MODULE UP
Patch and
Module
selection menu

KEYBOARD INPUT
for pitch CV/Gate etc

OUTPUT CONTROL
with default reverb
and delay

PATCH/PRESET
name display
and navigation

PATCH MANAGEMENT
for saving your sound

MORE HERE
Available modules
are listed in sections

OUTPUT VU
level meter

MASTER CLOCK
with sync to
your DAW

RACK SPACE
The main
working area

OCTAVE ASSIGN
Controls for easy shifting

ONBOARD KEYBOARD
for instant auditioning

Applied Acoustic Systems
Multiphonics CV-1

$99.00 PC MAC

Going Modular needn't be all about the hardware and expense. We head for our desktop and grab a virtual cable or ten!

> While there is nothing new about modular synthesis, the undeniable rise of the Eurorack format in more recent years has influenced a number of companies to investigate the concept by creating a modular in software. This desktop-based format has found bedfellows from both the desktop diehards, as well as the modular enthusiasts themselves, partly thanks to the enticing cost, alongside the ability to save patches and implement directly with your DAW.

Acoustically applied
Canadian developers Applied Acoustic Systems are no strangers to the software domain. They are the developers behind an ever-growing catalogue of superbly usable instruments such as the applauded Chromaphone 3 synthesiser and the excellent Lounge Lizard EP-4 electric piano simulator.

Multiphonics CV-1 veers into new territory for AAS, providing a modular synthesiser environment, which can be used in either a standalone form or as a plugin within your DAW. As any modular synth user who is more accustomed to hardware will tell you, there is something quite enticing about an instrument that you can use without the need to load your

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DAW. But before we begin to understand why this is such a deep rooted desire, let's dive in with the basics.

Presets and modules
Multiphonics CV-1 offers a fully fledged modular experience, which begins with a virtual rack case, in which you are able to load modules. At the current count, there are 37 modules available. Some of these will be intrinsic to sound creation, while others will shape the sound, trigger tones, or offer utility-style operation, all within the confines of a modular system. These utilitarian modules are invaluable, even though they may only be doing something as basic as summing signals.

The concept of patch creation is identical to that found in the hardware modular domain. For a basic subtractive synthesis patch, you will need the usual common denominators of an oscillator, filter, envelope and amplifier. Loading

"It can create some very beautiful and inspiring tones, even from the most minimal of oscillator inputs"

All the creative colour of modular in software form

modules into the virtual rack is a simple process of selecting the module menu and clicking on the module required. Modules can then be dragged around, in order to simplify the flow of your patch, while connections are made through virtual patch cables, by clicking on an input or output, and dragging the cable to the appropriate connection point. Unlike a hardware modular, you won't be struggling to have the correct length of cable, as all cables will adjust to suit the connection you wish to make. Neither will you have an excess of cables, dangling in the way of the modules that you've been trying to work with!

If you're new to the modular environment, visiting and viewing some of the walkthroughs which are available from the AAS website would be very much worthwhile, to get your head around the modular concept. There's also a great selection of patches, which are organised into categories, such as basses, leads, percussion and generative patches.

The basics

If you want to keep things simple to begin with, there are four audio generator modules available, to form the starting point for a subtractive patch. Two of these are more conventional VCO-style modules, while a specific Pulse VCO and Noise module are also available. To add to the oscillators, there are three different filter modules; the first is a regular ladder filter, which is equipped with four different slopes from 6dB to 24dB. The on-board addition of an overdrive allows the ladder filter to be overdriven. Meanwhile there is also a state variable filter module, which will happily move between high and low-pass states, with the addition of a band-pass option. The third module is the most unique of the three; the Objeq Filter is a form of modelling filter, which is influenced by shapes such as drum heads, strings and membranes, and allows for a unique sweeping effect, as you move between filter forms. As we're in the modular domain, this is open to modulation from a number of sources, and can create some very beautiful and inspiring tones, even from the most minimal of oscillator inputs.

CV-1 also includes envelopes, LFOs and VCAs, among the basic module set. The envelope module is a 4-stage ADSR, with the VCA modules being available in solo or duo form, while accompanied by a Low Pass Gate.

In setting up the most basic of patches, you will still need to provide the envelope with a trigger input, and an accompanying envelope output, heading in the direction of your VCA. It is relatively self-explanatory for anyone who is used to the modular concept, but it could take a little manual diving, or reverse engineering of

Generative patching

One of the alluring elements of CV-1 is that it's a standalone, breathing, growing, organic instrument. While many modular users will use their hardware in a conventional way by creating subtractive synth patches (albeit complex in nature), it's incredibly appealing to use a modular in a generative way.

This means that the modular itself may create the very notes being triggered, in an entirely randomised way. If this sounds a little haphazard, it can be, but it's also very plausible to place constraints on the level of generation. By applying these constraints through elements such as quantising modules, the output can be less randomised, and more scalic or

sequential. It is also possible to organise patches in such a way that a root note can act as the base for your sequence, meaning that it's far easier to employ within your production and DAW, if so required. Generative patch creation is the modular equivalent of disappearing down the rabbit hole, and you can find yourself in a time vacuum, while creating a patch of this kind.

Thankfully, AAS provide a number of generative patches in a preset section. This is not only useful for inclusion in your own music, but also as a point of reverse engineering, in order to discover how patches have been created. As with all modular setups and software, you can go as deep into the process as you like!

existing patches, for any newcomers to the modular world.

Getting creative

Taking CV-1 beyond the basic steps is a rapid concept. The more modules that you add, the more that you will need to employ elements such as mixers, in order to sum signals and output them appropriately.

Thanks to the addition of on-board sequencers, these can easily be synchronised to the master clock module, at the top of the rack. This will, in turn, lock to your DAW, meaning that you can create sequences within the modular, for triggering within your overall production. Add an extensive number of signal processing modules, for processing both audio and CV, and it's quite a package of creativity.

Sonically, CV-1 can sound beautiful and aggressive in equal quantity. The filters are lovely and wispy, while the Objeq filter is an incredibly inspiring tool. As with any complex sound creation instrument of this kind, it's inspiring on a preset level, but continues to reward on a creative level, if you have the time to get your hands dirty and create patches from scratch. And it doesn't get much more fulfilling than that! **cm**

Alternatively

Softube Modular
€89.00
Offers licensed software facsimiles of some of Eurorack's greatest hits!

VCV Rack 2
Free/Pro - £Free/$149
Now in its version 2 form, available as a free package or paid Pro version, for high-end setups

Verdict

For Highly versatile architecture
Worthy synth engine for simple patches
Engaging for more complex patching
Presets are useful for inspiration

Against More VCOs and filters would have been welcome
Onboard tips for new users would help

If you fancy dipping your toe in the modular domain, this is an excellent, cost effective way to start, and sounds superb

9/10