Integrating force plates

Qualisys Track Manager (QTM) supports a range of force plates, which enables force data to be recorded along with the motion capture. Measure ground reaction forces, center of pressure and moments.

With a force plate, the force can be captured together with the motion capture data collection and driven from the QTM software. QTM supports calculation of force data from analog data from the force plates of the following manufacturers: AMTI, Bertec and Kistler.

Various systems are integrated in QTM so that they can be collected directly without an extra analog board.
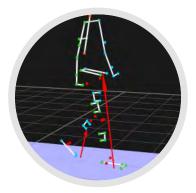

FEATURES

- Complete integration of force plate and motion data capture
- Runs on a single laptop
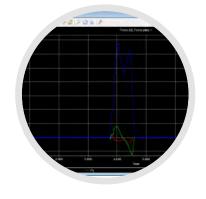- Visualization of force vectors
- Real-time feedback

REQUIREMENTS

- Qualisys motion capture system
- Force plate device
- Analog board[1]
- Miqus Sync Unit[2]
- Windows 7, Windows 8, or Windows 10

[1] Not necessary with Kistler 5695A DAQ or AMTI Gen5 and OPT-SC DTS. Instacal software must be installed when running through A/D.

[2] Required for any external device sync using a Miqus system

FORCE PLATE INTEGRATION

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Video Overlay

The forces are visualized as vectors in QTM. If used with a Qualisys video camera, 3D overlay is also possible.

Force Data

Plot recorded ground reaction force data, either in realtime or from a recorded file.
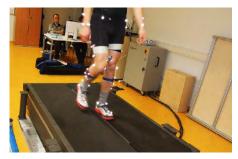

Export to C3D, TSV or MATLAB

QTM can export data to a number of formats, including C3D, TSV and MATLAB.

CONNECTION

The system is connected through the wireless signal or via an A/D board connected through USB for those devices that are not digitally integrated. When using an A/D board, the force data is calculated from the analog signals of the force plate. The force plate is connected to any free channels on an analog board of the computer running Qualisys Track Manager.

The amplifiers Kistler 5695A DAQ and the AMTI Gen5 and OPT-SC are integrated in QTM so that there is no need for an analog board. Kistler force plates must be controlled via a digital Input / Output (I/O) cable.

Instrumented treadmills made by the integratable force plate manufacturers are also able to synchronize with the system along with Treadmetrix instrumented

INTEGRATION BY MANUFACTURER

	AMTI FORCE AND MOTION	BERTEC	KISTLER measure. analyze. innovate.
Hardware sync	+	+	+
QTM integration	+	+	+
Digital integration	+	-	+
Instrumented treadmill available[1]	+	+	-

[1] Treadmetrix instrumented treadmills are also integrated with QTM   *Not possible* -   *Possible* +