

***We turn motion  
into science***

# ***You can turn it into profit***

**Running or riding a bicycle may seem simple, but our movements are so complex and subtle that only cutting-edge technology can fully reveal them for close scrutiny. Technology like the Qualisys Sports Performance system.**

The basis is our own superior motion capture and analysis technology, developed through years of close cooperation with medical professionals and the scientific community. It is used in research and rehabilitation facilities all over the world, providing data that both expand our knowledge and help professionals help their patients return to a full life.

With sports performance, Qualisys technology enters new ground. The system is designed to provide runners, cyclists and their trainers with a solid, evidence-based foundation for improving performance and reducing the risk of injury. It is scalable, easy to use and provides clear and immediately useful results.

Qualisys is already in use in professional sports and sports research. Gym franchises and sporting goods retailers offer customers analyses to help them improve. Research institutions use the system both for scientific work and to expand their offer to the general public. Most are surprised by the quick return on investment.

**Qualisys** expands the scope of scientific motion analysis, providing a exciting business opportunities. But the science at the heart of it is still solid, making the system a valid research tool as well.

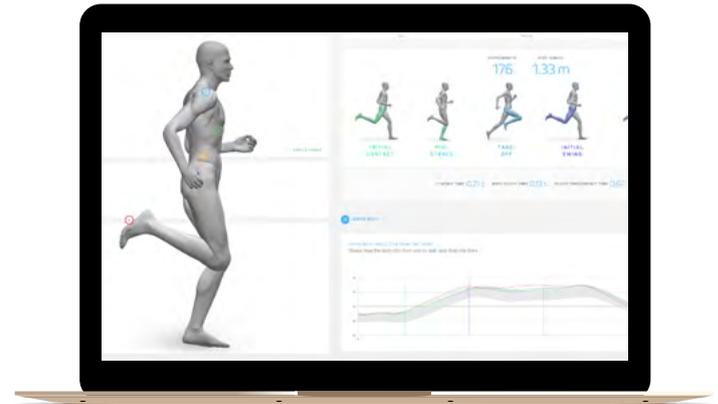
[www.qualisys.com/applications/sports](http://www.qualisys.com/applications/sports)

# PERFORMANCE ENHANCEMENTS

Detailed biomechanical analysis as a basis for performance enhancement is an eminently marketable asset. Since the system is scalable, there is a package to suit all requirements, with hardware, software, an online booking system, support and training.

For the test subject, the process involves a 10-minute test, followed by interaction with the trainer. Problems are identified and remedies can be tried out immediately. After the one-hour session, the results become available online as a basis for further study and training. The outcome can be assessed through follow-up tests.

For athletes – pro, elite, or amateur – advantages are obvious, and worth the cost. Our customers generally recoup their investment within a year and gain new and loyal customers in the process.



The Qualisys Sports Performance system embodies the results of years of innovation and close cooperation with worldwide academia and provides the same level of accuracy and detail as our purely clinical systems.



QUALISYS  
SPORTS PERFORMANCE

QUALISYS  
SPORTS PERFORMANCE

PRECISIONFIT

Powered By Precision Equipment

# SYSTEM SETUP

The Qualisys Sports Performance system is camera-based and uses markers - small reflective balls attached to the subject's body. With a frame rate of 400 fps, the system offers significantly higher precision and accuracy than other motion-capture technologies, including markerless video analysis and methods based on wearable inertial sensors.

The cameras provide a 360° view from head to toe, registering every subtle detail and all the minute interactions between the body's various parts. Easy-to-use analysis and display software make the detailed results understandable and useful to the layman and graphically pleasing for online publication.

Simultaneously, the extensive data needed for clinical research, rehabilitation, and follow-up are all there and fully accessible.

## **Cameras**

- > Miquis mocap cameras @ 400 frames per second
- > Laptop or desktop with big screen

## **Accessories**

- > Passive markers
- > Cables
- > Mounting devices
- > Power supplies etc.

## **Software**

- > Qualisys Track Manager
- > Sports Analysis Modules & Report Center Cloud access

## **Optional**

- > Qualisys-branded treadmill
- > Qualisys recommended trainer for cycling analysis

## **Support & Service**

- > Full support and software upgrades options

## System Set Up



The system consists of 8 to 12 Qualisys motion capture cameras, depending on the lab's size and design. You get a 3D view from the front, back, and side, with all dimensions of the subject's movements, even rotations. Available analysis modules include Cycling, Running, Functional Assessment, Golf, and Baseball.

Using alternative software, it can be fully customized to suit the goals and workflow of your research project as well as to provide reports in the format of your choice. In short, Qualisys Sports Performance is a powerful and uncompromising research tool that also offers commercial opportunities in rehabilitation facilities.

## Here is how it works



**1.** The athlete performs his or her task for ten minutes. The system records everything in 3D.



**2.** The coach provides initial input and a preliminary web report is presented.



**3.** The coach goes through the results in detail and offers initial recommendations.



**4.** After one hour the test is complete and the athlete receives his or her web report.



**5.** The report displays a range of 30+ key parameters for good technique.



**6.** Multiple 3D video recordings allow the athlete to assess his or her technique.



**7.** Coaching tips to improve the posture and technique are provided.



**8.** The final result is an individual training program, with explanations and videos.



**9.** Using a personal login, the athlete can access all data and additional information on the website.



# WORLD-LEADING 3D REPORTING TOOLS

The Qualisys Sports Performance system includes interactive web reports for increased accessibility and easy sharing. The report contains basic parameters, video and a 3D visualization of the movement, and more in-depth results in charts and tables with synchronized playback

Reports can be viewed with all major web browsers, whether using PC, Mac, Linux, or mobile devices. There is no need for you, your collaborators, or customers to install software or have Administrator rights on the device.

Your data is stored on servers complying to major security standards (ISO 27001, HIPAA, GDPR). Protected health information and personal information are encrypted both at rest and in transit. And certainly, we will never give your data to a third-party.

## Features

- > **Interactive report:** Toggle between showing means or all curves to see your client's consistency. Check symmetry by overlaying left and right charts and select/deselect trials – the reports update on the fly.
- > **Export to PDF:** See charts, video and the 3D visualization in one place and in sync during playback.
- > **View synchronized data:** See charts, video and the 3D visualization in one place and in sync during playback.
- > **Annotate data:** Use comments to highlight features in any of the charts.
- > **Compare sessions:** Compare up to four existing sessions in a comparison report.
- > **Share reports:** Copy a link into an email or any other type of message to share it with collaborators or your client.



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## References Sport Business



Salming RunLAB



Swissbiomechanics AG



RSScan INTERNATIONAL



Meyer Institute of Sport



New Balance



Reebok



Salomon



University of Nebraska

## References Sport Research



Bosön/RF,  
Sveriges Olympiska kommitté



Norwegian University of Science and  
Technology, NTNU Olympiatoppen



Liverpool John Moores  
University



JISS, Japan Institute of Sport  
Science, Tokyo



University of the Sunshine  
Coast, Australia



Sochi Federal Training Sport Center  
(Winter Olympic games 2014 Sochi)



Texas Health Ben Hogan  
Sports Medicine, US



The Pennsylvania State University, Golf  
Teaching and Research Center, US