



High precision 3D analysis of cyclist and bike

An accurate understanding of a cyclist's movement is the basis to properly optimize performance and equipment. With its speed, resolution and precision, the Qualisys Cycling Module offers the ideal solution for cycling assessments.

Traditionally, there has been a focus on the dimensions and performance of the bike itself when fitting it to the rider or when optimizing performance. The Qualisys Cycling Module goes one step further and accurately measures the movement of the cyclist and the geometry of the bike.

A comprehensive report is executed, allowing you to objectively measure limitations such as asymmetries or lack of movement range.

The purchase of a complete cycling solution includes all hardware and accessories, or you can add the Cycling Module to your existing Qualisys Track Manager software by purchasing a license to use with your current system.

FEATURES

- Tracks both sides of the body simultaneously in 3D
- Lower body, lower body and thorax, or full body analysis supported
- Option to take accurate measurements of bike dimensions
- Compare up to four test conditions within a single report
- Interactive web report

PROCESS

Reflective markers are placed on the cyclist's body following a well-documented marker set based on Leardini et al.¹, specifically adapted for cycling shoes. Three markers are attached to the bike to accurately determine its 3D position.

The software guides you through the data collection steps and allows you to enter additional information that will appear in the report, and when you are done, simply click a button to generate a comprehensive report.

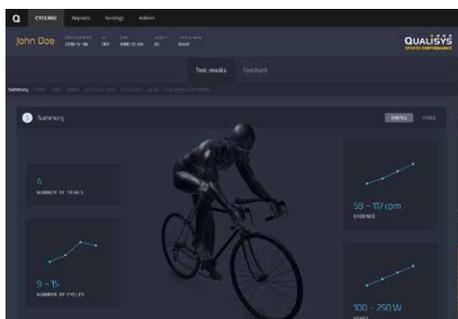


Streamlined data collection in QTM

REPORT

View a 3D model of the cyclist from any angle with all relevant parameters, such as rotations of the pelvis, hip, knee and upper body as well as movements paths of the knee, ankle, toe and heel in all anatomical planes.

A printable report is generated in Microsoft Word, which includes your facility's logo and contact information. Type in your comments, print the report or export it to PDF, and pass it on to the cyclist to take home.



Interactive web report



Visualize movements in QTM software.

MODULE OPTIONS AND REQUIREMENTS

Module	Marker set	Cameras (min)	Room size (min)	Processing engine	Report
Cycling	Lower body or Full body	9	4 x 4 m	V3D	Web or MS Word

PRECISE 3D TRACKING

Track the movement of the cyclist in all three dimensions, recording measurements of the left and right sides simultaneously.

BIKE DIMENSIONS

Use markers to record saddle height, handlebar drop/rise and stack/reach with sub-millimeter precision.

INTERACTIVE WEB REPORT

Generate an online report with all relevant results and findings. Create a private link to share the report.

¹ Leardini et al. (2007). Gait & Posture, 26, 560-571