

CASE STUDY

TRACAB PLAYER TRACKING













TRACAB[™]

Real-Time Player Tracking for Football

ChyronHego's world-renowned TRACAB™ player tracking system represents the pinnacle of sports tracking technology. Using advanced patented image processing, TRACAB identifies the position and speed of all moving objects in a sports arena, and in true real-time. For football in particular, TRACAB's information-rich data offers a powerful tool for coaches to enhance team performance, and also gives clubs an exciting new revenue opportunity as new groups of stakeholders —sponsors, broadcasters, and other media — discover the data's potential for enhancing football fans' experience.

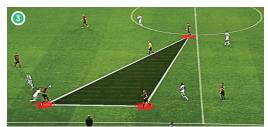
TRACAB data can provide insight into assessing metrics of performance and match-play such as distance run, speeds, stamina, team formations, set-plays, and much more. Football clubs can use the player tracking data to boost their own team performance and gain insight into their competing teams, as well as player scouting activities both locally and internationally. Athletes and clubs can also use the data to improve their chances of success by analyzing it to help craft their strategic and tactical approach to gameplay.

TRACAB data can be used to enhance the viewing experience for fans in the stadium, as well as broadcast and online audiences, enabling real-time animation that precisely recreates player movements for "instant virtual replays." The tool can feed a wide range of visualization platforms, including 3D, interactive and mobile, to help explain how a match unfolded. Broadcasters can use the data to help tell a better story, and pundits and expert analysts can better explain the dynamics of how games have been won or lost, and to empirically support the hunches they might have.

In a typical football deployment of TRACAB, an array of portable optical cameras installed at the pitch captures live and highly accurate X, Y, and Z coordinates of each viewable object – a player, a referee, or even the ball - at up to 25 times each second. To date, TRACAB has been installed in over 125 arenas and is used in more than 2,000 matches per year by the Swedish Premier Football League, English Premier League, German Bundesliga, Spanish La Liga, Japanese J.League, Danish NordicBet Ligaen, Dutch Erdivisie, and many more sports federations around the world.







1-Player Distance | 2-Player Speed | 3-Player position

66 ChyronHego's TRACAB player tracking technology is a cornerstone in our objective to be the most digital and connected football league in Europe. After almost a decade of development, the TRACAB Player Tracking system has matured to become the defining standard in live sports tracking and undoubtedly the world's leading system in this field.

> - LARS-CHRISTER OLSSON Chairman of SEF

KEY FEATURES

CAPTURES DATA FROM EVERY MOVEMENT IN THE GAME

Camera-based approach means that the whole field of play within an arena is accessible without intruding into the game itself.

DELIVERS ALL DATA TOTALLY LIVE

The data is delivered 25 times per second in total real-time -that means absolutely no latency from the system.

ROBUST DESIGN

The system can either be permanently rigged into stadia or can also be used in a portable capacity for one-off events.

PROVEN, STABLE AND MATURE

The system has been used in all weather conditions across thousands of sports events, and is currently in its 4th generation.

INTERFACES WITH MANY VISUALIZATION PLATFORMS

Including broadcast graphics systems, telestration and large touchscreen systems, the Web, second screen apps or gaming engines.

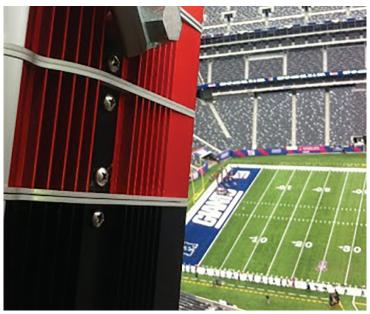
16 The TRACAB installation presents an exciting new revenue opportunity for the J.League as new groups of stakeholders - such as sponsors, broadcasters, and other media - discover the data's potential for enhancing fans' experience. Plus, the player tracking data is invaluable for football clubs and coaches looking to boost their own team performance and gain insight into their competing teams, as well as player scouting activities, both here in Japan and internationally.

- TAKAO KONISHI

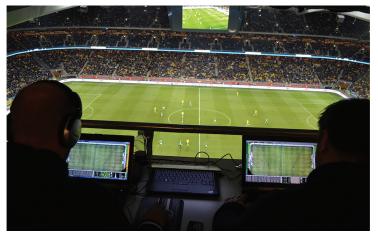
President of J.League Media Promotion



TRACAB Player Tracking in Baseball



TRACAB-mounted camera box



TRACAB operators working during a soccer match









