Virtual Set

The WASP3D Virtual Set system enables broadcasters to composite computer generated 3D environments with live-action video shots against blue/green backdrops in real-time. This modular and scalable system allows broadcasters to start with a single engine virtual set output and later expand to a complex setup consisting of multiple camera mapped virtual set engines. WASP3D on-air graphics can be integrated inside the virtual set to enrich production value and make for lively augmented reality presentations.

Application Features:

Camera-Tracked Virtual Sets

The WASP3D virtual set system can ingest data from various manufacturers of camera sensing devices and lenses into 3d virtual set scenes. Depending on the type of sensing device employed the virtual camera in the drone designer can take pan, tilt, zzoom and focus data from the physical camera and perspective match 3d virtual environments with the position and movement of the physical camera in real time. in case of a pedestal of a crane based implementation, the x,y,z position data and other details can be ingested by the system for even more elaborate camera angles and richer graphical representations.

Augmented Reality/Virtual Graphics

In contrast to composite productions utilizing Chroma-keying to place an anchor inside a 3D environment, broadcast productions may be set up to make use of physical spaces augmented with 3D virtual graphics. The WASP3D Virtual Set system can be configured to use tracking data from a camera to map the physical studio with the computer generated 3D content.

Trackless Virtual Sets & Billboards

In addition to the various tracking options, the WASP3D Virtual Set can be used as a Trackless Virtual Set. A Live shot of an anchor against a Chroma screen setup can be texture-mapped onto a surface and placed within a 3D environment in the Drone Designer and Chroma-keyed in real-time. Multiple virtual cameras, whether static or animated, can be set up within the virtual set scene and operated by Action Set buttons to trigger camera animations or to switch between camera angles. Action Set controls are created by graphic artists within WASP3D to make the operation of a virtual studio very simple

Key Features:

Garbage-Matte

The Virtual Set system allows the creation of a Garbage Matte layer over a composite output masking out any unnecessary physical studio detail beyond the Chroma area. This enables broadcasters to depict vast, infinite 3D spaces in their productions even though a small green/blue Chroma-key wall is used.

Internal Chroma Keying

The WASP3D Virtual Set system comes with a powerful internal Chroma-key functionality that uses standard green and blue screen presets or can be tackle a custom defined key colour with ease. Designers can find extensive controls over chroma attributes such as black level, white level, levels correction, alpha correction, edge erosion as well as pre processing effects over the incoming live video within a consolidated and comprehensive GUI.

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Post-Process Functions

The internal Chroma-Key function also provides post-process controls to adjust the Hue, Brightness, Contrast and Saturation of the Chroma-keyed output. Additionally, users may choose to adjust a particular color range from the incoming live video feed and fine-tune the color response using a simple tolerance value.

Delay Control

The WASP3D Virtual Set Controller application is able to delay the computer-generated background by a certain number of frames in relation to the delay caused by the video processing resulting in a perfectly tracked, composite output. Additionally, users may also choose to introduce a delay between the incoming tracking data from the physical camera and the final composite output for a finely adjusted sync.

Integrated Router Control Mechanism

The WASP3D Virtual Set Controller application allows users to seamlessly connect to and host any third-party video router interface within its own GUI providing a higher level of ease and flexibility of use during operations. Third-party applications may establish communication with the Virtual Set controller using TCP/IP, RS-422 and other popular industry-standard interfaces

Third-Party Hardware Integration

Adapting to a broadcaster's preferred workflows, the WASP3D Virtual Set system can be easily set up to accommodate and integrate with popular third-party hardware for Chroma-keying and video-routing