

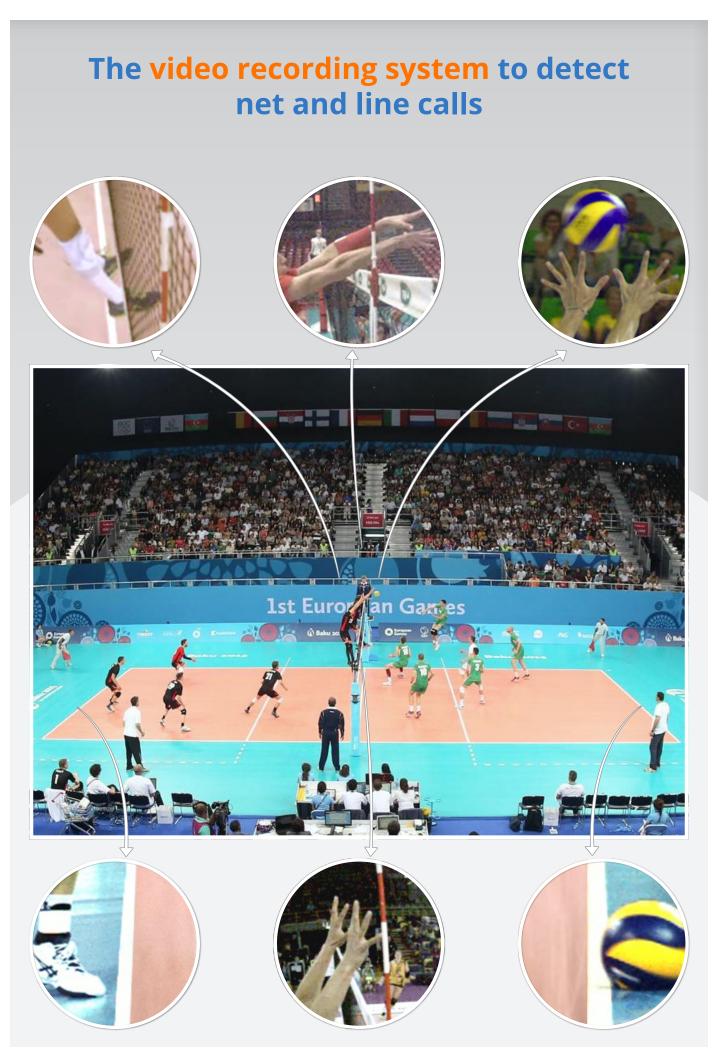
The instant replay system: a special eye for volleyball violations











About VideoCheck

VideoCheck is Data Project instant replay system to detect volleyball violations, helping referees to improve the accuracy of on-court decisions.



Wide range of violations

By using a **slow motion system**, VideoCheck allows to verify **balls in/out**, **attack line** and **line service** faults, **net**, **antenna and block touches**.



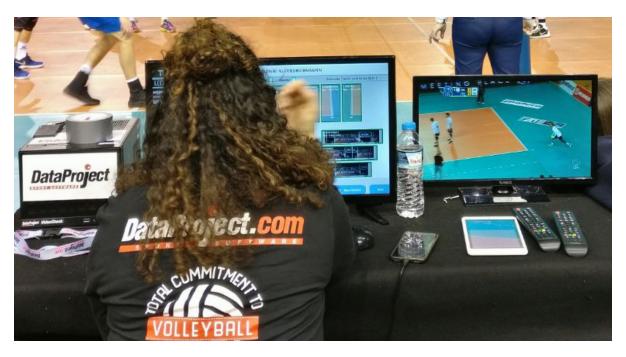
System Composition

The system consists of **three servers** and a **set of 19 cameras** positioned on the volleyball court, monitoring all the possible infractions.



Easy to use

VideoCheck is renowned for its **ease and speed of use**, which allows any user to operate on it at any game.



What's the benefit?

Data Project partners can use our market-leading VideoCheck software to deliver a number of key benefits.



Improve the accuracy of on-court decisions

Provide referees with **state-of-the-art technology**, proven to detect a number of on-court violations

Greatly **reduce the likelihood of officiating errors** through slow motion replays, captured by high quality video cameras



Drive fan engagement levels

Use VideoCheck to **improve in-game fan experiences** both in and out of the stadium

Harness our software's ease of integration to **show video referrals and slow motion replays** on scoreboards, big screens and televisions

even by a referee without proof informatics or video knowledge. It had to be cheap, easily packable in a wheeled flight-case, and with a simple broadcast interface because we wanted to show the real output of the cameras both to TV spectators and live audience. With Data Project we succeeded in creating a perfect mix of those ideas. The final result is a masterpiece of technology for sport, I'm very proud of it.

Fabrizio Rossini, vicedirector of Lega Pallavolo Serie A, Project Manager of the VideoCheck System since 2012

What does VideoCheck detect?

The structure of VideoCheck System allows the placement of high speed video cameras (up to 180/fps) around the court to detect:



- Ball in/out
- Service line Fault
- Attack line Fault

☐≒ Lines Cameras (10)



- Block Touch
- Antenna Touch

Block Cameras (6)



- Net Touch
- Center Line Fault
- Four Hits

Net Cameras (2)



Why Data Project?

Data Project leads the market through the quality of our technology.

Unlike other video challenge systems which require the support of tv cameras, or are based on virtual renders, VideoCheck monitors all possible infractions in complete autonomy, providing the audience with the **real-time images** in picture perfect quality.



Official Replay System of the **2018 CEV Men's Champions League Final Four** in Kazan.



Reverse Decisions

during the 2017/2018 Italian Men's and Women's Championships



Challenges requests

in 1275 matches played in the last two Italian Men's and Women's Seasons



European Teams

that have chosen VideoCheck during CEV Champions League 2018

Moreover, the **hardware configuration** is based on **standard elements**, allowing the user to assemble the system also through local providers.

System Layout

Partners of Data Project can choose from having 2 different set ups, depending on variety of violations and quality cameras definition.

Both solutions require the **Data Project PC (server)**, simply accessible by the customer thanks to the regular hardware that composes it, easy to find also at a not specialized market.

The Data Project PC needs to be assembled following precisely the VideoCheck system Hardware Specification.



Please note that high-quality hardware is essential for the VideoCheck System to function to its full capacity. Based on our years of experience, we strongly discourage the use of home-made equipment.

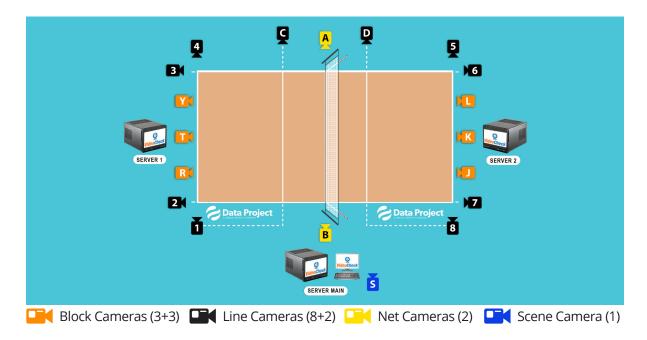
Maps below show the **placement on court** of lines cameras, block cameras, net cameras, the scene camera and servers based on different set ups.

19 Cameras - System Layout

The system with Block Touch cameras, Line cameras, Attack Line cameras, Net cameras, Scene camera and 3 Servers.

The 19 Cameras System enables to monitor the whole court, allowing to detect 100% of violations made: **balls in/out** and **block touch** faults, as well as **net faults** and **attack line** faults. The placement of **twins cameras** allows an even more accuracy in the monitoring, providing a wider perspective.

Should accidental damage occurs at one of the servers, the system would still be working for the entire match, being 2 servers able to cover all the faults anyway.



The system includes:

- High level quality cameras to detect block touch faults
- High level quality cameras to detect line calls
- High level quality cameras to detect attack line faults
- High level quality cameras to detect net touch faults
- Twins cameras for all the areas, except for attack lines
- Scene camera
- Hardware remote support guaranteed *

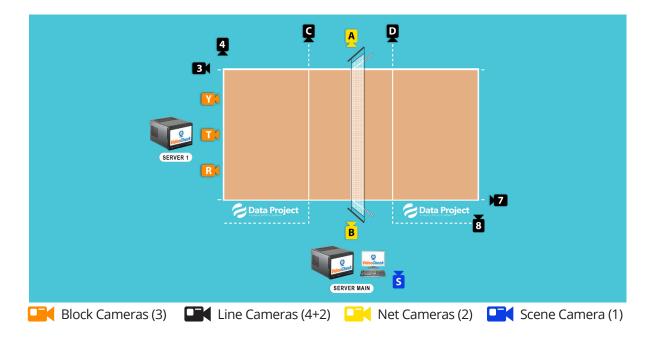
^{*}Remote support is guaranteed only if Hardware Specification has been followed precisely.



12 Cameras - System Layout

The system with Block Touch cameras, Line cameras, Attack Line cameras, Net cameras, Scene camera and 2 Servers.

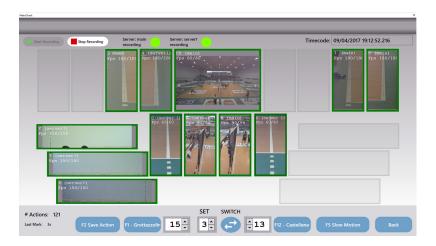
The 12 Cameras System enables to monitor the whole court, covering 100% of faults calls. It allows to detect all the most requested calls, **balls in/out** and **block touch** faults, as well as **net faults** and **attack line** faults.



The system includes:

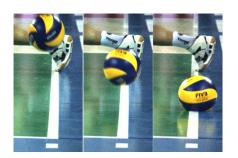
- Possibility to upgrade to the expanded version anytime
- High level quality cameras to detect block touch faults
- High level quality cameras to detect line faults
- High level quality cameras to detect attack line faults
- High level quality cameras to detect net touch faults
- Scene Camera
- 2 Data Project PC's (server)
- Hardware remote support guaranteed*

^{*}Remote support is guaranteed only if Hardware Specification has been followed precisely.



Key Features

Data Project provides several features for its VideoCheck Systems.



Instant Replay System

VideoCheck enables the careful detection of typical volleyball violations and balls in/out, featuring up to 19 high **speed cameras** positioned on the court, recording with **high quality resolution**.

Low Visual Impact and Easy Installation

Each camera is fitted with a protective cover, designed for a very low visual impact. The limited length of cables needed to connect the system allows for **easy and fast installation**.





A Complete Broadcast Service

The **VideoCheck Slow Motion replay** (and its result) can be transmitted to in-venue screens, scoreboards and live television. VolleyBoard supports the video signal and it can broadcast the replay of the action automatically.

System Configuration

VideoCheck is easy to use: the software interface is intuitive and user-friendly and the installation is simple and fast.



The configuration of the system and its management have been designed for an uncomplicated setup, being supported by a dedicated app called **Camera Check**, available on all the major App markets for Android and iOS mobile devices, that helps the cameras configuration.

