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REVIEW

BY MIKE METLAY



Banks, which makes it very useful as a global volume control.)

In addition, the four drum pads are organized into two Pad Banks for a total of eight different pad functions. These pads are not only velocity sensitive but also transmit aftertouch, so they can play notes and use aftertouch to control drum machine functions like rolls and note repeat. They also serve double duty if desired; they can be set to send MIDI



Samson Graphite 49 USB MIDI Controller

Samson has entered the USB keyboard controller market with a pair of new keyboards, the Carbon 49 and the Graphite 49. We'll be taking a quick look at the entry-level Carbon 49 in our 2012 Gift Guide next month, but in this issue we're peeking under the hood of the full-featured Graphite 49. It offers a 49-note (4-octave) keyboard with a full set of remote control features in a light (about 10 pounds) and portable bus-powered package.

Taking the tour

The Graphite 49's layout is clean and surprisingly compact; it offers pitch and mod wheels, nine sliders, eight endless encoders, sixteen buttons, four drum pads, and five transport keys, plus assorted menu and function buttons and a large backlit LCD that's packed with useful data.

The rear panel offers a MIDI Out port, one 1/4" jack for a sustain pedal, the USB connection, and a Power switch. An optional power supply lets the Graphite

49 function as a MIDI controller without a computer attached if desired, but for our tests it happily ran on USB power.

The Graphite 49 comes with a short USB cable, a thorough paper manual, and an install CD for Native Instruments Complete Elements, a set of virtual instruments for beginning players. Note that there is no installer for device drivers; the Graphite 49 is class-compliant for Windows XP/Vista/7 and for Mac OS X 10.4.9 and up, you just plug it in and it's ready to go. I had no issues trying it on PCs running Windows XP and 7, nor on Macs running OS X 10.4.11 and 10.6.8.

More than meets the eye

When using the Graphite 49 you actually have more controllers than are visible on the front panel; there are two Banks of controls for the first eight sliders and the eight encoders, so there are actually 17 and 16 different controls available. (Slider 9 doesn't change when you switch

Continuous Controller (CC) data as well, using the aftertouch sensors. I am a big fan of pressure pads for expression control and was very happy to see this added function, as I am more likely to use it for that than to program a drum machine!

All of the buttons can be set to send MIDI note data or CC information; they can also be set to toggle (push on/push off) or momentary action. The display shows if any of the buttons, including the transport keys, are toggled on, so you can see at a glance which controls are active.

Ports and Zones

The Graphite 49 is seen by the computer as having five output and two input Ports. The first four output Ports allow the Graphite 49 to subdivide the data it sends to your computer, so that one application can watch one Port while another watches a different one. This allows you (for example) to play a standalone virtual instrument from the keyboard, a standalone drum

machine from the pads, and control a mix with the sliders and encoders. Output Ports 1 and 2 can be echoed to the physical MIDI Out when the Local switch is engaged.

Of the two virtual input Ports, one takes data from the DAW and routes it to the physical MIDI Out, so external synthesizers etc. can be sequenced from your DAW. The other virtual input Port, and the fifth virtual output Port, are reserved for remote control of the Graphite 49 itself, so (for example) changing a slider value in your DAW causes the Graphite 49's display to reflect the new value, even though the physical slider can't move on its own.

A different sort of flexibility comes from Zone Mode, where up to four Zones can be assigned different key ranges, MIDI Channels, and so on. This lets you set up splits and layers, control different plug-ins from different parts of the controller, and so forth.

Niceties

There are 30 memory slots for Presets, which hold all Port, Zone, controller value, and other assignments; the first 16 are pre-programmed to be useful for a variety of DAWs and virtual instruments, and the last 14 are user-assignable.

There are octave and semitone transposition keys at the left hand by the wheels, with clearly displayed values on the front panel. The user can select from among several velocity curves for the

message types it can send as 3-digit numbers; the ones from 0 to 127 are conventional CCs (1 is modulation, 7 is volume, 64 is sustain, etc.) but the numbers from 128 to 171 have been arbitrarily assigned to non-CC MIDI messages like RPNs/NRPNS, System Exclusive data, MIDI Machine Control codes, and specialized data like Program Changes, Aftertouch, and even Pitch Bend. The manual explains what each of the 3-digit codes corresponds to, but it can still be a little unnerving for an old-school MIDI user to see the Graphite report that a Slider is sending Controller number 152 when there is no such thing in the MIDI spec!

Tests, talking points, and final thoughts

The Graphite 49 was gratifyingly quick to get working. I was playing software synths, running the mixer and transport functions in my DAWs, and recording expressive data in no time. I was able to whip up a preset that contained my default settings for my DAWs and work seamlessly, in about ten minutes total. I found the Graphite 49 comfortable to play, if a bit lightweight—the “semi-weighted” keys felt pretty much unweighted to me, and my background is more in organ than piano playing, so I have a fairly light touch to begin with.

The pads were comfortable to play and all controls worked smoothly; in particular, I found the acceleration of the encoders very nice, so that single clicks produced

aftertouch as well as velocity curves; the pads and keys are very aftertouch-sensitive compared to many other devices. You can't name your own Presets, nor can you save them to your DAW. And while the display shows MIDI data values sent by the encoders, buttons, and sliders in real time, it'd be good to see pitch, modulation, and aftertouch data displayed as well, and note numbers too.

Hardware functions I'd like to see in a future Samson controller include backlit pads and keys (although the display of what's currently toggled works well), a physical MIDI In port so the keyboard can act as a full MIDI interface, a second pedal input, and a couple of buttons and/or pressure-sensitive pads near the pitch and mod wheels for expressive use. And while I'm dreaming, how about an XY pad or joystick (or both!), a crossfader, and what the heck, how about polyphonic aftertouch?

But I'm not kicking too hard about those omissions, nor am I overly fussed about the few areas that aren't entirely polished yet. Why? Because the Graphite 49 streets at under \$200.

USB keyboard controllers are very handy devices to have in a studio, and it's a shame that more folks don't make a point of keeping one around. But I've heard from a number of home recordists who feel that if you're not a keyboardist per se, a full-sized keyboard controller/remote control surface is an investment that can be hard to justify.

Playability, full control features, and some sweet surprises



keys, and set a different velocity curve for the pads. There's full support for 14-bit data messages like RPNs and NRPNS, too, and the LCD has slots to display values for MSB and LSB (Most and Least Significant Byte) data when doing so.

There's a nifty feature called Mute, which when activated stops transmission of all control-surface functions. When Mute is released, the Graphite 49 sends a snapshot of all current controller values. You can also choose to flip the direction of the sliders so they act as organ drawbars (and since there are nine of them, Hammond emulations are neatly handled).

One noteworthy quirk of the Graphite 49 is that its LCD displays all the different

single steps but one quick twist could max out a parameter. Other little touches that left me smiling included the aforementioned aftertouch-sensitive pads, having dual control banks for the sliders and encoders (with Slider 9 keeping its function as a global volume control), and the fact that every single button could be set to toggle or momentary action (and was clearly indicated as such on the LCD).

Were there things I missed? Of course! I've been playing synthesizers for 30 years and using MIDI since it was invented; I have likes and preferences that weren't entirely fulfilled by the Graphite 49. In terms of things that could be added later in a software update, I'd like to see

But for this price, which would normally only get you a 2-octave keyboard with part of the control surface left off (usually no faders), there is no longer an excuse to not have a full-sized keyboard controller for your DAW. That's especially true when your two hundred bucks gets you a keyboard that offers this much comprehensive control of your DAW, plug-ins, and virtual instruments in such a comfortable and playable form. Check it out. ☺

Price: \$199.99 street

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