

InterSense® Motion Tracker Applications

Thales' line of InterSense motion trackers and advanced sensor fusion algorithms tightly connect the physical world with the digital world for devices and applications across consumer, professional and defense markets. Thales is the leader in 3D motion tracking technology, creating a range of sensors, trackers and IMUs that meet the need of any tracking application. Thales' advanced 3D motion-tracking technologies enable intuitive and efficient hand, arm, body, head and object tracking capabilities translating the actions of the physical to a response and action in the virtual or digital world.

The Thales InterSense motion tracking products are industry leading solutions, being integrated into the next generation position, navigation and stabilization systems. The product family includes 3-DOF inertial trackers, such as the InertiaCube MEMS devices and 6-DOF trackers such as the IS-900 hybrid ultrasonic / inertial tracking system for military and commercial systems, and the revolutionary, new IS-1200+ Hybrid Optical based Inertial Tracker (HOBIT) tracker. Applications of the Thales InterSense products range from sports biomechanics, physical therapy, simulation and training/motion capture, motion tracking, immersive displays, and helmet tracking.

InertiaCube MEMS Sensor

Thales's 4th generation MEMS inertial technology, InertiaCube4, offers the industry's best performance, while minimizing size and price. The InertiaCube4 provides very low latency, high accuracy 3-DOF (pitch, roll, yaw) tracking of objects, or body movement.

K-Motion Interactive, Inc., a leader in kinetic motion analysis and biofeedback training, uses three InertiaCube sensors placed on the body to accurately capture body motion for immediate analysis and feedback, giving medical professionals, golf enthusiasts, fitness professionals a revolutionary tool to understand body mechanics to track and recommend a corrective course of action based on the data provided by the InertiaCube sensors and processed through the K-Motion software.

The InertiaCube 3-DOF MEMS sensors come in wired, wireless and OEM configurations and are well-suited for dismounted soldier simulation, physical therapy, biomechanics analysis, robotics, and a range of other applications.



Image Courtesy of K-MOTION Interactive

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IS-900 Motion Tracker

With 1000's of units sold, the Thales InterSense IS-900 is the industry's most popular hybrid ultrasonic / inertial 6-DOF tracking system. Leveraging in-house sensor fusion algorithms, the IS-900 provides extremely low latency, precise 6-DOF tracking (pitch, roll, yaw, x, y z) of objects and people within small and large environments.



Image Courtesy of Oblong Industries

Oblong Industries, a leader in conferencing and collaboration technologies, uses the IS-900 system to create an easy-to-use, fully intuitive interface by which meeting participants use natural motion to interact with content and information on multiple display screens by simple movements of a Wand remote device. Oblong's Mezzanine system integrates an IS-900 tracker to track the orientation and position of one or multiple Wands in each meeting room to translate the physical action of the Wand into a digital response within the Mezzanine system. The result is an easy-to-use system for training and debriefing sessions, immersive presentation environments, or powerful command and control rooms.

The IS-900 tracking system come in a range of configurations to support small to large areas. The IS-900 tracking system is ready for integration into simulation platforms, large and dome displays, design and review and other applications.

IS-1200+HOBIT

The IS-1200+ Hybrid Optical-based Inertial Tracking (HOBIT) System is Thales' newest 6-DOF motion tracker. The latest iteration of sensor fusion software fuses optical and inertial tracking data to provide the most accurate 3-DOF or 6-DOF tracking solution with minimal infrastructure investment, and immunity to magnetic and metallic interferences that exist in the environment.

Built by Thales Visionix®, the Scorpion® Helmet Mounted Cueing System uses the IS-1200+ HOBIT, with retrofits scheduled in 2015 to provide A-10 and F-16 pilots unparalleled accuracy and performance to track head movements within the cockpit, accurately displaying conformal mission critical information on its augmented reality display.

The IS-1200+ HOBIT is available in wired and OEM configurations to support a range of tracking needs. The unique optical and inertial tracking technology is ideal for augmented reality, head tracking, simulator platforms, HMD platforms and more.



Image Courtesy of Thales Visionix

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- Specifications are subject to change without notice.