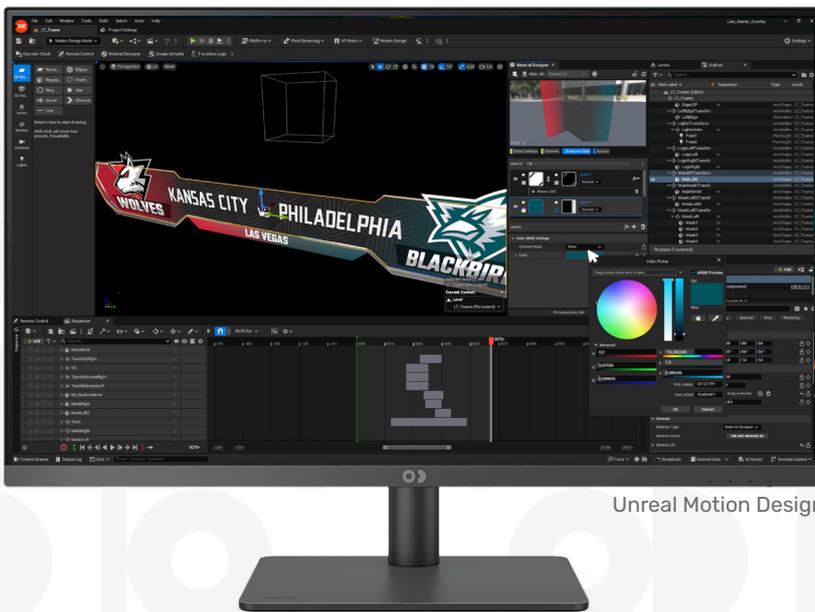


Template-Based 2D/3D Broadcast Graphics Playout from a Unified Solution

Introducing Lino - Broadcast graphics production with template-based, state-aware content creation and control solution for on-air graphics, video walls, bumpers - all using Unreal Engine 5. Lino workflow combines Unreal Engine's Motion Design mode with Reality Hub's powerful control capabilities.



Unreal Motion Design

▶ Unlock Innovation with Familiar Tools

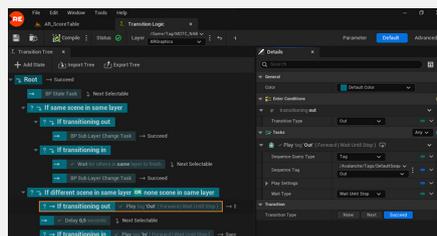
With Motion Design mode in Reality 5, experienced motion graphics artists with a 2D/3D animation background can start creating content within days using Unreal Engine 5, even without prior game engine knowledge.

▶ State Aware Broadcast Graphics with Transition Logic

Reality 5 brings state awareness to AR graphics with transition logic, setting it apart in the industry. Now, broadcasters can extend the same state-aware logic used in on-air graphics to AR, ensuring dynamic, automated transitions across all broadcast graphics. Automated updates with the changed states and intuitive transitions allow broadcasters to focus on storytelling, making high-pressure live shows more efficient and engaging.

▶ One Platform, All Broadcast Graphics

All production assets can be created in Unreal for video wall content, on-air graphics or motion graphics and virtual production graphics. This innovative approach not only enhances rendering and compositing quality but also significantly accelerates the design process.



Transition Logic

▶ Centralized Template Updates

With Reality Hub, software updates are centralized—there's no need for local engine or control application installations. A centralized storage ensures all templates, graphics, and workflows remain consistent across the organization.

'Create once, use anywhere'

Reality Hub allows for the seamless use of assets across both virtual production and on-air graphics projects, fostering a smarter, faster production process while ensuring brand consistency.



Key Features

- ▶ **Unified Control from Reality Hub:** All broadcast graphics content can be effortlessly operated from Reality Hub, allowing for seamless execution from one control interface, with or without NRCS (Newsroom Computer System) and automation integration. Manage rundowns, playouts, and webRTC preview channels via a web browser for maximum flexibility.
- ▶ **Example Projects:** Zero Density distributes example projects that include virtual set and on-air graphics assets with the Reality 5 installer. These assets make it easier to onboard, design and utilize broadcast graphics immediately.
- ▶ **Streamlined Production:** By combining state-aware graphics with transition logic, the Lino workflow streamlines live production, optimizing operator workload while ensuring flawless execution exactly as designed.
- ▶ **Broadcast Graphics Typography:** Designed with broadcasters in mind, Motion Design supports full Unicode fonts, ensuring accurate rendering for the majority of languages or character sets. New fonts can be easily added to the library, making it simple to maintain brand consistency across all graphics.
- ▶ **Multi-Channel Support:** Broadcasters can seamlessly manage shows on multi-channel graphics engines using the 'Channels and Shows' concepts, together with graphics channels, engines, and Program/Preview roles for a smooth, unified workflow.
- ▶ **Custom Resolution:** Real-time nodegraph operating system, NODOS supports DisplayPort/HDMI custom resolutions, featuring canvas-layout tools for custom-shaped, ultra-high-resolution video walls.
- ▶ **Fast Turnaround Graphics:** Broadcasters can quickly create 2D/3D visuals without switching between platforms, either for real-time or pre-rendered graphics.

Integrations

Reality Hub can integrate with every aspect of the production workflow. Its control systems support a variety of integrations:

- ▶ MOS, Ross Talk and CII protocol support
- ▶ Newsroom Computer Systems (NRCS): Avid iNews, Blaze, Dina, ENPS, Octopus
- ▶ Studio Automations platforms: Ross Overdrive, Avid Command

For other integrations, contact us!

Reality Hub is developed using Node.js, and JSON is its mother tongue. Data with JSON format is natively supported. Any web technology delivering data can be easily integrated into your broadcast with Reality Hub. To give a few examples:

- ▶ Ross Piero
- ▶ Database integrations: MS SQL, MySQL, MariaDB, PostgreSQL
- ▶ CSV, JSON
- ▶ MS Excel Spreadsheets

Reality Hub is a native web application that allows custom integrations to be built easily with the open source SDK and the REST API available from GitHub:

- ▶ Reality Hub can integrate with the majority of the web APIs
- ▶ Vision mixers and MCR automation
- ▶ Robotic camera heads and robotic PTZ cameras



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.

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