

BioStage™

organic motion

Intelligent motion capture
for the life sciences

Movement without Limits



System 1.8

Introducing BioStage™ by Organic Motion™

Turn BioStage on.

Your subject simply steps in and gets instantly tracked.

Watch as clean 3D motion data flows in real-time.

There is nothing to wear, nothing to attach.

No need to change clothing, calibrate flashing dots, or worry about marker occlusion.



Get ready for the natural motion capture of BioStage.

Motion capture that dramatically reduces the time and cost to achieve clinical-quality motion data.

Motion capture that removes the tracking devices and operating technician.

Motion capture that enables the non-intrusive, high speed tracking of any subject.

BioStage gives medical researchers, sports trainers, and biomechanics engineers a powerful new tool to track all aspects of human motion. Unlike all other motion capture systems, BioStage tracks the entire human body naturally, instantly generating the most comprehensive motion data, with absolutely no devices to wear of any kind.

Within seconds, BioStage views, calibrates, captures, and streams pure motion data directly into the leading 3D software for analyzing biomechanical motion, Innovative Sports Training's The MotionMonitor™. Or data can stream via our robust Software Development Kit (SDK), giving researchers the full power to analyze not only motion data, but also the subject's 3D mesh and surface texture. You can easily synch motion data with video of the subject – all in real-time.

BioStage is an advanced optical tracking system that sees humans the way humans see each other. Based on its high level of cognition and artificial intelligence, BioStage understands the movement it sees rather than simply connecting the "dots" as conventional mo-cap systems do.

BioStage is highly flexible to meet a wide range of science and sports requirements – from tracking a physically challenged patient to capturing a top athlete in her peak form. From scanning a rapid succession of subjects to providing the stability needed in demanding lab environments.

Achieve stunning advances in life science research and motion analysis.

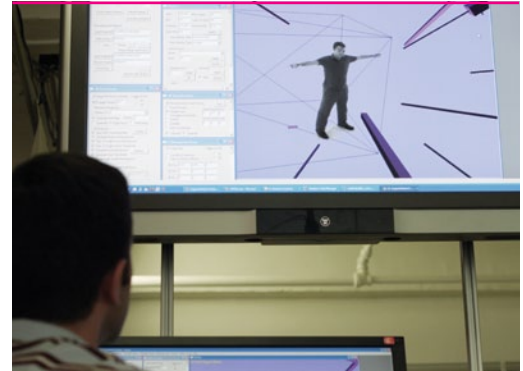
The days of restrictive body suits are over.



High speed Organic Motion cameras act as the eyes of this groundbreaking computer vision system.



BioStage is a complete motion capture solution that considerably improves the process of 3D human motion analysis.



Real-time on-screen rendering of comprehensive 3D data, with extensive analysis capabilities.

Applications

- Sports and human performance
- Gait Analysis
- Rehabilitation
- Physical Therapy
- Orthopedics
- Biomechanical research and education
- Posture, balance and motor control
- Ergonomics

“Organic Motion - Winner of 2008 Breakthrough Technology Award”

Popular Mechanics

“Organic Motion’s combination of cognitive predictive tracking and computer vision allows the actor to do almost anything on screen and maintain a clean result.”

FX Guide

“Cheaper, cleaner and immediately usable animation data—what’s not to like here?”

Newsweek

“Organic Motion technology should be of interest to clinicians in a number of fields, from rehab to orthopedics to neurology.”

Medgadget

Motion capture the way it should be.

Simple, Clean, Brilliant.

Real life in real-time.

Motion analysis the human way.

Just what the doctor ordered.

10 Reasons to Use BioStage

- 01 Everything needed to create your own advanced biomechanics analysis lab
- 02 No body suit or markers ever needed
- 03 Auto-calibrates in seconds to each subject
- 04 Generates clean real-time 3D data which can be synched back to the original video
- 05 Also functions as a real-time 3D scanner producing 3D mesh and textures via upgrade
- 06 Dramatic reduction of time and cost to create clinical-quality data
- 07 Flows real-time into Innovative Sports Training’s The MotionMonitor™
- 08 Operates without a technician, further reducing operating costs
- 09 Integrates with 3rd party devices such as force plates and EMG
- 10 Brilliant motion analysis available in real-time with no setup time

BioStage™ System 1.8

September 2009 Release

Intelligent motion capture for the life sciences

System Description subject to change
Release version defined in End User License Agreement

Scanning

- Scan Space - 4.25m x 3.75m x 2.5m; 14ft x 12ft x 8ft
- 60-120 fps, Real Time with 25-100ms latency
- XYZ Positional Accuracy (arms, legs) up to 1.0mm
- Rotational Accuracy (arms, legs other than along axis) up to 1°
- Rotational Accuracy (along axis) up to 2°
- Bones: 21 bones - 6 degrees of freedom each
- Tracks one Subject
- Tracks props with a substitute supplied (upgrade available)
- Designed for indoor use in typical artificial and/or natural lighting

Equipment

- Vision Processor
- 14 Cameras: 120fps, gray scale
- Resolution equivalent to 2 mega pixel of marker-based system, high speed NTSC actual
- Cameras can synch and genlock with external timecode at 120fps and slower
- Customizable scaffolding and reflective cloth to create scan space
- All connection cables

Software

- Biomechanical Plug-in: flows data real-time into The MotionMonitor™, the leading biomechanical motion analysis software, from Innovative Sports Training
- Software Development Kit (SDK) available

Output Format

- Supported through The MotionMonitor™ and SDK, exports ASCII; inquire for specific formats
- Variable 3D mesh and texture available via upgrade

Calibration

- Lens Calibration: All lens distortion is pre-calibrated prior to shipping
- System Calibration: On site in approximately 3 minutes - via a light wand (provided)
- Subject Calibration: Instantaneous

Organic Motion, Inc. is a leading innovator of computer vision and motion capture systems. Organic Motion's Stage™, BioStage™, and OpenStage™ systems radically enhance motion capture and analysis for the life sciences, the entertainment industry, and for customized motion applications for public venues. Organic Motion is headquartered in New York City.

Contact Organic Motion directly to learn more about how BioStage could significantly improve your motion analysis capabilities while dramatically lowering your process costs and delivery times.

To test drive BioStage call our headquarters 212-776-6100.
Visit our website www.organicmotion.com