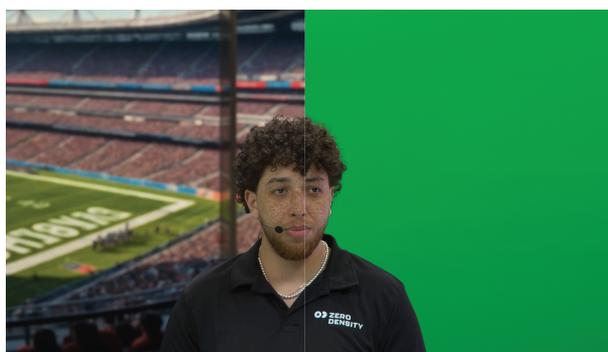


# Reality 5 Virtual Studio: Unrivalled blend of physical and virtual

Zero Density transformed virtual studio production into a powerful storytelling and efficiency tool for broadcasters using Unreal Engine a decade ago. With the innovations introduced ever since, virtual studios now enter a new era with Reality 5.

**Reality 5** offers high-fidelity graphics with its rendering, in addition to its keying and compositing pipeline. From template-based graphics with the Lino workflow and image-based keying to real-time ray tracing, everything runs seamlessly. Whether you're broadcasting from a small green screen studio or a full-scale production environment, Zero Density ensures easy operation and top-tier quality with minimal setup.

- ▶ **Reality 5 uses Unreal Engine 5 with a streamlined architecture**, delivering extraordinary quality while maintaining reliability, efficiency, and seamless integration.
- ▶ **The unique real-time node-based compositor, NODOS**, is intuitive and manages advanced nodegraphs with ease. It offers an advanced image processing toolset along with a high-performance, broadcast-quality video I/O pipeline.



Output

Clean Feed

- ▶ **3D video projection** blends real and virtual pixels to enable a seamless, realistic composite.
- ▶ **3D PixelPerfect Keyer** sets the benchmark for precise real-time green screen cyclorama keying, preserving every shadow, hair, and translucency detail, thanks to Zero Density's tracking-aware algorithms.

- ▶ **Traxis Camera Tracking** sets new industry standards for accuracy. Even in demanding setups, it delivers rock-solid performance thanks to continuous calibration, ensuring uninterrupted, real-time tracking while supporting broadcast-type zoom lens encoders.



Virtual Studio Final Utilizing Composite Foreground Mask

- ▶ **Foreground mask render output** allows immersive virtual studios by having graphics elements in front of the video, including translucent graphics pixels. A transparent panel rendered in front of the talents' 3D video projected pixels don't require an additional render. This results in maximum rendering framerates, which include ray-traced refractions for translucent pixels.
- ▶ **Traxis Hub** can manage and visualize all tracking data via FreeD, as well as Traxis Camera Tracking, at no cost. With built-in lens calibration and optional noise reduction, it's an ideal companion for industry-standard tracking systems that support the FreeD protocol.
- ▶ **Traxis Talent Tracking** delivers AI-powered, real-time human body tracking without wearable markers. It provides 3D coordinates for the talent, including depth information for their pixels. By projecting the talent's video pixels at the correct depth and tracking them in 3D, Reality 5 can immerse them into the virtual environment – complete with industry-leading, realistic shadows and reflections on virtual elements.

**SHOP** Zero Density Shop is Online

Check out the bundle for backdrop virtual sets at Zero Density's new online shop. Whether you're starting fresh or upgrading your current workflow, our each bundle provide the tools you need to create, control, and deliver stunning productions with ease, efficiency, and creative freedom.



◀ CHECK OUT THE BACKDROP VIRTUAL STUDIO BUNDLE



**Open Studio License Program**

Check your eligibility! OSLP offers a unique opportunity to learn and utilize our top-tier virtual studio production and on-air graphics solutions at no cost to individuals, small office / home office businesses and educational institutions.



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**ACADEMY**

Start your real-time production journey!

Master the art of virtual studio production and on-air graphics creation. Our online Reality learning hub, Zero Density Academy, provides structured and in-depth video courses.

[academy.zerodensity.io](http://academy.zerodensity.io)

**About Zero Density**

Zero Density is a global leader in virtual studio productions and on-air graphics solutions to boost operational efficiency and deliver results you can rely on. Zero Density gives visual storytellers the tools to bring their creative vision to life effortlessly and with lasting impact. Zero Density is your forward-thinking industry partner, with offices around the globe serving clients such as CBS, The Weather Channel, Warner Bros. Discovery, Univision and Charter Communications.