



# Qualisys Clinical System

The Qualisys Clinical System is our solution for clinical gait labs, where efficiency, ease of use and reliability are critical. The core of the system is the Clinical Gait Module for the Project Automation Framework (PAF), which provides data management, data collection and reporting, all in one interface within Qualisys Track Manager (QTM) software.

Clinical gait analysis requires consistent protocols and regulatory compliance. This is why the Qualisys Clinical System is a Class 1m Medical Device<sup>1</sup> and cleared by the FDA for clinical use. The system may also be extended by compatible external hardware such as force plates and EMG systems.

## RESEARCH OR CLINICAL – WHICH GAIT MODULE SHOULD I USE?

If you are measuring patients for the purpose of diagnosis, treatment assessments, or general monitoring, the Qualisys Clinical System is the right choice for you (Art. No. 150401). If you are a research user, our research modules are more suitable.

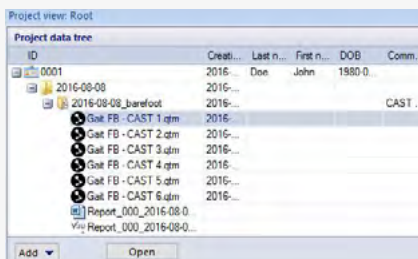
Read more at [qualisys.com](https://qualisys.com).

## FEATURES

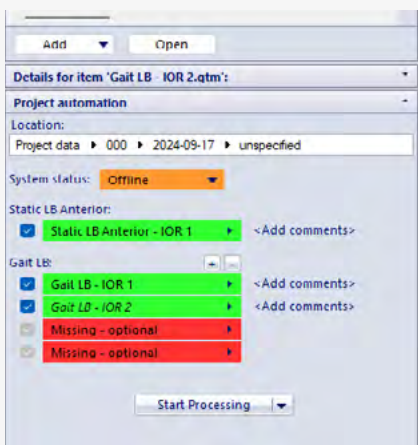
- Ease of use – specifically streamlined for clinical gait analysis
- Class 1m medical device, including software and compatible external hardware
- Interactive HTML 5 report
- Compatible with multiple markersets
- Seamless integration with Visual3D
- Scalable solution - from 8 to 16 or more cameras

## SUPPORTED MARKER SETS

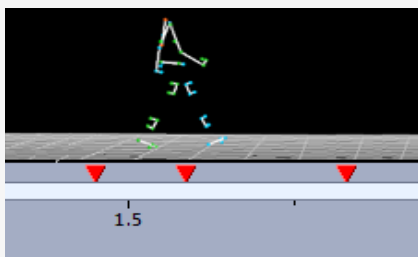
- CAST/6DOF (Cappozzo et al. 1995<sup>2</sup>)
- IOR (Leardini et al. 2007<sup>3</sup>)
- CGM2 (Leboeuf 2019<sup>4</sup>)
- Oxford Foot Model (Stebbins et al. 2006<sup>5</sup>)
- Rizzoli Foot Model (Leardini et al. 2007<sup>6</sup>)



The Project view provides quick access to all files of a patient. Right-click any item to edit its properties.



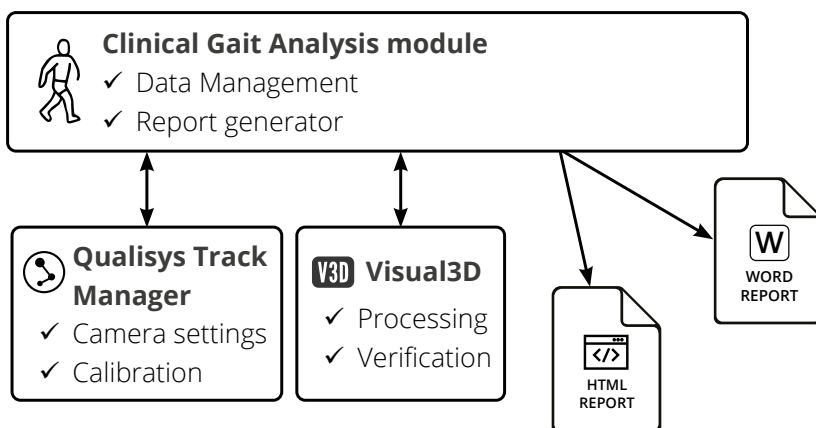
Color coded buttons make it easy to track the progress of a session. When the required trials are captured, analysis is as simple as clicking the "Start Processing" button.



The Clinical Gait PAF module supports adding events through different event modes including manual, one force plate and multiple force plates. The automatic events are created in the analysis step using Visual3D's event creation algorithm.

## OVERVIEW

The Clinical Gait PAF Module appears as an add-in to the Qualisys Track Manager (QTM) software. QTM is used to change camera settings, to calibrate the system and to capture gait trials.



## DATA COLLECTION

During data collection, we want you to be able to focus on the patient instead of the technology or repetitive tasks like file naming. That is why our Clinical Gait PAF module offers you a list of pre-defined file names, using an intuitive system of red and green buttons.

Markers may be labeled automatically using our Automatic Identification of Markers (AIM) method. These AIM include all marker names and colors, ready for your first data collection.

## DATA MANAGEMENT

Patient data, such as height, body mass and birth date, is entered directly in the module project folder. This data is stored in the motion capture files, so there is no need to keep and maintain external databases. Our security measures guarantee full compliance with GDPR for all data, as well as secure storage on HIPAA-compliant servers.

## DATA ANALYSIS

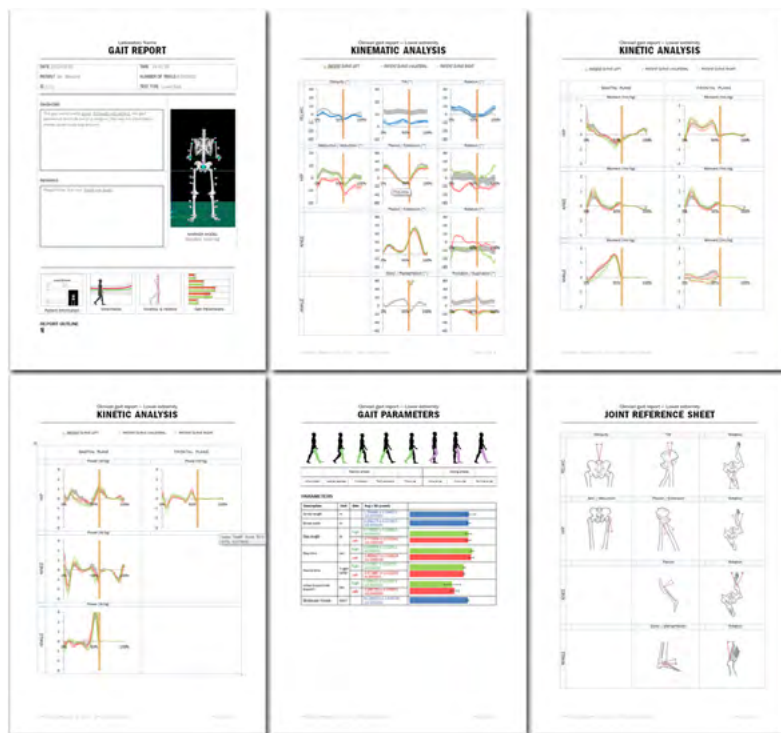
Simply click the "Start Processing" button, and QTM exports the files, runs a script in Visual3D to process them, and imports the results into the report template. Patient data is transferred directly into reports, avoiding mistakes and speeding up the report generation.

## MARKER SETS

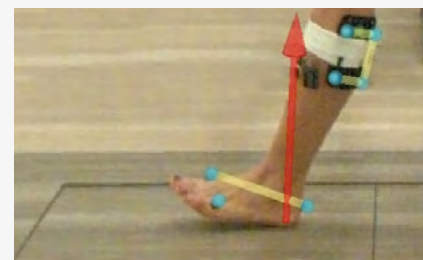
We understand that there is not a single marker set that fits the specific needs and preferences of all gait labs. That is why the Clinical Gait PAF Module includes four different marker sets, all of which have a proven record of being used in well-established gait labs.

## REPORT OPTIONS

The Qualisys Clinical System includes a Word and an interactive HTML 5 report. The report is based on a template prepared by Baker, McGinley and Thomason for the workshop Impairment focused interpretation at the JEGM meeting, Miami, 2010.



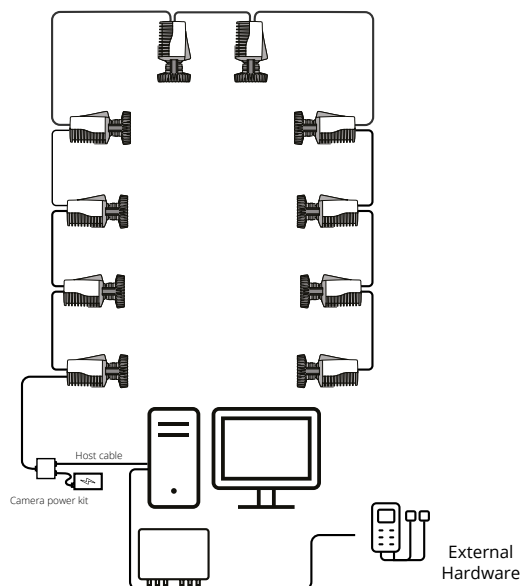
Our calibration frame includes height adjustment, spirit levels and alignment aids so it can be placed accurately on top of a force plate.



Video overlay is ideal to visualize force vectors and verify marker positions.

## HARDWARE

The system may be extended by compatible external hardware such as force plates and EMG systems, acting together like a single system that you can safely use in a clinical environment.



The Qualisys Clinical System can be extended with selected, Delsys, Noraxon, or Cometa EMG systems. EMG data is recorded and processed with the motion capture data, and all results are contained in a single report.

# Compatible Hardware

Component	Supplier	Item	Article Number	Interface
Motion capture cameras	Qualisys	Arqus A5-MD	600105-MD	
		Arqus A5N-MD	600105N-MD	
		Arqus A5W-MD	600105W-MD	
		Arqus A9-MD	600109-MD	
		Arqus A9N-MD	600109N-MD	
		Arqus A9W-MD	600109W-MD	
		Arqus 12-MD	600112-MD	
		Arqus 12N-MD	600112N-MD	
		Arqus 26-MD	600126-MD	
		Miquis M3-MD	400300-MD	
		Miquis M3N-MD	400300N-MD	
		Miquis M3W-MD	400300W-MD	
		Miquis M5-MD	400500-MD	
		Miquis M5N-MD	400500N-MD	
Hybrid cameras	Qualisys	Miquis Hybrid-MD	400200HC-MD	
		Miquis HybridN-MD	400200HCN-MD	
		Miquis HybridW-MD	400200HCW-MD	
Video cameras	Qualisys	Miquis Video Plus-MD	400260VC-MD	
		Miquis Video PlusN-MD	400260VCN-MD	
		Miquis Video PlusW-MD	400260VCW-MD	
EMG	Cometa	Wave Plus WaveX		Cometa Trigger module Trigger port on receiver
	Delsys	Trigno Trigno Avanti		Delsys Trigger module Delsys Trigger module
	Noraxon	Desktop DTS		Trigger port on receiver
		Ultium		Trigger port on receiver

## RECOMMENDED ACCESSORIES

Component	Item	Article Number
Markers	Standard: 14 mm with M4 base (10pc)	160340
	Children/feet: 9.5 mm with M3 base (10pc)	160320
Tape	Tape to attach markers (11mm x 19mm)	160183
Clusters	Marker clusters (2 clusters)	160145
Calibration	Carbon calibration kit, L-frame, 600 mm wand	130456
	Small carbon calibration kit 300 mm wand	130460
	Caltester for force plate verification	150206

## REFERENCES

- [1] According to Annex V of the directive 93/42/EEC on medical devices.
- [2] Cappozzo et al. (1995). Clinical Biomechanics, 10, 171-178
- [3] Leardini et al. (2007). Gait & Posture, 26, 560-571.
- [4] Leboeuf et al. (2019). Gait Posture, 69, 126-129.
- [5] Stebbins et al. (2006) Gait & Posture. 2006 Jun;23(4):401-10.
- [6] Leardini et al. (2007) Gait & Posture 25, 453-462.

## PRODUCT AVAILABILITY

Due to language requirements, the Qualisys Clinical System is currently only available in the United States of America and the following European countries:

Austria, Belgium, Croatia, Cyprus, Czech Republic, Denmark, Estonia, France, Germany, Iceland, Ireland, Latvia, Liechtenstein, Luxembourg, Malta, Netherlands, Poland, Portugal, Slovenia, Spain, Sweden, United Kingdom.

Please contact Qualisys if your country is not listed.

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