

QHorse - Next Level movement analysis



Measuring equine locomotion.

Qualisys has developed motion capture cameras and software for more than 20 years. We provide high-end tools that can be used in a wide variety of areas for capturing motion.

The core technology is based on cameras that, with high precision, determine the position of small and lightweight reflective markers. These are placed on the object of interest, whether a human, dog, or horse

Within research, optical motion capture has long been considered the golden standard for measuring equine locomotion. Qualisys has expanded this technology to the clinical setting bringing objective lameness assessment to an entirely new level.

With our tailor-made asymmetry analysis tool, QHorse, objective lameness analysis is quick, easy, and comprehensible.

We know from years of research that certain asymmetries in horse locomotion during trot are related to weight bearing lameness.

QHorse calculates and visualizes these asymmetries in an easy and understandable way as an objective complement to your subjective evaluation.

The system provides the best accuracy and precision in the market. This enables you to capture movement that might be close to impossible to detect with the naked eye.

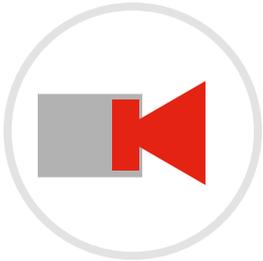
The interface is designed to show asymmetries in a variety of ways, ranging from an easy overview to in-depth stride-by-stride information. This is paired with quick and easy comparisons of measurements, video recordings, and a report function, making it an expansive state-of-the-art tool for objective lameness assessment

"It's an investment, but the system helps to get a faster diagnosis because you can verify motion immediately. It is the best aid during my 30 years as a veterinarian. The cameras document what the eye does not see, and an objective scientific assessment is obtained. It's a huge help and it helps me as a veterinarian to think and see new critical eyes."

Lotta Månsson *Owner Ale Djurklinik*

<https://aledjurklinik.se/>





Analysis system



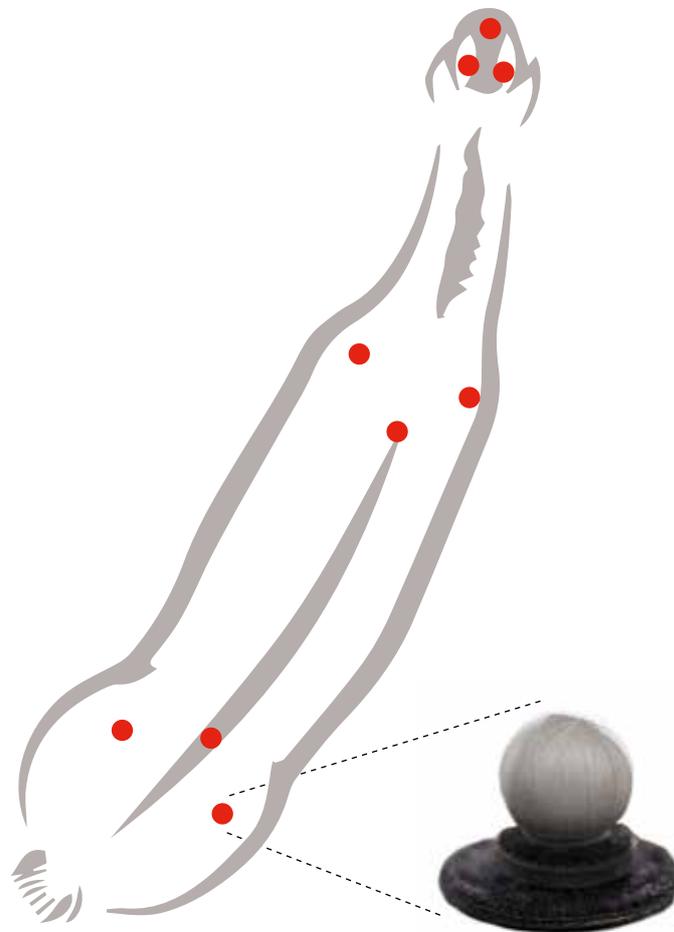
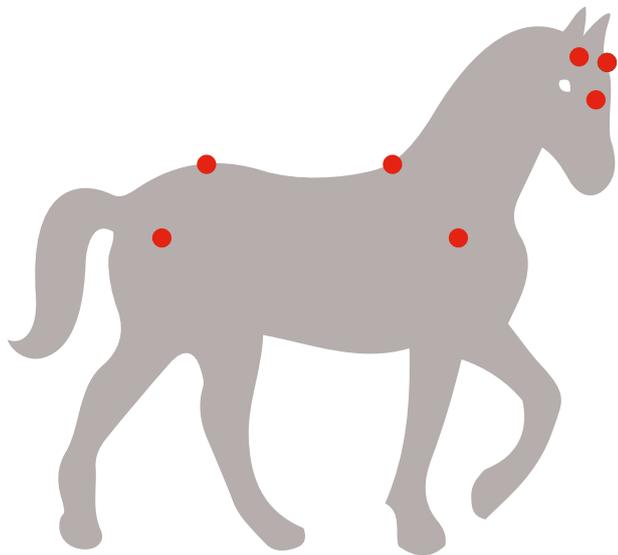
Markers



Locomotion pattern



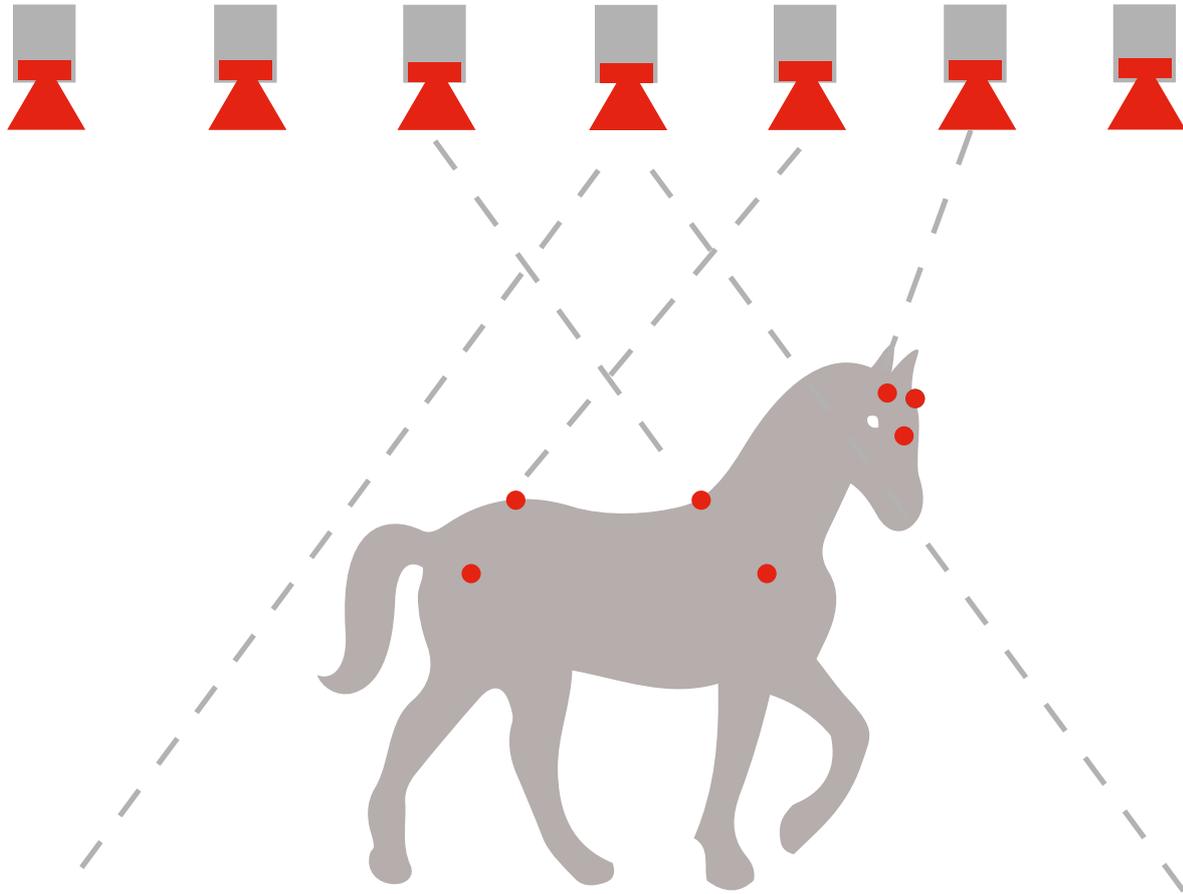
Video recording



PLACING MARKERS

The clusters of markers are easily attached using double adhesive tape and do not disturb the normal movement pattern of the horse during the measurement.

The standard setup consists of 9 markers in 3 clusters. One cluster is placed on the head, another above the withers and the last one above the pelvis.



Mocap cameras are used to cover the volume where you trot the horse.



Easy and integrated clinical workflow – Start and stop a measurement during the normal procedure of trotting the horse. You can assess horses moving in a straight line and moving in circle as well as after performing a flexion or an anesthesia. The workflow is designed to interfere as little as possible with your normal workflow.

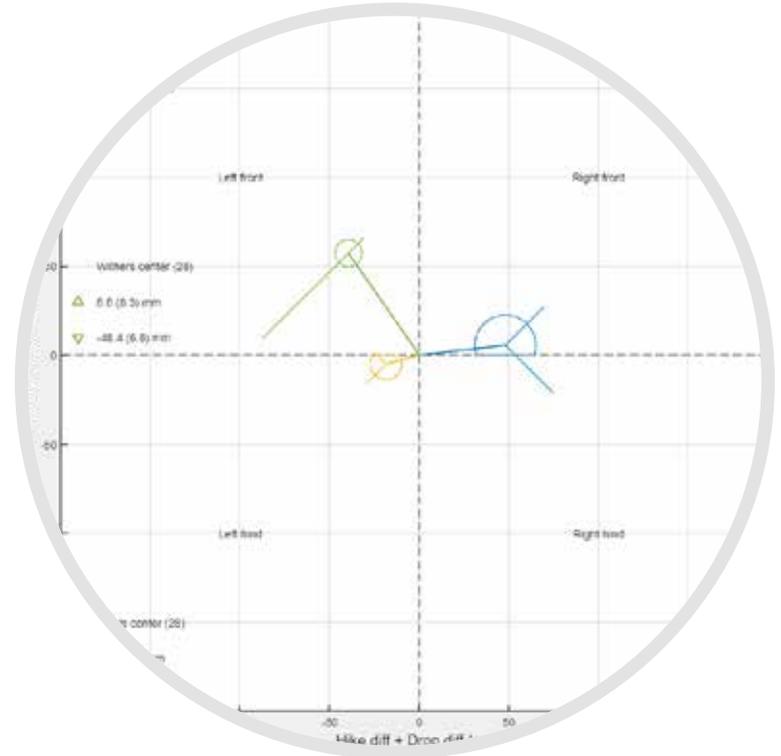
IMMEDIATE RESULTS

Results are displayed within seconds after the measurement is finished. It is easy to compare results from different assessments or even different visits.

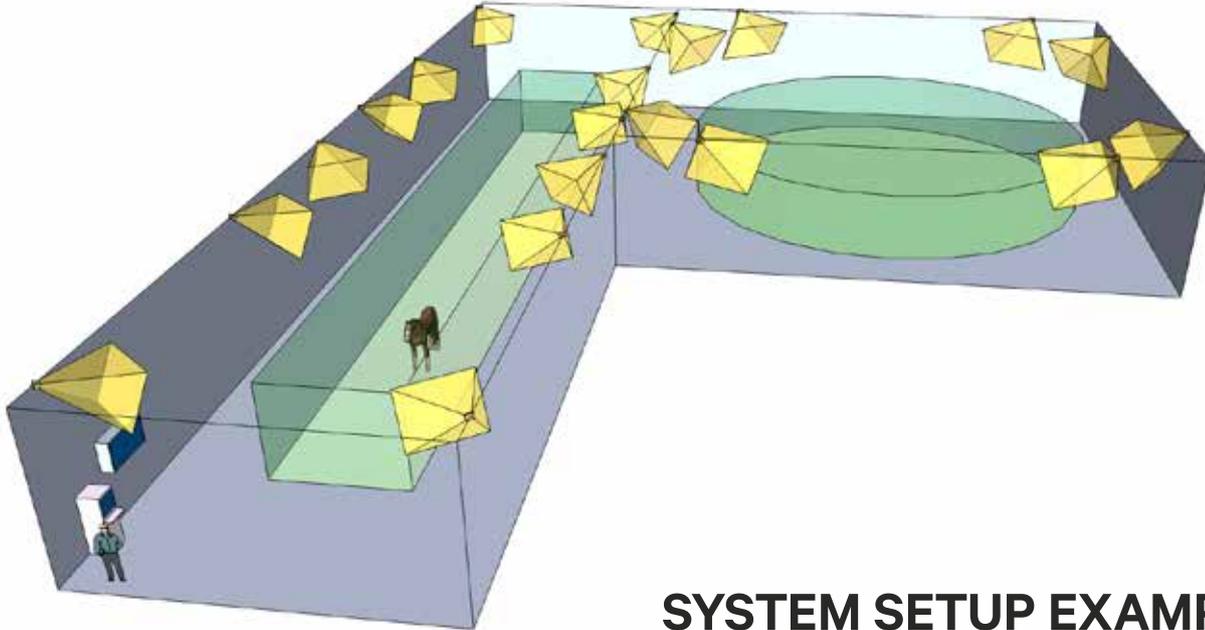
Monitoring of your clients over long periods of time is made possible with video recordings of all evaluations performed with the system.

REPORT

When the day is done, the client does not leave empty handed. The application automatically generates an interactive report of the chosen measurements formatted in a comprehensive way







SYSTEM SETUP EXAMPLE

12 cameras are used to cover the volume where you trot the horse in a straight line and another 8 cameras cover a circular volume. These two volumes can be used independently or in combination with each other

QUALISYS



“When the horse returns for reassessment, the results are compared to pre-treatment data. Subjective measurements can be combined with objective measurements by the Qualisys system, which makes it much easier to compare trials of a horse over time.”

Dr Jan-Hein Swagemakers

German Show jumpers, International Equestrian Federation www.fei.org

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