VERASONICS LAUNCHES SOFTWARE UPDATE ON VANTAGE™ SYSTEM TO ADVANCE INNOVATION BY ULTRASOUND RESEARCHERS

New Features and Products Improve Performance, Flexibility and Speed in Ultrasound Research

Kirkland, WA, June 30, 2022 – **Verasonics**, leader in research ultrasound, today announced it has released a new software update to the Vantage Research Ultrasound System available for customers. The new software update introduces new features and products that can advance enablement of innovation by researchers using ultrasound in a wide range of applications areas across biomedical and materials science. New features and products include enhancements to high-performance computing with the introduction of the GPU Toolkit Option, updates to its NDE Research Software, and the introduction of the GE-408 Backshell Kit**.** This Vantage software update will be available today, June 30, 2022, at no cost to customers.

"We listened to our customers and are pleased to offer this significant Vantage software update next month," said Jon K. Daigle, President and Chief Executive Officer at Verasonics. "It addresses bottlenecks that can occur related to GPU performance, adds Plane Wave Imaging to our NDE Research Software, and opens up new possibilities for transducer development."

New Vantage System features and products include:

GPU Toolkit Option

The Verasonics GPU Toolkit Option improves performance and ease of use. Researchers can now process data on the GPU more efficiently by reducing memory copy times and latency while increasing frame rate.

The GPU Toolkit Package includes an NVIDIA GPU card, Specialty Host Controller, and software license. New tools include:

- User-selected memory allocation of the Vantage buffers used in the image reconstruction process.
- Event profiling that allows users to see timing information for each operation in the event sequence. This provides users with the information they need to efficiently identify bottlenecks in their data processing pipeline so they can focus their optimization efforts.
- A software utility for MATLAB® that simplifies the process of compiling CUDA source code into .mex files that can be utilized with the Vantage External Process functionality.
- A pair of example scripts that illustrates how to properly write synchronous or asynchronous acquisition sequences that leverage GPU external functions.

NDE Research Software

This Vantage System upgrade adds the following new features to Versonics' NDE Research Software:

- Plane Wave Imaging for NDE: all native imaging modes, inspection geometries and custom user imaging modes are fully compatible with plane wave acquisition.
- Enhanced user customization options that improve versatility of Vantage. Users may now import custom functions to directly modify the RF data buffer between acquisition and image reconstruction. This additional layer of custom signal processing can be used in conjunction with both native and custom imaging.
- Arbitrary transmit waveform can be specified with Vantage. Together with custom processing, users are enabled to incorporate their own pulse compression or other signal coding techniques into the software. Additionally, arbitrary array geometries are supported allowing, for example, the use of curved or conformable arrays.

GE-408 Backshell Kit and UTA 408-GE Firmware Update

Verasonics continues to expand options for researchers developing custom probes with the introduction of the GE-408 Backshell Kit, providing expanded flexibility in connection capability to the Vantage® Research Ultrasound System. This new Backshell Kit is recommended to researchers developing non-muxed transducers for use with the UTA 408-GE. The GE-408 Backshell Kit features high-performance shielding and a pin-out arrangement designed to reduce crosstalk.

New firmware has been added to the UTA 408-GE enabling automatic selection between GE Healthcare's proprietary HVMux programming when used with GE Healthcare Probes. Alternatively, researchers may take advantage of Verasonics' HVMux programming with custom probes. By allowing the use of Verasonics' HVMux implementation, users may utilize the HVMux to enable bias or electrical switching between rows and columns of row-column array transducers.

About Verasonics, Inc.

Verasonics is a privately held company founded in 2001, with headquarters in Kirkland, Washington, USA. Verasonics is the leader in research ultrasound and is focused on providing researchers and developers with the most advanced and flexible tools enabling them to develop new algorithms and products used in biomedical ultrasound, materials science, earth sciences, and the physics of acoustics and ultrasonics. Verasonics also licenses its technology to companies for use in their commercial products. Researchers in 36 countries across North and South America, Europe, Asia and Oceania routinely use Verasonics product solutions to advance the art and science of ultrasound through their own research efforts.

Learn more by visiting the Verasonics **website** or following us on **LinkedIn** and **Twitter**.

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