



## MEDIA RELEASE

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# New Optical Tracker For Image-Guided Procedures

## spotLIGHT Tracker Offers World Class Performance At 1/3 Price of Competitive Systems

BURLINGTON, VERMONT, USA; November 26, 2011. **Ascension Technology Corporation** will demonstrate 3D Guidance spotLIGHT, its breakthrough optical tracker for computer-assisted procedures and image-guided radiation therapy at the Radiological Society of North America (RSNA) Conference ([RSNA 2011](#)) in Chicago, November 26 – December 1, 2011.

spotLIGHT takes advantage of state-of-the-art advances in IR camera technology, signal processing algorithms, and prediction to **track the six degrees-of-freedom location of multiple passive markers on the patient to within one third of a millimeter at rates up to 100 times per second.**

Measurements are referenced to 3 to 12 miniature IR cameras that can be independently mounted at convenient locations in the medical environment or fixed on a track bar.

Tracking range (cameras to markers) extends to 3+ meters. The six-camera configuration offers significant redundancy to overcome line-of-sight errors; only two cameras must see markers to compute a solution.



Ascension's new optical tracker precisely localizes passive, wireless markers for image-guided procedures and aligning radiation beams with real-time changes in a patient's position.

**spotLIGHT's large number of cameras and long range operation empowers numerous medical applications** including:

- Real-time tracking of patients and tools during CAT procedures.
- Alignment of patient with pre-operative MRI images as well as fusion with intra-operative CT images.
- Monitoring patient motion in PET and MRI bores to correct “blurry” data during image reconstruction.
- Addition of real-time image-guided therapy benefits to intraoperative MRI imaging studies.
- Optical tracking of patients and tools during spinal surgery to align target anatomy with pre-operative CT images.
- Precise positioning of transcranial magnetic stimulation coils registered to MRI imagery for stimulating targeted areas of the brain only.
- Localization of limbs and surgical instruments during orthopaedic surgery for accurate alignment of joint replacements and precision implantations.

According to Ascension Vice President, Jack Scully, “spotLIGHT is a new affordable tool for computer—assisted therapy and surgery. In addition to real-time navigation, spotLIGHT provides instantaneous cues for patient alignment, monitoring and precise targeting of pathology.”

**RSNA Exhibition:** [Booth #9339, North Building, Hall B.](#)

For more information, contact Trish Scott: [tscott@ascension-tech.com](mailto:tscott@ascension-tech.com).

**Ascension Technology Corporation** is a professional 3D tracking company specializing in 3D tracking, navigation, and localization of medical instruments. Its optical and magnetic tracking devices are key enabling technology for image-guided procedures. spotLIGHT is a multi-purpose tracker with miniaturized modular cameras to overcome occlusions and precisely target anatomy. Additional information is available at: <http://www.ascension-tech.com>.

*3D Guidance spotLIGHT is specified for medical use only in compliance with all pertinent FDA/CE/IRB directives.*

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