

## Motion tracking

Motion tracking in sports in and of itself is not a new thing. Various forms of motion tracking -which draws its heritage at least in part from missile-tracking technology-have existed for years, and one specific version of it in sports, the Pitch f/x system from Sportvision and MLB Advanced Media, is now in its fourth year of active deployment. But thanks to sharply heightened investment in the space among several media and technology outfits and ever-increasing computing power, the wealth of data derived from digital tracking of player and ball movement is now mushrooming exponentially.

Stats LLC late last year purchased Israeli motion-capture company SportVU, best known as a progenitor of the much-discussed "hologram" technology seen on CNN and elsewhere, to heighten its presence in the motion-based space. Stats is now working with Major League Soccer, UEFA, the NBA and several other properties to develop motion-based statistics, such as how far and how many sprints a soccer player runs during a game, how much time a player spent with the ball, and how much time a player spent in various parts of the field.

The Stats/SportVU system, relying heavily on computer algorithms that treat players as X and Y coordinates on a mathematical plane, works using only a handful of stationary cameras, three computers and as few as two human operators.

Similarly, MLBAM and Sportvision are working to expand Pitch f/x to track defensive performance in baseball (see related story, page 27A), and a growing group of smaller firms is aggressively entering the space as well.

The next wave for motion tracking will involve moving far beyond mere data collection into a more mature commercial deployment of the data. Stats, for example, plans to supply motion data to TV clients for use during live game coverage and will also integrate the data into its more standard statistical data distribution efforts. UEFA, additionally, is streaming live motion-tracking data from Stats during matches, and online, second-screen uses of the data in concert with live telecasts look to be a natural fit going forward.

"There are just a ton of opportunities here, not just commercially, but also in our core understanding of these sports," said Steve Byrd, Stats executive vice president. "But one of the things we still need is better context. We need to get a bigger body of data so we can develop correlations and understand and define what constitutes strong performance and success in these various measures."

-Eric Fisher