




CAPTURE.U 1.1
iOS APP FOR BLUE TRIDENT SENSORS

CAPTURE MOVEMENT IN THE FIELD AND ANALYZE DATA IN REAL-TIME



GATHER & ANALYZE DATA IMMEDIATELY




Easily access your data




Assess tools and choose what's right for you


Do more in the field

CAPTURE.U, THE LATEST IOS APP FROM VICON, OFFERS A WHOLE NEW LEVEL OF INSIGHT INTO HOW ATHLETES ARE MOVING IN THE FIELD.

Gather and analyze data on athlete performance immediately, where it matters: on the field, in the pool, on the track or in the lab.



Working seamlessly with Vicon's Blue Trident sensors, Capture.U offers multiple ways to capture and view data, allowing you to understand movement right where you need it. With Capture.U your device becomes a window that allows you to see beyond visual noise to the data underpinning athlete performance.

Vicon has built Capture.U to be powerful, yet easy to use, enabling a wide range of users from sports coaches and teams to sports scientists, biomechanists and researchers. The app provides easy access to real-time information from your Blue Trident sensor.

DEEPEN YOUR PERFORMANCE ANALYTICS WITH CAPTURE.U



OPEN UP THE POTENTIAL OF INERTIAL

Download Capture.U for free from the iOS App Store and use with Blue Trident to reap the benefits of capturing accelerations at up to 200g.

[Download here](#)



JOINT DATA

Access insights into 2D and 3D joint angles with the new AR Visualization mode, all while in the field and with your subject. Select a joint to see its kinematic data and the joint position and angles in degrees. Set movement goals for your athlete using benchmark values that trigger an audio alert when the goal is achieved or exceeded.

REAL-TIME VIDEO OVERLAY

See movement data overlaid on video for real-time analysis and later assessment. Share the data with your athlete in the field or review it later to increase their engagement.

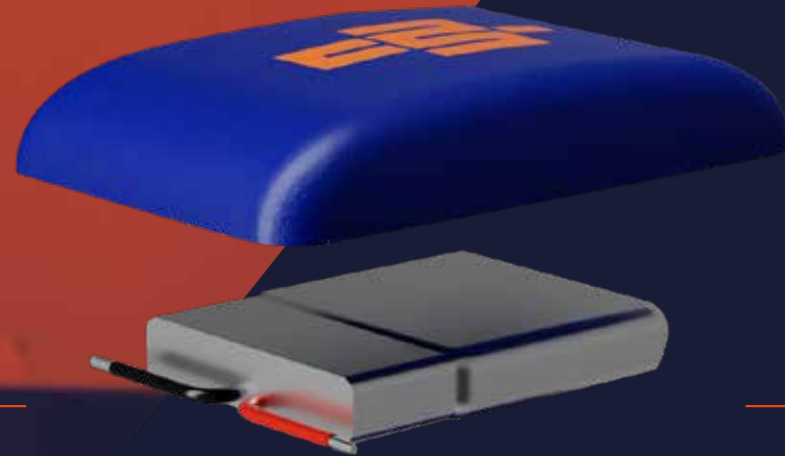


CAPTURE MORE

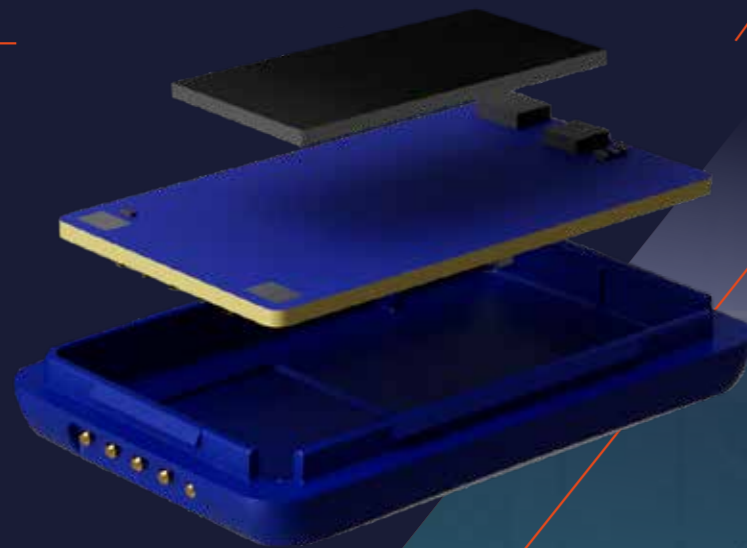
The app now connects up to 20 Blue Trident sensors over a range of up to 24 meters. Collect a greater depth of data on one or more subjects, over a greater distance.



MULTIPLE WAYS TO CAPTURE AND ANALYZE DATA



CAPTURE MODES



CAPTURE TO SENSOR

Ideal for coaches or researchers who need to capture information from sports such as long-distance running, when you're out of Bluetooth range – or from larger numbers of athletes, simultaneously. It's also perfect for sports where you can't stream data over Bluetooth, such as swimming.

- Capture data – up to 12-axis – and see low and high-g accelerations from free movements directly to your Blue Trident sensor's memory.
- Store large volumes of data.
- Connect up to 20 Blue Trident sensors.
- Download data for later review via Capture.U desktop.
- The information can be complemented with reference video captured separately.

CAPTURE TO DEVICE

Ideal for team sessions or for researchers seeking to collect data from more than two sensors, and want the convenience of storing that data on their in-field iOS device.

- Capture free movement from up to 14 sensors* with reference video data directly from the device, allowing you to track multiple athletes in the same location simultaneously.
- Collect either low-g or high-g data via Bluetooth.
- Immediately export data via your iOS device.

REAL-TIME INSIGHT

Ideal for coaches or researchers who want to gain a deep understanding of any movement and review performance in real-time, along with the video overlay and to create a report to share with their athletes or players for later review.

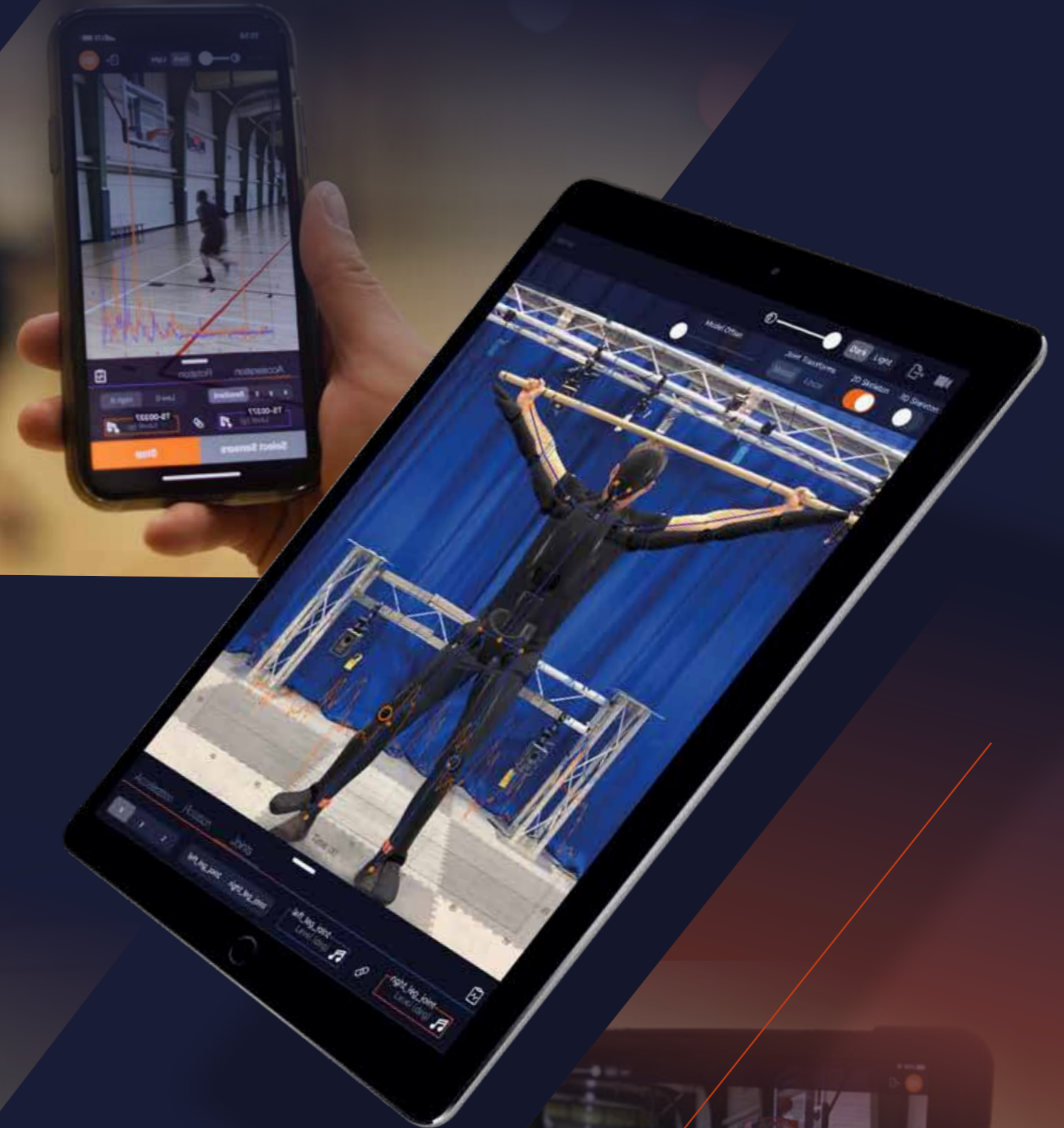
- Capture live movements for streaming of real-time data from up to two sensors.
- The data (from the high or low-g accelerations or gyroscope) is displayed over the video.
- Set an objective benchmark and the app will trigger audio feedback when the threshold is exceeded.
- Export video and data in a report for later review.

AR VISUALIZATION

ACCESS INSIGHTS FROM APPLE'S AUGMENTED REALITY KIT (ARKIT 3) FOR NEW IN-FIELD VISUALIZATIONS AND DATA.

- First to market with this implementation of ARKit 3.
- Capture and visualize kinematic data on specific joint angles, measured in degrees, in real-time with video overlay capability.
- Set benchmarks that will trigger audio feedback when they are exceeded.
- Display 2D and/or 3D visualizations of your athlete's movements either overlaid or offset on real-time video for immediate, intuitive analytics into athlete performance in the field.
- Export and share the video with data overlay plus the 2D and/or 3D overlays.
- Easy export of data for later review including ARKit 3 joint data.
- Create PDF reports and easily share them with your team.

NOTE: AR Visualization can only be used once a sensor is attached to the app.



ACTIVITY WIDGETS (COMING SOON)

IDEAL FOR STUDENTS OR COACHES WHO WANT TO ENHANCE SPECIFIC SPORTING ACTIVITIES WITH IMMEDIATE FEEDBACK IN THE FIELD.

The pre-set Activity Widgets offer metrics on focused sporting movements, enabling coaches to offer highly-targeted guidance on how to improve performance.



SWIMMING

Measures velocity curve of a freestyle swimmer over 100m.



COUNTER ROTATION

Measures angles between the C7 and sacrum and global angles of the C7.



JUMPING

Measures the height and velocity of a counter movement jump.



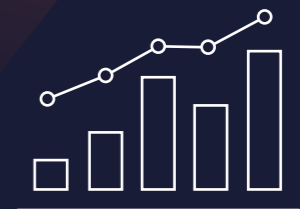
SPRINTING

Measures velocity and time over a 40m sprint.



POWER METER

Records immediate maximum velocity, concentric power and force, plus velocity, power and force metrics over time.



While Activity Widgets lend themselves perfectly to immediately reviewing performances with athletes, data can be stored to create a report after an activity session or to compare data over multiple trials.

CAPTURE.U DESKTOP

IDEAL FOR TAKING A DEEPER DIVE INTO THE DATA YOU'VE CAPTURED AFTER A COACHING OR RESEARCH SESSION.

Download free of charge from the Vicon website

[Download here](#)

- Share content and export the data to compare multiple captures to track changes in performance over time.
- Seamless export of data captured in the field.
- Export CSV files to any analytics platform (Excel, MATLAB, Python) for further analysis.
- Available for both Windows and iOS desktops.
- Includes walkthroughs and tutorials.










Export data as an x1d file so Vicon Nexus can read and compare sensor capture data.



Synchronized export of data by upsampling low-g data to synchronize with high-g data capture frame rate.

COMPARISON TABLE



	AR VISUALIZATION	CAPTURE TO SENSOR	CAPTURE TO DEVICE	REAL-TIME INSIGHT
 WHY?	AR Visualization: early access to a new and emerging technology, allowing our users insight into current capabilities which could expand their in-field data collection experience	High sensor count and unlimited range (out of Bluetooth range) for later review. Perfect for multiple athletes for long-distance running or data collection in water	High sensor count than real-time insight within bluetooth range for immediate data export e.g. multiple athletes training in the same location	Real-time data streaming with video overlay, can add benchmarks with audio alert e.g. a coach and athlete reviewing performance over multiple trials, creating a shareable report
 DATA LOCATION	Capture.U	Blue Trident on-board memory	Capture.U	Capture.U
 MAX SENSORS	2	Up to 20	Up to 14 ³ .	2
 WHAT?	Sensor data Video overlay in real-time ARKit 3 visualization Joint angle degrees	Sensor data Video (reference video only – optional)	Sensor data Video (reference video only) (optional)	Sensor data Video overlay in real time
 AXIS	3 – Low G or gyroscope or high G ¹ .	12 – High G and low G	High G only (3 axis) OR Low G (9 axis – accelerometer, gyroscope, magnetometer)	High G (3 axis) OR Low G (6 axis – acceleration plus gyroscope) ⁴
 CAPTURE RATE	Low G accelerometer & gyroscope: 562 Hz (if joints displayed in real time) High G 800 Hz Joint Angles: 60 Hz (default)	High G accelerometer: 1600 Hz Low G accelerometer & gyroscope: 1125 Hz Magnetometer: 100 Hz	High G accelerometer: 800 Hz Low G acceleration only: 800 Hz Low G acceleration & gyroscope: 500 Hz Low G acceleration, gyroscope & magnetometer: 250 Hz	High G accelerometer (default): 800 Hz Low G accelerometer & gyroscope: 562 Hz
 RANGE	Bluetooth: up to 24m ² .	Unlimited	Bluetooth: up to 24m ²	Bluetooth: up to 24m ²

¹IMU data export is dependent on axis selected.

²Vicon internal testing, indoors.

³Depends on iOS device.

⁴Note only 3-axis can be displayed, e.g. low-g displayed but low-g and gyro data is exported.

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