# OrthoTrak

OrthoTrak is a fully automated, three-dimensional, clinical gait measurement, evaluation and database management system. The OrthoTrak System easily integrates kinematic and kinetic analysis with EMG and force plate data. OrthoTrak allows the clinician to easily record the patient's physical measurement data with the gait report, and quickly compile technical data into simple, easy to read, charts and graphs. OrthoTrak is the only clinical package that allows critical upper body measurements (head, trunk, arms, and shoulder kinematics), which compliment lower body kinetics and kinematics.

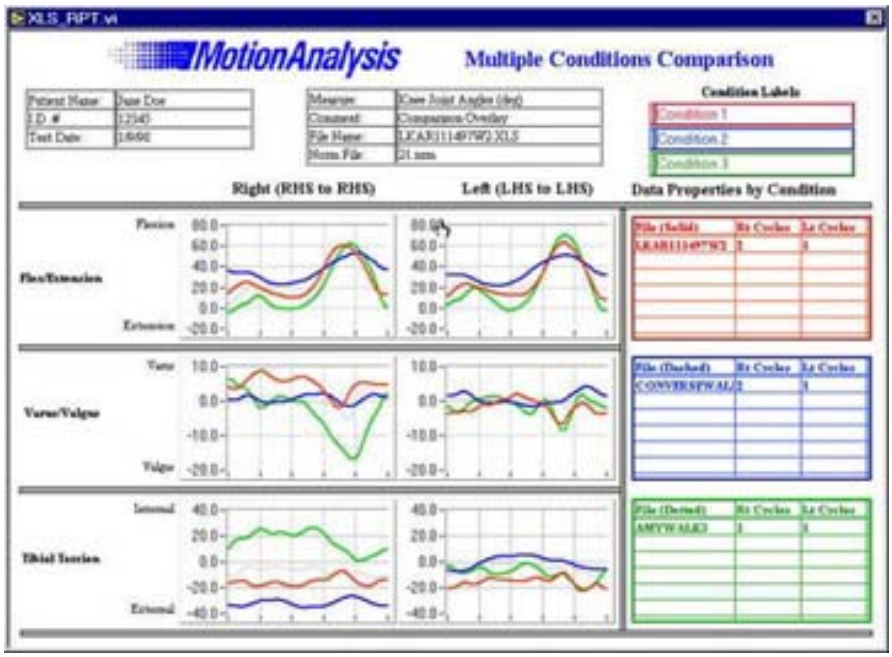
Since OrthoTrak receives its 3D coordinate data directly from a Motion Analysis system, problems such as marker dropout, background interference and manual digitizing are eliminated. OrthoTrak provides reliable coordinate data, accurate clinical measurement data, and precise kinematic and kinetic data integration. An integrated, powerful and practical, easy-to-use system for your lab!

OrthoTrak's main menu quickly enables the clinician to determine the type of data they will need to assess a clinical gait pattern. OrthoTrak's windows based menu selection provides all the simple tools necessary to quickly read in a file to the database, select one or all trial conditions, and determine the number and type of kinematic and kinetic reports to generate. Report form generation for graphic and text presentations of all analysis functions may be customized to fit the requirements of the user.

OrthoTrak has been developed in conjunction with Dr. Chet Tylkowski, Mr. Sam Augsburger, Dr. Jim Richards of the University of Delaware and the Alfred I. duPont Hospital for Children in Wilmington, Delaware.

## Features

- Complete reports generated for flexion, extension, adduction, abduction and rotation of extremities
- Joint moments and power graphs that can be displayed in the body-centered or laboratory coordinate system
- Complete reports produced for upper and lower body kinematics such as: tilt, rotation, lateral flexion, abduction, adduction, and obliquity data.
- Temporal data such as velocity, cadence, stride time and body support times are reported
- Force plate dynamics and EMG graphs reported with appropriate kinematic data, including stick figure views
- Ensemble averages which can be applied to multiple trials of one patient or to groups for the generation of norms
- Left and right foot gait events reported which include heel strike, toe strike, and toe-off
- Utilizes up to eight force plates and a total of 64 channels of analog to digital data

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