IT/IP Centric Live Video Processing Platform

KAIROS
Incredible Productivity
Unrestricted flexibility of input, output and operation for efficient production of expressive live videos

The IT/IP-centric platform “KAIROS” is a live video production platform developed based on a new concept and architecture. It incorporates newly developed ground-breaking software that processes ST 2110 and NDI streams of any resolution. This platform achieves higher performance by fully utilizing the power and flexibility of its CPU and GPU, balancing total processing load without the configuration constraints of traditional hardware based systems. This open architecture platform facilitates the linkage of diverse external sources and destinations as well as the integration of hardware and software systems. The new, evolved system ensures complete operational freedom at all levels.
A variety of inputs and outputs available for use

KAIROS fully supports baseband and IP signals such as SDI, ST 2110 and NDI, in any combination and also supports PTP (Precision Time Protocol) synchronization. As a native IP system, the KAIROS is well suited to be used for remote video production as part of a completely IP-based environment.

Resolution and format independent

KAIROS allows for resolution- and format-independent operation. Mixed input sources with different resolutions, such as HD and UHD, can be processed simultaneously. For instance, it enables the production of videos not only in the standard 16:9 format, but also in the 32:9 format suitable for display walls.

Layered structure for versatile video expression

KAIROS is not restricted by the number of MEs or keys, like a conventional switcher. It allows as many layers as the GPU capacity permits. Keys and scaling can be set in each layer without any restrictions. Various effects and keys can be added to each layer. The KAIROS processing latency can be as low as one frame, so sports and concert performances can be presented with the ambiance intact and lip-sync can be achieved more easily.

Flexibility and scalability

KAIROS has high flexibility and scalability. KAIROS is an IT-based open architecture platform, so functional enhancements and control linkage with external device are possible with the addition of application software. Therefore, it can easily expand and integrate the system.

User-friendly interface

The GUI is easy to use and enables intuitive operation, and freely layout customizable control panel provide an excellent operability in given smallest space and unleashes the operator’s creativity which will set a new standard of operation.
Main Specifications [Preliminary]

- **VIDEO Input/Output**: The numbers that can be attached to the system is not limited. In terms of simultaneous processing:
  - For HD/3G: Max. 32 inputs, 16 independent outputs (option)
  - For UHD: Max. 8 inputs, 4 independent outputs (option)

- **Baseband Input/Output**: Compatible with various interfaces such as 12G/3G/HD-SDI, HDMI, Display Port via gateways

- **IP Input/Output**: Compatible with various interfaces such as ST 2110, NDI, RTP

- **Multiviewer Output**: 2 outputs (DisplayPort, 4K/HD compatible, up to 36 screens)

- **Numbers of Virtual MEs/Keys Layered Effects**: No restriction (Limited only by GPU performance)

- **Canvas (format-independent, multiple screens) output function (option)**

- **Video File Retention**: 8-ch built-in RAM recorder (uncompressed)

- **Still Picture File Retention**: 100 files

- **PTP (Precision Time Protocol) synchronization**