



# Sport

## Comprehensive sports solutions bringing your live sport production to a whole new level

No event gains so much emotion and enthusiasm as a live sports event. Ratings sky rocket during such events, increasing viewer loyalty. With more and more cameras being used, super slow motion cameras have become the de facto standard. Real time graphics linked with statistics collection systems help the commentator better analyze and visualize the game. With its 16 year legacy in premium sports events such as the World Cup and the Olympics, Orad provides a complete tool kit to address the different aspects of a live sports events. From Brazil to China, from the US to Russia, Orad's sports solutions are used on a daily basis by some of the most prominent broadcasters worldwide

### Powerful live sports graphics

Live sports graphics have gone much beyond merely displaying the score and the game's clock. Now, live sports graphics are all about displaying relevant and accurate data quickly. In many ways, the graphic look of the production has become a major factor in the station's identity and brand. Orad's 3DPlay offers the ability to easily create script free dedicated control panels to address different sport disciplines. The system integrates smoothly with statistic collection systems and databases, allowing the operator to take to air the most updated information in a fraction of a second. The system handles the entire production from pre game to the game itself, and post game. That includes all graphical elements such as scores, game clocks, rosters, fixtures, tables, tickers, and any other graphical elements. 3DPlay also integrates with real time players tracking applications and visualizes the collected data such as distance covered, "heat maps", etc.



NBA production courtesy of Turner, USA

### Super slow motion replays

Split-second replays from different angles is also a must have in live sport productions, with super slow motion camera replays becoming an even more appealing tool for "capturing the moment". Orad's PlayMaker slow motion video server was designed in order to address the growing challenges of live sport event productions. PlayMaker supports up to 8 HD/SD channels. These channels can be configured as; 6 inputs or 1 super slow motion +3 regular cameras or 2 super slow motion inputs, all with 2 outputs, thus offering significant cost savings on both operational and capital investments. While retaining a small foot print of only 3RU, PlayMaker is equipped with a massive 120 hours of storage time in SD or 60 in HD with full audio support. PlayMaker deploys a smart control application which allows faster and more efficient cataloging tools. Operated by touch screen, the user can set a group of programmable buttons for a specific sport event. For example, in soccer productions they can include fouls, offsides, corners, etc, while in basketball they can include 3 pointers, dunks or assists. Once having loaded the relevant setup, the user can tag each clip with its relevant button. Then, during playback, he can easily sort the database according to this data and automatically play all 3 pointers relevant to a certain player.

### Superimposed virtual graphics

Superimposed virtual graphics on the playing field have changed the way home viewers consume their sports. First down lines have become an integral part of any American football production, virtual offside lines, speed and distance measurements for soccer, and the world record dynamic line during swimming and athletic events are all enhancing and elevating the viewing experience.

Orad pioneered this market over a decade ago and was one of the first companies to invent such technologies and concepts. Back in the Sydney 2000 Olympics, Orad introduced for the first time virtual flags and record lines winning it an EMMY award. Orad offers a range of sport enhancement applications and products based on proprietary patented camera tracking technologies. These products allow the insertion of real time 3D graphic elements and superimpose them on the playing field. By analyzing the image, the system extracts the camera's parameters, such as pan, tilt, zoom and focus, so that every camera movement is analyzed in real time and the inserted graphic element can be applied. The end result is that the virtual element is immersed into the real environment as if it was a real physical object, regardless of the camera's movements. This technology negates the need for any physical sensors to be mounted on the camera and allows the system to be operated from either the OB VAN or the studio.

### High visual impact

MVP (Motion Video Play) is one of Orad's products based on this very technology. MVP is a multi sport purpose application that can be easily adopted to any sport discipline. MVP offers high visual impact over the broadcast feed. For example, its hyper zoom feature allows digital zoom in to analyze controversial events; the flow-motion feature creates a "strobe" effect that follows the player showing his pattern in a uniquely compelling look, and the tracked telestrator module which allows the commentator to draw over the motion video as the event progresses instead of on a still image.

### Dedicated soccer and football enhancements

TrackVision is an extremely fast first replay system for soccer enhancement. With TrackVision all commonly used soccer enhancement features such as offside line, distance and speed measurements, score and team logos and 9 meter circle are easily generated. The system supports multiple cameras, includes an embedded Chroma Keyer and interfaces with all commonly used slow motion servers. Similar in concept is Orad's TrackVision FDL (First Down Line) system that was designed to accommodate American Football. The TrackVision FDL system can draw virtual first down lines, scrimmage lines, down and distance feathers, red zone statistics, and more. Like TrackVision, TrackVision FDL is a compact 3RU system with a simple 5 minutes setup time.

### Real time insertions of full motion virtual ads

Virtual advertisement allows broadcasters and rights holders to recoup on their investment and open additional revenue streams. Virtual ads are typically placed in areas in which physical ads cannot be placed, such as next to the goal during soccer games. Orad's ADVision allows real-time insertion of full motion virtual advertisement on any kind of sport, from the venue or from the studio, without camera sensors. ADVision support multi camera productions, and can detect camera cuts and insert the graphics on the first frame automatically. It requires minimal operation involvement. Ads, in the form of video clips or textures, can be stored locally and rendered in real time in the correct camera perspective.



Courtesy of Sports New York, USA

