ROSS VIDEO
XR VIRTUAL LED STUDIO
Ross Video offers complete XR Virtual LED studio solutions that combine LED backdrops, set extensions, AR foreground elements, best-in-class studio control and proven workflows. Our XR Virtual LED Studio solution differs from traditional virtual studios by using LED volumes for the background instead of green screens. This eliminates the need for chroma keying and perfect lighting conditions.

Ross provides the rendering platform and control system that allows you to prepare, manage and control a virtual production throughout every stage of development. The render platform, Voyager XR, is powered by Epic Games’ Unreal engine and Nvidia’s professional Quadro series graphics cards providing unprecedented rendering quality and performance. Voyager is controlled by Lucid Studio, Ross’s virtual production control software, that has been designed to handle all of your virtual studio needs in an intuitive interface.
VOYAGER XR – RENDER PLATFORM

Voyager XR is Ross Video’s latest graphics platform, powered by Epic Games’ Unreal Engine 4.27. Voyager XR leverages the world’s most powerful and realistic renderer, allowing users to create stunning, complex environments. Voyager XR was built with flexibility and speed in mind, and it adapts the Unreal engine for use in a variety of broadcast environments.

NEWS WORKFLOWS
With Voyager XR, journalists can easily include virtual elements as part of their newscasts.

INTEGRATED DATA CAPABILITIES
Voyager XR allows content producers to include any type of real-time data into their virtual elements, such as scores, headlines, election results and more.

CONTROL OPTIONS
We have made it easy for Voyager XR’s virtual graphics to be controlled either by operators or automation systems depending on the user’s needs.

Voyager XR leverages the nDisplay technology from Epic Games, which allows the Unreal Engine to render 3D content to multiple displays synchronously. This opens up limitless possibilities in terms of scaling, as you could theoretically drive an infinite number of displays in a synchronous manner.
Lucid Studio is a highly flexible and customizable control platform with an easy-to-use intuitive graphical user interface. Lucid offers unparalleled customizability, flexibility, and accessibility to all types of operations and operators. The platform offers real-time control over all aspects of the production.

For XR Virtual LED Studio applications, Lucid Studio includes:

- **Calibration component** - allows users to calibrate their lenses or video walls themselves.
- **Pre-production** - allows users to configure the virtual elements ahead of the production.
- **Production control** - provides the ability to interact live with the story by updating data and making other last-minute changes.

Lucid Studio is highly adaptable, and its layouts can be easily customized to adapt to users’ specific needs. The platform helps democratize XR Virtual LED Studio solutions and ultimately makes it easy for anyone to adopt them for their productions.
BENEFITS OF EXTENDED REALITY

IMMERSIVE PRODUCTION
Ross Video’s XR Virtual LED Studio solutions enable on-set talent to see the virtual environment they are performing in. This improves talent performance and confidence while reducing the time needed for rehearsals. XR Virtual LED Studio solutions can be enhanced with set extensions and AR foreground elements making the production even more captivating.

COST SAVINGS AND FLEXIBILITY
XR Virtual LED Studio solutions can result in significant cost savings by reducing the need to maintain physical sets and to shoot on location.

HIGH-QUALITY TECHNOLOGY
Ross uses only the best technology for our XR Virtual LED Studio solutions. We have in-house expertise and systems from D3 LED, but we also work with a number of other third-party LED vendors. Our solutions allow you to create captivating visuals with high speed, accurate colors, wide viewing angles, and more.

OVERCOME LIMITATIONS
Choosing an XR Virtual LED Studio solution overcomes the limitations of a traditional green-screen workflow by reducing the need for chroma key compositing, color spill issues, and perfect lighting conditions while adding real environment lighting on your talent and physical set pieces.

COMPLETE END-TO-END SOLUTION
Ross Video is the only provider of complete end-to-end XR Virtual LED Studio solutions including Ross Video’s new D3 line of LED volumes and processors. Our solution integrates with Furio and Cambot robotic camera systems, XPression motion graphics, production switchers, Ultrix routers, and more.
THE IMPORTANCE OF LED

D3 LED offers the best in high contrast screens, stunning color palettes and wide viewing angles. Our highly integrated control capabilities add value through processing, scaling, layering and more. Lucid Studio can recall parameters on the LED processor, which ensures optimal color adjustments.

BEST PRACTICES

CREATIVE PLANNING

Depending on what you want to produce, the technical requirements can vary greatly. Adding a few virtual 3D objects to your production will not command the same type of technical capabilities as a full-on XR Virtual LED Studio setup with a set extended beyond the LED panel.

OPTIMIZED WORKFLOW

Rendering capabilities are one thing, but you need to think beyond the technical capabilities. For example: How many people do you expect to operate the system? What kind of interaction do you want each of these people to have with the system? What kind of turn-around time do you need between productions? All these questions must be taken into consideration to design the optimal workflow.

END-TO-END SOLUTION

What level of integration do you need with other production systems? It’s important to determine which products you need in your solution and figure out how to make sure they integrate with your XR Virtual LED Studio system seamlessly. For example: robotics, automation, tracking systems, etc.

DO YOUR HOMEWORK

Before adopting a XR Virtual LED Studio solution, ask to see it in action – don’t just rely on showreels or screenshots. Ask to test the products themselves that are used in the solutions so you can get a better sense of how they work and the quality that they provide.
XR VIRTUAL LED STUDIO

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Ross Video’s Virtual Production Solutions:
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Voyager Unreal-based Render Platform:

Lucid Studio Control Platform:

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ROSS VIDEO
LIVING LIVE!

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Virtual Production Solutions
Sport & Live Events
Legislative
Mobile Production
House of Worship
Education
Corporate

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