

MoCatch-System

for CINEMA 4D



mocatch

www.mocatch.com



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Cheaper.
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Akademie & Medienverlag

Product Overview

MoCatch-System

MoCatch includes a unique combination of Hard- and Software, easing the process of streaming and recording natural movements. Our sensors are applied to individual limbs via adjustable straps and stream their data to your Windows or MacOS X PC using your standard WiFi network. A deep integration Plug-in for MAXON CINEMA 4D visualizes and records the Motion Capture data. No extra cameras or specialized studio environment are needed. Our flexible and affordable system can be used indoors and outdoors and grows with your demands.



Applications

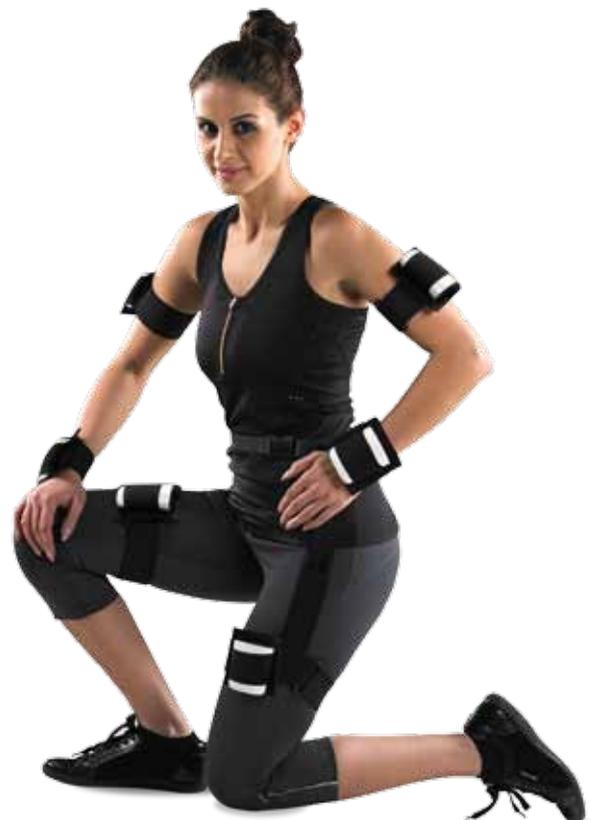
- Video game and film character animation
- Pre-visualisations, Simulations
- Motion analysis and research
- Interactive presentations
- Real time animation streaming

Minimum system requirements:

- Windows 7 or MacOS 10.8.5 PC
- Access Point or Wi-Fi Router offering 802.11g or faster protocol
- MAXON CINEMA 4D 15
- Real time streaming of motion data is possible with the free Demo version of CINEMA 4D 15 already
- Recording of Motions and the creation of individual rigs and animations requires at least CINEMA 4D 15 PRIME

Features

- Individual tracking of limb rotations
- Can be applied to isolated body parts or a complete body
- Easy to apply and to wear over or under normal clothing with ergonomic and adjustable strabs
- Setup and recording can be handled by one person already
- Individual MoCase Sensors can be combined in any number to control a rig with CINEMA 4D
- MoCase ^{mini} sensors can be used with MoCase Sensors whenever you have to record the rotations of smaller body parts
- No Cameras required
- Use under any lighting condition, even in complete darkness, indoor and outdoor
- No occlusion problems
- Standard Wi-Fi enabled data transfer between the MoCase Sensors and any Windows or MacOS X PC
- Deep Plug-in integration already included for MAXON CINEMA 4D 15
- Various export options for recorded animations, for instance, via FBX, Alembic, Collada or XML files via CINEMA 4D 15.



MoCase – Hardware

MoCase Sensors

The MoCase Sensors come in a streamlined design case, including rechargeable batteries, Wi-Fi connection and CINEMA 4D 15 Plug-ins. The MoCase uses an Accelerometer, a 3-Axis Rate Gyro and a Compass. As the sensors also use informations about the magnetic field, recordings give best results in environments without massive ferromagnetic objects and electromagnetic fields.



The MoCase can be fixed to any body with adjustable straps. A much smaller Sensor, the MoCase mini, can be wired to a MoCase to share its memory, Wi-Fi connection and battery. MoCase mini Sensors are even more convenient to apply to smaller body parts, such as hands or feet.

The sensors can be used over or under clothing. MoCase Sensors can be switched on and off individually to save battery life when not needed. Battery life lasts up to 5 hours of continuous recording until recharging is needed. A standard Charger is already included with any purchase of a MoCase Sensor and supports worldwide power inputs.

The recorded motion data is stored directly within the MoCase Sensor and also send to a PC via Wi-Fi. This allows real time streaming of the sensor motions if an Access Point or Wi-Fi Router is in reach. At the same time, no motion data gets lost even if the Wi-Fi network breaks down or the Sensors are used in a larger distance to the PC.

An active Wi-Fi connection to an PC is only needed for the calibration before recording starts and also after ending the recording to collect the data from the sensors. The memory of each MoCase can hold up to one hour of recorder data, depending on the used sampling frequency.



MoCase ^{mini}

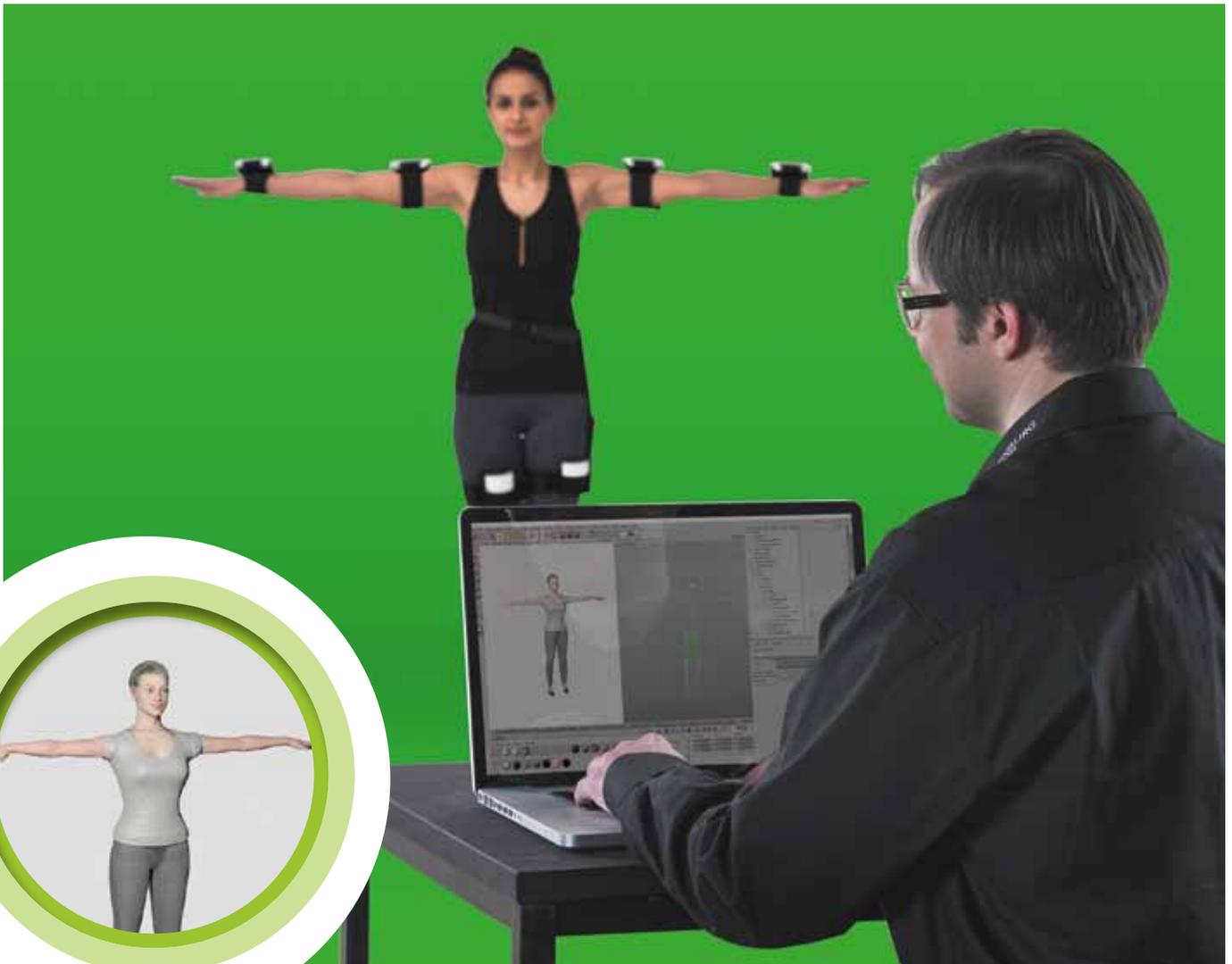
This simplified version of our main sensor is currently in development. The MoCase mini will make it even easier to fetch motion data from smaller body parts, such als the feet, hands, shoulder blades or the head. The MoCase mini can be linked to MoCase main sensor by a cable to share its memory and power supplies. This makes our full body Motion Capture system even more convenient.



Software

Plug-in integration for CINEMA 4D

A deep integration Plug-in for MAXON CINEMA 4D 15 is already included with every sensor. It allows the streaming and recording of Motion Capture data in real time. As all data is recorded in global coordinates by default, exchanging or editing your animation rigs has never been easier. You can attach the Motion Capture data to any object or parameter in CINEMA 4D. This makes our MoCatch system one of the most flexible and user friendly professional Motion Capture solutions on the market. Of course CINEMA 4D can also be used to export the recorded Motion Capture animation via FBX to most other 3D Applications and Game Engines of your choice.



Technical Details



This includes a live preview mode of the motions in the CINEMA 4D editor as well as recording, editing, baking and saving your Motion Capture data. The software also offers powerful display models for real time streaming without the need to record or process the Motion Capture data first. This can be very interesting for live presentations or other events, displaying an interactive 3D character. CINEMA 4D is not included with our system and has to be purchase separately at MAXON Computer GmbH.

The minimum system Requirements for the MoCache Plug-In are MacOS 10.8.5 or Windows 7 64 Bit. For all other requirements to run CINEMA 4D, please have a look at www.maxon.net for details.

MoCase sensors use the standard WiFi protocol to transmit the motion data. You need a recent WLAN Router or Access Point to connect your PC with the sensors. The maximum number of supported MoCase sensors per recording depends on the bandwidth of your WiFi network. supported MoCase sensors per recording depends on the bandwidth of your WiFi network.

Recorded data

MoCase includes high-precision triaxial gyroscope, accelerometer and compass sensors with Kalman filtering.

The Orientation **range offers full 360°** about all axis with an accuracy of $\pm 1^\circ$ for dynamic conditions and all orientations. The sensors can deliver data with up to 250Hz.

MoCase **includes additional RAM to store recorded data for more than 30 minutes** in case the WLAN connection gets disconnected during recording. **Rechargeable batteries** allow up to 5 hours of continuous recording.

Every MoCase purchase already includes MoCache, our Plug-In for CINEMA 4D 15, that allows to directly link any object with MoCase sensors.

Contact & Support



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Akademie & Medienverlag

Arndt von Koenigsmarck
Dechant-Roeper-Str. 32
58706 Menden

Tel.: 0049 (0)2373 – 1780440
info@mocatch.com
www.mocatch.com



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