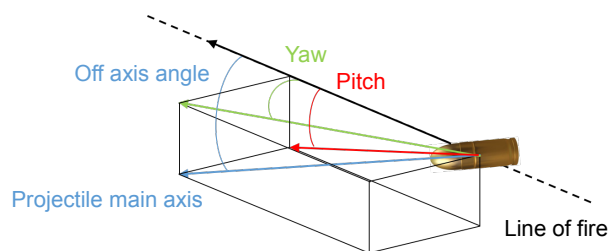
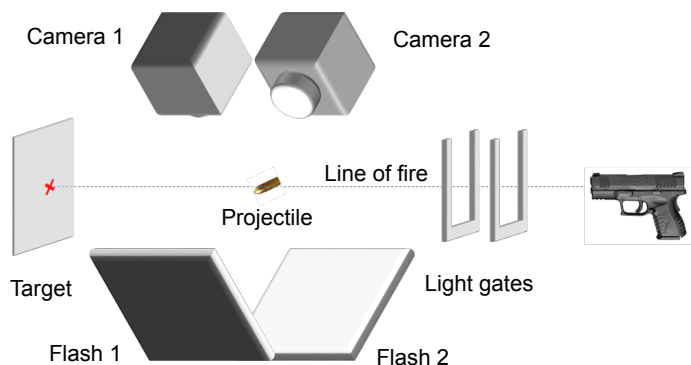




image POM

The obvious solution to projectile orientation measurement

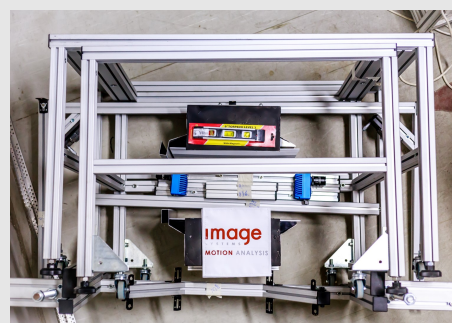
The **Projectile Orientation Measurement** system has been specially developed to measure in **real time** the **3D position and orientation** (offsets yaw and pitch relative to the line of fire) of a projectile in flight approaching a target and right before the impact. The system in accordance with **STANAG 2920 and 4569** consists of two calibrated cameras, opposed by light sources, and placed at right angles in a measuring construction of approximately 1m*1m. The cameras and light flashes are triggered by light gates to simultaneously create and capture one shadow image for each view of the approaching bullet.



$$\text{Off axis angle} = \arccos(\cos(\text{Pitch}) * \cos(\text{Yaw}))$$

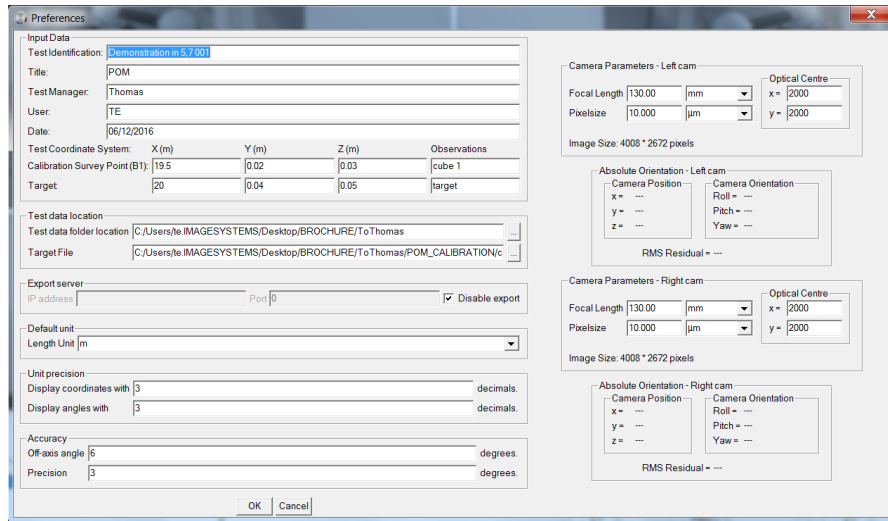
Complete solution

- 1 Frame work structure
- 2 Back lights with diffuser
- 2 Single shot cameras
- System protection
- Real time sync and triggering
- 1 Semi rugged Laptop
- 1 Lic. software + camera control
- 1 calibration cube
- 1 Laser pointer
- 1 Fabric cover kit
- 1 Tool kit
- 1 Complete manual



Key benefits

- Easy to use, intuitive for operators
- Portable hardware kit
- Real time measurement
- Automatic or manual detection
- Projectile, Shrepnel & manual algorithms
- 3D position & Pitch and Yaw attitude angles
- Visual indicator of pass/fail rounds
- Generate automatic reports in logs
- Compatible with all major HS cameras



POM Preferences

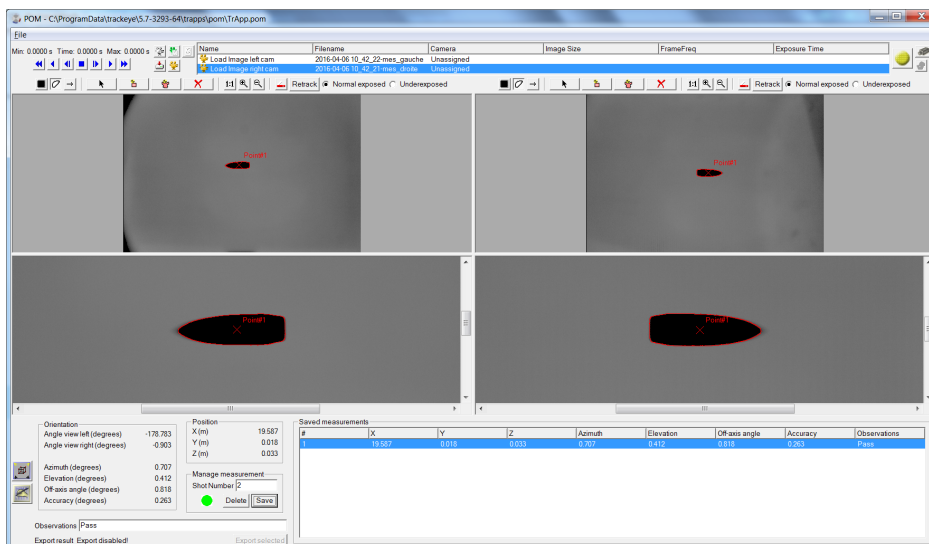
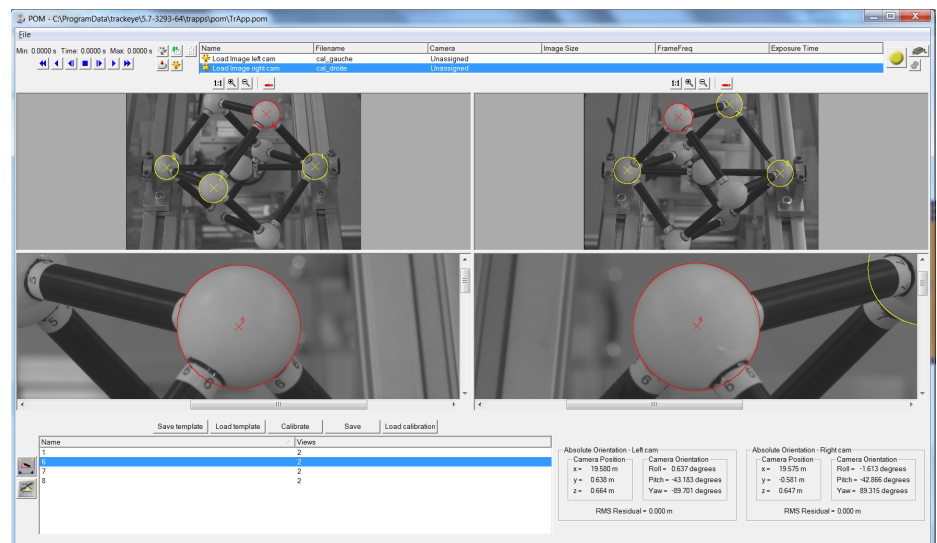
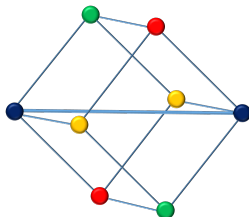
The preferences window allows the operator to enter all information related to the test description.

Calibration files and export directory paths can be specified for various projects.

Accuracy and unit precisions which define what is a successful/fail test are entered here and will be directly implemented in the header of the end result report.

POM Calibration

Images of a calibrated cube are used to get the 3D position and orientation of the cameras. All points of the current target model are shown in the point list and the circle tracker is activated when placing points on the image or zoomed view. At least 4 points need to be placed and locked by the circle tracker to ensure a successful calibration.



POM Measurement

Measurement images can be downloaded directly from the cameras, a server or from a directory specified in the preferences. The outline of the projectile is automatically detected in both left and right images.

Measurement data is calculated and displayed for the considered round and accuracy and off axis angles are compared to the threshold values entered by the user in preferences. A green or red light indicates if the results meet the specified requirements.

Comments to a test can be added in the observation field and before appending the measurement to the report in the form of a log file.

Know more



www.imagesystems.se



image systems



info@imagesystems.se

