



# GhostFrame

GhostFrame makes the impossible possible

Enhance your LED Volume with hidden Chromakey,  
hidden Tracking, and Multiple Source video feeds.







## GhostFrame Enhances Your Workflow

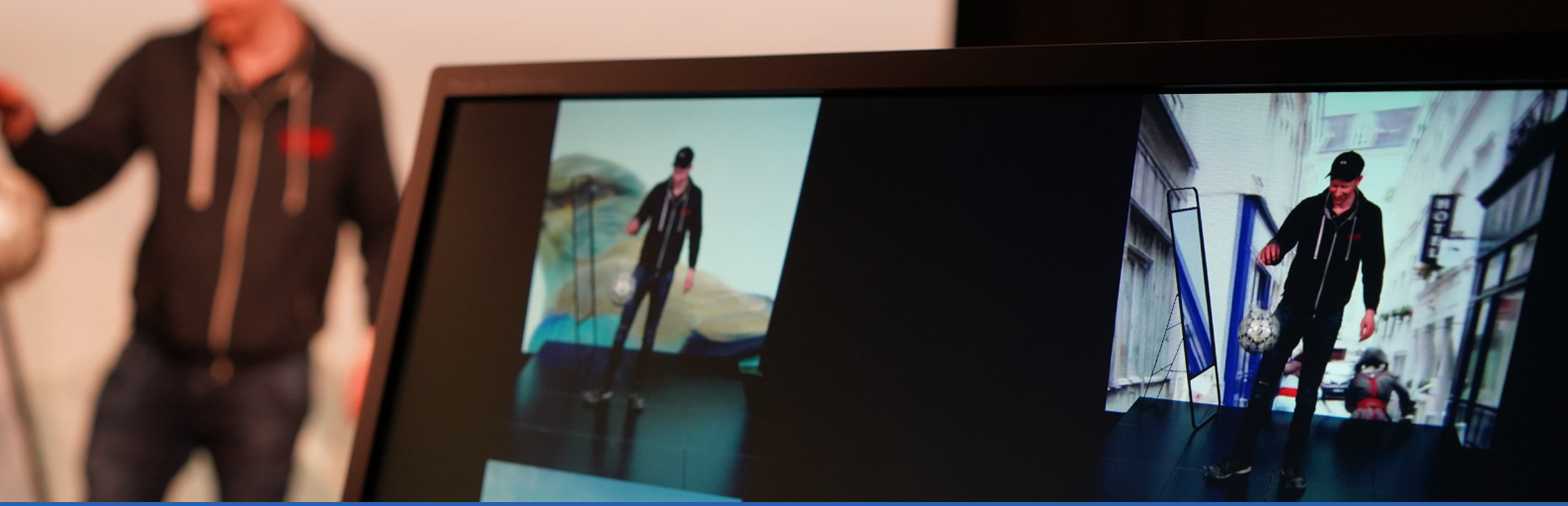
Great journeys start with dreaming of the possibilities rather than being constrained by what you can't do. Aiming to make the "impossible" possible GhostFrame creates simplified, more efficient, and faster workflows.

Sound like magic? It is. Combine hidden Chromakey, hidden Tracking, and Multiple Source video feeds into a single production frame. You choose which elements are visible to the human eye and which are visible only to the camera. GhostFrame unlocks unlimited creativity, while remaining comfortable for on-set actors and crew.



Combining the strengths and possibilities of LED and camera technology, GhostFrame enables creative and powerful use of video and broadcast technology.

GhostFrame works by displaying more than just the video feed on the LED panel. This magic makes it possible for professional cameras to capture one or more sets of images while the naked eye only sees one. Due to the fact that the LED panels have extreme processing power no work-arounds are needed. You can have all GhostFrame features while sending normal frame rates in 4K and 8K formats.



## Multiple Hidden Sources, one video feed

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## GhostFrame MultiSource

### Adds up to four different hidden video feeds to your content source, which can be captured individually by the camera

The magic of GhostFrame's patented process makes it possible to show several sets of full dynamic images on an LED screen simultaneously within a camera's production frame. One or multiple cameras can now capture more sets of images while the naked eye only sees one. The GhostFrame™ technology is based on advanced nanosecond alignment of video subframes and the camera shutter. By controlling the LED panels subframe output, cameras can align the shutter angle and capture the desired moment in time within a frame.



### Multi-Perspective capturing

GhostFrame MultiSource allows for multi-perspective capturing of scenes.

You can do any scene in one shot from multiple camera positions, a great advantage for both the actors and the film crew. With GhostFrame MultiSource, you have the option to use up to four individual feeds, resulting in capturing four different shots or on-camera visuals.



### Instructions right in front of the presenter

GhostFrame MultiSource allows adding visible prompting or positioning instructions for the performer or actor on the LED volume, invisible for the capturing cameras. Ideal for news shows or live events, giving the performers hidden instructions that help them in their presentation.





## Up to two full chroma frames in your video feed

A hidden chromakey enables real-time post production workflows without burdening playback systems or reducing pixel capacity.

GhostFrame Chroma allows you to use a greenscreen at any time during your production. You don't have to choose between shooting in front of a green screen or a LED volume. You can have both at the same time.



## GhostFrame Chroma

### GhostFrame Chroma is a FREE feature

GhostFrame Chroma is a FREE feature and available for anyone that uses a combination of ROE Visual LED and HELIOS processing. Using the GhostFrame Chroma you can create a perfect chroma-key detection, even in complex geometry settings, like corners or curves.



### Goodbye to green reflections

You can both preserve the natural light source and full dynamic reflection from the LED volume and have the talent feel at ease in a natural environment while at the same time have the benefit of a green screen background.



### Optimize your workflow

Optimize your post-production workflow with a hidden green screen . Having both the final shots and the greenscreen shots at the same time gives you all the flexibility you want. The resulting camera shots will allow you to choose the existing background or touch-up in post-production.



# GhostFrame

## Tracking without physical markers

Add a hidden tracking pattern to your LED volume for camera tracking.

Allows camera tracking even for nearly closed LED caves, with LED panels making up backwalls, ceiling, and floor. In such an environment, marker-based optical camera tracking systems or traditional sensor cameras cannot be used without interference.

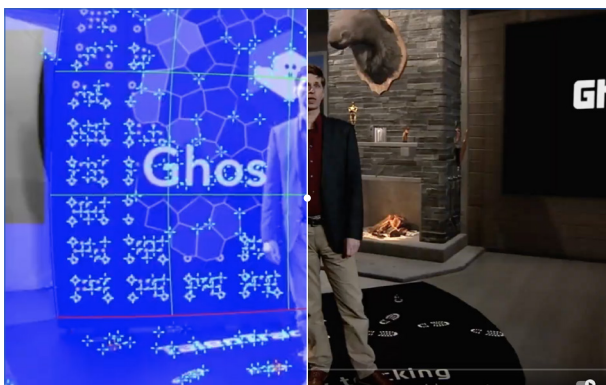


## GhostFrame Track

## Zero impact on the LED processing

The hidden tracking information of GhostFrame turns every LED panel into a reference object for camera tracking. The unique combination of TrackMen and GhostFrame Track works where other systems cannot. Hidden tracking is an exclusive and patented feature of GhostFrame and requires a TrackMen system.

GhostFrame Track can be installed easily with the automatic camera initialization, no engineer is needed for the set-up. The system is compatible with all existing camera systems by using an additional tracking camera and has zero impact on the LED processing capacity.



### Hidden tracking pattern

Installing your camera tracking requires zero installation time with GhostFrame Track, due through the absence of physical markers. The high-precision tracking is done directly on the LED volume. High accuracy can be achieved for perfectly aligned virtual set extensions. GhostFrame Track allows for extension of the tracking pattern outside the LED volume, even into a natural environment.



### GhostFrame and TrackMen

TrackMen has developed an exclusive camera tracking system that uses GhostFrame's patented technology. The camera position is determined using the hidden tracking information displayed on the LED panels. This technology enables ultra-high precision needed for virtual production and XR applications. Installation is fast and simple, you don't have to be a tracking expert to use it.

# GhostFrame - Game-Changing Technology for Virtual Production

Delivering the tools to create magic in the world of visual communication, industry veterans AGS, Megapixel VR, and ROE Visual have joined forces to deliver game-changing technology for virtual production. Aiming to make the "impossible" possible for film, broadcast, and event production teams, GhostFrame™ creates simplified, more efficient, and faster workflows.

## AGS

AGS is the inventor of the patented Virtual Content Multiplication technology. VCM technology is what makes additional video content hidden to the naked eye and/or cameras.

[www.ags.ag](http://www.ags.ag)

## Megapixel VR

Megapixel's HELIOS Processing Platform makes GhostFrame possible with its unrivaled power and pixel capacity along with its multiple patents for Virtual Production LED technologies.

[www.megapixel.vr](http://www.megapixel.vr)

## ROE Visual

Delivering state-of-the-art products and services, ROE Visual is recognized as the industry standard when it comes to LED products.

[www.roevisual.com](http://www.roevisual.com)



Would you like to see the GhostFrame features in action?  
← Scan this QR code and have a look at the GhostFrame training videos  
Scan this QR code to register for one of the free online training events →



## GhostFrame required equipment



### ROE Visual LED panels

GhostFrame works **exclusively** with ROE Visual LED panels. Several panel types are available, contact your nearest ROE Visual office to find out which panel type offers the best solution for your application.



### HELIOS LED Processing

GhostFrame works **exclusively** with Megapixel VR's HELIOS Processing Platform.



### TrackMen Tracking

GhostFrame Track works with TrackMen camera tracking. In order to calculate the position of the camera, it uses hidden information of GhostFrame LED panels, resulting in a very accurate positioning.



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