. Sometimes the reverb rooms and mono vs. stereo concepts change several times within a song. None of this was so radical on the debut.

Beat / Yes, there is a lot to discover.

Yoann / I'm very proud of the album because I think it's a toolbox full of ideas. There are many little inventions that came with random processes that were surprising even to me. And sometimes it was more about finding unusual sound associations. There are no drums, guitars and basses on the album. So there is nothing rock about it. It was more about finding sounds that were different.

Beat / Let us know more about the work with the orchestra.

Yoann / We recorded with the Abbey Road orchestra in London. So a childhood dream came true. It lets the album sound so much better than the demos.

Beat / Did you combine it with programmed orchestra elements?

Yoann / Yes, a lot. My music has always this ambiguity. You never know if something's real or not. This kind of illusion is a common thing of all the songs on the record. I was working a lot on the computer and programmed a lot, but often out of organic elements that we had recorded before. And when I program things I always try to bring a human quality into it, so there are always variations and it never feels like copy paste.

Beat / How did you arrange the parts for the orchestra? In MIDI?

Yoann / Usually I sit at the piano and write a first draft arrangement. After that I work with professional arrangers who write it down properly because I'm not very good at writing for the orchestra. Then we record it and then I go back to the studio and do my tweaks. Sometimes I write things that I already know I will manipulate later. For example, we record something five semitones higher so that I can pitch it later because I know I'm aiming for something darker. Or playing it faster and then slowing it down. It's a back and fourth between the real world and the machines.

Beat / Did you personally attend the orchestra recordings?

Yoann / Yes, of course. It's always exciting, but when you're recording in places like that, time is very precious and you have a tight schedule. So you don't have time to be enthusiastic. Often you only notice in the editing room what was great or not. They are an amazing orchestra and it's a great recording place but if you don't give them the proper recording material, it doesn't end up sounding good either. And you can only find out whether it is really good at the end of the day in your own studio by listening to it on your own monitor system.

Beat / There's also a choir involved in some songs...

Yoann / It's the Sugunami Junior Chorus that I was working with four years ago when I was writing

the music for a Nicolas Ghesquiere fashion show. It's a show with martial arts influenced outfits. I did some research on choirs and found this choir that we recorded with last December before the lockdown in Japan. It was the idea that a choir with kids would reference parts of the culture that I also really like, for example certain video games or the movie "Ghost In The Shell".

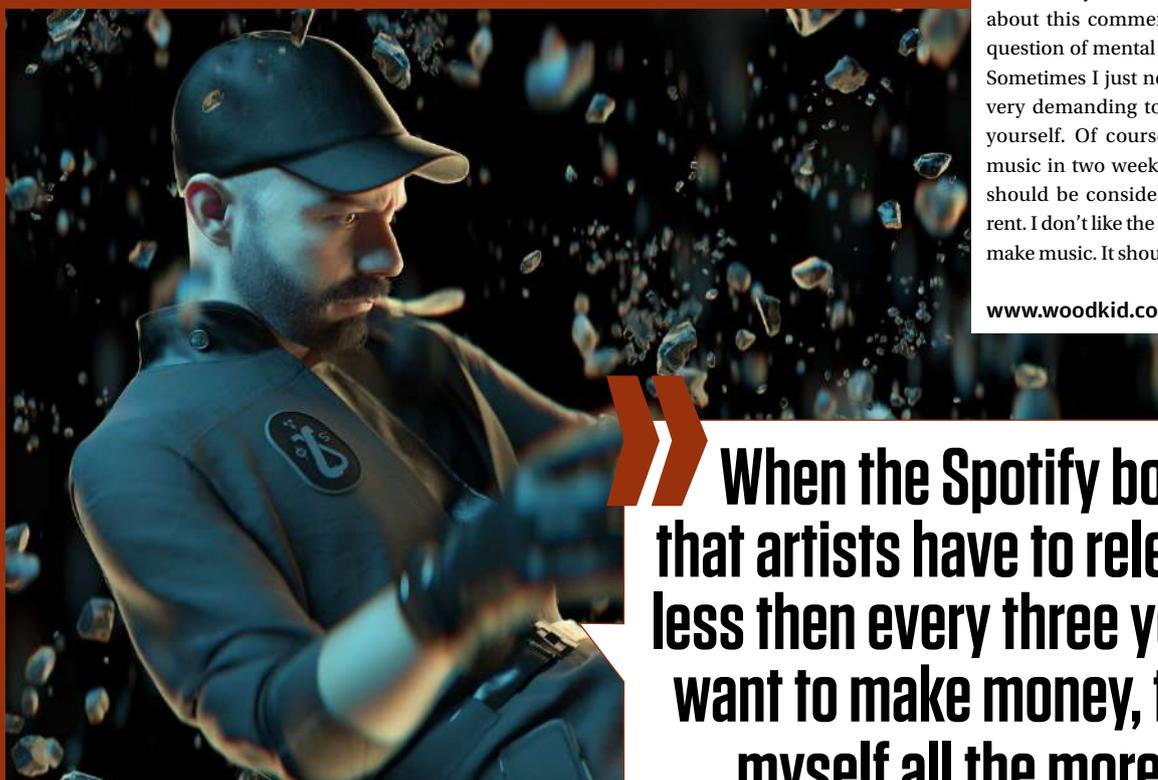
Beat / There's a lot of piano to be heard on the album. How as it recorded?

Yoann / It's a mixture of several pianos. I have some samples that I really like the sound of. It's a heavily deconstructed and fragmented record, and sometimes I switch from one piano to another within a song. Or I create different layers. But I also have a Hoffmann piano in my studio, which I really like. It has a progressive felt and can be controlled with the left hand. So you have a little button at the left side, which lets the felt come down more and more on the hammers. It enables you to play in a very muted way. In addition I recorded some parts in the studio of Sigur Rós in Iceland on their piano.

Beat / You have already produced videos for many stars, including Lana Del Rey, Moby and Katy Perry. Did this help you get Woodkid established?

Yoann / Yes I think so. However, it also showed me what I don't want. I would never format my music for any particular type of media. When the Spotify CEO is telling us musicians that we're lazy and need to stop complaining. Fuck it, then I take seven years. I think there's something idiotic about this comment as it doesn't consider the question of mental health in the music industry. Sometimes I just need a lot of time because it is very demanding to make music and to expose yourself. Of course some people do amazing music in two weeks, but that's not who I am. It should be considered that every artist is different. I don't like the idea that CEOs decide how we make music. It should be the other way around. ☺

www.woodkid.com



When the Spotify boss says that artists have to release music less than every three years if they want to make money, then I give myself all the more time. «

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Interview: Michael Rother

Emotional Valve

Photos: Rick Burger

For fifteen years, it seemed like the recording career of Michael Rother was over. Now, the NEU! and Harmonia legend returns with *Dreaming*, an aptly titled collection of warm harmonies, intimate vocals and sensual beats. Released as part of a new CD box collecting Rother's solo albums, it has turned into a remarkable work of art – and the missing link between Rother's past and future. **by Tobias Fischer**

Beat / You grew up at a time when art and politics were intricately connected to each other. How did you experience that yourself?

Michael Rother / From the late 60s onwards, I've always been a political person. I was a conscientious objector in 1969. After looking at the world around me, it seemed like the logical thing to do: The student protests, the fight of the black population against repression and for equality in the USA and the Vietnam war all deeply affected my view of the world.

Beat / What effect did they have on how you saw yourself as an artist?

Michael Rother / I wanted to develop my own sound and identity in music. There were obvious parallels between this goal and what was happening politically. It made me realise that I had to distance myself from the blueprints and clichés of pop and rock music.

Beat / Many other German bands from that period felt the same. Still, NEU! and your solo work sounded very different from what they were doing. It seemed more to the point, more focused.

Michael Rother / Unlike bands like Can, NEU! and Harmonia never engaged in endless improvisations. We didn't play for 45 minutes only to extract and edit five minutes for a release. In the studio, we always had concrete ideas for a piece in our mind and we would apply overdubs until we liked what we he-

ard. When Klaus Dinger and me were working in NEU!, it felt like two action painters in front of a canvas, reacting spontaneously to the contributions of the other.

New Possibilities

Beat / You started out as a guitarist, performing, among others, with Kraftwerk. And yet, already by the time you and Klaus Dinger started NEU!, you were playing a wide range of instruments, including synthesizers. Do you still remember when you discovered them as musical tools?

Michael Rother / I discovered the Fairlight Music Computer in 1982. It offered entirely novel possibilities for sculpting and programming sound. The system was insanely expensive. Back then, the money spent on a Fairlight could also buy you a small house. But it decisively enriched my musical expressivity. For months, I explored the different levels of its software and wrote compositions utilising its full potential.

Beat / What did your studio look like at the time?

Michael Rother / When I was working with Harmonia in the early 70s, we hardly had any real studio machines – just two Revox tape machines and a small mixing board. This influenced our process for the first Harmonia album. First, we recorded live to tape as a trio. Then, we would play back the recording, and, again playing live, we'd add new ele-

ments on the second tape machine. This approach did compromise sound quality a little bit. But we more than made up for that with our enthusiasm and the unlimited time we had in our own studio.

Beat / Today, you don't seem to be willing to compromise on sound anymore. It's very apparent on your new album *Dreaming*, which manages to sound both warm and enveloping.

Michael Rother / In the final stages of a production, all my pieces pass through various transformations. Working with sound is an important element of that. When I put the finishing touches to a track, refining the details, I will often try very quiet and pretty high volume levels. Just doing this can have a profound impact on the effect of the music, so observing this is obviously interesting and revelatory. I will also use headphones to get the mix of the stereo image and the stereo effects of specific sounds right.

Beat / Back then, equipment required a lot more care and attention.

Michael Rother / As soon as the commercial success of my first solo album allowed me, I invested in professional studio equipment. I was inspired by the machines Conny Plank used in his studios. This was a pretty optimistic decision, since I didn't know a lot about technology. I would find that out soon enough, as using this equipment and keeping it in shape turned out to be pretty challenging. Still,

It's important to me not to question my routine. It has become second nature to work on music, move it around in my head all throughout the day and fill the apartment with new sounds. «

I never once regretted buying these devices. They allowed me to work on my records without time limitations and get them to sound just the way I wanted. The satisfaction this provided me with was worth it.

Unexpected Calm

Beat/ We've mainly talked about the past until now. Interestingly, your new album *Dreaming* also contains references to the past. Tell me about how the music came about, please.

Michael Rother / Mid-March of 2020, all my tours and gigs were cancelled. As with many other people, there was suddenly an unexpected calm in my life, a kind of vacuum. There was time for making new music again instead of having to constantly prepare for the next concerts and trips. It was a happy coincidence that the Grönland label had already pencilled in the release of a second box of my original solo albums for Autumn of 2020. We thought about the details and what bonus material to add to the box. Then it struck me: This might be the right moment to return to the material from my 1997 session with singer Sophie Joiner.

Beat / You'd already collaborated with her on the wonderful pop-electronica album *Remember [The Great Adventure]*.

Michael Rother / Exactly. But back then, we'd developed many ideas and only released a small selection of them.

Beat / How much material was there?

Michael Rother / There were 75 compositional sketches in total. Most of them remained in that rough state when I produced the album in 2004. So I went back to that pool of compositions, analysed the material and continued writing the sections I enjoyed most.

Beat / How different is your current process from 2004?

Michael Rother / Today, I prefer working in my home: In the living room, the kitchen etc. Computerisation has made this possible. Equipment is a lot smaller and portable. Since April of 2020 my daily routine revolves around music. It's important to me not to question this routine. It has become second nature to work on the music, move it around in my head all throughout the day and fill the apartment with new sounds.

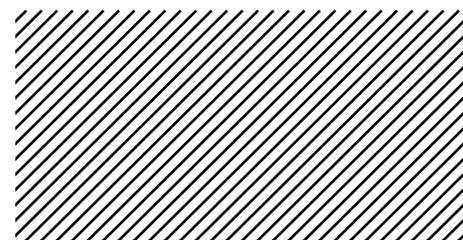
Beat / That's interesting. Particularly since you hardly produced any new music for quite some time. I take it then, that you either remain silent or dedicate yourself to composing entirely.

Michael Rother / It is true that I actually appreciate the absence of music a lot. Mainly, because when it is playing, I find it hard not to think about it all the time - regardless of whether I want to or not. I can't stop following the music. This is especially irritating in public places like supermarkets. I dedicate my full attention to music, but only when I really feel like it and at the right moment. Others don't have to agree with me on this. But to me, wanting to experience music consciously and not just as wallpaper flows naturally from my deep love for it, for its power to stir the intellect and emotions equally and enrich both.

Beautiful Landscapes

Beat / Where did the title *Dreaming* come from?

Michael Rother / I will often have very intense dreams about beautiful landscapes and beaches or of experiences from my time on the road. People from my life, including family members who have



passed away or friends and colleagues such as Dieter Moebius, will also make an appearance. It all feels very vivid and natural.

Beat / It sounds very peaceful and pleasant.

Michael Rother / It does, but I will also have dreams about stressful situations. When I'm on tour or travelling, I often worry about forgetting something or missing a flight. There's this dream which I remember well. I'm at a huge airport in China. Suddenly, I can't find my musicians anymore, there's no one I can ask for information. I'm unable to find my gate - and miss the flight.

Beat / And then dreams like this influence your work on the album?

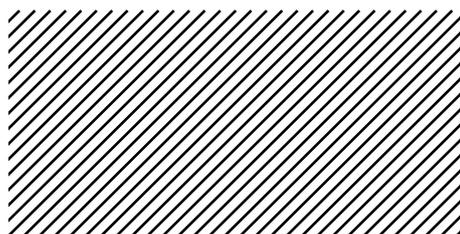
Michael Rother / I believe that I process thoughts which come to me during day in these dreams. There's probably no direct connection to the music I'm currently working on. But their content matter will often be on my mind. So I'm not surprised by the dreams. They're a valve for my feelings, for my memories, worries and hopes.



Michael Rother's Solo II box set contains all his studio albums from 1983-2020. It also includes his new solo album *Dreaming*. *Dreaming* has also been released separately on vinyl.

SOLO-DISCOGRAPHY:

- // *Flammende Herzen* / 1977
- // *Sterntaler* / 1978
- // *Katzenmusik* / 1979
- // *Fernwärme* / 1982
- // *Lust* / 1983
- // *Süssherz und Tiefenschärfe* / 1985
- // *Traumreisen* / 1987
- // *Radio* / 1993
- // *Esperanza* / 1996
- // *Remember (The Great Adventure)* / 2004
- // *Dreaming* / 2020



The use of Benzos is playful. The once-great Trap Hope, Lil Peep, shook pills directly from the bottle into his mouth – as if they were Smarties. «

Digital Culture: Music and Opioids

Bitter Pill

Benzodiazepines and synthetic Opioids are the drugs of the hour – and Trap is their official channel. The scene sings of excesses and issues warnings about it. And in Germany, drugs like Tilidin are gaining in popularity. So far, no one has blamed the music. Unfortunately, that's not good news. by Tobias Fischer



American Hip-Hop remains the measure of all things. So, German rappers not only imitate their American role models when it comes to beats, lyrics and sounds when it comes to their music; but also when it comes to the choice of their favorite drugs. A wave of substances that have long been considered the new stars in the drug sky in the USA is currently sloshing onto our shores. They are marketed under such melodious product names as Xanax, Valium, Percocet and Halcion. Although they have certainly not achieved widespread popularity in Germany, their use is increasing rapidly. The effects of these „Benzodiazepines“ have been aptly described by Capital Bra and Samra in their anthem „Tilidin“. They say: „A few drops of Tili, see the film pass me by, dear God, I feel so lonely / Give me Tilidin, yes, I could use some. The effect of Tilidin - to take away fear, to alleviate loneliness and to ease pain - is already familiar from „classical“ substances like Heroin.

And yet, this generation of drugs is different. Tilidin takes a very special path to the extent that this is a German special path. Indeed, to the extent that this is a German path. In the United

States, for example, the active ingredient barely matters. In fact, however, it hardly differs from much better known products. Tilidine, unlike Xanax & the like, is not a „Benzo“ but a synthetic Opioid; however, it is an active ingredient in the form of a „Benzoin“. It is, however, often prescribed by doctors for similar symptoms: panic attacks, anxiety, anxiety disorders, anxiety and pain. Even if you do not read about them in the newspaper every day, Benzos and Opioids have long since ceased to be a niche phenomenon. In the US series „Homeland“, Claire Danes plays CIA agent Carrie Mathison, who suffers from bipolar disorder and tries to control her symptoms, sometimes more, sometimes less successfully, with the Benzodiazepine Clonazepam (brand name: Klonopin). The fact that so many people were able to identify with this troubled protagonist over eight seasons speaks volumes about how much the underlying symptoms, albeit in attenuated form, have reached the mainstream.

Music as an Early Warning System

As is so often the case, it was not Hollywood but the music industry that acted as an early warning system. For more than two decades now, Hip Hop has been lyrically and practically dealing with Benzodiazepines and Opioids, reaching

a huge, young audience. Samra and Capital Bra, for example, sold almost half a million copies of „Tilidin“ and landed a Triple Number 1 hit in Germany, Austria and Switzerland. Since then, at least, the substance is no longer a foreign word among young people.

But the story begins in the mid-90s in Houston, Texas. DJ Screw was working on the ultimate decelerated music style called Chopped n Screwed, which is so slow and sluggish that pioneers like trip hop look like speed metal in comparison. Everything went slower in Screw's tracks: the beats, the down-pitched vocals, the time itself. Screw reduced the tempo of popular rap tracks, tinkered with the lyrics and arrangements, added his own raps or invited friends to the studio. As a result, he stretched his remixes up to ten hypnotic minutes. It's a concept that

sounds crude at first, but soon draws you deeper and deeper into it, and which some believe could only have been created in Houston, a city where it's summer nine months of the year. But the drug culture of the city also left its mark.

The scene's favorite drug was Lean, also known as „Purple“, a semi-liquid, semi-solid drink made from high-dose, Codeine-containing cough syrup, Sprite and candy. Lean is traditionally served in two interlocking Styrofoam cups („Double Cup“), which ensure that the sweet drink stays ice-cold longer and conveys an incredibly relaxed and mellow feeling, as if the world were dressed in absorbent cotton. Pain is hardly noticeable anymore; worries become bearable. Thus, it resembles Tilidin, which does not so much provide „euphoria“ or „relaxation“, but rather creates a kind of „offside“.

The Crash

Now after each high, a crash is inevitable. In some cases, even on the same album. After their chart success with „Tilidin“, Capital Bra rapped on the track „Lieber Gott“: „I wake up in a sweat, having nightmares / Party and success, people say I'm on a roll, but my senses are numb / „Tilidin“ is gold, but I hate this stuff / I've taken it and regretted it, leave that shit alone. Also, in the current single from Bonez MC, „Tilidin Way“, the dark side of the effect palette is illuminated. In the video, Bonez and his co-dancers imitate the undead from Michael Jackson's „Thriller“, expressing the zombie feeling that many experience when using Tilidin. With Lean, the crash was especially painful. One of the effects of codeine is breathing trouble. Developed as a cough suppressant, the codeine lowers the heart and respiratory rates. In very high doses or in combination with substances that also lower the circulation, such as alcohol, life-threatening breathing stops can develop. Benzos ultimately have the same effect, which is why Carrie Mathison, in a dramatic episode of „Homeland“, tries to kill herself with a combination of tablets and white wine. While Mathison survives on TV, real life was less merciful: DJ Screw died in 2000 from a Codeine overdose. It was a warning that no one wanted to listen to. Chopped n Screwed alone did not become a mass phenomenon, but it had a major impact on the birth of Trap, a new style of music that made the Texas underground sound suitable for the masses. It was to carry the Codeine lifestyle from Houston out into the world.

From Dream to Nightmare

Chopped n Screwed stood for a slightly psychedelic and dreamy world view. When I talked with the pioneer DJ Cam in Paris almost ten years ago about this music, which was very close to

his heart, he told me laughingly that his mother loved some DJ crew tracks because they were so peaceful and beautiful - of course without understanding the lyrics overloaded with „Bitches“ and „Hoes“. In Trap, on the other hand, the comforting looseness turned into a nightmare of sound. One of the greatest hits of the genre, Futures „Mask Off“, turned into a blueprint: a slow-motion flute sample, bass tremors weighing tons, tiredly rattling hi-hats and, above them, Futures strangely uninvolved voice created a picture of an apocalyptic underworld. Appropriately, the chorus consisted mainly of the words „Molly Percocet“, which stands for the combination of MDMA (also known as „Molly“) and the Benzo Percocet. Autotune, consistently used in every line of text, further reinforced the element of dehumanization. „Mask Off“ and the accompanying album hit the nerve of the time - which helped the message reach a mass audience. Soon, swallowing Benzos and Opioids at parties became a standard ritual, and an entire generation of rappers flirted with what podcaster Nadira from the YouTube channel „Die Schnibis“ called the „trap lifestyle“ and „the beauty of the broken“. [1]

Only a few could escape its beauty. But it was not as glamorous as in the heyday of cocaine and heroin. The use of Benzos was downright playful. It was honest and unembellished - nothing was covered up or hidden backstage. In one of his most famous videos, the once great Trap Hope, Lil Peep, shook pills directly from the bottle into his mouth - as if they were Smarties. Some of his colleagues, like Lil Xan (Xanax) or Joey Purp (an allusion to the purple color of Lean) named themselves after their favorite Benzos. Only once did Peep grant his listeners a glimpse of the darkness behind the mask. „I need help“ he wrote shortly after swallowing a frighteningly high dose of Alprazolam and Fentanyl. A few hours later he was dead. Just one year later he was followed by Mac



Miller, perhaps the most prominent Benzo opera with five top five albums in just over a decade. They wouldn't be the only ones. The list of those who died from overdoses is long and continues to this day. And even though Future has publicly declared that he no longer glorifies drugs in his songs after the increasing number of young people struggling with Opioid addiction, he remains the exception. The curse of tranquilizers doesn't seem to want to end.

Benzos Do What They Should Do

Admittedly, there is a simple reason for this, which Vic Mensa summarizes in the documentary „Bars“ that specifically deals with the consequences of Benzo abuse (the word „bars“ is a play on words that refers both to the blocks of text in rap called „bars“ and to the shape of Xanax tablets that resemble a bar of (chocolate) as follows: „The drugs do what they were designed to do: They dull you and they make you addicted.“ [2] And it is precisely this dullness that many are currently seeking. The number of young people with anxiety disorders is increasing at an alarming rate in Germany; and in the USA, 20% of the population is struggling with chronic pain. [3] When in doubt, people prefer Xanax to a life of fear and pain. So, when the addiction help center or the authorities warn that many young people do not understand the difference between drugs and medication, there is a simple reason for this: there is no difference at all. Ultimately, users prescribe themselves the exact substance that will most effectively relieve their anxiety and pain. As a result, they are consequently afflicted by the very symptoms that plague „real“ patients: addiction, increasing tolerance and, in some cases, an increase in the occurrence of the very symptoms that led them to start using the drug.

It is noteworthy that, even in the USA, where music is often blamed for all the ills of the world, no voice has been heard calling for sanctions against the Trap scene. Instead, the pharmaceutical companies have to justify themselves for having developed potentially addictive drugs and for having circulated them all too freely. If the plaintiffs are successful, this will have an impact on the entire pharmaceutical industry. This is good news for those whose lives have been, and will continue to be, destroyed by their dependence on Benzos or Opioids. But behind this is also a sad insight: It would be nice to believe that we can cast out our demons just by listening to and producing music, that music actually has a healing power. It seems that nobody wants to rely on that anymore. ❖

[1] www.youtube.com/watch?v=7Dpww7j2PhM; [2] www.youtube.com/watch?v=oGuEXrc7PPY
[3] www.theatlantic.com/health/archive/2019/12/yes-you-can-overdose-gabapentin/603208/

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Plug-in Highlight: Cherry Audio Voltage Modular Beat Edition

Build Your Dream Synth!

Voltage Modular is one of the most exciting modular software systems. With the Beat Edition, Cherry Audio gives you a special version of the creative powerhouse. In addition to all 22 modules and over 130 presets from the Nucleus version, our very edition offers additional building blocks from Andrew Macaulay, including useful utility modules and an LFO with delay options. This gives you all the tools you need to create powerful synthesizers, complex effects processors, and drum or drone machines. **by Mario Schumacher**

Everything's Under Control

In Voltage Modular's toolbar, you will find the Preset Browser with search function and the Undo and Redo functions. Access the zoom options and the global settings here. You can also adjust the transparency of the cables or hide them altogether for a better overview. In addition, you can show the Library and the Perform panels, as well as the virtual keyboard, in this section.

Interface to DAW

The **Input/Output** section is Voltage Modular's interface to the outside world, so to speak. In the **CV Sources** section, played MIDI notes are converted into pitch, gate and trigger signals that can be used to control certain modules. The **Transport** section helps to synchronize the virtual modular system to the tempo and start/stop signals of your DAW. Next to it, you'll find the audio inputs you need when using the software as an effects processor, as well as the audio outputs to your DAW complete with a limiter.



Module Browser

Click on the Library button to display the browser. Thanks to the search, sort and filter functions, you can quickly find the desired module or cabinet. New modules can be purchased and installed directly from the browser. You can mark your favorites with one click to find them faster. The Voltage Modular Beat Edition's range of modules includes a great-sounding oscillator model, a noise generator, and a flexible multimode filter. It also includes an envelope generator, LFO, ring modulator and sample-and-hold generator, arpeggiator, step sequencer, a wide selection of utility modules and a spring reverb emulation.

Virtual Rack

In the rack, you can arrange and wire the building blocks of the virtual modular system as you wish. Thanks to the scalable user interface and the adjustable zoom factor, you can keep track of even complex patches. The option to save a complete row of the virtual rack as a so-called „cabinet“ is also great. This allows you to load complete synthesizer voices or modulation sections that you've previously created with just a few clicks.



1 Tabula Rasa

Undoubtedly, one of the greatest attractions of modular systems is the ability to create complex, evolving sequences. With the Beat Edition of Voltage Modular, creating such patches is a breeze. Load Voltage Modular as a virtual instrument in your DAW and you're ready to go! We start with a new patch. ❖

2 Overview

For a better overview, we use red cables for audio signals and blue cables for control signals. To create more space, we hide the **Perform** bar by clicking the corresponding button in the title bar. In order for Voltage Modular to output a sound, we first need an oscillator. Is the **Library** visible yet? ❖

3 Add Modules

Just click on the appropriate button to see the Library. Now you can select the desired module (**Oscillator**) in the **Modules** menu. Alternatively, you can click with the right mouse button on a free position and add the corresponding module via **Add Module**. The Step Sequencer should control the pitch of the oscillator. ❖



4 Wiring Sequencers

This is why we add an **Eight Step Sequencer**. Connect the **Gate** output of the **CV Sources** to the **Start** input of the sequencer. We also wire the **Trig** output of the **CV Sources** to the **Reset** input of the sequencer. Finally, connect a cable from the **Pitch** output of the **CV Sources** to the **CV Offset** jack of the sequencer. ❖

5 Oscillator Settings

To make the sequencer control the oscillator pitch, we wire its **CV Output** to the **Pitch CV** input of the **Oscillator** module. Set the **Range** value of the Oscillator to **32'**. To hear something, we connect the Sawtooth output of the oscillator to Input **1L (M)** of the **Main Outs to Host** module. Also activate the **Limiter** in this module. ❖

6 Start Sequencer

Reduce the Volume by a few dB. Now click on the **Play** button of the sequencer and adjust the eight controls as desired. To make sure that the sound also stops when DAW playback stops (or when you release a key on your MIDI keyboard), some adjustments are necessary. First, we remove the cable between the Oscillator and the **Main Outs** module. ❖

Recording Solution

Fluid Audio offers you a professional recording solution with everything you need to get started right away with your next production. The FX50 studio monitors are perfect for home recording and are great to place on the DS5 desktop stands. And the SRI-2 audio interface with its integrated monitor controller is the perfect complement, so you can focus on what's important: your inspiration.



FX50
DS5
SRI-2



7 Amplifier & Envelope

To do this, click on one end and then drag it to an empty space in the rack. Then place an **Envelope Generator** and an **Amplifier** in the modular system. The **Gate In** envelope is connected to the **Gate Out** of the **CV Sources** and the right output of the **Envelope Generator** is connected to the **CV Input** of the **Amplifier**. ❖



8 Envelope Tuning

Turn the knob on the left fully up and connect the Sawtooth output of the Oscillator to the **Amplifier** input. Also, run a cable from the right output of the **Amplifier** to the **Main Out's 1L (M)** input. We keep the envelope settings, but increase the **Release** value a little. ❖



9 Synchronization

Use the **Rate** control of the **8 Step Sequencer** to set the Tempo of the sequence. But how do you synchronize it to the host tempo? Place a **Sync Divider** next to the sequencer and connect its **Sync In** with the **Sync Out** of the **Transport** section. Also, run a cable from **Play Gate (Transport)** to **Reset** (**Sync Divider**). ❖



10 Set Tempo

Also, wire the **Clock Out (Sync Divider)** to the **Ext Clock** input of the **8 Step Sequencer**. Then click on the **Ext** switch on the step sequencer. This will now be synchronized to the project tempo (120 BPM in our example). With the **Note Value** knob of the **Sync Divider**, you can now determine the tempo in note values. ❖



11 Create a Sequence

We select the **1/8 note** value. Then program the following sequence with the step sequencer faders: C2, C3, C2, D#2, G2, C2, A#2, D#3. Since we think it sounds too overtone-rich, we bring a **Filter** into play. To do this, drag the Filter module into the virtual rack. Remove the cable from the input of the **Amplifier** again. ❖



12 Include Filter

Wire the Sawtooth output of the Oscillator to the **Audio In** of the Filter. Also, run a cable from the left filter output (low pass) to the **Amplifier** Input. To control the filter frequency, we add an **Envelope Generator** next to the Filter. Connect the **Gate Out** of the sequencer to the **Gate In** of the envelope. ❖



13 Filter Settings

We also wire the right output of the **Envelope Generator** to the **Freq Mod 1** input of the filter. Set the right slider to 63% and adjust the **Cutoff** and **Resonance** as desired. We select a **Slope** of **12 dB**. Then, adjust the envelope parameters as shown in the picture. The sequence still sounds pretty static. ❖



14 Modulate Frequency

When an **LFO** controls the filter frequency, more life is added. Place an **LFO** module next to the filter. Connect the Sine output of the LFO to the **Freq Mod 2** of the filter. Set the **Filter** to a modulation intensity of **43%** and reduce the **LFO Rate** to about **0.08 Hz**. ❖



15 Order is a Must!

This is the first layer of our patch. Now you can extend the patch as you like. Since we want to add another oscillator, we need a mixer to merge the signals. To keep some order, we now arrange the modules in two rows. Then add a **6-Input Mixer**. ❖



16 New Rewiring

Disconnect the cable between the Filter output and the **Amplifier** input, then connect the Filter's low pass output to the first input of the mixer. We also run a cable from the **Master** output of the **Mixer** module to the **Amplifier** input. Too loud? Reduce the Input Level here as shown. ❖



17 Layer 2

Now, we add the following modules: **Oscillator, Envelope Generator, Amplifier**. Connect the oscillator output with the triangle waveform to the **Amplifier** input and the **Amplifier** output to Input 2 of the **Mixer**. Set an oscillator **Range** value of **4'** and drag an **8 Step Sequencer** into the rack. ❖



18 Wiring Modules

Since the second sequencer should play at a different tempo than the first, we need another **Sync Divider**. Connect the **Sync In** or **Reset** of this module to **Sync Out** or **Play Gate** of the **Transport** section. We wire the **Gate Out** of the sequencer to the **Gate In** of the new **Envelope Generator**. ❖



19 Different Tempo

Also, a cable must be routed from the right output of the envelope to the **CV** input of the **Amplifier**. Turn the **CV Amount** knob of the **Amplifier** up fully. For the **Sync Divider**, click on the right switch above the **Note Value** slider to create triplet eighth notes. Then connect its **Click Out** to the **Ext-Click-In** of the sequencer. ❖



20 Second Sequence

Click on the **Ext** button as well. The **Trig** and **Gate** outputs of the **CV Sources** are connected to the **Reset** and **Start** inputs of the sequencer. In addition, connect the **CV Output** of the sequencer to the **Pitch CV** input of Oscillator 2. Start the second sequencer and enter the following sequence: C3, G2, D#2, C3, D#3, C4, A#2, D#2. ❖



21 Effect Refinement

Experiment with the number of steps in the sequence (**# of Steps**). We choose 7, which is a hypnotic, ever-changing pattern with different lengths and tempos. It provides a great foundation for either classic electronic or ambient music. The only thing missing now is a pinch of delay and reverb. ❖❖

MULTI
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Power Producer: Cubase

Create unique samples!

Experimenting with plug-ins often produces interesting sounds; some of which cannot be recreated later. We invite you to a playful sound design session in which the sound experiments are recorded directly as audio files. These unique samples give your future productions exciting audio effects.

by Paul Marx

Project Info



Material: Cubase Pro

Time Required: about 30 minutes

Content: Playful shaping of samples through direct recording of parameter changes in the project.

Difficulty: Beginner/Advanced



1 The Routing

Create a stereo group channel and a stereo audio track. Route the output of the group channel to the input of the audio track. This allows you to record the audio signal of the group channel directly on the audio track. Changes to the plug-in parameters are thus recorded in the recording, even without automation. ✨



2 Drums and Hall

Load **Groove Agent SE** on a new instrument track and open the **Minimal Kit 01** preset. Route this track directly into the group channel. Now add the **REVELation** effect on the instrument track and load the **Reverse Ambience Dark** preset. This creates interesting reverse elements on the synthetic drum sounds. ✨



3 Fluttering Reverb

Activate the recording mode on the audio track and the instrument track. Let the recording run; experiment. Play samples of the drum kit with your keyboard while changing parameters in REVELation. For example, quickly changing the **ROOM-SIZE** parameter will produce interesting fluttering sounds. ✨



4 Select Samples

Stop the recording and listen to your experiment on the audio track. Which segments of your recording are suitable as interesting samples for your productions? Cut out the relevant samples and export them for later use with the Render-In-Place function; if necessary, include pitch or tempo in the file name. ✨



5 Chopper

Add another instrument track to the project with **Retrologue 2**, which you also route to the group. Load the **Gray Sky** preset and add the **Chopper** audio effect to the new instrument track. Deactivate **SYNC** and experiment with the **Speed** parameter in the next recording. This also creates completely new sounds. ✨



6 Your Own Samples

Use this recording technique to find interesting combinations of instruments and effects. Spatial and modulation effects are particularly suitable for this purpose. For example, try the **Metalizer** and **RingModulator** effects on drum sounds. That way you can create your own collection of unique samples. ✨

Power Producer: NI Maschine

Techno à la Drumcode - Part 2/3

Woody kicks, hissing hi-hats and not too much melody, that's Drumcode's recipe. Okay, the sound of Adam Beyer's label is not quite that trivial. In the second part of our series, we'll tell you what makes his productions and this kind of techno, in general, stand out. **by Marco Scherer**

Project Info



Material: Maschine MK1 - 3, Studio and Software

Time Required: 1 hour

Content: Create a Techno track à la Drumcode, Focus: Wide Drums

Scene 1		
1	KICK	KICK (909 Analogue
5	DRUMS	DRUMS (909 Analogue
6	RIDE	RIDE (909 Analogue
7	SHAKER	SHAKER
8	CLAPS	CLAPS
9	BASSLINE	BASSLINE (Beatzille
10	CHORDS	CHORDS (Lokomotiv
11	DELAY PERC	TAPEDLAY PERCUS



1 Clear Direction

In addition to the kick, rides, shakers and the open hi-hat play an important role. All play simple patterns: i.e. open hat on the off-beat and eighth note rides. Thanks to sparse instrumentation, it's important to make the sounds as fat as possible. Create a new GROUP and load the samples from the **909 Analogue** folder in the Workshop files. ✨

2 Open-Hat

On **Pad 9**, there is a typical 909 hi-hat, which we'll place on the off-beat. Pan **Pad 9** all the way to the left and duplicate it on **Pad 13**, which you'll pan hard to the right. To keep the two from being erased, we'll transpose **Pad 13** down three semitones and set the **Samplestart** to about **150**. This effectively eliminates overlap. ✨

3 Rides

From the same kit, we'll sprinkle the clap on **Pad 4** and the reverse ride on **Pad 10**. For the ride on the second track, we proceed like we did with the open hi-hat. Copy **Pad 11** to **Pad 15**, panning one to the left and the other to the right; then move the **Samplestart** of one pad slightly backwards. We set the pattern to eighth notes. ✨

SHAKER	
1	Shakers_nBeat (1)
2	Shakers_nBeat (2)
3	Shakers_nBeat (3)
4	Shakers_nBeat (4)
5	Shakers_nBeat (5)
6	Shakers_nBeat (6)
7	Shakers_nBeat (7)
8	Shakers_nBeat (8)
9	Shakers_nBeat (9)
10	Shakers_nBeat (10)
11	Shakers_Beat (11)
12	Shakers_Beat (12)
13	Shakers_Beat (13)
14	Shakers_Beat (14)
15	Shakers_Beat (15)
16	Shakers_Beat (16)



4 Shaker

We loosened up the straight drums with shakers and claps. In both cases, we used two sample packs from StayOnBeat.com. Load the first 16 samples of each of the two folders into your sampler. For our sequence, we used **Shaker (1)** and **(11)**. Again, we pan one to the left and the other to the right. ✨

5 Claps

The pattern for both is fixed: A shaker note plays on the off-beat at full velocity and a 1/16th before and after a note with half velocity. We used **Clap (10)** and **(11)** for the 2/4 and 4/4 counts, but added small fill-ins with other claps in every eighth bar. Now the only thing missing is a pinch of reverb. ✨

6 Reverb

Create a send/return track and load a reverb effect there. We used one of Maschine's reverbs with a **Reverb Time** of about 1 second, **Room Size** at **9 o'clock** and **Mix** at **100%**. Run all drum tracks except the kick to the reverb via **Aux Send** and set the **Send** level to **40%**. The reverb should be audible, but not intrusive. The drums are ready! ✨



Power Producer: Ableton Drum Design

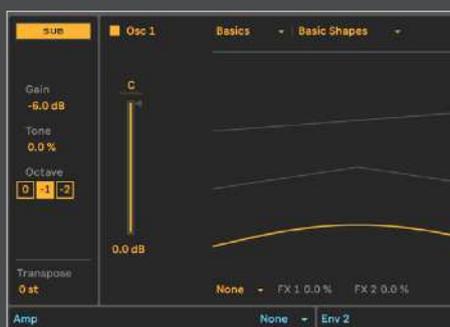
The ultimate Hardtek kick

Hardstyle, Hardtek, Frenchcore, Gabber... all four styles have one thing in common - brutal bass drums, which are hard to beat. The cool thing about it: With Ableton's Wavetable Synth, these kinds of kicks can be created in no time at all and - compared to samples - they are endlessly flexible in terms of sound design. So let's run this... by Marco Scherer

Project Info



Material: Ableton Live 10+, Ableton Wavetable
Time Required: 1-2 hours
Content: Create a hardcore kick with Wavetable
Difficulty: Advanced



1 Let it do the click

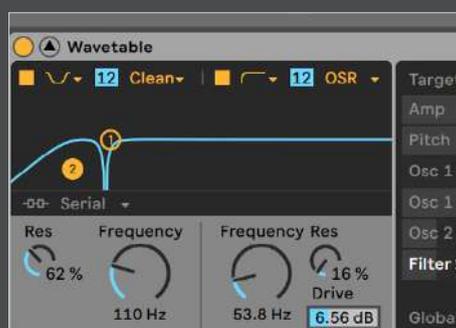
Load an instance of the Wavetable and switch on **Osc 2**, leaving **Osc 1**'s waveform on the **Sine** for now. This will give us the click of the kick. **Osc 2**, in turn, will give us the characteristic **boom**. The former is easily generated: Connect **Env 2** with **Pitch** at **+30** intensity and set **Env 2 Decay** to **150 ms**.

2 Sub-Oscillator

Attack and **Sustain** are reduced to zero. This already creates a nice base for the kick. For amplification, we switch on the **Sub-Oscillator** on **Octave -1**. We also set the **Amp Release** to the minimum value and switch to **Mono** mode. With **Osc 2**, we now bring the second part of the bass drum into play.

3 Oscillator 2

Set its waveform to **Triangle** and reduce **Gain** to **-11 dB** because we can let the Oscillator thicken the Kick with **Env 3**. Set its **Attack** to **45 ms**, **Decay** to **660 ms** and **Sustain** to **78%**. In the Modmatrix **Env 3** should modulate **Osc 1 Gain** with **-100** and **Osc 2 Gain** with **+100**, so that both alternate.



4 Filter for the main job

The second part of the work is done by the filters: Set the circuit to **OSR** for both. **Filter 1** to **Bandpass** or **Notch**, **Frequency** to **90 Hz** and Resonance to 50%. Filter 2 becomes a **Highpass** at **90 Hz** and adds some **Drive**. The filter settings have the biggest influence on the sound; you can fine-tune here later to your heart's content.

5 Now let's get rough

Connect **Env 3** to **Filter 1 Res**(onance) at an intensity of **45**, which gives the kick even more flavor. To make it boom properly, you can turn up **Filter 2 Drive** further. For Hardtek, this should probably be enough. For harder kicks, we'll load the Ableton **Amp** with the **Heavy** setting and set **Dry/Wet** to **43%**.

6 Kick fine-tuning

As a second effect, we load a **Limitter** with **Gain -6 dB**. As already mentioned, you should now play with the filter settings to find the exact sound you want. And automating the filter parameters brings life to the tracks. Tip: For an even more brutal kick click, set the **Osc-1 Waveform** to **Rectangle**.

Power Producer: Ableton Live

Inspiration from old presets

Preset sounds have been heard so often that they become boring. So what do you do to keep your sound interesting? You can easily use Ableton Live's internal effects and, in a few simple steps, you can make them sound exciting and new. You'll learn how in the following workshop. by Maya C. Sternel

Project Info



Material: Ableton Live Suite

Time Required: 40 minutes

Content: Use effects to shape preset sounds; enhance sounds with more spatiality or more overtones; change timbre with distortion, data reduction and saturation; manipulate drum sounds with distortion; filter options and vocoder.

Difficulty: Advanced



1 More Space

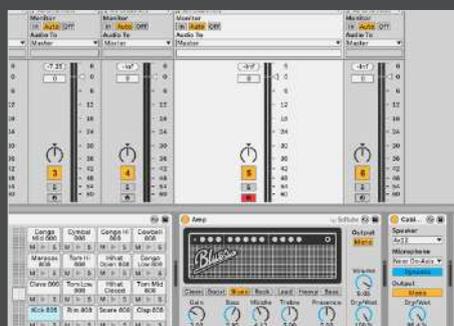
Load any sound that sounds rather ordinary to you. Use it to record a clip with a few short and longer sounds. Load the default reverb preset into the track. Set **PreDelay** to **0.50 ms** and **Dry/Wet** to **100%**. Vary the other parameters as desired. Either way, your sound gets life. ✨

2 Distortion

Or you can use the **Redux** effect instead of Reverb. Activate **Overload** and select the value so that a slight crackling or noise in the sound can be heard. Set **Downsampling** Mode to **Soft** and turn the knob up a little so that the sound is more distorted but also brighter. ✨

3 Artificial Overtones

Another way to beautifully affect the timbre and tone of a sound is using the **Saturator**. For example, select **Hard Curve** as the curve type. Set **Drive** to **36 dB**, **Base** to **10**, **Dry/Wet** to **80%** and vary **Depth**. Reduce the **Output** so that the track with effect does not get louder than the track without. ✨



4 Lo-Fi Drums

Drum are also a good source for sound manipulation. Load any core drum kit and program a simple beat. Put an **Amp** in the track. Select **Blues** as the amp mode. Reduce the **Gain** to **3**, set **Bass** to **6**, **Middle** to **5** and **Volume** to **9**. Now load the **Cabinet** effect behind it. ✨

5 Sound Variations

In the **Cabinet**, select **4x12** for **Speakers**, **Near-On-Axis** for **Microphones**, and **Dynamic** for **Microphone Type**. Set **Dry/Wet** to a value between **90** and **99%**. For more experimental drum sounds, try different amp modes and vary the cabinet parameters. Use **Dry/Wet** knob on the cabinet to **fine-tune** the sound. ✨

6 Vocoder Beats

Or modify a Drumbeat using a vocoder. Load a drum kit again, program a beat and load a vocoder into the track. Reduce **Bandsize** to **12** and **Release** to **25 ms**. Set **Depth** to **40** and **Dry/Wet** to **60**. Optionally, change the **Formant** parameter or combine the different effects! ✨

Power Producer: FL Studio

Better Melodies with FL Studio

A song lives, above all, through a catchy melody that listeners can't get out of their heads. In this episode of the FL Studio Power Producer series, we will show you how you can easily compose catchy melodies without needing any knowledge of music theory. by Stefan Hofmann

Project Info

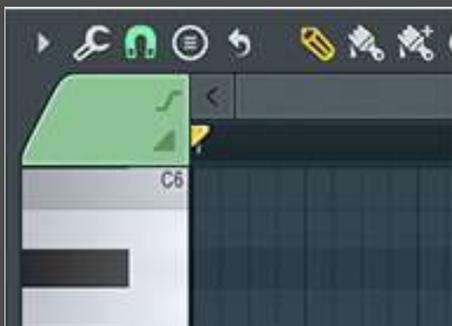


Material: FL Studio 20.7.

Time Required: 20 Minutes

Content: Compose Better Melodies with FL Studio.

Difficulty: Advanced



1 Stamp Tool

First click on the Stamp tool, located in the upper left corner of FL Studio's Piano Roll, next to the Snap-to-Grid tool. Here you can select different scales and chords. It's important that you first click on the „Only One“ tab to disable it. This way you don't have to select a scale each time. ✨



2 Define Scales

Now it's time to define chords or scales to work effectively in the piano roll. In our case, we chose a major scale. To define the root note, just click on the note in the Piano Roll. We chose „C“ as our starting point. Now all notes of the C Major scale are shown in the Piano Roll. ✨



3 Drawing Scales

The next step is to place the scale in different octaves. Just click on each C on the keyboard, in a range you want to play later in your song. In our case we chose C1 to C5. Now drag the notes over the complete bar. As you play them, you'll hear a somewhat strange sound, but the next steps will show you what this is all about. ✨



4 Clone the Track

The prep work is complete. Now go to the Channel Track section of FL Studio. Duplicate the output track or load a sound of your choice. It's important that the track containing the scale note information is muted. By the way, we've chosen Morphine as the sound source. ✨



5 Ghost Channels

It's important that this new track follows the same pattern as the original track. Now open the Piano Roll of the new track. Click on the first button in the upper left corner of the editing window. Go to the „Helpers“ tab and click on „Ghost Channels“. Now all notes that are on the original track will be grayed out in the piano roll of the new track. ✨



6 Make it Sound!

In the Piano Roll of the new track, click on the Stamp tool and select None. Now you can easily develop melodies that are in the respective scale without setting wrong notes. The notes of the respective scale are visible now and can be used for your composition. Of course, you can use this method for any other scale as well. ✨

Power Producer: Apple Logic Pro X

More variety thanks to slicing

Varying a hip-hop beat and creating a rhythmically fitting bass pattern is a standard job for many producers. Audio loops can be broken up pretty quickly with Logic Pro X. Starting with version 10.5, slicing has become much easier. The new Quick Sampler is worth trying out. **by Matthias Sauer**

Project Info

Material: Apple Logic Pro X
Time Required: about 20 minutes
Content: Cut up and manipulate ambient audio loops with the Quick Sampler (from Version 10.5)
Difficulty: Beginner/Advanced



1 Foundation

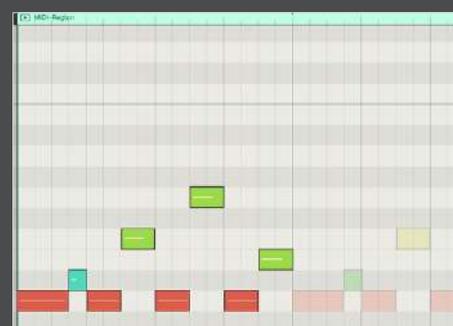
First we need a groove that is to be modified. This can be a beat created with the new **Drum Machine Designer**. Of course, loops (WAV, Apple, etc.) can also be imported or external plug-ins can be used. In our example, it's a simple hip hop groove from Izotope BreakTweaker, a drum machine (AU plug-in). 🎧

2 Sample Recording

On a second instrument track we use Quick Sampler. The two-bar drum groove from BreakTweaker can now even be recorded directly as an audio file in Quick Sampler. Click on **Recorder**, select **BreakTweaker (Instr 1)** as the input and press **Record**: Now play the loop and record it in Quick Sampler. 🎧

3 Slicing

The Drumbeat is now playable as „My Sample.aif“ via a keyboard (note C3). It's not a problem if more than two bars have been recorded. The sample is automatically sliced to the keyboard by simply switching to **Slice** mode in Quick Sampler. Activating **Gate**, the slices will follow the played note duration. 🎧



4 MIDI Phrase

Now MIDI trigger notes are generated, with which the fragmented beat can be played and also rhythmically changed. This is how it works: Move the mouse into the lower half of the large waveform view, press the left mouse button and drag and drop it into the Arrange window on the QuickSampler track. Done, the generated MIDI region plays the beat. 🎧

5 Variations

The MIDI region itself should be split in half. There is often a fill in the second bar, which can be shifted and a four bar scheme (like T1, T1, T1, T2) can be built. Beat-Variation can be done quickly by deleting or quantizing single MIDI notes in the piano roll [1]. Copy the original MIDI region to a safe bar position first. 🎧

6 Bass Track

In the last step, we copy the MIDI region to another instrument track with a different sound, in our case the „Subby Bass“ setting, and get a bass that fits the groove. Of course, in the piano roll editor you'll have to post-process not only the pitches, but also the velocity. Tip: Set the notes of the kick slices to a keynote. 🎧

[1] Listen to the audio demo in the mag downloads to hear how the samples are modified.

Power Producer: Akai MPC

Mastering in the Box?

An MPC as a Mastering Unit? Right, this sounds unusual at first, but it's not that far-fetched because, on the one hand, there are an astonishing number of users who would like to produce without their computers. On the other hand, it is not only live performers who benefit if the tracks pump properly. So let's get cracking! by Marco Scherer

Project Info



Material: MPC Live, X, One, Touch, Studio, Renaissance, Force or Software 2

Time Required: 1 hour

Content: Create a mastering chain for standalone MPC.

Difficulty: Advanced



1 Mastering chain

While older MPC's were still equipped with a limited number of dynamic effects, current models show off their sheer mass. As always, however, the right tools for the job have to be found first. To save you from tedious experimentation, we'll give you our personal Beat-MPC Mastering Chain. 🎧

2 Standard effects

Our demo project (see Workshop Data [1]) sounds relatively dull and quiet, so here's something you can do: Our basic setup consists of the parametric 4-band equalizer (**PEQ 4-band**) and the **Mastering Compressor**. Switch to the **CHANNEL MIXER** via **MENU + Pad 12** and select **Masters** at the **MIXER** or open the mixer via the MPC software. 🎧

3 EQ settings

Load the effects into slots 2 and 3, leaving the first slot free for an optional effect. We set the EQ bands to **50, 500, 3500 and 8000 Hz**, representing sub-bass, booming low-mids, high-mids and silky highs. We leave the bandwidth untouched and set the gain to **+3, -6, +3 and +2 dB** respectively. 🎧



4 Compressor

This reduces the booming part, while the bass and treble gain presence. The track sounds much more like Hi-Fi. We let the compressor get a good grip with the **ATTACK** and **RELEASE** each at **30 ms**, the **THRESHOLD** at **-30 dB**, the **RATIO** at **20:1** and **OUTPUT** at **+20 dB**. The fourth effect is a limiter to ensure a consistent volume. 🎧

5 Enhancer

Here you should load your own plug-in because, in our experience, **AIR Maximizer** is too harsh for this purpose. Since we want to work standalone and thanks to the heavy compressor settings, there are no unwanted peaks; so we load the **AIR Enhancer** instead and add a touch of highs with **High Gain** at **1.3 dB** and **Harmonics** at **3.4 dB**. 🎧

6 More punch

We don't really need an effect for the first slot on this track. However, if you want more punch for your sounds, load the **DECIMATOR**, set **DECIMATE** to **12** or more and mix the effect with **DRY/WET** set to **20 - 30%**. The result will sound much punchier. If in doubt: less is more. 🎧



Cheat-Sheet: 15 must-have compressor settings

Instrument	Ratio	Attack (ms)	Release (ms)	Notes
VOCALS				
Vocals	2:1 - 4:1	10 - 50	100 - 1000	Use a shorter release time for speech
Speech/Rap	4:1 - 8:1	10 - 50	<100	
2 Voices/Backing Vox	6:1 - 10:1	10 - 50	100-1000	Strong compression puts vocals in the background
SPEECH/ RAP				
2 VOICES/BACKING VOX				
BASS DRUM: POP				
Bass Drum: Pop	4:1 - 6:1	<5	200 - 300	Unobtrusive, solid BD similar to a drum machine
Bass Drum: RnB, Dance	8 : 1	5 - 10	200	The kick is not compressed, shows itself even at low levels
Bass Drum: Metal	8 : 1	5	30	Crisp short, highly compressed
BASS DRUM: RNB, DANCE				
BASS DRUM: METAL				
SNARE: POP				
Snare: Pop	4:1 - 6:1	<5	1000	Quiet, soft snare - easy to fit in the mix
Snare: RnB, Dance	4:1 - 6:1	5 - 15	<200	Bright Snare - Attack is not compressed
Snare: Rock, Metal	8:1	<5	1000	Highly compressed, fat - long decay
SNARE: RNB, DANCE				
SNARE: ROCK, METAL				
TOMS				
Toms	4:1-6:1	5 - 20	150 - 500	
Hi-Hat	2:1 - 3:1	10 - 50	30 - 100	The shorter the release time, the crisper and more jagged
E-Bass	4:1	30 - 100	200 - 500	Fingered, on Slap Bass use shorter attack and higher ratio
HI-HAT				
E-BASS				
E-GUITAR: DISTORTED				
E-Guitar: Distorted	4:1 - 8:1	10 - 50	100 - 500	
E-Guitar: Clean	6:1	5	100	
Acoustic Guitar	2:1 - 8:1	10	200	Soloing, with Chords use longer attach and release times
E-GUITAR: CLEAN				
ACOUSTIC GUITAR				



Studio Insights: BT

Tech Nerd in a Creative Rush

Grammy-nominated film score composer and trance legend Brian Transeau is back with his first dance music album in seven years. Danny Turner explores his stunning studio and obsession with technology.



The music business is a den of sin and inequity, but there's also a negative side. «



Few electronic artists have displayed their passion for sound, technology and innovation with as much enthusiasm as Maryland-born producer Brian Transeau (BT). From his first album, *Ima* (1995), BT has adopted a pioneering approach to music-making, segueing into film soundtrack, TV and video game scoring, with each project informing the next over a diverse catalogue of releases.

Not just a technology geek but an inventor, BT is famed for creating iZotope's Stutter Edit sound-processing plugin and, more recently, *Stutter Edit 2*, *BreakTweaker* and *Phobos* with Spitfire Audio. Following two full-length multi-movement experimental albums in 2019, *The Lost Art of Longing* sees Transeau return to the classic trance sound he's best-known for, binding 25 years' experience into a project he describes as a journey of deep personal significance.

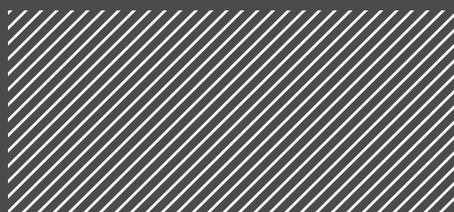
Beat / Dance music is increasingly moving towards the release of singles and EPs over albums. Is that something you've had to fight when it comes to selling music?

Brian / Yes, every day. From managers to lawyers and agents, I've respectfully let representatives go for telling me something has to be done in a certain way. They tell me that people's attention span is so small that you have to put out one song every month for x years and have a certain social media output and I'm like, you know what? No you don't. I was blessed to go on tour with a demigod superhero of mine, Howard Jones. Watch how he interacts with

the world and how his fans have stayed with him for so many years selling out 5,000-seater rooms in ways that other big artists can't. He's not worried about his Spotify monthly listen or having a song out every month - he's making music that makes people feel more connected.

Beat / Are you worried that the pandemic has exacerbated how artists might be manipulated by the industry?

Brian / Here's the dark problem. A lot of people in management take advantage of the fact that artists work from project to project and need to pay for food, family or their mortgage. It depends on how successful you are by the way, Tiësto and Calvin Harris will be fine - and good on them, but here's the conversation; they put an artist in a room at a big scary board table and say, if you don't do what we tell you, you'll be irrelevant and should go work in Guitar Center. So you'll play at this festival for free, do online streaming for free and grind out music you don't like one time a month and repeat that over and over again or you'll never be hired for another show when things go back to normal.



Beat / How can artists combat that?

Brian / I'm not displacing responsibility on the artist. Ultimately, it's up to them to put their foot down and say they don't believe in what's being said, but maybe they need to look at the generation before them who have followers who love what they do. Their Spotify numbers aren't through the roof and some even make a living selling CDs and vinyl.

Beat / There's a quote about the music business being a cruel and shallow money trench ...

Brian / Yeah, the music business is a den of sin and inequity, but there's also a negative side [laughs]. It's so true, man. That's not to say there aren't tremendous people operating in it. I have a 20-year relationship with Amy Bink of Black Hole Records. He's launched the careers of so many remarkable artists in the electronic music space. I would give the keys to my house to this guy.

Beat / You've also done your bit to help up-and-coming artists...

Brian / I've been working on a bucket list project for the last year that will probably take another 12 months to wrap up. It's this whole big educational thing, because so many people over the years have asked me about my techniques and how I manage to finish so much music. I realised that I teach all of these things privately to my friends and peers but never share them with the community at large, so I'm really hoping this astro course will add value to people who feel creatively stuck, whether it's



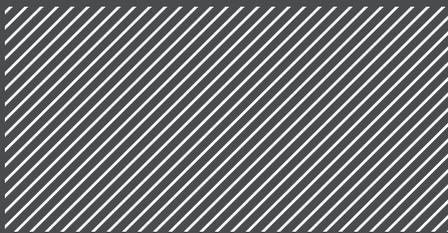
starting an eight-bar loop or being unable to finish songs or projects. I know how to do that and, over the years, have come up with a crazy system.

Beat / Give us a snippet...

Brian / A lifesaving object for me is a timer that has increments on it and I use a technique called time-blocking. I'm really diligent about time management and tend to tick away at these small slices of achievable projects, whether it's music software, albums or production. I run a lot of things in parallel because I have this regimented system, but if you're just about to dip your sea legs in the creative space I would recommend working on one thing at a time because creating a space where you can finish something is the best way to reward your childlike creative self.

Beat / In your case, are you constantly working on projects simultaneously and partitioning tracks into folders for future use?

Brian / I'm writing ambient and the more experimental This Binary Universe-type music literally every day, so there's always an album in progress. I always ask myself the question, if this is my last record what am I leaving for people. Although I love working on things in parallel, I still get overwhelmed sometimes - my software development schedule is bananas because I currently have 11 applications in development across seven companies. But you're right, during my writing time I'll write something and think, dang, that would be really great as some kind of crazy IDM thing for a project that's emerging. Then I'll go to the modular that weekend, print a big



patch and maybe two weeks later schedule time to merge those two things and create a finished track that lives in a project folder.

Beat / Do you discard a lot of music or would that be wasting time?

Brian / Honestly, nothing goes to waste. If I'm writing something for a film and a director says it's great but we want that cue to be fully electronic and not orchestral, I'll think, cool, but I like it so I'm going to flesh it out and create a fully released piece. A lot of the tracks on my last couple of records were exactly that. I was ghosting on a film, composed about five cues and even recorded stuff at Abbey Road but ended up using some of it for my own stuff.

Beat / The Lost Art of Longing returns to your trance/progressive house sound. Is it about returning to a comfortable space or are you motivated to bring something new to the genre?

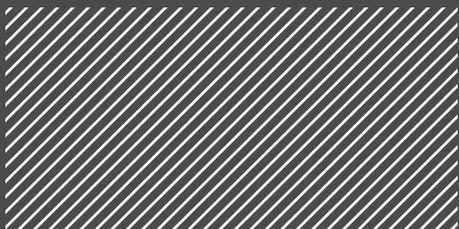
Brian / I think of my BT albums as a conversation with myself around songs, while the more experimental things I do are typically instrumental and I get to do all kinds of whacky time signatures and crazy things that I studied as a school kid. But my album Electronic Opus was an eye-opener for me because of the idea that I could invite parts of myself into a room. This new album was the first time that I'd created a song combining trance 2.0 with neuro breakbeat stuff and synth wave. The track Walk into the Water is a perfect example. It's an 11-minute piece of music but in the middle of it I thought, you know what, I'm going to write a brass section - just because. After 11 days, you



start to question whether it's wise to make these bespoke Cubase autoloads with 700 tracks on one 24-bar chunk of music, but I played it to Howard Jones and he said, dude, that is so creative, and that felt good. This time, I didn't separate the usual glitch Max/MSP sound ideas from the orchestral, deep counterpoint live recording thing - it's all on one record and the height of what's possible for me.

Beat / Has tech changed enough recently for you to take a new approach to making trance?

Brian / There are things that have cropped up over the past five years that have completely revolutionised how I make music. Two of them have been





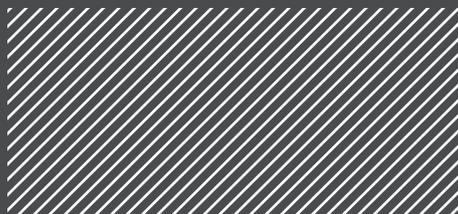
a paradigm shift. I got a supercomputer from PC Audio Labs that's changed my life. It's like a hot-rodded PC that runs a program called Vienna PRO that allows me audio over IP. Over a single Ethernet cable I can connect my computer from a 2013 black trashcan Mac, and in that setup I have 3,500 Kontakt instances loaded, coloured, volume-matched and grouped in folders. I've taken string libraries from 100 different companies and balanced the stems so they match, going through the same convolution reverbs, and have a 24-channel stem thing where I can hit a button and render out these massive orchestral mock-ups in Cubase. That's been a defining moment for me because I use Cubase, Logic and Ableton Live almost daily, but Cubase is the

one I forced myself to learn five years ago. I literally used to write with pencil and piano, do a bad piano mock-up using crappy string sounds and wait until I got into a studio to make a live section, but some of these software articulations have gotten so wild it breaks my brain.

Beat / What was the other game-changing shift?

Brian / I'm not saying it because they're my partners, but iZotope's RX changed my life. Every single stem of every song on this album has been curated and combed through with spectral de-noising, bespoke moving filters and de-clicking for a forensic level of detail. It's like working with Photoshop for sound. I'm able to do things in there that I'd

dreamed of my whole life. A lot of the songs on the album feature Dolby Type A production where you pull some of the noise reduction cards out and print vocals to get a really hyped sound. Steve Perry, the lead singer of Journey, told me about it. It's a parallel processing trick that gives you the most remarkable HD-sounding treatment on vocals that I've ever heard. When you listen to a vocal you can literally hear the person's mouth moving - it's unbelievable. Using a combination of Dolby A treatment and RX, I made these hyper real-sounding vocals on five tracks from the album. I probably spent three hours on each vocal stem and some of them are 60 channels wide, but man, what a sound. RX is as important as any instrument or DAW I own.



Beat / *Your studio is absolutely extraordinary. Does knowing what tool to use at any given time have to become an instinctive decision?*

Brian / My studio is split into four parts. When you come through the door, the first thing you'll see is a big rack of effects next to my rackmount and hardware drum machines, such as the Roland 808, 909, Linn Drum, Oberheim DMX and Simmons SDS. It's also where I keep all my old and new modular gear, like the Oberheim SEM, ARP 2600 – this one belonged to Pink Floyd, and I have the second Devilfish TB-303 ever made; Josh Wink has the first one. This whole area is one station, but it can't talk to the rest of the room. It's my activity area, full of patchbays and cables, but I'm not looking at a keyboard. I basically go to this area when I'm banging my head against a wall working on a score cue or mix and need an ear break, so I'll just go nuts, experiment and have fun. It's DAW-less, so I use the computer as a tape deck and if I want to sequence I'll use the modular Koma Sequencer, the Intellijel Atlantis or ER-101. Then I'll pull it into the main computer where I finish the music.

Beat / *What's in the second area?*

Brian / The second area in the back is for all my '90s gear. It has an Akai MPC3000 with an old Apple Monitor, effects units like the Roland SRV-330, Aphex Aural Exciter Type C, Alesis QuadraVerb and a Panasonic SV-3700 DAT player. I've still got my SyQuest 270MB drive, an IBM computer and my old Akai S900 retrofitted with an SD card. This whole area is the exact same setup I used to make Ima, ESCM and Movement in Still Life and I'm still making music here with all the '90s sounds and techniques.

Beat / *Of your hardware synths, which stand out?*

Brian / The Dave Smith Prophet VS, and one of my favourite synthesisers ever is the Sequential Circuits Prophet-600 with its little bespoke programmer – it has this modification built in to make the envelope super snappy. The Jupiter-6 and Juno-60 are some of my all-time favourites, but I love the Pro One and the Russian Polivoks because it's such an unusual, angry bastard. It's the closest thing I have to my OSC OSCar, which is currently in Texas being fixed. The Dave Smith Prophet T8 is a beast of an instrument – one of his finest, with poly aftertouch, and the Oberheim Matrix 12 has the biggest analogue string sounds I've ever heard. The Korg DS-8 is one of the best synths ever made – it's the only FM instrument that has this unison detune mode on it. That thing sounds massive!

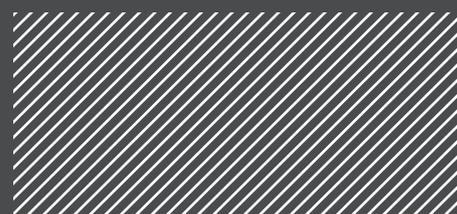
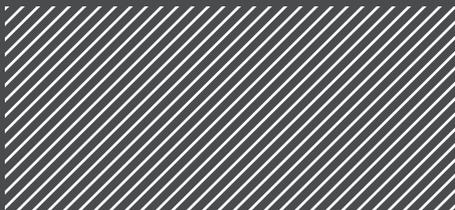


Beat / *You forgot to mention the Yamaha CS-80 ...*

Brian / The CS-80 is the mother of all synths. I'm using this thing a lot on a game that I'm scoring right now. There's never been a more expressive electronic music instrument. To be able to control the ring mod speed with poly aftertouch is one of the most psychotic things I've ever seen. I'm actually controlling the CS-80 right now using a ROLI Seaboard. My main go-to synths, which are always on when I'm writing, are the Roland Jupiter-8, which is probably my favourite instrument, the original '70s Minimoog and The Prophet-5, which has been refurbished to the metal. That has such colour and warmth. When you play it, it's like an amulet, and I don't know why synths can't sound like that now.

Beat / *Why do you think manufacturers prefer to lean towards clones rather than making these more unique vintage-type synths?*

Brian / I've got all the Behringer stuff – my 101 and 808 clones sound great, but the reason people are not making instruments that sound like the classics is complex. I don't know if you've seen the Macbeth MicroMac X-Series synth, but it's the biggest-sounding modern synth I've heard with a humungous Minimoog-like bass sound. The answer to why they're not making these big vintage poly synths anymore lies in the Macbeth X-Series. Everybody is using surface mount chips and modern off-amps. The thermal signature of these old synths is terrifying. First, the heat reductive circuits really impact what they sound like; second, the off-amps in every one of these old synths are shit; and third,



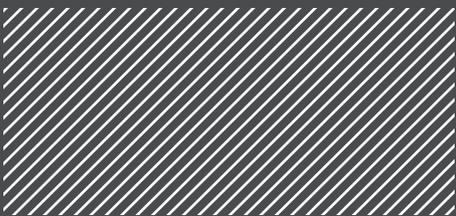
the support circuits are all through holes. I'm not a tech guru, but I can open them up to make MIDI modifications while the modern ones are made by computers that don't have the same support circuitry or the capacitors, transistors and resistors that affect the sound. You can use a Curtis filter chip and you'll get that Crumar Bit One or Prophet-5 sound, but the circuitry surrounding it is what gives you that subtle colouration, distortion, overdrive and wave shaping. It all adds up per voice to create this sonic soup – a pool of warmth – before it even reaches the filter. Many of these capacitors don't even exist anymore and the modern equivalents are made by robots where the modern off-amp is silent. The guts of synths like the Prophet-5 were built in Dave Smith's garage over a period of weeks, but no one wants to do that now – they're just banged out in China. A bucket-list dream of mine is to make a real poly synth.

Beat / *Tells us how you've managed to reverse engineer your Fairlight CMI III?*

Brian / When I was a kid, the Fairlight cost as much as a house, now they're showing up broken. Mine was literally destroyed, so I took every key off it and retrobrighted them in the bath tub, recapped every card, rebuilt the power supply and repainted the chassis. I refurbished this thing to the metal; it's got a CF card reader in it. The monitor was destroyed in transit, so I sent an email to my dear friend Stewart Copeland from The Police – a famous Fairlight user – asking if he knew where I could get one. I didn't get a response, then two weeks later I found he'd sent a monitor in the post – I was nearly in tears.



»» iZotope's RX
changed
my life. «



Beat / And is your Fairlight also compatible with Kontakt samples?

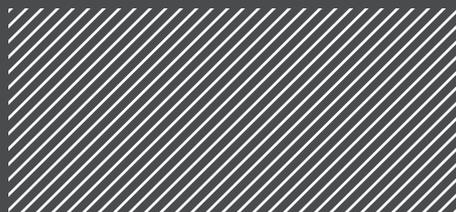
Brian / My friend from Chicken Systems makes a program called Translator, so working with Peter Vogel, Steve Rance and the original Fairlight crew, we reverse-engineered the entire Fairlight operating system and are now able to port a Kontakt instrument from the main computer to the Fairlight and vice versa. Hans Zimmer actually reached out to me recently and asked if he could get his Fairlight going in the same way. It takes forever to load things, but once I've flicked through some Kontakt patches and started uploading them I can just grab a coffee and it's ready to work.

Beat / What's the benefit of uploading sounds into the Fairlight?

Brian / With every voice, the sample rate on each card is slightly off. There's no clock locking them together, so you can play a middle C eight times in a row and every voice is tuned and panned slightly differently. When you put a chord on that thing, it's like the heavens have split open. In this whole room, it's the biggest sounding instrument I've ever touched. The drop on the new track No Warning Lights with Emma Hewitt is Fairlight, the big super-saw sounds are samples from the Jupiter-8, Prophet-5 going into the Fairlight. The album version has a bell, marimba and a wood block, so it's got a very Kate Bush/Peter Gabriel sort of sound to it. I've been sequencing it from my main rig, but just started using its Page R sequencer. For the next record, I'm going to sequence whole songs on it.

Beat / You similarly restored the infamous CRUMAR General Development System (GDS) synth?

Brian / It's the most sophisticated additive synthesiser ever built. There are only two of them – the other one is in the care of Wendy Carlos who scored Clockwork Orange, but this particular one was owned by Klaus Schulz of Tangerine Dream and I still have all his handwritten discovery notes in German. He put it into auction about 10 years ago because it had been toured and trashed, but the son of the family that bought it was a big fan and wanted me to have it. A big friend of mine is a



synth tech wizard for any CPU-type stuff from the early technologies. She's done loads of synth work for Aphex Twin and the Goldfrapp guys, so with the help of the original engineers, who are in their 80s and 90s now, we built MIDI for this instrument.

Beat / On the software front, you're famous for inventing the Stutter Edit plugin and you recently created Stutter Edit 2?

Brian / A lot of things were missing from the first Stutter Edit that I was using as a technique, so there's a completely new modulation paradigm called Time-Variant Modifiers (TVM). It's somewhere

between an LFO and an envelope, but all of them lock to clock and you can change the time period velocity so every parameter in the plugin has its own bespoke modulation source. The first Stutter Edit was a rudimentary VST, but in this one the DSP, two-band distortion – that feeds rhythmically for a crazy multi-effect – and liquid metal-sounding reverb pitch artefacts are remarkable. I can't wait to hear how other people use it in their productions. Tycho posted a clip playing a guitar riff through Stutter Edit 2 recently and it sounded insane! 🎸

www.facebook.com/bt



Photo:
Lacy Transeau

» I always ask myself the question, if this is my last record what am I leaving for people? «

Power Producer: Tascam Model 12

Live looping with your mixer?

With the 1.10 update, Tascam has added a function to Model 12 that allows phrases to be repeated. This makes it easier to practice and correct difficult passages or to extend certain parts of a live performance to a longer period of time, if you or the audience so desire. With the built-in recorder, you can mark up to ten such phrases per song – and you can even use a footswitch. *by Jan Wilking*



1 Activate

To set the entry and exit points for a phrase to be repeated in your current song, you must first select **VAMP** in the menu and then **I/O EDIT**. Make sure that **V.EDIT** has a black background in the upper area. This indicates that **VAMP** is active. Use the **F4** key to switch the **VAMP** function on and off. ✨

2 Mark

The song must be stopped during the setup described above. To set the entry and exit points, start the song. Press **F2** at the point where you want the repeat to start and **F3** to mark the end point of the loop. This is a quick and easy way to mark up to 10 phrases and recall them later. ✨

3 Jump

To jump to the previous or next **VAMP** point in the song, press the **<<** or **>>** buttons. The name of the respective **VAMP** point is shown at the bottom of the display. With the **F2** and **F3** keys, you can delete an entry or exit point again, all **VAMP** points can be removed in the **VAMP** menu with **I/O ALL CLR**. ✨



4 Modes

The **VAMP** function can be triggered automatically or manually. For automatic repetition, go to the **VAMP PLAY** item in the **VAMP** menu. Press the **F3** button to select the desired mode. If **VAMP.A** is highlighted in black, the automatic repeat is activated. Start the song that contains set intervals. ✨

5 Automatically

The Model 12 recorder will play the song to the first set exit point and then repeat the phrase between the start and end points. When you've practiced this passage enough or the audience has sung along for long enough, end the loop playback by pressing the **F4** key. ✨

6 Manual

Press the **F3** key to switch to manual playback of the selected phrases. The display shows **VAMP.M** on a white background. During manual playback, before reaching the loop points, you can spontaneously activate the repeat by pressing **F4** or with an attached footswitch, otherwise the song continues to play as usual without a repeat. ✨

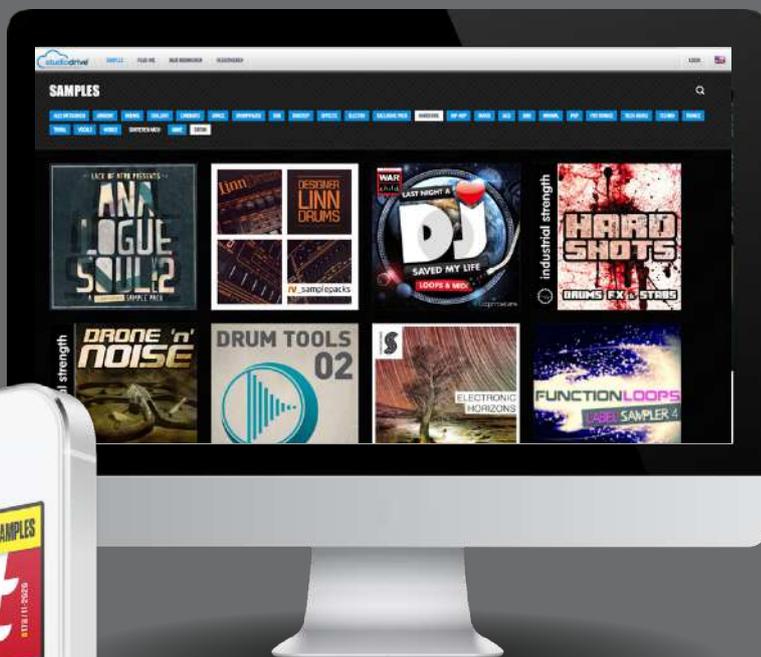
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New synths & software

by M. Sauer, M.Schumacher,
P. Sterczewski



MOK Waverazor 2.5

The exceptional MOK Waverazor synthesizer has arrived at version 2.5 and continues to polarize with its futuristic sound. By manipulating the waveforms, this synth, with its three oscillators and three filters per voice, produces primarily harsh tones. The sound can in turn be pumped up considerably with three internal effect blocks and twisted through the missing sound.

Version 2.0 adds an extensive edit mode, the current update 2.5 continues to build on the synthesizer in a useful way: There are three new filter types which, like Waverazor itself, do not conform to the standard. With the „All Pass Filter“ a reverb can be simulated, eight short delays are provided by „TapLine8“, and the comb filter allows spatial effects. We particularly liked the new reverb effect and the sophisticated „Dual Stereo Delay“, which offers reverse and freeze. A good symbiotic relationship: Waverazor 2.5 can be integrated into PluginGuru Unify as a VST instrument and customizations (423 presets) are provided by PluginGuru for free.

Verdict

MOK Waverazor 2.5 is a visually and particularly acoustically distinctive package that scores points with its unusual sounds; outperforming most wave-shaping or phase-distortion synthesizers. Toxic, chemical, aggressive, artificial or simply garish - a striking sound makes it special. Integrated into PluginGuru Unify, this synth lets you discover many new combinations of sounds. Let's just hope that the GUI will be a little easier to look at in the upcoming major update.

Developer: Media Overkill
Web: www.mok.com, www.tracktion.com
Price: 159 US-Dollar
Format: VST, AU, AAX

Rating:  



XILS-lab XILS 505

Thanks to the XILS 505 plug-in, XILS-lab has expanded its range of virtual vintage instruments with a replica of a classic string machine: the Roland RS-505 Paraphonic Synthesizer from 1978, which was advertised as „The Analog Orchestra“ thanks to its combination of a string machine, a polyphonic playable synthesizer and a bass synth.

XILS 505 is visually very close to the vintage model and all sections of the original have been emulated in great detail. Some enhancements are the synthetic choir sounds, which can be selected in the plug-in, and the original oscillator sound. Like Roland's RS-505, this virtual instrument offers flexible layering and adjustment options. A vibrato LFO and another LFO are also on board that can be freely assigned in the modulation matrix. The resonant low-pass filter in the synthesizer section and the BBD chorus/ensemble, reverb, true stereo space and phaser effects provide a distinctively vintage sound. Operation is user-friendly, however, the very small controls and labels are no longer up-to-date.

Verdict

Friends of classic string machines and polyphonic synthesizer sounds will get their money's worth with XILS 505. With its lush and very lively sound, this instrument radiates comforting vintage charm. The extended settings options, as well as the excellent arpeggiator and additional effects, make it even more flexible and versatile than its analog counterpart.

Developer: XILS-lab
Web: www.xils-lab.com
Price: 149 Euro
Format: VST, AU, AAX

Rating:  



Ocean Swift OSS Enterprise

The hybrid engine of the OSS Enterprise from Ocean Swift combines not only additive, subtractive and wavetable synthesis, but also includes morphable vector synthesis. The sounds are generated from the four oscillators, where the synthesis type can be switched. In the plug-in's vector module, you can morph between the oscillators via LFO using the X/Y pad, which can result in very exciting and creative sounds.

There are also dual multimode filters onboard with dedicated envelopes that allow you to choose between high, low and band pass. The filter is also equipped with an LFO with invertible modulation. Unused sections can be deactivated to save resources. This beautifully designed synthesizer also has 400 presets ready to go. The range of sounds available on the OSS Enterprise extends from deep smacking basses, cosmic laser effects and percussion sounds formed from noise, to trance plucks, bells and buttery soft and mystical vector pads. The effects section consists of a panner, delay and chorus with phaser, all of which sound great.

Verdict

OSS Enterprise is a versatile synthesizer that should attract sound designers for more than just its excellent presets. The combination of different forms of synthesis provides great creative potential. And the versatile synthesis delivers multi-faceted sounds that can be used to create musical accents in a variety of genres.

Developer: Ocean Swift
Web: www.oceanswift.net
Price: 60 Euro
Format: VST

Rating: 



Impact Soundworks inSIDious

The SID sound chip from the Commodore 64 and 128 has helped countless classic computer games sound just right. With programming skills, composers elicited music from the 3-voice chip, which has inspired a complete generation of musicians. inSIDious is advertised as the definitive emulation of the SID chip. Does this Reaktor instrument really succeed in bringing the charming analog sound of the C-64 and C-128 into your DAW?

Mike Clarke has been working on his virtual SID for five proud years. After the early versions were offered for free download in the Reaktor User Library, this synth is now commercially available in an improved form and with a stylish look. inSIDious emulates every feature of the chip, including all its peculiarities, as faithfully as possible. The monophonically and polyphonically playable Reaktor instrument emulates the oscillator waveforms of both chip variants (SID 6581 and 8580). The pulse wave, triangle and sawtooth waveforms can be enabled simultaneously. Pitch can also be controlled for the noise waveform with charming 8-bit sound. By modulating the pitch, exciting effect sounds are possible. There is probably no other sound that is more associated with the SID as much as lead sounds with significantly quieter pulse width modulation. This Reaktor instrument masters this with flying colors. In addition to the volume envelope, LFOs and envelopes to control pitch and pulse width are included in each voice. Thanks to ring modulation and oscillator sync, inSIDious can also elicit metallic, bell-like and cutting sounds.

The step sequencer is also great for creating classic arpeggios. Since you can set the waveform, tuning and pulse widths for each step, as well as selecting ring mod and oscillator sync, you can create amazingly complex sequences just like in the hardware model. Like the LFOs, the step sequencers in all three voices can also be synchronized to the host tempo. Clicking the SFX switch generates random oscillator settings.

The resonant multimode filter offers low, band and high pass modes, which you can also combine. And you can switch between emulations of both models. Selectable filter curves allow you to further adjust the sound characteristics. An envelope, LFO and key tracking are available for modulation. If you want to recreate the sounds of classic computer games, the 350 presets from well-known C-64 and demo composers will give you a great deal of



Beat
MUST-HAVE
11/2020

pleasure. Chris Hülsbeck, Rob Hubbard and Martin Galway, among others, have recreated sounds from their the soundtracks of such cult classics as Rambo, Green Beret and Dragon's Lair.

Verdict

With inSIDious, the developer has achieved great success: This Reaktor instrument authentically reproduces the complete sound palette of the Commodore 64 and 128. Of course, it is primarily suited for distinctive retro and lo-fi sounds, but the synthesizer also performs well in modern electronic music. The spectrum ranges from basses, leads and arpeggios to drum and percussion sounds, effect sounds and thrilling sequences. The inspiring presets (especially the loops and sequences) deserve a lot of praise.

Developer: Impact Soundworks
Web: www.impactsoundworks.com
Price: 64 US-Dollar
Format: Reaktor Player 6, Reaktor 6
Rating: ★★★★★



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Audio Imperia Areia

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With Areia, Audio Imperia provides the Nucleus and Jaeger orchestra libraries with a library specializing in string ensembles. The library contains 16 violins, 10 violas, 6 cellos and 4 double basses, as well as pre-orchestrated ensembles of violins and violas and cellos and double basses. The „Full Ensemble“ offers you direct access to the complete string orchestra. The performance patches allow for a quick implementation of ideas.

On all instruments, you can mix four microphone signals at will to adapt the sound to your musical requirements and choose between a classic and a modern mix. A reverb is also provided for enhancing the sound. The wide range of articulations includes long playing styles including trills, tremolo and legato, as well as short playing styles including pizzicato, two spiccato and two marcato types and staccato. Some highlights to this library are the real Con-Sordino samples and the Measured Tremolo patches for violins and cellos. With the latter, you can either play the Multi-Samples or draw in rhythmic step sequences that are synchronized to the host tempo. With the ability to switch between different patterns, you can create complex rhythms in no time.

Verdict

Areia scores points as a versatile string library with rich, lively and penetrating Hollywood sound. The sound character can be flexibly adjusted to the individual's requirements, covering an enormous range between smooth, epic and aggressive. One of the great strengths of the string ensembles, in addition to the great variety of articulation, is that the instruments can be played very expressively without extensive editing. The very well made pad sounds are a great bonus.

Developer: Audio Imperia
Web: www.audioimperia.com
Price: 399 US-Dollar
Format: Kontakt Player and Kontakt 6.2.2, NKS
Rating: ★★★★★

Interview:

Jan Hoeglund, Founder and CEO of Audio Imperia.



Beat / How did the idea for Areia come about?

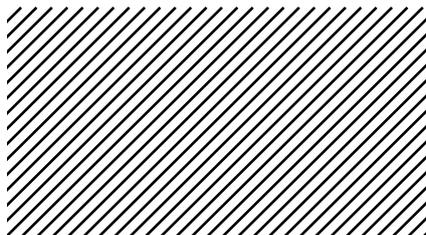
Jan / Areia was created as a logical extension to the strings we recorded for Jaeger. The strings for Jaeger were deliberately chosen to have all the basic material to be able to write epic / hybrid / orchestral music with a library. Of course, Jaeger also works great for other genres and this gave us the impetus to expand Jaeger's string concept accordingly to simply offer greater flexibility and articulation in a separate string library.

Beat / What sets Areia apart from other string libraries?

Jan / Areia stands out particularly due to the variety of possible applications. We deliberately chose the recording room for its fantastically clear, direct, but very smooth sound, and you can hear that very clearly in Areia. The strings can, therefore, easily go from smooth and supple to loud and epic. We have added certain additional playing styles to the basic articulations and the library offers an incredibly wide range of possibilities. The other part that makes Areia very special is our editing and programming. Instead of only focusing on excellent recordings, we also paid special attention to what happens to the samples in the library. The combination of excellent recording quality and outstanding sample editing and programming fits together with our goal of providing realistic sounding sample libraries that are incredibly easy to use.

Beat / What features of this sample instrument do you find most exciting?

Jan / An important part of the above-mentioned objective is our Sample Start function. This fulfils two tasks: First, it ensures that the timing of all samples is consistent across the board. Second, the user can decide how „loose“ or „tight“ the samples should be to the click track. Sample Launch eliminates the guesswork associated with many other libraries, while allowing full control over the balance of playability



and realism. The „Measured Tremolos“ in Areia are also a big step forward. The goal was to have tremolos in one patch that can work rhythmically with any DAW tempo without the creation of audio artifacts through time-stretching. We took the samples for the Measured Tremolos from recorded phrases. With this type of recording, the samples sound very consistent and realistic, which is especially important for this style of playing.

Beat / What were the biggest challenges in the recording process?

Jan / One of the bigger challenges is that we now record mostly „remotely“ and our team is in three, sometimes even four, different time zones. Fortunately, we have years of experience with recording, so it is a purely logistical factor.

Beat / How were the pad sounds in Areia created?

Jan / The pads were created by our sound designer Bryan Leach using material from the recordings for Areia. Bryan has a very keen ear for good sounds, especially in the area of granular synthesis. So the pads are an extension of the same material, just „sound designed“. The pads and the sonic character of the strings sound incredibly homogeneous and fit together very well.

Beat / Do you have any tips on how to achieve particularly authentic results with orchestra libraries?

Jan / Listen to as many live recordings of orchestral music as possible: concerts, operas, film music, etc. So much happens in real orchestra recordings - there are so many details that are easy to forget when working with samples. Training the ear accordingly makes a huge difference in reproducing the same listening experience in a mockup with orchestra sample libraries. A function like the Sample Start can be a very powerful tool in this respect.

www.audioimperia.com

Review: Voltage Modular Core 2

In Version 2, Cherry Audio is making its virtual modular system even better. With Voltage Modular 2, did they manage a complete, care-free package for sound tweekers? **by Mario Schumacher**

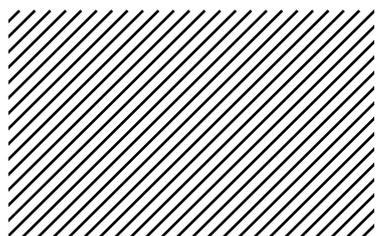
Cherry Audio's virtual modular system is available in three versions [1]: Voltage Modular Core with 105 modules, Ignite with 45 and Nucleus [2] with 22 modules. With the extensive range of modules, the Core version (tested here) is perfectly suited for creating powerful synthesizers, complex effect processors, and drum or drone machines. On board are oscillators, filters, LFOs, envelope generators, sequencers, arpeggiators, a large selection of utility modules and nice sounding effects. And Misfit Audio's Electro Drums collection is more than just a bonus - offering modules inspired by Roland's classic TR-808 and TR-909 drum machines and a chaser trigger sequencer.

Plug-in Integration

Another great addition is the ability to load VST2, VST3 and AU plug-ins into Voltage Modular. This allows you to integrate your software synths and effects into the system and modulate up to 12 parameters via CV. How about expanding your favorite synthesizer with a sequencer or other modulators; or integrating it into a complex patch? In our test, however, some third-party plug-ins crashed.

What's new?

Since our test of the first version of Voltage Modular, a lot has happened to this virtual modular system. You can now plug an unlimited number of cables into each socket. The ability to assign input and output sockets to busses means that even complex patches can be created without using cables. The new versions are not only practical, but also very creative: You can save an unlimited number



Highlights of Voltage Modular 2 Core include the Super Oscillator, which allows wave shaping through CV signals, the sampler, and the oscillator and filter models inspired by the Minimog.

of versions per patch, including all the settings of all the modules used. If you switch between the different snapshots with CV or trigger signals, you can, for example, create sequences in which each step plays a different variation of a patch.

A number of workflow improvements, such as a function for automatic alignment of the modules, make Voltage Modular 2 even easier to operate. The Randomize function allows you to set all controls and settings of the selected module to random values. The useful Bypass function, on the other hand, allows you to quickly and easily test how the module affects the sound. Furthermore, the IO-Panel has been given a recording section.

Growing Range of Modules

In version 2, Voltage Modular Core also added numerous new presets and several new modules, including polyphonic versions of the Vintage Oscillator, Ladder Filter, Super Oscillator and Super Envelope Generator. Also new are a MIDI file player, mult and switch modules and a spectrum analyzer. Additionally, the existing components have been improved: The oscillator now allows linear frequency modulation and the filter allows resonance modulation.

The convenient browser not only allows loading of existing modules, but also provides access to cabinets, busses and MIDI assignments. You can also

buy and install new modules directly in the browser. The range of modules has grown enormously since the first version of the software was released. There are now inspiring modules from third party vendors like PSP and Unfiltered Audio. Particularly exciting are the modules from Cherry Audio, which were inspired by analog classics like the Korg MS-20, ARP-2600, Polymoog, and Roland Juno-60. Additionally, sample playback, FM vector and wavetable oscillators are also represented...so you can expand Voltage Modular for almost any sound wish. If that's not enough, you can even design and program your own synthesizer building blocks with the freely available Module Designer.

Verdict

In Version 2, Voltage Modular appears more mature in every respect: Operation is now even more convenient and has been well thought-out in every detail. With the new modules of the Core version, as well as the optionally available synthesis modules, it has achieved a big step forward in terms of sound. The frequency and amplitude modulations in the audio range sound outstanding. Even without additional modules, Voltage Modular Core is an extremely flexible sound powerhouse that guarantees long-term inspiration even for experienced users. Top choice! 🍷



More Info

Features

- Virtual Modular System
- 120 Modules
- Internal 64-Bit Resolution
- Collection of Classic Drum Machine Sounds
- Over 600 Presets
- Growing Range of Modules
- Hosting for VST2-, VST3- and AU-Plug-ins
- Format: VST2, VST3, AU, AAX, Standalone
- Win and MacOS: 64-Bit
- Version: 2.0.30

Facts

Developer: Cherry Audio
Web: cherryaudio.com
Price: Voltage Modular Core: 99 US-Dollars, Ignite: 50 US-Dollars, Nucleus: 29 US-Dollars

- ▲ Excellent Sound
- ▲ Highly Flexible
- ▲ Huge Range of Modules
- ▲ Expandability
- ▲ User-Friendly Operation
- ▲ Plug-in Hosting
- ▲ Polyphonic Module
- ▲ Module Designer Available
- ▼ Insufficient Module Documentation

Sound: ██████████
Operation: ██████████
Price/Perf: ██████████
Total: ██████████

Alternatives

Softube Modular
89 Euro
www.softube.com

VCV Rack
Free
www.vcvrack.com

NI Reaktor
194 Euro
native-instruments.com

[1] Comparison of the three versions: cherryaudio.com/voltage-modular/support/module-comparison; [2] See Software Highlights for this issue.

Review: RX8 Advanced

iZotope RX8 offers detailed enhancements and advanced features for remastering old recordings and editing guitars. **by Jan Wilking**

Features

Audio Restoration-Software

24 Modules, 14 Utilities

Up to 32 Audio-Tabs Simultaneously

Standalone or Plug-In

VST2/VST3/AU/AAX

From Win8 (64-Bit), Mac OSX 10.13.6

Copy Protection: Online-Activation

Facts

Develop: iZotope

Web: www.izotope.com

Price: 969 Euro

- ▲ Comprehensive Features
- ▲ Easy to Use
- ▲ Enhanced Remastering
- ▲ Batch Processing
- ▲ Special Guitar Tool
- ▲ Improved Music Rebalancing

Sound: ██████████

Operation: ██████████

Price/Perf: ██████████

Total: ██████████

Alternatives

Magix Sound Forge Pro 12

289 Euro

www.magix.com

Steinberg SpectraLayers

299 Euro

www.steinberg.net

Zynaptic Repair Bundle

749 Euro

www.zynaptiq.com



The restoration possibilities for professionals are virtually unlimited, and the Repair Assist helps beginners.



Despite the increased range of functions, RX8 is still designed to be very beginner-friendly. The audio material to be edited can be dragged and dropped into the user interface and the sophisticated „Repair Assist“ takes you by the hand and guides you through the jungle of different tools.

Here’s the big advantage of the iZotope software: You can remove noise and crackling with just a few mouse clicks and don’t have to worry about what’s going on under the hood. For professionals and more sophisticated tasks, however, the RX package also provides access to almost all relevant parameters and virtually grows with the job. One good example is the De-Hum tool for removing unwanted humming noises. The new version contains more independent frequency bands, among other things, but is easier to use due to the revised user interface.

iZotope RX8 can be used both standalone and in the DAW. For the latter, RX8 offers several individual plug-ins that allow you to edit audio without leaving your DAW.

Optimized Processing

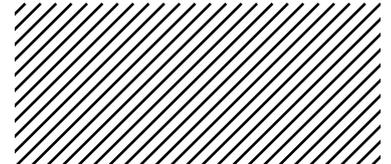
First Highlight: RX8 allows horizontal scrolling in the spectrogram view. This may sound unspectacular at first, but it makes your work much easier in practice if you can navigate left and right through the view with your mouse or trackpad. The improved batch processor also makes your work much easier if you want to edit

a lot of audio files together with the same tools. You can now also view the metadata in the audio files, link several editing modules and choose between different export options. The new Loudness control is very useful for bringing audio files to the right volume for broadcast and film or your favorite streaming platform.

Improved Remastering

The Remastering section has also been greatly enhanced, especially with regard to polishing up old audio files. With Wow&Flutter you can easily compensate for pitch fluctuations caused by uneven playback speed in cassettes, tapes and vinyl recordings. Wow corrects changes in pitch over a longer period of time, whereas Flutter concentrates on short, close-running fluctuations. This works very well in practice and is also useful for giving old tracks a more even tempo for BPM synchronization for the DJ set.

Spectral Recovery is at least as interesting for refreshing old recordings or those converted to MP3 or other bandwidth-limited formats. With the help of Artificial Intelligence, it tries to restore the range above 4 kHz as true to the original



as possible. In practical tests, this too worked without complications and with impressive results.

Create Stems

If you want to create individual stems from complete tracks for remixing, you can access an improved version of Music Rebalance and split an audio file back into its individual tracks. This works sometimes better, sometimes worse, depending on the source material. In the test, however, we were able to create convincing karaoke or acapella versions by extracting the vocals and isolating drums and other instruments as well.

Editing Guitars

A completely new addition is the Guitar De-Noise tool, which was developed specifically for the post-processing of guitar recordings. This tool not only removes unwanted noise such as the humming of the amp, but also suppresses string noises when you grip the guitar or correct overly hard hits. In the test, a garage recording that was a little too punky was easily transformed into a bone-dry Rammstein riff, which made subsequent effects processing and integration into the track much easier.

Verdict

RX8 Advanced is the Swiss Army Knife for all audio restoration and repair tasks. Its target group is primarily professionals in the fields of post-production, mastering, broadcasting, podcasting and video editing; it’s also suitable for audio restoration and repair. Its ease of use also makes this collection of audio tools interesting for hobby musicians and producers who want to refresh individual tracks or mixed tracks in an easy-to-use way - the smaller versions of RX8 are also sufficient to get started. 🚀

Review: Toontrack Hybrid Harp

With EZkey's Hybrid Harp, Toontrack equips producers of ambient and epic soundtracks in particular. Is the financial outlay for this acoustic instrument offering worthwhile? **by Matthias Sauer**

The whole line of Toontracks EZkeys is focused on arranging typical keyboard tracks, so those who are less fit for „keyboard sports“ will get professional help. There are now over a dozen of these practical instruments. Their recipe for success consists of a combination of two elements: a comprehensive sound engine and a MIDI phrase library with the ability to arrange any chord progression on a timeline. Both of these areas can be expanded. Each of the more than 14 EZkeys instruments currently available delivers specific sample content from which new presets can be obtained, and has the same universal core MIDI library that can be expanded with over 50 EZkeys MIDI packs.

EZkeys Hybrid Harp is a collection of instrumental sounds. The title is a bit misleading, because in addition to having a Style 23 harp, the mainstay of this collection, there are other instruments: two harmoniums, ocarinas, a Swedish Nyckelharpa and a bowed glockenspiel. Moreover, these exotic sounds are not only presented individually, but also combined.

Sounds

How creative have Toontracks sound designers been? Are there only impressive sounds or also sounds with a lot of substance? The presets are divided into five categories. „Atmospheric“ contains ambient sounds, each with a long silky reverberation. They sound pretty good and, therefore, don't immediately make you think about using external reverb plug-ins. The combination of plucked, blown or bowed instrumental sounds exudes wonderful charm.

With the first preset „Harp Space“ you can enjoy rich and very dynamic sound for hours. Be it solo a passage or faster arpeggios - it works. The creations in the „Distorted“ section are a bit daring, but rewarding. With „Organic“ the harmonium is used more often. They are beautiful, earthy timbres. For faster sequencer passages, we recommend the templates from the „Percussive“ section. The „Raw Tweaks“ folder contains



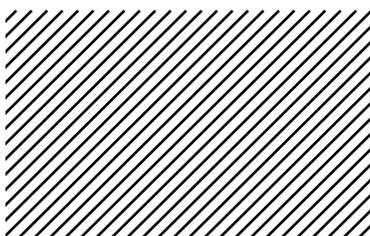
More than just a harp: Toontrack EZkey's Hybrid Harp offers many tasteful sound combinations. You can arrange the sounds right inside the software instrument.

the individual instruments in this collection without effects or other processing. Here, you can easily add external FX plug-ins; however, this is not always necessary. All five instruments sound organic, are very expressive, and can be played articulately. Naturality is key.

Practice

And what about the personal processing of the sounds? The tinkerer will be a bit disappointed at first, as he will not have access to all the little details of sound synthesis; however, this is not all that tragic. On the contrary, EZkey's Hybrid Harp brings a useful selection of parameters to each preset, resulting in fast and effective sound development. Most of the time, it's the effect parts and the volumes of the individual partial sounds that can be changed and then saved as a separate preset.

Many things, in practice, are self-explanatory with EZkey's Hybrid Harp. As such, a look at the manual is hardly



necessary. The GUI could be a bit bigger, though. Numerous phrases from the core MIDI Library can be used with the sounds in EZkey's Hybrid Harp and arranged in any chord progression. You should consciously choose cross-keys and use phrases that are not strongly quantized, but allow fine rhythmic nuances and a lot of sound dynamics. Beautiful ideas can be found in optional EZkey MIDI packs like Epic Themes or Dream Pop.

Verdict

EZkey's Hybrid Harp is a tasteful and unique library that is definitely worth its price. You get really distinctive combinations of natural and musically usable timbres. Even if you already have competitors like EZkey's Cinematic Grand or EZkey's Dream Machine from Toontracks, this product scores highly with sounds for cinematic music, New Age, Ambient, World or even for Hip-Hop or acoustic pop music.

The field of application of EZkey's Hybrid Harp is, in any case, much larger than one might think. Overall it is worth buying. You will love using such high-quality and timeless instrumental sounds again and again. ❄️



More Info

Features

Five acoustic musical instruments:
(Harp, Ocarina, Glockenspiel, etc.)

Over 30 presets with sound combinations.

Songwriting and Mixing

MIDI Phrase Library

Expandable with MIDI-Packs

Facts

Developer: Toontrack
Web: www.toontrack.com
Price: 155 Euro
Format: VST, AU, AAX (Mac/Win), Standalone

- ▲ Natural basic sounds
- ▲ Compelling sound combinations
- ▲ Supports Songwriting
- ▲ Good playability
- ▲ Reasonable Price-Performance Ratio

Features: ██████████

Sound: ██████████

Price/Perf: ██████████

Total: ██████████

Alternatives

UVI Nagoya Harp
79 Euro
www.toontrack.com

Toontrack EZkeys Dream Machine
155 Euro
www.toontrack.com

Souniron Elysium Harp
\$149 US Dollars
www.soundiron.com

New effect plug-ins

by Mario Schumacher



Tonsturm FRQ-Shift

Modular freaks have known it for a long time: Frequency Shifters are an insider tip when metallic effects or robot voices are required. Of course, it only gets really exciting when the sound parameters are modulated. This makes it all the more gratifying that Tonsturm offers FRQ-Shift, a plug-in that offers powerful modulation possibilities.

In the center of the FRQ-Shift user interface, there are two frequency shifters between which you can crossfade using the crossfader. Four additional effects in the feedback path (shifter, delay, resonator and multimode filter) further enhance the creative potential. The modulators can be used to control almost all parameters, resulting in very lively effects. LFOs, random generators and envelope followers are available as modulation tools. Since the LFO's waveforms can be freely drawn in, step sequences and abrupt jumps are just as possible as smooth gradients. The excellent presets are a good basis for your own creations. Another positive aspect is the scalable and clearly structured user interface.

Verdict

With FRQ-Shift, Tonsturm has created an exciting plug-in that not only shows its strengths in classic frequency shifting effects. Phaser and flanger-like effects can be created, vocals can be turned into robot voices and drum loops can be transformed into metallic timbres. Rhythmic filter effects, exciting riser and resonator effects are also possible. Last but not least, the rich modulation section makes lively and dynamic effects a breeze.

Developer: Tonsturm
Web: www.tonsturm.com
Price: 129 US-Dollar
Format: VST2, VST3, AU, AAX

Rating:



Unfiltered Audio TRIAD

With the modular effects kit BYOME („Build Your Own Modular Effect“), Unfiltered Audio has created a dream tool for sound designers, producers and remixers who like to experiment. TRIAD's multiband design multiplies the sonic possibilities: In three frequency bands, you can arrange the effect processors from BYOME as you like, with adjustable crossover frequencies.

In addition to serial and parallel connection of the effects, individual processing of the two stereo channels or the mid and side signals is also possible.

There are over 40 different effect modules to choose from including reverb, delay, distortion and modulation effects, as well as filters, dynamics processors and exotics such as a granulator, a reverse delay and a resonator bank. Friends of sophisticated sound destruction will particularly enjoy the multifaceted range of distortion, saturation and LoFi effects. In addition to the copy functions, the permutation engine, which allows the effect chains to be shifted between the different frequency bands, is also very useful. A real bonus is the Spectral-Snap function, which automatically adjusts the crossover frequencies after analyzing the audio material.

If you like complex, animated sounds as well as lively and dynamic effect creations or wild glitch orgies, you will appreciate TRIAD's extremely flexible modulation section. Included are envelopes, LFOs, S&H generator, envelope and spectral followers, macro controls, step- and gate-sequencers and a probability gate. An external sidechain signal can also be used for sidechain effects and other dynamic sound processing.

TRIAD's attractively designed user interface invites creative experiments. Simple synthesizer waveforms can be used to create pulsating textures, and individual piano notes can be used to create shimmering cluster sounds. Or how about rhythmically adding beats or remixing complete songs in real-time? Futuristic stutter and glitch effects are also an easy job. Of course, you can also create your own multiband compressor, limiter or distortion. With this plug-in, your imagination



is indeed the limit! With more than 400 presets, including creations by renowned sound designers like Richard Devine, TRIAD shows you what's possible. When exploring fresh effect combinations, the clever random function, which can affect different sections, also helps.

Verdict

Rarely has the term „modular effect powerhouse“ applied as well as it does to TRIAD: This creative tool shines with a large selection of excellent sounding effect algorithms and remarkably flexible options for combining and modulating them. Thanks to its multiband design, it also scores points as an efficient mix problem solver. Last but not least, the intuitive operation makes it a lot of fun to create your own creative effects with TRIAD. Considering what the included effect processors would cost as individual plug-ins, the price, which at first glance seems quite high, is relative. For sound designers in particular, the investment will undoubtedly pay off quickly.

Developer: Unfiltered Audio
Web: www.plugin-alliance.com
Price: 299 US-Dollar
Format: VST2, VST3, AU, AAX

Rating:



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- Vintage ALPS potentiometers (Blue Velvet RK27)

New freeware plug-ins

by Jan Wilking
and Marco Scherer

Akai Professional MPC Beats

With the MPC software, Akai achieved almost a small sensation at that time because, until then, the MPC feel and its legendary groove was always bound to hardware. Version 2 brought another twist because it allowed third-party controllers to be used to control the software. Since the software works both standalone and as a plug-in for all DAWs, the MPC concept can be integrated into any existing workflow and setup. With the Beats version, Akai now goes one step further. The small, slimmed-down version is free of charge despite its lavish features. So, is there finally an MPC for everyone?

The MPC software is a pattern-based sequencer with an internal sampler, based on the hardware models. The software has all the qualities of a DAW, but the focus is clearly on working with patterns. Therefore, it does not offer a classic timeline, but is designed for switching patterns on and off or chaining them. The functions are the same as those of a MPC hardware, but the display on the monitor is more convenient.

MPC Beats seems to offer producers and beat hobbyists everything a groove heart desires. First and foremost, the typical 4x4 drum grid, a piano roll, a sample editor for rudimentary editing and slicing, the three on-board synthesizers Bassline, Tubesynth and Electric, VST/AU support and a 2 GB sound library with a selection of drum kits and loops. In addition, there are over 80 internal effects from the AIR Effects collection, which mainly fall into the bread-and-butter category, but contain some more unusual highlights, for example, the LoFi effect with LFO and the Mother Ducker for sidechain applications.

A total of eight tracks for drum kits, synths and MIDI controllers and two audio tracks let you quickly capture ideas. Eight tracks may sound like a small amount of money at first, but since MPC Beats also runs as a plug-in in every DAW, that supposed limitation is quickly exhausted. For easy setup, MPC Beats provides automatic assignments for controllers from numerous manufacturers. MIDI keyboards like the Akai Professional MPK mini, 4x4 and 8x8 pads, Alesis V-Mini, M-Audio Keystation and standalone MPC hardware work seamlessly with MPC Beats. So much for the technical details and specifications, but



who needs MPC Beats? The software is mainly a drum sampler with sequencer, so fresh grooves are in the can in no time. Since whole drum kits and individual pads can be edited, modulated and assigned effects independently, extensive sound design is also possible. This is further enhanced by the fact that all parameter changes can be programmed in the sequencer or recorded live.

Verdict

If you're looking for a new and/or free drum sampler, there's absolutely nothing wrong with MPC Beats. In direct comparison to NI's Battery, MPC Beats is much more complicated to use, but offers a sequencer and more features. Compared to Geist, stability and greater flexibility speak volumes for Akai's software. In a duel with Maschine, NI's product should be ahead in terms of ease of use, but Maschine is not free. Although a certain amount of training is required, especially if you have never worked with MPCs before, the features offered more than compensate for the initial efforts and are an improvement for all electronic producers.

By the way: MPC Beats is also compatible with a selection of our monthly Zampler soundbanks, which we have also been providing as MPC Expansions since June. You can already find 18 Expansions in our store at zampplersounds.com.

Developer: Akai Professional
Web: akaipro.com, www.inmusicbrans.com
Price: Freeware

Rating: ★★★★★



Full Bucket Music Fury-800

To be honest, the release of an emulation of the Korg Poly 800 surprised us a little bit, as did the recent increase in used prices for the original. After all, this hardware from the 80s combines many of the disadvantages of both digital and analog synthesizers in one device. Complicated operation, paired with a dull and noisy sound, there was none of the warmth and richness of classic analog synthesizers - and it was housed in a cheap plastic case. Even the sound, which was very cheap in comparison to other synthesizers at that time, made the Poly 800 a bestseller and for many people an entry-level synthesizer. So, maybe it's the nostalgia and melancholy and maybe the cult factor among the younger generation that is responsible for its new popularity.

Full Bucket Music captured the character of the synthesizer well. You don't need a tape simulation for Fury-800, because it sounds just as lo-fi as the original if you don't activate the new BRIGHT frequency boost. And indeed, it's quite a pleasure to play the synth again after such a long time. It has accompanied us personally through our youth and can be heard on our first tape recordings. Even the paraphony (only one common filter for all eight voices) was adopted; however, thanks to the God mode, the Fury-800 can also be used to play very modern 64-voice polyphonic music (we would have pawned our mother-in-law for that at the end of the 80s).

Verdict

We haven't really missed our old Poly-800, but it's still nice to have the somewhat dusty sound right under our fingers again because the Fury-800 radiates a very special vintage feeling.

Developer: Full Bucket Music
Web: fullbucket.de
Price: Freeware
Format: VST, AU

Rating: ★★★★★





1 Synthbrass

As a synthesizer of the 80s, the Fury-800 comes along with the current synthwave revival and can have a go at classic synthbrass. Click on the **Menu** button (slightly hidden to the left of the display). Select **Init Program** from the pop-up menu and confirm this for a neutral starting point. ❖



2 Operation

In contrast to the hardware, parameters can not only be changed laboriously via the number field, but also directly via fader. Move the mouse to parameter **No.17 (P17)** and adjust the volume of **DCO1** to **20** by dragging the bar down. The value is shown on the right side of the display. Set parameter **No. 18 (P18)** to **2 (Whole)**. ❖



3 Dual DCO

With this you've activated DCO2, which you tune one octave higher with parameter **No. 21 (P21)** to **3**. Adjust the level of DCO2 with **P27** to value **22**. Tune both DCOs with **P32** to **2**, turn **P41 Cutoff** all the way down and raise **P42 Resonance** to **2**. Set **P43 KBD** to **1** to open the filter more on high notes. ❖



4 Envelopes

The filter envelope, which you can increase to **12** with **P45**, is important. It's called **DEG3** and starts at parameter **71**. Set **Attack** to **8** for a smooth transient and all other parameters of the envelope to **22**. Set the other two envelopes **DEG1** and **DEG2**, which separately control the volume of the two DCOs, identically. ❖



5 Vibrato

Add a slight vibrato by using **P83** on **3** to modulate the **DCO** with the **LFO** (Modulation Generator=MG) in pitch. Delay the onset of the vibrato by increasing the value of **P82** to **9**, or use **P84** to add a pinch of filter modulation. Use **P48** to activate the built-in chorus for the 80s sound. ❖



6 Chords

Fury-800 also has a chord memory function. Play a chord and then press the Hold button (to hold the notes even when you release them), then press Chord Memory right next to it. Now play and transpose this chord with only one finger or keyboard key. In the upper right corner, switch the chorus to stereo for a wider sound. ❖❖

**FRESH
SOUND**



New Sounds & Samples

by Matthias Sauer

PluginGuru

Cloud City for Unify



With Unify, PluginGuru has introduced a universally usable platform this year, which is specifically suited to new sound libraries. Cloud City is the second - and very enthusiastic - library for Unify.

Cloud City comes as a collection of 450 patches, 1300 samples and 700 MIDI files. As the title suggests, it contains sounds and grooves from current urban styles like trap, hip-hop and RnB, as well as „cloudy“ sounds that are ideal for Downbeat, Dream Pop and Chillout. The BPM Split creations provide great inspiration for new tracks, with newly harmonizable groove playback for the left hand and individual sounds for the right hand.

Verdict

Cloud City is a fantastic collection for modern urban/pop music production. Above all, it shows that Unify (version 1.1 and higher) also performs superbly as a phrase and groove player. Two thumbs up!

Developer: PluginGuru
Price: \$59 US Dollars

Web: www.plugin guru.com
Format: Unify 1.1

Rating: ■ ■ ■ ■ ■ ■



Bingoshakerz

Abstract LoFi 1-3



Lo-Fi sounds are in vogue, and fresh loops are always a pleasure to try out. So what could be more obvious than checking out „Abstract LoFi“ from Bingoshakerz?

Abstract LoFi presents itself as a three-part series. Each volume contains five construction kits with files in different formats with a total size of less than one gigabyte. The tempos range between 70 and 80 BPM. All song kits are mostly instrumentals in minor keys with drums, percussion, strings, winds, keyboards, basses and nature atmospheres. This all sounds organic and groovily relaxed, with a hip low-fidelity touch.

Verdict

You can do it, but you don't have to. Abstract LoFi is well produced, but feels a bit too polished, unobtrusive and replaceable. If you like precisely these kinds of polished sounds and perhaps want to place your own vocals, this series is perfect and affordable.

Developer: BingoShakerz
Price: about \$19 US Dollars

Web: www.bingoshakerz.com
Format: WAV, REX2, MIDI

Rating: ■ ■ ■ ■ ■ ■



Luftrum

Evo Elysium



Steinberg Padshop is not only a top-class supplier of granular ambient sounds for Cubase users. With „Evo Elysium“, Danish sound designer Luftrum brings out some more delicate sounds.

With a total of 100 presets and samples totalling only 90 MB, this is a good example of the „class instead of mass“ principle. The synth pads sound wonderful; however, there are other sound types, too...like distinctive bass lines and dreamy leads, some of which quickly lead to new phrases with the use of an arpeggiator. The retro style dominates; futuristic sounds or even FX sounds and drums are represented on the fringe. So they are not Poser sounds, but pleasant sounds for pros.

Verdict

If you want to refresh your Padshop, Evo Elysium gives you a very good option at a fair price. The sound quality is sublime and the presets are musically excellent for ambient and related styles. Great!

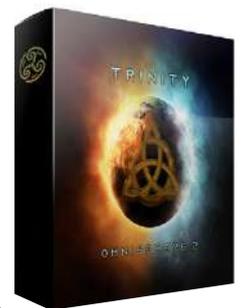
Developer: Luftrum
Price: \$30 US Dollars

Web: www.luftrum.com
Format: Presets for Steinberg's Padshop 2

Rating: ■ ■ ■ ■ ■ ■



Triple Spire Audio Carbon



Dutchman Jaap Visper concentrates on meditative sounds with his „Trinity for Omnisphere 2“ set.

When hearing the name Trinity, some keyboardists will instantly think of Korg's Trinity workstation of the same name. In fact, this set for Spectrasonics Omnisphere is not ultramodern, but easily evokes a sense of nostalgia. It comes with 77 samples (440 MB), 210 presets and 100 multis. There are many floating spherical sample ROM sounds, some of which have been rhythimized with the Arpeggiator. Unfortunately, there are few real attractions to be heard in the Live and Stack patches - the individual patches are generally better.

Verdict

For New Age, meditation music and other productions with predominantly natural ambient sounds, Trinity is a good and tastefully produced source. A soothing mixture that skilfully combines acoustic and electronic sounds.

Developer: TripleSpiralAudio
Price: 39 Euro

Web: www.triplespiralaudio.com
Format: Omnisphere 2.6

Rating: ■ ■ ■ ■ ■ ■



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Nordic Nature for Zampler & MPC's Epic Music Builder

Our Zampler//RX is one of the most popular free samplers with its powerful sound shaping capabilities, an extensive effects section and a flexible modulation section. For our current 2 GB soundbank Nordic Nature, we've created 71 basses, spherical pads and exciting hybrids of real and synthetic instruments with the Nord Wave 2. Our workshop shows that Clavia's synthetic powerhouse can show its strengths in Epic Music and the likes. **by Mario Schumacher**



www.zamplersounds.com



1 Let's Go!
With the exciting hybrid sounds of real and synthetic instruments, the excellent Zampler & MPC expansion Nordic Nature, is predestined for modern Epic Music. Reason enough to tackle a track with this soundbank! We decide on a tempo of 90 BPM and get inspired by the structure and instrumentation of modern trailer music. ❖

2 Braaam Sound
First, we would like to create an appropriate atmosphere. So, we try out the different presets of the soundbank. Load Zampler//RX, click on **Load Bank** and open the file „Zampler Nordic Nature.fxb“ from the folder where you installed the expansion. The patch **025: LD Bass Drop** is perfectly suited as a „braaam“ sound. ❖

3 Epic Effects
The desired long reverb can be created with the NI Replika XT delay effect [1] and the Valhalla VintageVerb reverb plug-in [2]. By pumping the sound in quarter rhythms, it gives the track a certain drive. We use the Cableguys Kickstart plug-in for this [3]. Select the „Mid Chains“ preset and set **Mix to 78%**. ❖



4 Pulsing Bassline
Next, we bring a pulsating bassline into play. To do so, load another Zampler instance with Patch **015: BS Smash Bass**. Disable the arpeggiator and increase **Reso** to **96%**. We play the sound with two held notes (E1 + E2). The Native Instruments Dirt distortion plug-in [1] provides distinctive saturation. ❖

5 Reduced Start
The VolumeShaper [4], on the other hand, chops up the sound in sixteenth rhythm. Many trailer tracks start out quite reduced and manage without chord changes in the first bar, only to unfold harmonically in acts 2 and 3 of the piece. The bassline and arpeggios of our track also concentrate on the keynote E. ❖

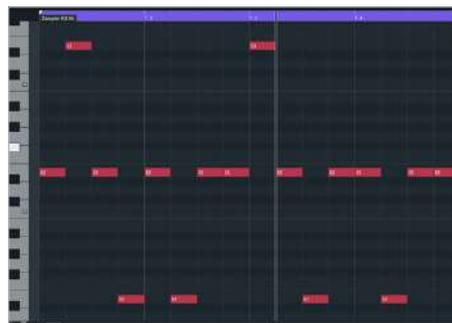
6 Arpeggio 1
For our arpeggio we use preset **066: SY Stellar Harps-Arp**. First, deactivate the arpeggiator. Set **Glide** to **0%** and reduce the resonance (**Reso**) to **0%**. In order for us to record our own sequence with the sampled arpeggio sound of Nord Wave 2, we adjust the envelopes for a percussive sound as shown. ❖

[1] www.nativeinstruments.com; [2] www.valhallaadsp.com;
[3] www.kickstart-plugin.com; [4] www.cableguys.de



7 Arpeggio 2

To be able to extend the decay with the modulation wheel, we adjust rows 2 and 3 of the matrix as shown in the previous step. Here, too, reverb and delay provide a more epic sound. We double this with another preset: **055: PD Ultra Wide Pad**, a pad that we turn into a percussive sound with just a few adjustments. ❖



8 Sequence

To do this, adjust the volume envelope of the Zampler//RX as shown in the previous step. Also, deactivate the **EQ 1** and **Reverb** effects. For this sound, we also load the Replika XT and IK Multimedia CSR Plate Reverb [5] effects. Then, for both sounds, we will record a three-octave arpeggio on the fundamental E. ❖



9 Synth Strings

With **Patch 045: PD Horny Saws**, Nordic Nature contains a wonderful synthetic string sound. It's perfectly suited for hybrid epic tracks. In the first part of our track, this sound already sets atmospheric accents with held notes. With the right effect processing we can optimize the sound for epic music. ❖



10 Rhythmic Structure

Replika XT also adds a delay effect with dotted eighth notes; and ValhallaShimmer creates a dense, shimmering reverb tail. Before we look at the track's break and climax, we want to create a basic rhythmic structure for the track. For the drum and effect sounds, we will use Heavyocity's Damage 2 [6]. ❖



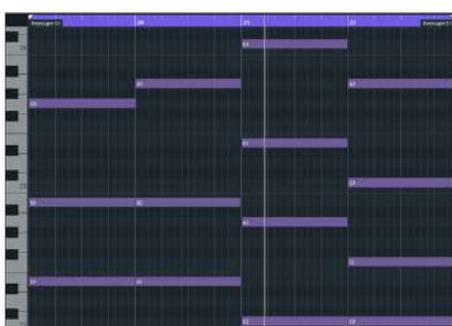
11 Epic Groove

We also use the Audio Imperia [7] and KeepForest [8] Kontakt instruments. We combine driving hi-hat and taiko rimshot rhythms with accents from toms and other low frequency percussion instruments. We also add a powerful bass drum and snare groove. Variations in velocity provide the desired dynamics. ❖



12 Arrangement

By adding and omitting individual elements, you can create a gripping tension curve. In the break, the drums stop and chopped up, distorted synth sounds from the Zampler expansion pass on to the next part. For this we use three WAV files from the soundset, which we first distort with Audio Damage's Kombinat Tri [9]. ❖



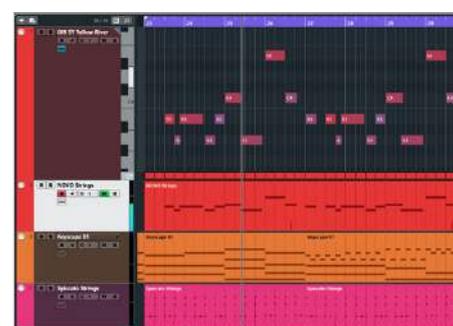
13 Chords

Then we send them through delay and reverb. The reliable VolumeShaper chops them up in sixteenths rhythm. In the second part of the break, a piano sound from Spectrasonics Keyscape [10] plays the chord progression E minor, E flat 4, A minor, F major, which is also the basis for the subsequent climax. The bass and arpeggios follow the chords, too. ❖



14 Synthetic Choir

Now, how about a rhythmically chopped up choir? With **037: PD Ah Choir**, Nordic Nature has a fitting patch at the start. The DS Audio Tantra plug-in [11] provides the desired effect. What's still missing? Of course, a catchy melody! This task is handled by preset **069: SY Yellow River**, which we chop up with the VolumeShaper for a modern sound. ❖



15 More Bombastic!

A healthy pinch of delay and reverb shouldn't be missing here either. For a particularly epic sound, the melody is supported by orchestral strings. The climax sounds even more bombastic with string piccatos, which accentuate the chord notes on each quarter count. With four additional synth sounds, we finally make the arrangement sound even more opulent. ❖

[5] www.ikmultimedia.com; [6] www.heavyocity.com; [7] www.audioimperia.com; [8] keep-forest.com; [9] www.audiodamage.com; [10] www.spectrasonics.net; [11] www.dmitryshes.com

Review: PreSonus Eris HD10BT

These over-ears headphones can be connected classically with a cable, but they also support Bluetooth and even offer active noise suppression. *by Jan Wilking*

Features

- Closed-back Headphones
- Circumaural
- Cable or Bluetooth
- Noise-Cancelling
- 40 mm Driver
- 20 - 20000 Hz
- Impedence: 16 Ohm



Facts

Manufacturer: PreSonus
Web: presonus.com
Price: 116 Euro

- ▲ Highly Adaptable
- ▲ Solid Workmanship
- ▲ Great Sound (Cable)
- ▲ Bluetooth Remote
- ▲ Noise Suppression
- ▼ No HQ Audio Codecs

Sound: ██████████
Build: ██████████
Price/Perf: ██████████
Rating: ██████████

Alternatives

JVC HA-S65BN
77 Euro
jvc.com

Pioneer SE-S6
116 Euro
pioneer-headphones.com

Sennheiser HD 450BT
149 Euro
sennheiser.com

With its features, these headphones are recommended for stationary use in a desktop studio as well as for producing or pure music enjoyment on the road. For mobile use, these space-saving headphones can be folded and transported in the supplied case. They have a very rugged design and the most important components are made of metal instead of plastic. This makes the headphones, which weigh a good 350 grams, look more expensive than many of its competitors. The oval cups can be folded, tilted and swivelled, which, together with the angled mounting, increases the fit and comfort of these headphones. In the test, the headphones sat securely and snugly enough on the head to neither slip nor press uncomfortably. The soft imitation leather of the padding feels nice to the touch, but you should expect some heat build-up, especially in summer.

With or Without Cable

These headphones can be connected by cable to a sound card, amplifier or mobile device. A high-quality mini jack cable and a suitable adapter to a 6.3mm jack are included. The headphones can also be connected wirelessly via Bluetooth. The manufacturer promises a good 17 hours of running time when listening at a higher volume. After two hours of testing, the battery indicator matched this

In Bluetooth mode, you control your mobile device with the buttons on the side.



statement. With the noise suppression activated, the running time was reduced as expected, but should still be about 12 hours. If the battery is drained, it can be fully recharged in about 3 hours using the USB cable provided.

Bluetooth with Remote

In the test, the headphones were easily connected to iOS and Android devices via Bluetooth. The range could be better, but this doesn't matter in a desktop studio or mobile production anyway, since you won't be further than 5 to 6 meters away from the playback device. When listening to music, the three big buttons on the right side are handy for starting and stopping tracks and jumping to the next or previous track. You can also answer and end phone calls with the big central button, and we noticed the excellent speech intelligibility. Please note, however, that the HD10BT does not support high quality audio codecs like aptX or AAC; therefore, you'll have to accept a certain amount of audio quality loss in wireless operation.

Balanced Sound

In the sound test, the headphones are powerful and offer more than sufficient volume levels. We liked the contoured and clean bass, which is not as overemphasized as with many other headphones and, therefore, allows you to mix your own tracks. The trebles are not exaggerated either. Overall, the HD10BT have a rather centered sound image and a pleasing warm and rounded

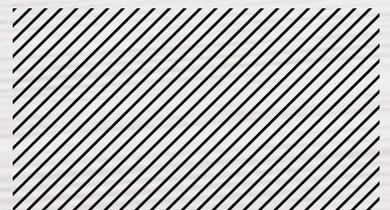
sound. The details are also clearly defined; at least via cable. Via Bluetooth, the overall sound is a bit less finely resolved, which isn't a big deal when you're on the road. We liked the overall tuning a lot in both operating modes - at least when noise suppression is deactivated.

Noise Cancelling

Immediately after activating the noise suppression via a switch on the left side of the headphones, a certain feeling of isolation and seclusion from the outside world sets in. In addition, the reproduction of the deep bass, which is rather modest in normal operation, is greatly enhanced. This makes the bass response a bit spongy, which makes it difficult to mix when noise suppression is activated. On the other hand, this bass emphasis is quite practical, because it allows you to switch on the subwoofer if necessary and hear how your mix would sound on Dr. Beats or comparable bass-heavy headphones and systems. Furthermore, when travelling by train, this deliberate low bass effectively cuts out annoying low-frequency external noises.

Verdict

The HD10BT is a true all-rounder. Wired, these very well-crafted headphones offer a balanced and detailed sound. If necessary, they can be folded small and used wirelessly via Bluetooth while on the move. The integrated remote buttons allow extensive remote control and you can leave your mobile device in your pocket. Loud outside noises, especially low-frequency noise when travelling by train, can be effectively masked out with the noise suppression function; simultaneously a decent bass boost can be activated for listening pleasure. 🎧





Mackie EM-91C

The new Element Microphone series also includes a condenser microphone for the studio. The very reasonable price of almost 80 Euros is not apparent on the outside of the rugged and high-quality EM-91C, and the package, with a solid spider mount and neat XLR cable, is also compelling. For a condenser microphone advertised as a large diaphragm, the EM-91C turned out to be relatively compact - with a length of only 15.5 cm and a diameter of 4.8 cm and weighing 210 grams. As expected, it requires 48V phantom power for operation. Mackie recommends this microphone, with fixed cardioid polar pattern, for speech and instruments. During our first test recordings with speech and vocals, we noticed relatively high background noise. But the EM-91C delivers a fairly high output, so the noise is less relevant in a home studio environment and the microphone can work with recorders and interfaces with weak amplifiers. More striking is the somewhat dull sound of the recordings, which can also be read in the frequency response. After a dip at 5 kHz, it goes steeply downhill from 10 kHz, so this seems to be intentional and is not at all wrong to filter out sibilants and other high-frequency noise in voice recordings; however, instrument and vocal recordings lack brilliance compared to more expensive microphones.

Verdict

The EM-91C is superbly crafted, but its sound cannot compete with other large diaphragm microphones. The missing highs in addition to the background noise prevent professional recordings. Due to the good features and the reasonable price, it is suitable as an entry level microphone.

Manufacturer: Mackie
Web: mackie.com
Price: 79 Euro

Rating:



M-Audio SP-2

A sustain pedal is rarely at the top of the desktop studio wish list, at least if you are not a trained pianist. But a pedal like this certainly brings a lot of advantages for bedroom producers. For one thing, holding notes at foot pressure is almost mandatory for realistic piano playing, but pads and leads also benefit from the additional dynamics. On the other hand, in modern master keyboards and DAWs, the pedal is also useful for other purposes, like freezing and unfreezing an arpeggio while still having both hands free for tweaking or further jamming. As M-Audio's SP-2 shows, the financial investment can be very low. You'll only have to pay 15 euros to your local dealer. In return, you'll get a sturdily crafted pedal with the look and feel of a classic piano sustain pedal and with a sturdy suspension and non-slip underside. The connection cable is permanently installed and ends on a 6.3mm jack plug, so it is compatible with all common keyboards and, with a length of 1.80 meters, is also of sufficient length. There is also a switch on the underside for changing the polarity.

Verdict

If you want to record realistic piano sequences even in a small desktop studio, there is no way around having a sustain pedal. When jamming with synthesizers, a sustain pedal is also practical for keeping both hands free. M-Audio offers the SP-2, an affordable, yet rugged and durable sustain pedal with a good feel for just such purposes.

Manufacturer: M-Audio
Web: m-audio.de
Distribution: inmusicbrands.com
Price: 15 Euro

Rating:

THE MONTHLY Beat GIVE-AWAYS

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T-RackS
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Review: Roland JU-06A

The successor to the limited edition JU-06 has an emulation of the legendary Juno 60 and numerous other improvements in addition to the original 106 emulation. *by Jan Wilking*

Features

- Virtual Analog Synthesizer
- Juno-106 and Juno-60
- 4-Voice Polyphonic
- Unison and Chord Memory
- Arpeggiator and Step Sequencer
- Extended LFO
- Trigger Input for Sequencer
- Power Supplied via USB or Batteries
- USB-MIDI/Audio Interface



The JU-06A is compatible with the optional K-25m keyboard, which allows the control panel to be positioned at two angles.

Facts

Manufacturer: Roland
Web: roland.com
Price: 326 Euro

- ▲ Very good sound
- ▲ Juno-60 and -106
- ▲ Fully MIDI controllable
- ▲ Arpeggiator/Sequencer
- ▲ USB audio
- ▲ Battery operation
- ▼ Only 4 Voices

Sound: ████████
Features: ████████
Price/Perf: ████████
Total: ████████

Alternatives

Yamaha Reface CS
320 Euro
www.yamaha.de

Behringer Deepmind 6
469 Euro
www.behringer.com

Korg Minilogue XD Module
550 Euro
www.korg.com

When Roland launched the Boutique Series a few years ago, representing us with replicas of the Jupiter-8, Juno-106 and JX-3P synth classics, opinions were divided. In particular, the miniaturization and the digital sound synthesis (which could only deliver four voices) scared off many buyers. Moreover, the price seemed to be too high for such a perceived toy. Thus, the boutique series met a similar fate to the legendary TB-303. Some time after the start of sales, dealers started selling off these limited boutique synthesizers - sometimes drastically reducing the prices.

However, as soon as the shelves were empty and no new products were available, the second-hand market prices suddenly jumped. In particular, the clone of the Juno-106 (called JU-06) suddenly fetched double the price of a new

instrument! Not surprisingly, Roland gave this model a complete makeover. In addition to improvements in detail, the JU-06A offers a special highlight in the form of an additional emulation of the equally popular Juno-60 which, in its original form, already commands second-hand prices of 2,000 Euros and more.

Faithful Reproduction

The JU-06A operates with purely digital technology, which promises a faithful reproduction of analog circuits. In terms of its exterior design, the JU-06A is basically the same as the other synthesizers and drum computers in the Boutique series and reproduces the originals in a scaled-down form. With dimensions of 300 x 128 x 49 mm and a weight of about one kilogram (including batteries), the small metal box is not only solid, but also quite portable. Battery operation and a built-in mini loudspeaker further support this.

Upgradeable to Mini Keyboard

The JU-06A is compatible with the optionally available DK-01 boutique dock and the K-25m mini keyboard. It's particularly

interesting when combined with the keyboard, as this turns the JU-06A into a practical little synthesizer with a foldable control panel. In this combination, there is another innovation that stands out, namely the omission of the modulation wheel and pitchbender. On the JU-06, the two touch strips on the left side of the desktop housing could be used for this purpose, but on the JU-06A they were omitted without replacement. However, Roland used the space that was freed up here to add playing aids that should have at least as much use in practice.

Chord Memory, Arpeggiator

On the one hand, there are three new keyboard functions that can be activated by individual keys. Three red LEDs indicate the current status and thus prevent

operating errors even on dark stages. The Hold function holds the played keys even when released, which is especially interesting when combined with the Arpeggiator. Chord activates a chord function. This allows you to grab and save any chord and then play it back with just one key. There are 16 memory locations available for this, directly accessible via the step buttons in the lower area. If the Note key is active, you can also use this lower row of keys as a simple keyboard and play the synthesizer without a connected keyboard.

On the right is the arpeggiator, which was missing on the JU-06. The arpeggiator can be switched between up, down and up-down; and the arpeggiator can run over one, two or three octaves. There's also a special behavior in the Juno-60's arpeggiator, which mainly affects the note length, that can be selected as an alternative.

Faders, MIDI Controllers

The control elements correspond in form and layout to the originals but, of course, in a reduced form. Due to the somewhat more limited sound generation, the JU-06A manages with 17 faders. In contrast to the JP-08 or SE-02, for example, the controls are, in spite of the limited space on the surface, quite useful for people with larger hands and even allow relatively controlled tweaking on stage. The backlit buttons for DCO, octave and waveform are easy to hit. You can also use the small faders to adjust the proper resonance value of the filter, which is responsible for many of the Juno-60's unique sounds and, where even small deviations change the sound, with surprising accuracy.

All knobs send and receive MIDI controllers, so you can tweak, record and edit on a MIDI track in your DAW. There is even a special mode where you can use the JU-06A as a controller for the plug-ins from the Roland cloud. The internal sound generation is then disabled.

USB Audio, MIDI Interface

With the exception of the clock input, which allows the sequencer and arpeggiator to be synchronized with analog equipment such as a drum machine, all connections are located on the rear panel. In addition to the mini-jack connectors for the line and headphone output with its small volume control, Roland has also built-in a mix input that allows you to easily loop external signals (e.g. a drum computer like the TR-09) through to the output. Of course, it would have been even nicer if the input would have been looped into the sound generator before the filter or at least before the effects. Unfortunately, this is not the case.

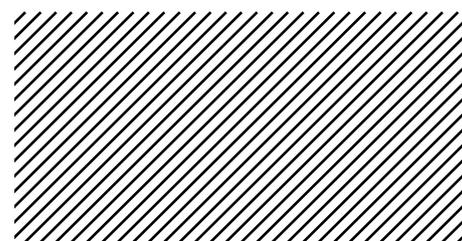
Two MIDI DIN jacks are used to connect to MIDI equipment. The Micro-USB connector not only supplies power, but also handles communication with a computer. This is not only used to exchange MIDI signals, but the JU-06A can also operate as an audio interface with 44.1 or 96 kHz resolution. We already know this from the other Boutiques, and it makes the small desktop synthesizer a welcome partner for laptop users.

Two Synthesizers in one

The sound synthesis is easy to understand and, as already mentioned, corresponds to Juno-60 and Juno-106, which are both identically constructed; therefore, combining them in one device was a good idea. In spite of their identical construction, the originals sound quite different - each with special strengths. The Juno-60 has the warmer, rounder vintage sound with a low master clock and discrete construction, the Juno-106, on the other hand, has a somewhat cleaner sound.

A DCO with Sub

The JU-06A has an oscillator with rectangular waveforms with adjustable pulse width and sawtooth. For a fuller sound, the square wave can



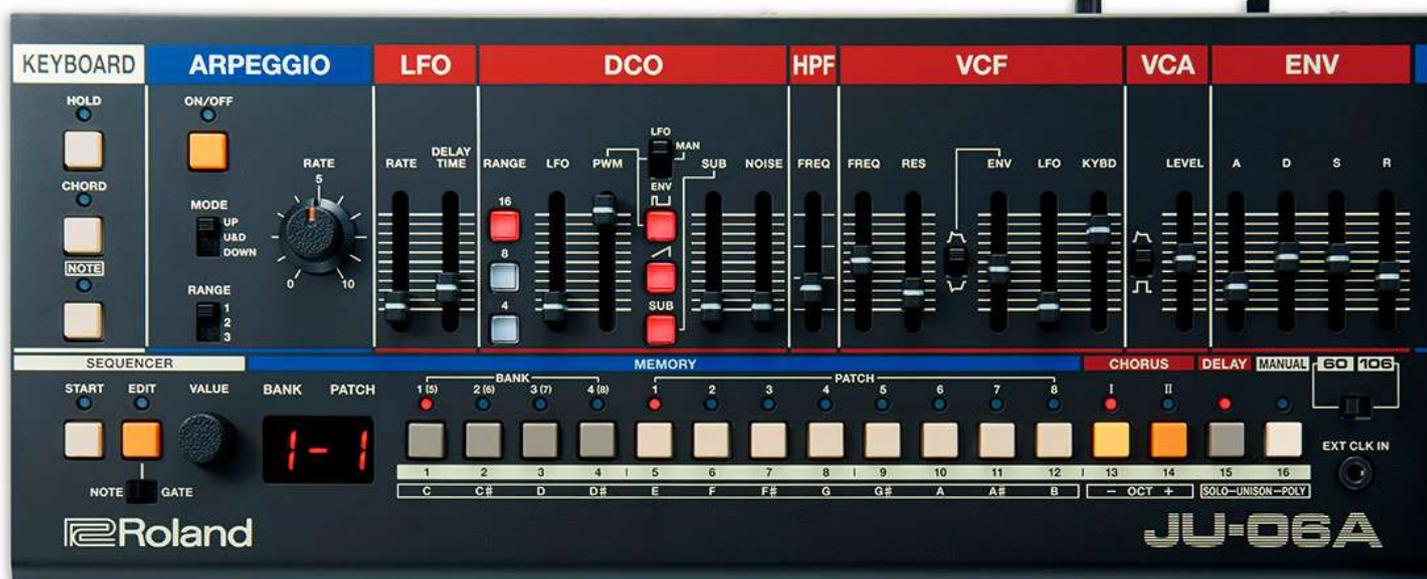
be modulated in pulse width by the LFO or the envelope (PWM), and both waveforms can be activated simultaneously. Additionally, there is a sub oscillator, which adds a square wave either one or two octaves lower to provide sufficient bass foundation. The pitch of the oscillator has a range of 16' to 4' and allows both deep bass and high arpeggios. For percussives, the infinitely variable noise generator is useful.

Extended LFO

Compared to the original, the LFO has been extended by a few waveforms and offers not only triangle, rectangle, ascending and descending sawtooth, but also two random variants. The LFO can be synchronized to the tempo and run freely or restart on each keystroke. The latter is especially useful for filter modulation, because when using a random waveform, the filter is opened or closed with a random value for each new note in a sequence. In addition to the filter frequency, the LFO can also modulate the pitch and pulse width of the oscillator.

Convincing Filter Emulation

Sawtooth, rectangle and suboscillator can be mixed with the noise generator. The result first goes into a static high-pass filter without resonance, which can be used to thin out the bass range. This can be especially useful for polyphonic pad sounds. This is followed by a 24dB low pass filter with the typical Roland sound. The filter can sound creamy





To keep track of the many secondary functions, the optional overlay from mxpand is recommended.

soft, but also snap shut. It thins out a little even at high resonance and is therefore perfect for crisp, round basses. In any case, the resonance parameter is an important factor in the sound and is partly responsible for the popularity of the originals, because it allows you to create very nice harmonic distortion and piano-like sounds. When the resonance is turned all the way up, the filter is set into self-oscillation. This produces a sine tone, which can be played cleanly in tonal mode when the keyboard tracking is turned up.

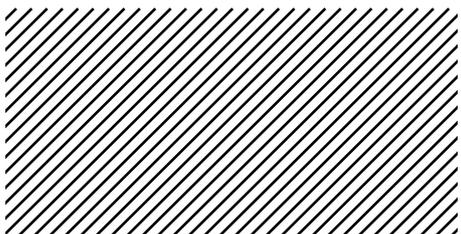
The JU-06A only has one ADSR envelope, which is responsible for both filter and amplifier simultaneously. For more flexibility, however, a simple gate can be used for the volume, so the very fast envelope becomes available for filter modulation alone.

Again only 4 voices!

One of the biggest limitations of the JU-06 compared to the originals has unfortunately not been removed from the JU-06A. Even the new model has only 4 instead of at least 6 voices. This means that with ambidextrous chords or long fading sounds, it quickly becomes scarce and the sounds are cut off. In addition to polyphonic playing with the four voices as well as mono for monophonic playing, there is a unison function that layers all four voices on top of each other for a fat sound.

Chorus, Second Functions

Of course, the legendary Juno chorus with its three variations, which is indispensable for the typical Juno sound, is built into the effects. The digital chorus integrated in the JU-06A sounds excellent and reproduces the sound of the originals better than most other replicas, be it analog or digital. For extra realism, it even roars like the old Juno.



Fortunately, this can be deactivated. Like many other additional functions, this can be set by a key combination with the lower tap buttons. Unfortunately, Roland has neglected to print these second functions on the user interface, so that the „ operating instructions „ (the now common leaflet) must always be next to it.

Fortunately, for 14 Euro including shipping, there is a stick-on overlay from a resourceful Hamburgian (www.mxpand.com), which makes things a lot easier. In addition, the JU-06A has a great sounding delay, which can be adjusted in volume, delay time and feedback and can be synchronized to the song tempo. This is especially beneficial for sparkling arpeggios, which are one of the strengths of the JU-06A anyway. The effects are stored with the JU-06A, and 64 memory locations are available for each mode (Juno-60 or Juno-106).

Step Sequencer

Unlike the originals, the JU-06A also has a built-in step sequencer. It has 16 steps, which can now also be played step-by-step. Unlike the SH-01A, the sequencer is unfortunately not polyphonic, so chords cannot be recorded. Single steps can be switched on and off with the 16 buttons. You can edit the pitch and note length (gate) for each step of a sequence you have entered. Combined with the different playback directions, this allows you to create dynamic sequences, especially since the arpeggiator can be activated in parallel. Speaking of dynamics: only the volume can be influenced by touch dynamics. This is much more than the original, but velocity on filter frequency would have been a nice addition.

The sequencer also outputs the notes from the sequencer and arpeggiator via MIDI, so you can use it to control external synths or plug-ins.

Sweetspot Synthesizer

The Juno Series synthesizers are especially popular because of their clear synthesis with only a few controls, yet they are very flexible in sound. The whole concept is very well thought out and they are true sweetspot synthesizers. Even beginners can hardly get a bad sound out of them. Floating and full pads are created just as quickly as crisp basses, punchy leads or beautiful arpeggios. The JU-06A is especially suited for the hip 80's synthwave revival, but it can basically create all classic analog sounds for any genre.

Modernised 80s Sound

It seems astonishing that Roland has added a Juno-60 to the proven Juno-106. Because of their very similar construction, one could assume an almost identical sound. This is not the case, however, either with the original synthesizers or with this digital emulation. You can already hear differences at oscillator level, for example in the sound of the suboscillator and when mixing sawtooth and square wave.

The envelopes are tuned differently and the filter sounds different, especially at higher resonance values. The option to choose between the two models, therefore, multiplies the sonic possibilities more than one might think at first. Of course, such a replica also has to face comparison with the original. In direct comparison, a Juno-60 sounds a bit fuller, more bass loaded. The JU-06A captures the sound character in all details, but sounds a bit more transparent, clean and hi-fi. This makes it even easier to integrate in the mix than the original.

Verdict

The successor to the limited edition JU-06 is improved in every respect. In addition to the Juno-106 emulation, the JU-06A can also convincingly emulate a Juno-60 and thus covers a lot of classic analog sounds. A very good chorus and delay complete the very convincing synthesis.

The arpeggiator, which was painfully missing from its predecessor, has been added and the sequencer has been revised. And with batteries and the optional K-25m keyboard, the JU-06A becomes an ultra-portable synthesizer. On a laptop, it can be used as a USB audio interface.



More Info

If you can live with the compact design and only four voices, you get a very potent little synthesizer that doesn't need to hide behind its analog competitors in terms of sound. 📡



On the back is the connector for the built-in USB audio/MIDI interface as well as the classic MIDI pair. For analog integration, a clock input on the top is provided.

Review: Twisted Electrons MEGAfm

MEGAfm is a 12-voice FM synthesizer whose sound synthesis is based on the YM2612 chips from the legendary Sega Megadrive/Genesis game console. **by Jan Wilking**

Frequency Modulation (FM) synthesis has a reputation for being unmanageable, which is mainly due to the large number of parameters, the complex combinations of oscillators (or operators) and the often drastic and unpredictable changes in sound even with small changes in values. Yet FM synthesizer manufacturers have never made much effort to make FM synthesis more manageable. The DX7 and its variants had to make do with two rows of buttons and a single data fader. With the macro controls on the Yamaha DX200, there was a first step in the right direction, but that was probably too early and the world of musicians was not yet ready for an FM revival. Recently, however, resourceful third party and boutique manufacturers have been trying to make this potent synthesis form popular again, for example, with a lavish controller in the form of the Yamaha Reface DX or small desktop synthesizers like the PreenFM. And Elektron's innovative Swedes are also showing new approaches to FM-based synthesis with their Digitone and Model:Cycles.

Megadrive Chips

It's not surprising that now Twisted Electrons has contributed an interesting FM synthesizer. The French are, after all, known for integrating chips from old home computers and game consoles into their synthesizers. Many of these old chips used FM synthesis to create sounds and soundtracks. In fact, MEGAfm incorporates two Yamaha YM2612 chips that are well known from the Sega Megadrive/Genesis game consoles with internal low-resolution converters that provide their basic sound aesthetic. Crystal-clear sounds with lightning-fast resolution are reserved for modern FM synthesizers like the Yamaha Montage and Reface DX, while MEGAfm covers the rough-and-tumble side.

Chic and Compact

The MEGAfm is smaller than we expected from the photos. With dimensions of 30x13x5 cm, this compact synthesizer fits



The 12 voices are generated with the help of two chips and can, therefore, be flexibly distributed to create wide and fat sounds.

on every desktop and in every gig bag. The black housing, made of brushed/anodized aluminum, looks chic and stylish; and with a weight of 1.5 kg, it sits solidly on the table. Fourteen round grooved metal potentiometers are firmly attached to the housing and allow precise adjustments and a good feel.

The 32(!) faders are unavoidably a bit smaller, but offer pleasant resistance and are still quite easy to operate...at least with normal-sized hands. We also like the feel of the fifteen buttons which have a clearly perceptible click and the clearly visible status indicators with LEDs for each button. All in all, we can confirm that MEGAfm is perfectly suited for the stage.

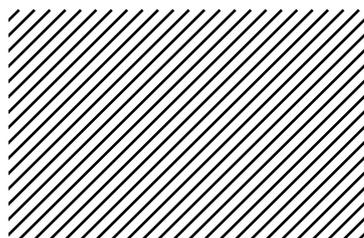
Full MIDI Control

All connections are located on the rear panel. This is where you connect the supplied external power supply. Two mono jack outputs are provided for the audio signal; next to them is the stereo headphone output. This small synthesizer is controlled via a full DIN-sized MIDI input. The other MIDI jack can be used to pass on signals (THRU) or as an output. The latter is especially interesting because all

knobs and faders send MIDI controllers, so the MEGAfm can be completely automated in the DAW and can also be used as a controller for plug-ins!

FM with 4 Operators

Since the MEGAfm contains two chips with 6 voices each, this small synth has a total of 12 voices. The synth engine offers four operators, which can be linked by eight given algorithms. The FM grandfather DX7 has 6 operators and 32 algorithms and, therefore, allows more complex sounds. The advantage of the limitation to four operators, however, is that the whole thing is clearer and easier to control. Yamaha released 4OP synthesizers early on with the DX21, FB01 and TX81Z (keyword: Lately Bass) - even the newer Reface DX manages with this



Features

- FM-Desktop-Synthesizer
- 12 Voices
- 4 Operators
- 3 LFOs
- 32 Faders
- Stereo
- Many Control Elements
- Arpeggiator/Sequencer

Facts

Developer: Twisted Electrons
Web: twisted-electrons.com
Price: 545 Euro

- ▲ Direct Operation
- ▲ Flexible Synthesis
- ▲ Freely Assignable LFO
- ▲ Arpeggiator/Sequencer
- ▲ Stereo Options
- ▲ Completely MIDI-Controllable
- ▲ 600 Patch Locations
- ▼ Velocity Only Via LFO

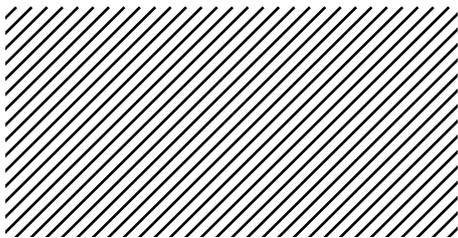
Sound: ██████████
Operation: ██████████
Build: ██████████
Total: ██████████

Alternatives

Korg Volca FM
125 Euro
www.korg.com

Kasser DAFM Synth
From 212 Euro
www.tindie.com

Yamaha Reface DX+Dtronics DT-RDX
About 600 Euro
www.yamaha.com



number of operators. Since each operator can be a sound generator or modulator depending on the selected algorithm and has its own envelope, the sonic possibilities are still very extensive even in 4OP synths.

8 Algorithms with Feedback

In the upper left corner of MEGAfm, you can choose from the eight available algorithms. Like almost everything else in the MEGAfm, this is done without detours and with a dedicated controller. All algorithms are printed in large letters on the case and have their own LED, so you can immediately see which algorithm is currently selected. With another potentiometer, you can control the feedback (i.e. the strength with which Operator 1 is frequency modulated with itself).

Direct Operation

Each operator can be adjusted via eight faders. The multiplier, which is the frequency-ratio in comparison to the other operators, is important. With this, you can set the crossover between low bass and high lead, harmonic-beautiful or metallic-beautiful. A Detune fader is responsible for fine adjustments. The volume control also has a more essential function than in classic subtractive synthesizers as it determines the amount of frequency modulation - depending on the selected function of the Operator. For dynamic progressions, each Operator has an ADSSR envelope for the volume or modulation progression. Compared to a classic ADSR envelope, this has been extended with a sustain release phase for drones and modulating pads. It should be noted, however, that changes in the curve only have an effect on the next note played, and the processor-induced low resolution can lead to audible stepping for many parameters.

This direct access to all the important sound-generating parameters of all Operators simultaneously is a novelty in the field of FM synthesizers and invites you to experiment and try it out.

3 Flexible LFOs

But the developers of the MEGAfm were not satisfied with that, so they extended the concept by adding three LFOs. And these low frequency oscillators are really something special. You can choose between rectangle, triangle, sawtooth and noise/random waveforms, all of which have their own selection buttons and LEDs to match the overall concept. So, you can immediately see which waveform is currently selected. Random can be limited to a limited



With its rich array of controls, MEGAfm provides direct access to all FM synthesis parameters and invites you to tweak.

number of random values, which are repeated over and over again and can then be used as a kind of step sequencer. Thanks to the Retrigger button and the Loop function that can be switched off, each LFO can also be used as a mini envelope and the tempo can be synchronized to MIDI clock. Speed and Mod Depth can be set independently and can be modulated by another LFO, which reminds us of the possibilities of a large modular system.

Freely Assignable Modulators

Each LFO can be assigned to any knob and any fader; multiple LFOs can even modulate one parameter simultaneously. One press of the Chain button is sufficient and the LFO is assigned to the last moved fader or pot. If you've lost track of the LFO, a long press on the respective button deletes

all assignments to the corresponding LFO. The modulation depth of an LFO can be controlled by velocity, modulation wheel or aftertouch. It's not possible to modulate a parameter directly with velocity; an LFO must always be sacrificed for this. In our opinion, this is a somewhat unfortunate solution, since FM synthesis benefits greatly from dynamic playing.

In addition to the three LFOs, there is another LFO that is solely responsible for pitch modulation (vibrato) and can also be synchronized to the clock.

Mono or Stereo

The lower area is reserved for the global settings. In the Voicing area, you select how the maximum of twelve voices or the two chips are to be distributed. Both chips can output their voices together



Unlike subtractive analogs, MEGAfm is not a „sweet-spot“ synth «



The surface of the MEGAfm is classy and feels expensive.

It's Not Pretty, but it has Character

Flexible synthesis, extensive modulation options and direct access to all parameters - that sounds almost too good to be true. And indeed, the practical test initially revealed some disappointment because, unlike a subtractive analog synth like the Minimooq, an FM synth is not a sweet-spot synth. If you simply screw around here, the whole thing can quickly sound terribly unmusical or end up as digital noise. A bit of discipline and at least a rudimentary basic understanding of FM synthesis and the linking of Operators is, therefore, a necessity if don't want it to end up an experimental noise orgy. A bit of discipline and at least a rudimentary understanding of basic FM synthesis and the connection of Operators is a great advantage if you don't want it to end in an experimental noise orgy. Additionally, MEGAfm does not have the transparency of a Reface DX, but always adds a good bit of digital dirt. Crystal-clear pads and electric pianos or dust-dry flawless basses are hard to get with this little synth. But if you know the other products from Twisted Electronics, you know about their preference for instruments with the lo-fi charm of chip sounds, anyway. So MEGAfm sounds raw and rude from the speakers: powerful and with character and audible aliasing.

Verdict

For the first time, MEGAfm offers direct access to all FM synthesis parameters, with a rich set of controls, inviting you to experiment. Based on old Yamaha chips, this 4OP synth sounds crunchy and vintage, but the sound palette goes far beyond the typical chip sounds and also provides all the classic FM sounds with a lot of lo-fi charm. The raw and punchy sounds, with loads of character, are an interesting addition to the high-gloss sound of modern synths and plug-ins. The extensive modulation options including three LFOs and full MIDI automation make for lots of movement. ❄️



More Info

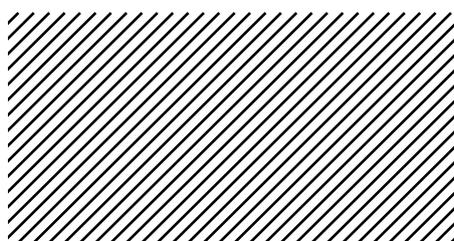
on one mono output or separately on both mono outputs for exciting stereo effects. With 12-voice polyphony, the voices are played back alternately left and right. In 6-voice wide mode, each voice is played by both chips simultaneously, the detuning between the chips can be adjusted with the Fat button. This allows you to quickly create wide walls of sound. The Fat knob basically works in any mode and detunes up to 1 semitone or even up to an octave!

Diagonal or Wide

Dual ch3 takes advantage of a special feature of the chip. In this mode, you set the frequencies of the Operators freely and not in relation to each other. This leads to very weird, disharmonic results and is especially interesting for percussion and effect sounds. Unison layering of all 12 voices to a monophonic sound, which can be tuned to a mega-wide chord with the Fat control, is perfect for cinematic trailers. As a secondary function, the slider can be used to adjust glide (i.e. the smooth gliding from one pitch to the next).

Arpeggiator with Step Sequencer

There is even a practical performance aid - in the form of an arpeggiator/step sequencer - built into the MEGAfm. Five playing directions are selectable:



up, down, up-down in loop, and two random modes that either scramble the played notes or play completely random notes. After pressing the Record button, you can enter up to 16 notes (including rests) step-by-step via MIDI and then play them back. Arp and sequencer can be synchronized to the clock. In the second sequencer mode, the sequence moves one step further with each keystroke allowing you to create your own rhythm.

600 Patch Locations

You can save your own sounds in up to 600 storage locations, so there's plenty of room for your creations. This is where the 2-digit 7-segment display reaches its limits; you have to include the LFO waveform buttons. This is a bit fiddly because there were originally only 99 memory locations planned, but we gladly accept this little issue in order to get the many additional memory locations.

Review: Waldorf STVC

STVC is based on the popular Stringmachine Streichfett, supplemented by a high quality Fatar keyboard and an excellent sounding vocoder. **by Jan Wilking**

Features

- Stringmachine
- Vocoder (256 Bands)
- 16/128 Voices
- 49 Keys, Aftertouch
- 128x64 Pixel OLED
- 126 Storage Locations
- Gooseneck Microphone
- USB Powered



Instead of the microphone, you can also use the audio input for the vocoder and, for example, edit vocal tracks from the DAW instead.

Facts

Manufacturer: Waldorf
Web: waldorfmusic.com
Price: 733 Euro

- ▲ Character Sound
- ▲ Vocoder
- ▲ Speech Intelligibility
- ▲ Freeze Function
- ▲ Direct Operation
- ▲ Solid Build
- ▲ Good Keyboard
- ▲ Selectable Split Point
- ▲ USB-Powered

Workmanship: ██████████
Sound: ██████████
Price/Perf: ██████████
Total: ██████████

Alternatives

Arturia MicroFreak Vocoder
319 Euro
www.arturia.com

Roland VP-03
399 Euro
www.roland.com

Korg MicroKorg XL
433 Euro
www.korg.com

The name of this synthesizer consists of the abbreviations of Streichfett and vocoder. Streichfett is a compact desktop synthesizer from Waldorf, which combines the idea of early string synthesizers with new features, memory capacity and well thought-out operation. STVC is essentially based on the same sound production, but has been packed into a rugged keyboard case with a very good keyboard and supplemented by a 256-band vocoder.

Very Good Keyboard

The sturdy metal case of the STVC is reminiscent of the Blofeld keyboard from the same company and is finished in elegant black. It looks extremely chic, and there is nothing to complain about the workmanship. The keyboard comes from proven manufacturer Fatar; it's a TPS9S. It has 49 keys, can handle both velocity and aftertouch and is pleasantly stiff, so it will please classic keyboarders and pianists. It's less suitable, however, for fast solos. Pitchbend and modulation wheel are located above the keyboard, so the STVC remains compact. The metal knobs also feel good. Unfortunately, they are not mounted to the case and are therefore a bit wobbly.

Microphone Connection

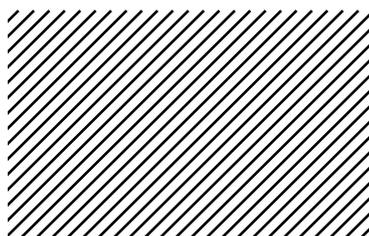
On the top side there's an XLR input for the supplied gooseneck microphone so you can use the vocoder directly without additional equipment. Alternately, the modulator signal can be looped in via the

line input on the rear panel. STVC can be controlled via USB or MIDI. The USB port also provides the power supply when connected to a computer; no external power supply is required! Unlike the desktop Streichfett, we had no problems with noise.

Dual Sound Generation

The sound generation has been taken over from the Streichfett and consists of two elements. The basis is a pad sound, which you can fade smoothly between different string and choir sounds using the large registration control. For more movement in the sound, this parameter can also be modulated with the help of the Animator or via LFO; a Chorus/Ensemble effect provides a wider sound.

You can combine the strings with a solo sound, which adds accents in the initial phase of the sound and offers different variations from bass to clavi to a fat unison lead. Both sounds can be played together or separately with a selectable split point and can be adjusted via well-selected macro controls with direct access to all important parameters. You



only have to dive into the menu if you want to use the new mod matrix with the help of the small OLED display. With 5 slots for all 25 sources and 41 targets, it expands the sonic possibilities of the STVC compared to Streichfett. The built-in reverb effect, which is available as a global effect, and the phaser, have also been improved.

Vocoder with Freeze

The highlight of the STVC is without question the vocoder. At the first test it impresses with high speech intelligibility and generally very transparent and classy sound. This rather modern sound also sets the STVC apart from its direct competitors, whether digital or analog. With the included microphone you get very nice results. From classic singing pads to power plant robots to great ambient drones, the Vocoder realizes everything very convincingly. The STVC is a real sweet-spot synthesizer, just like the Streichfett. Even beginners will quickly achieve inspiring results.

And it gets even better: STVC has a freeze function that allows you to record up to 23 seconds of the microphone signal. This vocoder sample can then be cut and played tonally via the keyboard, which is also polyphonic. This definitely invites you to experiment. Unfortunately, you cannot save the samples with the sound.

Verdict

Just like its predecessor, Streichfett, the STVC impresses with its special character, which combines the formative sound and direct operation of old string machines, but with modern sound possibilities. Waldorf has packed this concept into a high-quality finished keyboard and added additional features such as a mod matrix, more memory and improved effects. The



More Info

highlight, however, is the excellent sounding vocoder with freeze function, which is currently almost unrivalled at this level of quality. ❄️

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Review: Kilpatrick Audio Carbon

Carbon can control up to six hardware synthesizers simultaneously with individual sequences or it can be used as a multi-track MIDI-to-CV/Gate interface. *by Jan Wilking*

Features

- Pattern-Sequencer
- 6 Tracks, Polyphonic
- Up to 64 Steps
- 4 CV/Gate outputs each
- USB Host/Device
- MIDI/CV-Interface



With its unconventional concept, Carbon brings a breath of fresh air into the world of hardware sequencers.

Facts

Company: Kilpatrick Audio
Web: kilpatrickaudio.com
Ref: schneidersladen.de
Price: 720 Euro

- ▲ Flexible Sequencer
- ▲ Pattern Generator
- ▲ 4 CV/Gate Outputs
- ▲ MIDI/CV Interface
- ▲ USB-Host
- ▲ Flexible MIDI-Routing
- ▼ Not very intuitive operation

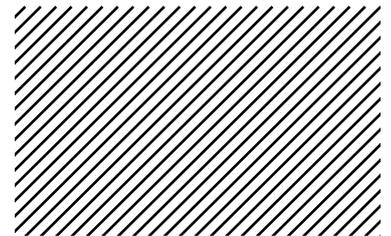
Build: ■ ■ ■ ■ ■ ■
Features: ■ ■ ■ ■ ■ ■
Price/Perf: ■ ■ ■ ■ ■ ■
Total: ■ ■ ■ ■ ■ ■

Carbon is a standalone sequencer in desktop format and based on the K4815 Pattern Generator module from the same company. The technology was built into a sturdy metal console case weighing a good 2 kg with compact dimensions of approx. 20 x 20 x 8 cm. The dark gray color, combined with the 19 round buttons, reminds us a little of the first generation of electronic devices. The workmanship looks at least as robust. You operate the sequencer via 6 rastered encoders with LED rings. The display is centrally located and, at less

than 8x5 cm, a little too small. It can, however, display the 64 sequencer steps and the 6 tracks graphically.

4 x CV/Gate

The back is tightly fitted. There are 4 CV and gate outputs each for controlling different analog synthesizers/modular systems plus clock and reset outputs for synchronization with analog equipment. There are also 2 MIDI outputs, a MIDI input and a USB port for connection to digital synthesizers and the computer. A special feature is the USB host port



where you can directly connect and power USB devices like a MIDI controller or keyboard.

The Carbon is powered by an external power supply unit. Carbon can also be used as MIDI-to-CV/Gate interface. The individual outputs can be configured as individual mono tracks or for controlling polyphonic synthesizers. In addition, the CV outputs can be used to output not only pitch but also touch response or selected MIDI controllers and to modulate filters and such.

6-Track Step Sequencer

Up to 64 songs can be stored in Carbon, with each song containing up to 6 scenes. Each of these scenes consists of 6 tracks with up to 64 steps each. Each track sends either CV/Gate or MIDI signals and can be configured as a drum track or voice track. The buttons are used for direct selection of the 6 tracks, as transport buttons and for other functions. Unfortunately, they are not used as step buttons for activating and muting single steps of a sequence. Instead, every single step has to be selected by a slider and can only then be adjusted. At least the selected step is played in a loop, which makes it easier to make changes. Nevertheless, this mode is more suitable for detailed editing of a sequence.

Step-/Realtime-Recording

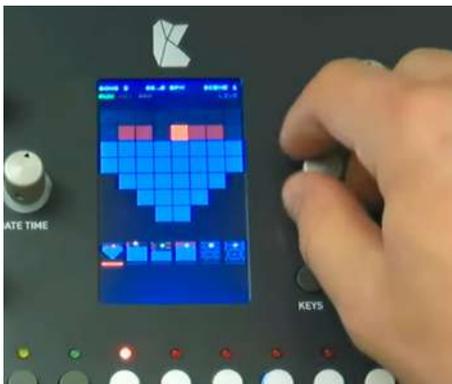
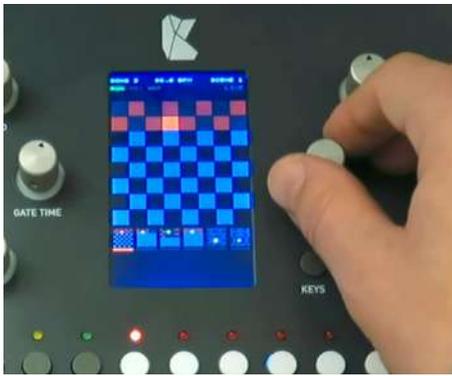
For creating new sequences, the step- and real-time recording options are more suitable. Step-recording is a classic solution. When the sequencer is stopped, you enter your desired sequence of notes one-by-one using a keyboard. Carbon automatically jumps to the next step after each entry. The built-in mini loudspeaker,

» Above all else, it's the creative possibilities for editing sequences that makes Carbon so special. «

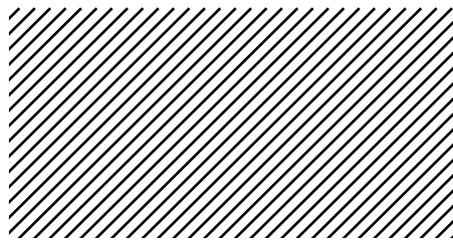
Alternatives

XOR Electronics Nerdseq
584 Euro
xor-electronics.com

Squarp Pyramid mk3
730 Euro
squarp.net



The creation of sequences is playful and the intuitive pattern generator guarantees fresh results.



which can output a suitable metronome, is practical for real-time recording. Punch-ins and overdubs are also possible in this mode, and even a pre-run is programmable.

Creatively Customizable

In addition to the note information, a controller can be recorded, but only per step with correspondingly jumpy progressions and no overlap (e.g. a stepless opening of the filter frequency). The 6 tracks can have different lengths and resolutions (4th, 8th, 16th etc.), which alone allows interesting polyrhythms. A special feature is the option for triplets and dotted notes, and ratchets and swing are also adjustable.

The sequences can be transposed and shifted in time, changed in the running direction, and even completely rearranged using ready-made patterns (which often show funny pictures on the display). Individual tracks can be muted spontaneously during live performance and replaced by self-played ones, whereby the built-in arpeggiator is helpful.

Verdict

Above all else, it's the many creative possibilities for editing sequences that makes Carbon so special. Polyrhythms, triplets, up to eight-step ratchets, real-time transposition and, above all, the intuitive pattern generator invite you to jam and create sequences that you probably wouldn't have thought of with a DAW. Additionally, Carbon can be used as a flexibly configurable MIDI-CV interface. Operation with numerous key combinations takes some getting used to, though. 🍷



The 4 CV/Gate outputs can also be configured for polyphonic or duophonic playing of analog synths.



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Modular Reviews

ADDAC System VC Triple Bandpass Filter

The team at the Portuguese module maker ADDAC System is into rough sounds, we already experienced this when testing the Gotharman's tube filter. With the Triple Bandpass Filter, they seem to be going down a more subtle path. But only seemingly, because the module is not based on tubes, but offers one distortion preamp per band. But let's start at the beginning...

The ADDAC603 consists of three identical bandpass filters with controls for gain, frequency, bandwidth, feedback and output volume, as well as a switch for slope, either 6 dB or 12 dB. Feedback works discreetly over three-quarters of the control range and is very powerful on the last quarter, so you have to be careful here. On the other hand, you'll get dirty and brutal sounds in and out.

Gain can be adjusted by a toggle switch to a factor of x3 for gentle amplification or x100 for very distorted results. Another switch is used to reverse the phase or to mute the filter band completely. All in all, the space for the switches is a bit tight; it is almost impossible to switch them without moving the controls located directly beside them. This is not a big deal, but you have to be extremely careful in live situations. After all, particularly with gain, small changes have a big impact.

Since the three bands provide individual outs, they work either serially or in parallel. Frequency, bandwidth and volume provide CV inputs for modulation, as well as the output volume for the dry signal. The latter works in combination with a fast LFO to produce, for example, even dirtier sounds via amplitude modulation. The same applies to the filter frequency, which can deliver everything from coarse FM sound to bitcrusher effects when using fast modulation.

So much for the technical details. During our test, our enthusiasm was fairly restrained at the beginning, because getting a clean signal out of the filters requires precise adjustment of the input and output volumes. If, on the other hand, you abandon the idea of avoiding any distortion, the fun really begins. The gain preamps alone turn every sound, no matter how well-behaved, into a huge stage. You don't even need a real synthesizer. Simply inserting a patch cable with the



plug between your fingers produces enough hum to make a racket with the distortion units. Under the QR Code for testing you'll find some audio examples.

The module doesn't always sound brutal and dirty, it's actually quite groovy. As soon as envelopes and LFOs start modulating the parameters, the module really comes alive. Guitars and basslines are quickly complemented by a pinch of funk and, thanks to three filters with adjustable bandwidth, specific adjustments to the frequency spectrum are also possible.

Verdict

This module does not fundamentally reinvent filters, but its sounds go from neutral to coarse and it's much more than just a filter thanks to its triple distortion units. With only one LFO as a modulator, the VC Triple Bandpass Filter can be used to generate the most insane sounds; however, modulating the feedback path would have been a nice thing.

Manufacturer: ADDAC System

Web: www.addacsystem.com

Price: 360 Euro

Rating: ■■■■■■■■■■



LeafAudio VCO-1 and EXP-1

LeafAudio is the right choice for anyone who wants to do their own work on modules and controllers. Thanks to the moderate degree of difficulty, the kits produced in Germany are not necessarily suitable for beginners, but they do not require too much technical knowledge and can be completed in 2-4 hours. The fun is clearly in the foreground here. By the way, the front design of the modules was created by Hannes Pasqualini, who is also responsible for the designs for Mutable Instruments and other manufacturers.

The VCO-1 is an oscillator with pulse and sawtooth waveforms that can be tapped simultaneously. Pulse width and pitch can both be modulated.

The EXP-1 is an extension that turns the VCO-1 into a complex oscillator. Both are connected to each other by ribbon cable on the back. Sawtooth, Pulse Wave and Triangle are available, as are Linear Frequency Modulation, Waveform Morphing and Hard Sync. Various parameters are already connected thanks to the ribbon cable, even without the use of patch cables. The whole module is very flexible thanks to FM, Sync and an LFO speed that reaches into the audible range.

Verdict

Crispy house basses, screeching lead instruments or experimental percussion sounds and alien-like bubbling are part of the repertoire of VCO-1 and EXP-1. If you like to tinker and like a chic look, you will be thrilled by these Eurorack candidates. Apart from that, the modules are also impressive in terms of quality, as the components are solid and the controls are pleasantly large and easy to grip. Sound and price are also right, so: Top choice!

Manufacturer: LeafAudio

Web: www.leaf-audio.com

Price: about 95 Euro

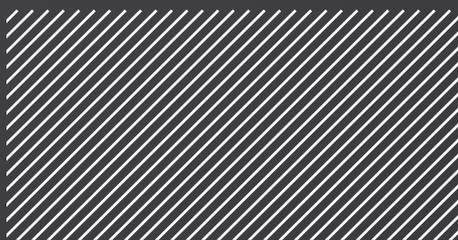
Rating: ■■■■■■■■■■

Feature: Mixing Guide

The Top Tools & Tricks

A good mix is characterized by an evenly distributed sound image and a balanced depth of sound. In this mini feature, we'll give you practical tips for the use of equalizers, dynamics tools and other signal processors. Furthermore, we introduce you to recommended mixing consoles, mix helpers and sound enhancers for every budget. **by Marco Scherer, Mario Schumacher, Jan Wilking**

» **W**e'll fix it in the mix." – Of all the rock'n'roll lies, this is certainly the best known. With equalizers, compressors and the like, you can iron out some recording problems, but you certainly can't make a hit out of a bad track. Fortunately, there is no recipe for how a really good song should sound, which opens up unimagined creative freedom for the mixdown. Aside from the creative aspect, there are a few basic technical points to consider when mixing that are simply characteristic of good craftsmanship. The following six basic rules will help you on your way to a successful mix.



SIX BASIC RULES FOR TIDY MIXES

1 / Volume - The magic key

Your most important tool for getting a good mix is the level faders. Make decisions about how your instruments should be balanced in the mix and adjust the volume levels accordingly. You can also consider which instruments are in the foreground and background of reference songs in the same musical genre. The golden rule for the mixdown is: „Trust your ears!“

2 / Dynamics - use them wisely

A distinction is made between micro- and macrodynamics. The former describes the dynamics within a recording or audio track (transient movements). Macrodynamics, on the other hand, refers to the differences in loudness within a complete song.

Microdynamics can be influenced by using compressors, limiters and transient processors. The compressor is the ideal tool for keeping dynamic instruments at a relatively constant level or for bringing signals more to the foreground. Since strong compression also brings background noise to the front, it is important to consider whether or not level automation of dynamic sound sources is more appropriate. Macrodynamics can be controlled by level automation, among other things. In many mixes, for example, level dynamics can be observed that clearly differentiates between individual sections. For example, you could make a verse thinner and quieter and a chorus dense and loud. These contrasts can be used to support the tension in your composition.

3 / Frequency staggering

The frequency ranges of the individual instruments will certainly overlap in a mix. You can get a grip on these sonic conflicts with equalizers. When using equalizers, it's a good idea to first consider which frequencies are characteristic of which instrument, so that you can create space in the frequency spectrum at the right places. Then it's important to create space by lowering a frequency range where the basic sound of another instrument can be harmonically combined. Here, tonal corrections are often done on a very small scale.

4 / Panning - ultimate widening

Distribute the instruments sensibly in the stereo field. Bass drum, snare, bass, lead vocals and lead instruments are usually placed in the center. Two complementary guitar or synthesizer tracks, for example, can be arranged left and right in the stereo image. This allows you to create specific space without compromising mono compatibility. By arranging them within the stereo landscape, you can also separate instruments whose frequencies

compete with each other. Even in this case, you should always check from time-to-time to see what your mix sounds like in mono.

5 / Depth through layering

Reverberation is used to arrange individual instruments in a room. By layering different instrument groups at different depths, you increase their transparency and positioning. By attenuating the high frequencies, you can also make instruments sound more in the background. Instruments that should be in the background can handle longer reverberation times, while vocals, drums and important solo instruments are usually only provided with a short reverb.

6 / Liveliness - create tension

No mix runs in a straight line from start to finish. „Drive“ individual parameters like track levels, panning positions and selected effect levels with automations. Use the song content as a guide. For example, how about moving the harmony parts back in the verses to emphasize them in the chorus? Well thought-out automation of volume levels, or even certain effect parameters, can bring more liveliness to your mix.

Tuning kick and bass

A solid foundation of kick and bass is particularly important for club music. By tuning the bass drum to the fundamental tone of the bass, you can ensure that the two harmonize well together. The pitch of the bass drum is easy to find with spectrum analysis tools like the freely available Voxengo SPAN [1]: Load it as an insert effect and see in which area the spectrum is most violent. This is usually very obvious with kicks. SPAN shows frequency and pitch at the top. Now tune the kick to the keynote of the bass. When using samples, avoid jumps of more than two semitones; otherwise, the power will be lost. If in doubt, look for a different kick drum that will sit better with the bass instead.

Make thin mixes fatter

This technique, also called New York compression, adds the unprocessed signal to the compressed signal, resulting in a rich but open sound. Try to heavily compress the finished stereo mix with a very long attack and short release time and add the processed signal quietly to the dry signal. The result sounds much denser than the original without losing clarity or dynamics. If your dynamics processor does not have a dry/wet control, you can simply create a copy of the original track and compress it heavily. The result should pump nicely, but should not drag. Finally, mix the compressed signal quietly with the dry track.

Popular mixdown effects

Compressors and equalizers are the most important, but not the only, mixdown effects. A good mix is not recognized by its loudness, but by its stylish and lovingly crafted details. The task in mixdown is to select those effect plug-ins (from a vast arsenal of available effects) that support the basic message of the song and help to combine the individual elements into a homogeneous whole.

By using specific effects, you can also bring selected instruments more into the „spotlight“ of your mix. Modulation effects such as Flanger or Phaser can add exciting accents to your mix. The

Chorus effect is particularly popular for adding more richness and liveliness to backing vocals, guitars and synthesizer sounds.

Exciter, enhancer & saturation

These effects can add freshness, clarity and brilliance to the signal by amplifying existing (or creating additional) overtones; however, care should be taken when using these enhancers. The ear gets used to this effect quickly, which is why they are easily overused. Carefully applied, saturation and distortion effects can also come to the foreground (e.g. subtle saturation on vocals or slight distortion on a bass line).

Zoom LiveTrak L-8

The Zoom LiveTrak L-8 combines a digital mixing console and an audio recorder with additional extras and is aimed specifically at podcasters and small bands. It has 8 inputs and 4 headphone connections, as well as six pads for playing intros, outros and sound effects. With the LiveTrak L-8 you can also record up to 12 separate tracks. An SD card serves as storage space. Alternatively, a computer connected via USB can be used for recording and playback. For recordings on the road, this digital mixer and recorder can be operated with batteries. The option to save almost all mixer settings in 7 scenes and recall them at the push of a button is also an asset in the studio.

The combination of a digital mixing console and multitrack audio recorder is particularly interesting for podcasters because of mixer presets, sound pads, and individual headphone outputs. Its direct and easy-to-use operation, as well as the extensive features, make the LiveTrak L-8 an affordable all-rounder for stage, rehearsal room and location recording.



www.zoom.co.jp | www.soundservice.eu | Price: 438 Euro

Black Lion Audio Bluey

Bluey is a replica of the famous 1176 FET-style compressor inspired by the multi-modified Bluestripe model. The feel and workmanship are a delight to behold. In the sound test, the unit shows all the strengths of the original, albeit with a sound that feels a bit more midrange and less high frequency. At a moderate setting, Bluey effectively reduces the level peaks on vocals and makes it easier to fit the vocals into a mix. Additionally, the compressor provides pleasant musical saturation. At more extreme settings, it brings drums, for example, really far forward and, if necessary, provides them with a good deal of harmonic distortion. This signal processor can make basses nice and fat, too. Thanks to the Dry/Wet control, it can also handle parallel compression.

Bluey is a convincing copy of an early model 1176 compressors that includes the characteristic saturation and harmonic distortion of the original. This versatile signal processor always sounds transparent, yet slightly softer than the original - making it a true recommendation that is especially good on vocals.



www.blacklionaudio.com | www.audiowerk.eu | Price: 975 Euro

Solid State Logic SSL SiX

With a compact form factor and a relatively low price for SSL, the SiX mixer brings the legendary SSL sound to the desktop studio. The 6-channel mixer comes with two mono and two stereo inputs each. There are also two stereo cues, two external inputs, two busses and two monitor outputs. The application possibilities are extended by inserts in the summing bus and in the two mono channels. The combination of a 2-band equalizer and the compressor per channel effectively brings signals forward. The SSL SiX impresses with its excellent workmanship, feel, above-average routing options and professional sound. Its preamps sound noise-free, clear and neutral and offer plenty of headroom... even for quieter signals. The 1-button compressors perform their tasks with excellence, especially for microphone recordings, and the bus compressor can also give a mix a good boost.

If you're looking for a compact mixer with only a few channels, but flexible routing and absolutely professional sound quality, the SSL SiX is a definite recommendation - despite its relatively high price of such a compact mixer.

www.solidstatellogic.com | www.audiopro.de | Price: 1359 Euro



Aphex Exciter

Behind the name Aphex Exciter is a signal processor that has been continuously developed for more than three decades and is used for both mixing and mastering applications. This stereo unit offers individual adjustment options for both channels. In the Big Bottom section, you can emphasize the low frequencies in a musical way. The frequency range to be processed, the intensity of the effect and the effect amount can be adjusted. The Exciter section, on the other hand, allows you to emphasize the mid and high frequencies of the audio material by amplifying the overtones. The frequency range and the effect amount can also be adjusted here. Finally, the Harmonics slider lets you determine the intensity of the Enhancer effect.

The Aphex Exciter is an excellent tool for adding crispness to recordings and increasing the perceived loudness. Vocal instrument recordings and drums, as well as synthesizer and keyboard sounds can benefit enormously from processing. Moreover, this device can provide more punch in the low frequency range.

www.aphex.com | www.hyperactive.de | Price: 449 Euro



Warm Audio EQP-WA

The EQP-1a passive equalizer from Pulse Techniques, affectionately abbreviated as the Pultec-EQ, has enjoyed great popularity for decades due to its musical sound characteristics. With the EQP-WA, Warm Audio offers a convincing reproduction of the popular Pultec EQP-1a, with a great feel and high quality workmanship. Compared to plug-ins, the EQP-WA scores additional points with its large controls and its direct and latency-free operation. Compared to plug-ins and the inexpensive Klark Teknik EQP-KT, the tube saturation of the EQP-WA sounds more organic and musical. Unlike Klark Teknik's competing model, the level control makes it easier to adjust the stereo operation of two units and, in our tests with the EQP-WA, we usually found the desired sound faster.

With its transparent and smooth sound, this equalizer is an excellent choice for processing vocals, instruments and drums, but can also be used to great advantage on mixes (as long as you have two of them).

www.warmaudio.com | www.sonic-sales.de | Price: 699 Euro



Klark Teknik 76-KT

At an extremely reasonable price, Klark Teknik offers the 76-KT, a replica of the famous Universal Audio UA 1176 compressor. Compared to Black Lion Audio's Bluey, this version is based on the 1176LN with its transparent sound. At moderate settings, this dynamics processor reduces the level vocal peaks and other audio signals very discreetly but effectively and makes it much easier to sit them in the mix. If you press all the ratio buttons simultaneously, the input signal will be squashed and saturated just like in the vintage model - perfect for bringing vocals to the forefront and making bass or drums (including room tone) super fat. A dry/wet control, like the one on the Black Lion Audio Bluey, is missing, though. For computer-less setups, there is no alternative in this price range and you can access it without hesitation. In terms of sound, however, the differences between this and good plug-ins are limited.

With the 76-KT, Klark Teknik has created a convincing copy of the 1176 compressors, whose basic sound is somewhat more modern compared to the original model. The feel and workmanship are excellent, considering the extremely low price, and it is simply fun to work with.

www.klarktechnik.com | Price: 199 Euro

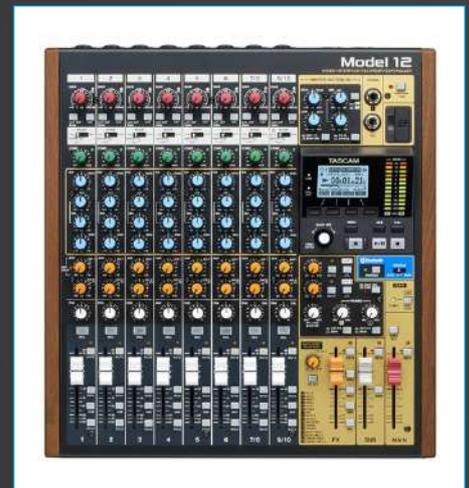


Tascam Model 12

Model 12 combines a live mixer with a multitrack audio recorder and USB interface, allowing you to use all three modes simultaneously. This compact and rugged device offers 10 analog inputs, divided into 8 tracks, and flexible routing options. The audio recorder allows multi-channel recordings in the rehearsal room or on stage and makes a computer unnecessary thanks to SD recording. Projects from the DAW can be transferred to the mixer in multiple tracks and used for live playback or supplemented with instrument and vocal recordings. In the desktop studio, the USB audio interface is convenient for multi-channel recording in the DAW, and Model 12 can be easily used as a DAW controller. All functions can be combined, so the price of this unit is very good.

Even as a mixing console with 8 microphone inputs, a one-knob compressor on all channels and a built-in effects unit, Model 12 already looks great; but its strength lies, without a doubt, in its versatility. As a powerful combination of mixer, recorder, audio interface and DAW controller, it shows its true strengths in the studio, rehearsal room and on stage.

www.tascam.eu | Price: 598 Euro



Audient Sono

What has an audio interface for recording electric guitars lost in an article about mixing tools? Audient Sono's clever reamp function makes it a useful tool in the DAW-based studio in order to add tube saturation to dry signals for more warmth and punch. This unit integrates DSP that allows latency-free operation of the Two Notes Torpedo Remote amp/cabinet modeling software. This gives clean instruments the sound of a high-quality combination of guitar amp and speaker. Three presets can be stored directly in Sono. The tube produces a warm, smooth and round sound; the equalizer is well tuned to it and proved to be very musical when tested. The audio interface allows recordings in 24-bit/96 kHz quality and has an optical ADAT input and two line outputs. The two combo inputs can be used for microphone and line signals, and phantom power can be switched on or off.

Featuring a powerful 3-band analog EQ and a tube preamp with finely adjustable saturation, Sono is an affordable secret weapon for adding more punch and mojo to not only guitar and bass signals, but its great on vocals, synths, keyboards and drums.

www.audient.com | Price: 282 Euro



A NEW DIMENSION



Pioneer Dj



Your task is to present music that was mainly produced by others, who are much cooler than me and you. «

DJ Interview:

San Proper

The percussive madness and intense live-feel of San Proper's 2009 „Keep it Raw“ marked his international breakthrough. And yet, as exciting as his releases may be, his DJ- and live-sets - funky, swinging and sweaty all at once - are possibly even more captivating. Tobias Fischer talked to San about youthful arrogance, DJing as medicine and manipulating tape decks with screw drivers.

Beat / *The Corona pandemic has made career management hard for many DJs. Your life, meanwhile, never seems to have been as organised as that of some of your colleagues anyway.*

San Proper / Yes, my life is quite chaotic, though adventurous and dramatised. My schedule usually is based upon studio-sessions during weekdays and performing during the weekend - for that's when people dance.

Beat / *That, in a way, is a sort of routine as well.*

San Proper / True, and I think this balance is very healthy. The seclusion of a hermit and the extrovert entity form a sweet recipe for an exotic cocktail.

Beat / *You've been a part of the scene for years. What are your first memories of DJing?*

San Proper / Pitching two cassette-decks with screw-drivers before we started trying to pitch turntables on acid?

amount of music you brought on vinyl forces you to make crazy leaps with an adventurous selection. Challenges.

Beat / *How did you get started with DJing?*

San Proper / I got heavily influenced at an early age by a lot of different styles of music and I started with the guitar when I was 8 years old, collecting music, stealing tapes and records, robbing my brother Emile of his musical gems. That said, my father also hit me hard with the likes of Sam Cooke, Professor Longhair, Thelonious Monk and Charles Mingus.

Beat / *Strikingly, not a single electronic musicians.*

San Proper / Later on, I discovered the underground-sound of electronic music and it blew me away. For at first I was mostly convinced by organic and soulful stuff with ‚real‘ instruments. But I guess in '93 I was modestly presenting my taste and a mix of both. In '95 I was proud enough to admit that I was a DJ, partly because I disagreed with the other disc-jockeys for their poor taste and lame music. Call it youthful oblivious arrogance.

Beat / *Or, on a more positive note, we could call it an obsession?*

San Proper / I was definitely obsessed. In 1999 realised: I will be doing this for the rest of life. Jamming hot and presenting this medicine. I was determined to turn this realisation into reality.

Beat / *Where you already making music yourself by this time?*

San Proper / My brother at one point allowed me to record my first demos on his 4-track. He gave me a box with a piece of tape which

started fading because I was recording and overdubbing that drive until the end. I was simulating drums with an Atari and I was using old-school keyboards to shine up the arrangements alongside my guitars and silly vocals.

Beat / *Many electronic producers are lonely animals in the studio. What's this like for you?*

San Proper / I really feel the need to have a reflection with other musicians, also for my solo-productions. I do love to jam, yes indeed. There are a lot of musi-

cians funk about at the spot where I also have my studio and often I'll be running around, playing a lick, dropping a line of backings or hand out some hand-percussion-shakes. Inspiration comes from the lessons you learn, right?

Beat / *How would you describe your approach to DJing?*

San Proper / Every DJ has a signature of course, which is often marked by taste, personality and emotions. And yet, one should realise that it's about presenting music, mostly produced by other musicians who are way cooler than me and you. A DJ is definitely a messenger and it feels great to get shocked by music you've never experienced before. Theo Parrish played that trick on me for instance, his selection and his productions changed my life. I love to fill up my record-bag with tracks I rediscovered in my collection while looking for something else. Alongside the latest gems I want to present I'll test-drive some demos.

Beat / *What are some of the considerations that go into deciding which track to play next?*

San Proper / This also comes from within, but sometimes I'll tune the key of two records rather than the pitch, like that you can create changes in tempo while blending the music very naturally. That's how one lives up to the mix. It's not just about setting the tempo straight. I do often automatically think of the tracks I'd like to play next, yes, but that's what impulsive inspiration is all about in my opinion. DJing is a combination of improvisation and composition in the moment. Diversity is key.

Beat / *Is there a deeper meaning to what you're doing?*

San Proper / In deciding which track to play next, I'll let myself be guided by the Love, while I'll force some power upon the room. Sounds cool, right? But in reality, I just follow my instinct.

Beat / *You did earlier refer to your DJing as a ‚medicine‘.*

San Proper / Obviously art and music are healing. I think it's important to touch the soul through the inspiration that artists present. It's important to motivate and spread the message. No matter if it's news, sentiment or fantasy. ::

facebook.com/san.proper
musar.bandcamp.com

» In deciding which track to play next, I'll let myself be guided by love, while I'll force some power upon the room. «

Beat / *A very „hands on“ approach. Maybe that's also where your love for those organic imperfections of your productions stems from.*

San Proper / It's important for me to make my machines swing and empathic, but I'll mostly layer electronics with organic instruments and other colours. The flaw of an instrument or piece of equipment can sound quite sexy, and I like to play around with that, but I am not the most technical producer. To each his own. I still really like the limitations of a record-bag. The small

Power Producer: Virtual DJ 2021

Hot sets with stem-mixing

Extracting individual tracks from a song was a very tedious task until now. With Virtual DJ 2021 by Atomix [1], the process is now child's play and can be done in real-time. Learn how stem-mixing opens up new creative options for live remixing and mashups, with or without a DJ controller. by Philipp Sterczewski

Project Info



Material: Virtual DJ 2021 or other compatible DJ-Controller

Time Required: about 20 minutes

Content: Mixing with stems in real-time with Virtual DJ 2021

Difficulty: Beginner/Advanced



1 Standard EQ

Start Virtual DJ 2021 after installation and switch to Pro mode. Under the Audio tab, you'll find a mixer with a standard 3-band equalizer, which allows editing of highs, mids and lows in the frequency spectrum. In addition to the standard EQ, there are two exciting modes: EZRemix and Modern EQ that can be opened with the arrow symbol. ❖



2 EZRemix

In the following dialog, select **EZRemix** so that the 3-band EQ is renamed **Vocal**, **Instru** and **Beat**. Now drag a beat-heavy song with vocals and instruments onto one of the decks. Turn **Beat** to the left and the drums are gone. If you turn right, only the drums will be heard. It's the same with **Vocal** and **Instru**. ❖



3 Modern EQ

If you choose Modern EQ, the EQ controls are renamed to **HiHat**, **Mel/Vox** and **Kick**. To emphasize a vocal part, turn **Vox** to the right to filter out the harmonics. In the opposite direction, the vocals are filtered out. To emphasize or eliminate the kick drum, adjust the **Kick** control. ❖



4 Controller Connection

Include a DJ controller in your setup, if it's compatible, and the controller should be automatically recognized by Virtual DJ 2021. Click on the **gear icon** in the upper right corner to get to the audio settings. Under **Hardware**, select the appropriate driver or install it in order for it to be listed in the outputs. ❖



5 Pad Control

As an alternative control for the stems on the EQ, you can also use the Performance Pads in Virtual DJ or on the DJ controller. Select **Stems** from the pop-up menu in the Pad section. Pressing the **Vocal**, **Instru**, **Bass**, **Kick**, or **HiHat** pad will remove that element instantly. You can also right-click to solo it. ❖



6 4-Deck Stems

If you activate the EQ parameters on the controller, the stem tracks can also be plucked out of songs using the software. As a visual indicator, the changes will also be visible in the waveform of the current track. Creative mash-ups and remixes, especially when four decks are used, can be done live. ❖❖

Power Producer: Ableton Push

Live Looper Rack for DJs

Complementing DJ mixes with own beats is a long-standing tradition. As early as the end of the 1970s, audiotapes were being played alongside turntables and, in the early 1980s, drum machines were added. Continue this tradition and use Live's Looper, Push, and a MIDI pedal or other controllers to add surprising sounds, new melodies and drums to your live set. We will show you how to build a dedicated Looper Rack in the following workshop, by Maya C. Sternel

Project Info



Material: Ableton Live, Push, MIDI foot pedal; optional: MIDI Controller

Time Required: 30 minutes

Content: Create a multiple Looper Rack for MIDI instruments; adjust looper parameters; rack-in-rack groupings; remote control of loopers via pedal and controller.

Difficulty: Advanced



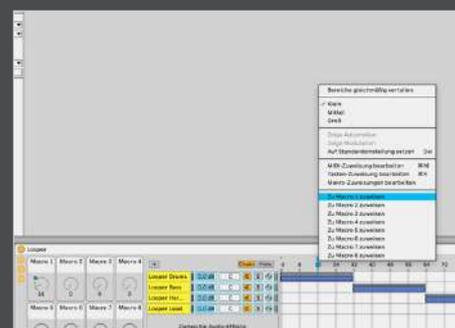
1 Create Instrument Rack

Our Looper Rack will consist of four units, but you can extend it according to your needs. Load an empty Instrument Rack onto a MIDI track. Open the Chain List in the rack and create four chains by right-clicking in the Chain List display. Name them as Drums, Bass, Harmony and Lead, for example. ❖



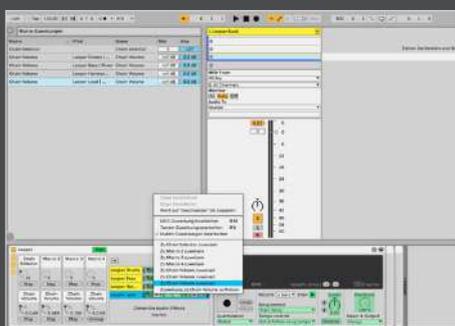
2 Assign Chains

Open the editor for the **Chain Dial Zones**. Select all chains and drag all zones over the entire area. Right-click in the area and select **Distribute Areas Equally** from the context menu. In the first rack, map the Chain Selector to a macro slider. ❖



3 Create Looper Rack

Load a suitable instrument into each track in the first rack. Place an Effects Rack behind the rack, which also contains four chains. Load a Looper into each chain. Distribute the chain selection zones evenly over all four chains as described above. Again, map the **Chain Selector** to a macro control. ❖



4 Configure Racks

To select a Looper for each instrument, both **Chain Selectors** must be controlled by a **Macro Knob**. Group both racks and map both selector macros to a **Macro Knob** in the parent rack. To control the volume of the Loopers, map the volume of each Looper chain to a macro control. ❖



5 Set Looper

Then map them again to a macro control on the parent rack. For all Loopers, set **Song Control** to **None** and **Tempo Control** to **Follow Song Tempo**. Connect a MIDI pedal and map the Multi-Transport buttons of all the Loopers to it. Now you can set all the Loopers to Record. ❖



6 Controlling

The second click starts the playback mode and the third click starts the overdub mode. To delete the empty loops generated by these modes, map the Clear buttons of all loops to one keyboard key each. Use Push to select the Looper, record loops, adjust the volumes and load additional effects into the loop chains. ❖❖

Music reviews

by Sascha Blach



Christoph von Deylen: Colors

The name Christoph von Deylen may be unknown to many, but under Schiller almost everyone knows him. The fact that the artist now appears for the first time under his civil name has to do with a musical reorientation. Instead of fluffy electro-pop, "Colors" features an almost entirely instrumental mixture of ambient, electronica and synthwave. In addition, the piano takes a leading role in some tracks. Nevertheless, you can recognize Deylen's style, because these ten tracks also have many moments of well-being and have something peaceful and warm about them. In addition to the ten actual tracks, there are twelve live versions, where the piano seems even more in focus and is complemented by ambient spherical sounds, soft synths and beat elements.

Genre: Ambient, Electronica | Label: Sony Masterworks



Donna Maya: Lost Spaces -> Detroit

A city trip of a different kind. Theremin artist Donna Maya visited places where industrial history was written during a visit to Detroit and recorded their sounds to transform them into music. The term „music“ is only partly correct, because her sounds are often quite experimental and the boundaries between techno beats and noisy avant-garde elements are fluid. The album fits into today's times, because the tracks are about dealing with crises and how capitalism can destroy beautiful places. Accordingly, they are mostly dirty, distorted and sound deconstructed. Musical ruins that appropriately document the decay of culture and have the character of a musical memorial.

Genre: Industrial, Experimental | Label: Sound Sister Records



Egotopusher: Beyond

The project name doesn't match the wonderfully atmospheric music, but that's the only point of criticism. "Beyond" serves the fine line between club-like electro, warm ambient and epic film music. Drummer and producer Alessandro Giannelli and violinist Tobias Preisig combine danceable beats with wide spheres, retro-inspired arpeggio synths and melodic violin playing and create a type of music that could also be used as a soundtrack to an epic by Stanley Kubrick. And indeed, the visual inspiration for the instrumental album was science fiction, space travel and outer space. Six titles with almost 40 minutes playing time, which take the recipient into distant worlds.

Genre: Electronica, Ambient, Soundtrack | Label: Quiet Love



Eivør: Segl

Eivør is a Faroese artist living in Copenhagen. The successor of „Slør“ from 2015 and 2017 (English version) impresses with what can be called electronic pop music. But this term only does justice to Eivør's music to a limited extent, because the sounds of the Dane by choice are more demanding than common pop music. There are cinematic passages along with beautiful hooklines, avant-garde and experimental parts à la Björk along with folkloric parts and RnB-like artefacts along with longing and melancholy piano elements. The manifold instruments are held together by the enchanting voice of the protagonist, who has a very special timbre. Mysterious music, that doesn't fit into any category and which always works best when the folk content is particularly high.

Genre: Electronica, Folk, Pop | Label: Eivør/AWAL/Bertus



Housemeister: 3ndl3ss Svmm3r

As a protégé of the Berlin techno underground and given the name of this project, Housemeister's priorities should be clear. His gigs still have that typical 90s ghetto vibes. "3ndl3ss Svmm3r" is already the second album by the artist from the capital of Germany this year, but it sounds completely different than the previous one. Instead of hanging out in the dark techno cave, you go out into the sun and dance to melodic rave sounds. The 7-tracker that Housemeister once again produced in his completely analog studio sounds more melodic and optimistic. And the album has a green color, too, because for every vinyl order via Bandcamp a tree is planted.

Genre: Minimal Techno, Rave | Label: AYCB



Marie Davidson & L'Œil Nu: Renegade Breakdown

The Montreal scene is alive. With a lot of creativity and humour Marie Davidson, Pierre Guerineau and Asaël R. Robitaille created a colourful potpourri that is hard to put into a category. Is it pop? Or (according to the lyrics of some tracks) even french pop? Rock, jazz, singer/songwriter, 80s synth-pop, electro? Probably a bit of everything, because every track has a different character. What holds them together is the interesting voice of Marie Davidson, who is also extremely versatile. The info hints at a range from Fleetwood Mac to Kraftwerk to Billie Holiday. Either way, it's an album with high entertainment value, which is worth a try for open-minded listeners from various scenes.

Genre: Pop, Electronica | Label: Ninja Tune



Rich NxT: Know The Score

Fans of Rich NxT cannot complain about the artist's lack of diligence. The British producer has already released 11 EPs via Fuse London, which acts as label and organizer of the legendary Sunday free parties at 93 Feet East. Rich, who was also a regular DJ, helped establish the brand decisively. „Know The Score“ is his first album and spans a wide range from house to techno to jungle, hardcore and drum'n'bass. It is the filtrate of 20 years of work in the London underground. Vocal features by Alfie and Shyam P provide additional momentum in this 10-tracker, which has the character of a flowing DJ set and still works perfectly not only at the next party, but also at home.

Genre: House, Techno, Jungle | Label: Fuse London



Thomas Lemmer & Christoph Sebastian Pabst: Bergblick

A glance at the idyllic mountain panorama on the cover is enough to anticipate that the next hour will be relaxing. And indeed, „Bergblick“ is a quiet album between deep house, downtempo, ambient, electronica and chillout, characterized by warm pads, soft beats and playful arpeggios. But the 11-tracker never threatens to degenerate to background music, because the tracks are produced in a high-quality and modern way, score with rich basses and beautiful atmospheres, so that the feeling of well-being is all-encompassing. The whole thing fits well into the world of Café del Mar and, despite a slight melancholy, has something summery about it. By the way, the album was created completely remote over a distance of 800 kilometers. The technology makes it possible.

Genre: Chillout, Electronica | Label: Sine Music



Woodkid: S16

Seven years after the phenomenal debut „The Golden Age“, expectations for a second Woodkid album have certainly not diminished. But the Frenchman Yoann Lemoine took a lot of time not to make a rush job. The hit density on "S16" is perhaps a little smaller, but the musical demands are all the greater. The album operates somewhere in the wide field between pop, industrial, soundtrack aesthetics and experimental sounds. It is characterized by electronic beats and percussions, piano, orchestral sounds and the deep voice of the protagonist. And it is the many small details in connection with the deep symphonic production that make the long player even more exciting after listening to it for the tenth time and ensure that this gem even grows with each run. Pop can be so artistic!

Genre: Pop, Orchestral, Electronica | Label: Universal Music



Yello: Point

Four years after „Toy“, the grandseigneurs of electro-pop shake things up again. With a coolness that probably only few young bands have, the now 75-year-old singer Dieter Meier performs with a mostly abysmal voice and spoken-word finesse through the demanding soundscapes of his congenial counterpart Boris Blank. Yello walk through the genres playfully and with a lot of humour, whether electro, funk, Dadaist sounds, film-score-like sounds or charming 80s-inspired pop. Thus listener has a lot of aha-moments. "Point" is a very entertaining album with sexy grooves, fat basses and a vocal performance that is second to none. And with that the two dandies hit the nail on the head - no not head, but „Point“.

Genre: Electro Pop | Label: Universal Music

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Special: Studio Acoustics

Desktop and home studios are, in most cases, anything but acoustically ideal. This makes an objective evaluation of a mix extremely difficult. But how can the most common acoustic problems like reflections be dealt with, and how can weaknesses in the room be found? Using typical home studios as examples, we will not only show you how to optimize room acoustics with simple methods, but we'll also show you which monitoring solutions are best suited to your room and your workflow and how modules and speakers are ideally placed.



Review: UDO Super 6

The 12-voice hybrid synth caused quite a stir at the 2019 Superbooth show with its extravagant design and impressive sound. It was to take a year and a half, however, until the Roland Jupiter-6-based synth with FPGA-based digital oscillators and analog low-pass filter was ready for production. We secured one of the first available units for a test.

Interview: Martin Kohlstedt

Reduction to the Essentials. This is the approach chosen by visionary pianist Martin Kohlstedt for his new album „Flur“. We meet the artist, whose songs are never really finished, for an interview to learn more about how he produced some exciting new sounds during the lockdown in his attic apartment in Weimar.

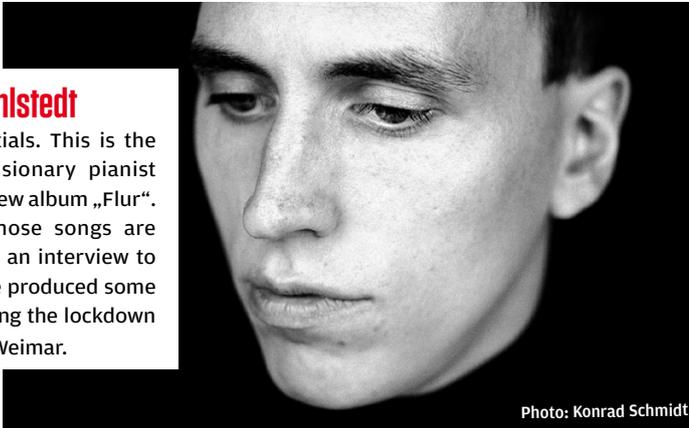


Photo: Konrad Schmidt

Review: Behringer Wasp Deluxe

Between replicas of legendary analog synths and drum machines, Uli Behringer surprised us with an exotic. Developed by Chris Huggett (responsible for the OSCar, Novation BassStation and Peak, among others) in the late 70s, the Wasp was hard to miss due to its cheaply designed bright yellow plastic housing. The sound was just as poisonous as the color. Behringer now revives Wasp in a much improved hardware.



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Beat

Publisher (V.i.S.d.P.):
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Cover Design: Ricarda Becker, naujoks-design.de

Layout: Ricarda Becker

Publisher:
Falkemedia GmbH & Co. KG
At the hall400 # 1
D-24143 Kiel
Tel. +49 (431) 200 766-0 info@falkemedia.de
Fax +49 (431) 200 766-50 www.falkemedia.de
ISSN 1860-9988
HRA 8785 Amtsgericht Kiel
PhG: Falkemedia Lifestyle GmbH (HRB 12311 AG Kiel)
Managing Director: Kassian Alexander Goukassian

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See publisher's address - Tel. +49 (61 57) 40 29 569

Data Protection Officer: Jürgen Koch
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Mail: datenschutzanfrage@falkemedia.de

Subscription Support:
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P.O. Box 810640
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Advertising Rates see Media Data 2020 under:
www.falkemedia.de/medien/portale/beatde

Production and Print Management:
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Sales Management:
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Distribution:
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