

DELTA HIGHLIGHT

VIRTUAL GRAPHICS FOR GAME ANALYSIS



Ultimate sport game analysis tool for both broadcasting and coaching purposes. With its powerful algorithms and user-friendly interface, DELTA-highlight enables to generate high-quality augmented replay sequences, completed with virtual graphics, superimposed over the game field. Whether you're producing post-game shows or providing live analysis during halftime, DELTA-highlight has got you covered. It can build analysis clips from multiple sources and highlight various scenes from different games, making it perfect for a wide range of sports including soccer, football, basketball, rugby, baseball, and more.

With DELTA-highlight, you can create professional-level analysis sequences in just minutes, making it an ideal choice for both studio environments and OB units.

SPEED UP THE PRODUCTION OF ANALYSIS CLIPS

DELTA-highlight's automatic player tracking allows the operator to skip the manual task of keyframing player movements. By clicking on the player in the image, the technology automatically provides the trajectory followed by the player. This feature enables the operator to generate graphics quickly within a few seconds.

DELTA-highlight features an automatic calibration function that significantly shortens the time required to prepare images for graphics.

DELTA-highlight has the capability to internally record the live event stream, allowing up to 4 hours of uncompressed HD video recording. This feature eliminates the need for an external video server, resulting in both cost and time savings.

DELTA-HIGHLIGHT V.12 - WHAT'S NEW?

DELTA-highlight is even better with the addition of new features:

- 3D parabolic arrow enhancement
- Player Coat
- Player tracking enhancement
- 1080p format support
- Option to export interlaced video source to progressive video file (MXF)
- Option to output progressive format on SDI from an interlaced video source
- Introduction of an AI based cutting of players from the field that drastically speed-up Bird View effect (virtual 3D cam flight) generation



KEY FEATURES

DELTA-highlight allows the generation of a large collection of graphics and visual effects:

- Statistical data
 - o Activity heatmaps
 - o Penalty / Free-kick maps
 - o Events localization (fouls, tackles...)
 - o Mean recuperation line
 - o ...
- "Bird View" effect intended to create a camera fly between two real camera views providing a spectacular and realistic transition from one to another analysis point of view
- Player drag, grow, blink and erase effects that allows to manipulate directly the players present in the image
- Animated markers
- Player and ball traces
- Teams line-up
- Arrows and bended arrows
- Height measurement
- Links between players and markers
- 3D offside wall
- Offside lines (simple, double)
- Distance measurements (point to point, to goal, transversal, longitudinal, radius)
- Action duration measurements
- Impec Circle
- Rectangular areas
- Circular areas
- Players networks
- Circles
- Running speed (players and ball)
- Running path length (players and ball)
- Logos
- 3D texts
- 3D objects
- Pitch grid
- Spotlight and keyhole effects
- 2D front overlays
- 2D measurement banners
- Magnifiers
- Slow-motion and fast forward effects
- Player Coat
- Enhanced Parabolic Arrow

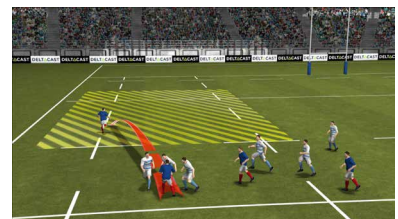
TECHNICAL SPECIFICATIONS

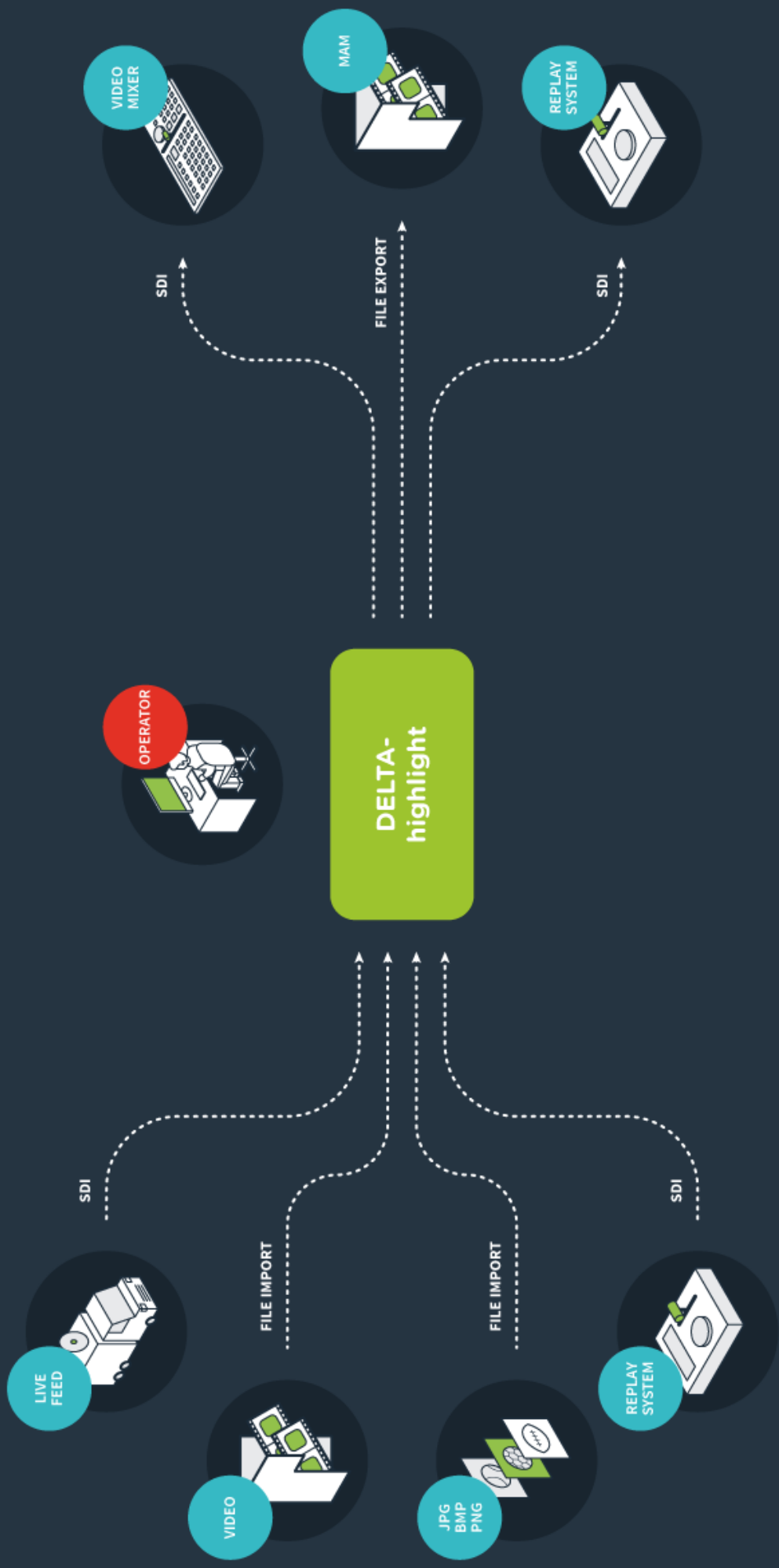
<p>SDI supported formats:</p> <ul style="list-style-type: none"> - HD: <ul style="list-style-type: none"> o 1080p50 o 1080p60 o 1080i-50 o 1080i-60 o 720p50 o 720p60 - SD: <ul style="list-style-type: none"> o 4:3 and 16:9 anamorphic PAL/NTSC <p>Genlock:</p> <ul style="list-style-type: none"> - Black Burst - Tri-level <p>DELTA-highlight is also available for file-based workflow.</p>	<p>Input</p> <ul style="list-style-type: none"> - Video stream <p>Ouput</p> <ul style="list-style-type: none"> - Augmented video stream <p>Options</p> <ul style="list-style-type: none"> - Storm case - Video server software and hardware with clip edition capabilities i - Laptop or easy-to-carry one-box hardware solution
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ADDITIONAL MODULES

DELTA-TOUCH: **DELTA-highlight** is a versatile tool that can be adapted to meet different production needs and requirements using various configuration packages. The tool is frequently used together with **DELTA-touch**, which is a touch-based presentation tool that enables TV presenters to enhance their speeches by choosing and managing video sequences, as well as drawing 2D/3D graphics live on the screen. **DELTA-touch** is highly interactive and user-friendly, allowing for easy control via touch-screen or multi-tablet interface, making it an ideal module for adding a visually compelling element to any TV show.

VIRTUAL VIEW: **Virtual View** is a tool that enables the creation of a realistic 3D virtual scene based on a football game image. With **Virtual View**, viewers can move the camera and see the action from various angles, helping them to comprehend whether the decisions made by the players during the game were appropriate. For instance, it's possible to see the referee's perspective on an offside or the striker's point of view when shooting or passing. Additionally, **Virtual View** is a useful tool for explaining coach tactics, as the camera can be moved to a top view of the field, allowing for easy visualization and explanation of team strategies.





PRODUCTS INTEGRATION

