

## PRESS RELEASE



PO BOX 527  
BURLINGTON, VT USA 05402  
www.ascension-tech.com  
802.893.6657

MEDIA CONTACT  
Anna W. Januszczuk  
ajanuszczuk@ascension-tech.com  
802.893.6657 x10



## Ascension Tracking Adds Third Dimension To GE's New Product

### GE Launches New Ultrasound Platform With Extraordinary Imaging Features

**BURLINGTON, VERMONT; January 20, 2009.** GE Healthcare has launched a new ultrasound system, LOGIQ® E9, a powerful imaging system used for radiology and vascular applications. It is enabled in part by Ascension's 3D tracking technology. The E9 includes Volume Navigation, an innovative tool to maximize the system's new agile ultrasound architecture: (1) Fusion to combine the advantages of real-time ultrasound

imaging with pre-acquired CT, MR, or PET images, and (2) a GPS-like technology that tracks and marks a patient's anatomy during the ultrasound exam.



Ascension's DC magnetic sensors enable real-time tracking of the LOGIQ E9's scanhead for volumetric measurement and fusion of pre-acquired and real-time imaging planes. The tracking allows clinicians to view clear, crisp three-dimensional images of anatomical data. Tracking electronics reside in the E9's base station and sensors snap onto the ultrasound scanhead for 3D localization.

Ascension Technology, a long time developer of magnetic tracking devices for medical imaging and instrument guidance, makes the "GPS-like technology." It instantly localizes the position and orientation of the ultrasound scanhead as it sweeps across a region of interest. The tracking allows clinicians to create and view three-dimensional images of scanned organs, make accurate measurements along the path of the sweep, and mark as well as view potential pathologies in different scan planes.

GE's new image fusion capability takes advantage of the tracker's real-time measurement of the oblique angles of the scanhead's sweep across the patient's anatomy. Tracked planes can then be fused with pre-acquired CT, PET, or MRI scans to overlay one imaging modality onto another or compare the two side-by-side. The process combines the best features of each modality to improve procedural vision and real-time guidance. According to GE's Vice President of Diagnostic Ultrasound and Information Technology, Terri Bresenham, "the LOGIQ E9 addresses the biggest challenge in ultrasound radiology and vascular care -- how to leverage clinical images from previous diagnostic imaging studies with interventional or diagnostic ultrasound."

To watch a brief video clip of the LOGIQ E9's fusion feature, click on this link from *Image Technology On-Line News*: <http://www.itnonline.net/node/29859>

To meet GE's fusion requirements, Ascension developed 3D Guidance driveBAY<sup>®</sup>, the world's fastest magnetic motion tracker. It lets users select update rates as high as 420 times per second for each of four miniaturized sensors. For unobtrusiveness and ease of use, sensors range in size from 8 mm to 0.9 mm in diameter. All electronics conveniently fit into the drive bay of the E9's base computer and uses its on-board power. Sensors are tracked in all attitudes without losing data due to occlusions.

driveBAY employs pulsed-DC tracking technology to control the distorting effects of non-magnetic metals in the immediate working area. It is the only magnetic tracker unaffected by common nearby metals, such as stainless steel (300 series), titanium, and, with user selectable frequency adjustment, aluminum. Advanced control techniques provide high signal-to-noise performance for stable, quiet measurements. driveBAY also eliminates jitter in measurements caused by "power-line" noise sources -- without reducing its fast, dynamic tracking.

**For more information about GE HEALTHCARE:**

GE Healthcare's broad range of products and services enable healthcare providers to better diagnose and treat cancer, heart disease, neurological diseases and other conditions earlier. GE Healthcare is a \$17 billion unit of General Electric Company (NYSE: GE). Worldwide, GE Healthcare employs more than 46,000 people committed to serving healthcare professionals and their patients in more than 100 countries. For more information about GE Healthcare, visit [www.gehealthcare.com](http://www.gehealthcare.com).

**For more information about ASCENSION TECHNOLOGY CORPORATION:**

Based in Burlington, Vermont, USA, Ascension is a world leader in magnetic and optical products for real-time tracking, navigation and guidance in surgical navigation and 3D localization procedures. Its new generation of 3D Guidance tracking devices is a key enabling technology for many minimally invasive procedures. For more information about Ascension Technology, visit [www.ascension-tech.com](http://www.ascension-tech.com).

*Biomedical references and procedures described herein are examples of what can be accomplished with tracking and imaging technology once end users and/or systems integrators have complied with all pertinent FDA/CE/IRB directives.*

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