

## PRESS RELEASE



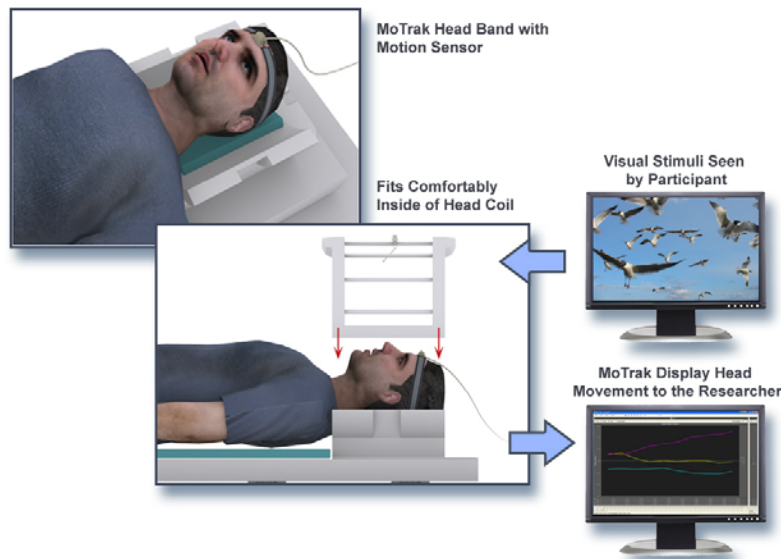
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## Psychology Software Tools, Inc. – Using Ascension’s Flock of Birds<sup>®</sup> to Improve MRI Studies

BURLINGTON, VERMONT; November 9, 2009: **Ascension Technology’s Flock of Birds** is being used by **Psychology Software Tools** in **MoTrak™** -- a new motion tracker for use in an MRI simulator. MoTrak uses real-time sensing of head motion to help condition MRI participants to keep their head still during an MRI scan.



**MoTrak** is a new motion tracker for use in an MRI simulator to help optimize the efficiency of functional MRI scans. It uses magnetic tracking and audio/visual feedback techniques to train children, elderly, and psychiatric patients to keep their heads sufficiently still to produce clear images. It also helps overcome claustrophobia and anxiety that often leads to the termination of a scan before completion.

PST’s mission -- to create innovative and affordable technologies and solutions, which improve the efficacy of human behavioral research, assessment, and education – includes a focus on functional Magnetic Resonance Imaging (fMRI). It measures changing blood flow in the brain while an activity is performed, but requires long

periods of scanning with minimal participant movement. Movement as little as 3 mm can result in unusable data and wasted resources.

Ascension's Flock of Birds enables MoTrak to monitor how much an MRI participant moves while a simulated scan is in progress. This data is used to train a participant on how much motion is too much, ultimately minimizing critical data loss.

Using a sensor attached to the participant's head, the Flock tracker determines head position in the MRI simulator relative to its fixed transmitter. The sensor records angular rotations as well as positional displacements from an initially calibrated position. This information is displayed and logged by the program in real-time, allowing observation of head motion in the MRI simulator. The researcher can set thresholds of movement that are acceptable, borderline, and excessive. When participants move into these thresholds they will hear and/or see feedback. The feedback can be as simple as a beep, or as sophisticated as a video game or movie presented on a screen in the MRI simulator. This helps the participant understand just how sensitive the scan is to motion.

Children, the elderly, and psychiatric participants can be prone to claustrophobia and anxiety and have a much higher rate of terminating scans before completion. Some imaging centers estimate a 50%-80% failure rate when testing these populations. MoTrak training leads to greater comfort during an actual procedure and can reduce failure rate to as little as 5%.

Psychology Software Tool's President and CEO, Anthony Zuccolotto, states that PST chose the Flock tracker because it provides the best response accuracy for six degrees-of-freedom data. It also has the highest quality sensitivity of motion. Zuccolotto adds, "Coincidentally, and independent of our decision, this tracker was less expensive than other tracking products providing six degrees-of-motion sensing. Improved quality of scan data for fMRI researchers is a direct result of Ascension's Flock of Birds."

Jack Scully, Ascension's Vice-President for New Business Development, adds, "Ascension trackers are expanding research and diagnostic possibilities for physicians and medical researchers worldwide. PST's Mo-Trak and MRI Simulator are good examples of how 3D tracking helps target and improve the efficiency of fMRI research procedures."

Psychology Software Tools, headquartered in Pittsburgh, PA, was founded by esteemed behavioral research scientist Walter Schneider, PhD and was incorporated in 1987. More information about the solutions offered by PST is available at [www.pstnet.com](http://www.pstnet.com) or from Gretchen Archer, Marketing Coordinator, at [Gretchen.Archer@pstnet.com](mailto:Gretchen.Archer@pstnet.com).

Ascension Technology Corporation, based in Burlington, Vermont, USA, is a world leader in magnetic tracking solutions for biomedical, virtual reality, and medical applications. More information about Ascension trackers in similar applications is available at [www.ascension-tech.com](http://www.ascension-tech.com) or from Joanna Harrington at 802-893-6657, ext 44 or [jharrington@ascension-tech.com](mailto:jharrington@ascension-tech.com).

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