



Ascension
Technology Corporation
Making Minimally Invasive Possible

PRESS RELEASE

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World's Smallest Magnetic Sensors Enable New Generation of Image-Guided Procedures

Ascension Announces Breakthroughs in Catheter Navigation at TCT 2007

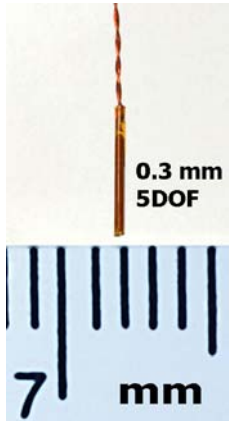
BURLINGTON, VERMONT; October 19, 2007: Ascension Technology Corporation will showcase new sensors for 3D tracking of catheters, needles, and guidewires as well as new technologies for overcoming metal and noise interference at **TCT 2007** -- the **Transcatheter Cardiovascular Therapeutic Conference and Exposition**, in Washington, D.C., October 22-24, 2007.

The company's new **3D Guidance MedSAFE™** tracker supports real-time tracking of sensors 0.27 – 0.3 mm in diameter to accommodate localization of small needles, catheters, and guidewires. Tiny sensor coils broaden the range of medical instruments that can benefit from image guidance. Key advantages include: inconspicuous guidance of surgical navigation instruments, environmental immunity, and fast, simultaneous tracking of multiple sensors to overcome temporal misalignment of tracking and imaging datasets.

3D Guidance MedSAFE fully meets electrical safety regulation and is classified as a Class 1, Type CF, Defib Proof device for use within the human body. Measurements are unaffected when tracking in close proximity to intravascular ultrasound arrays, composite beds, low frequency noise sources, and common hospital metals, such as 300-series stainless steels, titanium, and aluminum.

When used with its flat magnetic field generator, **3D Guidance MedSAFE** measurements are also immune from ferromagnetic metals beneath its planar surface, such as structural members in OR and

procedural tables. Ascension's current "radiopaque" flat transmitter is designed for procedures not requiring fluoroscopy. Under development is a "radiolucent" flat transmitter, containing an open center, for compatibility with X-ray fluoroscopy. It enables accurate 3D tracking, near a C-Arm fluoroscope, without degradation or signal loss.



Picture it: a 0.3 mm sensor as tall as "l" and as wide as "."

This sensor can be integrated into catheters and needles as small as 3 French/20 gauge. Microminiaturized sensors accurately measure the X, Y, Z position and yaw, pitch orientation (five degrees of freedom) of embedded coils, up to 375 times a second at accuracies in the millimeter range. Its assembly addresses the clinical requirement for unobtrusive integration of sensors into a wide range of tools for in vivo visualization and navigation. Sensors ranging in size from 1.3 to 1.8 mm wide are available for six degrees-of-freedom tracking of instruments.

Jack Scully, Ascension's Vice President of New Business Development, states, "Now that our third generation DC magnetic devices are operational, we are focusing on environmental issues that have limited widespread use of navigational devices in flexible surgical tools. At TCT, we'll show the results of ongoing work to integrate 3D tracking into image-guided tools that are easy to use, low profile, and highly reliable."

At TCT, 3D **Guidance MedSAFE** will be shown integrated with medical imaging software from Cedara, Inc. (www.cedara.com). Its **NavAssist™** software provides the building blocks for the creation of customized software solutions for image guidance and visualization.

3D Guidance MedSAFE will be shown in **Booth #1106 (Level 2)** at TCT 2007. Representatives will be on hand to provide information about Ascension's tracking products and their diverse medical applications.

Ascension Technology Corporation, based in Burlington, Vermont, USA, is a world leader in magnetic guidance and localization solutions for medical navigation. See www.ascension-tech.com or contact Trish Scott at 802-893-6657, ext 34.

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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