

Reporting and Review – Anywhere, Anytime

By enabling offline image reporting and post-processing of ultrasound images, *syngo* US Workplace contributes to enhanced clinical workflow, making the most efficient use of time and clinical resources.

By Barbara Boughton

Siemens Medical Solutions has expanded its unique software for diagnostic and therapeutic cycles, *syngo*®, to comprise advanced ultrasound applications. “With *syngo* US Workplace, the clinician can review studies on an offline personal computer (PC). This frees the ultrasound system to do what it is best designed for – acquiring ultrasound exams. *syngo* US Workplace allows for improved patient throughput and reduces scheduling conflicts,” says Dan Russell, Product Manager at Siemens Medical Solutions Ultrasound Division.

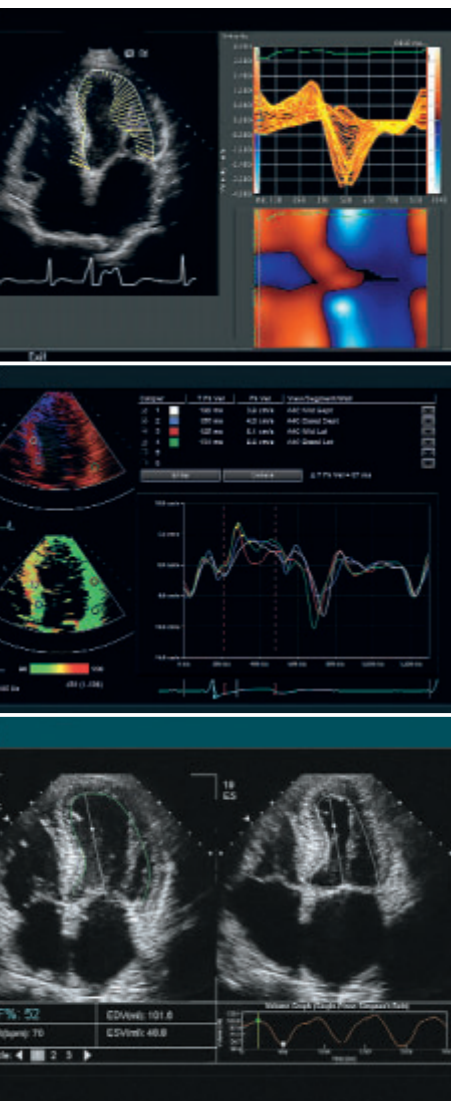
The main ultrasound platform should be ideally used for patient scans, which is the idea

behind separating out data analysis. When the ultrasound platform has to be used for analysis, time for patient scans is limited. *syngo* US Workplace allows for comprehensive analyses of, for example, cardiac function – as well as image postprocessing and remeasurement – to be performed in parallel, away from the ultrasound platform. The result is smoother, self-paced workflow, leading to increased productivity, an improvement in the bottom line, and savings in healthcare dollars.

syngo US Workplace features advanced clinical applications that can be performed anywhere, anytime. This provides the clinician with the



syngo US WORKPLACE features advanced clinical applications that can be performed anywhere – in the physician’s office, the hospital’s meeting room, or even at home – and anytime.



syngo VELOCITY VECTOR IMAGING (top), *syngo* Quantitative Synchrony Tool (middle), and *syngo* Auto Ejection Fraction (bottom) are among the clinical applications currently available for *syngo* US Workplace.

freedom to schedule assessments at convenient times, making work more efficient. Utilization of the ultrasound system becomes more efficient as well, with increased patient throughput. With this anywhere, anytime applicability, *syngo* US Workplace enables optimized decision-making, greater diagnostic confidence, and optimum care. These advantages benefit both the clinician and the patient.

Flexibility and Power

syngo US Workplace is an adaptable and scaleable solution. It can be seamlessly integrated into information technology (IT) workflow – from the individual PC to department-wide or network-wide computer systems. The software currently contains a variety of powerful clinical applications that allow ultrasound imaging combined with advanced data analysis, including:

- *syngo* Velocity Vector Imaging™, a technology that uses individual vectors to display direction and relative velocity of tissue motion from frame to frame in cardiovascular applications. This technology makes it possible to analyze the direction of movement as well as the velocity of individual heart segments. The result is that the cardiologist can instantaneously measure motion at any point in the cardiac cycle, and capture cardiac contraction-relaxation mechanics. Among other applications, it enables rapid assessment of ventricular synergy in heart failure.
- *syngo* Auto-tracking Contrast Quantification™ (ACQ), a monitor of contrast uptake by cardiovascular tissue that generates time-intensity curves for quantitative assessment of contrast agent appearance and uptake. ACQ improves accuracy and reproducibility when compared to visual assessment.
- *syngo* Quantitative Synchrony Tool™ (QST) is used for quick visual assessment of ventricular synchrony. QST provides a visual map of myocardial timing mechanics and displays individual time-to-peak calculations in cases where dyssynchrony is suspected. Assessment tools enable the clinician to calculate strain, strain rate, velocity and

displacement in cardiac wall motion. *syngo* QST helps physicians gather data on patients and allows them to assess which patients require resynchronization, as well as predicting response to resynchronization therapy. The tool has been shown to be extremely cost-effective in scientific studies.

- *syngo* Auto Ejection Fraction™ (Auto EF) is a technology that enables automated, rapid and reliable measurements of the cardiac ejection fraction. Because no manual tracing is required, workflow progresses more rapidly, and subjective errors are reduced. *syngo* Auto EF calculates ejection fraction with more than 90 percent accuracy. Images of end diastole and end systole are displayed along with numerical data and graphs – all on the same screen.
- *syngo* fourSight™ TEE View is an integrated solution for transesophageal imaging on the ACUSON Sequoia™ and ACUSON CV70™ echocardiography platforms using the V5M transducer. Delivering ease of acquisition and rapid access to 3D images for clinicians, anesthesiologists, interventionalists, and surgeons, the TEE View clinical application allows the user to review, manipulate, and display dynamic gated 3D TEE datasets.
- *syngo* fourSight™ ViewTool 2.0 is an offline software solution providing OB/GYN physicians with the convenience of reviewing and analyzing ultrasound images, clips, and volumes without interrupting patient flow on the ultrasound system. ViewTool 2.0 will be integrated into the *syngo* US Workplace in February 2007. “This move will allow for greater connectivity across the entire Siemens family of ultrasound platforms and a significant addition to the OB/GYN and radiology marketplaces” says Josh Vose, Market Manager for Offline Solutions at Siemens Ultrasound Division.

Expanded Applications for Ultrasound Platforms

Currently, the clinical applications on *syngo* US Workplace are available for use with images acquired from the ACUSON Sequoia ultrasound platform. However with version 2.0 scheduled for early 2007, the applications will become available to use with images from other ultrasound platforms as well, such as the ACUSON Antares™ and the ACUSON CV70, as well as competitors' platforms. "*syngo* US Workplace will have very wide applicability when it can be used with images from the full Siemens product family as well as other ultrasound platforms," says Vose. "We look forward to helping physicians streamline their ultrasound workflow regardless of which platform they own."

Features of this innovative technology are continually evolving as more applications are added, and software support is available on a continuous basis. Updates are added regularly so that clinicians are able to use the newest technologies in making diagnoses and treating patients. No matter which field of medicine is involved, in the realm of ultrasound imaging, 'anywhere, anytime' is *syngo* US Workplace's answer to the medical professional's need to have all relevant information available at the right point and time.

Author: *Barbara Boughton is a medical writer based in Berkeley, CA. Her articles have appeared in publications such as the Lancet Oncology, Journal of the National Cancer Institute, Radiology Today, Diagnostic Imaging and many others.*