VIZRT

Viz Engine

The ultimate real-time compositor

- Extremely powerful rendering engine in HD & 4K
- Complete graphics render & video server
- 3D real-time graphics with live video inputs, fill + key outputs
- Standalone video server or part of a graphics & video workflow
- SDI & IP input & output

Viz Engine is one of today's most powerful real-time graphics rendering engines and video servers. It renders animated 3D scenes in real-time, producing high-end animations in HD, 4K and beyond. Viz Engine functions as a standalone video server as well as a complete graphics and video compositing platform.

Advantages and Benefits

- Real-time compositing of video and graphics with a wide-range of simultaneous output formats.
- Supporting all of today's major IP standards.
- Use the same system for end-to-end J2K and SMPTE 2022 production.
- Branded video content on all playout platforms.

Key Features

- Real time render engine
- Key & fill outputs
- Timeline-based audio
- 2D & 3D graphics
- IP Streaming
- Powerful plug-in API
- Live video input & output
- Video server
- Full scene anti-aliasing
- Supports SD, HD & 4k
- Dolby E decoding
- Internal keyer

Designed with openness in mind

Viz Engine allows customers to integrate their own proprietary control software with ease. A powerful scripting language supports easy manipulation of graphics objects, as well as the creation of user-specific plug-ins.

Live production video server

Viz Engine can be used as a reliable multi-channel playout server for 4K video. Viz Engine functions as a SAN with Viz One or as a standalone video server. A single Viz Engine is capable of back-to-back clip playback of up to 10 clip channels. Additionally, Viz Engine supports all the commonly-used codecs including MPEG I_Frame, ProRes, DNxHD, and many more.

Graphics channels for added flexibility

Viz Engine uses graphics channels to display multiple Vizrt scenes simultaneously in a single output layer. The graphics channels function as flat 2D DVE channels or as textures on 3D objects, giving maximum flexibility for displaying content. Viz Engine supports displaying 16 graphics channels simultaneously.

IP streaming

Viz Engine allows for streaming IP video in and out. Graphics and video are composited in real-time and output as a stream that can take many formats—including MPEG-2 at 1080i/25, 1080i/29.97, 1080p/30 and 720p/50—for use online, on mobile devices and live on-air. The IT infrastructure makes Viz Engine highly portable for OB vans and very affordable for broadcasters.

Flexible hardware support for SD, HD and 4k

Viz Engine can be configured to handle multiple outputs in a single system when configured with one or more various Matrox video boards and NVIDIA graphics boards. With a Matrox board, Viz Engine supports video output ranging from SD all the way to 4K fill and key, all in real-time. The Viz Engine can then handle multiple independent SD/HD video inputs in RGB, or one RGBA input used for background or live video textures.

Viz Engine supports up to 16 layers of scenes that can be controlled separately. The user can organize scenes in different layers for up to 8 live inputs, 16 clip channels, 4 stream inputs and 16 graphic channels with the Media Manager.

The combination of the powerful plug-in API and a simple ASCII communication protocol sets a very flexible foundation for various applications. Given the availability of competitive, high-performance graphics hardware in the market today, Viz Engine can be used as the complete graphics layer for applications requiring high-fidelity graphic content and interactivity.

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