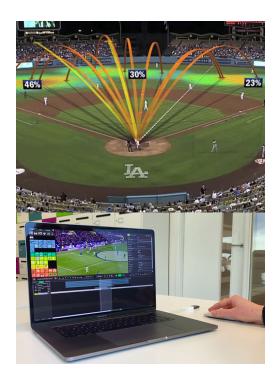
# **PIERO**



# **PIERO SPORTS GRAPHICS ANALYSIS**

PIERO is an award-winning sports analysis tool from Ross Video. PIERO's systems use image recognition or encoded camera heads to overlay tactical graphics on sports content. PIERO brings new angles to every game, on the screen and in the studio, with visually engaging and informative effects.



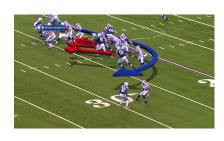
Cena:

Kategorie: Video, Broadcast, Grafika TV

## **GALLERY IMAGES**











**OPIS** 

# **Over 20 Sports Covered**

PIERO can apply industry-leading graphics to more than 20 of the world's major sports. The system combines video-based effects with 3D replays and advanced virtual graphics. The

comprehensive palette of effects delivers high-impact technical analysis along with eye candy and increased sponsorship opportunities. These effects can be customised and pre-set for magazine shows and live productions.

## **State-Of-The Art Analysis**

The wide range of effects offered by PIERO includes: 3D tied to field telestration, data visualization (events and tracking), replays in 3D stadium or 3D tactical board, fly between cameras, team line-up, speed and distance, moveable and removable players, virtual run, auto tracking spotlight, and many more.

### **Cost Effective**

Simple installation and real-time workflows make PIERO cost-effective and easy to integrate with existing workflows. Users can apply graphical effects on highlight clips and live SDI feeds. Additionally, PIERO's ethernet-based touch mode is a game changer for remote production. From a technical and editorial point of view, PIERO strives to deliver systems that provide high efficiency in all scenarios.

## **Augmented Reality**

PIERO's Augmented Reality effects use encoded camera head tracking to visualize game data on the studio floor for immediate analysis of tactics, incidents, and play. The Virtual Presenter is included with the PIERO Broadcast solution and offers an innovative way to talk space and player decision. The intuitive user interface and optimised workflow ensure the graphics are ready to use in seconds. Additionally, virtual advertisements and sponsorships are possible with all PIERO solutions.

# **Custom Branding & Graphics**

With over fifteen years of experience in sports graphics, the PIERO team has crafted an unrivalled palette of effects that help analyze play patterns and team tactics. The team works closely with clients to develop new styles and customize existing effects. The PIERO team is used to tailor the solution to high-end brand identity and graphical charts since its beginning at BBC Sport. The team continuously works to add new effect renderers and slicker textures

for improved graphics.

### **Intuitive & Interactive**

PIERO's touchscreen interface provides a simple and interactive way to add graphics to a video clip. The intuitive and fully customisable user interface can adapt to any use case, from on-air television debates to locker and hotel room pro team tactical update. As the system is portable and easily extended thanks to its simple TCP/IP connection, it's a great choice for remote production. PIERO has been designed to allow producers and analysts to make changes up until the last minute and still make it to air!

#### **Editions**

### **PIERO Broadcast**

PIERO Broadcast is a real-time 3D sports graphics and analysis system created for broadcasters. The system is built upon a proprietary line and texture tracking algorithm codeveloped by BBC Research. This creates a seamless blend of graphics and video which maintains proper perspective and keeps graphics tied to the pitch as the camera moves. The Broadcast Timeline mode takes HD-SDI input and burns the graphics on its video HD-SDI output.

#### **PIERO Live**

PIERO Live is a studio graphics system built on an industry-leading sports graphics and analysis engine. The system is fast – all graphics are rendered in real time and the user interface is fine-tuned for live use cases. It supports a wide array of encoded camera heads and can connect to data feeds for NFL, Soccer, and Baseball data. PIERO Live can be used to create studio augmented reality, VAR-like offside replays, 1<sup>st</sup> and 10 down and distance, distance to goal in Rugby and Soccer, and many more.

#### **PIERO Club**

PIERO Club is a 3D graphics system designed for professional sports clubs. It's the perfect

interface between coaching staff and players. It maximizes communication efficiency and engages players using pre-made clips and live presentations. The solution runs on a MacBook Pro laptop and offers a simple and logical interface. It has been designed with the user in mind and helps to add visual support when reviewing and preparing a game.

#### **Features**

### **Data Visualization**

PIERO works with Event and Tracking data suppliers for many sports to visualize data on the pitch. These data-driven graphics provide rich insights into the patterns of play by teams and individual players. PIERO's data module creates graphics such as shot spray charts, passes between players, heatmap, automated tracks for all players, and more. The data is easily filtered by date, game, and player.

### Touch & iPad

PIERO's touch mode provides an interactive way of using the system's graphics during live presentations and on camera. Presenters and Head Coaches can customize the touchscreen or iPad user interface to fit their specific style and needs. The interface can adapt to large and small screens, two or more presenters, and tech savvy users and beginners alike. The PIERO touch mode supports multiple devices simultaneously over TCP/IP and is a fantastic add-on for remote productions.

# **3D Replay**

PIERO's virtual stadium and 3D tactical board allows broadcasters and pro teams to create 3D replays that show plays from new angles. Users can track players and access a quick bird's eye view to reveal spaces. Using the 3D players effect, users are able to see the referee's point of view or simply show a possible team line-up with alternative options. The PIERO 3D mode blends seamlessly between real footage and the 3D virtual world. This allows presenters to annotate in 3D from the high tactical cam and have the effects show up on the real footage.



## **Specifications**

Piero Broadcast and Live runs on a 2RU AJA Nvidia RTX400 M8.

Integration with leading replay servers:

Mira, EVS XT and IP Director, Grass Valley, Dream Catcher.

**Piero club** is software only and runs on MacBook Pro 15".

**Encoded Camera heads support** is done via Ross Video VCC.

Data supplier supported for Soccer, Baseball, Rugby.

Basketball and Ice Hockey pending.