World-leading VTuber Agency Adopts KAIROS in Advanced IP Studio Compatible with ST 2110

COVER Corporation

Installation: May 2023
Location: Kanto region, Japan

The Challenge

Build a state-of-the-art IP production studio that incorporates the latest technologies to achieve extra-efficient operations and overcome the growing problem of insufficient inputs and outputs.

The Solution

The KAIROS IT/IP platform was selected for the new IP production studio due to its flexible acceptance of increased inputs and outputs, support for SMPTE ST 2110 to transmit uncompressed IP video, and convenient macro functions to streamline daily operations.

"We believe KAIROS will become the standard for virtual production."

Technical Producer
COVER Corporation

Note: Job title at time of implementation
Anonymity based on his request

Background

Huge Integrated-production Studio for VTubers

COVER Corporation operates one of the world's largest VTuber agencies, Hololive Productions, which boasts more than 70 VTubers and 74 million YouTube channel subscribers (March 2023), producing a variety of content every day for fans worldwide. In May 2023, the company opened a new integrated studio to accommodate its rapidly increasing content. The facility, which has numerous studios for motion capture, chromakey and recording, fully utilizes the latest technologies for unprecedented production capabilities and operational efficiency.

Why KAIROS?

More Flexible I/O and SMPTE ST 2110 Compatibility

Explaining why his company installed the KAIROS IT/IP platform in the motion-capture studio's control room, COVER's technical producer said, "Our content production requires a very large number of outputs, so KAIROS was a logical candidate because it flexibly offers many inputs and outputs. We also wanted to create a full-IP studio, so KAIROS' compatibility with SMPTE ST 2110 was another deciding factor. We believe that KAIROS will become the standard for virtual production, so we wanted to be among the first to adopt it."

New Studio Brings New Challenges

COVER has been pioneering a new era for VTubers since 2016. Its new integrated studio, built to fulfill the company's mission of "creating culture that the world loves," cost approximately 2.7 billion yen (over 19M USD) and covers an area equivalent to about 10 tennis courts. With an arsenal of more than 200 next-generation motion-capture cameras, the studio is capable of creating content to maximize virtual talent, including live 3D performances by large groups.

- URL: https://cover-corp.com/en

◀ Hololive Productions' latest videos of virtual talents greet visitors upon entering the new IP studio.

IT/IP platform "KAIROS"

▲ Control room, where videos from rendering PCs are converted to ST 2110 and consolidated in KAIROS

Benefits

Unrestricted MEs for Unprecedented Freedom

The technical producer explained that KAIROS offers a whole new level of freedom: "What I appreciate most is its flexible video production. KAIROS accepts as many layers as the system's GPU allows, with no limit on the number of MEs, unlike conventional switchers. We can also create images in either vertical or horizontal screen mode without being restricted by the aspect ratio. For example, when producing a 16:9 video for regular distribution and then a vertical video for a short YouTube video, we normally must change the profiles one by one, but with KAIROS we can complete the process with just one single profile, greatly reducing our production time."

Macros and AI for Greater Efficiency

KAIROS' macro functionality makes daily operations more efficient than ever. "Macro-enabled RAM and CLIP players allow operations such as playback, stop and rewind to be performed with a single button on the control panel," said the technical producer. "This is extremely convenient because it enables instantaneous execution and also helps to prevent accidental execution. In addition, we can use AI to create macros by simply copying the AI-generated source, eliminating the need for manual typing. Macros and AI greatly streamline the work of our operators, who must handle huge amounts of content every day."

▲ Video produced with KAIROS

▲ Video produced with KAIROS

▲ Free assignment of control buttons enables dedicated rows of macros for easy operation.

▲ Flexible multi-views can be customized freely by each operator.

▲ The Kairos Creator screen is intuitive to use, even for beginners.
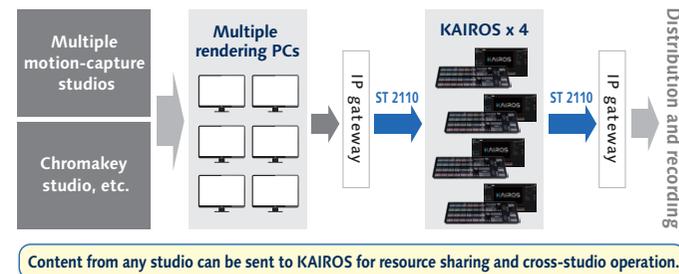

▲ AT-KC1000 mainframe in the server room.

▲ Studio equipped with some 100 motion-capture cameras.

▲ Video from chromakey studio can be transferred via IP to KAIROS in another studio.

■System layout

Content from any studio can be sent to KAIROS for resource sharing and cross-studio operation.

In the Customer's Own Words

Taking on New Challenges with KAIROS

"SMPTE ST 2110 compatibility enables highly useful resource sharing and cross-studio operation. Also, transferring AR content from our new chromakey studio to KAIROS in another studio requires minimal cabling. We plan to use KAIROS to take on many new challenges, including remote-venue production, to deliver compelling content to fans worldwide."

Technical Producer
COVER Corporation

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Installed equipment

IT/IP platform "KAIROS"

Kairos Core 1000 (Main Frame)	Kairos Control (Control Panel)	Kairos Creator (GUI Software)
AT-KC1000 x4	**AT-KC10C1** x4	**AT-SFC10** x4

See our website for details on other projects.

https://pro-av.panasonic.net/en/