

EQ In Review: NemeSys GigaSampler

If you've got the RAM, NemeSys' GigaSampler is a powerful tool for sampling and editing

By Francis Preve

More memory — what musician doesn't crave a sampling arsenal with more memory? Sure, many samplers come with 8 MB or more RAM, but at 44.1 kHz, that's only about 90 seconds of mono sampling — enough for a few loops and an instrument or two, but hardly luxurious. So many musicians end up investing a few hundred dollars to max out their sampler's memory, and hope that will be enough.



NemeSys has come tantalizingly close to finally solving this sampling limitation. Their debut product, GigaSampler, is a program that runs on Windows computers and doesn't even use memory in the traditional sense. The software streams audio from the hard drive itself, effectively making it a real-time, MIDI-controlled, hard-disk recorder that behaves like a wonderfully flexible — and unusually responsive — sampler. (You do need a hefty amount of system RAM, but this is mostly to maximize polyphony and minimize latency. More RAM allows more voices and loading more samples; for example, 128 MB of RAM provides 64 voices and "slots" for over 1200 samples.)

Hardware Requirements

While running GigaSampler on the minimum recommended system (Pentium 166 MMX with 32 MB of RAM) will work, this reduces polyphony to about 20 notes and compromises integrated audio/MIDI sequencing options. Getting the most out of GigaSampler requires a far more powerful computer (see System Requirements in the EQ Lab Report section); current PCs in the \$1500–\$2000 range will generally do the job. Up-to-the-minute configuration information — like which sound cards and hard drives are 'certified' and which ones to avoid — are posted on the NemeSys Web site.

Getting Started

Loading GigaSampler onto a PC is fairly straightforward — the installer even scans your system to help determine the best configuration. Also included is an AVI-based, animated help system that visually walks you through each function.



One of the nicest aspects of this app is its synergy with various other audio and MIDI programs. Though GigaSampler comes bundled with SampleWrench XE (an excellent wave editor), you can substitute Sound Forge or any other. The same flexibility applies to sequencing tools; just indicate which sequencer is installed on your system, and GigaSampler will integrate with it seamlessly.

One caveat: sequencers with audio recording capabilities (e.g., Cubase VST, Cakewalk Pro Audio, etc.) may not behave appropriately with GigaSampler, as both programs are essentially disk-based recorders that compete for the same system resources. To use GigaSampler in a digital audio recording environment, consider dedicating a separate system to it.

Editing Features

SampleWrench XE covers all of the essentials like cut/copy/paste, loop adjusting and normalizing, along with a few extras like DC offset control and some time-based effects. If you've worked with CoolEdit or other waveform editing tools, you'll feel right at home with the user interface and functionality.

Also included is S-Converter, an Akai format translator that extracts both wave and keymap information from Akai-formatted disks and CD-ROMs. I tried this tool with several different Akai libraries and was pleasantly surprised at how quickly and accurately it converted programs, keeping relative volumes and other key data intact.

With GigaSampler's nearly unlimited memory, rolling your own sounds and instruments could have been an ordeal. However, the program provides a wonderfully elegant keymap editor that accomplishes everything from assigning key regions to setting velocity ranges via an intuitive drag-and-drop interface. This makes dealing with large groups of multisamples relatively painless.

Bread-and-butter synthesis tools like multi-mode filters, ADSR envelopes, and flexible LFOs are also provided. Though not exactly a raw synthesis powerhouse, GigaSampler has enough editing features to satisfy most sound design situations, and then some.

Real-time MIDI control is another strong point. Using the "Dimensions" feature, almost any parameter (or group of parameters) can be modulated in realtime via MIDI controller information. Combined with the ability to access up to 32 different samples per key (!), this can lead to some unbelievably expressive instruments, as ably demonstrated by several of the included patches.

The Sounds

The days of sampled pianos that fall way short of the ideal are over: NemeSys spent months toiling over what is undoubtedly the finest sampled piano ever bundled with a program, the aptly named "GigaPiano."

This baby contains 408 samples, taken every two or so keys, with a total of seven different velocity switches depending on the pedal position. The result is awe-inspiring. Every nuance shines, from the undampened top octave, to sympathetic resonances when the sustain pedal is held. It's all there — in stereo — totaling one glorious gigabyte and worth every bit.

In addition to this gem, NemeSys has included a generous selection of sounds, ranging from various drum and groove loops to gorgeous symphonic excerpts from the East-West sample libraries.

While the quality and assortment of bundled instruments and snippets cover a wide range of musical styles, most users will probably purchase additional sample volumes. Fortunately, NemeSys has converted a sizable portion of the East-West catalog for the aftermarket crowd. Add to this the Akai collections, and almost every sonic base is covered — no small feat for a brand new musical instrument.

Conclusions

NemeSys could have a huge hit on their hands, what with nearly unlimited memory, squeaky-clean audio, powerful editing tools, solid software integration, and a piano that truly kicks. This is a remarkable new tool for musicians and studios alike.

In fact, while experimenting with GigaSampler, I couldn't help but come up with alternate applications for this type of interactive audio playback. For example, Foley sound effects compositing (with entire sound effects libraries available instantly), interactive DJing and groove remixing (a different song under each key), and real-time post-production dialog and music transfers.

At \$795 (PC sold separately), GigaSampler seems poised to give hardware samplers a run for their money — especially since when your session is done, you also have a computer. For tighter budgets, NemeSys now offers individual GigaSampler components a la carte, with the sampling application (GigaSampler LE v1.5) listing at \$199, and the GigaPiano and other elements available separately. If you run a PC-based studio or use samplers, this is a program that demands your attention.



EQ Lab Report

MANUFACTURER:	NemeSys Music Technology, Inc. 13625 Pond Springs Rd., #202 Austin, TX 78729. Tel: 512-219-9181. E-mail: info@nemesysmusic.com . Web: www.nemesysmusic.com
APPLICATION:	PC-based sampling and interactive digital audio tool.
SUMMARY:	Radical new sampling technology relies on real-time playback of samples from hard drive instead of RAM, to great effect.
STRENGTHS:	Sample sizes limited only by hard drive space; incredible piano sound; sequencer/sample editor integration; extensive real-time control via MIDI; solid editing tools; Akai sample-conversion utility; AVI-based help features; terrific bang for the buck.
WEAKNESSES:	Not available for MacOS or Windows NT; requires a high-powered desktop system (marginal laptop support); no advanced synthesis resources.
SYSTEM REQUIREMENTS:	Pentium II 266 MHz, Windows 95/98, 64 MB RAM, 6.4 GB Ultra DMA, IDE or SCSI hard drive with 512k cache, SVGA display, CD-ROM or DVD drive, MIDI interface, GIGA or DirectSound compatible sound card.
PRICE:	\$795, full version; \$199, LE version.



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