



Cortex Software

Powerful, flexible motion capture software for biomechanics, sports, animation, broadcasting, VR and more.



Trusted by industry leaders around the world

A complete set of tools for motion tracking and editing, Cortex software is used across a variety of applications including:

Animation & virtual reality

Cortex makes the real-time and previsualization process flexible and straightforward by elegantly separating data processing tasks such as tracking, identifying, skeleton solving, and retargeting.

Broadcast

The Motion Analysis CamTrak module is embedded within the Cortex motion capture solution. It allows for precise real-time tracking of broadcast studio cameras to create live VR or AR sets quickly and efficiently.

Movement analysis

Cortex has a unique identification process, offering the fastest and most flexible way to capture and identify complex movements of subjects and objects.

Industrial & robotic

Cortex allows you to design digital prototypes, saving time and money when creating a physical prototype, and allowing you to conduct design analysis and revisions before production. It offers high-accuracy, ground-truth measurements for robotic movements and the validation of specific flight paths.



"I am a long-time user of Motion Analysis systems. I like that their solutions have a long lifespan, this allows us to easily add new cameras to the mix as we expand the lab. I also appreciate the robustness of the software, which allows me to customize tests and set up things the way I prefer."

Robert Catena

Assistant Professor of Kinesiology, Washington State University

Key features



Industry-leading performance

Motion Analysis has been at the forefront of motion capture technology for over 35 years. Our solutions are trusted by industry leaders to deliver highly accurate motion capture data quickly and efficiently.



Complete set of tools

All tools for model building, data capture, and data analysis are combined into one powerful package.



Real-time tracking

For any number of MarkerSets at the same time.

Flexible, accurate, efficient

Cortex offers the highest real-time marker counts and the most complete set of visualization tools for constructing precise calibrations, along with intuitive tools that allow you to easily monitor and update the calibration status within seconds.

Cortex is capable of solving the skeletons of any structure with any number of segments, including bipeds, quadrupeds, props, and more, including facial animation. All solving information is stored with the MarkerSet and, once set up, requires just seconds to adjust for each day's use. The solving step allows for easy one-step retargeting.

Embedded modules

- ✔ **Calcium Solver** – An easy-to-use tool to solve captured marker data onto a skeleton.
- ✔ **Skeleton Builder** – A tool to create relatively simple, direct, and fast calculations of bones that are defined and calculated from one joint center to another.

- ✔ **SONIC Viewer** – A distributed computing manager that allows you to spread Calcium computations for any number of skeletons over multiple computers.
- ✔ **CamTrak** – A system, unlike any other on the market, that can track people, objects, and cameras in a broadcast studio.
- ✔ **BioFeedTrak** – A versatile tool that takes live data collected by Cortex and provides multimedia feedback based on predefined values.
- ✔ **KinTools RT** – The industry's only self-contained full-body kinetics and kinematics measurement package and custom model creation tool.
- ✔ **Motion Composer** – A tool used to gather, integrate, and present interactive motion capture data.
- ✔ **DV Reference** – Software for the capture and play-back of reference video data from stationary or moving DV cameras.
- ✔ **Continuous Calibration** – A self-diagnosing, self-correcting camera calibration tool.

One of the most advanced mocap solutions available: Cortex 8

At Motion Analysis, we continually develop new ways to make motion capture and tracking more efficient. We recently released Cortex 8 – the latest edition of our internationally recognized software. It includes a number of features that set it apart as the most advanced mocap software available.



Cameras

We provide high-quality, extremely accurate, low-latency digital tracking cameras. They're compact in design and offer robust performance. Our camera models are all "plug and play", field upgradeable, and compatible with our other cameras to meet your motion capture needs.

About Motion Analysis

We have been the international industry leader in motion capture technology for over 35 years. Founded in Santa Rosa in 1982, we quickly established ourselves as an innovative force in the motion capture world. Since our company was formed, we've worked closely with renowned specialists to create continuously cutting-edge hardware and software solutions for a wide range of industries including video game design, studio broadcasting, AR, VR, medical biomechanics, product development, robotics, and ergonomics.

In 2008, we released Cortex, our robust motion tracking and editing software which provides the most complete set of visualization tools in the industry. Cortex has since become our standout innovation, and is used at hundreds of sites around the world to capture, process, measure, and produce reliable data. Our constant product development ensures that our motion capture solutions remain the most accurate and advanced that the industry has to offer.

[Visit our website to learn more](#)