Sensor-less Virtual Studio/Real-time CG System

VRCAM-NX
Virtual studio and real-time graphics control from a single workstation

Virtual camera work, without an operator, has created more dynamic opportunities for the use of fixed cameras. FOR-A’s VRCAM-NX provides virtual studio and on-air graphics operation in a simple system. It also supports content production and playout control using CG templates.

Full-featured, for easy operation <Solution for both virtual studio and on-air graphics systems>

Playlists

- One-touch operation: Save camera switching, subtitles, captions, scene transitions, and other scheduled actions sequentially in a playlist for easy recall
- Save multiple events as a single action

Direct buttons

- Use direct buttons with playlists to follow program timelines while showcasing live content by easily rearranging elements

Versatile control

- Both on-air and queued playout from a single playout workstation (some rendering quality restrictions apply to queued playout)
- Sensor-equipped camera support: Can be used as two of the four cameras.
- HVS-100TB2 control: Send I/O signals and control commands over a single Thunderbolt™ 2 cable.*1 Camera positions and direct buttons can be controlled from HVS Series video switcher control panels.
- Remote control units or external devices can control system and compatible with tally output (contact control)
- Switch between and control multiple VRCAM-NX processors from a single VRCAM-NX control computer

Other features

- Includes SmartDirect RCG template functionality
- eLibrary CG resource (optional): Start building program sets right away with a library of more than 160 copyright-free, CG backgrounds and over approx. 80 RCG objects.
- Supports template-based scene creation. Arrange scenes with a CG assigned to each of five layers—foreground, background and three DSK layers

*1 Planned for future support
Example system configuration

Camera control function
- Up to four virtual cameras with 16 positions per camera
- Set keyframes to move cameras along straight or curved lines. Support for using a computer gamepad*2 to create virtual camera motion path keyframes.
- Scene transitions: Cut, wipe, show/hide, walk-in, and others

*2 Planned for future support

Effects
- Defocus control: Background defocus
- Animation effects: Several methods to animates composite images
- Link audio files (sound effects) to video effects

Scene control
- Object editing: Edit position, size, angle, color, and texture - depending on content
- Video wall input supported
- Intuitive scene-building and isolation of graphics that are linked or not linked to camera movement

Text
- Display animated text simply by entering the text in a template
- Add text insertion timing to playlists

Other features
- 4K-compatible software chroma keying and layering
- Brainstorm eStudio Ver.15 (newest version) used for graphics rendering.*3 Produces impressive graphics applying physically-based rendering (PBR) and high dynamic range (HDR)
- Preview the studio in GUI

*3 Brainstorm license is required for real-time graphics rendering. Playout requires a Brainstorm Engine license. Playout, new graphics library creation and in-depth editing requires a Brainstorm Global license.

Easier linkage of on-air graphics
- A fully virtual studio that supports on-air graphics
- Up to four virtual cameras for on-air graphics, with 16 positions per camera
### Software configuration

**VRCAM-NX control software - on control computer**

**VRCAM-NX Cont**

Provides a graphical user interface for VRCAM-NX control. VRCAM-NX operations are possible from the playout workstation or another computer on the same network. The same workstation can be used for both processing and control.

**VRCAM-NX control software - on playout computer**

**VRCAM-NX Proc**

Installed on the playout computer, this application works in conjunction with VRCAM-NX Cont to control VRCAM-NX

### Video Platform

**MBP-2244WS/2244WS-4K**

Hardware for implementing an on-air graphics system. Equipped with four inputs (video wall V1/K1 and V2/K2) and four individually selectable outputs. For 4K needs, choose the MBP-2244WS-4K.

### Specifications

| Computer | VRCAM-NX processor | Z8 G4/Z4 G4 class workstation |
| Control computer | Notebook computer or similar |

| Software included | VRCAM-NX Proc (Brainstorm plug-in) + Brainstorm*, or VRCAM-NX Cont (control GUI)** |
| Control computer | VRCAM-NX Cont (control GUI) |

**Compatible video cards**

FOR-A MBP-2244WS, MBP-2244WS-4K

| Input and output | MBP-2244WS | Camera input x 1, video wall input (V+K) x 1, 4 switchable HD outputs |
| MBP-2244WS-4K | HD mode: Camera input x 1, video wall input (V+K) x 1, 4 switchable HD outputs |
| 4K mode: Camera input x 1, 4K outputs x 1 |
| 4K input/HD output mode: 4K camera input x 1, HD video wall input (V+K) x 1, 4 switchable HD outputs |

**Virtual cameras**

Maximum: 4*3

*1 Engine or Global licenses required
*2 When used on the VRCAM-NX processor alone
*3 Up to 2 sensor-equipped cameras

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