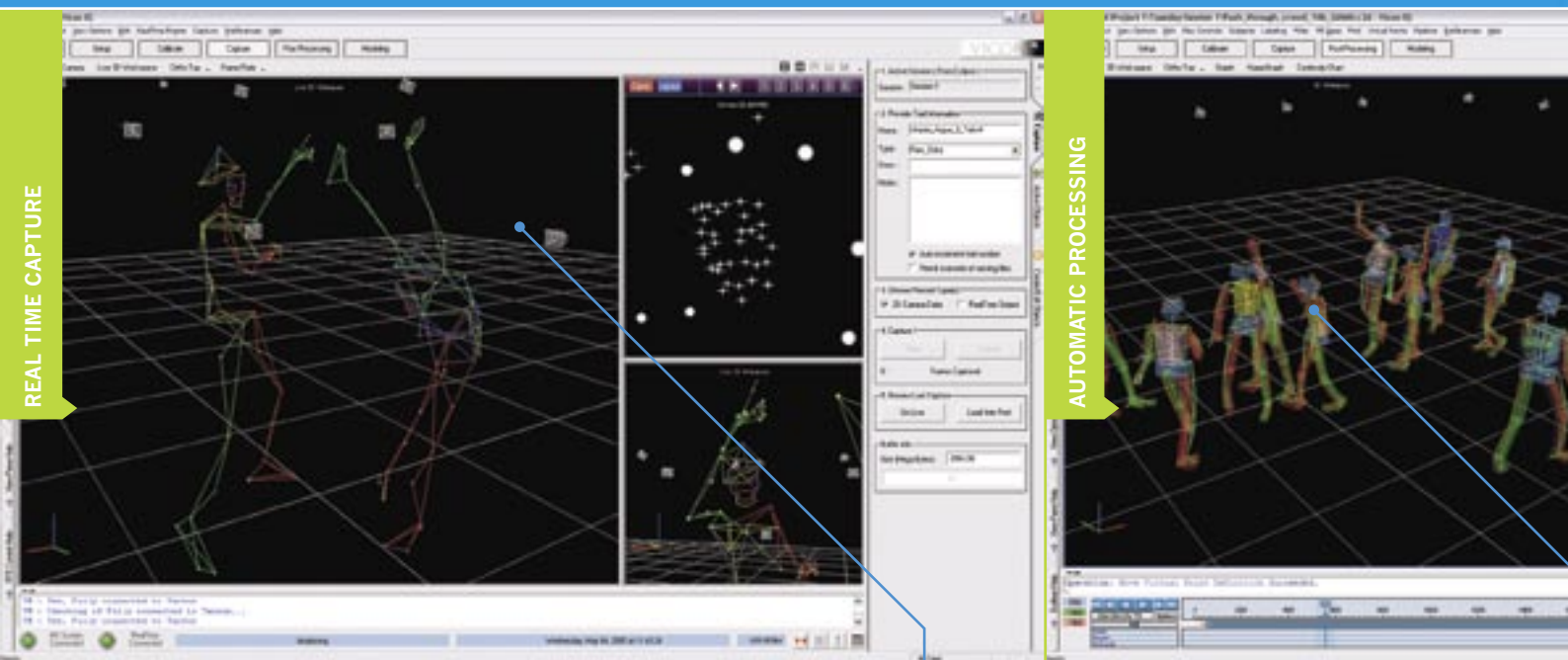




VICON iQ 2.5

MOTION CAPTURE PRODUCTION AND CONTROL SOFTWARE



VICON iQ 2.5

Vicon iQ 2.5 provides you with everything you require to manage, set up, capture, and complete a production all within one intuitive real-time working environment. Vicon iQ dramatically streamlines motion capture workflow and delivers unprecedented accuracy when tracking complex interaction between multiple actors, significantly reducing the efforts previously associated with manually editing volumes of captured data. Vicon iQ lets you automatically process even the most difficult multiple actor capture scenarios with rapidity and ease. Vicon iQ features all new algorithms and operations that automatically solve most of the ambiguities that typically exist with optical motion by using a calibrated biomechanical and kinematic model of the actors and props being captured.

BENEFITS

The benefits of Vicon iQ 2.5 coupled with Vicon MX have been experienced by many leading studios, production facilities, and service providers in fields ranging from film and television to games development. As seen through the comments of current Vicon customers, enthusiasm for the product, and its impact on motion capture practices, is incredibly high.

VICON iQ 2.5 AND MX

When Vicon iQ 2.5 is used in conjunction with the MX cameras, the accuracy and efficiency has to be seen to be believed. Vicon iQ makes full use of the onboard real time grayscale processing of our leading MX cameras; allowing overlapping markers to be detected, hundreds of markers on face, body, and hands to be captured simultaneously across multiple actors to truly deliver performance capture.

The world leading combination of Vicon iQ and Vicon MX is simply stunning.

ALL IN REAL TIME

Vicon iQ 2.5 provides you with a completely real-time environment to set up and calibrate your system and to capture your entire production.

Innovative real-time algorithms allow you to visualize captured and processed data along with providing a set of real-time quality assurance tools to monitor the status of the system ensuring you get perfect data everytime. Vicon iQ will capture and display all 3D and 2D camera data (labeled and unlabeled) along with the underlying kinematic model for multiple actors all in real time.

AUTOMATIC PROCESSING

REAL TIME CAPTURE

Set up and calibrate your system in real time, set up time code and genlock and monitor the state of the system as you capture data in real time. Real time 3D processing to 3D kinematics, with real time quality assurance tools.

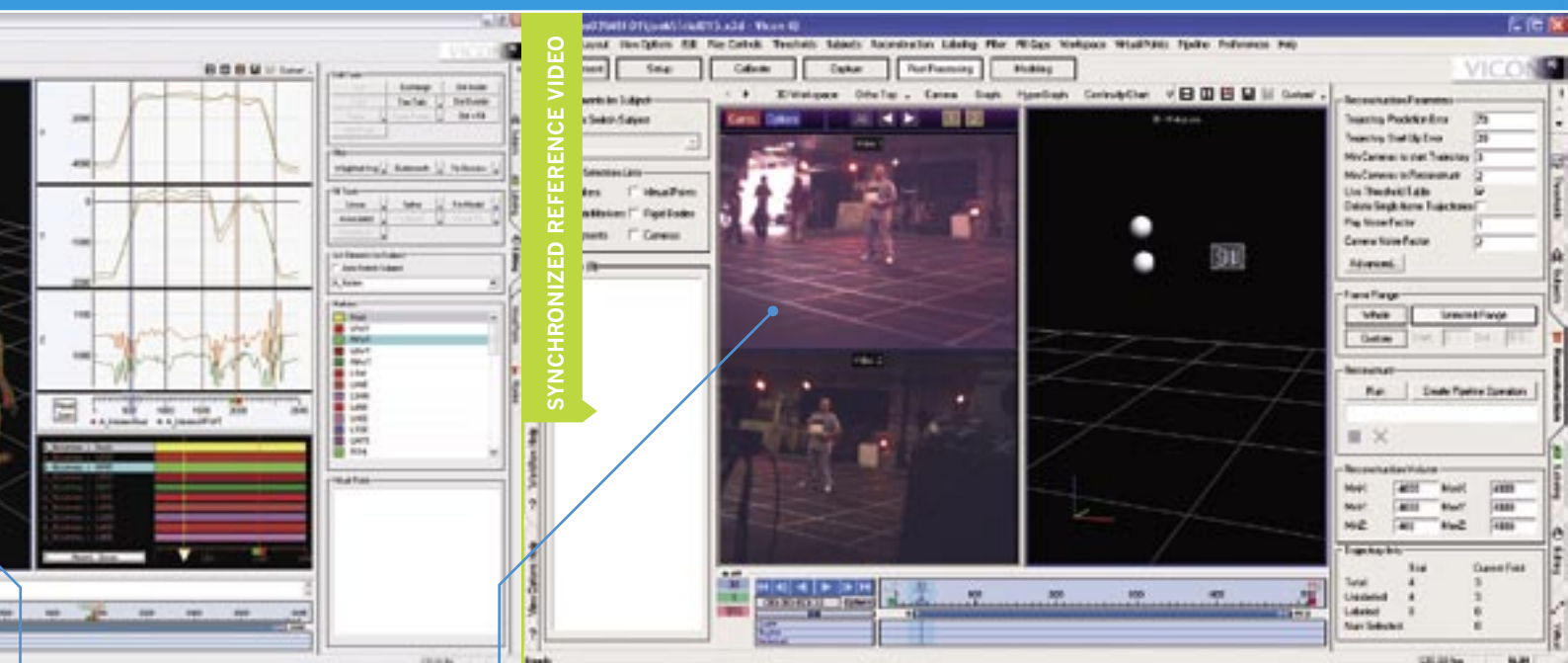
Vicon iQ provides you with the ability to previsualize animating characters in your target CG package in real time, with immediate playback on set, to aid both director and actors with the artistic process.

CUSTOM WORKFLOW

Vicon iQ 2.5 includes a comprehensive suite of modules that can be configured to learn your best practices. Manual work flows can be saved and then run on all captured takes automatically. With Vicon iQ you can create custom templates, pipelines, batch processes, virtual points, and rigid bodies allowing Vicon iQ to automate your workflow. Vicon iQ learns as you do.

PRODUCT OVERVIEW

PRODUCT FEATURES

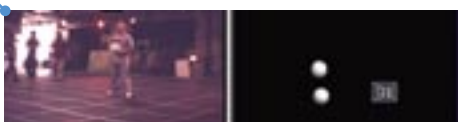


SYNCHRONIZED REFERENCE VIDEO



MULTIPLE CHARACTER

There is no limit to the number of actors or props that can be processed in a single take. Simultaneous high detail face, body and hands can be captured with the combination of Vicon iQ 2.5 and Vicon MX Cameras.



SYNCHRONIZED REFERENCE VIDEO

Vicon iQ 2.5 fully supports the Vicon Reference Video System, enabling you to capture multiple video streams that are perfectly synchronized with your 2D and 3D motion capture data.

UNIQUE WORKING METHODOLOGY

Vicon iQ 2.5 is unique. It applies kinematic intelligence of what is being captured through all steps of the process including; labeling, gap filling, filtering, and skeletal solving. Every process is logged and the information is instantly available to you.

Vicon iQ never discards any captured or calculated data and uses an interactive feedback loop to converge on the best possible answer in the most challenging of situations using kinematic and biomechanical analysis.

AUTONOMOUS POST PRODUCTION

At the heart of Vicon iQ 2.5 is a flexible pipeline engine that allows you to add any operation or function, in any order, as many times as you want and all with a unique set of parameters. This allows you to completely automate your workflow and process all of your data leaving you to relax and think about your next production.

Vicon iQ features all new algorithms for calibrating cameras, reconstructing 3D data, labeling of multiple actors, kinematic solving and re-targeting to characters. Vicon iQ has all the tools - automatic, semiautomatic and manual - to ensure you can always get the job done.

Imagine being able to automatically process 10 actor capture! - With Vicon iQ you can.

DATA MANAGEMENT

Vicon iQ 2.5 will store all of your captured data automatically into a customized database and maintain all of your file and data associations for each captured take. You can import and export shot lists, integrate into other databases, make changes in real time and set up automatic batching to process all of your captured data over night. The database allows you to assign unique processing pipelines to individual takes and batch process them whenever you want. Vicon iQ's data management is there to reduce your organizational load.

At every step of the way Vicon iQ keeps you informed of every change it makes to the data so you are never lost in a black box of trickery.

Everything is provided with Vicon iQ . It is the new production tool chosen by professionals around the world.

VICON IQ 2.5 FEATURES

Integrated Vicon MX support for all camera models: MX3, MX13, and the world-leading MX40.

Real-time system set-up tools for camera optimization, calibration, and diagnostics.

Hardware scalable real-time capture and processing to 3D labeled kinematics and direct save to disk with simultaneous 3D visualization.

Timecode integration, triggering, and genlock support in conjunction with MX Control.

Support and integration with Vicon Reference Video System, enabling Vicon iQ to capture and play back video of up to six separate video cameras that are frame accurate with optical motion capture data.

Full model builder for designing and creating kinematic models, marker sets, and associations for all actor(s), animal(s) and prop(s) – used both for real time and in post production.

All new advanced grayscale algorithms for circle fitting and grayscale merge detection.

Next generation advanced 3D reconstruction and labeling operations to handle multiple actor capture and simultaneous face, body, and hand capture, including the ability to process markers based on their 3D reconstruction size. Process 10 actor capture with ease.

Support for over 400 cameras in a single system.

All new camera calibration to accurately determine the position, orientation, lens, and internal parameters of each camera. Fast and reliable. Enhanced options for complete recalibration vs. a “warm” start calibration that is useful for very large systems.

Supports all plug-and-play MX hardware.

Recalibrate single or multiple cameras from actor data in real time or in post processing.

Real-time camera health check and quality assurance tools.

Advanced 3D automatic trajectory labeling, using kinematic model, and bio-metric statistics.

Unique Kinematic Fitter easily transforms captured motion to a custom skeleton using global optimization. Used for holistic kinematic processing and for character re-targeting. Powerful Graphing tool.

Scene management tools, hypergraph, subject management, outliner, and search tools.

Extensive assisted manual labeling tools – There are four modes, each with four rules which enable you to have full control.

Extensive semiautomatic labeling tools, using dynamics and kinematics.

Intelligent rigid body clean-up templates – Share markers between rigid bodies, apply priorities and weights to teach Vicon iQ 2.5 to regenerate occluded data accurately and automatically.

Virtual Point clean-up templates – Create virtual points, apply priorities, weights, and custom associations. Teach Vicon iQ 2.5 how to use them to re-generate complex and large occlusions.

Automatic maintenance of trajectory continuities – Guaranteed smooth transitions between real data and regenerated data.

Intelligent quality assurance tools – Throughout all processing, Vicon iQ 2.5 maintains a log of what was done to your data, and clearly displays graphically what was done and how it was achieved.

Unlimited Undo/Redo.

Full 3D workspace, perspective, orthographic, hypergraph, continuity chart, diagnostic, interactive graph, video, and 2D optical camera views.

Custom Search tools.

Custom filtering: Butterworth, weighted average, discontinuity remover.

Low-level editing tools – Cut, copy, paste, paste pattern, move single or multiple points in any or all axes over any frame range.

Automated fill tools – Kinematic, rigid body, virtual points, associated, ordered, linear and spline.

Data Management – Automated project and file associations.

Real-time capture and visualization – View, record, and use 3D real-time streamed data.

Custom user preferences – View options, workspace layout, colors, and tool options.

Fully customizable Hot Key accelerators for frequently used operations.

Custom pipeline – Any operation can be applied to a Pipeline in any sequence.

Full automated batch processing, and custom pipeline design and creation tools.

Command-line access, for batch farming and processing.

Multiple industry file formats supported.

Drag and drop any motion capture file directly into Vicon iQ 2.5.

Enhance user interactions including time scrubbing, automatic user-definable file name suffixes, entire system hardware setup files, zero start strobe settings, and unsaved pipeline protection.

For more information on Vicon iQ 2.5 please contact your local office.

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