



Muse Research Receptor

FUTURE MUSIC BOX

by **NORMAN WEINBERG**

There's little doubt that the present and future of sound modules belongs to the world of soft instruments – programs such as BFD, DFH Superior, or Battery that offer a huge number of pristine drum and percussion sounds. And if you're looking for great audio effects, recent plug-ins sound as good or better than their hardware counterparts and can be purchased at a fraction of the cost. While it may be convenient to run these programs on a computer in the studio, there are still a lot of players who don't trust computers on stage – and for good reasons. You'll have to deal with screens, keyboards, and mice. Even when working with a laptop, you'll need an audio card and a MIDI interface, and software that can serve as a host for the soft instruments and plug-ins. And if the computer crashes during a performance, well, you're hosed.

Muse Research's Receptor is a new classification of instrument designed to run these amazing plug-ins and be as comfortable on stage as it is in the studio. In essence, the Receptor takes the place of your computer by hosting both VST instruments (VSTi) and VST effect plug-ins.

OUTSIDE

The front of the Receptor's two-space rack has an instrument input with an in-

put level knob, a headphone output, another USB port, a master volume knob, two display knobs, four soft buttons, and eleven other buttons that can be used to program every feature of the instrument. This is an important feature if you're using the Receptor in a live setting. You'll be able to edit or even create entirely new programs at the gig without having to lug around a computer or hook the Receptor up to a screen with a keyboard and mouse. While the Receptor's software is deep, it is entirely logical. Spending a couple of hours with the machine will get you totally comfortable with the programming process.

But if you need the attachments, the back panel of the Receptor contains inputs for a mouse, a keyboard, and a 1024 x 768 computer monitor. MIDI connections include dedicated MIDI-In, MIDI-Out, and MIDI-Thru. Audio connections include audio out L/R, audio in L/R, S/PDIF In/Out, and an ADAT output. There are also four USB 2.0 ports and an ethernet jack for connecting the Receptor to your computer and a fan for keeping the unit cool.

INSIDE

The Receptor runs its own proprietary software that serves as a host for up to 16 channels of VSTi plug-ins or audio inputs. Each channel has its own source sound and

DETAILS

MODEL Muse Research Receptor

CURRENT SOFTWARE Version 1.5

MIXER 16 channels of VSTi or audio inputs, three FX inserts on each channel, two busses with three FX inserts on each, one main stereo output with three FX inserts

MIDI In, Out, Thru

AUDIO Guitar/instrument input with dedicated level knob, headphone, Audio in L/R, Audio out L/R, S/PDIF In/Out, ADAT output

COMPUTER Keyboard, mouse, monitor (1024 x 768), Ethernet, five USB 2.0 ports

DIGITAL CONVERTERS 24-bit at 44.1, 48, 88.2, or 96kHz

DISPLAY LCD (2 lines x 24 characters)

STREET PRICE \$1,699 (with 256MB RAM and 160GB hard drive). Add \$175 for 1.25GB RAM, \$350 for 2GB RAM, and \$399 for 400GB hard drive

CONTACT Muse Research, 970 O'Brien Dr., Menlo Park, CA. 650-326-5400.
museresearch.com

up to three insert effects. The source sound can be any one of the internal VSTi sources or the audio inputs on the Receptor. The three effect inserts can be set up in any parallel or series combination that you want. It's really amazing what a huge difference the effect configuration can have on the channel's sound.

Once you've got your channel programmed, you can output the sound to the master stereo outputs or two different bus

channels. For maximum flexibility, both of the busses as well as the master stereo outputs can have up to three effects assigned to them. Other channel controls include two sends with pre- or post-fader switches, stereo pan position, and individual mute and solo buttons. Each of the channel strips include a sophisticated output matrix, allowing you to route the channel to the analog outs, ADAT outs, S/PDIF left and right, or the UniWire output (more on this little gem soon).

BUTTON PUSHING

Programming the Receptor is a breeze. As mentioned earlier, you can access every feature of the instrument from the front panel; you can connect a screen, keyboard, and mouse to the back of the Receptor and control the machine that way; or you can run the Receptor Remote Control software on your desktop or laptop by connecting the Receptor directly to your computer with an ethernet cable. Either way, getting the Receptor to do what you want is pretty darn easy.

The GUI interface is clear and consists of three main screens. The Mix screen is where you make all the decisions concerning the combination of plug-ins and how they will sound together in the final mix. There is a Setup screen that is used for machine-level audio adjustments such as the Master Sample Rate (44.1, 48, 88.2, or 96kHz), Sample Clock Source, and Sample Buffer Size. This screen is also where you install programs and set the UniWire, Network, and MIDI controls for the machine. The Edit screen gives you access to all the editing features of each VST instrument or plug-in. If a plug-in has its own GUI, you'll see it on the screen and you can edit it directly in its own environment. How cool is that?

GETTING AROUND

The way the Receptor deals with sounds makes the unit very adaptable and quick to navigate. For each of the VSTi or VST effects, there are banks and patches that store all of the programming information for the plug-in. Once assigned to an instrument channel inside the Receptor, you can store all the channel's information into a Super Patch. When you save a patch, the Receptor saves the source assignment, the patch data loaded into the source including all the individual settings, all three insert FX assignments with associated data settings, and the FX routings. When a sin-

VERDICT

If you're looking for a way to get some of the best-sounding plug-ins onto the stage for a live performance, then the Receptor is currently the tool of choice. While the machine comes with a ton of freeware, most of the programs are not high-end drum packages. For the best possible percussive experience, you'll want to load in some of the premium plug-ins that Muse has available for purchase, or load in the software you already own.

Even with the RAM maxed to 2GB, don't expect to fill all 16 channels with high-powered VST instruments with three insert effects each. You can expect to run out of processing power long before every one of the 50-plus FX slots is occupied. That said,

gle patch is loaded, the Receptor automatically instantiates every plug-in required to duplicate the sound of that patch.

A "multipatch" stores everything inside an entire setup. This includes all 16 channels of instrument data, mixing parameters such as the volume, mute and solo settings, send levels, transposition settings, tempo and time signature settings, and the tempo source. In essence, the multipatch is a snapshot of the entire machine. With this sort of architecture, it's easy to keep track of individual patches inside the plug-in and individual patches inside the Receptor. It's important to note that multipatches store the patch data used for each plug-in, not just a pointer to the patch's location or name. This means that if you should ever change or even delete the source patch that was originally loaded into the multi, you won't destroy the programming of the multipatch. This fail-safe feature is a great idea that could avoid a possible disaster.

NEW SOUNDS & EFFECTS

The Receptor comes loaded with freeware instruments and effects, but what if you want to add more? Your first step is to visit plugarama.com and register your machine. After registration, you'll have access to over \$400 worth of free software from Dash Signature, LinPlug, OhmForce, and PSP Audioware.

There are a few ways that you can load new sounds and effects into the machine. For some plug-ins that you may already own, you can download software that is user installable. These are little "prep" downloads that let you install your previously purchased software into your Receptor. In order to do this, you'll need to already own the plug-in and have access to

you should have enough processing power to run several channels and effects at the same time. It really all depends on how each individual plug-in pulls on the processor inside Receptor. More sophisticated plug-ins naturally demand more power from the CPU.

With the Receptor and an electronic kit or multipad, you'll be creating and controlling sounds that you've only dreamed about. As a tool for the working percussionist, a Receptor married with a malletKAT could get you through just about any gig you could think of. I believe that the Receptor could be the next step in the development of live performance tools. Nothing else offers this degree of flexibility, simplicity, and reliability.

the original files. So if you already own Kontakt 2 or Stylus RMX, you won't have to repurchase anything. The Receptor uses a USB key called iLok to store your licenses for using other commercial plug-ins with the Receptor. The iLok system is a good compromise between ease of use and making sure that you're using legal versions of the software.

MORE COOL STUFF

There are a number of additional features that make the Receptor a better value and a more flexible machine that you might at first expect. For example, it's possible to have VSTi instruments and audio inputs active at the same time. This means that





you and your vocalist or guitarist can both use the Receptor at the same time.

Another hip feature is the flexibility to reroute any Receptor channel to respond to any MIDI channel. Using this simple feature, you can quickly and easily stack sounds for massive layers. Along with setting individual MIDI channels, an easy-to-use slider sets the note range with low and high key limits. Another slider lets you set the low and high levels of velocity. So if you want to use the bass drum from one package such as BFD, the snare from another package such as DFH, along with a few slices from Stylus RMX for your toms, while having your crash cymbals morph into a gong at strong velocities, it's relative-

ly easy to do. I don't know of any computer program that will let you do this sort of plug-in manipulation.

When you're not playing live gigs with the Receptor, you can take it into the studio. One way to use the Receptor is as you would any other external sound or effects module. You can send MIDI messages or audio signals to it for additional processing. A new feature of the Receptor is UniWire. It's a proprietary way to connect the Receptor to your computer using only an ethernet cable. With UniWire, MIDI and audio flow back and forth between the Receptor and your computer, allowing you to run the Receptor's plug-ins as if they were hosted on the comput-

er. The Receptor's processor does all the work, and your computer's processor is free for other tasks. Very slick!

While there are some skeptics on the KVRAudio web site concerning the following numbers, Muse claims a very fast MIDI Input to Line Output latency. With a buffer setting of 64 samples at 44.1kHz, the unit comes in at 5.1ms. At 96kHz, the response is even better at 2.0ms. These are outstanding numbers, as anything below 10.0ms is pretty darn hard to feel.

Rest assured: the Receptor knows what it's doing at any particular point in time, and if it needs to be rebooted, it will boot into its previous state. That makes getting back on track fast and painless. ■



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