



Chyron®



VIRTUAL PLACEMENT

Virtual Graphics & Sponsorship





Bring Striking Virtual Graphics into Any Live Broadcast

Virtual Placement is a visual storytelling tool that enriches live productions by blending fluid virtual graphics with the real-life action, seamlessly layering virtual advertising, images, clips, sports analysis tools, and integrated CG graphics into video feeds. Through built-in TRACAB integration, Virtual Placement enhances broadcasts with leading real-time visualisation of sports data for advanced gameplay analysis.

With user-simplicity at the forefront, Virtual Placement makes this augmented reality capability available without the need for specialized operators, expensive camera sensors, complex calibration processes, and additional replay systems. While lowering costs on the front-end, content creators can maximize virtual advertising revenues by driving customized branding across multiple channels from a single box. Virtual Placement's accessible workflow makes it easier than ever to supercharge your sponsorship opportunities.

As a cornerstone of Chyron's live sports production ecosystem, Virtual Placement delivers top-quality virtual graphics, advertising, sports analysis, and data visualization from a single platform.

VIRTUAL STORYINGTELLING & ADVERTISING

Chyron's Virtual Placement transforms live sports broadcasts by leveraging cutting-edge image-processing algorithms to insert virtual images and clips with precision. Additionally, Virtual Placement enhances the storytelling experience with dedicated tools for dynamic sports analysis, such as down and distance markers, offside lines, player stats, and more, all tailored for real-time data integration. By combining live data with these virtual elements, broadcasters can enrich their coverage, offering a more engaging and visually compelling viewing experience that tracks and illustrates the action on the field.



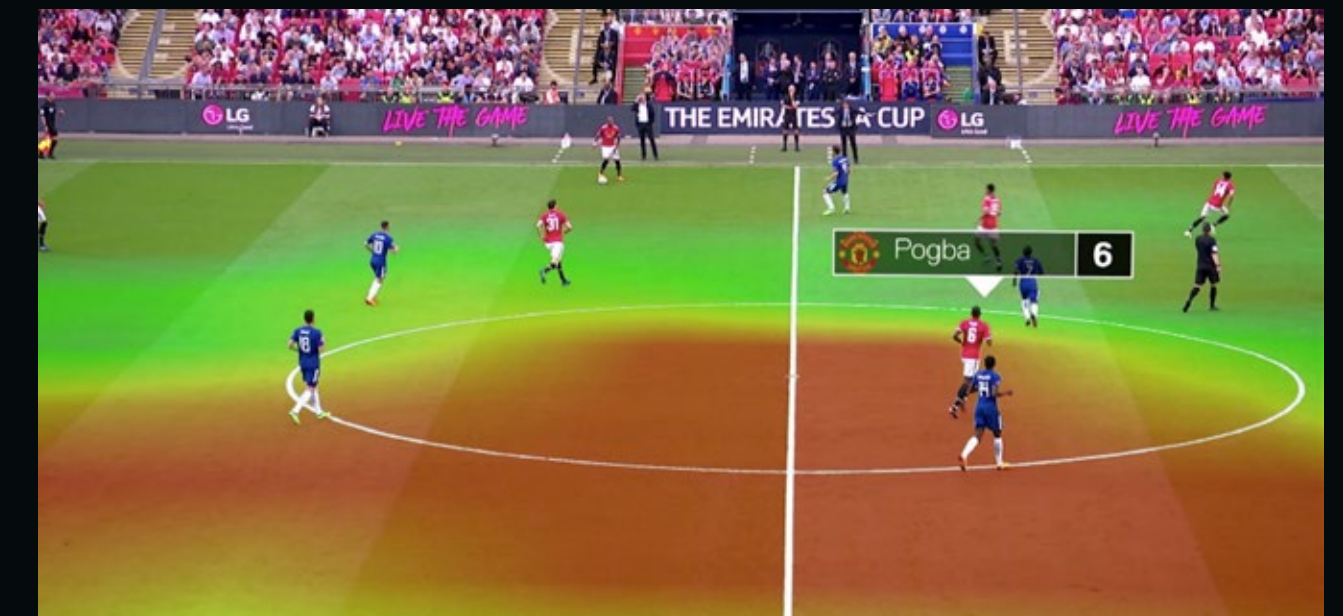
VIRTUAL IMAGE AND CLIP INSERTION

Leverage cutting-edge image-processing algorithms to seamlessly insert virtual images and clips into live broadcasts.



DYNAMIC SPORTS ANALYSIS

Utilize Virtual Placement's native tools, including down and distance markers, offside lines, player stats, trajectory tool and red zone tool.

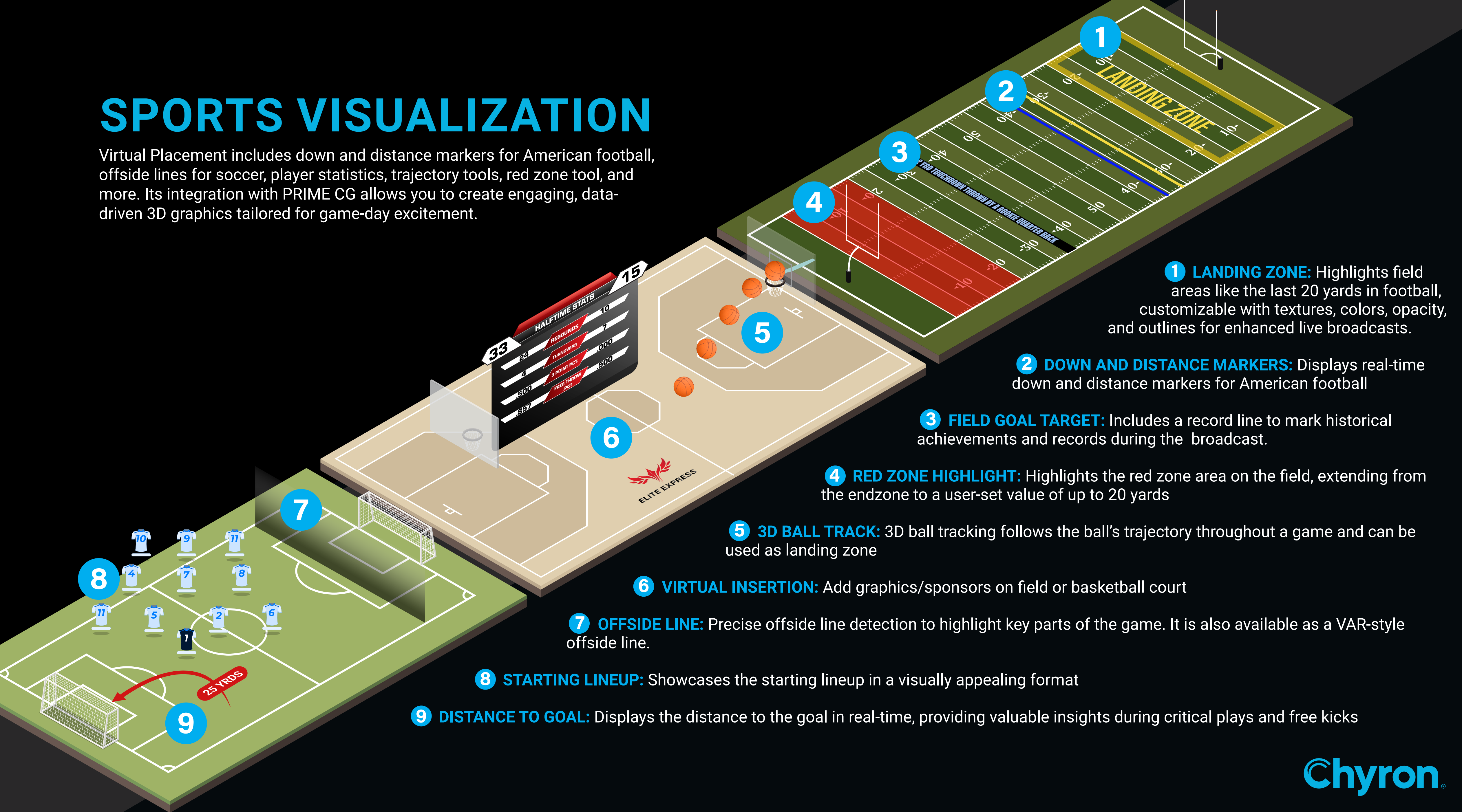


REAL TIME DATA MEETS VIRTUAL GRAPHICS

Enrich broadcasts with illustrated elements that dynamically track on-field play, integrating sports performance and player tracking data.

SPORTS VISUALIZATION

Virtual Placement includes down and distance markers for American football, offside lines for soccer, player statistics, trajectory tools, red zone tool, and more. Its integration with PRIME CG allows you to create engaging, data-driven 3D graphics tailored for game-day excitement.



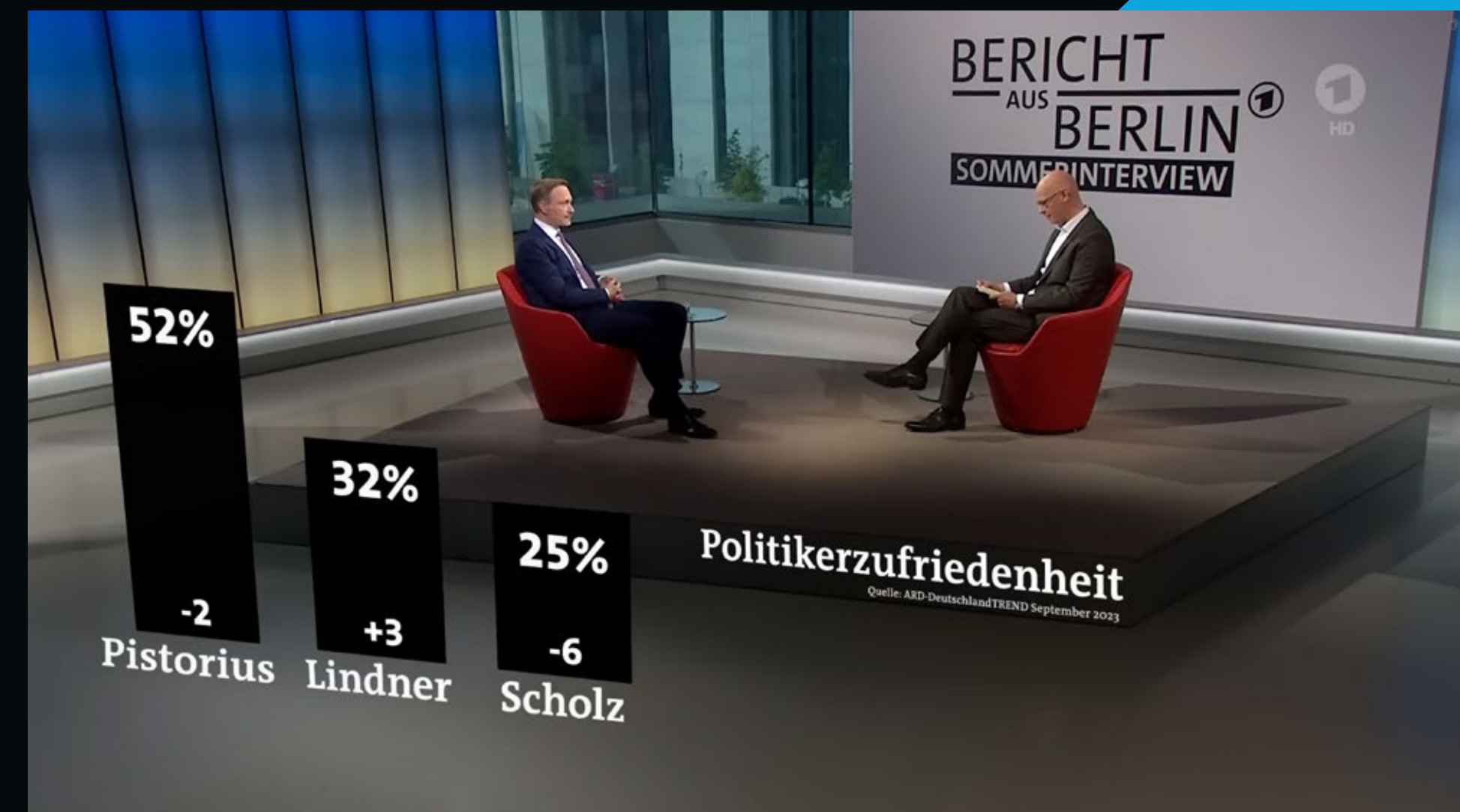
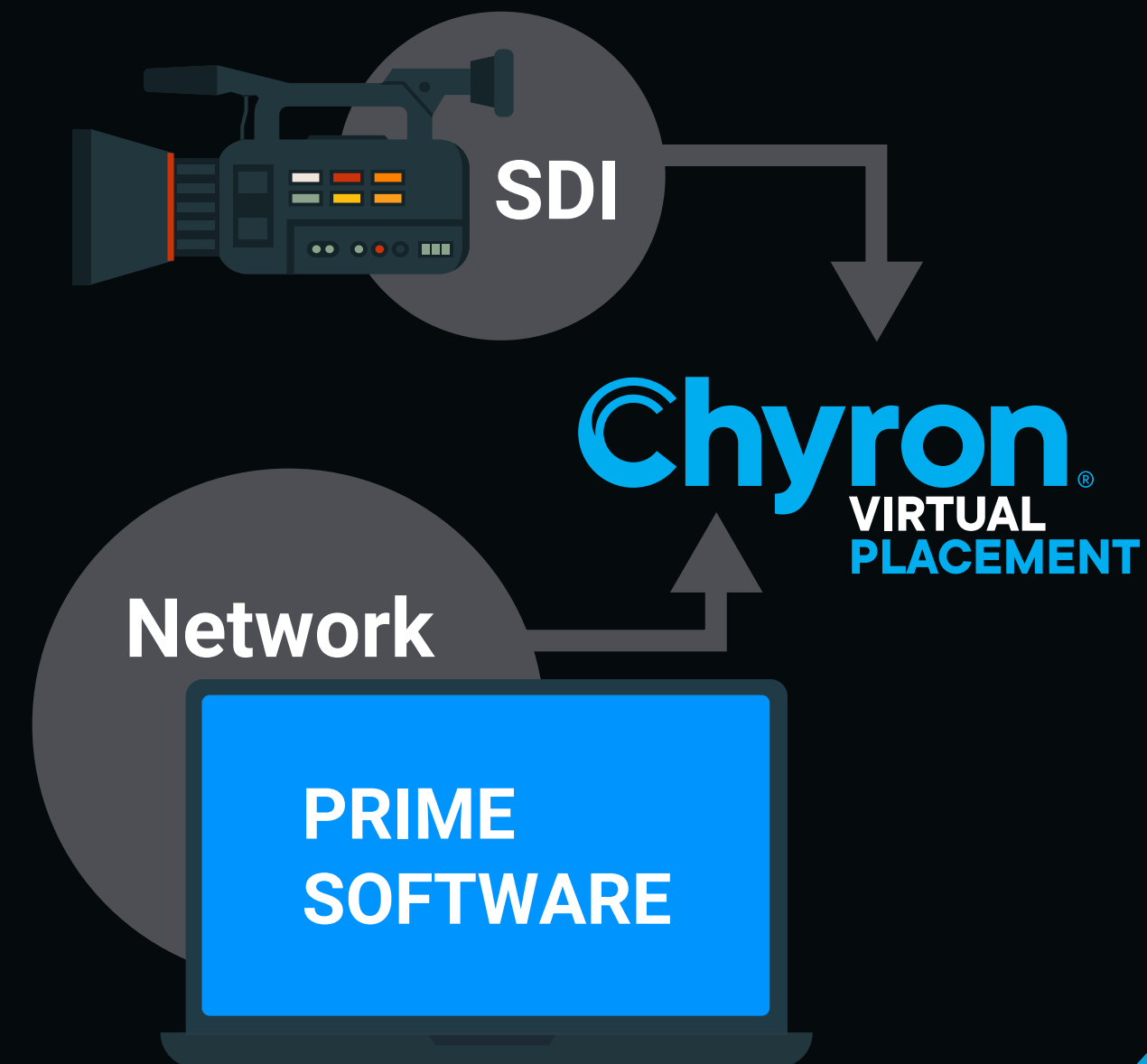
ADVANCED DATA INTEGRATION

Chyron's Virtual Placement seamlessly integrates with industry-leading TRACAB sports data, benefiting from the close collaboration between Chyron and its sister company. Leveraging performance data from this advanced optical-tracking system, broadcasters can provide high-quality gameplay analysis by displaying live player markers and statistics that move with the players on the field, running speed, heat map, live offside lines, and distance between players.



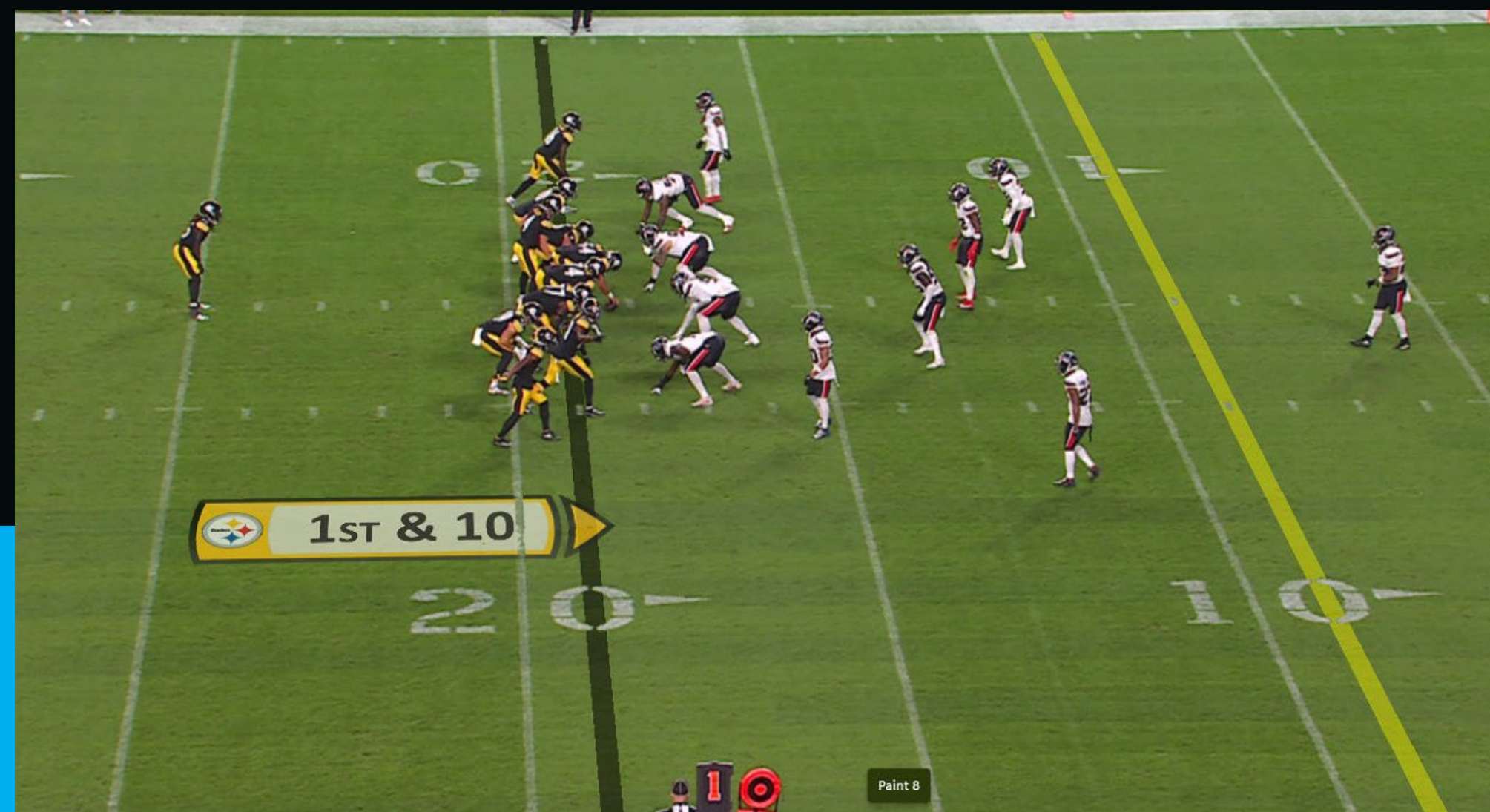
INTEGRATE WITH THE PRIME GRAPHICS ENGINE

Virtual Placement delivers powerful native virtual graphics for quick setup, while also offering the flexibility to drive dynamic, cutting-edge visuals with Chyron's PRIME Graphics Engine. Its versatility shines through its integration with PRIME and other leading CG graphics engines, simplifying the creation and deployment of complex graphics. Through simple H.264 streaming connection, production teams can easily leverage their existing graphics packages in the virtual space, such as data-driven news charts or sports stat tables.

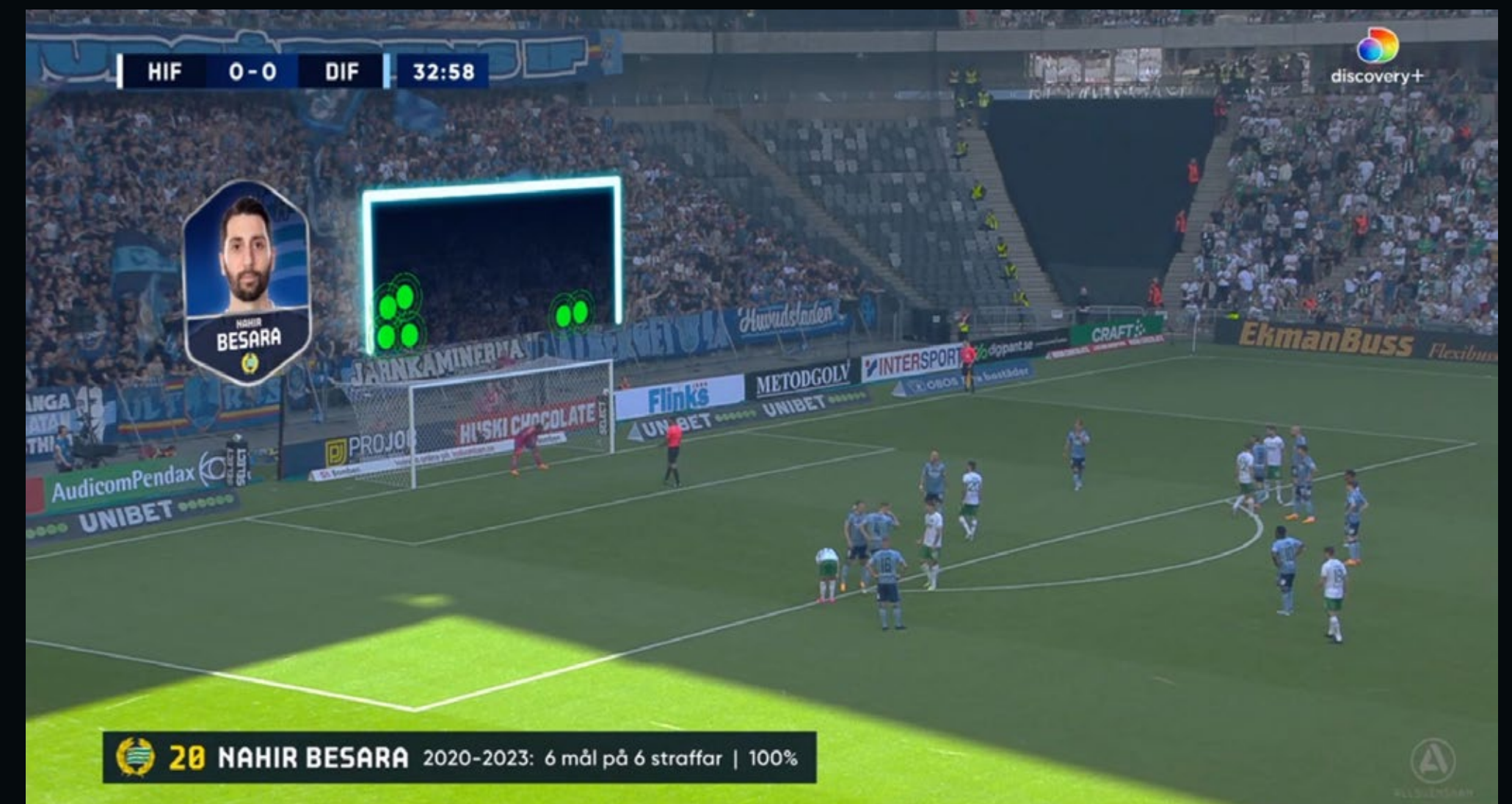


TAILOR VIRTUAL ELEMENTS TO YOUR SPORTS BROADCAST

Virtual Placement is the umbrella label for our real-time data visualization products that address the full spectrum of sports production. While the core Virtual Placement toolset is ideal for covering a variety of sports, there are also specialized applications for fulfilling the unique demands of soccer and American football.



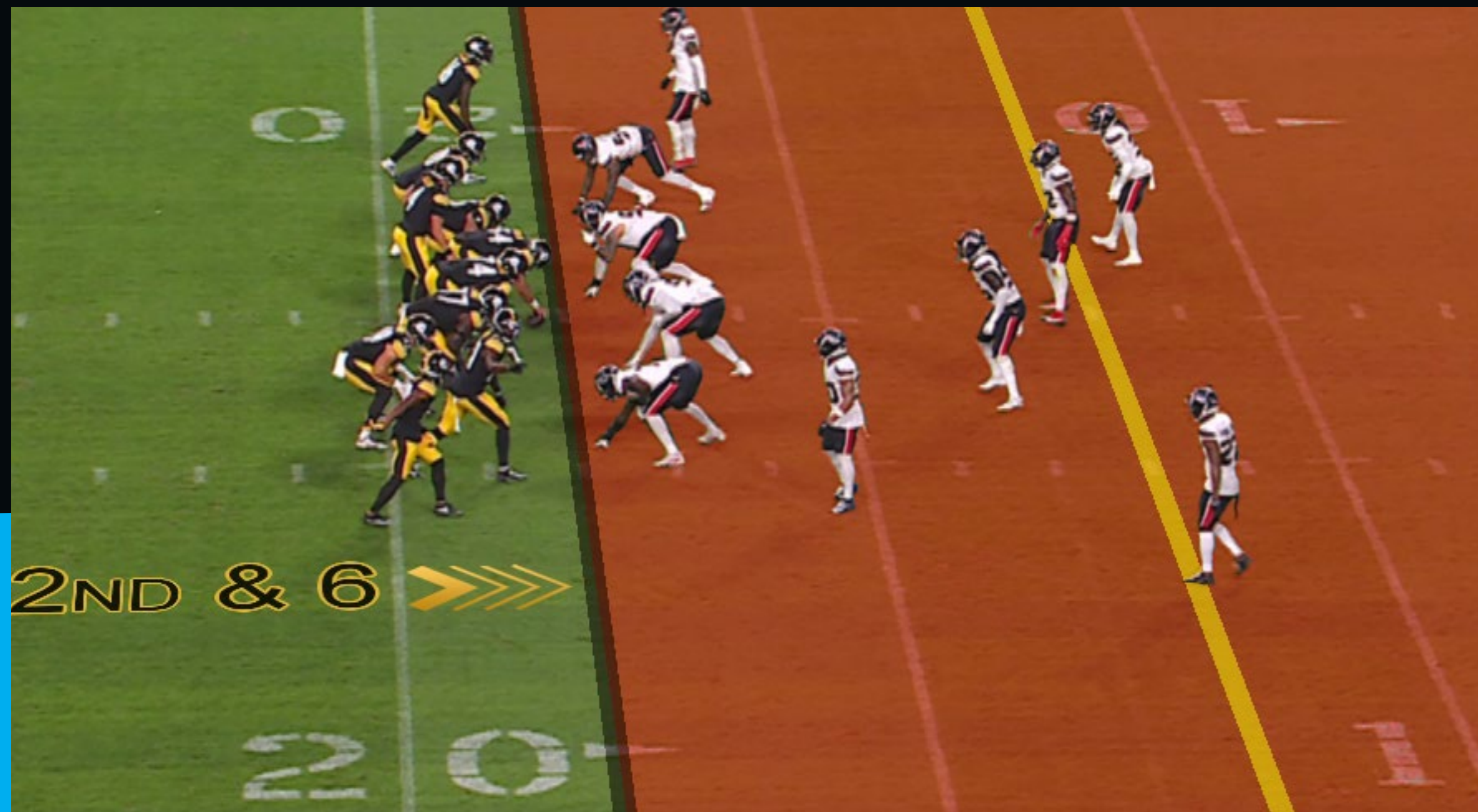
VIRTUAL 1ST



VIRTUAL FOOTBALL

VIRTUAL 1ST MODULE

The Virtual 1st module, a key feature of Chyron's Virtual Placement suite, is designed with American football broadcasts in mind. It simplifies the visualization of critical plays by enabling the insertion of virtual scrimmage lines and first-down markers, ensuring fans stay engaged. Additionally, Virtual 1st unlocks new sponsorship opportunities, allowing premium advertisements to appear in high-impact zones like the red zone.



GAME VISUALIZATION

Deliver a professional broadcast experience with real-time scrimmage and first-down markers, customizable team graphics, and automated play clock animations that enhance every play.

CUSTOMIZABLE BRANDING & SPONSORSHIP

Leverage Field Goal Target and Red Zone tools with team-specific textures, dynamic animations, and integrated sponsorships to boost viewer engagement and maximize monetization opportunities.

SEAMLESS INTEGRATION & CALIBRATION

Achieve effortless setup and precision with image-based tracking and synchronization with stadium data systems (e.g., Daktronics), designed for NFL, NCAA, CFL, and Rugby fields.



VIRTUAL 1ST: DOWN & DISTANCE

The Down & Distance module, a cornerstone of Virtual 1st, combines precise line calibration with dynamic tools to elevate broadcasts of NFL, NCAA, and other leagues. Its algorithm ensures accurate tracking of field markings, accommodating various line widths and configurations, including thin outside lines, for stable virtual graphics perfectly aligned with actual field lines. This toolkit enhances game visualization with real-time scrimmage and first-down markers, customizable animations, and automated play clock features, offering broadcasters seamless integration and unmatched customization. Key features include:

DYNAMIC LINE MARKERS

Effortlessly insert scrimmage and first-down markers with fully customizable, team-specific graphics.

NFL & COLLEGE TEAM TEMPLATES

Access pre-designed templates for all NFL teams and downloadable options for college teams, providing consistency and professional presentation.

PLAY CLOCK TOOLS

Utilize dynamic play clock placement options, including pitch-level or 3D billboard views, customizable countdown coloring, and automated animations.

AUTO-FOLLOW & MIDFIELD SWITCHING

Ensure steady transitions with markers that automatically adjust to live play, including automatic switching at the 50-yard line.

XYZ POSITIONING

Achieve accuracy with precise 3D positioning of virtual graphics on the field.

SIMULTANEOUS OFF ANIMATION

Streamline transitions with synchronized off-screen animations for play clocks and down markers.



VIRTUAL 1ST: GAME ANALYSIS TOOLS

With team-specific field goal target lines, dynamic red zone visuals, data integration, and effortless calibration, broadcasters are equipped to deliver captivating, branded graphics tailored to any game scenario. Additional tools and feature highlights in Virtual 1st include:

FIELD GOAL TARGET TOOL

Highlight team-specific field goal ranges with stored values for home and away teams. This tool features branded visuals, including animations, team logos, colors, and offset options for precise alignment with field elements.

RED ZONE TOOL

Enhance broadcasts with customizable highlights for the last 20 yards, complete with adjustable fade-in/out effects. The configurable red zone outline includes options for textures, colors, opacity, and sizes, optimized for compliance with NFL kickoff rules.

DATA INTEGRATION

Integrate real-time stats and scoreboard data from Daktronics systems, ensuring perfect synchronization of play clock and 1st & 10 graphics with live game events.

CROSS-SPORT FUNCTIONALITY

Designed for versatility, this solution is optimized for NFL, NCAA, CFL, Rugby League, and Rugby Union.

VIRTUAL FOOTBALL MODULE

The Virtual Football tool within Virtual Placement is tailored to elevate soccer broadcasts by providing broadcasters with advanced tools to illustrate key moments and enhance the viewer experience.



ACCURATE OFFSIDE VISUALIZATION

Virtual Football features Virtual Offside Lines (VOL), a powerful tool for clearly illustrating the exact position of players relative to the offside rule. This ensures crucial decisions are transparent and easy for audiences to follow, enhancing the overall viewing experience.

DISTANCE-TO-GOAL ANALYTICS

Provide viewers with deeper insights into gameplay by measuring and displaying the precise distance-to-goal from player positions. This feature levels up the viewer's engagement and understanding of match analysis.

INTEGRATED SPONSORSHIP OPPORTUNITIES

Incorporate sponsorship content into live broadcasts by inserting carpet goal ads directly onto the pitch and over stadium stands. This provides monetization opportunities while maintaining a professional and immersive presentation.



FLEXIBLE FOR ANY SPORT

Deliver striking virtual graphics in three-dimensional space directly onto the field of play - such as player stats, up-next promos, and sponsorship elements for various sports. Our team will work with you to ensure that Virtual Placement run smoothly for all your live sportscasting needs.

- Basketball
- Tennis
- Cricket
- Trotting
- Soccer
- Indoor Soccer
- Canadian Football League
- Pickleball
- Rugby
- Consult with our team about your unique sporting events!



Chyron®

MODERN PRODUCTION ENGINE

Virtual Placement's modern, integrated approach simplifies and accelerates setup. Its powerful built-in features blends cutting-edge optical calibration with streamlined operations for unmatched performance.



SIMPLIFIED OPERATIONS

Does not require mechanical calibration or extra hardware, streamlining the setup process for rapid deployment.



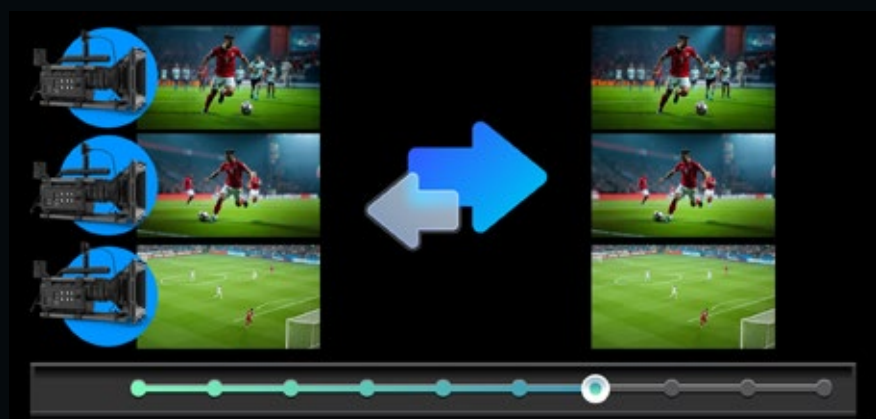
LEADER IN OPTICAL CALIBRATION

Achieves high accuracy with a quick setup, calibrating a field in mere minutes. Once calibrated, the system maintains its accuracy over long periods, eliminating the need for repeated adjustments.



MINIMAL DELAY

With just a 6-field delay (3 frames interlaced or 6 frames progressive), Virtual Placement ensures real-time accuracy for live broadcasts.



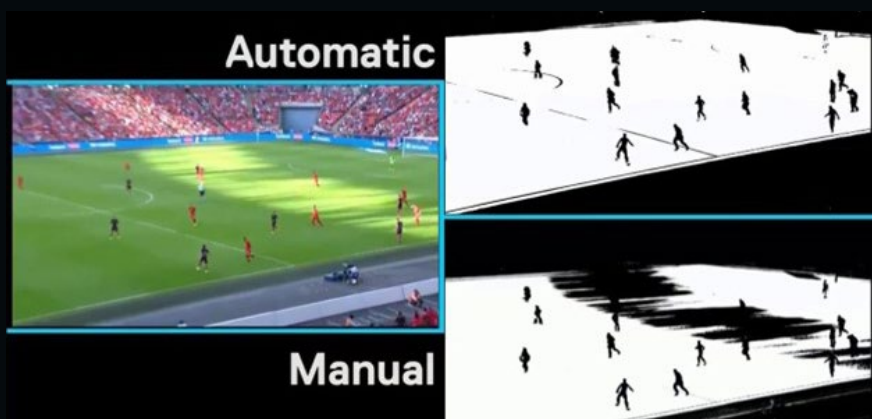
BUILT-IN VIDEO SYNC

Automatically synchronizes video feeds, reducing the need for manual adjustments.



BUILT-IN REPLAY

Enables the direct playback of critical moments, providing instant access to near live replays - eliminating the need for third-party replay systems.



MANUAL & AUTOMATIC KEYING

Flexible keying capabilities enable it to work with any camera setup, providing versatility and ease of use.

FLEXIBLE WORKFLOW

Virtual Placement offers a user-friendly and efficient setup for broadcasters looking to integrate advanced virtual graphics into their live sports productions with minimal hassle.



SDI Camera Connectivity

Connect cameras via SDI for seamless input into the system, with support for single-link 12G connectivity for 4K-UHD productions.



HD & UHD Productions

Supports up to 3 IN | 4 OUT in HD or 3 IN | 1 OUT in UHD productions. Also supports HDR.



Graphic Transfer

Transfer CG graphics for use in Virtual Placement over your network using H.264 protocols.



Built-in Replay Toolset

Built-in disc recorder provides access to footage of all input channels for near-live replays, providing up to 12 hours of recording with an automatic overwrite feature



Output Customization

Repurpose your program for multiple markets with multi-output mode, providing unique branding & advertising across 4 outputs.



File Export

Easily export files to third-party replay and video servers for further processing.

ENHANCED SPONSORSHIP & ADVERTISING

Supercharge advertising revenues with a whole new layer of dynamic, virtual sponsorship.



NATIVE ADVERTISING TOOLS

Integrate and animate ads, logos, messages, and media directly on the playing surface or in the stands. Ensure your sponsors are prominently featured throughout the broadcast, creating an engaging experience for viewers.



LOCALIZED CONTENT

Tailor and localize content for different regions, empowering linear and OTT content rights holders to enhance advertising strategies and maximize ROI.



MULTI-OUTPUT MODE

Generate multiple output feeds from a single source, each featuring unique virtual sponsorship elements. This allows for customized advertising across different markets, catering to specific audiences.

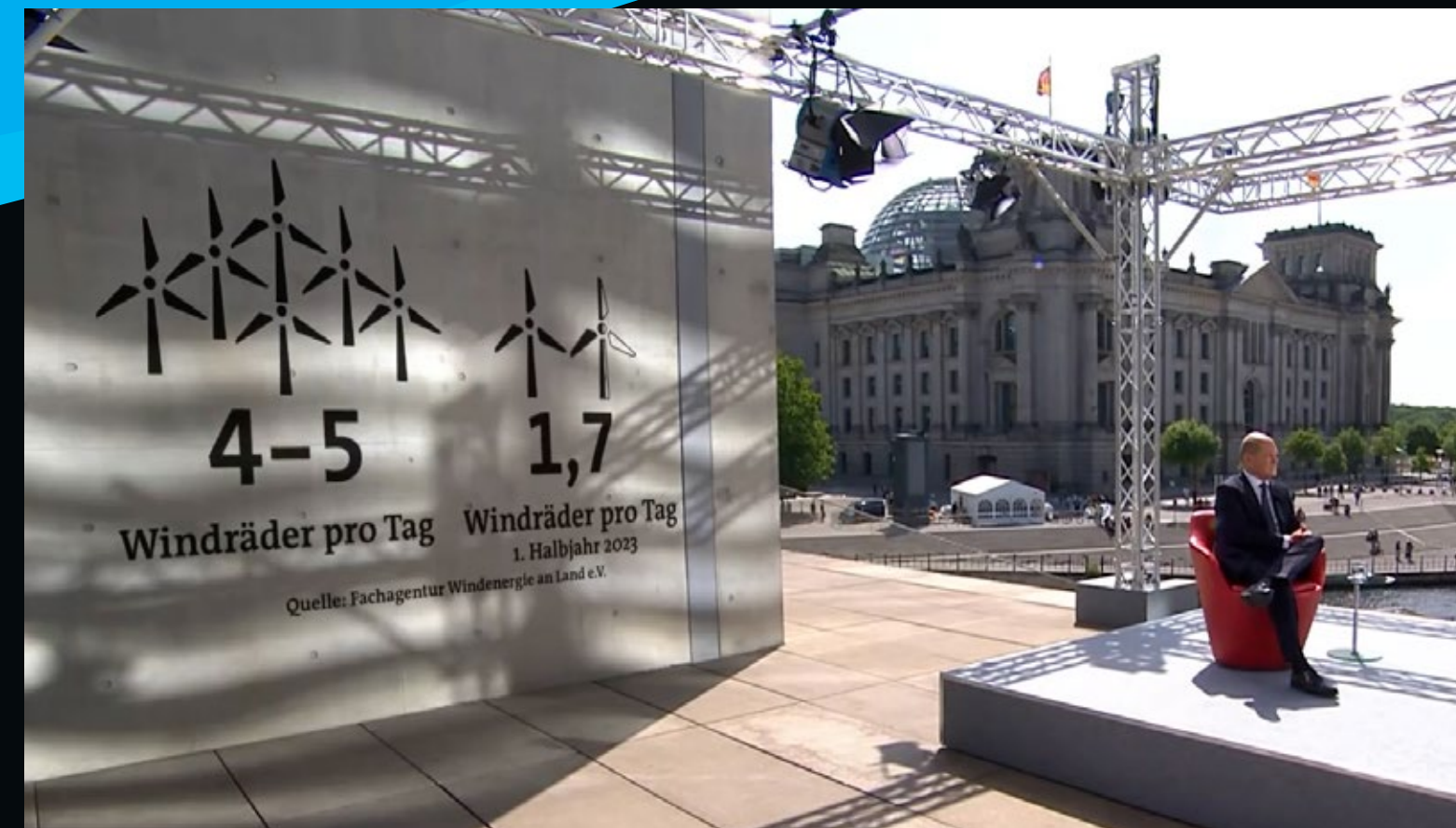


MAXIMIZE REVENUE POTENTIAL

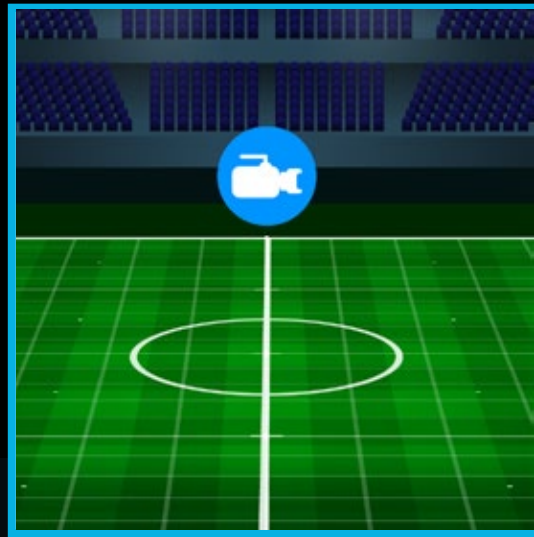
Feed up to four independently sponsored channels from one Virtual Placement system, optimizing your revenue through targeted game day sponsorships.

UPGRADE YOUR STUDIO SET WITH VIRTUAL ELEMENTS

With best-in-class optical calibration, anchor-based tracking can also be applied in news environments, enabling the integration of virtual elements like graphics, charts, and augmented reality objects directly into a live studio set. With the confidence that graphic positioning is stable and accurate, news teams can focus on enhancing viewer engagement with dynamic virtual elements that illustrate and enrich the story at hand.

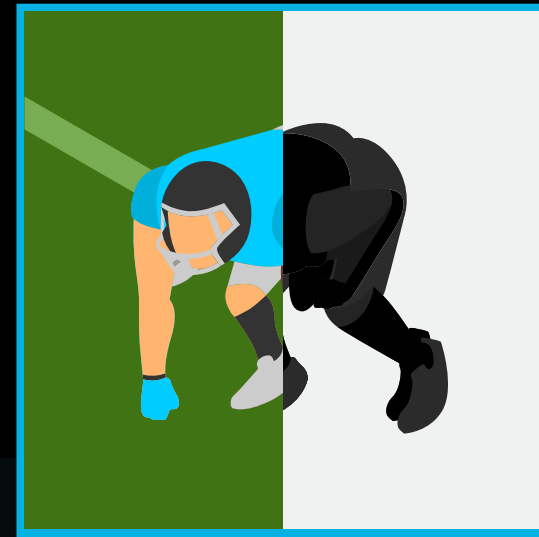


KEY FEATURES



EASY TRACKING CALIBRATION

Virtual Placement can implement optical tracking on inputs without the need for specialized camera encoder hardware. Through internal field and pitch tracking tools, Virtual Placement gathers metrics from game camera reference frames within minutes to create a panoramic image and 3D point cloud for the system to reference for on-field visualization.



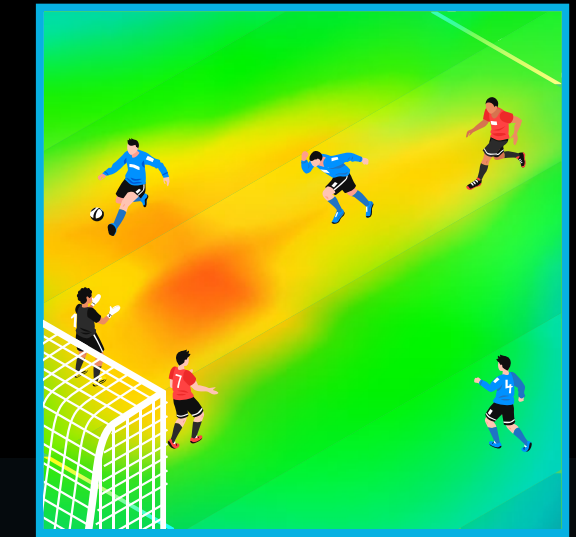
AUTOMATIC CHROMA KEYER

An internal automatic chroma keyer removes the need for rekeying and simplifies the keyed graphics workflow, especially when dealing with changing conditions like shadows on parts of the pitch. Accurate chroma keying ensures that players and key elements of the play will take precedence over virtual graphics within your broadcast output.



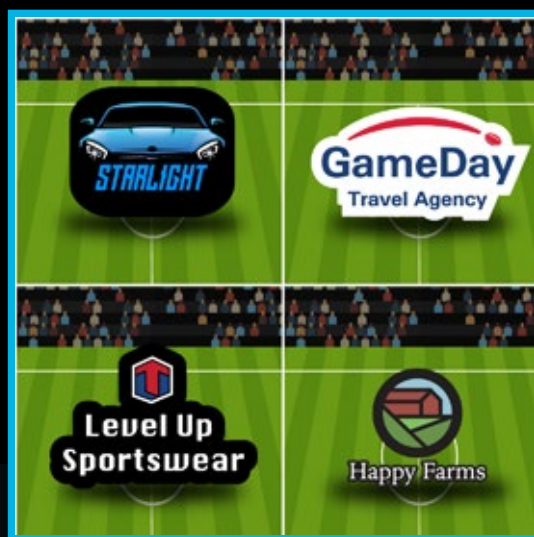
RICH ANALYSIS TOOLS

In addition to dynamic virtual graphics, Virtual Placement provides tools that simplify game analysis. Comprehensive modules for American Football and Soccer provide an array of data visualization and play-illustration features, while simple field calibration tools for a variety of sports make it easy to adapt Virtual Placement for any event.



SPORTS DATA VISUALIZATION

Via unique integration to TRACAB®, Chyron's sister company for optical tracking, Virtual Placement can leverage real-time data on player performance for visualization in your live broadcast. Unlock highly advanced gameplay analysis features, such as heat maps, player performance statistics and more.



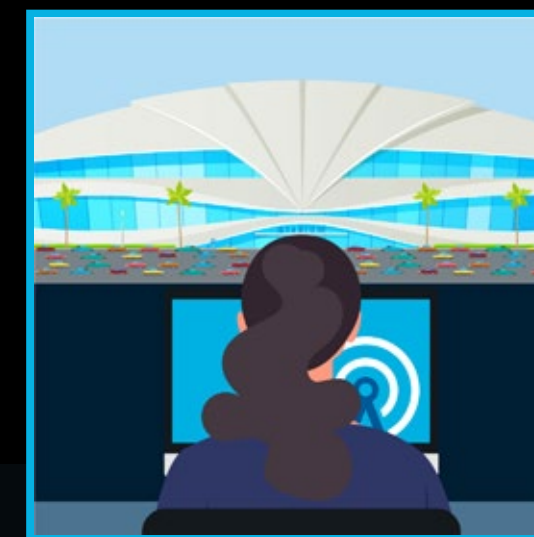
MULTI-OUTPUT MODE

With Multi-Output Mode, operators can generate multiple output feeds with unique virtual sponsorship elements from a single output source. This powerful feature is perfect for localizing content to different regions, maximizing ROI through game-day sponsorships, and empowering linear and OTT content rights holders to optimize advertising strategies.



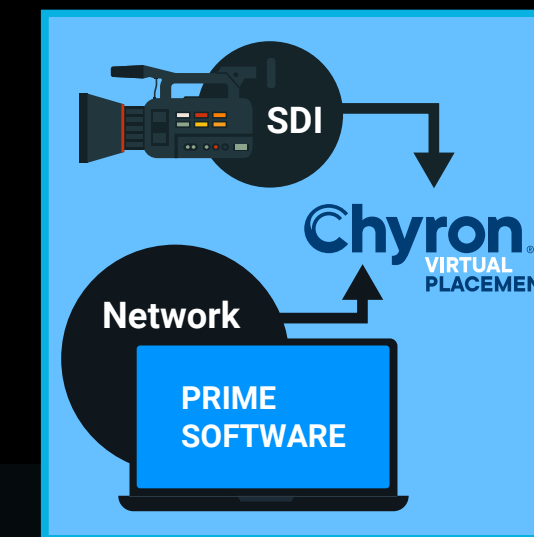
BUILT-IN REPLAY

VP's built-in replay feature lets operators create and replay clips directly within the system, eliminating the need for third-party servers and simplifying production. All internal tools, including player zoom, are available during replays, enhancing their quality. Video clips can be easily exported to third-party servers like EVS, Grass Valley, and Evertz, ensuring seamless integration with existing broadcast setups.



FLEXIBLE WORKFLOW

Virtual Placement offers flexible support of modern video formats and signal standards. Bring cameras into the system via SDI, while transferring graphic elements over your network via H.264 protocols. A single Virtual placement system can output video in HD or 4K-UHD formats, providing greater flexibility to do more with less.



PRIME CG GRAPHICS

Working in tandem with the PRIME Platform, Virtual Placement feeds optical tracking and chroma key data to PRIME for smooth implementation of stunning 3D virtual graphics into your play. Furthermore, Virtual Placement can integrate with other leading CG engines, making it accessible for various infrastructures.

TECHNICAL SPECIFICATIONS

GENERAL

Supported Video Standards and Protocols	SDI and H.264
Number of Inputs / Outputs	Up to 3 IN 4 OUT in HD, or 3 IN 1 OUT in 4K-UHD. Also supports HDR video
Genlock	Bi-level & Tri-level Analog Genlock, 3G-SDI, HD-SDI, SD-SDI on a 75 Ω BNC Connector.
Internal Replay Server Channels	Record 3 HD-SDI channels
Supported Codecs	MJPEG; DNxHD; H.264 / MPEG-4 AVC / MPEG-4 Part 10
Minimum Requirements	<ul style="list-style-type: none">• Microsoft® Windows® 10• Ultimate 64-bit O/S• Intel W-2265• 64GB DDR4-2933• Series Graphics Accelerator• SSD System Storage• Keyboard and mouse

VIRTUAL PLACEMENT 3RU ENGINE HARDWARE

OS	Microsoft Windows 11 IoT Enterprise LTSC
CPU	Intel Xeon w5-3435X (16 Cores 32 Threads 3.10GHz)
GPU	NVIDIA RTX A5000
RAM	2 x 32GB DDR5
OS Storage	2 x 480GB SATA (RAID 1)
Media Storage	3 x 3.2TB (RAID 5)
RAID Controller	Broadcom
Ethernet Ports	1 x 1 GbE 1 x 10 GbE

VIRTUAL PLACEMENT 3RU ENGINE HARDWARE

Serial Connections	1 x DB9 RS232 Serial Port
GPI/O	Optional 16 I/O (8 IN 8 OUT)
System Dimensions	3RU Chassis: <ul style="list-style-type: none">• Height: 5.2" (132 mm)• Width: 17.2" (437 mm)• Depth: 25.5" (647 mm)• Gross Weight: 75 lbs (34.02 kg)
Front Panel	Chyron front panel with front-accessible drive bays for enhanced usability and maintenance, along with an LED display for system status and product serial information.
Power Requirements	AC Input / 100-240V, 60-50Hz, 9 Amp Max / 3.2 Amps @ 120 AC Typical Total Output Power and Input: <ul style="list-style-type: none">• 800W With Input 100 - 127Vac• 1000W With Input 100 - 240Vac• 1000W With Input 200 -240Vac

OUR SERVICES

Chyron is known for its end-to-end customer service. We partner with our customers from the initial project design, to project management, training, on-air launch support and postlaunch follow-up.

PROJECT MANAGEMENT AND COMMISSIONING

Project Management and Commissioning are part of the turn-key services that we offer. This ensures your investment is properly installed from Day One by a certified Chyron representative.

EXTENDED WARRANTIES

Finally, all Chyron products come with a One (1) year factory-backed warranty (parts, labor & software upgrades). Extended Warranties on all your purchases can be added at any time for an annual fee. Please contact our sales professionals.

DESIGN AND OPERATION TRAINING

We offer Design and Operation training, either in your facility or via our on-line web portal. Our expert trainers can teach your staff the most efficient way to create and deliver stunning content for your productions.

ABOUT US

Chyron is ushering in the next generation of storytelling in the digital age. Founded in 1966, the company pioneered broadcast titling and graphics systems. With a strong foundation built on over 50 years of innovation and efficiency, the name Chyron is synonymous with broadcast graphics. Chyron continues that legacy as a global leader focused on customer-centric broadcast solutions. Today, the company offers production professionals the industry's most comprehensive software portfolio for designing, sharing, and playing live graphics to air with ease. Chyron products are increasingly deployed to empower OTA & OTT workflows and deliver richer, more immersive experiences for audiences and sports fans in the arena, at home, or on the go.

CONTACT SALES

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