

UETrak

UETrak (Upper Extremity) is a stand-alone Windows-based software tool designed to calculate three-dimensional upper extremity kinematics for upper body movement measurement. Developed by the Center for Human Performance at San Diego, UETrak calculates joint and whole body kinematics using 3D coordinate data collected from a Motion Analysis system. The kinematic data can also be integrated with lower body measurements using the OrthoTrak software and UETrak's export tool. Output from UETrak may also be exported to an Excel spreadsheet for easy customization of data presentation and reporting.

With reliable processing of 3D upper extremity kinematic data, UETrak offers a reliable tool for clinicians to utilize in evaluating various activities involving upper body movement. Such applications include head, trunk, elbow and shoulder motion during a golf swing, baseball pitching, hitting, tennis serve, reaching or gait.

UETrak Golf

UETrak Golf combines UE kinematics with Cortex's force-plate data output to a golf-swing specific summary report. Parameters for the address, backswing and downswing events are extracted and reported.

UETrak Golf will output weight distribution between the left and right sides during the golf swing in graphical curves and time-specific data points. All golf swing data can be exported to Excel for customization and processing.

Advantages

- Has a predefined marker set/model that is extremely simple to use
- No need to create a pipeline or graph template for data analysis
- Creates a report template that can be given to customers very quickly
- The program can be mastered in a few hours (at most)

Features

- Test subject demographic organization
- Description of full body marker set and model
- Kinematic parameter list:
 - Shoulder joint: elevation, horizontal abd/adduction, int/ext rotation
 - Elbow flexion
 - Forearm pronation/supination
 - Wrist flexion/extension
 - Finger (MCP, PIP) flexion/deviation (clinical activities only)
 - Head tilt, forward flexion, rotation
 - Trunk tilt, forward flexion, rotation (global and relative to pelvis)
 - Pelvis rotation
 - Angular velocities
- Optional baseball pitching parameters: stride length, step width, ball speed
- Uses appropriate kinematic model for activity selected (i.e., sports, clinical)
- Lower body kinematics (with integration of OrthoTrak data)

