

# fusionTrack 250



Real-time high-speed 120 Hz and low latency 4 ms  
High-precision 90  $\mu$ m RMS up to 1.4 m  
Ethernet connection for both data and power (PoE+)  
Open system complete access to images and data  
Active and passive markers tracked simultaneously

The fusionTrack 250 is a passive and active, real-time optical pose-tracking system specially designed to detect and track reflective spheres, disks and IR-LEDs in real-time video streams. The fusionTrack is composed of two cameras that observe reflective and/or active fiducials (IR LEDs) simultaneously, and it uses triangulation to calculate their locations with unrivalled precision and with an unparalleled non-interpolated measurement rate of 120 Hz. When several fiducials are affixed to a marker, the system can determine its pose (position and orientation) with 6 degrees of freedom (x,y,z, $\alpha$ , $\beta$ , $\gamma$ ).

The fusionTrack SDK enables access to data in real-time at different stages of processing, including raw images, individual 3D positions of fiducials (reflective spheres and disks / IR-LEDs) and up to the pose of markers. The SDK also provides multi-level fault checking. It allows access to error information in real-time at any processing stage: fiducial occlusion level, stereo de-calibration, marker registration error and more.

The fusionTrack can be customized to fit your requirements (e.g. precision level, acquisition speed, working volume, extensions). Moreover, the system is compatible with existing passive image-guided surgical tools that are widely used in the medical field.



Active markers



Navex - Passive markers

## About us Optical Measurement Solutions since 2004.

Atracsys designs, develops, certifies and industrializes real-time image processing systems for embedded applications and optical metrological systems according to the ISO 13485 medical quality system. Since 2004, we aim at continuously contributing to the improvements in healthcare all around the world, guiding the surgical instruments with sub-millimetric precision. Atracsys solutions are used whenever measurement accuracy, speed and reliability are required.

