



TRACKEYE

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{tab= Descripción}

**Highest available accuracy for your analysis in two, three or six dimensions in applications like Tracking Mount 3D, Fixed Camera 3D or Stores Release.**

TrackEye is the world leading system for advanced motion analysis on military test ranges.

TrackEye covers the entire process from digitizing images (film or video) through automatic tracking and advanced motion analysis to a complete predefined report. The implemented functionality handles tracking in several levels, from 2D, 3D and 6D to the most sophisticated range motion analysis tracking requirements.

**POWERFUL** - Handles and analyzes at rapid speed large quantities of data from high speed cameras and other sensors. The operator can choose between a large number of tracking algorithms and track unlimited number of points throughout the image sequences.

**TOTAL SOLUTION** – TrackEye handles all steps in the process. No problem with compatibility, interface or data transfer between different software platforms.

**SYNCHRONIZED** - The User Interface is "Fully synchronized": any change of parameters or set-up will directly effect all parts of the tracking session, updating results, graphs and tables.

**IMPORT OF DATA** - External data from GPS, Radar, tracking mount pointing angles and other instrumentation data can easily be imported and synchronized with the image data.

**CAMERA CONTROL** – The compatible TEMA camera control software can provide multi-make, multi-brand camera control, loading images directly into TrackEye for analysis.



### **Decoded information**

The TrackEye system automatically decodes any image embedded information and makes it available for the analysis. Some examples of supported codes are: Video Left Edge Code, FDRS, analog scales from Contraves C and D, Dot Matrixes, OCR, IRIG-B and many more.

### **Tracking**

Different objects or environments require different tracking methods. TrackEye has a large number of different tracking algorithms available for different applications. Some examples are: Correlation, Circular, CoG, Quad and Outline.

## Analysis

The TrackEye system includes a large set of predefined analysis functions. The functions operate on image data, imported data and results from prior calculations. Arithmetic functions, filters, speed, acceleration and coordinate transformations are just some of the available functions.



## Result Presentation

A major advantage with the TrackEye system is the capability to present data and results in customized graphs, tables and sessions summaries. It is easy to add comments, custom graphics and to customize the appearance of a certain view.

{tab= Opciones}

There are a number of options available for TrackEye:

### **2D Tracking (Standard)**

2D tracking is the basic functionality of TrackEye. The basic tracking function operates in two dimensions and produces 2D pixel coordinates for each tracked point in each image.

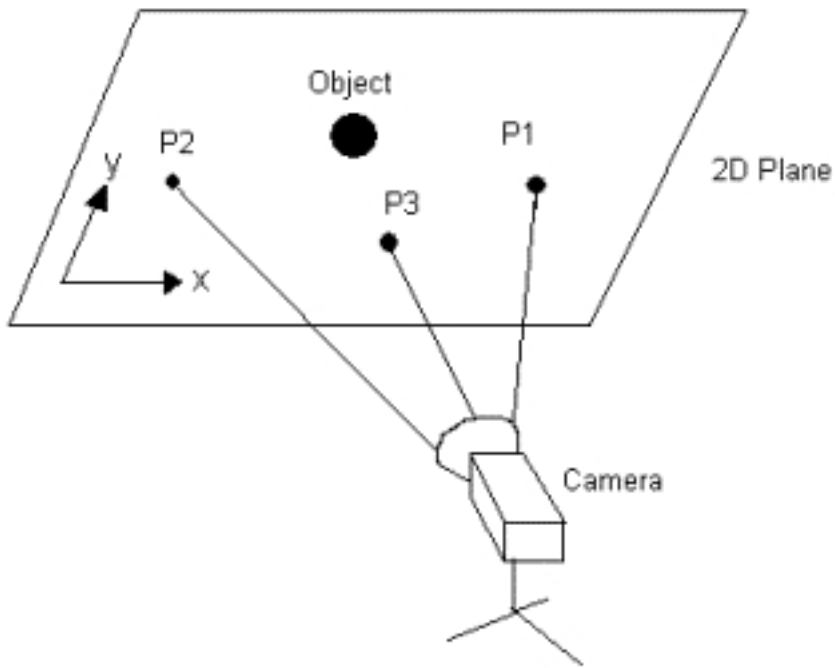
Multiple image sequences can be tracked simultaneously and the output plotted on the same graph or spreadsheet.

If the camera is mounted on a tracking mount, the platform azimuth and elevation are used together with the 2D positions tracked by TrackEye to compute the bore sight angle to the target.

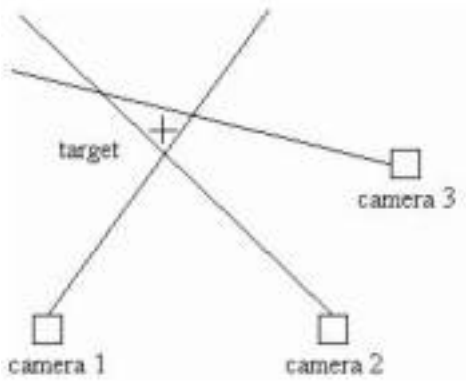
### **2,5D Tracking (Option)**

The TrackEye system can make 3D positions calculations from a single camera view. The camera position and orientation has to be known in the lab coordinate system. With this, 3D positions of points with visible targets can be calculated.

In the 2,5D function a 3D coordinate system is formed by combining the 2D coordinates with the distance between the camera and the plane where the 2D coordinates are oriented.



2D Transformation (Rotation) from the camera to the target is applied to the image from the camera to the target.



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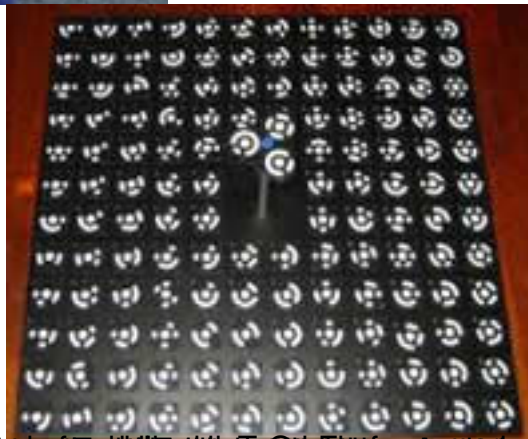




Fixed Frame contains the calibration targets for the camera. The targets are arranged in a grid pattern on a target board, and padding



Calibrating Camera



Fixed Frame contains the calibration targets for the camera. The targets are arranged in a grid pattern on a target board, and padding