

# KinTools RT

Cortex features a full-body, three-dimensional kinetics and kinematics analysis package called KinTools RT (formerly Kinetics). KinTools RT is the industry's only self-contained kinetics and kinematics analysis package, capable of meeting the demanding analysis requirements from today's researchers while maintaining the familiar 'ease of use' expected in Motion Analysis products.

Within KinTools RT, users can create custom models to perform a range of analyses, including segmental, joint, and full body kinetics and real-time kinematics. The graphical interface is one of the more impressive feature of KinTools RT in that users can obtain a visual representation of the magnitudes of the calculations (e.g., joint moments, angles, etc.) from within the skeleton itself. Users can batch process data through KinTools RT using custom Sky files and export these data to an ASCII-friendly file for use in many analysis packages, including MATLAB and Microsoft Excel.

KinTools RT is fully incorporated within Cortex, but requires a separate license file and also requires Skeleton Builder software.

## Kinematics and Kinetics Features

- Mass Model Editor for entering parameters to the model
- Kinetics and kinematics output to ASCII file
- Linear and rotational velocities and accelerations for each segment
- Center of mass of the model
- Excel graph macros for full body
- Helen Hayes Skeleton Builder model
- Overall moment of inertia for the current pose
- Overall force that was required to change the velocity of the model
- Overall moment required to change the rotation of the object

