



## The Possibility Engine

# 5 Reasons You're Missing Out If You Haven't Made the Jump to Viz Engine 5

What's stopping you from making the jump to Viz Engine 5?

Perhaps you believe that your existing scenes – created in the Classic Pipeline of Viz Engine 3 or Viz Engine 4 – are not upward-compatible with the new Viz Engine Renderer. Not true! Viz Engine 5 is fully compatible with your Classic or Viz Engine Renderer scenes.

Vizrt's new WIBU Licensing system is both flexible and simple to manage, and it's your direct path to all the benefits of Vizrt's live cloud production workflows. Making the jump to Viz Engine 5 is easier than you think.

Viz Engine 5 gives content producers and designers boundless freedom to create entirely new worlds in real-time, and it is the foundational backbone of today's most advanced and efficient graphics and video production workflow.

This report will outline how the new Viz Engine 5 has revolutionized live graphics. Don't be left behind. If you're using version 3 or 4 – or you use a competitor's product – keep reading to find out why you need to make the jump to Viz Engine 5.



## 1. TAKE ADVANTAGE OF THE WORLD'S MOST POWERFUL RENDER PIPELINE.

Viz Engine 5's Render Pipeline gives you total control of photorealistic virtual sets, AR graphics, and immersive scenes. The world's most powerful live graphics compositor, it allows you to reach beyond impossible so that you can discover new software-defined visual storytelling worlds.

The Viz Engine 5 Renderer gives you better performance, image quality, and workflow, including new functionality and forward scene compatibility, combined with the benefit of trusted technology:

- Unified graphics workflow
- Faster, better video handling and new clip player
- Easier import of assets
- Efficient rendering of single objects multiple times, reducing the time it takes to render
- New render sequence foundation to allow for more rendering flexibility and customization
- New layer and blending effects for advanced compositing requirements
- Multi-ray screen space reflections and masking capabilities
- Geometry instancing
- Faster post recording
- Parallel shader compilation for faster initial start-up
- Control material definitions via scripting
- No bones limitation for vertex skinning
- WinMask support

# 5

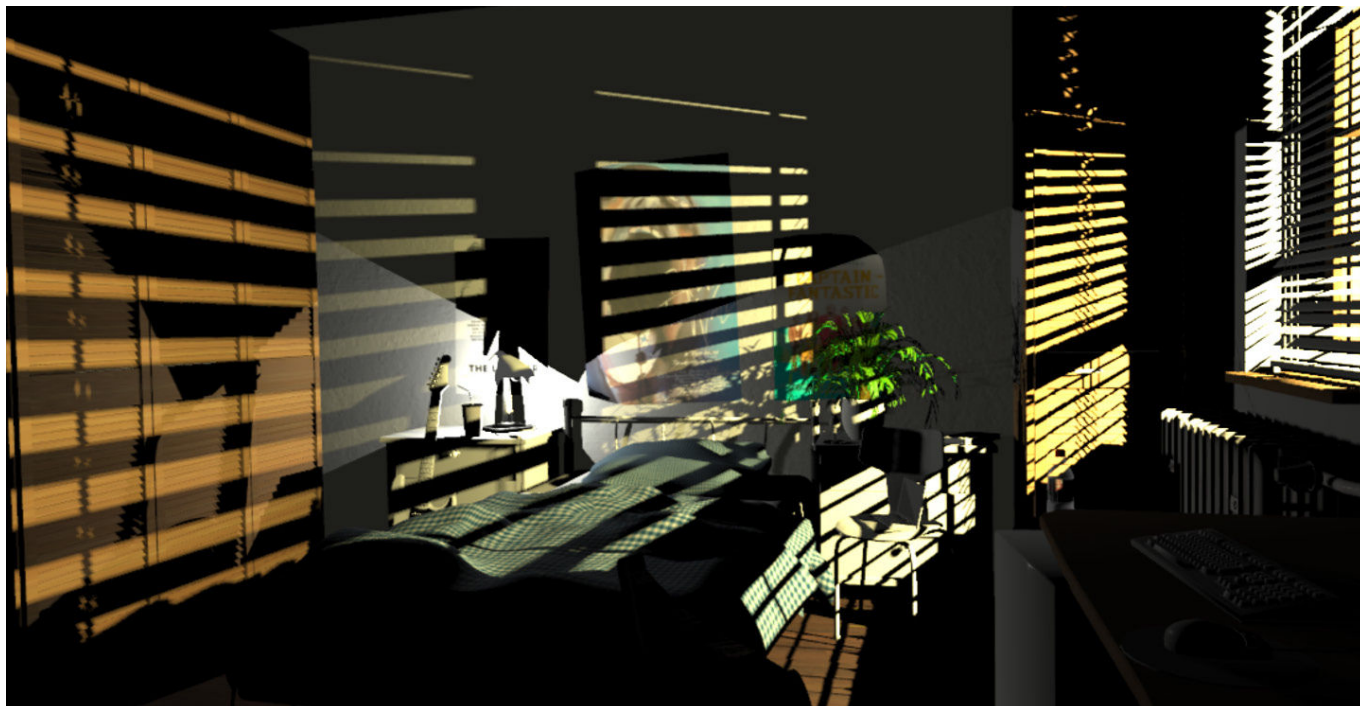
VIZ ENGINE 5  
RENDERER

**Superior Keying &  
Rendering Performance**

**Hyper-Photorealism via  
the Viz Engine Renderer**

**Multiple simultaneous  
render pipelines**

**Virtual sets and AR with  
high visual fidelity**



Lighting in the Viz Engine 5 Render Pipeline

## Upgrading to Viz Engine 5

*will open new possibilities within:*

**Viz Virtual Studio**

**Viz Artist**

**Viz Arc**

**Viz Trio**

**Viz Pilot**

**Viz Arena**

**Viz Libero**

**Viz Mosart**

**Viz Ticker**

**and more...**

*With Viz Engine 5,  
you get the most out of  
Vizrt's best-in-class  
software.*

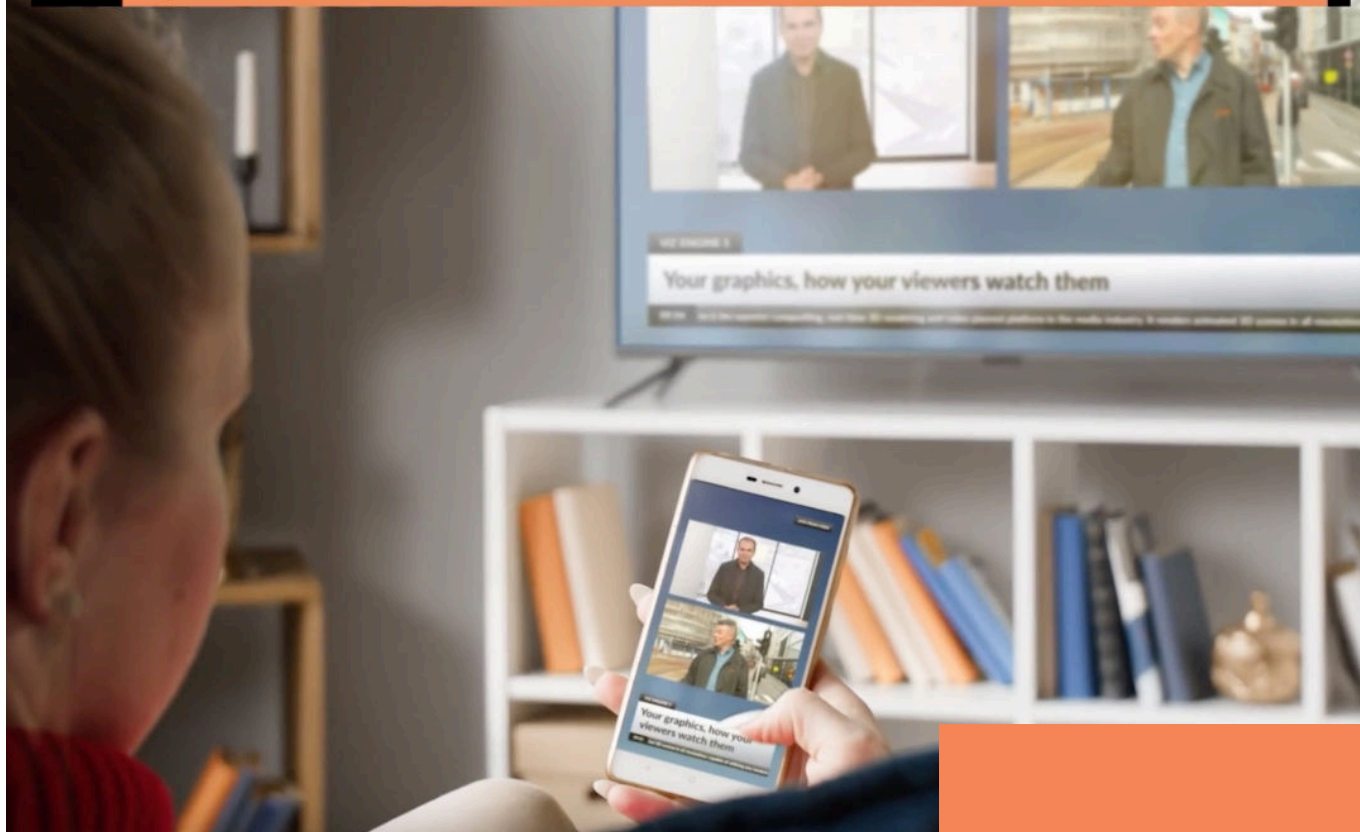
## 2. GET MORE VALUE OUT OF ALL YOUR VIZRT SOFTWARE.

Because Viz Engine is the underlying render and compositing engine that powers everything in the Vizrt suite of solutions, upgrading to Viz Engine 5 will open new possibilities within Viz Virtual Studio, Viz Artist, Viz Arc, and more. With Viz Engine 5, you get the most out of Vizrt's best-in-class software.

Let's take a closer look at the upgrades you'll be able to access in Viz Artist 5 once you upgrade to Viz Engine 5.

- Photo-realistic light reflection that layers light on different surfaces
- Optimized soft shadows of real people and things on AR surfaces
- Illuminating Engineering Society (IES) supported profiles that describe how real light is distributed from a light source
- Cinematic depth of field that blurs objects out of focus automatically
- Dynamic texture blending, anti-aliasing, and multi-texturing to add imperfections and make textures look hyper-real
- Physically-based rendering and fong materials that can be automated rather than manually controlled
- Native Adobe Photoshop import into scenes
- Completely new text and font handling for simpler and more efficient control
- New fog post effects to add realism
- Redesigned media assets panel that brings you closer to the settings
- New SceneTree that has been optimized for a better workflow and easy navigation
- Adaptive Scene design that bundles all the required logic into one scene and gives the designer full control over its parameters, animations, and visual appearance in any situation.
- Flex Box intuitive design feature that subdivides the design workspace so the designer can define formats and resolutions, and graphics will change automatically in different aspect ratios

# GRAPHICS ADAPT TO HOW + YOUR VIEWERS WATCH THEM



*Adaptive Graphics - A Viz Engine 5 Exclusive*

### 3. EFFICIENTLY PRODUCE CONSISTENT ADAPTIVE GRAPHICS.

Every day, people spend an average of an hour and a half streaming content on laptops, phones, and tablets. That means more of your audience is viewing your news, sports, and entertainment on devices other than large TVs.

At the same time, digital signage is being adopted across industries and studios are adding more video walls and virtual sets to their productions. They each require custom content in different configurations to meet their unique aspect ratios. All of this adds up to a lot of individually-produced graphics.

Designed to take the pain out of live graphics production, Viz Engine 5 introduces Adaptive Graphics – an automated way to deploy graphics to multiple output formats simultaneously, saving time, repetitive work, and resources. Adaptive graphics also ensure a better, more consistent look and unified brand identity across all platforms, and therefore protects the most vital asset of any media provider.

Allowing designers to create once and publish multiple times, this templated workflow automatically adjusts resolution and format – even in live broadcasts – to support specific display devices without multiplied resource usage, compromises on quality, or risking loss of readability. This is true for TV and hand-held device aspect ratios, plus non-traditional aspect ratio devices, such as studio video walls, virtual sets, and digital signage.

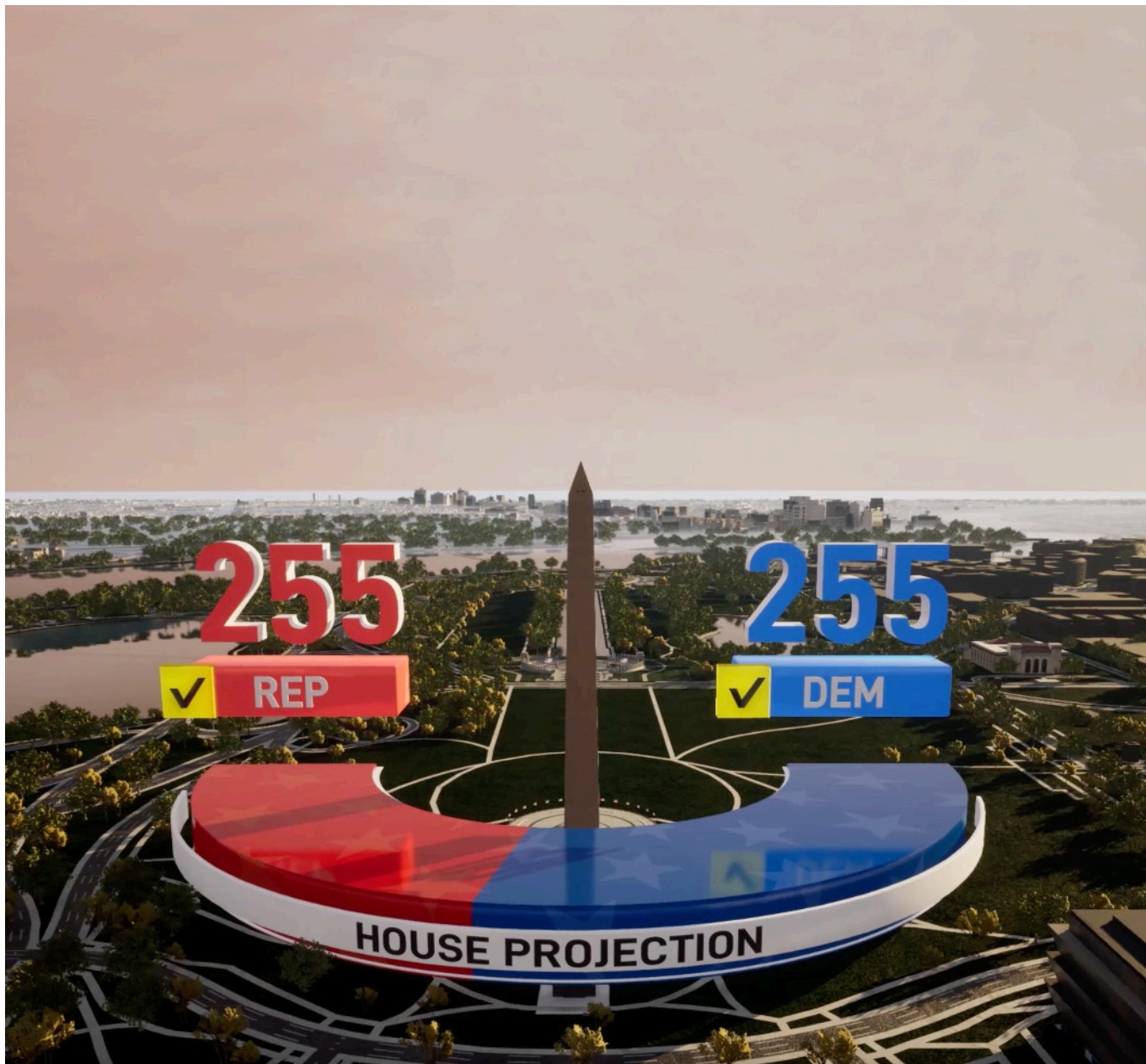
Learn more at [vizrt.com](http://vizrt.com)

## Adaptive Graphics

A Viz Engine 5  
Exclusive

*Adaptive Graphics is an automated way to deploy graphics to multiple output formats simultaneously, saving time, repetitive work, and resources.*





Unified & Data-driven Viz Engine 5 – Unreal Engine 5 Integration

*Vizrt's groundbreaking integration with Unreal Engine 5 sets new benchmarks for ease of use and performance.*

#### **4. CREATE IMMERSIVE WORLDS WITH VIZRT'S UNREAL ENGINE 5 INTEGRATION.**

If you're still using Viz Engine 3 or 4, you can't take advantage of the upgrades to the tightly-integrated Unreal Engine 5, which allows you to create large, open virtual environments.

When combined with Viz Engine 5, you get reduced latency, support for video walls, and easy editing and control from within Viz Arc, Viz Trio and Viz Pilot applications. You will also have the advantage of storing assets and images on Vizrt's Graphics Hub so you can easily deploy Unreal Engine scenes within broadcast workflows.

In the large immersive scene of the Washington Monument created in Unreal Engine 5, we can bring in data-driven graphics controlled by Viz Arc or other Vizrt control applications. Data can update live on air, as we also seamlessly change the lighting, reflections, and shadows for realism without baking or post rendering. This allows artists to use production-proven workflows to create high quality graphics for live broadcast all from the Viz interface with minimal latency.



## **Make the Jump to Viz Engine 5**

*Viz Engine 3 becomes  
legacy technology.*

*Viz Engine 4 supports  
only limited  
advancements.*

*The breakthroughs in  
Viz Engine 5 are tried  
and tested to perform  
in today's transforming  
media environment - and  
serve as the jumping-off  
point to the next  
generation of innovation.*

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### **5. DON'T BE LEFT BEHIND**

As broadcasting technology continues to evolve at a rapid pace, the advancements in Viz Engine 5 will become increasingly essential for both content producers and designers to keep pace and not get left behind. As Viz Engine 3 becomes legacy technology, and Viz Engine 4 supports only limited advancements, the breakthroughs in Viz Engine 5 are tried and tested to perform in today's transforming media environment:

- SDI video content in 4K, Ultra HD, HD, and SD
- IP streaming video and audio composited with graphics
- Design ready for cloud and virtualized environments
- Live SDI and streaming directly to the Viz Engine in real time with ultra-low latency
- Native NDI integration synchronizes tracking data and NDI sources within the most globally recognized IP standard in the world, and it opens a host of possibilities including out-of-the-box AR setups with PTZ cameras and cloud-based workflows.

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## CONCLUSION

*Now that you know what you're missing out on...*

*Make the jump to Viz Engine 5 and upgrade to Vizrt's Possibility Engine.*

*Reach out to your Vizrt sales representative, or **book a demo** of Viz Engine 5.*