TASCAM GigaStudio 3

GigaStudio: 8 miles high . . . and counting

by Mitch Gallagher

Type: Windows-based software sampler
Price: GigaStudio 3 Orchestra, $599; GigaStudio 3 Ensemble, $349; GigaStudio 3 Solo, $199. Upgrade and competitive upgrade pricing available.
Contact: TASCAM, www.tascamgiga.com

Platform: Windows
Formats: Standalone
Polyphony: unlimited; depends on computer system
Plug-in hosting: NFX (Giga format), VST
Sample Resolution: up to 24-bit/96kHz
Mixer: 128 channels with 4-band EQ and compression per channel, 32 fader groups, 8 aux sends/8 stereo aux returns, 32 "external" input channels, 64 output channels

MINIMUM SYS REQS

Orchestra: Windows XP with Service Pack 1, Pentium 4 1.7GHz or AMD 2100 XP, 512MB RAM, GSIF-compatible soundcard or ReWire-compatible host, SSE-compatible processor required for GigaPulse
Ensemble or Solo: Windows XP with Service Pack 1, Pentium III 1GHz or AMD 1500 XP, 512MB RAM, GSIF-compatible soundcard or ReWire-compatible host, SSE-compatible processor required for GigaPulse

Once upon a time, I relied on hardware samplers for all my sampling and sample playback needs — I was perfectly happy with my Akai S1000 and Kurzweil K2000. Software samplers just weren't reliable enough for serious production work and they offered far less performance than you could get with a dedicated hardware sampler. But times have changed, and software samplers have come a *long* way.

The first release of GigaSampler struck a major blow for software sampler acceptance by offering something hardware units really couldn't provide: the ability to stream samples from hard drive rather than strictly from RAM. This innovative concept allowed sound designers to work with extremely long samples, which provided much more realistic results than short looped samples. GigaSampler enjoyed reign as the only real software sampler option for several years.

Now, of course, there are several very powerful competing software samplers on the market. But GigaSampler — now known as "GigaStudio," certainly hasn't rested on its laurels. Version 3, on review here, offers a ton of powerful features — the capabilities have surpassed what most of us will ever use, with one important caveat: Everything depends on your computer. The new version features unlimited polyphony. So if you have a stout-hearted, heavily muscled PC to power GigaStudio, you'll get more notes of polyphony than you can probably use — although voices can be used up very quickly if you have long release times and if you're stacking instruments together, so you can never have too much polyphony on tap. As a benchmark, I ran GigaStudio 3 on a Sweetwater Creation Station CSRack; a 3.2GHz Pentium 4 loaded with 2GB of RAM and dual SATA hard drives. That machine had no problem cranking out 420 voices of 24-bit polyphony; pretty darn amazing.

There's another aspect of GigaStudio 3 that will tax your long-suffering CPU: GigaPulse, the new convolution reverb/ambience/resonance simulator (see sidebar). Suffice it to say, GigaStudio will run on a pretty basic machine. But if you load it up on a firebreathing computer, you'll be amazed at what you can do.

WHAT'S NEW

There are three versions of GigaStudio 3; Orchestra, Ensemble, and Solo. With Orchestra, you get unlimited polyphony, eight MIDI ports, 17 gigs of sounds including custom Vienna Symphony sounds and

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Finger On The Pulse

One of the most powerful components in the new version of GigaStudio is GigaPulse, a convolution processor that can create convincing reverbs, instrument resonance, and mic modeling. Convolution processing has become increasingly common because of the excellent results it can achieve — although often at the expense of a heavy CPU hit. The idea is to record the sound of the hall, mic, or resonance that you want. The recording — called an "impulse" — is then analyzed, and the results can be applied to another sound to make it seem as if that sound were recorded in the same space, with the same mic, or with resonance.

THE GIGAPULSE CONVOLUTION PROCESSOR THAT COMES WITH GIGASTUDIO 3 CAN PROVIDE AMBIENCE AND REVERB, MICROPHONE MODELING, AND INSTRUMENT RESONANCE SIMULATION.

GigaStudio comes with a variety of impulses for reverbs, microphones, and so on, as well as with sampled piano resonance that can be applied to sampled pianos for more realism, or to other sounds as a special effect. GigaPulse supports up to 7-channel surround processing.

two versions of GigaPiano II as well as MegaPiano II, and GigaPulse Pro. Ensemble is the same, but with 160 voices of polyphony, four MIDI ports, 11 gigs of sounds, and GigaPulse SP. Solo has 96 voices of polyphony, two MIDI ports, three gigs of sounds, and GigaPulse SP.

There are a lot of new features in Version 3. Two we've already mentioned: unlimited polyphony and GigaPulse. (See sidebar for more on GigaPulse.) The GigaStudio mixer has been greatly expanded. It can now handle 128 channels, 32 fader groups, eight aux sends/eight stereo aux returns, 32 "external" input channels, and 64 output channels. Each channel now has a 4-band EQ and built-in dynamics processing.

Also new in GigaStudio 3 is QuickEdit, which gives you instant access to instrument parameters. There are four main aspects to QuickEdit: Articulation, Dimensions, Wave, and Keyboard. Articulation contains "synthesis"-type parameters such as envelopes, filters, and LFOs. Dimensions provides access to MIDI controller programming such as cross-switching. Wave lets you click and drag envelope, filter, and LFO curves right on the sample waveform. Keyboard lets you view different properties of the loaded instrument.

You can now Stack instruments — load as many as you want on a single MIDI channel. When you stack instruments, you retain control over each instrument's parameters, and each can be sent to its own mixer channel. Or you can layer so that the entire stack feeds the same mixer channel.

ReWire and VST plug-in support make GigaStudio 3 much more compatible with the outside world. There's more powerful "Capture to Wave," which can now capture up to 64 audio streams simultaneously. And there's even more, such as GSIF 2 kernel-level MIDI and support for 32 channels of audio input and 64 channels of audio output. Plus, samples as large as 512GB — 1/2-terabyte — are now supported . . . big enough for most applications.

LIBRARIES

Depending on which version of GigaStudio 3 you purchase, you're supplied with varying quantities of samples to get you started. "Orchestra" comes with 17 gigabytes of samples, including three large pianos, custom Vienna Symphony Orchestra instruments, and usable demos drawn from a variety of Giga libraries from sound designers such as Larry Seyers, SampleTekk, Sonic Implants, Scarbee, and many others. ➤

FOR THOSE WISHING FOR A WAY TO QUICKLY GAIN ACCESS TO INSTRUMENT PARAMETERS, GIGASTUDIO 3 OFFERS QUICKEDIT. SIMPLY CLICK THE "Q" BESIDE THE INSTRUMENT AND THE QUICKEDIT WINDOW OPENS UP, ALLOWING YOU TO TWEAK SETTINGS TO YOUR HEART'S CONTENT.

THE LAST WORD

GigaStudio 3 performed flawlessly for me. It was completely stable, and provided all the horsepower I needed — although I could see needing all that polyphony for stacking instruments, and so on. Remember you're going to need a powerful computer with fast hard drives to get the most from it.

Star among the new features, GigaPulse is a powerful tool that can add an even greater degree of realism to your sounds. The reverb impulses sound great, and being able to apply mic models and resonance is a great bonus. And QuickEdit makes tweaking instruments into exactly the shape you need much faster and easier; the parameters required are all right there, close at hand. Very nice.

All in all, GigaStudio 3 is a worthy upgrade to an already-powerful studio tool. If you're already a GigaStudio user, you'll definitely want to upgrade. If you're looking for a new software sampler, GigaStudio offers a lot of power in an easy-to-use package. GigaStudio 3 is a mature, solid program. Definitely a winner for TASCAM. EQ

Strengths:

- Unlimited polyphony (as much as your computer can deliver)
- GigaPulse
- QuickEdit control
- ReWire support
- Great sound quality

Limitations:

- Windows XP-only
- Power-hungry