

Bitwig PC MAC Bitwig Studio 3 €379

We take our place on The Grid with the latest version of this inventive DAW, and discover that good things really do come to those who wait...

> Six years in, Bitwig Studio finds itself fully bedded in as a prominent fixture on the DAW landscape. Conceived and developed by a team of former Ableton employees, early comparisons of this slick audio/MIDI production system to Live were inevitable and easily made. Nonetheless, the innovations it introduced at launch (9/10, **cm203**), including FX nesting, per-note automation, and the attention-grabbing simultaneous Arrangement and Clip views, were enough to set it on its own path. And the numerous v1.x and 2.x (9/10, **cm243**) updates that followed continued the trend with the addition of an amazing freeform plugin modulation system, voice stacking and more.

However, there's one particular Bitwig feature that's always been notable by its absence – and it's a biggie. The company have repeatedly maintained that one of their primary goals with Studio was the integration of a fully modular device design system, enabling users to build

their own instruments and effects directly within the DAW. The aforementioned modulation architecture of Version 2 hinted at the potential for such a scheme, and now, half a decade later, the dream has finally been realised with Bitwig Studio 3, and the results are nothing short of phenomenal. Say hello to The Grid.

Module citizen

Any iterative review of Bitwig Studio 3 is inevitably going to be a review of The Grid, as

“The dream has finally been realised, and the results are nothing short of phenomenal”

the rest of the new additions are comparatively minor. So that's what we'll be focusing on – see *What else is new?* for a run-down of the rest.

The Grid comes in two flavours: Poly Grid and FX Grid, the first loading as an instrument, the second as an effect (with polyphony and Voice Stacking!), and both drawing on the same collection of 154 modules. Patch construction is done in the Expanded Device View, which can be panned and zoomed to navigate, and popped out into a separate window. Modules are dragged down from a palette at the top, and once in place, their controls are tweaked directly in the main display. The Inspector panel enables custom colouring and titling of the selected module, and – cleverly – visual monitoring and metering of all signals going into and out of it. Weirdly, though, some modules don't feature title bars, and so can't be descriptively renamed. Clicking the Help button superimposes a pop-out dialogue centring on the selected module –

“Modulators can be assigned to nested devices. It’s enough to make your head spin!”

which remains fully interactive – complete with descriptive annotations. Genius.

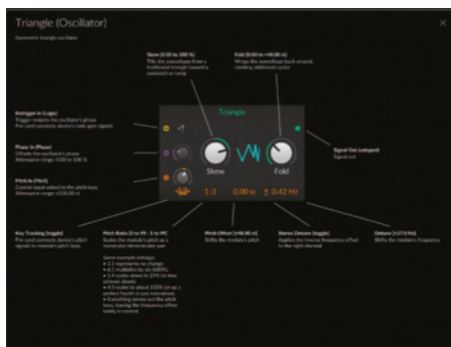
The modules themselves are spread across 16 categories: I/O, Oscillator, Filter, Shaper, Delay, LFO, Math, Logic, Display, etc, and between them offer a dazzlingly comprehensive and colourful collection of audio and modulation signal generators and processors. For analogue synthesis, the Oscillator section includes Pulse, Saw, Sine and Sawtooth generators, as well as a Phase Distortion oscillator and the immense Swarm saw/sine unison oscillator. There’s a module version of Bitwig Studio’s Sampler instrument, too, able to load multisamples and access the same mapping editor.

Filter modules take in Low-Pass Ladder and Sallen-Key types, a state-variable model, slope-adjustable High- and Low-pass, and Comb; and you’ll find copious envelopes, LFOs, randomisers, phase manipulators (a *major* highlight) and other modulators with which to get them – and anything else you like – moving. Sequencing and pitching are well catered-to by the various Data and Pitch modules, and you can even get your real-world synths and effects in on the action using the Hardware and CV I/O modules. In summary, it’s a huge library that we can’t begin to scratch the surface of here, constituting all the elemental raw materials required to construct a literally limitless array of synthesis and sample-based instruments, generative sound machines, effects processors and more, of any level of complexity.

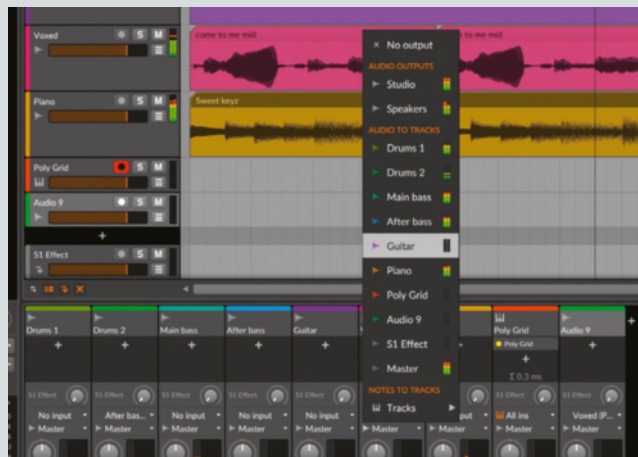
Patch a fire

The module patching workflow is slick, too, centring on automatic and manual connection of output ports on the right of each module to input ports on the left, with virtual cables.

There are five colour-coded signal types – of which Logic, Pitch, Phase, Audio/Untyped and Secondary Untyped – but any input can be connected to any output, opening up endless possibilities for audio-rate modulation, wild phase-based shenanigans and beyond. All of the signal paths are stereo, incidentally, and use 4x



The Help view provides documentation for every module and keeps them fully interactive while doing it



Make sure you’re routing to the right places with I/O chooser VU meters

What else is new?

While The Grid obviously takes centre stage in Bitwig Studio’s v3 update, a few other less significant enhancements have been made, too.

First up, shutting audio signals is made that little bit easier by the integration of VU meters into the mixer and track list routing choosers; while the option to add a minutes/seconds/milliseconds scale to the timeline – called the Realtime Ruler – will be welcomed by media composers.

Automatic project backups help to ensure that you don’t fall victim to data corruption by saving a duplicate of your current project file. And users of Ableton Link will be reassured to know

that Bitwig are on top of that particular protocol – version 3 is now supported.

A few graphical changes have also been worked in. Alongside a general sprucing up in the interest of improved readability throughout the UI, the Inspector now affords access to voice modes and stacking for polyphonic instruments; and the new Midtones and Black Level Contrast settings let you set your saturation to best suit your monitor and eyes.

Finally, under the hood, the various audio backends used by Bitwig Studio have been rebuilt, bringing timing improvements for CoreAudio, ASIO, WASAPI, ALSA, PulseLink and Jack.

oversampling for pristine fidelity. The Grid itself is handled just like any other device in Bitwig Studio: you can layer, nest it and define macros for it, and all controls within are assignable for modulation and automation. And in the other direction, modulators in The Grid can be assigned to the controls of nested ‘child’ devices. It’s enough to make your head spin!

Grid locked

The Grid sees Bitwig Studio 3 not only breaking new ground with a baked-in sound design toolbox that clearly transcends anything offered by the competition, but also shifts the modular synthesis bar in a broader sense. It’s by far the friendliest, most approachable and intuitive modular system we’ve ever come across, yet it manages to achieve that level of usability without making any compromises in terms of power and versatility. It’s already stocked with more than enough modules to keep even the most demanding patcher busy and thoroughly entertained for years, but we can’t wait to see what new widgets get added in future updates. Consider, then, that this is all built into one of the best and most interesting DAWs around for electronic music production, and there’s only one score we can reasonably give... **cm**

Web bitwig.com

Alternatively

Cherry Audio Voltage Modular cm264 » 8/10 » \$200

A more traditional (and plugin) take on modular synthesis

Ableton Live 10 cm255 » 9/10 » £319/539

Live might be dominant, but it doesn’t have anything like The Grid

Verdict

For The Grid is supremely easy to use but staggeringly powerful
Massive library of modules
Phase processing and modulation
Bitwig was already the most creative DAW in town; now it’s even more so

Against No real reason to upgrade if The Grid doesn’t float your boat
Some modules don’t have title bars

A deeply engaging and productive modular system in its own right, The Grid takes Bitwig Studio to new heights

10/10