Newly established Hartmann Music unveils revolutionary NEURON Synthesizer at 2002 Winter NAMM

Anaheim, CA (January 17, 2002) — The newly-founded German synthesizer company Hartmann GmbH enters the market with the revolutionary NEURON Synthesizer. Based on adaptive sound analysis technology, NEURON offers an entirely new approach to creative sound synthesis and marks a breakthrough in 21st century synthesizer design. NEURON combines intelligent analysis and synthesis based on neural networks with innovative user interface design. The result is a completely new type of synthesizer offering spectacular and unique sounds inside an easy-to-use instrument.

NEURON’s intelligent software allows the user to first analyze and then manipulate any sound source in a completely new and different way. With its neural network controlled adaptive sound analysis, NEURON automatically identifies a sound’s most specific qualities and translates them into individual parameter sets, perfectly matching the original source sound. All aspects of the sound are saved in a model, which can be instantly recalled and played. Instead of applying the same parameters to every type of sound, NEURON learns from the sounds fed into it and automatically assigns suitable parameters to each type of sound.

HARTMANN President and co-founder Axel Hartmann: „For more than 15 years, musicians had to wait for a really new and thrilling synthesizer. Now the wait is over. The era of sample-based workstations and virtual analog modeling synths has dragged on far too long. NEURON is an entirely new type of instrument, based on our proprietary technology called ‘Neuronal Synthesis’. Musicians will experience a whole new universe of sounds impossible to create with any other instrument available today."

Despite its power, NEURON’s user interface is both intuitive and easy-to-use. Custom designed controls like the new graphic supported stick controllers and rotary encoder wheels provide accurate and smooth control over each parameter. A flexible modulation engine and full parameter automation allow for dynamic editing and realtime recording of parameter changes. In addition, no less than 13 alphanumeric displays provide instant feedback over the current status of the instrument.

Sounds originate in two so-called resynators, each of which generates a sound based on the models stored on NEURON’s internal hard drive. Using the Blender function, these two models can be mixed and merged in a variety of different ways, creating totally new sounds based on the individual models. For example, a three-dimensional imprint of one model can be used to manipulate the spectrum of another model. The possibilities are virtually unlimited. In addition, complex sounds can be filtered and processed in many different ways. NEURON not only offers powerful realtime effects: it is also the first synthesizer to provide full 5.1 surround panning and processing capabilities.
Under the hood, NEURON features a powerful DSP engine with 64-bit floating point precision and a 32-bit signal path, as well as 256 megabytes of RAM. A 10 GB internal hard drive holds factory-programmed and user-defined neural synthesis models. Internal memory consists of 200 sound and 200 setup memory locations, including a convenient snapshot function. External backup storage devices (such as CD-writers, hard drives and memory sticks) can be added using the integrated USB interface. Depending on the structure of the chosen neural synthesis model, NEURON offers 16-48 voice polyphony. Its 6 audio outputs can be flexibly configured, from 6x mono to 5.1 surround. The 5-octave semi-weighted keyboard offers velocity control and channel aftertouch.

Stephan M. Sprenger, NEURON DSP software designer and mastermind behind NEURON’s synthesis technology: „This instrument represents a novel approach to sound synthesis. For the first time ever, the flexibility of our audio rendering technology is combined with neural model extraction, built into a powerful stand-alone synthesizer. Still, everything is realtime controllable - thanks to the extremely powerful processing hardware we’re using.“

The NEURON Neuronal Synthesizer will ship this spring to selected retailers worldwide at a suggested retail price of USD 4,990.00 (€ 4.890,00).

Hartmann GmbH, based in Torkenweiler/Germany, was founded in April 2001 by renowned German synthesizer designer Axel Hartmann. Axel Hartmann is the interface designer responsible for such remarkable instruments as the Waldorf Wave and the Alesis A6 Andromeda. His list of clients include companies like Access, Alesis, Antares, Creamware, Korg, Line 6, Novation, Steinberg, and Waldorf. Stephan M. Sprenger is senior developer and director of research and development at PROSONIQ Software, renowned German manufacturer of computer-based audio editing and digital signal processing solutions. PROSONIQ provided the essential key technology for NEURON’s innovative synthesis methods. Sprenger is a pioneer in neural network processing. His design work for NEURON is based on more than a decade of research and development in the area of adaptive sound analysis and synthesis.

For more information, please contact Hartmann GmbH, Tettnanger Str. 311, D-88214 Torkenweiler – www.hartmann-music.com. Dealers and Distributors are welcome to contact Achim Flor (Director of Sales) – flor@hartmann-music.com – phone +34 922 726 330, fax +34 922 726 331.